

Appendix 13

Stormwater Pollution Prevention Plan

**HIGHGATE-WOODLANDS DEVELOPMENT
TOWN OF NORTH SALEM, NEW YORK**

**STORMWATER POLLUTION
PREVENTION PLAN**

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HIGHGATE-WOODLANDS DEVELOPMENT
TOWN OF NORTH SALEM
WESTCHESTER COUNTY, NEW YORK
STORMWATER POLLUTION PREVENTION PLAN

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I. INTRODUCTION

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared pursuant to the August, 2010, New York State Department of Environmental Conservation (NYSDEC) Stormwater Management Design Manual (the Manual), the NYSDEC General Permit for Stormwater Discharges GP-0-10-001, the New York City Department of Environmental Protection (NYCDEP) Watershed Rules and Regulations and Chapter 193 of the Town of North Salem Town Code. Pursuant to Section 402 of the Clean Water Act, stormwater discharges from construction activities to waters of the United States are unlawful unless they are authorized by a NPDES (National Pollutant Discharge Elimination System) permit or by a state permit program. New York State's SPDES (State Pollutant Discharge Elimination System) is a NPDES-approved program with permits issued in accordance with the NYS Environmental Conservation Law. It is also noted that under Chapter 193 of the Town Code the Town of North Salem Planning Board must also approve the SWPPP.

Current regulations require that a Notice of Intent (NOI) be submitted to the NYSDEC Division of Water; 625 Broadway, 4th Floor, Albany, New York, 12233-3505 (refer to Appendix H) five days prior the onset of construction. The NOI requires a SWPPP be developed to address water quality control, water quantity control and erosion and sediment control during construction.

The proposed Stormwater Management Practices (SMPs) specified in this SWPPP would maintain relatively similar peak discharge rates and significantly reduce post construction increases in pollutant loadings in the post-construction condition by capturing and treating the runoff from the new impervious surfaces and other disturbed areas to the greatest extent possible. This plan meets the requirements of the NYSDEC for Erosion and Sediment Control, as well as Water Quality and Quantity control, ensuring minimal impact to downstream waters. Mapping and stormwater calculations were provided by Keane Coppelman Gregory Engineers, P.C.

The Proposed Action is a 42 single family and 76 multi-family unit development on approximately 160 acres in the Town of North Salem, Westchester County, New York. The development planned consists of residences and ancillary facilities including swimming pools, and community buildings. Site construction elements for the project consist of new roadways, dwellings, and associated infrastructure. The stormwater runoff from the new impervious surfaces would be directed to stormwater management facilities which have been designed in accordance with the New York State Department of Environmental Conservation (NYSDEC) Stormwater Design Manual (latest edition), herein after the "manual".

This SWPPP is required by GP-0-10-001 and the Watershed Regulations (as amended April 4, 2010), because the project will disturb more than 5,000 square feet.

II. BACKGROUND

A. Site Location

The proposed project (tax map parcels Sheet 2, Block 11734, Lots 15, 16, 19 and 20) is a residential subdivision of 160 acres of land fronting Reed Road in the Town of North Salem, Westchester County, New York. It forms the bulk of the vacant land at the northwestern corner of Interstate I-684 at exit 8 (Hardscrabble Road). The property is located in the

phosphorus-restricted Muscoot Reservoir Watershed of New York City. Refer to Figure 1 for the Vicinity Map and Figure 2 for the Site Location Map.

The owner/operator is: JOFLO of North Salem, 525 Main Street, New Rochelle, New York 10801.

B. Purpose

The purpose of this SWPPP is to maintain water quality by preventing turbidity during construction and post development increases in suspended solids, colloidal and settleable solids, residuals from oil and floating substances, and other potential pollutants and to reduce increases in peak stormwater discharge rates to pre-developed rates. Potential stormwater impacts and mitigation measures associated with this Project have been identified through the quantification of stormwater runoff characteristics on the site for the existing and developed conditions.

C. Site Characteristics and Drainage

1. Existing Conditions

Refer to Appendix A for the Pre-Development Site Drainage Map. The site is predominately wooded. A review of the State and federal wetland maps indicate that there are federal and Town regulated wetlands but no NYSDEC regulated freshwater wetlands on the site. The existing condition includes 4.2 acres of impervious surfaces (mostly associated with rock outcrops and exposed bedrock).

The 160 acre site has approximately 153 acres of uplands and 7.0 acres of wetlands present (4 percent of the site). The site wetlands are dominantly wooded swamps and palustrine systems with the largest (Wetland A) being an emergent marsh with hardwood swamp boundary. The entire site drains to the Croton River. The remainder of the site consists of slightly disturbed, secondary growth, upland forest. The Highgate-Woodlands site topography is predominately rolling to steep, with a number of rock outcrops. The maximum elevation, 640 feet, occurs in the western portion of the site. The minimum elevation, 348 feet, occurs in the southern portion of the site.

The Croton River is located in the New York City East-of-Hudson Croton Watershed, where the Environmental Protection Agency (EPA) has established a Total Maximum Daily Load (TMDLs) for phosphorus (Muscoot Reservoir). The burden for reducing current phosphorous loading to achieve the TMDL presently lies with the Town of North Salem and its regional partners. The program for phosphorous reduction has been established in the NYSDEC draft document entitled *Croton Watershed Phase II Phosphorous TMDL Nonpoint Source Implementation Plan* (TMDL Implementation Plan) latest draft January 14, 2009. This plan clearly states that for simplicity and ease of local government administration the plan is largely structured to use existing programs to achieve reductions. These programs include:

- Potential additional point source reductions.
- NYSDEC SPDES General Permit for Stormwater Discharges for Municipal Separate Stormwater Sewer Systems (MS4s) Permit No. GP-0-08-002.
- State and regional source control and agricultural programs.

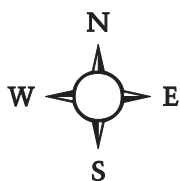


Figure 1: Site Vicinity Map
 Woodlands at North Salem
 Town of North Salem, Westchester County, New York
 Base Map: USGS 7.5-minute Topographic Map, Croton Falls Quad
 Scale: 1" = 2,000'

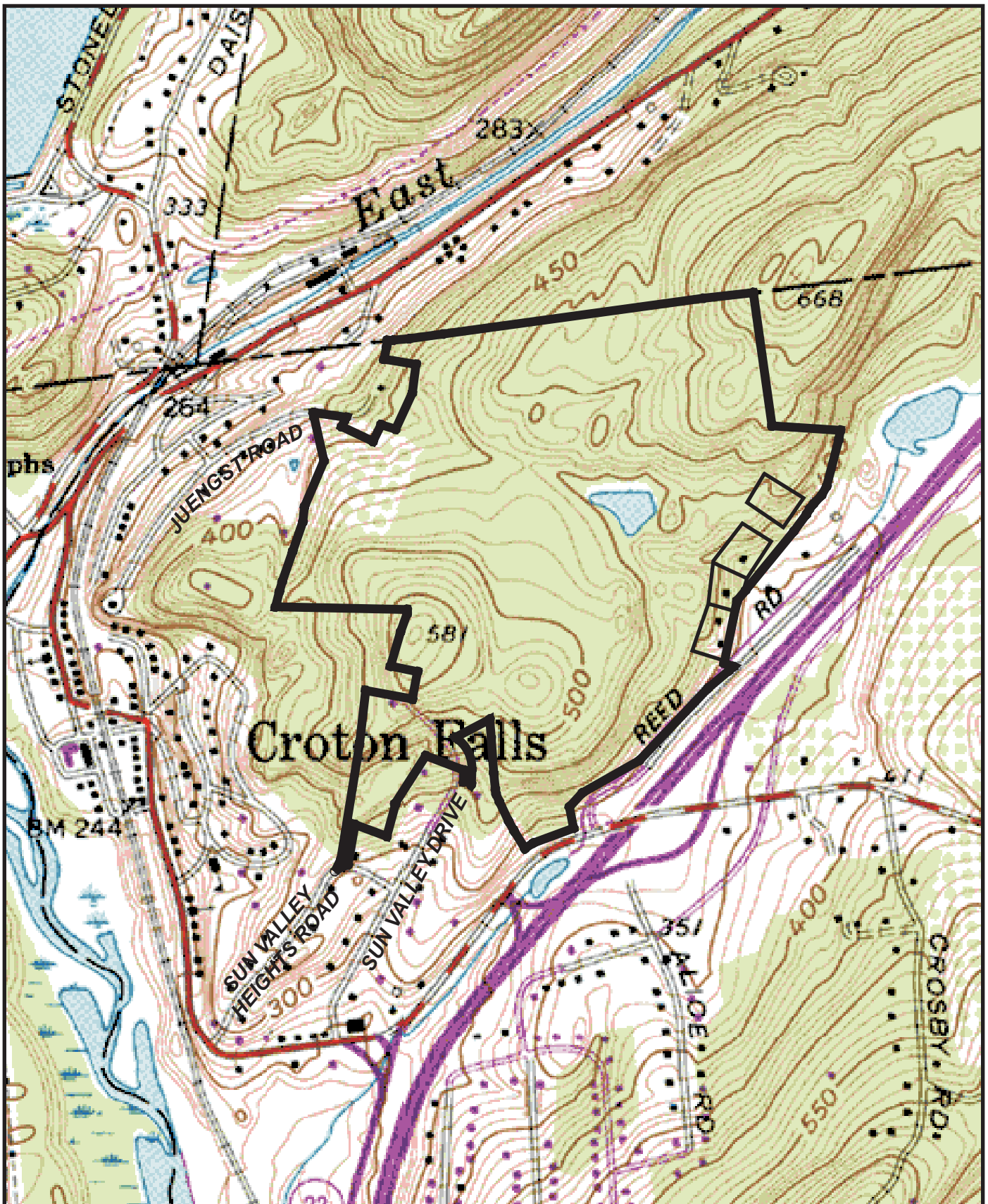


Figure 2: Site Location Map

Woodlands at North Salem

Town of North Salem, Westchester County, New York

Base Map: USGS 7.5-minute Topographic Map, Croton Falls Quad

Scale: 1" = 2,000'

- US EPA Filtration Avoidance Determination Program.
- NYCDEP “Strategy”.
- NYCDEP EOH Water Quality Investment Funds.
- New York State non point source programs.
- NYSDEC – NYCDEP Coordinated Stormwater Enforcement Protocol.

The Highgate-Woodlands project is consistent with the TMDL Implementation Plan and applicable portions of the above-cited programs. As discussed above the Highgate-Woodlands project is located in the Muscoot Reservoir. Looking more closely at the project site, twelve design points can be identified representing points where stormwater runoff leaves the project site to be conveyed downstream to the reservoir system. The design points identified represent points on existing collection systems and have been selected as to minimize the amount of off-site area tributary to the design point. By selecting points meeting this criteria it allows for the most effective evaluation of any potential quantitative impacts associated with the proposed improvements. Below is a brief summary of the twelve drainage areas on the project site. Refer to Appendix A for the location of each design point, and illustration of their respective tributary areas.

Drainage Area Aa (Design Point 1A) drains 15.93 acres of upland deciduous forest to a roadside swale along Reed Road. This area contains slopes greater than 30 percent. DP1A is a 24” CMP under Reed Road at the low point of the swale.

Drainage Area Ab (Design Point 1B) drains 1.94 acres of upland deciduous forest to a roadside swale along Reed Road. This area contains slopes greater than 30 percent. DP1B is a 24” CMP under Reed Road at the low point of the swale.

Drainage Area B (Design Point 2) drains 8.82 acres of upland forest south to a swale along Route 22. DP2 is a low point at the southern property line above the edge of the swale along Hardscrabble Road.

Drainage Area C (Design Point 3) drains 6.43 acres of forested land south towards Sun Valley Drive. DP3 is the northern edge of the cul-de-sac at Sun Valley Drive.

Drainage Area D (Design Point 4) drains 6.59 acres of forested land on the western side of the property south towards Sun Valley Heights Road. DP4 is a low point at the property corner off Sun Valley Heights Road.

Drainage Area E (Design Point 5) drains 1.81 acres of upland forest and forested wetland in the center of the project site. DP5 is a low point at an existing natural drainageway at the property line upgradient of Close Hill Road.

Drainage Area F (Design Point 6) drains 6.40 acres of forested land in the northwest portion of the property. Drainage in this area flows north to Juengst Road, an unmarked road off of Hillside Avenue. DP6 is a low point at the property line in the northwest corner of the property, at a driveway off of Juengst Road.

Drainage Area G (Design Point 7) drains 37.92 acres of upland forest in the west-central section of the project site. Drainage is collected by an intermittent stream within the forested wetland that flows to the north and west. DP7 is an 18" culvert at Juengst Road.

Drainage Area H (Design Point 8) drains 10.87 acres of forested upland to the northwest corner of the project site. DP8 is a low point at the northern property line south of Route 22.

Drainage Area I (Design Point 9) drains 2.52 acres of forested upland located in the northeast corner of the property. Drainage from this area flows north off of the project site. DP9 is a low point along the northern property line at the top of an existing natural drainage way.

Drainage Area J (Design Point 10) drains 2.91 acres of upland forest along the eastern edge of the project site. Drainage from this section flows off site to the roadside swale along Reed Road. DP10 is a low point at the eastern property line east of the Deak property.

Drainage Area K (Design Point 11) drains 64.17 acres of upland forest along the eastern and central portions of the project site. Drainage is conveyed to the south by an intermittent stream that originates in a vernal pool complex and flows to an emergent marsh. From the marsh, water is conveyed east off of the property by a perennial stream that ultimately drains to an unnamed tributary of the Croton River. DP11 is a 24" CMP under an existing driveway off Reed Road.

The soil types, as mapped and described by the United States Department of Agriculture and the Soil Conservation Service in the Soil Survey of Putnam and Westchester County, 1989, have been identified on the property and include Chatfield soils dominating the site, with Charlton and Leicester loam soils present remaining majority of the site. The soil map in Appendix I identifies the predominant soil types within the project site. These soils have a hydrological classification as primarily 'B' and 'C' soils. Group B soils having a moderately low runoff potential due to moderate infiltration rates. These soils consist primarily of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures.

Group C Soils having a moderately high runoff potential due to slow infiltration rates. These soils consist primarily of soils in which a layer exists near the surface that impedes the downward movement of water or soils with moderately fine to fine texture. Refer to Appendix I for a Custom Soil Resource Report.

Based on topography depicted on the USGS Croton Falls Quad Map (Figure 2) the ultimate receiving water body was determined to be the Croton River/Muscoot Reservoir System.

2. Developed Condition

Refer to Appendix B for the Post-Development Site Drainage Map. The Proposed Action would involve the construction of new roadways, dwellings, driveways, community amenities as well as stormwater management facilities. Under the developed condition, the site would have approximately 19.0 acres of impervious area; 140.5 of the 159.5 acres would either remain undisturbed or be restored to a vegetated state (e.g. lawns, planting beds, woodland). No disturbance to the federal wetland is proposed with this Project.

All of the proposed development will be directed to a stormwater management system consisting of open and closed channel conveyance systems, and stormwater management practices designed to treat water quality as well as attenuate water quantity in accordance with local, city, and state regulations. It should also be noted that as the site design progresses an examination of Better Site Design techniques and source controls will be employed to further enhance the proposed Stormwater Pollution Prevention Plan (SWPPP) for the project. This will include runoff volume reduction techniques as described later in this document.

The same twelve design points identified in the previous section will be evaluated in the post-development quantity analysis (refer to Appendix B). Further discussions on the site analysis, as well as the stormwater management practices and techniques utilized to mitigate any stormwater impacts from the proposed Highgate-Woodlands project, are provided below.

After development of the site the size and drainage paths of the existing drainage areas would be maintained as much as possible, while utilizing best management practices such as grass filter strips, vegetated swales and water quality ponds to capture and treat runoff from impervious surface areas. The final grading and drainage plan would be designed to ensure that stormwater runoff from all new impervious surfaces and other disturbed areas is captured and treated by the proposed stormwater management facilities. In some instances, stormwater runoff from the dwelling rooftops and parking areas of the site would be conveyed to underground infiltration galleys (Cultec units) and dry wells, proposed to be located under the proposed parking areas and/or the grassed areas between units. In other cases where fill soils or slopes are an issue, rain gardens, pervious pavement and other practices will be used. The submitted plans show the conceptual locations of these practices; final placement and sizing will be completed following additional soils testing and final site plan design. Green infrastructure practices, which are now an integral part of SWPPP's, are discussed in more detail below. All stormwater management facilities would be or have been designed in accordance with the NYS Stormwater Management Design Manual guidelines and criteria. Details of the design criteria for these practices are included in the HydroCad data provided.

D. Flooding Conditions

As shown on Figure 3 there are no areas identified on the subject property that are in any Federal Emergency Management Agency (FEMA) Flood Designated Zone. Accordingly, a post-development flooding analysis has not been conducted as a part of the stormwater model.

III. STORMWATER MANAGEMENT

The proposed stormwater management system for the Highgate-Woodlands project has been designed to meet the requirements of local, city, and state stormwater ordinances and guidelines, including but not limited to those of the NYSDEC, the Town of North Salem and the NYCDEP. Since the subject project proposes the disturbance of more than 5,000 square feet, coverage under the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit No. GP-0-10-001 is required.

In order to meet the requirements set forth by this permit, the latest edition of the NYSDEC *New York State Stormwater Management Design Manual* (NYSSMDM), including Chapter 10 *Enhanced Phosphorus Removal Standards*, was referenced for the design of the proposed stormwater management system. This manual specifies five design criteria that are discussed in detail below. They are Water Quality Volume, Runoff Reduction Volume, Stream Channel

PANEL
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LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of equalling or exceeding in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A**
No Base Flood Elevations determined.
- ZONE AE**
Base Flood Elevations determined.
- ZONE AH**
Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO**
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR**
Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99**
Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V**
Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE**
Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

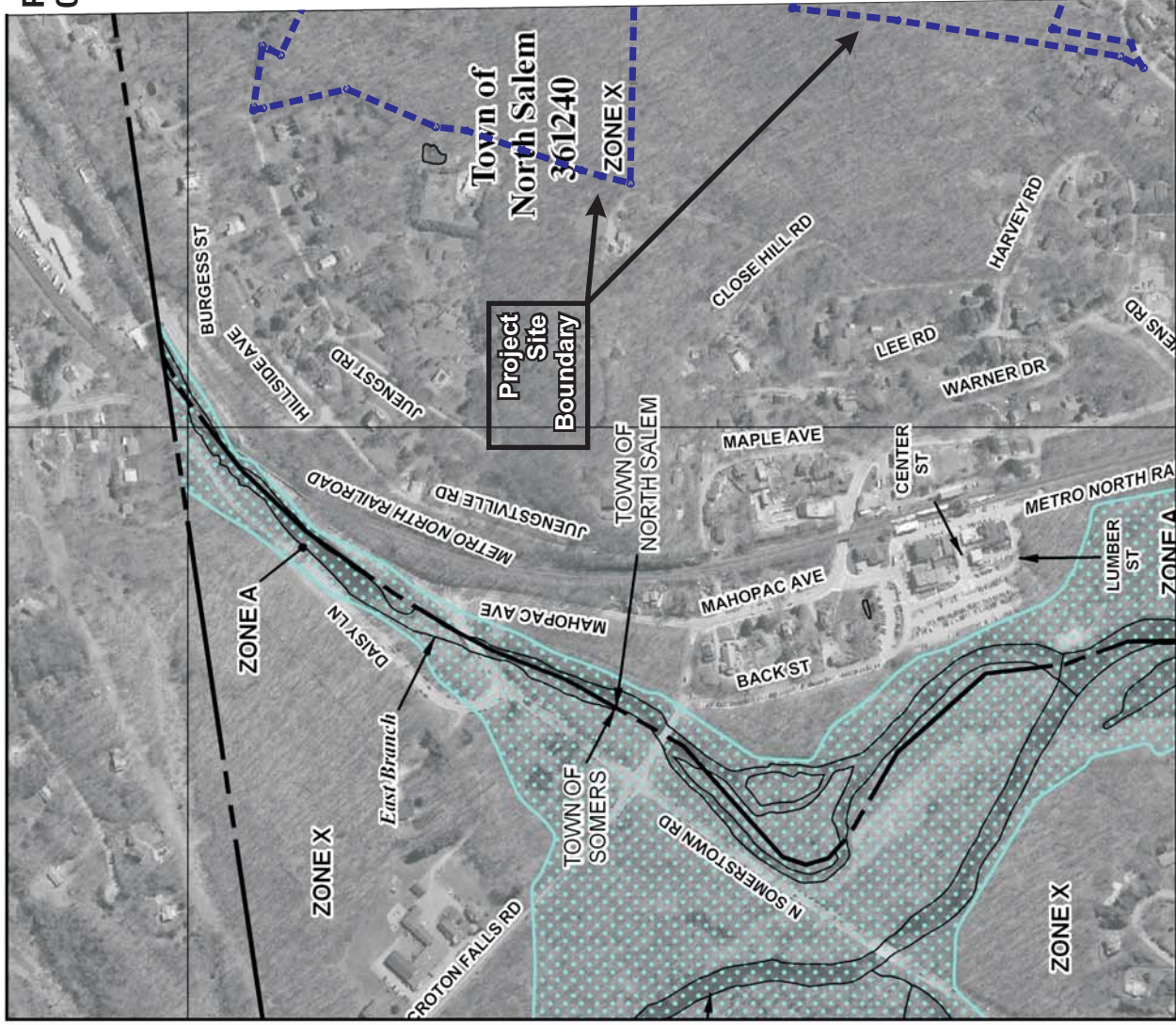
OTHER FLOOD AREAS

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

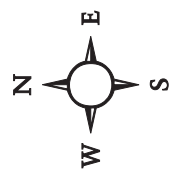
OTHER AREAS

- ZONE X**
Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D**
Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**
- OTHERWISE PROTECTED AREAS (OPAs)**

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.



Western Project Site Boundary



NOTE: A portion of the project site is mapped on Panel 56 as shown. The remainder of the site is located on Panel 57, which is not published by FEMA

Figure 3: FEMA Flood Insurance Rate Map
Highgate-Woodlands at North Salem
Town of North Salem, Westchester County, New York
Source: US Dept. of Homeland Security,
Federal Emergency Management Agency, 09/28/07
Scale: As shown

Protection Volume, Overbank Flood Control, and Extreme Storm Control. The first of the requirements relates to treating water quality, while the latter pertain to stormwater quantity (peak flow) attenuation. To address stormwater quantity requirements of both the NYSDEC and NYCDEP, the stormwater modeling system, by HydroCAD Software Solutions LLC in Tamworth, New Hampshire, was used to model and assess the peak stormwater flows for the subject project. HydroCAD is a computer aided design program for modeling the hydrology and hydraulics of stormwater runoff. It is based primarily on hydrology techniques developed by the United States Department of Agriculture, Soil Conservation Service (USDA, SCS) TR-20 method combined with standard hydraulic calculations. For details on the input data for the subcatchments and design storms, please refer to Appendix D. The input requirements for the HydroCAD computer program are as follows:

- Subcatchments (contributing watershed/sub-watersheds)
- Design storm rainfall in inches
- CN (runoff curve number) values which are based on soil type and land use/ground cover
- Tc (time of concentration) flow path information
- Stormwater Basins
- Surface area at appropriate elevations
- Flood elevation
- Outlet structure information

The above is a general description of the input data used to calculate the pre- and post-development stormwater runoff values. For detailed information for each drainage area and pond, see Appendix D.

A. Methodology

1. Water Quality Volume and Channel Protection Volume

Stormwater quality and quantity has been analyzed in accordance with the guidelines set forth in the New York State General Permit for Stormwater Discharge, GP-0-10-001 (Appendix F). Generally, the water quality volume (WQv) is designed to capture and treat 90% of the average annual stormwater runoff volume. However, because the subject project is located in the New York City East-of-Hudson Croton Watershed, which is listed as a phosphorus-limited watershed, the stormwater management practices have been designed in accordance with the *Enhanced Phosphorus Removal Standards* (Chapter 10) of the NYSSMDM to the extent practicable. These standards, adopted in April of 2008, require that the water quality volume be calculated using a 1-year storm event (3.1 inches in Westchester County) rather than the 90% rainfall event previously used (in this case, 1.15 inches). This essentially triples the volume required for capture and treatment.

In order to treat the required WQv from the proposed development, a number of different practices have been provided throughout the site; Micropool Extended Detention Basins (P-1), Infiltration Trenches (I-1), Infiltration Basins (I-2), Pocket Wetlands (W-4) and Surface Sand Filters (F-1). For nine of the proposed lots, Underground Infiltration practices (I-1) are proposed for the water quality volume. All proposed improvements at the Highgate-Woodlands project will receive treatment by at least one NYSDEC compliant practice as required. In those subcatchments where impervious surfaces are greater than 20 percent (i.e., portions of drainage areas F, G, H and K), either an infiltration practice or two practices in series are

provided as per DEP requirements. Calculations for the required WQv can be found in Appendix C. In many of the sub-basins, several practices are tied together in order to facilitate better phosphorus removal. It is noted that these practices are not technically required above and beyond the WQv, but are provided to maximize phosphorus removal within the watershed.

Impervious surfaces accumulate and concentrate pollutants associated with atmospheric fallout, motor vehicles, as well as applied pesticides and fertilizers. During storm events these pollutants are transported to down-gradient water resources such as wetlands, water courses and water bodies. Pollutants discharged untreated to water resources can have adverse effects on aquatic life, impair those resources for recreational use, and decline the ability for those waters to be sources for potable water.

Water quality volumes that meet the enhanced phosphorus removal standards are summarized in Table 1 for the amount required to be treated and the capacity as provided in each of the treatment facilities. Velocity dissipaters are specified at each pipe inlet and outlet as rip-rap aprons per "New York State Standards and Specifications for Erosion and Sediment Control", latest edition.

Table 1 Summary of Water Quality Volumes					
Contributing Area	Basin/Structure	Required Wqv (1-yr storm) (ac-ft)	Required WQv (1-yr storm) (cf)	Total Provided WQv (cf)	Stormwater Management Practice
A2 (3.28 ac)	Hydrodynamic separator	0.101	4400	0 ⁽¹⁾	Hydrodynamic separator and Vegetated swale
A3a (.70 ac)	SF-A3a	0.003	1394	1408	Surface sand filter
A4a (2.10 ac.)	SF-A3b	0.090	3920	4784	Surface sand filter
A4 (6.93 ac)	ED-A4	0.344	14941	20348	Micropool extended detention basin
B2 (4.53 ac)	SF-B2	0.224	97578	10520	Surface sand filter/dry basin
C1 (2.63 ac) ²	Hydrodynamic separator				Hydrodynamic separator and vegetated swale
C2 (4.03 ac)	PW-C2	0.172	7492	12635	Pocket wetland
F2 (.56 ac)	Sub Lot 16	0.035	1481	3180	Infiltration trench
F3 (.49 ac)	Sub Lot 15	0.031	1350	2134	Infiltration trench
F4 (.76 ac)	Sub Lot 14	0.040	1742	1786	Infiltration trench
F5 (.32 ac)	Sub Lot 13	0.028	1176	1786	Infiltration trench
G1 (2.36 ac)	SF-G1	0.161	7013	7125	Surface sand filter/Dry basin
G2 (6.67 ac)	I-G2	0.511	22259	22259	Infiltration basin
G3a (3.34 ac)	I-G3a	0.334	14549	14549	Infiltration basin
G3b (3.72 ac)	I-G3b	0.197	8581	8581	Infiltration basin
G5a (2.15 ac)	SF-G5	0.122	5314	5322	Surface sand filter/dry basin
G5b (.153 ac.)	Sub-lot 17	0.037	1611	1611	Infiltration trench
G5c (.143 ac.)	Sub-lot 21	0.029	1263	1263	Infiltration trench
G6 (3.52 ac)	SF-G6	0.353	15333	16470	Surface sand filter/dry basin
G7 (1.54 ac)	SF-G7	0.154	6708	7504	Surface sand filter/dry basin
H2 (.35 ac)	Sub Lot 18	0.044	1917	1917	Infiltration trench
H3 (.29 ac)	Sub Lot 19	0.037	1611	1611	Infiltration trench
H4 (.41 ac)	Sub Lot 20	0.047	2047	2047	Infiltration trench
K2 (2.05 ac)	SF-K2	0.116	5052	5225	Surface sand filter
K3 and K4 (total 11.03 ac) ³	SF-K3 and ED-K3	1.537	66951	140227	Surface sand filter/Micropool extended detention basin
K5 (8.37 ac) ³	SF-K5 and ED-K5	0.970	42253	85219	Surface sand filter/Micropool extended detention basin
K6 (8.60 ac)	ED-K6	0.697	30361	37171	Micropool extended detention basin

1 Due to topographic constraints, shallow bedrock conditions and road geometry it is not possible to place a full size treatment practice in this location. However, it is expected that the use of a hydrodynamic separator discharging to a vegetated swale prior to discharge at the design point will accomplish the water quality goals. The flow capacity for the practice will be greater than or equal to the calculated peak runoff for the one-year storm, Therefore, providing this practice, although it is a deviation from the State standards, will treat the WQv.

2 There is no increase in impervious surface for this subcatchment. Therefore, in accordance with Chapter 9 "Redevelopment" of the Manual, a hydrodynamic separator will be installed and connected to any future drainage improvements on Sun Valley Drive. The proposed hydrodynamic separator has been sized to capture and treat the water quality volume peak flow as required.

3 Two NYSDEC compliant practices are provided to treat one subcatchment if the percent imperviousness exceeded 20% and the SMP provided is not infiltration. This was provided to address the additional requirements of the NYCDEP.

As noted in the table above, the site topography and shallow depth to bedrock within the lower reaches of sub-catchment B2 make it difficult to locate a practice that will physically capture the runoff quality volume. Much of the disturbed area is for grading purposes and will be restored and re-vegetated after construction. That portion of the basin that will be impervious, i.e., runoff from the initial section of the access road from Reed Road (approximately 6,500 sf) will be captured and treated within a hydrodynamic separator unit and discharged to a vegetated swale along Reed Road before it gets to the design point. While this is a deviation from the State standards, the local MS4 can determine that a flow-through practice of this type is acceptable if the deviation is justified, and the practice has the capacity to treat the peak rate of runoff at the WQv storm (in this case the one-year storm).

Channel protection Volume (Cpv) is designed to protect stream channels from erosive velocities. This goal is attained by providing a 24 hour extended detention for the one-year 24 hour storm event. The Cpv is calculated based on the rainfall depth for the one-year 24 hour storm event in combination with other parameters as shown in the calculations in Appendix C.

2. Green Infrastructure Practices/Runoff Reduction

The New York State Stormwater Management Design Manual now requires that consideration be given to applying practices that not only treat runoff for water quality but reduce or eliminate the increase in runoff from a site following changes to site perviousness. Overall runoff reduction can be achieved by infiltration, groundwater recharge, reuse, recycling, and other means to reduce the increase in runoff volume that occurs when the impervious cover of a site changes. The goal is to capture 100 percent of the post-development water quality volume increase to replicate pre-development hydrology by maintaining pre-construction infiltration, peak runoff flow, discharge volume, as well as minimizing concentrated flow by using runoff control techniques to provide treatment in a distributed manner before runoff reaches the collection system. This requirement can be accomplished by application of on-site green infrastructure techniques, standard stormwater management practices with runoff reduction capacity, and good operation and maintenance.

Projects that cannot meet 100% of runoff reduction requirement must provide a justification that evaluates each of the green infrastructure planning and reduction techniques, presented in chapter 5 of the Stormwater Design Manual, and identify the specific limitations of the site according to which application of this criterion is technically infeasible. Implementation of green infrastructure cannot not be considered infeasible unless physical constraints, hydraulic conditions, soil testing, existing and proposed slopes (detailed contour), or other existing technical limitations are objectively documented.

For the Highgate-Woodlands Project, a number of green infrastructure/runoff reducing practices have been identified as potential practices to be incorporated in the final project SWPPP (See Table 2). Specific runoff reduction volumes have not been calculated at this time, due to the on-going planning and testing before final design of the project. However, Table 2 lists those recommended practices that comply with the objectives of the Manual and identifies where such practices can be incorporated in the design.

For example, 12 of the 27 post-development sub-basins where perviousness has changed will use infiltration practices such as infiltration trenches or infiltration basins. During the planning process to date, the number of residential units has been reduced from 47 to 42, and the footprints of those remaining units reduced by approximately 30 percent. More than 70 acres of the 152 acre site will be undisturbed; approximately 15 acres will be set aside in dedicated open

Table 2:
Green Infrastructure Practices
 2/24/2012

Section	Green Infrastructure Practice	Can Green Infrastructure Practice be Used?	Location	Description
Planning Practices for Preservation of Natural Features and Conservation				
5.1.1	Preservation of Undisturbed Areas	Partially	Approximately 100 sf of proposed wetland disturbance to Wetland F. All remaining wetland areas will remain undisturbed.	Wetland area is proposed to be disturbed due to construction of Road C. The area will be restored upon completion of construction. There are 2 conservation areas proposed for the site as well. 70.42 acres of the 152.55 acre site will remain undisturbed.
5.1.2	Preservation of Buffers	Partially	Entire Site	Buffers are proposed to the maximum extent practicable for the development.
5.1.3	Reduction of Clearing & Grading	Yes	Entire Site	Disturbance is kept to a minimum and is limited to the amount needed for roads, driveways, dwellings, utilities and stormwater management facilities.
5.1.4	Locating Development in Less Sensitive Areas	No	-	No flood plains are disturbed. Disturbing steep slopes can not be avoided.
5.1.5	Open Space Design	Yes	Conservation Parcels	There are 2 conservation parcels proposed for the site.
5.1.6	Soil Restoration	Yes	All Disturbed Area	Perform de-ripping and de-compaction in all heavily trafficked areas and in areas of cut/fill where HSG C is present. Apply 6 inches of topsoil and seed over all disturbed areas.
Planning Practices for Reduction of Impervious Cover				
5.2.1	Roadway Reduction	Yes	All Private Roads on-site	The proposed roadway width for each private road throughout the site is 22 feet. This is 2 feet less in width than a typical 24 ft. wide roadway
5.2.2	Sidewalk Reduction	Yes	Sidewalks on all private roads	Sidewalks are proposed on one side of the street, rather than both sides, on all private roads throughout the site, reducing the total amount of impervious surface on the site.
5.2.3	Driveway Reduction	Yes	Common Driveway - Lots 2 & 3 Shared Driveways in Multi-Family Parcel	Due to the constraints of the site, common driveways can not be used along most roadways. The proposed emergency access driveway between Sun Valley Drive and Road A acts as a common driveway is for Lots 2 and 3. In the multi-family parcel, common driveways are proposed for all of the units. 60 of the 72 units utilize driveways that are shared by 4 units and the remaining 12 units utilize driveways that are shared by 2 units.
5.2.4	Cul-de-sac Reduction	Yes	Pervious Island Cul-de-sac (Town Road A, Private Roads B & C)	Pervious island cul-de-sacs are proposed at the bus turn-around at the end of Town Road A and a pervious island in the middle of the cul-de-sac at the end of Roads B & C.
5.2.5	Building Footprint Reduction	Yes	Single-Family Lots	During the planning process, the number of residential dwellings has been reduced from 47 to 42 and the overall size of the footprint has been reduced by approximately 30%.
5.2.6	Parking Reduction	Yes	Multi-family Units	Parking for Multi-family units is provided in each garage. On-street parking is provided along Road D and in the clubhouse lot for visitors. Parking stall dimensions will be kept to a minimum to reduce the total amount of impervious cover.

Table 2:
Green Infrastructure Practices
 2/24/2012

Section	Green Infrastructure Practice	Can Green Infrastructure Practice be Used?	Location	Description
Green Infrastructure Techniques for Runoff Reduction				
5.3.1	Conservation of Natural Areas	Yes	Conservation Parcels	There are 2 conservation areas proposed for the site. 70.42 acres of the 152.55 acre site will remain undisturbed.
5.3.2	Sheet flow to Riparian Buffers or Filter Strips	Yes	East Side of Road A	Filter strips will be provided along the rear of Lots 39-42 to treat the lawn area to the rear of the proposed dwellings. Refer to the diagram titled "Filter Strip Locations Lots 39-42"
5.3.3	Vegetated Swale	Yes	Single Family Lots 1, 4-12, 18-42	Swales are proposed along the driveways of the single family lots to convey the runoff to either the on-site stormwater practice or to the proposed road-side swale. The road-side swale directs the runoff to the closest stormwater practice
5.3.4	Tree Planting/Tree Pit	Yes	Entire Site	Trees are proposed along all roadways throughout the site.
5.3.5	Disconnection of Rooftop Runoff	Yes	SF Lots (without infiltration trenches) MF Buildings (along East side of Road D)	All roof leaders for the single family lots not being treated by underground stormwater infiltration trenches and discharged the swale along the driveway or roadway. The roof leaders for the multi-family buildings along the East side of Road D will discharge to a swale along the top of the retaining wall and convey the runoff to the nearest stormwater practice.
5.3.6	Stream Daylighting	No	N/A	Stream daylighting does not apply for the proposed project.
5.3.7	Rain Gardens	Yes	Single Family Lots	A rain garden will be proposed for each lot. Refer to the diagram titled "Typical Single Family Site Plan for Green Infrastructure"
5.3.8	Green Roofs	No	-	-
5.3.9	Stormwater Planters	No	-	Stormwater planters are typically used for re-development projects. Therefore, stormwater planters do not apply for this project.
5.3.10	Rain Barrels/Cisterns	No	-	-
5.3.11	Porous Pavement	Yes	Multi-family Units	Porous pavement will be considered for all multi-family driveways not within 100 feet of the water supply wells. Refer to the diagram titled "Potential Porous Pavement Locations - Multi-Family"

space parcels. By proposing private roads, roadway widths are 22 feet rather than a typical 24 foot width. Rain gardens are proposed for each individual lot that does not use infiltration trenches for stormwater quality (see Figure 4 for typical single family site plan).

An important feature of the plan regarding green infrastructure practices is the use of pervious pavement in the driveway/parking areas at the multi-family units. Figure 5 shows the locations within that development where pervious pavement could be used to reduce runoff volumes and treat stormwater flows. Due to restrictions within close proximity to well heads, the entire area can not be treated in this manner.

The site layout also provides an opportunity for the use of filter strips. Filter strips are shown on Figure 6 as undisturbed 100 foot buffers to the riparian corridor of Wetland F.

3. Stormwater Quantity and Peak Flow Rates

The Times of Concentration, surface cover types, and hydrograph / stormwater routing calculations for the existing and developed conditions are provided in the Appendix D. These site characteristics are fundamental elements of the pre- and post- development stormwater models.

Storm water quality and quantity computations are based upon the following publications:

- Soil Conservation Service (SCS) - TR-20
- Urban Hydrology for Small Watersheds - TR-55
- NYSDEC 'New York State Stormwater Management Design Manual', latest edition

For this Project, the computer software stormwater modeling package HydroCAD (version 9.10) was utilized for the stormwater analysis; this program is based on USDA Soil Conservation Service (SCS) Technical Release 55 (TR-55).

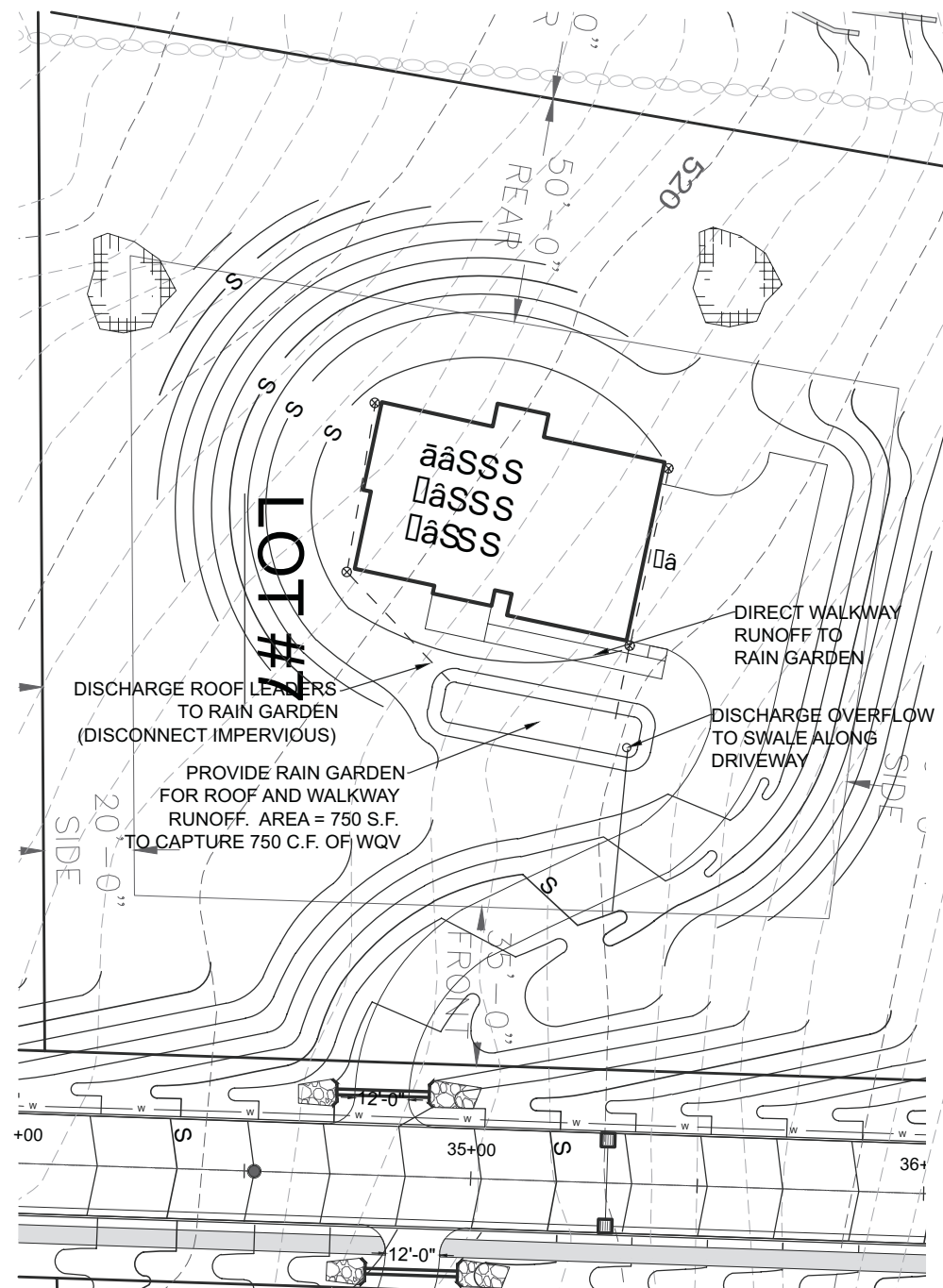
Post construction increases in peak flow rates from the site have been controlled to ensure that the post-development rate of runoff from the site would be “relatively equal” to, or less than, the existing discharge rates for 1, 2, 10, 25 and 100 year 24 hour storm events. Note that in cases where a post construction peak discharge rate is “relatively equal” to a pre-developed rate, the “relatively equal” rate represents no appreciable difference in flow.

4. Storm Frequencies

Storm frequencies are defined as the average frequency of occurrence of events having a given volume and duration. The storm frequencies used as a basis for computing peak rate of discharge were storms expected once every 1, 2, 10, 25, and 100 years with a duration of 24 hours as defined by the U.S. Department of Agriculture Soil Conservation Service.

5. Technical Approach

The method used for estimating peak discharge are included in the document released by the Engineering Division of the U.S. Department of Agriculture Soil Conservation Service titled "Urban Hydrology for Small Watersheds", Technical Release No. 55, dated June 1986, Type III



Water Quality Volume (cf)	750	
Drainage Layer and Soil Media Storage Volume		
A _{RG}	Proposed Rain Garden Surface Area (sf)	750
D _{SM}	Depth of Soil Media (ft)	1.5
D _{DL}	Depth of Drainage Layer (ft)	1
P _{SM}	Porosity of Soil Media	0.2
P _{DL}	Porosity of Drainage Layer	0.4
V _{SM}	Volume of Soil Media	225
V _{DL}	Volume of Drainage Layer	300
D _F	Ponding Depth	0.5
V _{SM} + V _{DL} + (D _F x A _{RG}) (cf)		900
WQV (cf)		750
WQV ≤ V _{SM} + V _{DL} + (D _F x A _{RG})		YES

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft.

FIGURE 4:
TYPICAL SINGLE FAMILY SITE PLAN
FOR GREEN INFRASTRUCTURE

HIGHGATE - WOODLANDS AT NORTH SALEM
REED ROAD AND HARDCRABBLE ROAD
TOWN OF NORTH SALEM
COUNTY OF WESTCHESTER
STATE OF NEW YORK

Date: 2/24/2012
Source: Keane Coppelman Gregory Engineers, P.C.

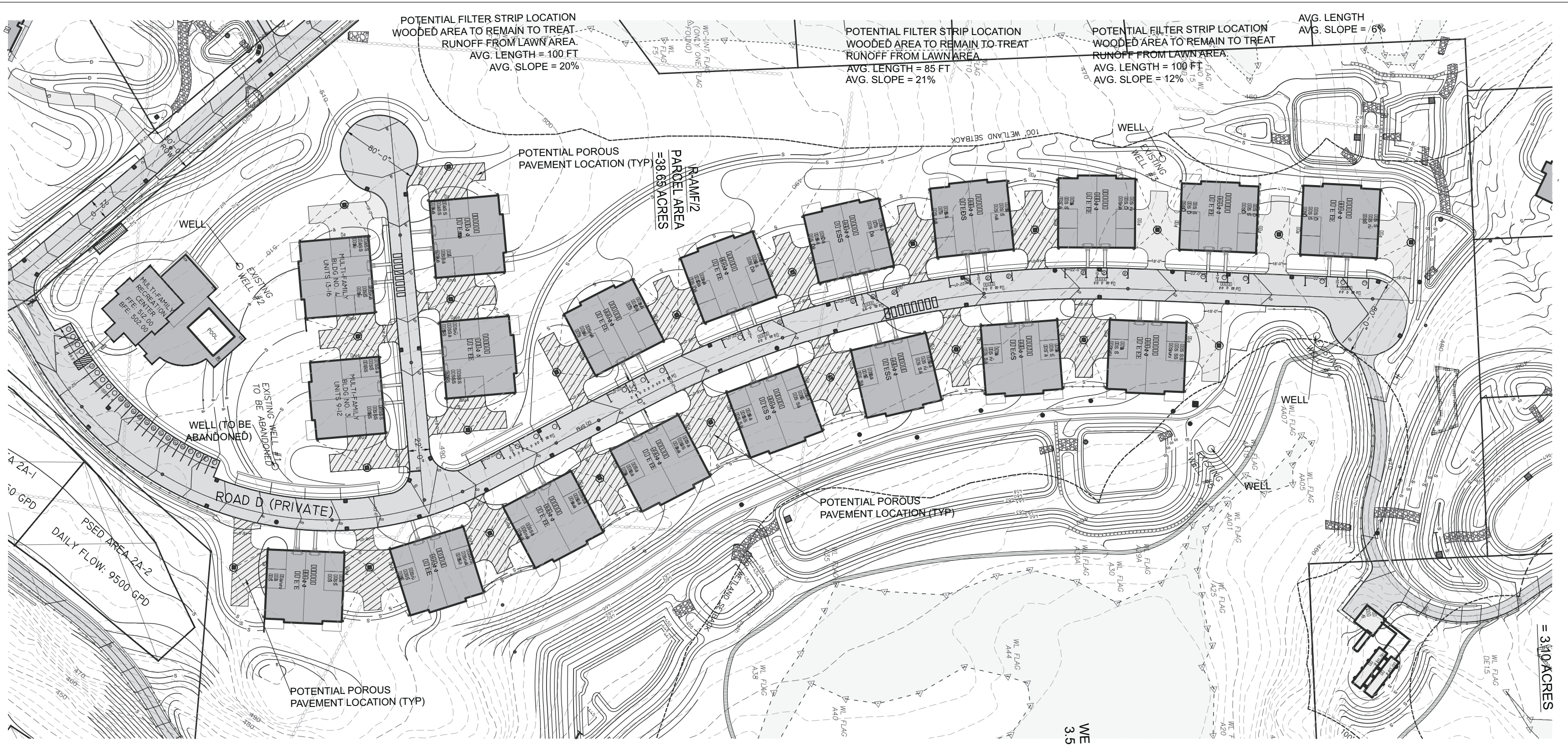
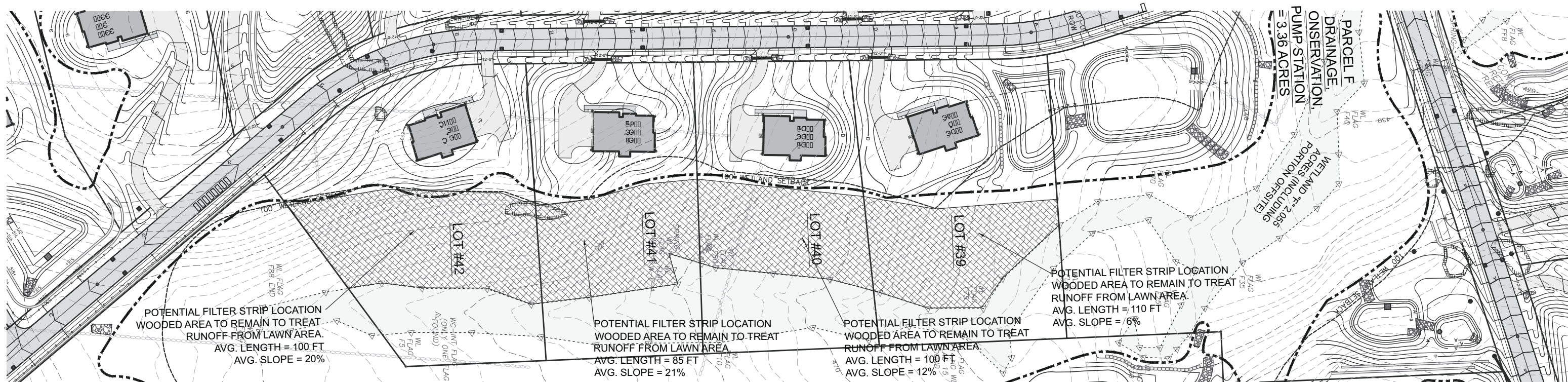


FIGURE 5:
POTENTIAL POROUS PAVEMENT LOCATIONS - MULTI-FAMILY

HIGHGATE - WOODLANDS AT NORTH SALEM
REED ROAD AND HARDCRABBLE ROAD
TOWN OF NORTH SALEM
COUNTY OF WESTCHESTER
STATE OF NEW YORK

Date: 2/24/2012
Source: Keane Coppelman Gregory Engineers, P.C.

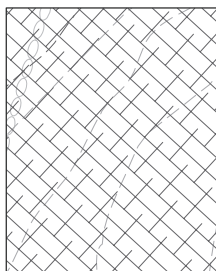


GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.

LEGEND



FILTER STRIP LOCATION

FIGURE 6:
FILTER STRIP LOCATIONS - LOTS 39-42

HIGHGATE - WOODLANDS AT NORTH SALEM
REED ROAD AND HARDSCRABLE ROAD
TOWN OF NORTH SALEM
COUNTY OF WESTCHESTER
STATE OF NEW YORK

Date: 2/24/2012
Source: Keane Coppelman Gregory Engineers, P.C.

Storm Distribution. This criterion governs the data that is input into the software. The input and output data is provided in the Appendices D and E.

6. Detention Requirements

Detention facilities have been provided to capture and treat stormwater runoff from the impervious surfaces. Methodologies as set forth in Engineering Division of the U.S. Department of Agriculture Soil Conservation Service titled "Urban Hydrology for Small Watersheds", Technical Release No. 55, dated June 1986 were utilized.

7. Rainfall Intensity

Frequency and intensities, which have been used in this report in accordance with NYSDEC guidelines are outlined in Table 3, Rainfall Intensity by Storm Frequency. The Table identifies the rainfall intensity as a variable based on geographic location of the project, based on Northeast Regional Climate Center data.

Table 3 Rainfall Intensity by Storm Frequency	
Storm Frequency Year	Rainfall Intensity (24-Hour Period) (Inches)
1	3.1
2	3.7
10	5.5
25	7.0
100	9.0

8. Times of Concentration

The times of concentration (T_c) have been estimated to determine the time of the longest hydraulic route within each sub-watershed being analyzed. These routes include overland, shallow-concentrated and channel or pipe flows; refer to Appendices D and E for T_c values used.

9. Drainage Area Peak Discharge Rates

To mitigate the increase in peak rates of runoff as a result of developing the project site, stormwater detention facilities have been designed to reduce the post development rate of runoff to those relatively equal to or below existing. Refer to the tables below for peak discharge rates associated with this project. Refer to Appendices D and E for the pre- and post-developed stormwater models.

Table 4					
Summary of Pre-development Peak Discharge Rates					
Storm Event	1 yr	2 yr	10 yr	25 yr	100 yr
Design Point	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
DP-1A	1.06	2.81	12.17	22.76	39.12
DP-1B	0.14	0.36	1.42	2.59	4.33
DP-2	0.70	1.81	8.64	16.25	27.93
DP-3	0.76	1.82	7.40	13.32	22.45
DP-4	0.54	1.38	6.70	12.78	21.99
DP-5	0.15	0.38	1.90	3.55	6.11
DP-6	0.50	1.30	6.12	11.53	19.84
DP-7	9.74	17.31	46.31	74.70	115.88
DP-8	5.33	8.46	19.57	29.96	44.60
DP-9	1.70	2.66	6.00	9.09	13.41
DP-10	1.42	2.43	6.10	9.62	14.64
DP-11	32.45	50.52	113.91	173.04	255.62

Table 5					
Summary of Post-development Peak Discharge Rates					
Storm Event	1 yr	2 yr	10 yr	25 yr	100 yr
Design Point	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
DP-1A	0.59	1.28	8.17	17.32	37.21
DP-1B	0.13	0.33	1.34	2.44	4.08
DP-2	0.56	1.38	6.22	10.63	25.82
DP-3	0.45	1.02	3.51	9.00	20.72
DP-4	0.47	1.20	5.85	11.15	19.19
DP-5	0.15	0.37	1.42	2.50	4.12
DP-6	0.50	1.23	5.24	9.64	19.81
DP-7	4.27	7.72	19.91	41.86	110.71
DP-8	5.13	8.00	18.55	29.05	42.70
DP-9	1.70	2.61	5.74	8.61	12.61
DP-10	1.42	2.43	6.10	9.62	14.64
DP-11	17.56	27.86	79.54	129.72	202.08

Table 6					
Comparison of Pre- and Post-development Peak Discharge Rates					
Storm Event	1 yr	2 yr	10 yr	25 yr	100 yr
Design Point	(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
DP-1A pre	1.06	2.81	12.17	22.76	39.12
DP-1A post	0.59	1.28	8.17	17.32	37.21
% change	-44.34	-54.48	-32.87	-23.90	-4.88
DP-1B pre	0.14	0.36	1.42	2.59	4.33
DP-1B post	0.13	0.33	1.34	2.44	4.08
% change	-7.14	-8.33	-5.63	-5.79	-5.77
DP-2 pre	0.70	1.81	8.64	16.25	27.93
DP-2 post	0.56	1.38	6.22	10.63	25.82
% change	-20.00	-23.76	-28.01	-34.58	-7.55
DP-3 pre	0.76	1.82	7.40	13.32	22.45
DP-3 post	0.45	1.02	3.51	9.00	20.72
% change	-40.79	-43.96	-52.57	-32.43	-7.71
DP-4 pre	0.54	1.38	6.70	12.78	21.99
DP-4 post	0.47	1.20	5.85	11.15	19.19
% change	-12.96	-13.04	-12.69	-12.75	-12.73
DP-5 pre	0.15	0.38	1.90	3.55	6.11
DP-5 post	0.15	0.37	1.42	2.50	4.12
% change	0.00	-2.63	-25.26	-29.58	-32.57
DP-6 pre	0.50	1.30	6.12	11.53	19.84
DP-6 post	0.50	1.23	5.24	9.64	19.81
% change	0.00	-5.38	-14.38	-16.39	-0.15
DP-7 pre	9.74	17.31	46.31	74.70	115.88
DP-7 post	4.27	7.72	19.91	41.86	110.71
% change	-56.16	-55.40	-57.00	-43.96	-4.46
DP-8 pre	5.33	8.46	19.57	29.96	44.60
DP-8 post	5.13	8.00	18.55	29.05	42.70
% change	-3.75	-5.44	-5.21	-3.04	-4.26
DP-9 pre	1.70	2.66	6.00	9.09	13.41
DP-9 post	1.70	2.61	5.74	8.61	12.61
% change	0.00	-1.88	-4.33	-5.28	-5.97
DP-10 pre	1.42	2.43	6.10	9.62	14.64
DP-10 post	1.42	2.43	6.10	9.62	14.64
% change	0.00	0.00	0.00	0.00	0.00
DP-11 pre	32.45	50.52	113.91	173.04	255.62
DP-11 post	17.56	27.86	79.54	129.72	202.08
% change	-45.89	-44.85	-30.17	-25.03	-23.73

B. Stormwater Management

1. Approach and Concept

The stormwater collection and conveyance systems for the project will consist of drain inlets, catch basins, and HDPE pipe, open channel swales and a closed stormwater sewer conveyance system. The ponds have been designed to provide for water quality treatment and flood control, thereby mitigating the potential impacts associated with the post construction changes in stormwater quality and the developed condition rate of stormwater runoff relative to

the existing condition rate. Stormwater runoff rates for the storms ranging from the 1 year storm (NYSDEC Stream Channel Protection), to the 100-year storm (NYSDEC Extreme Flood) events have been analyzed and routed through existing and developed conditions utilizing computer software "HydroCAD". The basin design assumptions are provided in Appendices D and E of this SWPPP.

In order to take a most conservative approach when considering flooding potential, HydroCad also considers a "worst-case" scenario for safe conveyance of storm flows in unusual conditions. The calculations model a storm where stormwater basins outlets are compromised by being clogged or damaged. The HydroCad report eliminates the outlet structures from the modeling and utilizes only the emergency overflow weir as the outlet device. The 1-year, 2-year, 10-year, 25-year and 100-year storm events were modeled for each design point with at least one stormwater basin. As a result of modeling each stormwater basin with a clogged outlet structure, it was demonstrated that the emergency overflow weir has the capacity to safely pass each storm event without overtopping the berm of the stormwater basin.

As discussed below, the approach to stormwater quality treatment is generally to capture the WQv and release it over an extended period of time allowing the stormwater facility to perform its treatment function, mainly gravity settling of pollutants. The approach to runoff rate management for the proposed Project is to achieve a storm water management system design that would limit the developed peak rate of storm water runoff to levels relatively at or less than the existing peak rates. This shall be accomplished by providing stormwater detention facilities to reduce the peak rates of runoff for all storms.

C. Stormwater Quality Management Measures

The Stormwater Management Plan is based on the analysis of the changes in runoff characteristics between existing and developed stormwater conditions discussed in the previous section of this report, and the design criteria of the stormwater management practices described below. An outline of the varying stormwater quality management practices, both structural and non-structural to be implemented both during construction and/or after project completion is presented below.

1. Filter Strips (green infrastructure practice)

The purpose of a filter strip is to provide a buffer between impervious surfaces and water bodies. Permanent grasses and legumes filter runoff water by intercepting or trapping sediment, organics, nutrients, and other potential pollutants before they are able to reach a body of water. A few benefits of grass buffer strips include uptake and transformation of soluble contaminants by soil microbes and grass. The vegetation can also provide habitat for small birds and animals. The Design Manual provides criteria for the design of these practices, and site use will be in compliance with these criteria.

Grassy areas are proposed adjacent to the roadways and provide a disconnectedness between the buildings and the drainage system to further treat runoff. In addition portion of the property would be comprised of either lawn, meadow, or woodland. These areas would contribute to the overall treatment of stormwater from the development. These areas would capture and collect road deicing sand, sediment and debris prior to being discharged to the receiving streams and wetlands.

2. Swales (green infrastructure practice)

Swales are proposed to run adjacent to many of the interior roadways and driveways. These swales will be designed as vegetated swales in accordance with the Manual, and will contribute to the overall treatment of stormwater from the roadways as well as a portion of the rooftops. The swales would capture and collect road deicing sand, sediment and debris prior to it entering the stormwater conveyance system and being discharged to the river. The swales would be cleaned out periodically to remove the dirt and debris as part of routine maintenance.

3. Surface Sand Filters (F-1)

Stormwater filtering systems capture and temporarily store the WQv and pass it through a filter bed of sand, organic matter, or soil. Filtered runoff may be collected and returned to the conveyance system, or allowed to partially exfiltrate into the soil. The surface sand filter is a multi-chamber structure designed to treat stormwater runoff through filtration, using a sediment forebay, a primary filter media and, typically, an underdrain collection system. All surface sand filters have been designed as off-line practices.

The sand filters for this project are modeled in HydroCAD by using a “pond” node with the appropriate storage and outlet dimensions. Each sand filter is modeled with overflow weirs to pass any flow that exceeds the capacity of the practice. A detail of the proposed sand filter is provided on Sheet 31 of 39 of the subdivision plan set.

As per the recommendations set forth in HydroCAD, because the filter media restricts the flow of water from the ponding area, the filter becomes the effective outlet control. Therefore, the storage definition in HydroCAD only includes the open water volume above the bottom of the ponding area (area above the top of the sand filter). In addition, the under-drain pipe and perforations will be sized to handle the flow through the media, so the characteristics of the under-drain will not affect the HydroCAD routing.

As a result, the outlet device is modeled with exfiltration as the first outlet device. Exfiltration occurs from the top of the sand filter bed (above the top soil) to a distance 30 inches below the top of the sand filter bed (the invert of the under-drain pipe). The stormwater that flows through the filter media via exfiltration is then conveyed to the outlet box through the under-drain system. Any flow in excess of the water quality volume will flow through the weirs of the outlet box. All flow that enters the outlet box will be discharged through the outlet pipe. A detail of the proposed sand filter outlet structure is provided on Sheet 37 of 39 of the subdivision plan set.

4. Micro-pool Extended Detention Ponds (P-1)

Micropool extended detention ponds are proposed to treat the required water quality volumes. The treatment system includes a sediment forebay, rip-rap berm, micropool, outlet control structure, and emergency overflow weir. The micropool extended detention pond would treat the 90% rainfall event through pollutant fall-out and biological uptake.

5. Underground Infiltration Practice (I-1)

Underground Infiltration practices capture and treat the water quality volume within subsurface systems, where infiltration into the ground is the primary means of treatment. These practices utilize a pre-treatment vault for removal of suspended sediments prior to discharge into Cultec

units for dispersion and infiltration. Where underground infiltration practices are employed, both the WQv and RRv requirements for the tributary areas are met.

6. Infiltration Basins (I-2)

Stormwater infiltration basins capture and temporarily store the WQv before allowing it to infiltrate into the soil over a two-day period. The basin is used to capture and allow infiltration of stormwater runoff into the surrounding soils from the bottom of the basin. Pretreatment of runoff is required to reduce fines that may clog the soil over time, decreasing infiltration. Where infiltration basin practices are employed, both the WQv and RRv requirements for the tributary areas are met.

For both I-1 and I-2 practices, soil testing is required to ensure that there is adequate depth to bedrock and adequate separation from seasonal high ground water. Testing has occurred at numerous locations throughout the site as shown on plan set Sheet 16 of 39; results of that testing is provided on the data sheets included on Sheet 17 of 39.

7. Pocket Wetlands (W-4)

Stormwater wetlands (a.k.a. Constructed wetlands) are structural practices that incorporate wetland plants into the design to both store and treat runoff. As stormwater runoff flows through the wetland, pollutant removal is achieved through settling and biological uptake within the practice.

8. Stormwater Pollution Prevention Plan Implementation

In compliance with requirements established by the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001), this SWPPP has been prepared and will be accordingly implemented with the approval of the Planning Board. A key component of the SWPPP is the included Erosion and Sediment Control Plan component (Sheets 19 to 22 of 39 in the plan set and Appendix E), which sets forth the measures to be implemented before the start of construction, and throughout the entire construction phase. The implementation of these measures will be monitored and maintained during construction in accordance with the SPDES regulations. Stabilization of the site shall also comply with the conditions and requirements set forth therein and further established by the local municipality, if any. Refer to Appendix F for a copy of SPDES Permit No. GP-0-10-001.

Several temporary structural practices to be utilized to mitigate any potential impacts include, but are not be limited to the following:

1. Surrounding material stockpiles with silt fencing and hay bale dams,
2. Grading and stabilization of excavated and embankment areas in a timely fashion,
3. Interception of the site runoff from disturbed soils in ditches with check dams and conveyance to sediment basins to permit settling, and
4. Stabilized construction entrances which would be constructed and maintained during construction to minimize the off-site migration of sediment from vehicular traffic.

The following is a summary of each of the post-development sub-basins and the treatment practices that are proposed to mitigate potential impacts to water quality.

Sub-basin A1a. Post development drainage area A1a will require some minor grading but not have a change in cover or increase in impervious surface. A vegetated swale along Reed Road will treat runoff from the 1.56 acre drainage area and convey this flow to Design Point 1A.

Sub-basin A1b. Post development drainage area A1b will not have a change in cover or increase in impervious surface. A vegetated swale along Reed Road will treat runoff from the 1.03 acre drainage area and convey this flow to Design Point 1B.

Sub-basin A2. Post development drainage area A2 (3.28 acres) includes surface runoff from the graded slope north of Road A and a small portion of Road A. Future expansion area for the subsurface sewage disposal area is also included in this sub-basin. Runoff from Road A will be collected via the catch basin/pipe network, conveyed to a hydrodynamic separator for treatment of runoff quality, flow under Road A through a culvert and enter the vegetated swale along Reed Road to Design Point 1A. Much of the disturbed area is for grading purposes and will be restored and re-vegetated after construction.

Sub-basin A3a. Post development drainage area A3a (0.70 acres) includes runoff from the graded slope to the north of Road A and a section of Road A. Flows will be conveyed to a flow-splitter manhole that diverts the one-year storm (WQV) to the surface sand filter system including a treatment forebay and separate sand filter basin. Higher intensity storms are bypassed to the design point via a rip rap swale to Design Point 1A.

Sub-basin A3b. Post development drainage area A3b (2.10 acres) includes runoff from the graded slope to the north of Road A and a section of Road A (including half the proposed turnaround). Future expansion area for the subsurface sewage disposal area is also included in this sub-basin. Flows will be conveyed to a flow-splitter manhole that diverts the one-year storm (WQV) to the surface sand filter system including a treatment forebay and separate sand filter basin. Higher intensity storms are bypassed to the design point via a rip rap swale to Design Point 1A.

Sub-basin A4. Post development drainage area A4 (6.93 acres) includes runoff from the subsurface sewage disposal area, the graded slope north of Road A, and a section Road A. Flows are conveyed as sheet flow for the vegetated areas and piped from the Road to a micropool extended detention basin (ED-A4). Since the contributing area to ED-A4 is less than the 10 acre minimum required by the New York State Stormwater Management Design Manual, adequate water balance will be achieved through the installation of an impervious clay liner, and anti-clogging devices will be installed on the outlet structure to prevent debris from obstructing the discharge flow. The outlet pipe discharge is conveyed via a rip rap swale to Design Point 1A.

Sub-basin B1. Post development drainage area B1 (3.91 acres) includes runoff from undeveloped areas with the exception of some grading on the slope to the south and west of Road A. This slope will be stabilized following grading. This drainage will flow to Design Point 2. No impervious surfaces are proposed in this drainage area.

Sub-basin B2. Post development drainage area B2 (4.52 acres) includes runoff from the subsurface sewage disposal area, the house and driveway on Lot 1, undisturbed areas and the private portion of Road A. This runoff is conveyed to a flow-splitter manhole that diverts the one-year storm (WQV) to the to a surface sand filter system, which then overflows to dry basin B3 for attenuation of the higher intensity storms.

Sub-basin B3. Post development drainage area B3 (0.62 acres) does not include any impervious surface, and is made up of the graded areas for the basin itself. Some surface runoff is included in this basin, but the majority is the overflow volumes from Sub-basin B-2, which is conveyed through B-3 for final polishing and peak flow attenuation before discharge under Road A to Design Point 2.

Sub-basin C1. Post development drainage area C1 (2.63 acres) includes runoff from undisturbed areas and the lower portion of the emergency access road from Sun Valley Drive. While there is not an increase in impervious surfaces proposed in this sub-catchment, the disturbed impervious surfaces will be conveyed via sheet flow over undisturbed areas and shallow concentrated flow (via vegetated swale) to a hydrodynamic separator at Sun Valley Drive in accordance with Chapter 9 of the Manual, 'Redevelopment'. This structure will then be connected to any future drainage improvements in Sun Valley Drive.

Sub-basin C2. Post development drainage area C2 (4.03 acres) includes runoff from the proposed emergency access road, undisturbed areas, the proposed residence and driveway on Lot 2 and the driveway for the proposed residence on Lot #3. This runoff is conveyed by sheet flow over undisturbed areas, shallow concentrated flow (via vegetated swale) and piping (from Lot 2) to Pocket Wetland PW-C2, then discharged to a vegetated swale to Design Point 3.

Sub-basin D1. Post development drainage area D1 (5.75 acres) includes runoff from undisturbed areas (the proposed conservation parcel) and some grading for the outfall channel for Basin PW-C2. Runoff flows to Design Point 4. No impervious surfaces are proposed in this drainage area.

Sub-basin E1. Post development drainage area E1 (1.06 acres) includes runoff from undisturbed areas and the grading at the rear of the proposed residence on Lot #12. This runoff is conveyed by sheet flow to Design Point 5. No impervious surfaces are proposed in this drainage area.

Sub-basin F1. Post development drainage area F1 (5.37 acres) includes runoff from undisturbed areas along the western property line. This area will remain undisturbed with the exception of installation of infiltration practices for proposed residences along Road B. This runoff is conveyed by sheet flow Design Point 6. No impervious surfaces are proposed in this drainage area.

Sub-basin F2. Post development drainage area F2 (0.56 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #16. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin F3. Post development drainage area F3 (0.49 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #15. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin F4. Post development drainage area F4 (0.76 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #14. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin F5. Post development drainage area F5 (0.32 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #13. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basins G1 - G7: It is noted that a study of the stormwater collection system downstream of Design Point 7 has been requested by the Town of North Salem prior to final design of the stormwater plan, and will be provided. The applicant is providing the available information to date and concludes that there will be significant decreases to peak stormwater rates following construction of this project to this design point.

Sub-basin G1. Post development drainage area G1 (2.36 acres) includes runoff from two proposed residences on Lots 3 and 4. This runoff is conveyed to a flow-splitter manhole that diverts the one-year storm (WQV) to the surface sand filter system, with overflow going to Basin B-G1 for peak rate attenuation of the higher intensity storms. Treated runoff is then discharged under Road A to Wetland F for final polishing and conveyance to Design Point 7.

Sub-basin G2. Post development drainage area G2 (6.67 acres) includes runoff from eight proposed residences on either side of Road A (Lots 5 to 8, Lots 39 to 42). This runoff is conveyed by vegetated swales and/or a pipe network along driveways and either side of Road A to an infiltration basin I-G2 with forebay. Treated runoff is then discharged to Wetland F for final polishing.

Sub-basin G3a. Post development drainage area G3a (3.34 acres) includes runoff from Road B and a portion of Road A. It also includes a proposed residence on Lot 9 and the recreation center. This runoff is conveyed by pipe network to the infiltration basin I-G3a with forebay. Treated runoff is then discharged over undisturbed land to Design Point 7.

Sub-basin G3b. Post development drainage area G3b (3.72 acres) includes runoff from three proposed residences on Lots 10, 11 and 12. This runoff is conveyed by vegetated swale to infiltration basin I-G3b with forebay. Treated runoff is then discharged under Road B over undisturbed land to Design Point 7.

Sub-basin G4a. Post development drainage area G4a (1.99 acres) includes runoff from undisturbed land to a vegetated swale behind the recreation center. This flow is conveyed to the dry basin (B-G4a) north of the recreation center, under Road B over undisturbed land to Design Point 7.

Sub-basin G4b. Post development drainage area G4b (12.97 acres) includes runoff from undisturbed land associated with the stream corridor of Wetland F. Flows are conveyed under Road B via a new arched culvert and continue in the existing flow path.

Sub-basin G5a. Post development drainage area G5a (2.15 acres) includes runoff from Road C and the adjacent embankment. This flow is conveyed via a vegetated swale and a pipe network to a flow-splitter manhole that diverts the one-year storm (WQV) to the surface sand filter system SF-G5a, then discharged through Basin B-G5 to Wetland F for peak rate attenuation of the higher intensity storms and final polishing.

Sub-basin G5b. Post development drainage area G5b (0.16 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #17. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin G-5c. Post development drainage area G5c (0.14 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #21. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin G6. Post development drainage area G6 (3.52 acres) includes runoff from the northernmost multi-family unit east of Wetland F. Runoff from impervious rooftops and driveways will be captured first in dry wells located between each building. Overflow is conveyed to a flow-splitter manhole that diverts the one-year storm (WQV) via a pipe network to a surface sand filter system SF-G6. Overflow is then conveyed to Basin B-G6 for peak rate attenuation of the higher intensity storms. Treated runoff is then discharged to Wetland F for final polishing.

Sub-basin G7. Post development drainage area G7 (1.54 acres) includes runoff from the proposed residence on Lot 38, and some grading from Lot 37. Runoff is conveyed via a swale and pipe network to a flow-splitter manhole that diverts the one-year storm (WQV) to the surface sand filter SF-G7, with overflow going to B-G7 for peak rate reduction of the higher intensity storms. Treated runoff is then discharged to Wetland F for final polishing.

Sub-basin H1. Post development drainage area H1 (8.06 acres) includes runoff from undisturbed areas along the northern property line. This area will remain undisturbed with the exception of installation of infiltration practices for proposed residences on Lots 18, 19 and 20. This runoff is conveyed by sheet flow to Design Point 8.

Sub-basin H2. Post development drainage area H2 (0.35 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #18. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin H3. Post development drainage area H3 (0.29 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #19. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin H4. Post development drainage area H4 (0.41 acres) includes runoff from grading and impervious surfaces associated with the proposed residence on Lot #20. This runoff will be conveyed to a Cultec infiltration system and discharged in to the ground.

Sub-basin I1. Post development drainage area I1 (2.28 acres) includes runoff from undisturbed land along the northern property line. This runoff flows as sheet flow untreated to Design Point 9.

Sub-basin J1. Post development drainage area J1 (2.90 acres) includes runoff from undisturbed land in the southeast corner of the property. This runoff flows as sheet flow untreated to Design Point 10.

Sub-basin K1. Post development drainage area K1 (36.59 acres) includes runoff from undisturbed land in the central and eastern parts of the property. This open space area includes Wetlands A, B, C, D and E, as well as the watercourse corridor that connects them. No development or other creation of impervious surface is proposed for this sub-basin. This runoff flows as sheet flow untreated to Design Point 11.

Sub-basin K2. Post development drainage area K2 (2.05 acres) includes runoff from undisturbed land, the proposed asphalt access road and the proposed sewage treatment plant. This runoff is conveyed in a vegetated swale to a proposed surface sand filter (SF-K2). This basin overflows across undisturbed land to Wetland B for final polishing.

Sub-basins K3 and K4. Post development drainage area K3 (11.03 acres) includes runoff from the multi-family units east and southeast of Wetland F. Runoff from impervious rooftops and driveways will be captured first in dry wells located between each building. Overflow is conveyed by vegetated swales and a pipe network to a flow-splitter manhole that diverts the one-year storm (WQV) to the surface sand filter SF-K3. Treated runoff (and runoff from the higher intensity storms) is then discharged to micropool extended detention basin ED-K3 (which makes up Sub-basin K4, 1.09 acres) for additional treatment and peak rate attenuation. Note that two practices are provided for water quality due to impervious surfaces exceeding 20 percent of the sub-catchment, as required by the NYCDEP regulations.

Sub-basin K5. Post development drainage area K5 (8.37 acres) includes runoff from Road C and the Road C cul de sac, three proposed residences at the end of Road C (Lots 30, 31 and 32), two proposed residences south of Road C (Lots 36 and 37), six residences north of Road C (Lots 22 through 27) and a portion of the asphalt access road to the water treatment plant. This runoff is conveyed by vegetated swales and a pipe network to a flow-splitter manhole that diverts the one-year storm (WQV) to the surface sand filter system with forebay (SF-K5), which then overflows to micropool extended detention basin ED-K5 for additional treatment and peak rate attenuation of the higher intensity storms. Since the contributing area to ED-K5 is less than the 10 acre minimum required by the New York State Stormwater Management Design Manual, adequate water balance will be achieved through the installation of an impervious clay liner, and anti-clogging devices will be installed on the outlet structure to prevent debris from obstructing the discharge flow. Treated runoff is then discharged over undisturbed land to Wetland A for final polishing. Note that two practices are provided for water quality due to impervious surfaces exceeding 20 percent of the sub-catchment, as required by the NYCDEP regulations.

Sub-basin K6. Post development drainage area K6 (8.60 acres) includes runoff from five proposed residences (Lots 28, 29, 33, 34 and 35). This runoff is conveyed by a vegetated swale from the northeast corner of the property, under Road C via culvert and ultimately to micropool extended detention basin ED-K6. Since the contributing area to ED-K6 is less than the 10 acre minimum required by the New York State Stormwater Management Design Manual, adequate water balance will be achieved through the installation of an impervious clay liner, and anti-clogging devices will be installed on the outlet structure to prevent debris from obstructing the discharge flow. Treated runoff is then discharged to Wetland A for final polishing.

IV. CONSTRUCTION AND MAINTENANCE OPERATIONS

A. Erosion and Sediment Control Plan

The purpose of the Erosion and Sediment Control Plan is to minimize the erosion of disturbed soil and to prevent the migration of sediment into surface waters and off-site properties during construction and until the site has received final stabilization. The Erosion and Sediment Control Plan included with this SWPPP (Sheets 19 to 22 of 39 in the plan set and Appendix E) and the construction drawings accomplishes that purpose through reducing runoff velocities, limiting the area of disturbed soils at any one time, and rapidly stabilizing disturbed soils. The erosion and

sediment control plan contains specifications for erosion controls and associated construction details designed to mitigate potential impacts associated with erosion and sedimentation.

Erosion and sediment control should be accomplished by four basic principles: diversion of clean water, containment of sediment, treatment of dirty water, and stabilization of disturbed areas. Diversion of clean water should be accomplished with swales. This diverted water should be safely conveyed around the construction area as necessary and discharged downstream of the disturbed areas. Sediment should be contained with the use of silt fence at the toe of disturbed slopes and excavation of the temporary sediment basins. Disturbed areas should be permanently stabilized within 14 days of final grading to limit the required length of time that the temporary facilities must be utilized. The owner will be responsible for the maintenance of the temporary erosion control facilities.

Soil erosion and sedimentation measures, such as silt fencing, would be installed following a pre-construction conference with appropriate agency staff, and prior to any construction activities. In addition, the Applicant would engage a Certified Professional in Stormwater Quality/Erosion and Sediment Control, or equally qualified professional, to oversee implementation of this SWPPP, including the site specific Erosion and Sediment Control Plan component.

Implemented, monitored, and enforceable erosion and sediment controls would be utilized during the construction phase as the primary means of controlling erosion and sedimentation. The goal of the Erosion and Sediment Control Plan is to minimize the potential for soil erosion from areas exposed during construction and prevent sediment from reaching the downgradient receiving waters, including the Croton River.

During construction, areas of active disturbance would generally be limited to five acres, unless special permission is sought and received from the local MS4 to exceed this limit. Runoff from areas outside of disturbances would be diverted away from erodable soils.

Both temporary and permanent erosion control facilities and activities would be applied over the duration of project related activities on the site. Implementation of the soil erosion control plan would be based on the latest New York State Standards and Specifications for Erosion and Sediment Control, latest edition.

The temporary soil erosion and sediment control measures include protective earth moving procedures and grading practices, vegetated cover, hay bales, silt fencing, stabilized construction entrance, temporary stormwater diversions, construction road stabilization, silt traps, inlet protections and sediment basins. The methodology of the plan is to control erosion and sedimentation, and to re-establish vegetation as soon as practicable. All proposed erosion and sediment controls and details as well as the stormwater management facilities are shown on the Erosion and Sediment Control Plan as prepared by the Applicant's Engineer. All proposed soil erosion and sediment control practices are designed in accordance with the following publications: New York State Standards and Specifications for Erosion and Sediment Control, latest edition and the New York State General Permit for Stormwater Discharges, GP-0-10-001 (General Permit).

Temporary sediment basins would be converted to permanent stormwater detention basins once the tributary drainage area has received final stabilization and established vigorous vegetative growth. In addition, rock outlet protections would be installed at the inflow of the

stormwater detention facilities. All other temporary devices such as silt fencing, hay bales and diversions would be removed once final stabilization of the site has been attained.

The construction materials and vehicles expected to be present during construction include but are not limited to drainage pipe, pre-cast concrete drainage structures, earth moving equipment, concrete trucks, asphalt trucks, and worker vehicles. All construction related debris would be collected and removed from the area on a regular basis. Concrete wash out areas would be provided where necessary. Sediment spoils would be disposed of at an approved location utilizing temporary erosion control devices for that site operation.

B. Winter Site Stabilization / Site Inspections

The guidance below has been incorporated into the SWPPP to address the requirements for winter site stabilization on construction sites where the owner/operator wishes to reduce weekly site inspections that are required pursuant to the State Pollutant Discharge Elimination System General Permit GP-0-10-001.

At the end of the construction season when soil disturbance activities will be finalized or suspended until the following spring, it may be desirable to reduce the frequency of the required inspections. If the soil disturbance is completely suspended and the site is properly stabilized an owner/operator may reduce the self-inspection frequency, but shall maintain a minimum of monthly inspections in all situations (even when there is total winter shutdown).

To be allowed to reduce inspection frequencies, the operator must complete stabilization activities (including perimeter controls, traps, and barriers etc) before proper installation is precluded by snow cover or frozen ground. If vegetation is desired, seeding, planting, and/or sodding must be scheduled to avoid die-off from fall frosts and allow for proper germination/establishment.

All erosion and sediment controls must be installed and maintained according to the NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book). The main items to consider are:

1. Site Stabilization - All bare/exposed soils must be stabilized by an established vegetation, straw or mulch, matting, rock or other approved product such as rolled erosion control product. Seeding of areas along with mulching is encouraged, however seeding alone is not considered acceptable for proper stabilization.
2. Sediment Barriers - Barriers must be properly installed at all necessary perimeter and sensitive locations.
3. Slopes - All slopes and grades must be properly stabilized with approved methods. Rolled erosion control products must be used on all slopes greater than 3/1, or where conditions for erosion dictate such measures.
4. Soil Stockpiles - Stockpiled soils must be protected by the use of established vegetation, an anchored-down straw or mulch, rolled erosion control product or other durable covering. A barrier must be installed around the pile to prevent erosion away from that location.

5. Construction Entrance - All entrance/exit locations to the site must be properly stabilized and must be maintained to accommodate snow management as set forth in the NYS Standards and Specifications for Erosion and Sediment Control.

6. Snow Management - Snow management must not destroy or degrade erosion and sediment control practices.

Frozen ground, winter conditions and equipment can affect erosion and sediment control practices. Check for damage during monthly inspections and repair as necessary. This is especially important during thaws and prior to spring rain events. Weekly inspections must resume no later than March 15 or as directed by the Department.”¹

C. Sequence of Construction

It is expected that the project would take approximately five to seven years to construct from the time of ground breaking to final completion, with work commencing shortly after the receipt of all necessary approvals. Throughout the construction process strict adherence to the Erosion Control Plan and Specifications would be maintained to ensure that sediment is contained within the improvement areas. Storm water management is also provided for water quality treatment such that the project areas would not represent a negative impact or degradation in water quality to any reservoir, stream, wetland or watercourse. The primary goal of the soil erosion and sediment control measures is to reduce soil erosion from areas stripped of vegetation during and after construction, and to prevent discharge of sediment off-site. Erosion control barriers shall be placed around exposed areas during construction. The barriers shall consist of staked haybales and or silt fence. Temporary diversions would be constructed to reduce runoff velocities to non-erosive levels. Runoff from undisturbed areas would be directed off-site and runoff from exposed soils and disturbed areas would be directed to sediment basins. The sediment basins or traps would be used at stormwater collection points to allow sediment to settle prior to stormwater discharging off-site.

Any areas stripped of vegetation during construction would be left exposed for the shortest time possible with a maximum inactive exposure of 14 days. Topsoil removed during construction would be stockpiled for future use in final grading and landscaping. A stockpile location has been provided on the Erosion Control Plan and shall be contained within a silt fence barrier.

Temporary vegetation would be established to protect disturbed soil areas during construction. Should growing conditions be unsuitable for the temporary vegetation, mulch would be used and applied in accordance with the Erosion and Sediment Control Plans and the NYS Standards and Specifications for Erosion and Sediment Controls. Materials that may be used for mulching include; straw, hay, wood fiber, synthetic soil stabilizers, mulch netting, and sod. A permanent vegetative cover would be established upon completion of construction of those areas that have been brought to finish grade and to remain undisturbed.

A temporary stabilized construction entrance would be constructed at the entrances to the site. The purpose of a stabilized entrance is to remove soil from the construction vehicle tires prior to exiting the site and traveling on the public roadways.

The following is an overall Construction Sequence followed by a site specific phasing plan; (See construction documents for detailed operations)

¹ NYSDEC: <http://www.dec.ny.gov/chemical/29074.html>

1. Obtain proper plan approvals;
2. Submit Notice of Intent;
3. Hold Pre-construction meeting on-site and have Contractor Certifications signed;
4. Install on-site mailbox to hold NOI, NOI/Permit Approval Letter, SWPPP, Erosion and Sediment Control Plans, and Stormwater Construction Log Book. Install rain gauge (rainfall to be recorded daily by site personnel);
5. Install stabilized construction entrance at the site access point;
6. Install silt fence, construction limit fence, and tree protection barriers;
7. Excavate temporary sediment basins and sediment traps;
8. Minimize clearing within the limits of disturbance as required for construction;
9. Create soil stockpiles and install soil stockpiling protection;
10. Install temporary stormwater diversions, and sediment basins at the locations of the water quality ponds to intercept and detain any sediment during construction. At the end of construction, and upon final stabilization of the site, convert ponds into permanent stormwater quality detention ponds;
11. Excavate for buildings, roads and utilities and stockpile topsoil;
12. Perform temporary stabilization over all disturbed soil areas;
13. Upon final stabilization² of the site, remove temporary soil erosion and sediment control measures;
14. Final inspection and filing of the Notice of Termination.

Phasing/Sequencing Plan

Proposed Phasing General Guidelines

1. Utility Markouts Shall Be provided prior to Construction.
2. All Construction Limit Fencing to Be Installed Prior to Construction.
3. All Erosion Control Devices to Be Installed Prior to Construction and Constructed in accordance with the "NYS Standards and Specifications for Erosion and Sediment Control, Latest Edition."
4. Survey Stakeout Prior to Construction.
5. Although phases are larger than 5 acres, disturbed areas are to be limited to as small an area as possible; areas of active disturbance would generally be limited to five acres, unless special permission is sought and received from the local MS4 to exceed this limit.
6. Site shall be stabilized on a regular basis.
7. All Erosion Control Devices shall be monitored as stated in the "New York State Standards and Specifications for Erosion and Sediment Control, Latest Edition."

² Final stabilization means that all soil disturbing activities have been completed and that a uniform perennial vegetative cover with a density of 80% has been established or equivalent stabilization measures have been adequately employed.

Proposed Phasing/Sequencing

Phase 1

- Construct Road "A" from Reed Road to Station 31+00 including Retaining Walls and associated Drainage Basins including Catch Basins, Drain Manholes, and Pipes.
- Rock Processing Equipment in area of proposed turn around.
- Construct Water Treatment Plant, access road, install well feed lines from wells to water treatment plant and install Water Mains.
- Construct Wastewater Treatment Plant and access road.
- Install Sewage Collection system from SMH A1 to A3, SMH D1 - D10, through Septic Tanks, Pump and Fields.
- Construct Single Family Houses on Lots 1, 2, 3 & 4.
- Rough Grade Road "D" From Road "A" to cul-de-sac.
- Rough Grade Road "E".
- Multi-family Buildings 1, 2, 3, 4, 5, & 6 including associated Retaining Walls.
- Multi-family Clubhouse and Recreation.
- Install Landscaping Requirements for the finished areas of Construction Construct Emergency Access Road from Sun Valley Drive.

Phase 2

- Precast Concrete Box Culvert and Precast Concrete Bridge.
- Move Rock Processing Equipment to area of Multi-Family Unit 18.
- Rough Grade Road A from Station 31+00 through Intersection to Station 2+50 on Road B and associated Drainage.
- Install Water Main Road from Station 31+00 through Intersection of Road A, B & C.
- Install Sewage Collection from SMH A4 through Intersection of Roads A, B, & C. Install Lift Station and Force Mains to Plant.
- Construct Houses on Lots 5 - 9, 39 - 42.
- Construct Single Family Recreation Center.
- Construct Multi-family Buildings 7 - 19 including associated Retaining Walls.
- Finish construction of Road D, including association drainage, sewer and water services.
- Finish construction of Road D, including association drainage, sewer and water services.
- Install Landscaping Requirements for the finished areas of Construction.

Phase 3

- Rough Grade Road B from Station 2+50 to cul-de-sac and install associated Drainage.
- Move Rock Processing Equipment to area of Cul-De-Sac.
- Install Water Main Road B from Station 2+50 to cul-de-sac.
- Install Sewage Collection from SMH B-1 to End.
- Construct Houses on Lots 10 - 16.
- Finish construction of Road B, including drainage, sewer, and water services.
- Install Landscaping Requirements for the finished areas of Construction.

Phase 4

- Rough Grade Road C from Intersection to cul-de-sac and install associated Drainage.
- Move Rock Processing Equipment to area of Cul-De-Sac on Road C.

- Install Water Mains Road C from Intersection to Cul-De-Sac.
- Install Sewage Collection from SMH C-1 to End, Install Lift Station and Force Mains.
- Construct Emergency Access Road from Road D to Road C.
- Construct Houses on Lots 17 - 38.
- Finish construction of Road C, including drainage, sewer, and water services.
- Construct Reed Road Improvements.
- Construct Walking Path.
- Install Landscaping Requirements for the finished areas of Construction.

D. Hazardous Spills, Litter, Construction Debris Control

Federal and New York State laws require notification of government agencies when certain releases of pollutants, petroleum and other hazardous materials occur. DEC's Spill Response Program operates the New York State Spill Hotline - 800-457-7362 - to receive reports and notify DEC's trained technical responders and shall be contacted within 2 hours of discovery, except spills which meet all of the following criteria:

- The quantity is known to be less than 5 gallons; and
- The spill is contained and under the control of the spiller; and
- The spill has not and will not reach the State's water or any land; and
- The spill is cleaned up within 2 hours of discovery.

A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable.

Chapter 616 of the laws of 2006, amended Environmental Conservation Law to require DEC to notify the public and the chief executive officer of the village, town, or city in which the spill has occurred within 48 hours of receiving a spill report, when the spill meets the following criteria:

- the material spilled is a hazardous substance listed in 6NYCRR Part 597 (which does not include petroleum);
- the spiller is in actual or constructive possession or control of more than 1,100 gallons of the substance, and
- the spill could reach the lands or waters of the state, including groundwater.

The owner / operator of the construction site shall implement a litter and construction debris program to prevent items from causing degradation to water resources that includes the following:

All erodeable construction materials or materials that may leach pollutants and other miscellaneous materials stored on site will be covered by water resistant coverings to prevent contact with rainwater and they shall be protected from stormwater runoff via diversions, skirting or stored off the ground, to prevent contact with stormwater runoff. Soil stockpiles shall be skirted with silt fence as per the erosion and sediment control plans.

Construction debris and miscellaneous solid waste shall be stored and in waste containers such as dumpsters to be periodically emptied by contracted waste haulers or taken to an approved landfill or disposal site.

E. Stormwater Management Facilities Maintenance Program

The permanent Stormwater Management Facilities would be operated and maintained by:

Name: Highgate-Woodlands Homeowners Association

Address: _____

Phone Number: _____

The Owner shall inspect the facilities once a month, and once a year by a Certified Professional in Stormwater Quality (CPSWQ). A report by the certified professional shall be submitted to the Owner and the Town of North Salem Building Department in the event deficiencies are found. In addition, the Owner shall inspect the system after each major storm event to ensure the small orifices and inlets remain open. Specific attention should be paid to the following:

- Evidence of clogging of outlet control device;
- Erosion of the flow path through the detention facility;
- Subsidence, erosion, cracking or tree growth on the embankments;
- Accumulation of sediment.

The following maintenance program is proposed in order to maintain the proper function of all stormwater management facilities: The owners shall mow the side slopes and bottom of the basin as necessary to maintain their appearance but not less than twice a year and shall inspect the basin, and if necessary, remove invasive woody vegetation to prevent it from becoming established within the basin.

During mowing operations, litter and debris would be removed from swales, stormwater management basins and the outlet control structures.

Clean driveway culverts and other drainage structures from silt regularly, but not less than once a year.

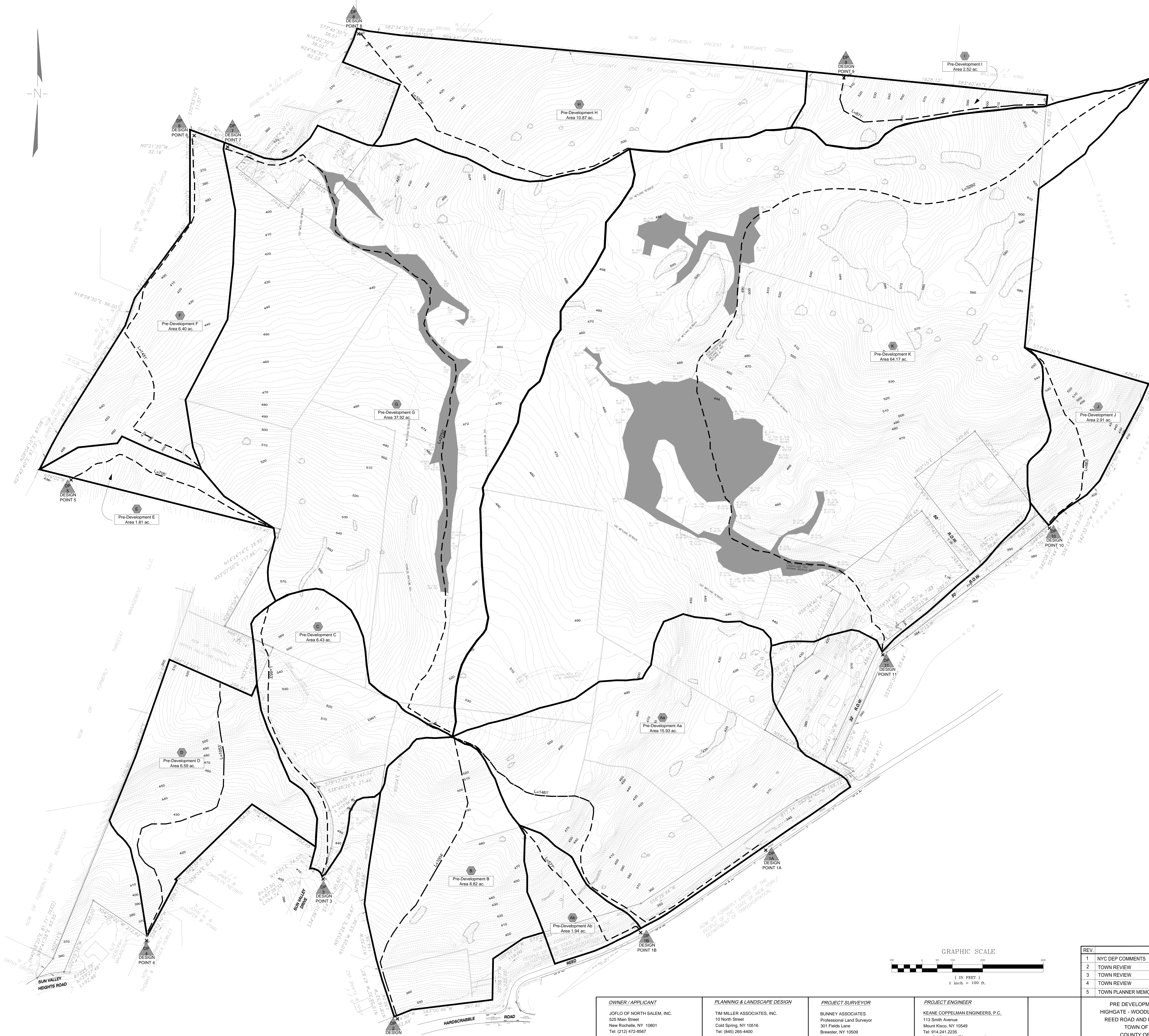
Remove sediment build up in the basin as required, but a minimum of every five years. A back-hoe with a minimum reach of 25' could be used to remove silt accumulation. Laborers with shovel and wheelbarrows would be used to maintain the embankment slopes, to repair minor erosion problems and remove minor accumulation of silt. The use of hand labor would also minimize the disturbance of stabilized areas and the established vegetation. A rubber-tired back-hoe has the reach and maneuverability to maintain these basins from the adjacent areas.

Tree growth on the downstream face of the detention ponds shall also be monitored regularly. Trees that develop shall be removed during routine maintenance of the basin.

The owner shall take all necessary measures to have seeps, leaks, and/or settlements on the embankment of the water quality ponds repaired. If seeps, leaks, and/or settlement are discovered the owner shall be obligated to contract a certified professional: CPSWQ or licensed civil engineer to assess the problem and offer solutions to repair.

Information contained in Appendix G (Construction Log Book) is provided to ensure compliance with the SPDES GP-0-10-001. Appendix G should be copied in its entirety, completed by the applicable parties and inserted into the front of the Construction Site Erosion and Sediment Control Log Book once construction commences.

Appendix A
Pre-Development Drainage Area Map



LEGEND

- FLAGGED WETLAND DELINEATION
- EXISTING UTILITY POLE
- EXISTING TRAIL
- EXISTING VEGETATION EDGE
- EXISTING WATERCOURSE (INTERMITTENT & PERENNIAL)
- EXISTING WELL
- EXPOSED LEDGE
- EXISTING STONE WALLS
- EXISTING BUILDINGS
- EXISTING TRAVELED WAY
- DRAINAGE AREA BOUNDARY
- DRAINAGE FLOW PATH

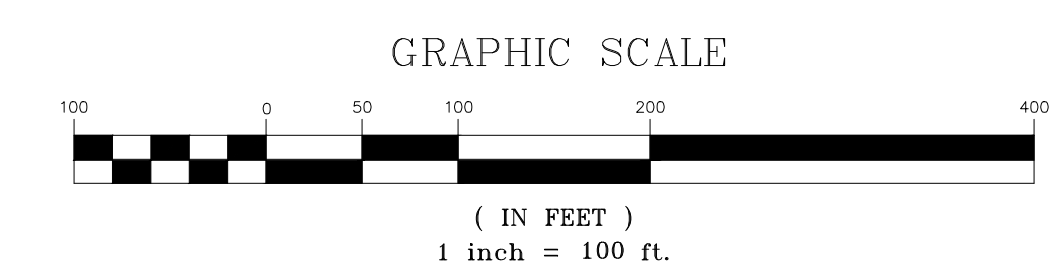
Dates of Wetland Delineations:
 September, 1994 By: B. Laing Associates
 January 19, 1995 By: B. Laing Associates
 March, 2005 By: B. Laing Associates
 January 18, 2007 By: B. Laing Associates
 November 24, 2008 By: Tim Miller Associates, Inc.
 December 15, 2009 By: Tim Miller Associates, Inc.
 Area = 159.520 ac.

Refer to map entitled "Survey of Property prepared for Marco Iorio" said map filed in the Westchester County Clerks Office on April 9, 1979 as Map # 13687

Topography information obtained from Survey Map by Bunney Associates, Dated October 20, 2003

The location of underground improvements or encroachments, if any exist, are not certified

Unauthorized alterations or additions to this drawing is a violation of section 7209, sub-division 2, of the New York State Education Law.



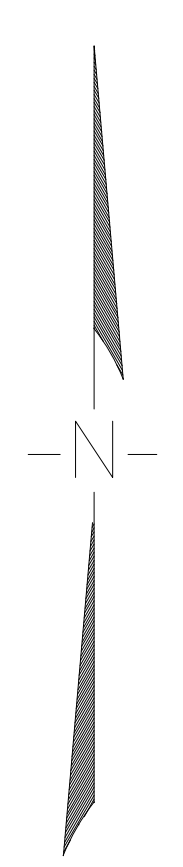
REV.	DESCRIPTION	BY	DATE
1	NYC DEP COMMENTS	PL	July 24, 2006
2	TOWN REVIEW	PL	Nov 15, 2006
3	TOWN REVIEW	PL	Sept 2, 2008
4	TOWN REVIEW	DPG	April 16, 2010
5	TOWN PLANNER MEMO (7/8/2010) & TOWN ENGINEER MEMO (7/9/2010)	DPG	December 29, 2010

OWNER / APPLICANT JOFLO OF NORTH SALEM, INC. 525 Main Street New Rochelle, NY 10801 Tel: (212) 472-8567	PLANNING & LANDSCAPE DESIGN TIM MILLER ASSOCIATES, INC. 10 North Street Cold Spring, NY 10516 Tel: (845) 265-4400 www.timillerassociates.com	PROJECT SURVEYOR BUNNEY ASSOCIATES Professional Land Surveyor 301 Fields Lane Brewster, NY 10509 Tel: (845) 277-3404 e-mail: bunney.associates@verizon.net	PROJECT ENGINEER KEANE COPPELMAN ENGINEERS, P.C. 113 Smith Avenue Mount Kisco, NY 10649 Tel: 914.241.2235 e-mail: inforequest@keanecoppelman.com
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PRE DEVELOPMENT SITE DRAINAGE HIGHGATE - WOODLANDS AT NORTH SALEM REED ROAD AND HARDCRABBLE ROAD TOWN OF NORTH SALEM COUNTY OF WESTCHESTER STATE OF NEW YORK	DRAWN BY: PL CHECKED BY: DC SCALE: 1" = 100' DATE: NOVEMBER 1, 2005 JOB NUMBER SHEET DR-1, 27 of 39
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Appendix B

Post-Development Drainage Area
Map



LEGEND

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING PROPERTY LINE
- EXISTING WETLANDS W/ FLAGS
- 100' WETLAND SETBACK
- EXISTING STREAM
- EXISTING STONE WALL
- EXPOSED LEDGE ROCK
- EXISTING WELL
- EXISTING UTILITY POLE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED RETAINING WALL
- PROPOSED BOLDER WALL
- PROPOSED ROAD CENTERLINE
- PROPOSED CONCRETE CURB
- PROPOSED GUARDRAIL
- PROPOSED ROAD
- PROPOSED DRIVEWAY
- PROPOSED SIDEWALK
- PROPOSED EARTH WALKWAY
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED BASIN W/ DRYWELL
- PROPOSED CATCH BASIN W/ DRYWELL
- PROPOSED BASIN W/ STANDPIPE
- PROPOSED OUTLET STRUCTURE
- PROPOSED STANDPIPE
- PROPOSED OUTLET STRUCTURE
- W/ REVERSE PIPE INLET
- PROPOSED HEADWALL
- PROPOSED EMERGENCY OVERFLOW SPILLWAY
- W/ RIP RAP DISSIPATER
- PROPOSED 12' WIDE BASIN MAINTENANCE ACCESS PATH
- PROPOSED CULVERT W/ HEADWALLS & RIP RAP
- PROPOSED BASIN BERM
- PROPOSED SWALE
- DRAINAGE AREA BOUNDARY
- TIME OF CONCENTRATION FLOW PATH
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- DESIGN POINT 1ZB
- DESIGN POINT 1ZC
- DESIGN POINT 1ZD
- DESIGN POINT 1ZE
- DESIGN POINT 1ZF
- DESIGN POINT 1ZG
- DESIGN POINT 1ZH
- DESIGN POINT 1ZI
- DESIGN POINT 1ZJ
- DESIGN POINT 1ZK
- DESIGN POINT 1ZL
- DESIGN POINT 1ZM
- DESIGN POINT 1ZN
- DESIGN POINT 1ZO
- DESIGN POINT 1ZP
- DESIGN POINT 1ZQ
- DESIGN POINT 1ZR
- DESIGN POINT 1ZS
- DESIGN POINT 1ZT
- DESIGN POINT 1ZU
- DESIGN POINT 1ZV
- DESIGN POINT 1ZW
- DESIGN POINT 1ZX
- DESIGN POINT 1ZY
- DESIGN POINT 1ZZ

Dates of Wetland Delineations:
 September, 1994 By: B. Laing Associates
 January 19, 1995 By: B. Laing Associates
 March, 2005 By: B. Laing Associates
 January 18, 2007 By: B. Laing Associates
 November 24, 2008 By: Tim Miller Associates, Inc.
 December 15, 2009 By: Tim Miller Associates, Inc.

Note:
 Existing stone walls throughout the site shall be preserved where possible, and reused when disturbance is unavoidable.

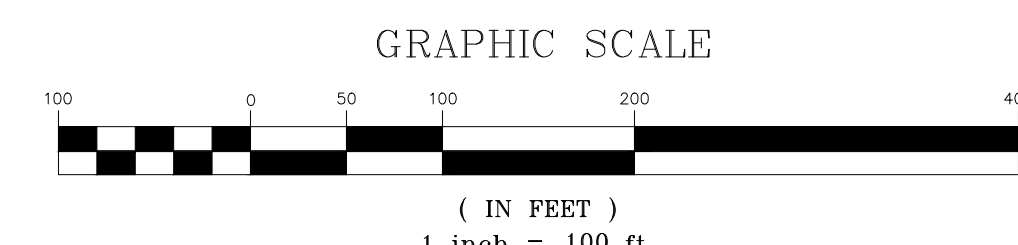
Area = 159,520 ac.

Refer to map entitled "Survey of Property prepared for Marco Iorio" said map filed in the Westchester County Clerks Office on April 5, 1979 as Map # 19887

Topography information obtained from Survey Map by Bunney Associates, Dated October 20, 2003

The location of underground improvements or encroachments, if any exist, are not certified

Unauthorized alterations or additions to this drawing is a violation of section 7209, sub-division 2, of the New York State Education Law.



REV.	DESCRIPTION	BY	DATE
1	NYC DEP COMMENTS	PL	July 24, 2006
2	TOWN REVIEW	PL	Nov 15, 2006
3	TOWN REVIEW	PL	Sept 2, 2008
4	TOWN REVIEW	DPG	April 16, 2010
5	TOWN PLANNER MEMO (7/8/2010) & TOWN ENGINEER MEMO (7/9/2010)	DPG	December 29, 2010
6	TOWN PLANNER MEMO (9/9/2011) & TOWN ENGINEER MEMO (9/3/2011)	DPG	February 24, 2012
7	COMPLETENESS SUBMISSION	DPG	July 31, 2012

OWNER / APPLICANT JOPLO OF NORTH SALEM, INC. 626 New Street New Rochelle, NY 10801 Tel: (212) 472-8567	PLANNING & LANDSCAPE DESIGN TIM MILLER ASSOCIATES, INC. 110 North Street Cold Spring, NY 10516 Tel: (845) 265-4400 www.timillerassociates.com	PROJECT SURVEYOR BUNNEY ASSOCIATES Professional Land Surveyor 301 Fields Lane Brewster, NY 10509 Tel: (845) 277-3404 e-mail: bunney.associates@verizon.net	PROJECT ENGINEER KEANE COPPELMAN GREGORY ENGINEERS, P.C. 113 Smith Avenue Mount Kisco, NY 10549 Tel: 914.241.2235 e-mail: INFO@KCGENGINEERS.COM	POST DEVELOPMENT SITE DRAINAGE HIGHGATE - WOODLANDS AT NORTH SALEM REED ROAD AND HARDCRABBLE ROAD TOWN OF NORTH SALEM COUNTY OF WESTCHESTER STATE OF NEW YORK	DRAWN BY: PL CHECKED BY: DC SCALE: 1" = 100' DATE: NOVEMBER 1, 2005 JOB NUMBER SHEET DR-2, 28 of 39
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Appendix C

Water Quality Volume and
Storage Volume Calculations

Design Point	Sub-Basin	SMP ¹ ID	SMP ¹ Type	Contributing Area (Acres)	% Imp. ²	WQV ³ Required		WQV ³ Provided		Sufficient WQV ³ ?
						af	cf	af	cf	
1a	A1a			1.563	0.0%	0.000	0.000	0.000	0	Yes
	A2 ⁵		Hydrodynamic Separator & Vegetated Swale	3.282	4.51%	0.101	4399.560	0.101	4400	Yes
	A3a	SF-A3a	F-1 Surface Sand Filter	0.702	12.82%	0.032	1393.920	0.032	1408	Yes
	A3b	SF-A3b	F-1 Surface Sand Filter	2.10	11.83%	0.090	3920.400	0.110	4784	Yes
	A4	ED-A4	P-1, Micropool Extended Detention Basin	6.93	15.71%	0.343	14941.080	0.467	20348	Yes
2	B1	-	-	3.91	0.0%	0.000	0.000	0.000	0.000	Yes
	B2	SF-B2	F-1 Surface Sand Filter/ Dry Basin	4.525	17.50%	0.224	9757.440	0.242	10520.000	Yes
	B3	B-B3	Dry Basin	0.619	0.00%	0.000	0.000	0.000	0.000	Yes
3	C1 ⁶	-	Hydrodynamic Separator	2.633	4.75%	0.074	0.000	0.000	0.000	Yes
	C2	PW-C2	W-4 Pocket Wetlands	4.033	8.60%	0.172	7492.320	0.290	12635.000	Yes
6	F1	-	-	5.369	0.00%	0.000	0.000	0.000	0.000	Yes
	F2	Sub-Lot 16	I-1 Infiltration Trench	0.559	25.04%	0.034	1481.040	0.073	3180.000	Yes
	F3	Sub-Lot 15	I-1 Infiltration Trench	0.489	26.58%	0.031	1350.360	0.049	2134.000	Yes
	F4	Sub-Lot 14	I-1 Infiltration Trench	0.762	20.34%	0.040	1742.400	0.041	1786.000	Yes
	F5	Sub-Lot 13	I-1 Infiltration Trench	0.317	36.59%	0.027	1176.120	0.041	1786.000	Yes
7	G1	SF-G1	F-1 Surface Sand Filter/Dry Basin	2.36	19.11%	0.161	7013.160	0.164	7125.000	Yes
	G2	I-G2	I-2 Infiltration Basin	6.667	23.94%	0.511	22259.160	0.511	22259.160	Yes
	G3a	I-G3a	I-2 Infiltration Basin	3.341	35.74%	0.334	14549.040	0.334	14549.040	Yes
	G3b	I-G3b	I-2 Infiltration Basin	3.72	22.04%	0.197	8581.320	0.197	8581.320	Yes
	G4a	B-G4a	NO ACTION	1.993	0.00%	0.000	0.000	0.000	0.000	Yes
	G4b	-	-	12.967	0.00%	0.000	0.000	0.000	0.000	Yes
	G5a	SF-G5	F-1 Surface Sand Filter/ Dry Basin	2.154	19.41%	0.122	5314.320	0.122	5322.000	Yes
	G5b	Sub-Lot 17	I-1 Infiltration Trench	0.153	100.00%	0.037	1611.720	0.037	1611.720	Yes
	G5c	Sub-Lot 21	I-1 Infiltration Trench	0.143	89.51%	0.029	1263.240	0.029	1263.240	Yes
	G6	SF-G6	F-1 Surface Sand Filter/ Dry Basin	3.518	19.41%	0.352	15333.120	0.378	16470.400	Yes
G7	SF-G7	F-1 Surface Sand Filter/ Dry Basin	1.542	19.58%	0.154	6708.240	0.172	7504.000	Yes	
8	H2	Sub-Lot 18	I-1 Infiltration Trench	0.349	38.11%	0.044	1916.640	0.044	1916.640	Yes
	H3	Sub-Lot 19	I-1 Infiltration Trench	0.289	41.87%	0.037	1611.720	0.037	1611.720	Yes
	H4	Sub-Lot 20	I-1 Infiltration Trench	0.409	33.25%	0.047	2047.320	0.047	2047.320	Yes
11	K2	SF-K2	F-1 Surface Sand Filter	2.045	17.21%	0.116	5052.960	0.120	5225.800	Yes
	K3 ⁴	SF-K3	F-1 Surface Sand Filter	11.03	50.96%	1.537	66951.720	1.537	66952.000	Yes
	K4	ED-K3	P-1 Micropool ED Basin					1.634	71159.000	Yes
	K5 ⁴	SF-K5	F-1 Surface Sand Filter	8.365	29.84%	0.970	42253.200	0.973	42393.000	Yes
		ED-K5	P-1 Micropool ED Basin					0.983	42824.000	Yes
	K6	ED-K6	P-1, Micropool ED Basin	8.601	9.45	0.697	30361.320	0.853	37171.000	Yes

¹ SMP = Stormwater Management Practice

² Imp = Impervious

³ WQv = Water Quality Volume

⁴ Two NYSDEC compliant practices are provided to treat one subcatchment if the percent imperviousness exceeded 20% and the SMP provided is not infiltration. This was provided to address the additional requirements of the NYCDEP.

⁵ The proposed hydrodynamic separator has been sized to capture and treat the water quality volume peak flow as required.

⁶ There is no increase in impervious surface for this subcatchment, therefore a hydrodynamic separator will be installed and connected to any future drainage improvements along Sun Valley Drive

Highgate-Woodlands at North Salem Subdivision
 Reed Road
 Town of North Salem
 Westchester County, New York

Keane Coppelman Gregory Engineers, P.C.
 113 Smith Avenue
 Mount Kisco, New York 10549
 (914) 241-2235

STORMWATER ANALYSIS SUMMARY SHEET

BY: DPG 2/20/2012
 CHK BY: PJG 2/20/2012

Design Point	Contributing Area	1-Year Design Storm		2-Year Design Storm		10-Year Design Storm		25-Year Design Storm		100-Year Design Storm	
		Pre-Dev	Post-Dev	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev
		cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs
Design Point 1a (DP 1a)	Drainage Area Aa	1.06	0.58	2.81	1.27	12.17	8.16	22.76	17.33	39.12	36.85
Design Point 1b (DP 1b)	Drainage Area Ab	0.14	0.13	0.36	0.33	1.42	1.34	2.59	2.44	4.33	4.08
Design Point 2 (DP 2)	Drainage Area B	0.70	0.56	1.81	1.38	8.64	6.22	16.25	10.63	27.93	25.78
Design Point 3 (DP 3)	Drainage Area C	0.76	0.45	1.82	1.02	7.40	3.51	13.32	9.00	22.45	20.72
Design Point 4 (DP 4)	Drainage Area D	0.54	0.47	1.38	1.20	6.70	5.85	12.78	11.15	21.99	19.19
Design Point 5 (DP 5)	Drainage Area E	0.15	0.15	0.38	0.37	1.89	1.42	3.55	2.50	6.11	4.12
Design Point 6 (DP 6)	Drainage Area F	0.50	0.50	1.30	1.23	6.12	5.24	11.53	9.64	19.84	19.81
Design Point 7 (DP 7)*	Drainage Area G	9.74	4.27	17.31	7.72	46.31	19.85	74.70	37.78	115.88	106.60
Design Point 8 (DP 8)	Drainage Area H	5.33	5.13	8.46	8.00	19.57	18.55	29.96	29.05	44.60	42.70
Design Point 9 (DP 9)	Drainage Area I	1.70	1.70	2.66	2.61	6.00	5.74	9.09	8.61	13.41	12.61
Design Point 10 (DP 10)	Drainage Area J	1.42	1.42	2.43	2.43	6.10	6.10	9.62	9.62	14.64	14.64
Design Point 11 (DP 11)	Drainage Area K	32.45	17.55	50.52	27.85	113.91	79.53	173.04	128.73	255.62	197.32

*The post-development drainage design for Design Point 7 was split into two separate documents due to the capacity of the modeling program. The Post-Development runoff numbers for each Design Storm were calculated by adding the hydrographs from each document.

Appendix D

Pre-developed and Post-developed
Drainage Hydrographs and
Calculations



STORMWATER ANALYSIS

FOR

HIGHGATE-WOODLANDS AT NORTH SALEM SUBDIVISION
REED ROAD
TOWN OF NORTH SALEM
WESTCHESTER COUNTY, NEW YORK

MAY 14, 2010
Revised February 20, 2012
Revised July 31, 2012



PREPARED BY:

KEANE COPPELMAN GREGORY ENGINEERS, P.C.
113 SMITH AVENUE
MOUNT KISCO, NEW YORK 10549



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Stormwater Analysis Summary Sheet

Pre-Development Drainage Report

Post-Development Drainage Report

Water Quality Volume Calculations & Stormwater Design Worksheets

Worst Case Post-Development Drainage Report

Highgate-Woodlands at North Salem Subdivision
 Reed Road
 Town of North Salem
 Westchester County, New York

Keane Coppelman Gregory Engineers, P.C.
 113 Smith Avenue
 Mount Kisco, New York 10549
 (914) 241-2235

STORMWATER ANALYSIS SUMMARY SHEET

BY: DPG 7/31/2012
 CHK BY: PJG 7/31/2012

Design Point	Contributing Area	1-Year Design Storm		2-Year Design Storm		10-Year Design Storm		25-Year Design Storm		100-Year Design Storm	
		Pre-Dev	Post-Dev	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev	Pre-Dev	Post-Dev
		cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs	cfs
Design Point 1a (DP 1a)	Drainage Area Aa	1.06	0.59	2.81	1.28	12.17	8.17	22.76	17.32	39.12	37.21
Design Point 1b (DP 1b)	Drainage Area Ab	0.14	0.13	0.36	0.33	1.42	1.34	2.59	2.44	4.33	4.08
Design Point 2 (DP 2)	Drainage Area B	0.70	0.56	1.81	1.38	8.64	6.22	16.25	10.63	27.93	25.82
Design Point 3 (DP 3)	Drainage Area C	0.76	0.45	1.82	1.02	7.40	3.51	13.32	9.00	22.45	20.72
Design Point 4 (DP 4)	Drainage Area D	0.54	0.47	1.38	1.20	6.70	5.85	12.78	11.15	21.99	19.19
Design Point 5 (DP 5)	Drainage Area E	0.15	0.15	0.38	0.37	1.89	1.42	3.55	2.50	6.11	4.12
Design Point 6 (DP 6)	Drainage Area F	0.50	0.50	1.30	1.23	6.12	5.24	11.53	9.64	19.84	19.81
Design Point 7 (DP 7)*	Drainage Area G	9.74	4.27	17.31	7.72	46.31	19.91	74.70	41.86	115.88	110.71
Design Point 8 (DP 8)	Drainage Area H	5.33	5.13	8.46	8.00	19.57	18.55	29.96	29.05	44.60	42.70
Design Point 9 (DP 9)	Drainage Area I	1.70	1.70	2.66	2.61	6.00	5.74	9.09	8.61	13.41	12.61
Design Point 10 (DP 10)	Drainage Area J	1.42	1.42	2.43	2.43	6.10	6.10	9.62	9.62	14.64	14.64
Design Point 11 (DP 11)	Drainage Area K	32.45	17.56	50.52	27.86	113.91	79.54	173.04	129.72	255.62	202.08

*The post-development drainage design for Design Point 7 was split into two separate documents due to the capacity of the modeling program. The Post-Development runoff numbers for each Design Storm were calculated by adding the hydrographs from each document.

KEANE
COPPELMAN
GREGORY

ENGINEERS, P.C.

CIVIL & ENVIRONMENTAL CONSULTANTS



113 SMITH AVENUE MOUNT KISCO, NY 10549

T:(914) 241-2235 F:(914) 241-6787

PRE-DEVELOPMENT DRAINAGE REPORT

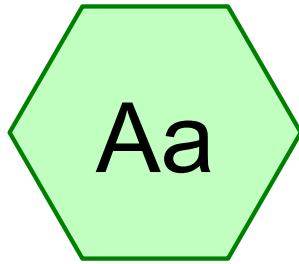
FOR

HIGHGATE-WOODLANDS AT NORTH SALEM SUBDIVISION

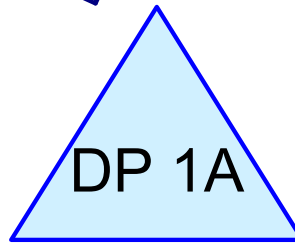
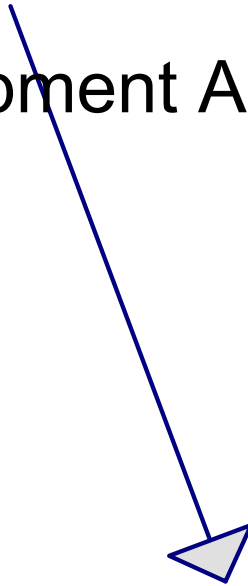
REED ROAD

TOWN OF NORTH SALEM

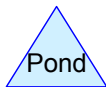
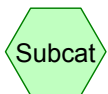
WESTCHESTER COUNTY, NEW YORK



Pre-Development Aa



Design Point 1A



Woodlands Pre-Dev Part 1 2012

Prepared by KCG Engineers, P.C.

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Printed 2/20/2012

Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
12.627	55	Woods, Good, HSG B, CsD Soils (Aa)
3.203	55	Woods, Good, HSG B, CtC Soils (Aa)
0.102	98	Ledge Rock (Aa)
15.932		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Aa: Pre-Development Aa

Runoff Area=15.932 ac 0.64% Impervious Runoff Depth=0.22"
Flow Length=1,461' Tc=24.5 min CN=55 Runoff=1.06 cfs 0.295 af

Pond DP 1A: Design Point 1A

Inflow=1.06 cfs 0.295 af
Primary=1.06 cfs 0.295 af

Total Runoff Area = 15.932 ac Runoff Volume = 0.295 af Average Runoff Depth = 0.22"
99.36% Pervious = 15.830 ac 0.64% Impervious = 0.102 ac

Summary for Subcatchment Aa: Pre-Development Aa

Runoff = 1.06 cfs @ 12.63 hrs, Volume= 0.295 af, Depth= 0.22"

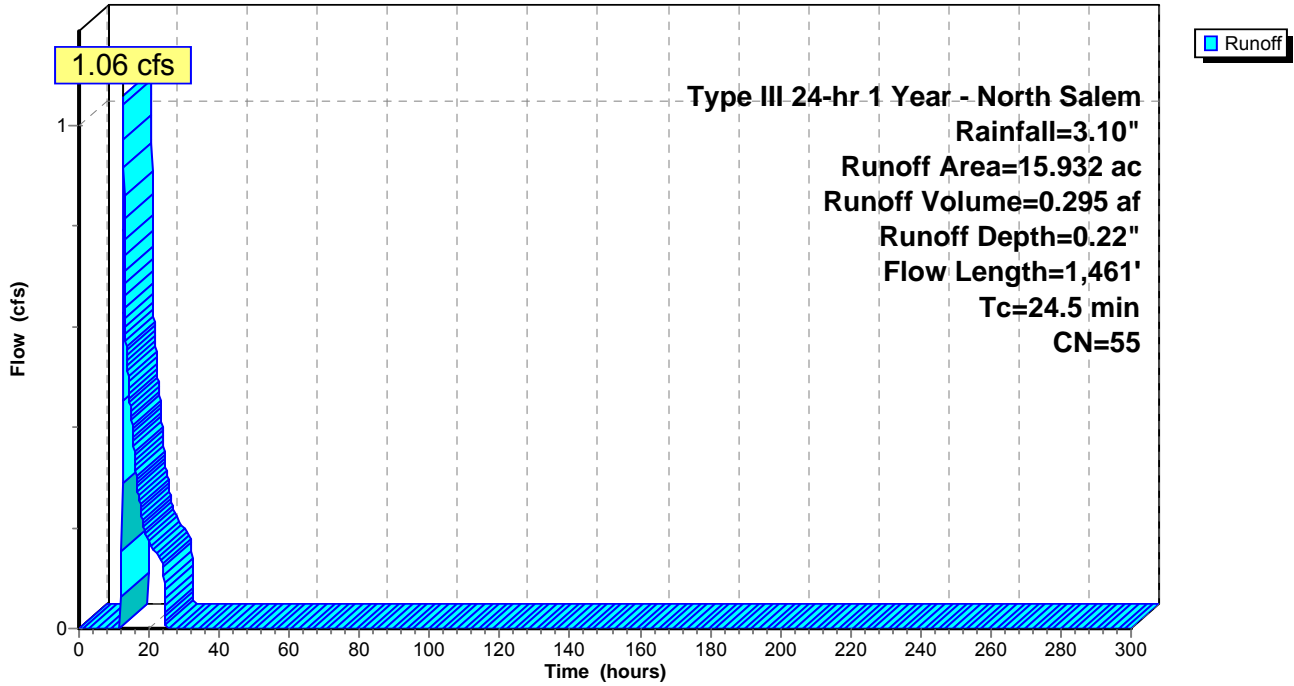
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 3.203	55	Woods, Good, HSG B, CtC Soils
* 12.627	55	Woods, Good, HSG B, CsD Soils
* 0.102	98	Ledge Rock
15.932	55	Weighted Average
15.830		99.36% Pervious Area
0.102		0.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	100	0.1000	0.09		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
0.3	131	0.2595	8.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.1	224	0.0446	3.40		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	94	0.4255	10.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	110	0.0545	3.76		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.8	382	0.2513	8.07		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
3.4	420	0.0167	2.08		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
24.5	1,461	Total			

Subcatchment Aa: Pre-Development Aa

Hydrograph



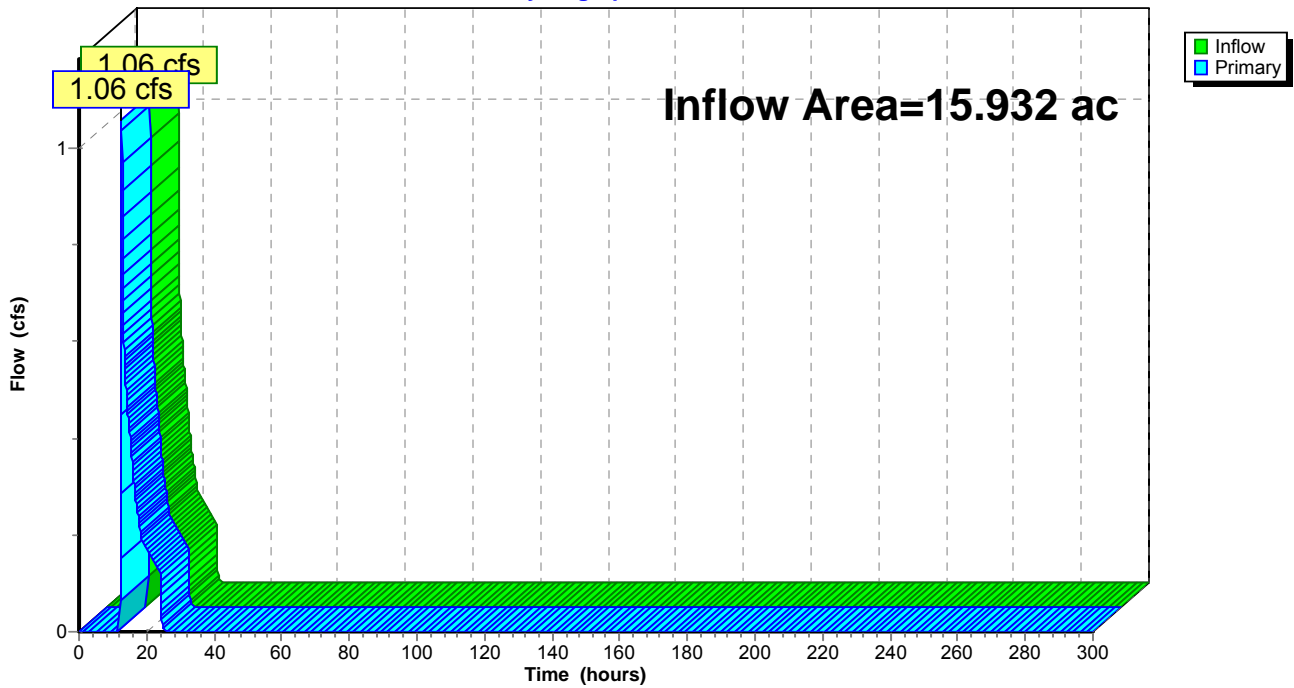
Summary for Pond DP 1A: Design Point 1A

Inflow Area = 15.932 ac, 0.64% Impervious, Inflow Depth = 0.22" for 1 Year - North Salem event
Inflow = 1.06 cfs @ 12.63 hrs, Volume= 0.295 af
Primary = 1.06 cfs @ 12.63 hrs, Volume= 0.295 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Aa: Pre-Development Aa

Runoff Area=15.932 ac 0.64% Impervious Runoff Depth=0.42"
Flow Length=1,461' Tc=24.5 min CN=55 Runoff=2.81 cfs 0.552 af

Pond DP 1A: Design Point 1A

Inflow=2.81 cfs 0.552 af
Primary=2.81 cfs 0.552 af

Total Runoff Area = 15.932 ac Runoff Volume = 0.552 af Average Runoff Depth = 0.42"
99.36% Pervious = 15.830 ac 0.64% Impervious = 0.102 ac

Summary for Subcatchment Aa: Pre-Development Aa

Runoff = 2.81 cfs @ 12.53 hrs, Volume= 0.552 af, Depth= 0.42"

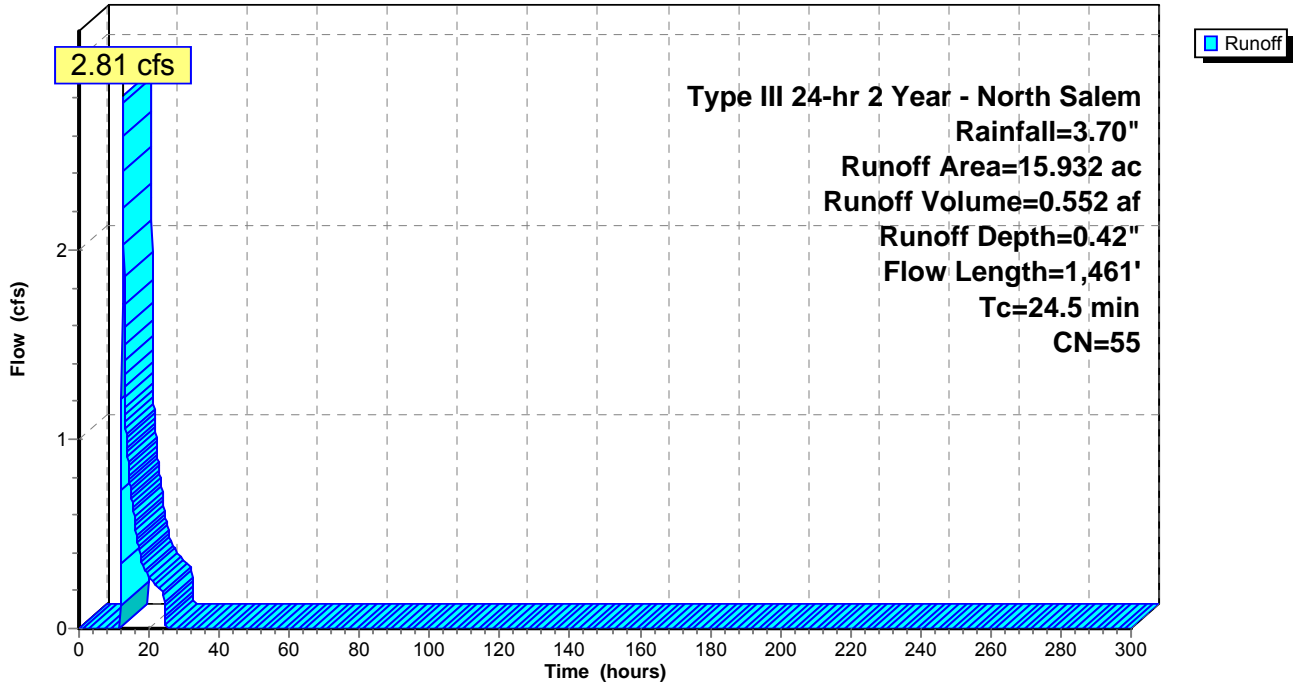
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 3.203	55	Woods, Good, HSG B, CtC Soils
* 12.627	55	Woods, Good, HSG B, CsD Soils
* 0.102	98	Ledge Rock
15.932	55	Weighted Average
15.830		99.36% Pervious Area
0.102		0.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	100	0.1000	0.09		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
0.3	131	0.2595	8.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.1	224	0.0446	3.40		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	94	0.4255	10.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	110	0.0545	3.76		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.8	382	0.2513	8.07		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
3.4	420	0.0167	2.08		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
24.5	1,461	Total			

Subcatchment Aa: Pre-Development Aa

Hydrograph



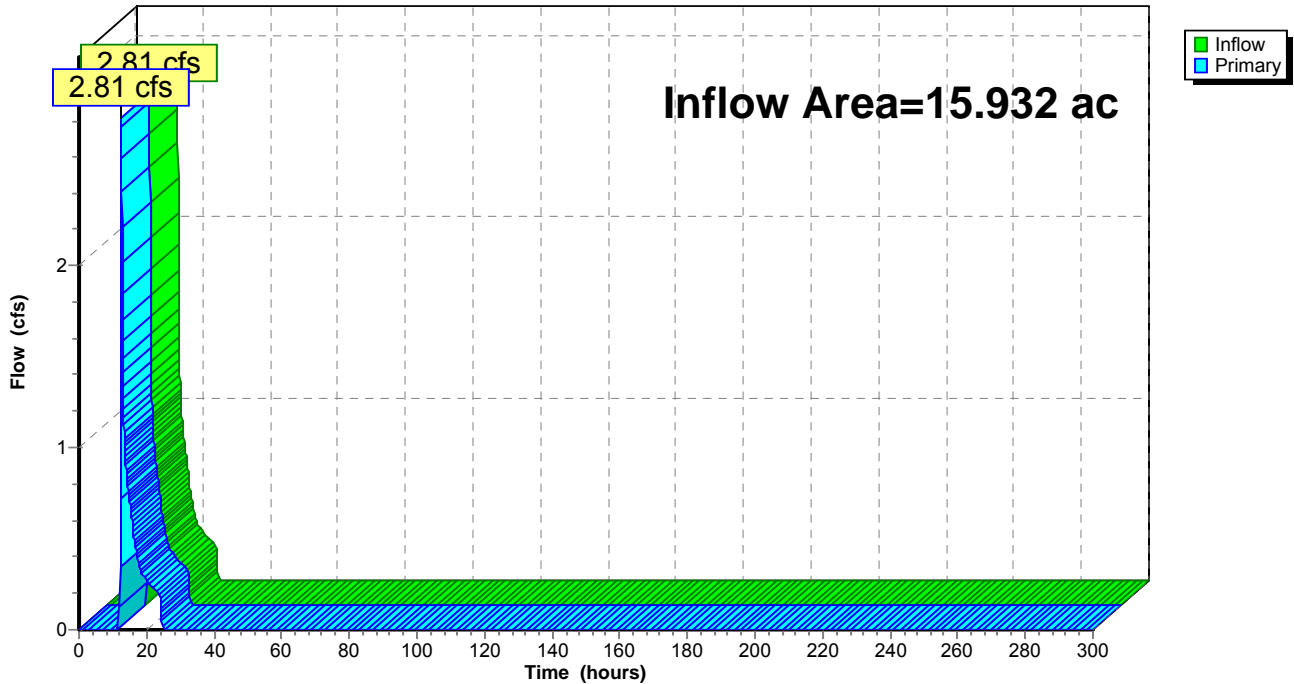
Summary for Pond DP 1A: Design Point 1A

Inflow Area = 15.932 ac, 0.64% Impervious, Inflow Depth = 0.42" for 2 Year - North Salem event
Inflow = 2.81 cfs @ 12.53 hrs, Volume= 0.552 af
Primary = 2.81 cfs @ 12.53 hrs, Volume= 0.552 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Aa: Pre-Development Aa

Runoff Area=15.932 ac 0.64% Impervious Runoff Depth=1.24"

Flow Length=1,461' Tc=24.5 min CN=55 Runoff=12.17 cfs 1.645 af

Pond DP 1A: Design Point 1A

Inflow=12.17 cfs 1.645 af

Primary=12.17 cfs 1.645 af

Total Runoff Area = 15.932 ac Runoff Volume = 1.645 af Average Runoff Depth = 1.24"
99.36% Pervious = 15.830 ac 0.64% Impervious = 0.102 ac

Summary for Subcatchment Aa: Pre-Development Aa

Runoff = 12.17 cfs @ 12.40 hrs, Volume= 1.645 af, Depth= 1.24"

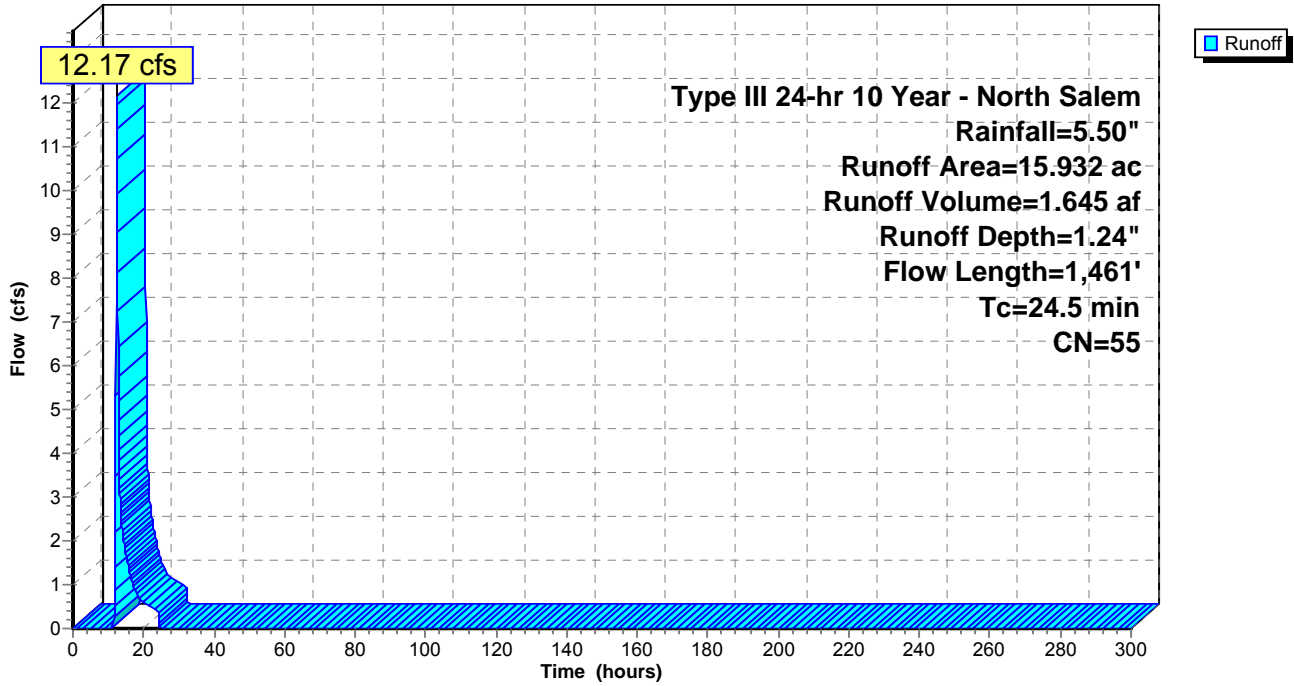
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 3.203	55	Woods, Good, HSG B, CtC Soils
* 12.627	55	Woods, Good, HSG B, CsD Soils
* 0.102	98	Ledge Rock
15.932	55	Weighted Average
15.830		99.36% Pervious Area
0.102		0.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	100	0.1000	0.09		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
0.3	131	0.2595	8.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.1	224	0.0446	3.40		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	94	0.4255	10.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	110	0.0545	3.76		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.8	382	0.2513	8.07		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
3.4	420	0.0167	2.08		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
24.5	1,461	Total			

Subcatchment Aa: Pre-Development Aa

Hydrograph



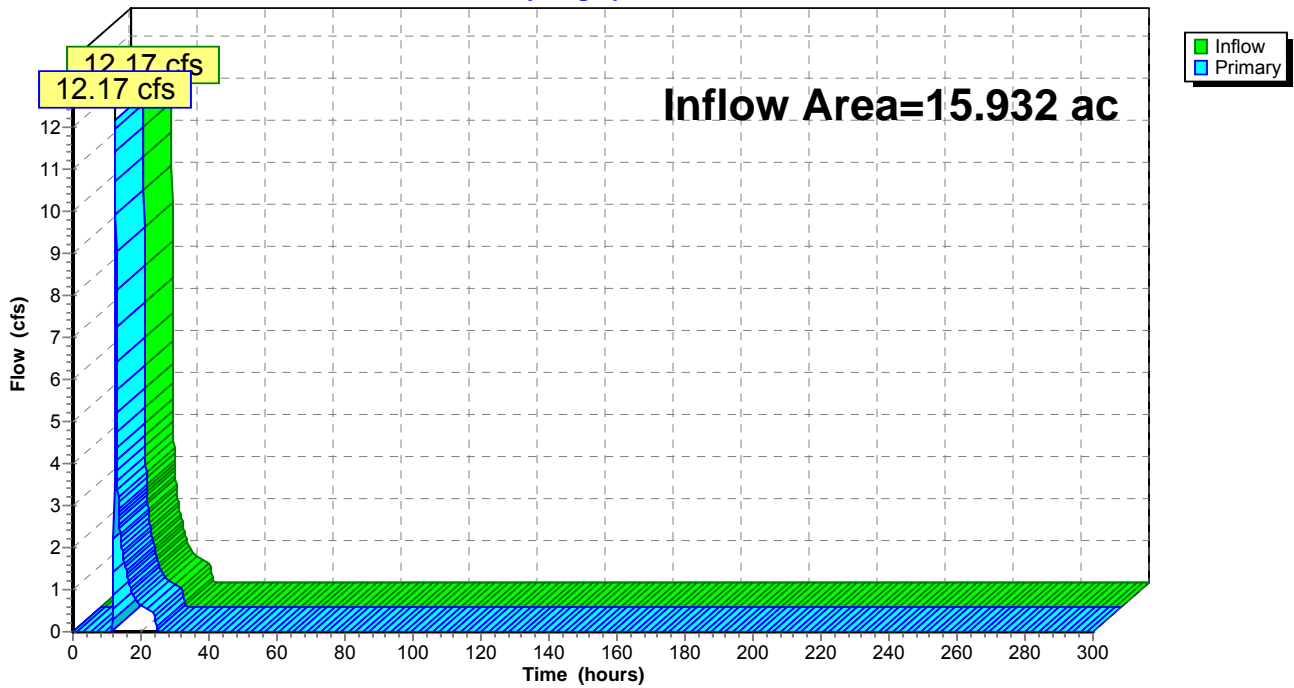
Summary for Pond DP 1A: Design Point 1A

Inflow Area = 15.932 ac, 0.64% Impervious, Inflow Depth = 1.24" for 10 Year - North Salem event
Inflow = 12.17 cfs @ 12.40 hrs, Volume= 1.645 af
Primary = 12.17 cfs @ 12.40 hrs, Volume= 1.645 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Aa: Pre-Development Aa

Runoff Area=15.932 ac 0.64% Impervious Runoff Depth=2.12"
Flow Length=1,461' Tc=24.5 min CN=55 Runoff=22.76 cfs 2.820 af

Pond DP 1A: Design Point 1A

Inflow=22.76 cfs 2.820 af
Primary=22.76 cfs 2.820 af

Total Runoff Area = 15.932 ac Runoff Volume = 2.820 af Average Runoff Depth = 2.12"
99.36% Pervious = 15.830 ac 0.64% Impervious = 0.102 ac

Summary for Subcatchment Aa: Pre-Development Aa

Runoff = 22.76 cfs @ 12.38 hrs, Volume= 2.820 af, Depth= 2.12"

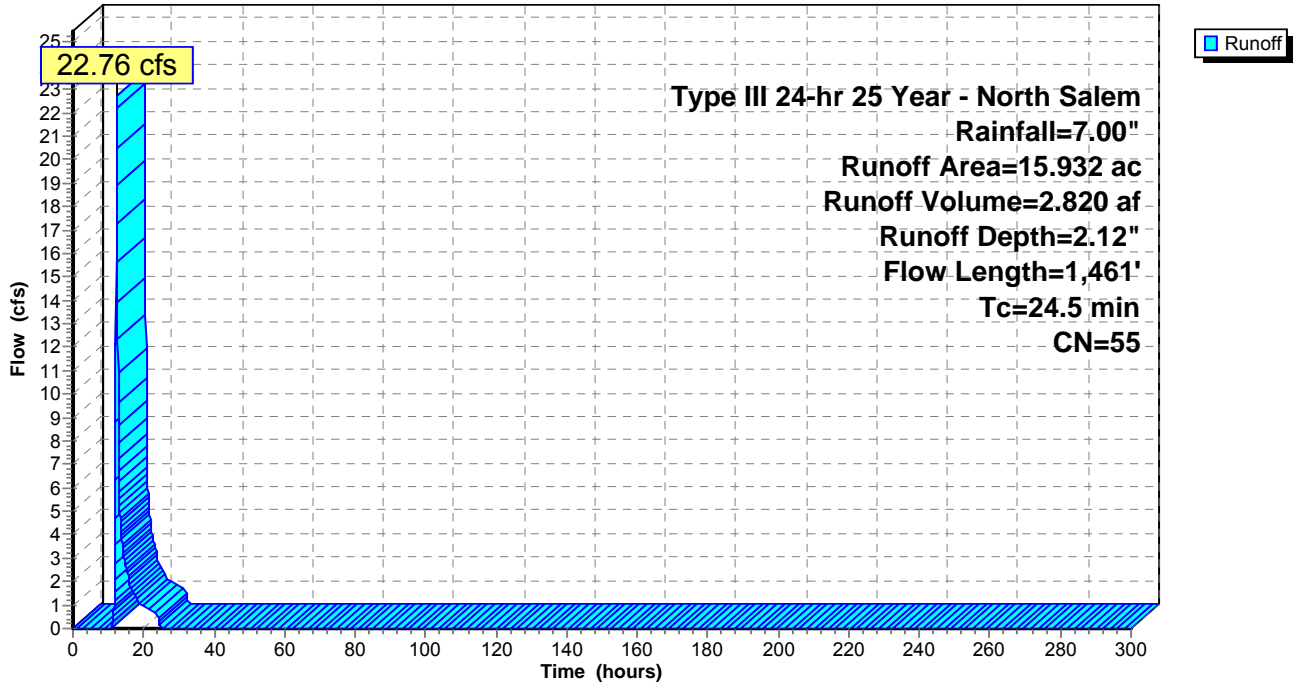
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 3.203	55	Woods, Good, HSG B, CtC Soils
* 12.627	55	Woods, Good, HSG B, CsD Soils
* 0.102	98	Ledge Rock
15.932	55	Weighted Average
15.830		99.36% Pervious Area
0.102		0.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	100	0.1000	0.09		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
0.3	131	0.2595	8.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.1	224	0.0446	3.40		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	94	0.4255	10.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	110	0.0545	3.76		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.8	382	0.2513	8.07		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
3.4	420	0.0167	2.08		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
24.5	1,461	Total			

Subcatchment Aa: Pre-Development Aa

Hydrograph



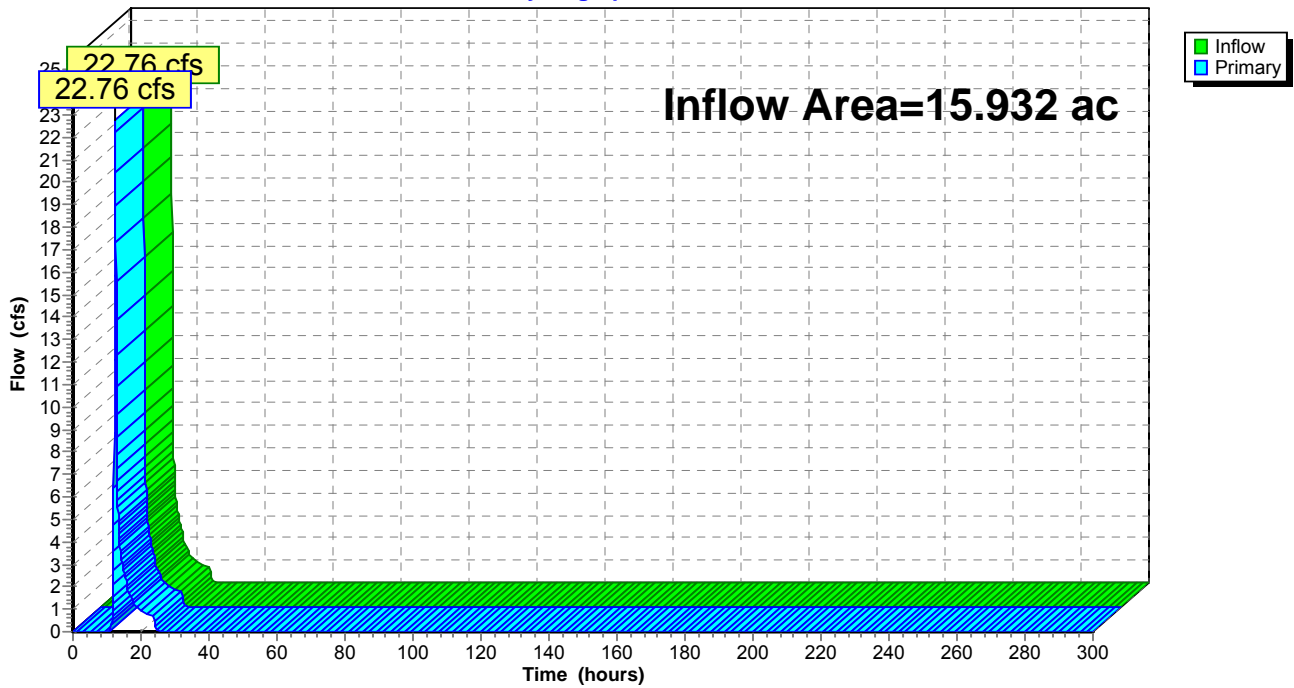
Summary for Pond DP 1A: Design Point 1A

Inflow Area = 15.932 ac, 0.64% Impervious, Inflow Depth = 2.12" for 25 Year - North Salem event
Inflow = 22.76 cfs @ 12.38 hrs, Volume= 2.820 af
Primary = 22.76 cfs @ 12.38 hrs, Volume= 2.820 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Aa: Pre-Development Aa

Runoff Area=15.932 ac 0.64% Impervious Runoff Depth=3.49"

Flow Length=1,461' Tc=24.5 min CN=55 Runoff=39.12 cfs 4.631 af

Pond DP 1A: Design Point 1A

Inflow=39.12 cfs 4.631 af

Primary=39.12 cfs 4.631 af

Total Runoff Area = 15.932 ac Runoff Volume = 4.631 af Average Runoff Depth = 3.49"
99.36% Pervious = 15.830 ac 0.64% Impervious = 0.102 ac

Summary for Subcatchment Aa: Pre-Development Aa

Runoff = 39.12 cfs @ 12.36 hrs, Volume= 4.631 af, Depth= 3.49"

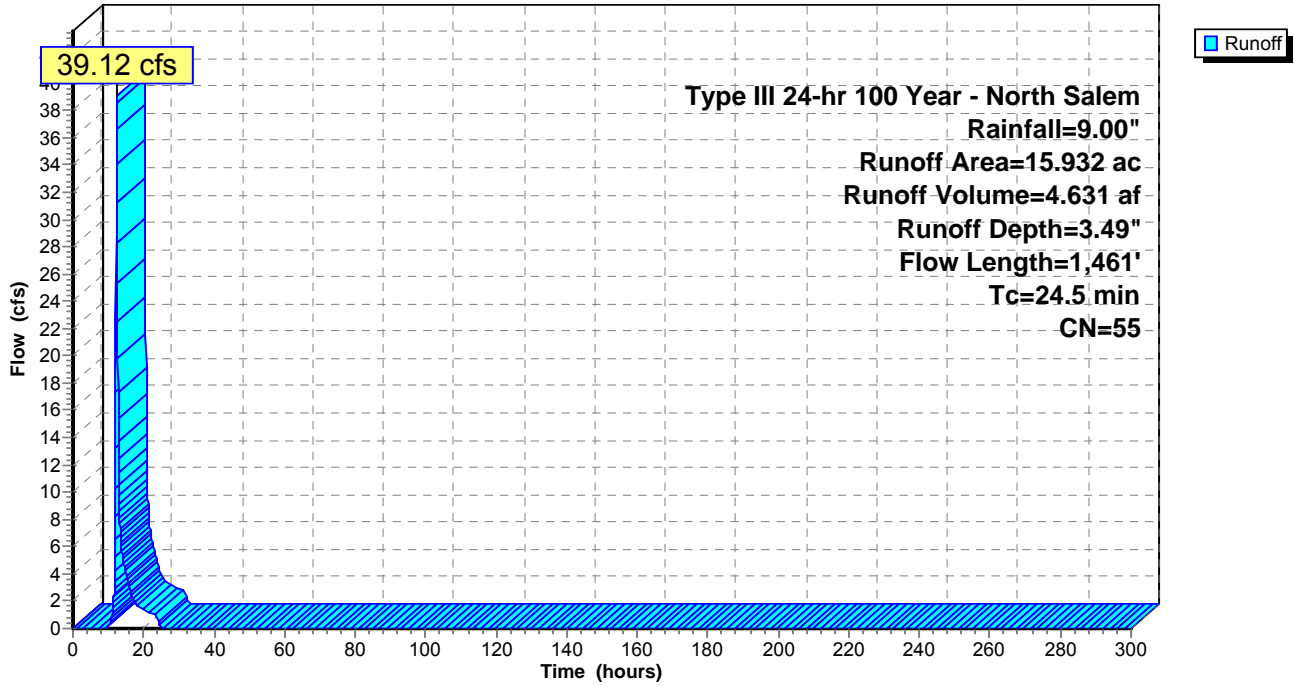
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 3.203	55	Woods, Good, HSG B, CtC Soils
* 12.627	55	Woods, Good, HSG B, CsD Soils
* 0.102	98	Ledge Rock
15.932	55	Weighted Average
15.830		99.36% Pervious Area
0.102		0.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.3	100	0.1000	0.09		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
0.3	131	0.2595	8.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.1	224	0.0446	3.40		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	94	0.4255	10.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	110	0.0545	3.76		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.8	382	0.2513	8.07		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
3.4	420	0.0167	2.08		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
24.5	1,461	Total			

Subcatchment Aa: Pre-Development Aa

Hydrograph



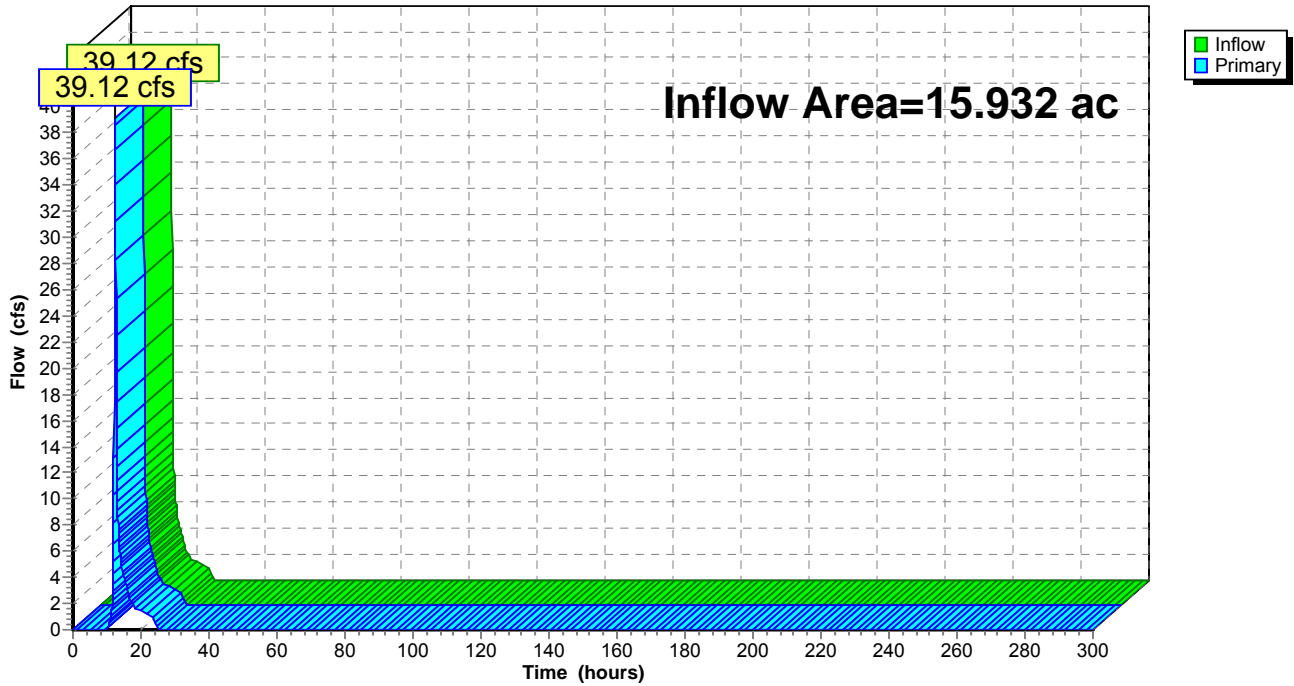
Summary for Pond DP 1A: Design Point 1A

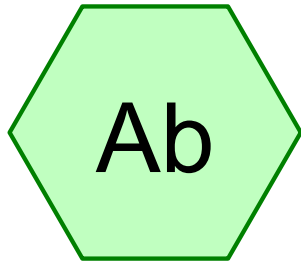
Inflow Area = 15.932 ac, 0.64% Impervious, Inflow Depth = 3.49" for 100 Year - North Salem event
Inflow = 39.12 cfs @ 12.36 hrs, Volume= 4.631 af
Primary = 39.12 cfs @ 12.36 hrs, Volume= 4.631 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

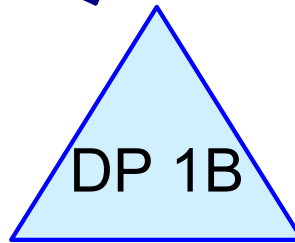
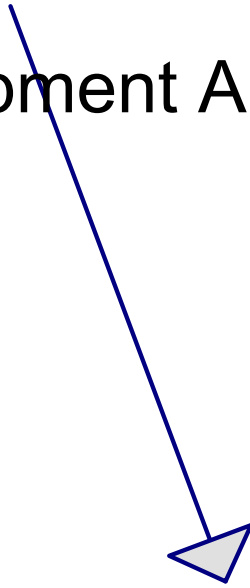
Pond DP 1A: Design Point 1A

Hydrograph

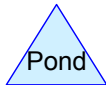
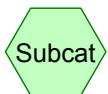




Pre-Development Ab



Design Point 1B



Woodlands Pre-Dev Part 1 2012

Prepared by KCG Engineers, P.C.

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.883	55	Woods, Good, HSG B, CsD Soils (Ab)
0.055	98	Ledge Rock (Ab)
1.938		TOTAL AREA

Woodlands Pre-Dev Part 1 2012

Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ab: Pre-Development Ab

Runoff Area=1.938 ac 2.84% Impervious Runoff Depth=0.25"
Flow Length=577' Tc=32.2 min CN=56 Runoff=0.14 cfs 0.040 af

Pond DP 1B: Design Point 1B

Inflow=0.14 cfs 0.040 af
Primary=0.14 cfs 0.040 af

Total Runoff Area = 1.938 ac Runoff Volume = 0.040 af Average Runoff Depth = 0.25"
97.16% Pervious = 1.883 ac 2.84% Impervious = 0.055 ac

Summary for Subcatchment Ab: Pre-Development Ab

Runoff = 0.14 cfs @ 12.71 hrs, Volume= 0.040 af, Depth= 0.25"

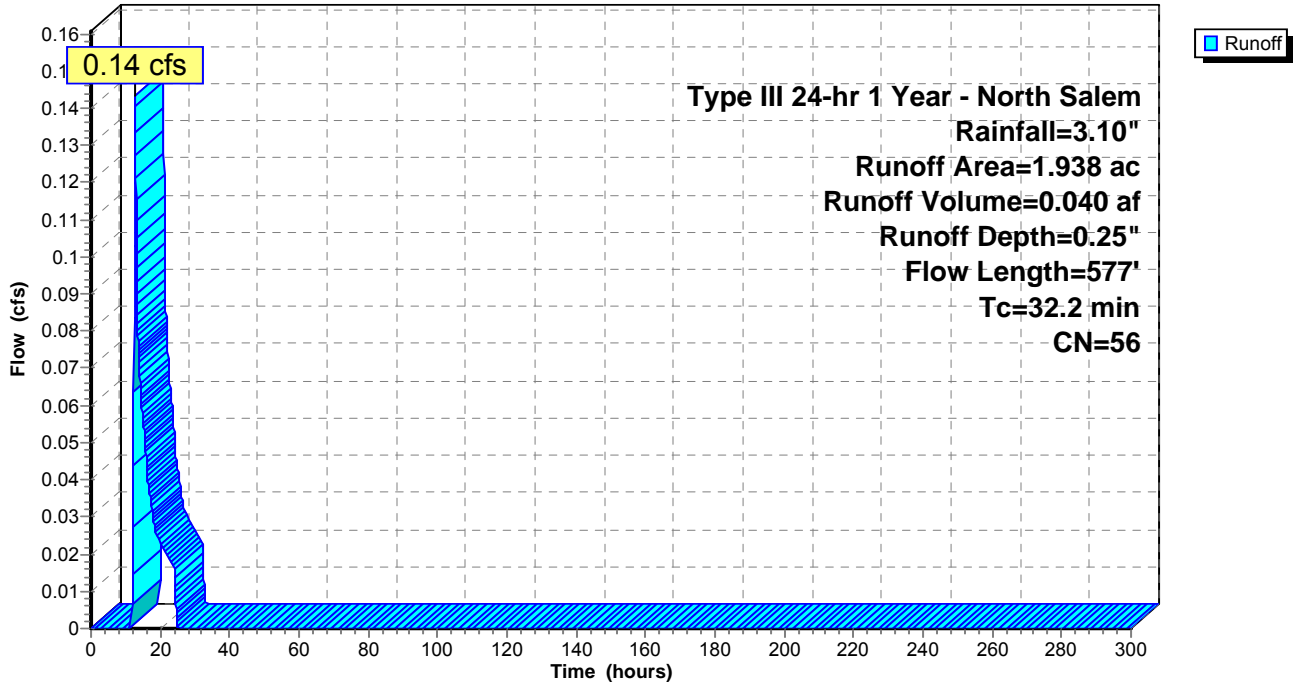
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 1.883	55	Woods, Good, HSG B, CsD Soils
* 0.055	98	Ledge Rock
1.938	56	Weighted Average
1.883		97.16% Pervious Area
0.055		2.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	61	0.0150	0.04		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
4.7	36	0.3880	0.13		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.1	63	0.3810	9.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	41	0.4880	11.25		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	70	0.2860	8.61		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	51	0.3920	10.08		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	112	0.2680	8.33		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.0	32	0.5620	12.07		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.6	111	0.0360	3.05		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
32.2	577	Total			

Subcatchment Ab: Pre-Development Ab

Hydrograph



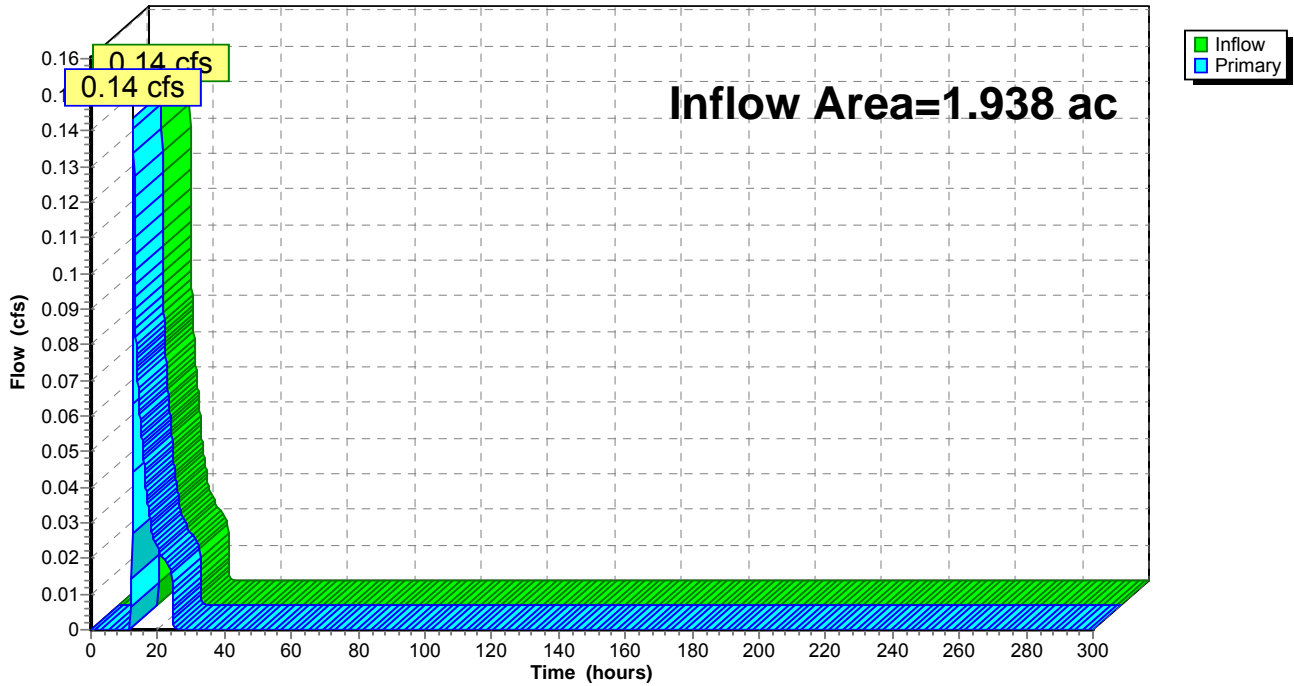
Summary for Pond DP 1B: Design Point 1B

Inflow Area = 1.938 ac, 2.84% Impervious, Inflow Depth = 0.25" for 1 Year - North Salem event
Inflow = 0.14 cfs @ 12.71 hrs, Volume= 0.040 af
Primary = 0.14 cfs @ 12.71 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B

Hydrograph



Woodlands Pre-Dev Part 1 2012

Type III 24-hr 2 Year - North Salem Rainfall=3.70"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ab: Pre-Development Ab

Runoff Area=1.938 ac 2.84% Impervious Runoff Depth=0.45"
Flow Length=577' Tc=32.2 min CN=56 Runoff=0.36 cfs 0.073 af

Pond DP 1B: Design Point 1B

Inflow=0.36 cfs 0.073 af
Primary=0.36 cfs 0.073 af

Total Runoff Area = 1.938 ac Runoff Volume = 0.073 af Average Runoff Depth = 0.45"
97.16% Pervious = 1.883 ac 2.84% Impervious = 0.055 ac

Summary for Subcatchment Ab: Pre-Development Ab

Runoff = 0.36 cfs @ 12.62 hrs, Volume= 0.073 af, Depth= 0.45"

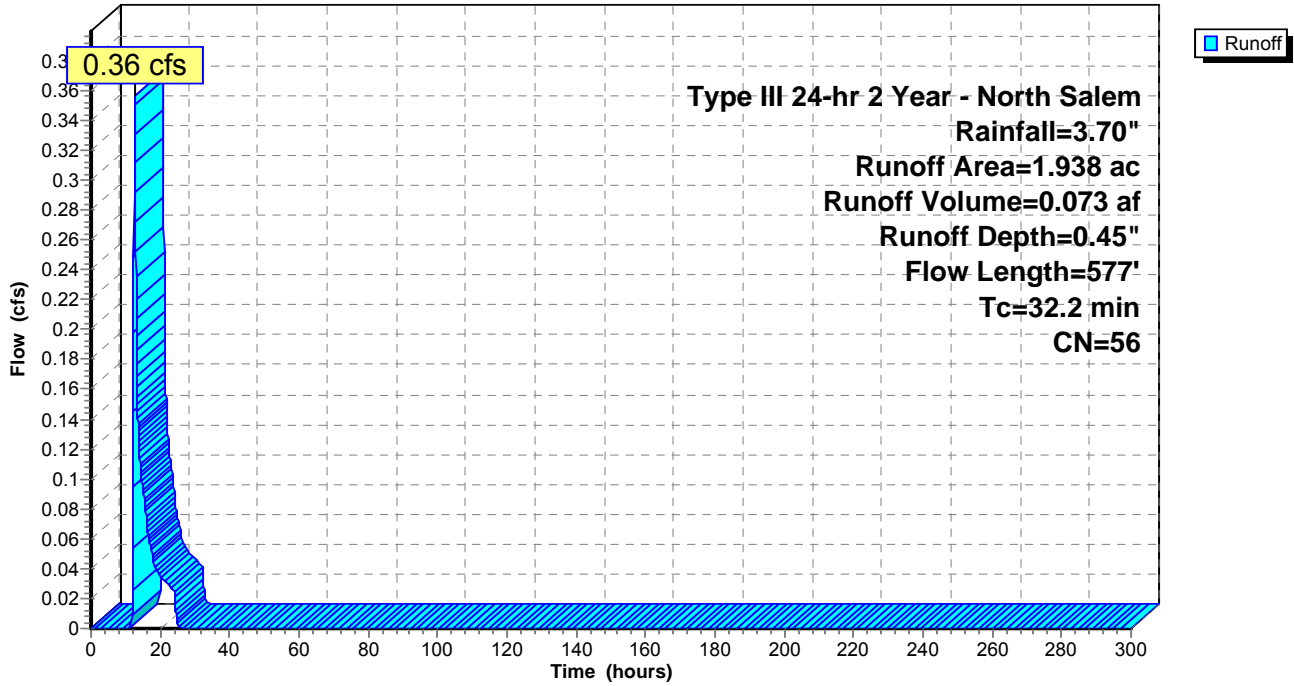
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 1.883	55	Woods, Good, HSG B, CsD Soils
* 0.055	98	Ledge Rock
1.938	56	Weighted Average
1.883		97.16% Pervious Area
0.055		2.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	61	0.0150	0.04		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
4.7	36	0.3880	0.13		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.1	63	0.3810	9.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	41	0.4880	11.25		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	70	0.2860	8.61		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	51	0.3920	10.08		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	112	0.2680	8.33		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.0	32	0.5620	12.07		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.6	111	0.0360	3.05		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
32.2	577	Total			

Subcatchment Ab: Pre-Development Ab

Hydrograph



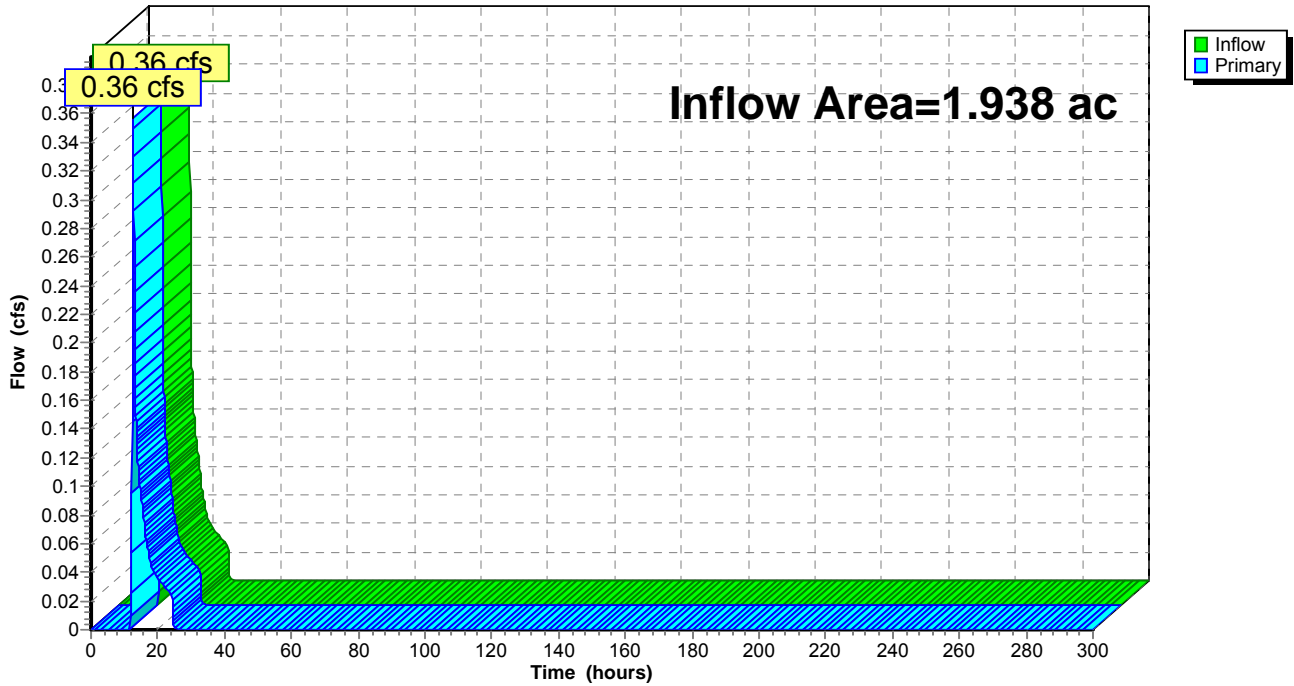
Summary for Pond DP 1B: Design Point 1B

Inflow Area = 1.938 ac, 2.84% Impervious, Inflow Depth = 0.45" for 2 Year - North Salem event
Inflow = 0.36 cfs @ 12.62 hrs, Volume= 0.073 af
Primary = 0.36 cfs @ 12.62 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ab: Pre-Development Ab

Runoff Area=1.938 ac 2.84% Impervious Runoff Depth=1.31"
Flow Length=577' Tc=32.2 min CN=56 Runoff=1.42 cfs 0.211 af

Pond DP 1B: Design Point 1B

Inflow=1.42 cfs 0.211 af
Primary=1.42 cfs 0.211 af

Total Runoff Area = 1.938 ac Runoff Volume = 0.211 af Average Runoff Depth = 1.31"
97.16% Pervious = 1.883 ac 2.84% Impervious = 0.055 ac

Summary for Subcatchment Ab: Pre-Development Ab

Runoff = 1.42 cfs @ 12.52 hrs, Volume= 0.211 af, Depth= 1.31"

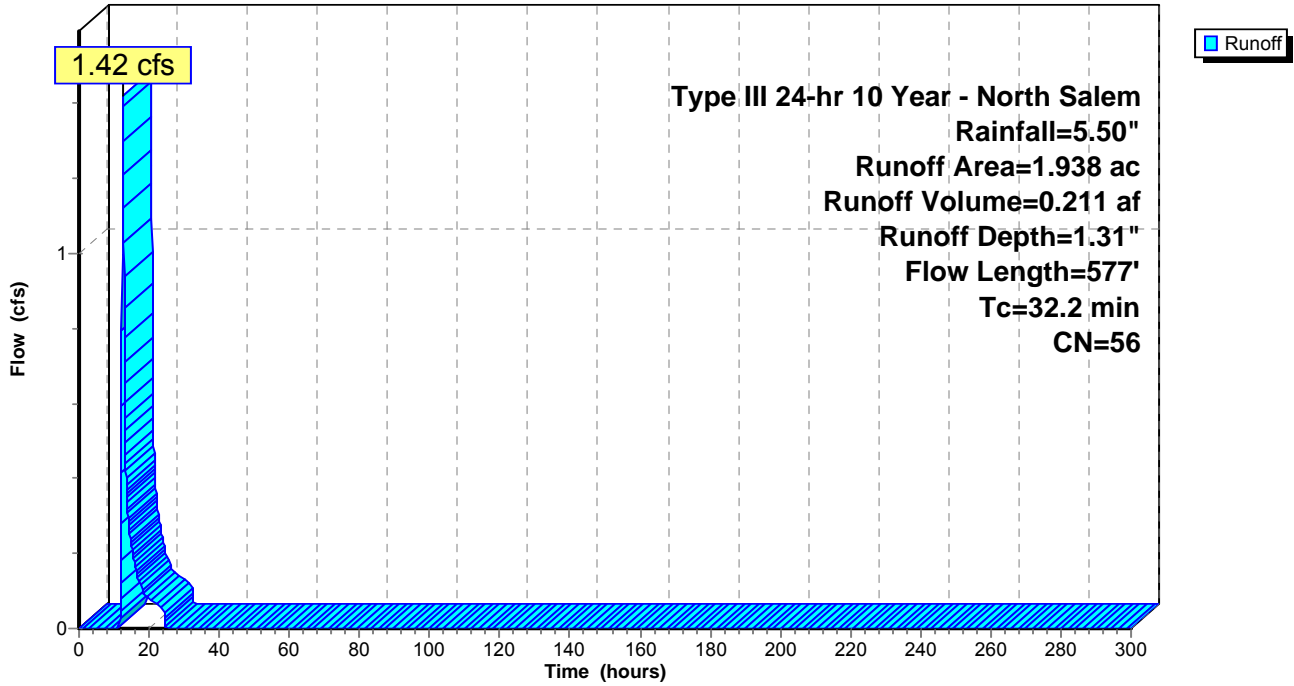
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 1.883	55	Woods, Good, HSG B, CsD Soils
* 0.055	98	Ledge Rock
1.938	56	Weighted Average
1.883		97.16% Pervious Area
0.055		2.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	61	0.0150	0.04		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
4.7	36	0.3880	0.13		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.1	63	0.3810	9.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	41	0.4880	11.25		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	70	0.2860	8.61		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	51	0.3920	10.08		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	112	0.2680	8.33		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.0	32	0.5620	12.07		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.6	111	0.0360	3.05		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
32.2	577	Total			

Subcatchment Ab: Pre-Development Ab

Hydrograph



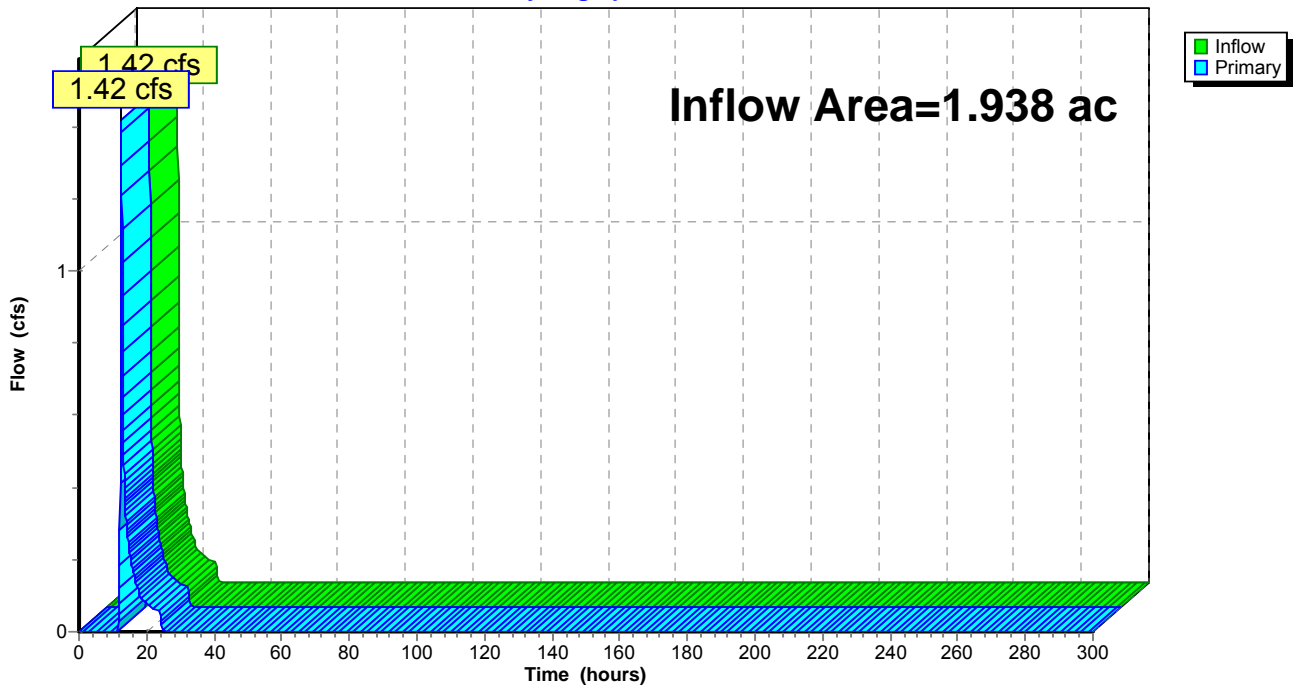
Summary for Pond DP 1B: Design Point 1B

Inflow Area = 1.938 ac, 2.84% Impervious, Inflow Depth = 1.31" for 10 Year - North Salem event
Inflow = 1.42 cfs @ 12.52 hrs, Volume= 0.211 af
Primary = 1.42 cfs @ 12.52 hrs, Volume= 0.211 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ab: Pre-Development Ab

Runoff Area=1.938 ac 2.84% Impervious Runoff Depth=2.22"
Flow Length=577' Tc=32.2 min CN=56 Runoff=2.59 cfs 0.358 af

Pond DP 1B: Design Point 1B

Inflow=2.59 cfs 0.358 af
Primary=2.59 cfs 0.358 af

Total Runoff Area = 1.938 ac Runoff Volume = 0.358 af Average Runoff Depth = 2.22"
97.16% Pervious = 1.883 ac 2.84% Impervious = 0.055 ac

Summary for Subcatchment Ab: Pre-Development Ab

Runoff = 2.59 cfs @ 12.49 hrs, Volume= 0.358 af, Depth= 2.22"

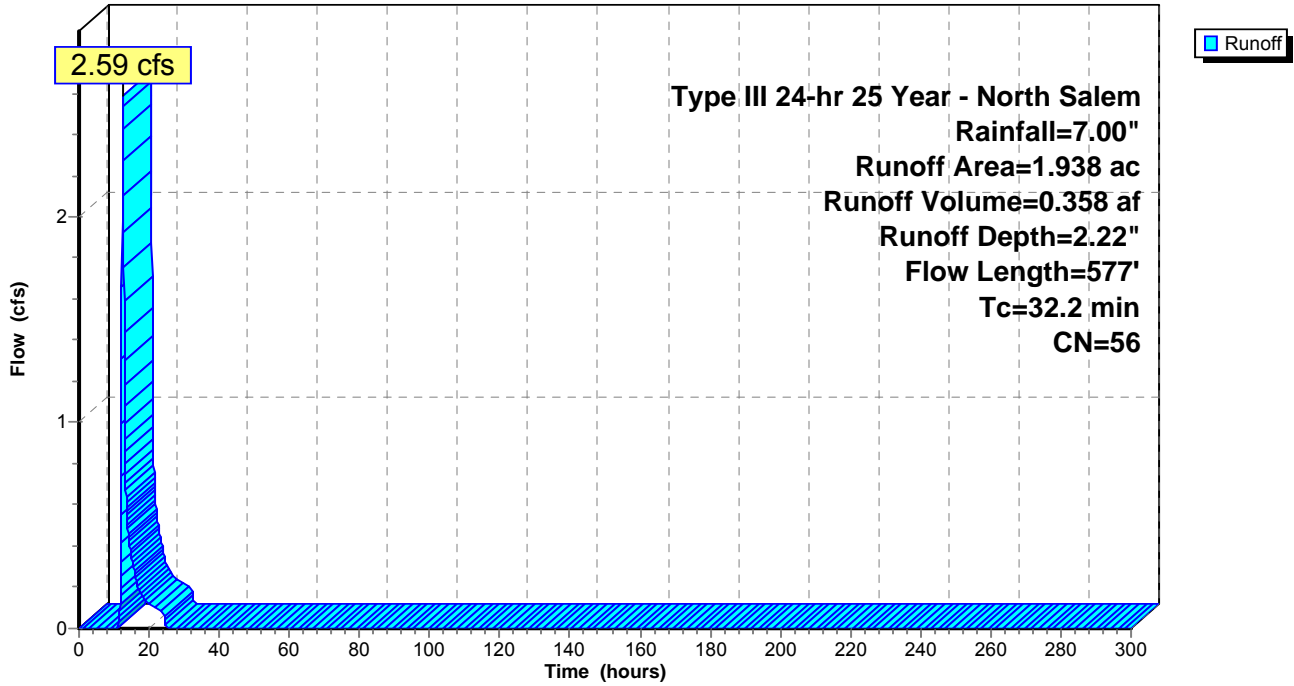
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 1.883	55	Woods, Good, HSG B, CsD Soils
* 0.055	98	Ledge Rock
1.938	56	Weighted Average
1.883		97.16% Pervious Area
0.055		2.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	61	0.0150	0.04		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
4.7	36	0.3880	0.13		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.1	63	0.3810	9.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	41	0.4880	11.25		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	70	0.2860	8.61		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	51	0.3920	10.08		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	112	0.2680	8.33		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.0	32	0.5620	12.07		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.6	111	0.0360	3.05		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
32.2	577	Total			

Subcatchment Ab: Pre-Development Ab

Hydrograph

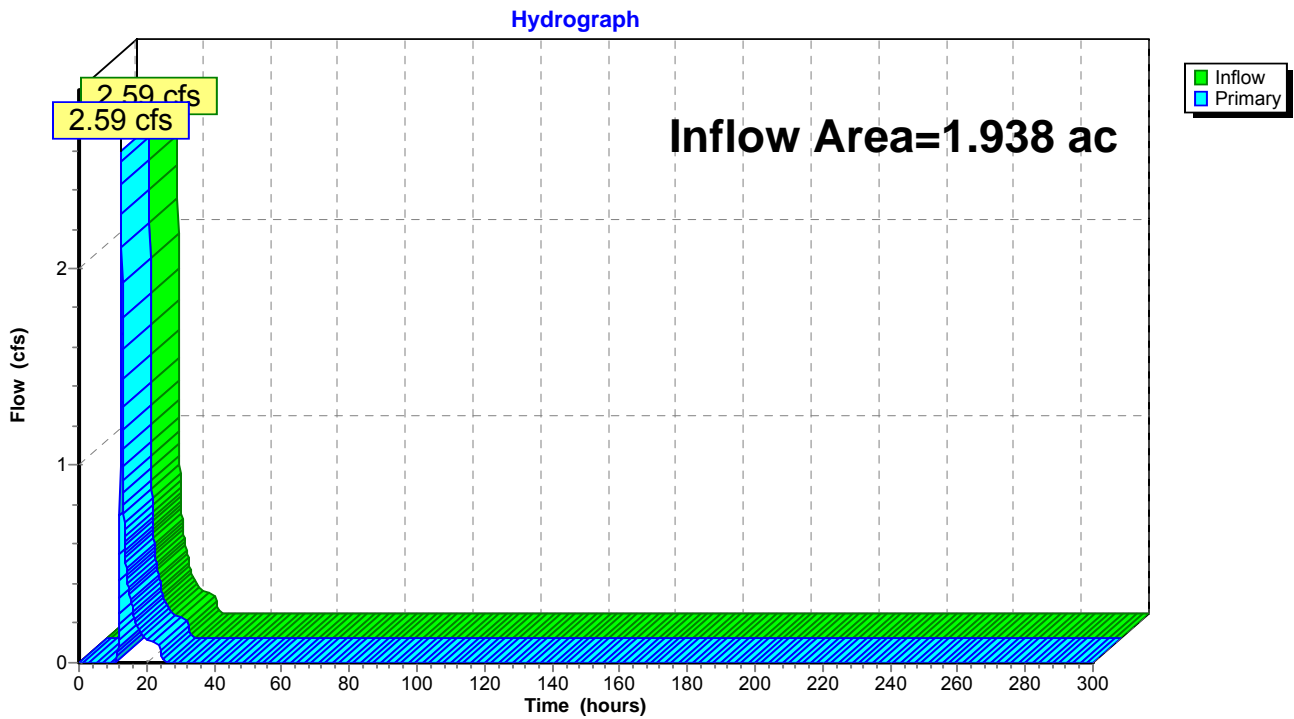


Summary for Pond DP 1B: Design Point 1B

Inflow Area = 1.938 ac, 2.84% Impervious, Inflow Depth = 2.22" for 25 Year - North Salem event
Inflow = 2.59 cfs @ 12.49 hrs, Volume= 0.358 af
Primary = 2.59 cfs @ 12.49 hrs, Volume= 0.358 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ab: Pre-Development Ab

Runoff Area=1.938 ac 2.84% Impervious Runoff Depth=3.61"
Flow Length=577' Tc=32.2 min CN=56 Runoff=4.38 cfs 0.583 af

Pond DP 1B: Design Point 1B

Inflow=4.38 cfs 0.583 af
Primary=4.38 cfs 0.583 af

Total Runoff Area = 1.938 ac Runoff Volume = 0.583 af Average Runoff Depth = 3.61"
97.16% Pervious = 1.883 ac 2.84% Impervious = 0.055 ac

Summary for Subcatchment Ab: Pre-Development Ab

Runoff = 4.38 cfs @ 12.47 hrs, Volume= 0.583 af, Depth= 3.61"

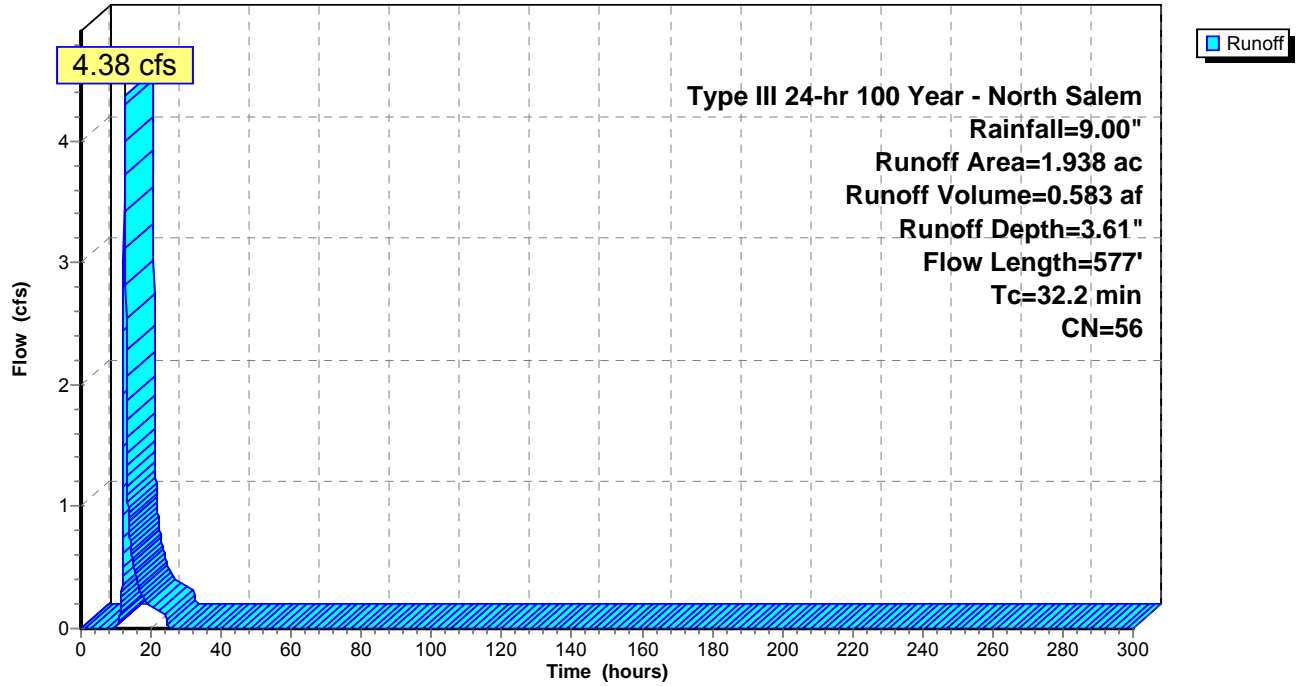
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 1.883	55	Woods, Good, HSG B, CsD Soils
* 0.055	98	Ledge Rock
1.938	56	Weighted Average
1.883		97.16% Pervious Area
0.055		2.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	61	0.0150	0.04		Sheet Flow, A-B Woods: Dense underbrush n= 0.800 P2= 3.70"
4.7	36	0.3880	0.13		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.1	63	0.3810	9.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	41	0.4880	11.25		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	70	0.2860	8.61		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	51	0.3920	10.08		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	112	0.2680	8.33		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.0	32	0.5620	12.07		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.6	111	0.0360	3.05		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
32.2	577	Total			

Subcatchment Ab: Pre-Development Ab

Hydrograph



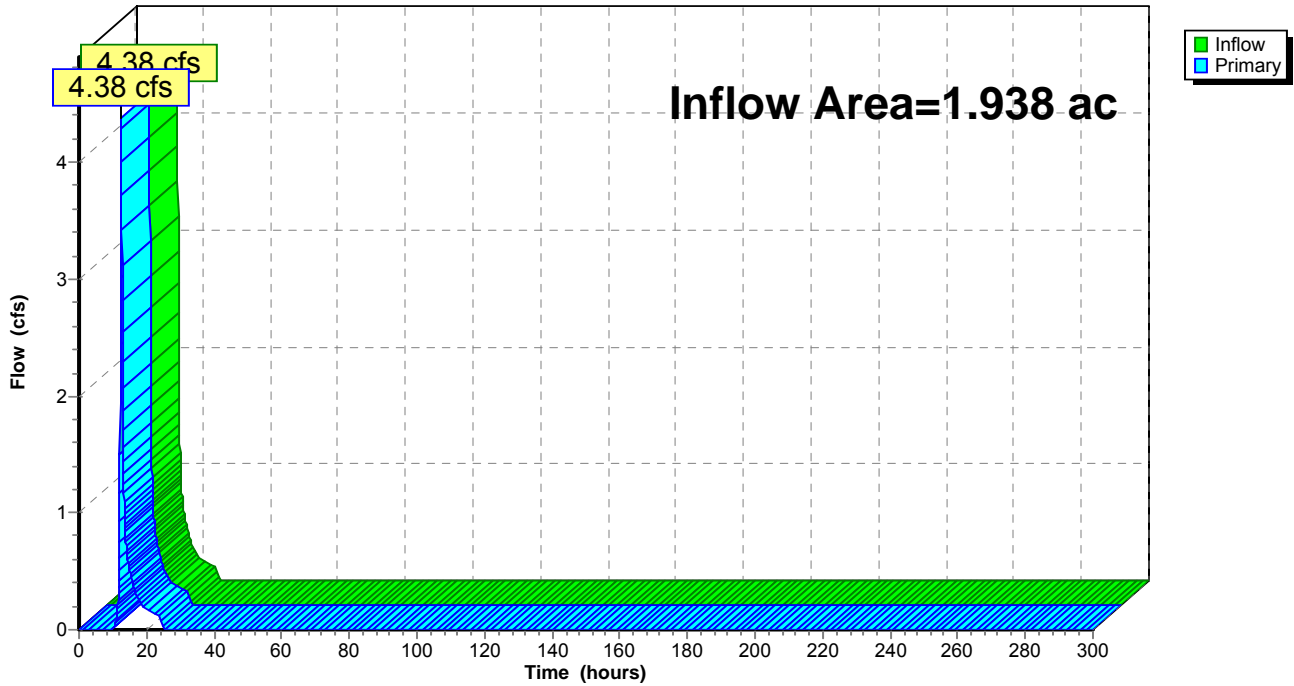
Summary for Pond DP 1B: Design Point 1B

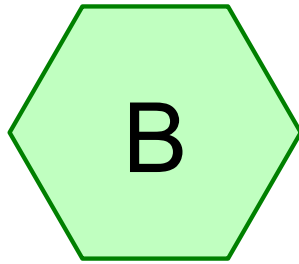
Inflow Area = 1.938 ac, 2.84% Impervious, Inflow Depth = 3.61" for 100 Year - North Salem event
Inflow = 4.38 cfs @ 12.47 hrs, Volume= 0.583 af
Primary = 4.38 cfs @ 12.47 hrs, Volume= 0.583 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

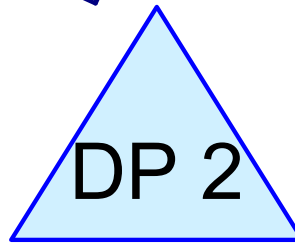
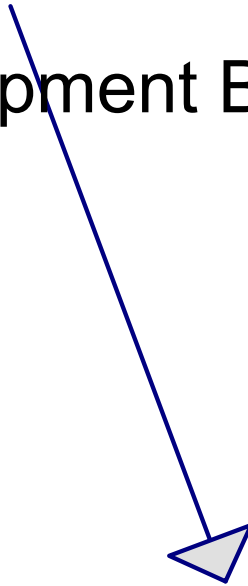
Pond DP 1B: Design Point 1B

Hydrograph

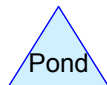
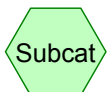




Pre-Development B



Design Point 2



Woodlands Pre-Dev Part 1 2012

Prepared by KCG Engineers, P.C.

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Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.331	55	Woods, Good, HSG B, CsD Soils (B)
4.412	55	Woods, Good, HSG B, CtC Soils (B)
0.081	98	Ledge Rock (B)
8.824		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B: Pre-Development B

Runoff Area=8.824 ac 0.92% Impervious Runoff Depth=0.22"
Flow Length=1,004' Tc=12.7 min CN=55 Runoff=0.70 cfs 0.163 af

Pond DP 2: Design Point 2

Inflow=0.70 cfs 0.163 af
Primary=0.70 cfs 0.163 af

Total Runoff Area = 8.824 ac Runoff Volume = 0.163 af Average Runoff Depth = 0.22"
99.08% Pervious = 8.743 ac 0.92% Impervious = 0.081 ac

Summary for Subcatchment B: Pre-Development B

Runoff = 0.70 cfs @ 12.46 hrs, Volume= 0.163 af, Depth= 0.22"

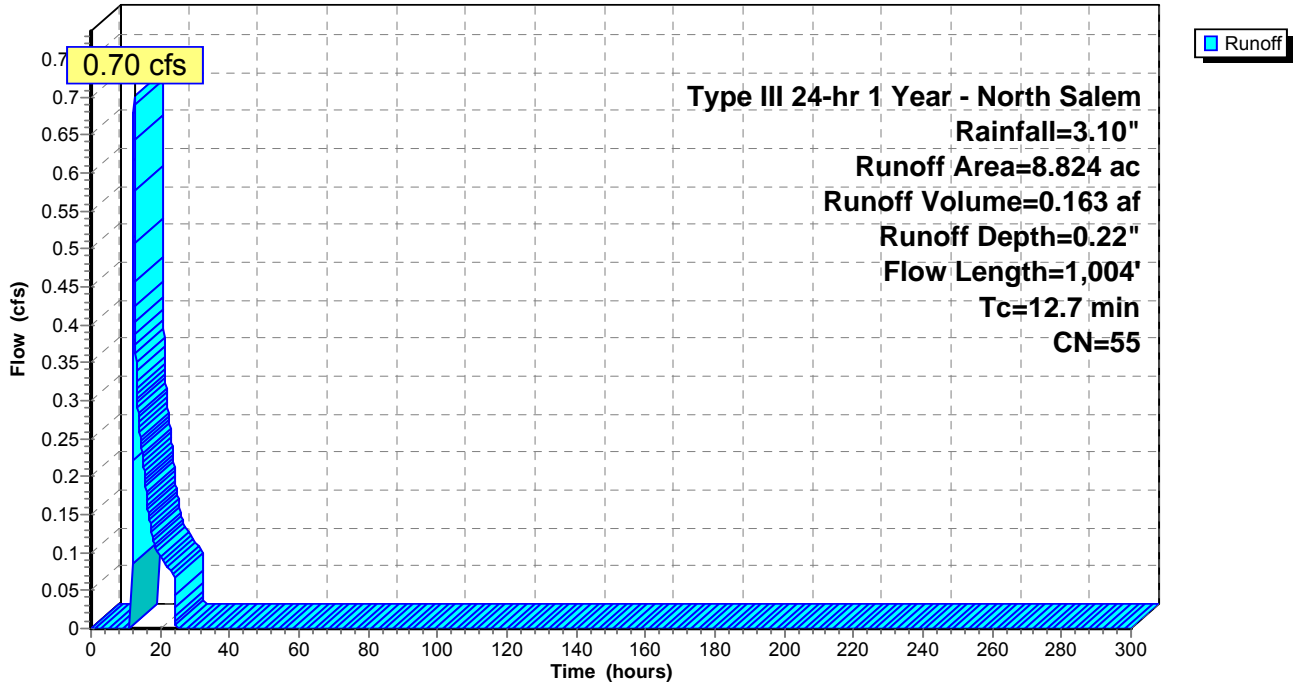
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 4.412	55	Woods, Good, HSG B, CtC Soils
* 4.331	55	Woods, Good, HSG B, CsD Soils
* 0.081	98	Ledge Rock
8.824	55	Weighted Average
8.743		99.08% Pervious Area
0.081		0.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	65	0.4000	10.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	50	0.2000	7.20		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	133	0.0902	4.84		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	137	0.1460	6.15		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	62	0.2580	8.18		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	60	0.0667	4.16		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.4	158	0.1890	7.00		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.2	127	0.3150	9.04		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
0.2	112	0.2321	7.76		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
12.7	1,004	Total			

Subcatchment B: Pre-Development B

Hydrograph



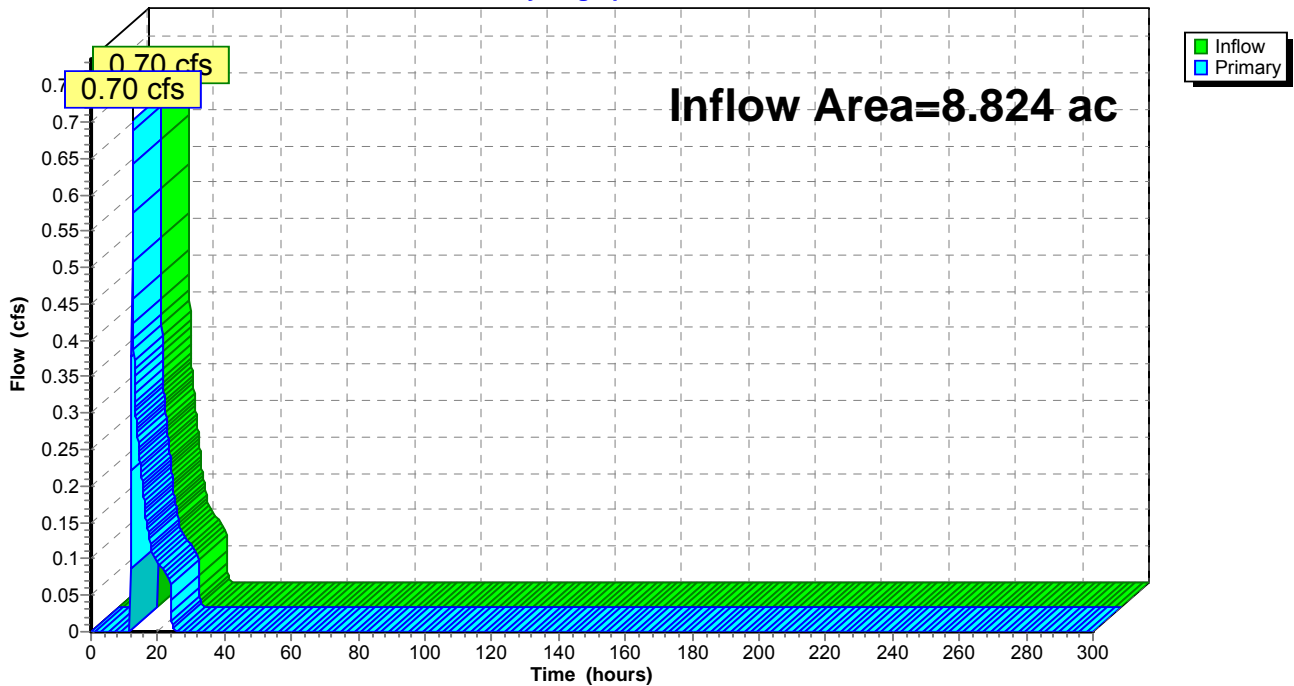
Summary for Pond DP 2: Design Point 2

Inflow Area = 8.824 ac, 0.92% Impervious, Inflow Depth = 0.22" for 1 Year - North Salem event
Inflow = 0.70 cfs @ 12.46 hrs, Volume= 0.163 af
Primary = 0.70 cfs @ 12.46 hrs, Volume= 0.163 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B: Pre-Development B

Runoff Area=8.824 ac 0.92% Impervious Runoff Depth=0.42"
Flow Length=1,004' Tc=12.7 min CN=55 Runoff=1.81 cfs 0.306 af

Pond DP 2: Design Point 2

Inflow=1.81 cfs 0.306 af
Primary=1.81 cfs 0.306 af

Total Runoff Area = 8.824 ac Runoff Volume = 0.306 af Average Runoff Depth = 0.42"
99.08% Pervious = 8.743 ac 0.92% Impervious = 0.081 ac

Summary for Subcatchment B: Pre-Development B

Runoff = 1.81 cfs @ 12.33 hrs, Volume= 0.306 af, Depth= 0.42"

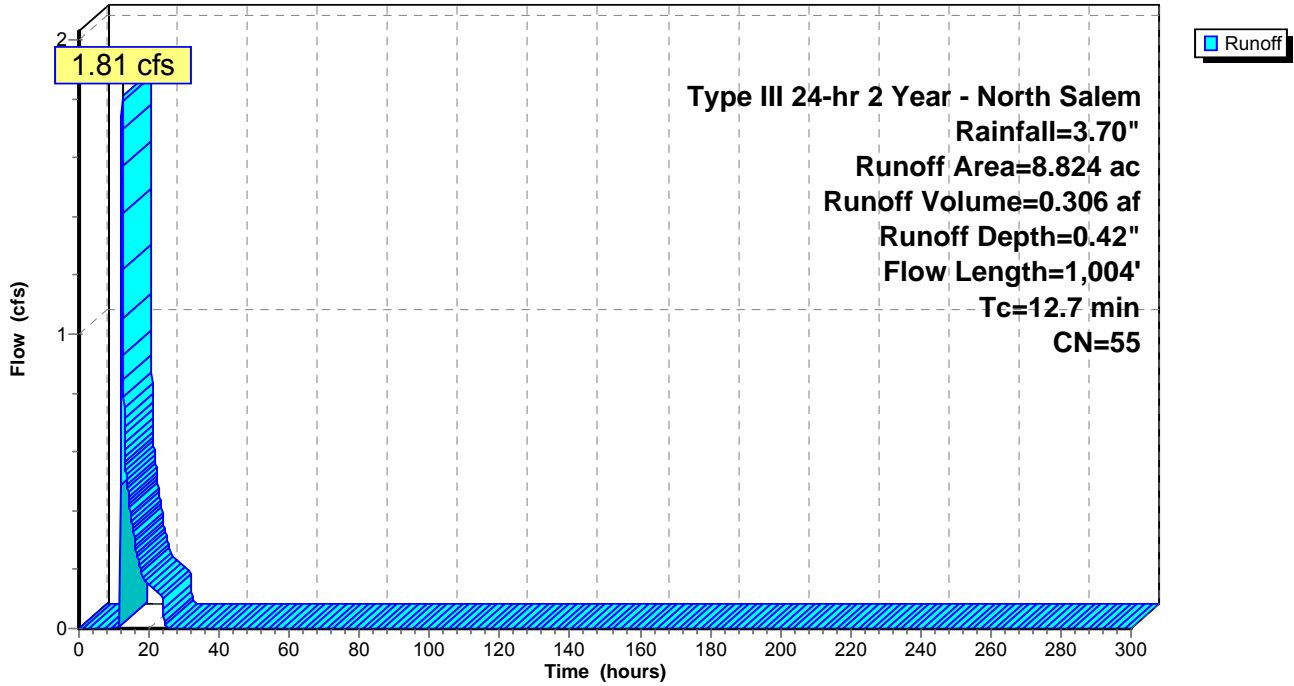
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 4.412	55	Woods, Good, HSG B, CtC Soils
* 4.331	55	Woods, Good, HSG B, CsD Soils
* 0.081	98	Ledge Rock
8.824	55	Weighted Average
8.743		99.08% Pervious Area
0.081		0.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	65	0.4000	10.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	50	0.2000	7.20		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	133	0.0902	4.84		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	137	0.1460	6.15		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	62	0.2580	8.18		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	60	0.0667	4.16		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.4	158	0.1890	7.00		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.2	127	0.3150	9.04		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
0.2	112	0.2321	7.76		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
12.7	1,004	Total			

Subcatchment B: Pre-Development B

Hydrograph



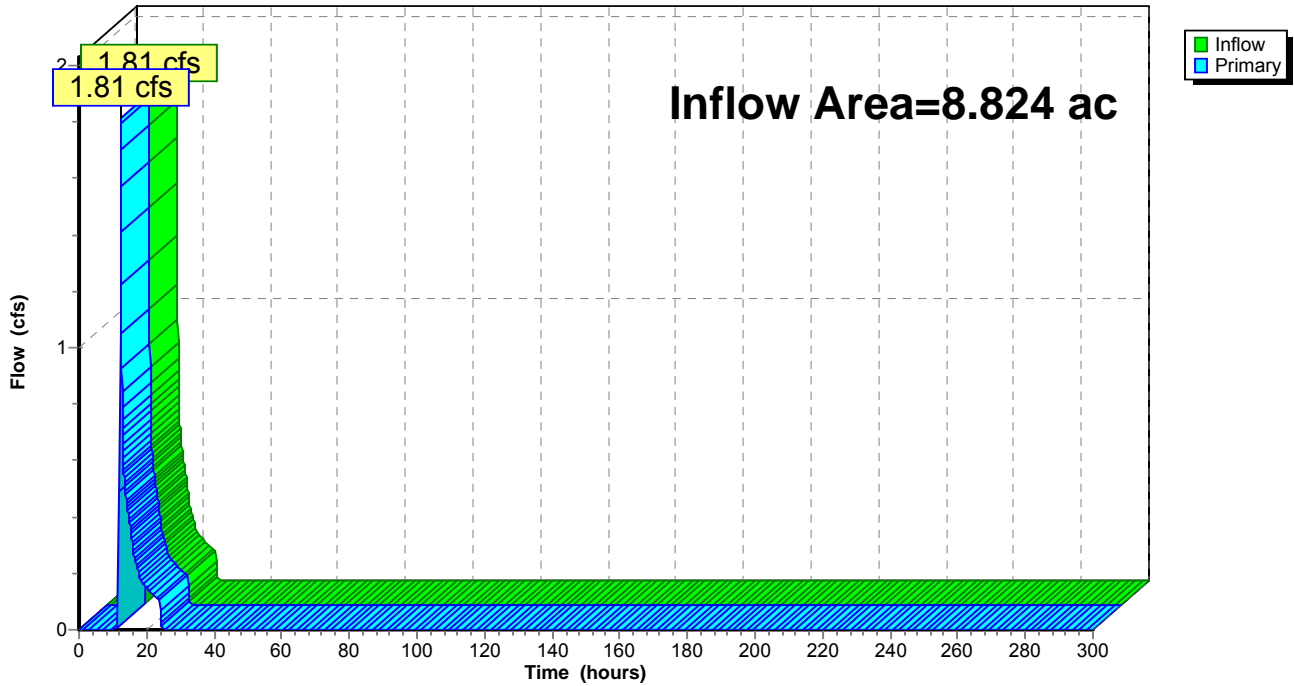
Summary for Pond DP 2: Design Point 2

Inflow Area = 8.824 ac, 0.92% Impervious, Inflow Depth = 0.42" for 2 Year - North Salem event
Inflow = 1.81 cfs @ 12.33 hrs, Volume= 0.306 af
Primary = 1.81 cfs @ 12.33 hrs, Volume= 0.306 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B: Pre-Development B

Runoff Area=8.824 ac 0.92% Impervious Runoff Depth=1.24"
Flow Length=1,004' Tc=12.7 min CN=55 Runoff=8.64 cfs 0.911 af

Pond DP 2: Design Point 2

Inflow=8.64 cfs 0.911 af
Primary=8.64 cfs 0.911 af

Total Runoff Area = 8.824 ac Runoff Volume = 0.911 af Average Runoff Depth = 1.24"
99.08% Pervious = 8.743 ac 0.92% Impervious = 0.081 ac

Summary for Subcatchment B: Pre-Development B

Runoff = 8.64 cfs @ 12.21 hrs, Volume= 0.911 af, Depth= 1.24"

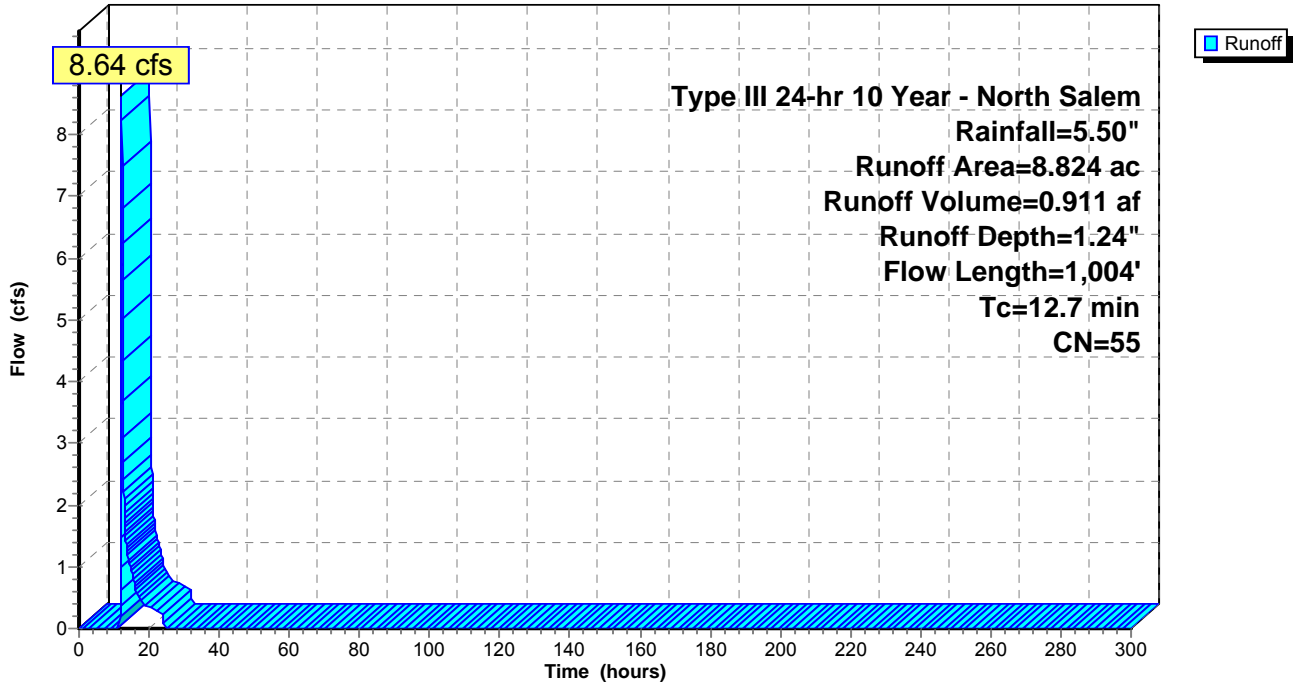
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 4.412	55	Woods, Good, HSG B, CtC Soils
* 4.331	55	Woods, Good, HSG B, CsD Soils
* 0.081	98	Ledge Rock
8.824	55	Weighted Average
8.743		99.08% Pervious Area
0.081		0.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	65	0.4000	10.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	50	0.2000	7.20		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	133	0.0902	4.84		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	137	0.1460	6.15		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	62	0.2580	8.18		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	60	0.0667	4.16		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.4	158	0.1890	7.00		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.2	127	0.3150	9.04		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
0.2	112	0.2321	7.76		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
12.7	1,004	Total			

Subcatchment B: Pre-Development B

Hydrograph



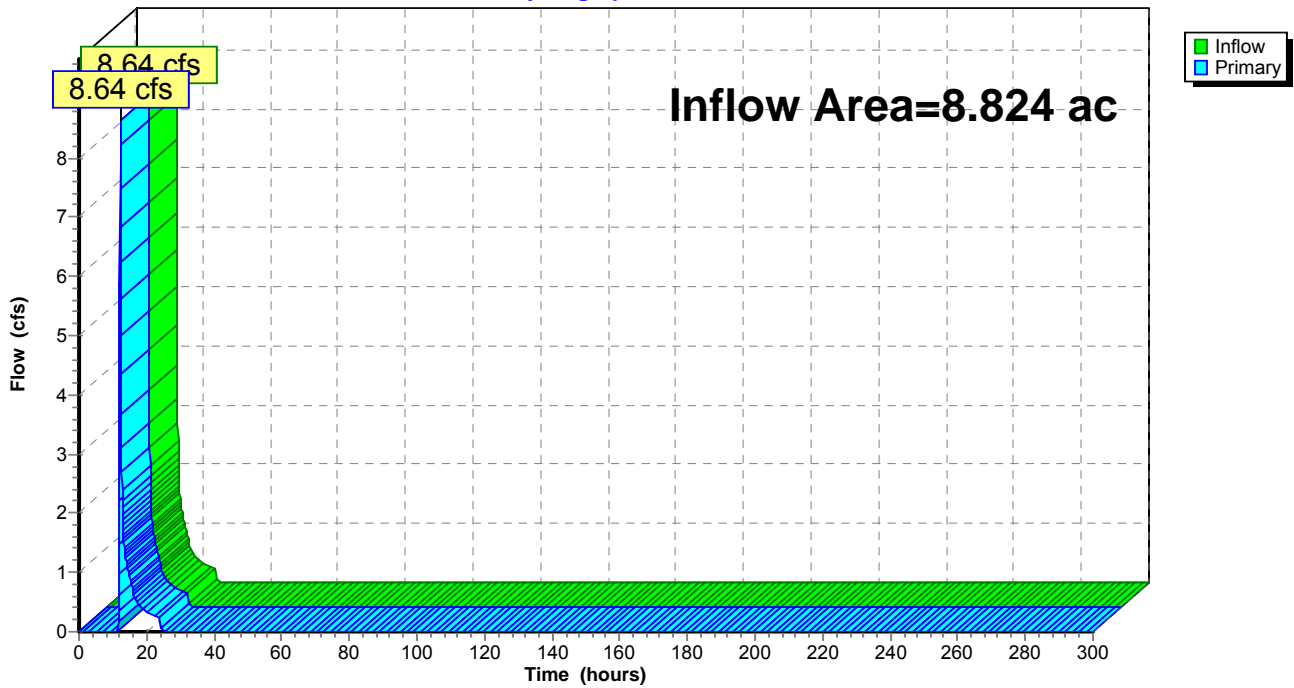
Summary for Pond DP 2: Design Point 2

Inflow Area = 8.824 ac, 0.92% Impervious, Inflow Depth = 1.24" for 10 Year - North Salem event
Inflow = 8.64 cfs @ 12.21 hrs, Volume= 0.911 af
Primary = 8.64 cfs @ 12.21 hrs, Volume= 0.911 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B: Pre-Development B

Runoff Area=8.824 ac 0.92% Impervious Runoff Depth=2.12"
Flow Length=1,004' Tc=12.7 min CN=55 Runoff=16.25 cfs 1.562 af

Pond DP 2: Design Point 2

Inflow=16.25 cfs 1.562 af
Primary=16.25 cfs 1.562 af

Total Runoff Area = 8.824 ac Runoff Volume = 1.562 af Average Runoff Depth = 2.12"
99.08% Pervious = 8.743 ac 0.92% Impervious = 0.081 ac

Summary for Subcatchment B: Pre-Development B

Runoff = 16.25 cfs @ 12.20 hrs, Volume= 1.562 af, Depth= 2.12"

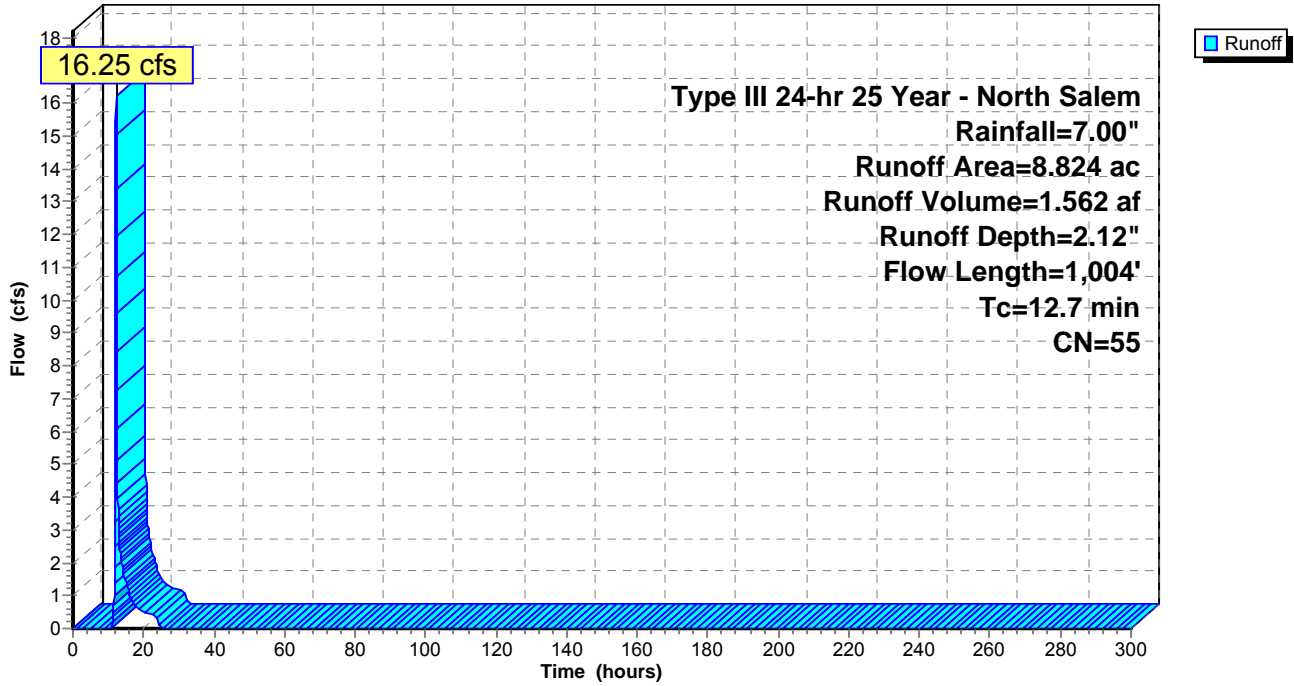
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 4.412	55	Woods, Good, HSG B, CtC Soils
* 4.331	55	Woods, Good, HSG B, CsD Soils
* 0.081	98	Ledge Rock
8.824	55	Weighted Average
8.743		99.08% Pervious Area
0.081		0.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	65	0.4000	10.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	50	0.2000	7.20		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	133	0.0902	4.84		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	137	0.1460	6.15		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	62	0.2580	8.18		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	60	0.0667	4.16		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.4	158	0.1890	7.00		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.2	127	0.3150	9.04		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
0.2	112	0.2321	7.76		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
12.7	1,004	Total			

Subcatchment B: Pre-Development B

Hydrograph



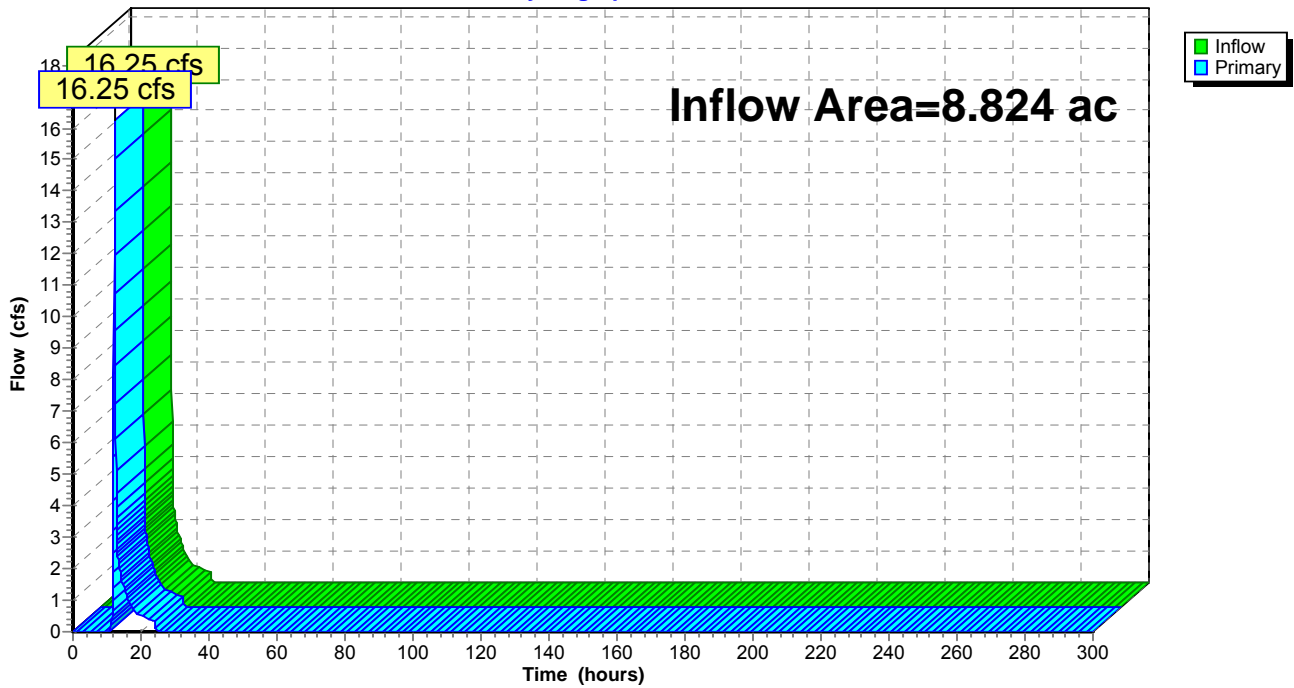
Summary for Pond DP 2: Design Point 2

Inflow Area = 8.824 ac, 0.92% Impervious, Inflow Depth = 2.12" for 25 Year - North Salem event
Inflow = 16.25 cfs @ 12.20 hrs, Volume= 1.562 af
Primary = 16.25 cfs @ 12.20 hrs, Volume= 1.562 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B: Pre-Development B

Runoff Area=8.824 ac 0.92% Impervious Runoff Depth=3.49"
Flow Length=1,004' Tc=12.7 min CN=55 Runoff=27.93 cfs 2.565 af

Pond DP 2: Design Point 2

Inflow=27.93 cfs 2.565 af
Primary=27.93 cfs 2.565 af

Total Runoff Area = 8.824 ac Runoff Volume = 2.565 af Average Runoff Depth = 3.49"
99.08% Pervious = 8.743 ac 0.92% Impervious = 0.081 ac

Summary for Subcatchment B: Pre-Development B

Runoff = 27.93 cfs @ 12.19 hrs, Volume= 2.565 af, Depth= 3.49"

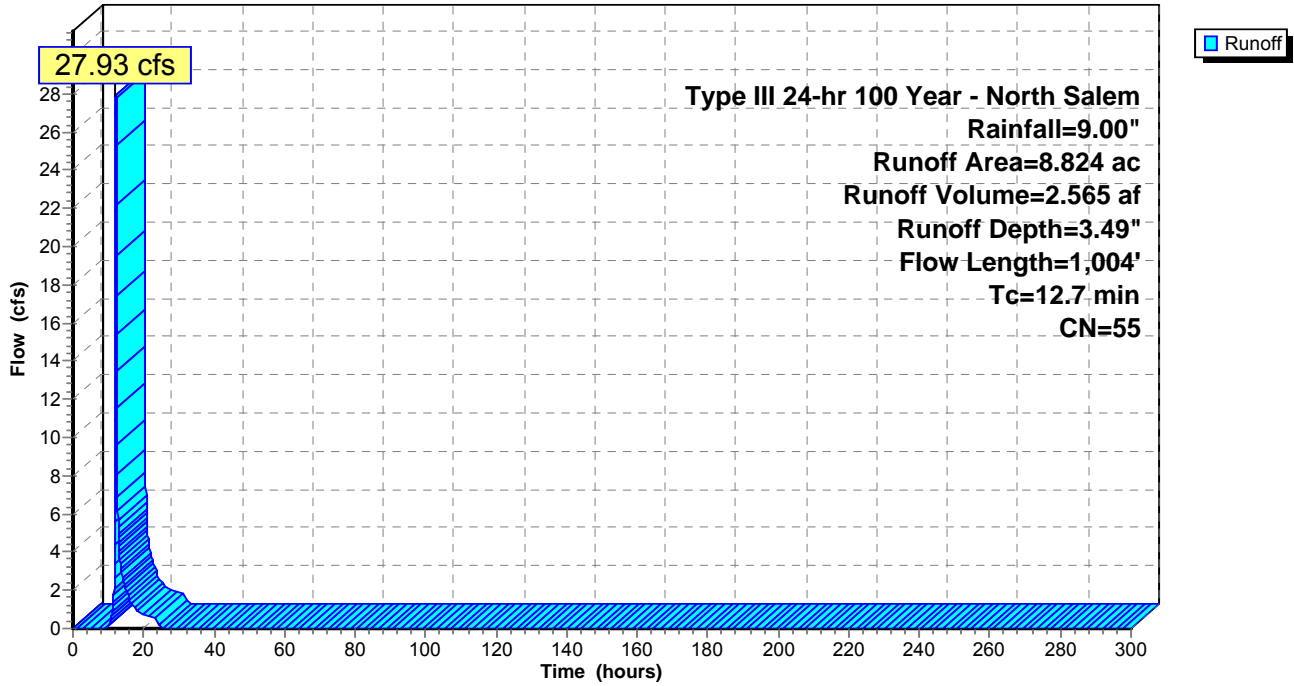
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 4.412	55	Woods, Good, HSG B, CtC Soils
* 4.331	55	Woods, Good, HSG B, CsD Soils
* 0.081	98	Ledge Rock
8.824	55	Weighted Average
8.743		99.08% Pervious Area
0.081		0.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	65	0.4000	10.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	50	0.2000	7.20		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	133	0.0902	4.84		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	137	0.1460	6.15		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	62	0.2580	8.18		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	60	0.0667	4.16		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.4	158	0.1890	7.00		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.2	127	0.3150	9.04		Shallow Concentrated Flow, I-J Unpaved Kv= 16.1 fps
0.2	112	0.2321	7.76		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
12.7	1,004	Total			

Subcatchment B: Pre-Development B

Hydrograph



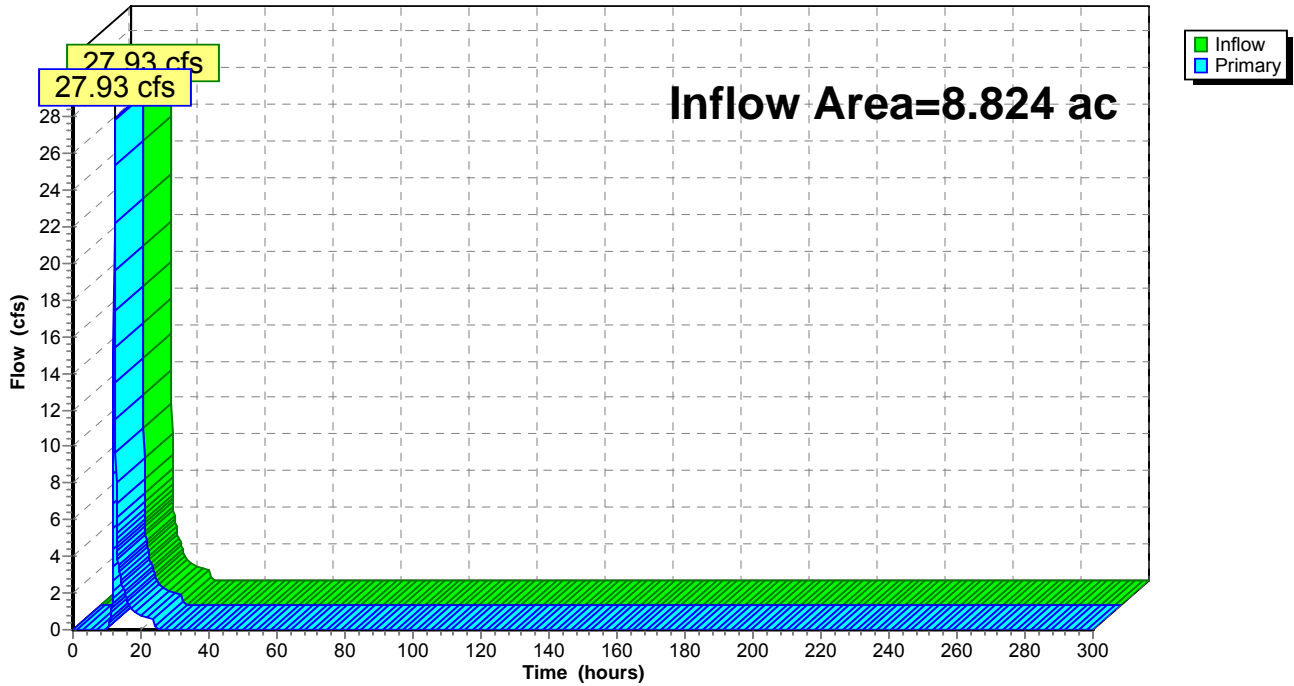
Summary for Pond DP 2: Design Point 2

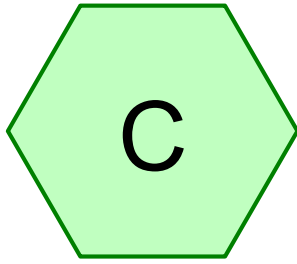
Inflow Area = 8.824 ac, 0.92% Impervious, Inflow Depth = 3.49" for 100 Year - North Salem event
Inflow = 27.93 cfs @ 12.19 hrs, Volume= 2.565 af
Primary = 27.93 cfs @ 12.19 hrs, Volume= 2.565 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

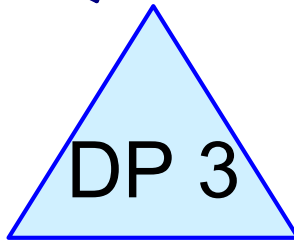
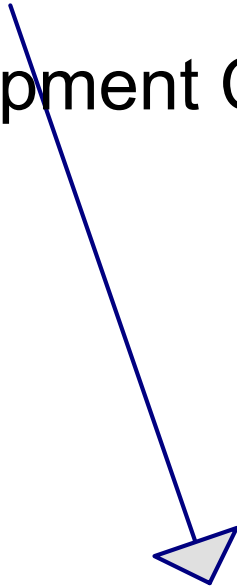
Pond DP 2: Design Point 2

Hydrograph

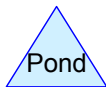
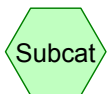




Pre-Development C



Design Point 3



Woodlands Pre-Dev Part 1 2012

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.228	55	Woods, Good, HSG B, CrC Soils (C)
5.570	55	Woods, Good, HSG B, CsD Soils (C)
0.356	70	Woods, Good, HSG C, CtC Soils (C)
0.203	85	Gravel roads, HSG B, CsD Soils (C)
0.069	98	Existing Paved Access Road (C)
6.426		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C: Pre-Development C

Runoff Area=6.426 ac 1.07% Impervious Runoff Depth=0.28"
Flow Length=953' Tc=12.1 min CN=57 Runoff=0.76 cfs 0.148 af

Pond DP 3: Design Point 3

Inflow=0.76 cfs 0.148 af
Primary=0.76 cfs 0.148 af

Total Runoff Area = 6.426 ac Runoff Volume = 0.148 af Average Runoff Depth = 0.28"
98.93% Pervious = 6.357 ac 1.07% Impervious = 0.069 ac

Summary for Subcatchment C: Pre-Development C

Runoff = 0.76 cfs @ 12.40 hrs, Volume= 0.148 af, Depth= 0.28"

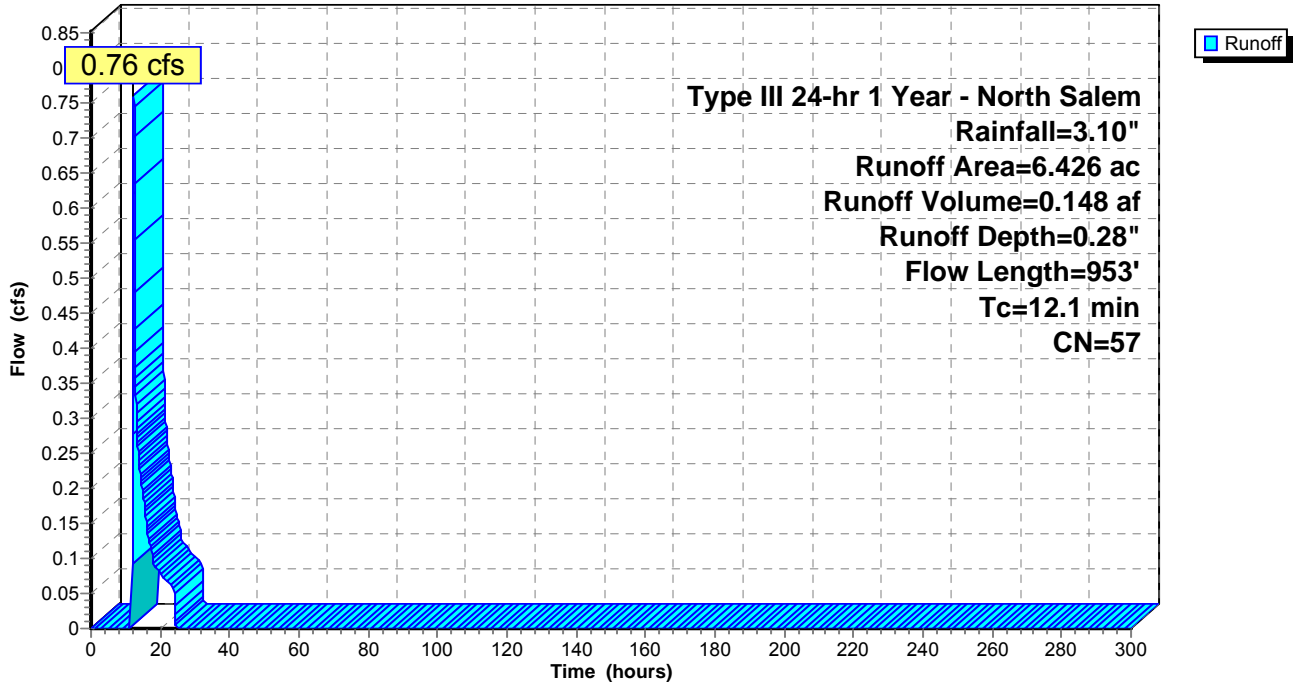
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.203	85	Gravel roads, HSG B, CsD Soils
* 5.570	55	Woods, Good, HSG B, CsD Soils
* 0.228	55	Woods, Good, HSG B, CrC Soils
* 0.356	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Existing Paved Access Road
6.426	57	Weighted Average
6.357		98.93% Pervious Area
0.069		1.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	90	0.3111	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	142	0.1830	6.89		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	102	0.3920	10.08		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	176	0.1364	5.95		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	152	0.1970	7.15		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.1	953	Total			

Subcatchment C: Pre-Development C

Hydrograph



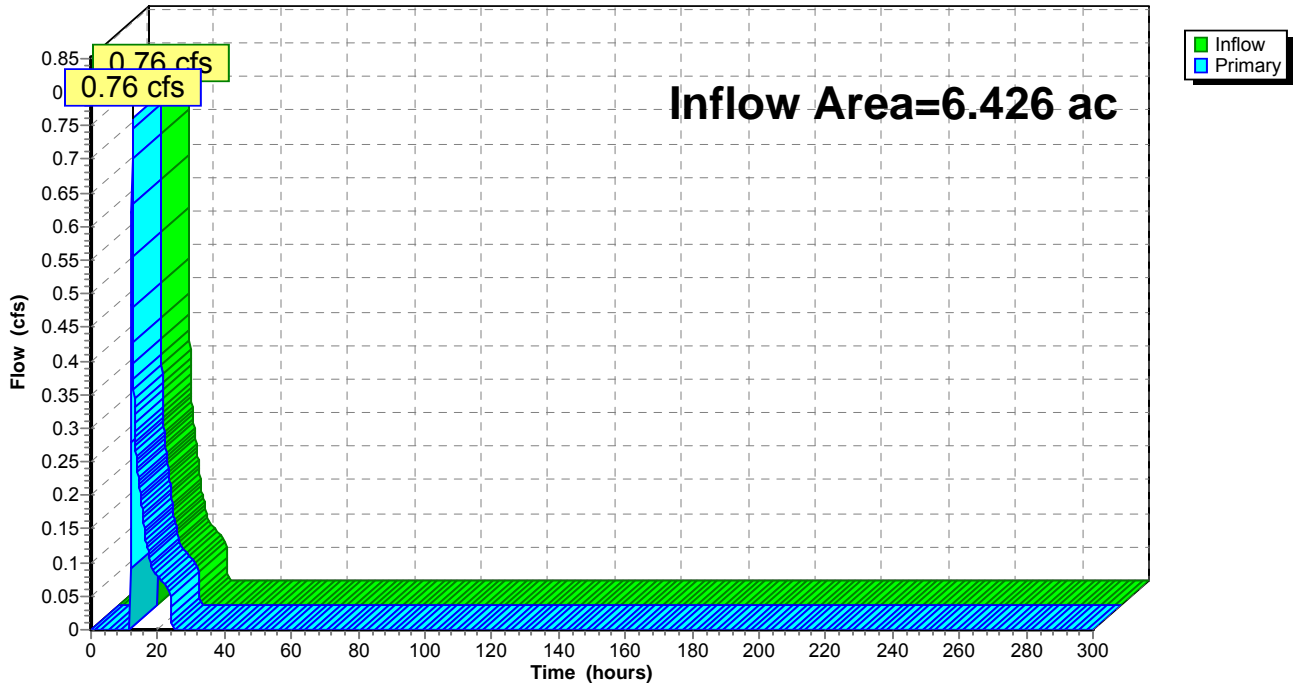
Summary for Pond DP 3: Design Point 3

Inflow Area = 6.426 ac, 1.07% Impervious, Inflow Depth = 0.28" for 1 Year - North Salem event
Inflow = 0.76 cfs @ 12.40 hrs, Volume= 0.148 af
Primary = 0.76 cfs @ 12.40 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Woodlands Pre-Dev Part 1 2012

Type III 24-hr 2 Year - North Salem Rainfall=3.70"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C: Pre-Development C

Runoff Area=6.426 ac 1.07% Impervious Runoff Depth=0.49"
Flow Length=953' Tc=12.1 min CN=57 Runoff=1.82 cfs 0.264 af

Pond DP 3: Design Point 3

Inflow=1.82 cfs 0.264 af
Primary=1.82 cfs 0.264 af

Total Runoff Area = 6.426 ac Runoff Volume = 0.264 af Average Runoff Depth = 0.49"
98.93% Pervious = 6.357 ac 1.07% Impervious = 0.069 ac

Summary for Subcatchment C: Pre-Development C

Runoff = 1.82 cfs @ 12.26 hrs, Volume= 0.264 af, Depth= 0.49"

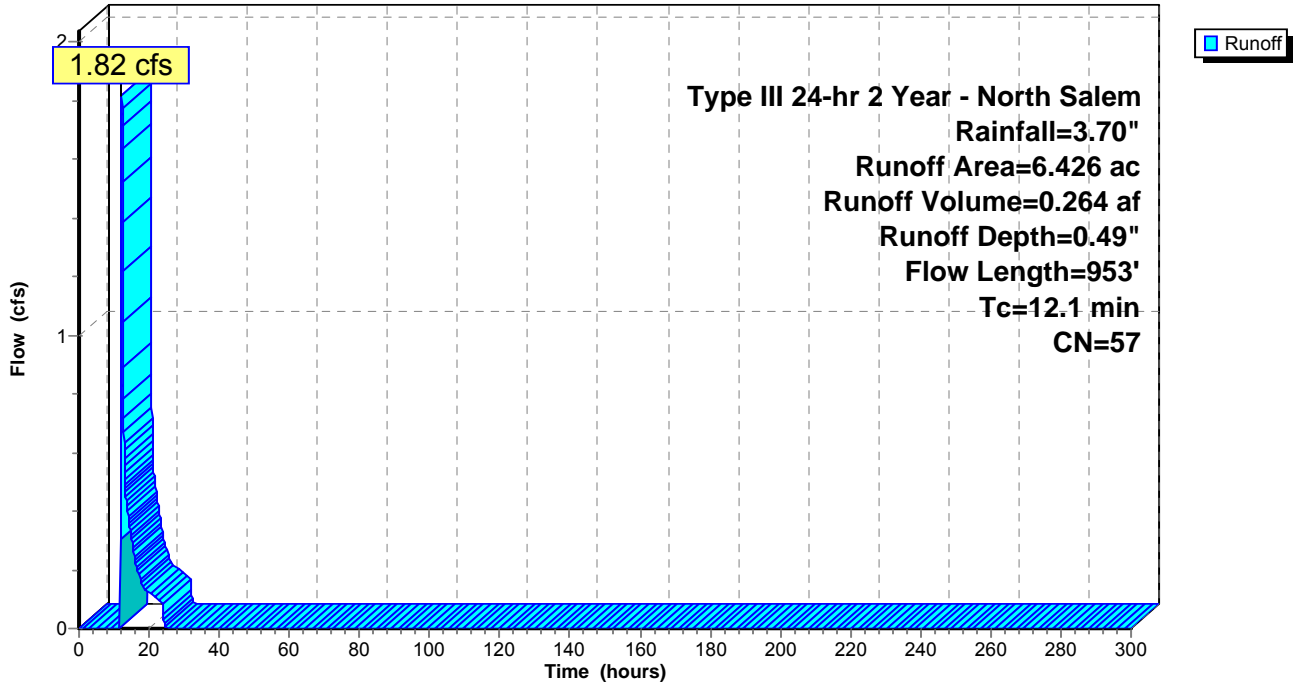
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.203	85	Gravel roads, HSG B, CsD Soils
* 5.570	55	Woods, Good, HSG B, CsD Soils
* 0.228	55	Woods, Good, HSG B, CrC Soils
* 0.356	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Existing Paved Access Road
6.426	57	Weighted Average
6.357		98.93% Pervious Area
0.069		1.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	90	0.3111	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	142	0.1830	6.89		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	102	0.3920	10.08		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	176	0.1364	5.95		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	152	0.1970	7.15		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.1	953	Total			

Subcatchment C: Pre-Development C

Hydrograph



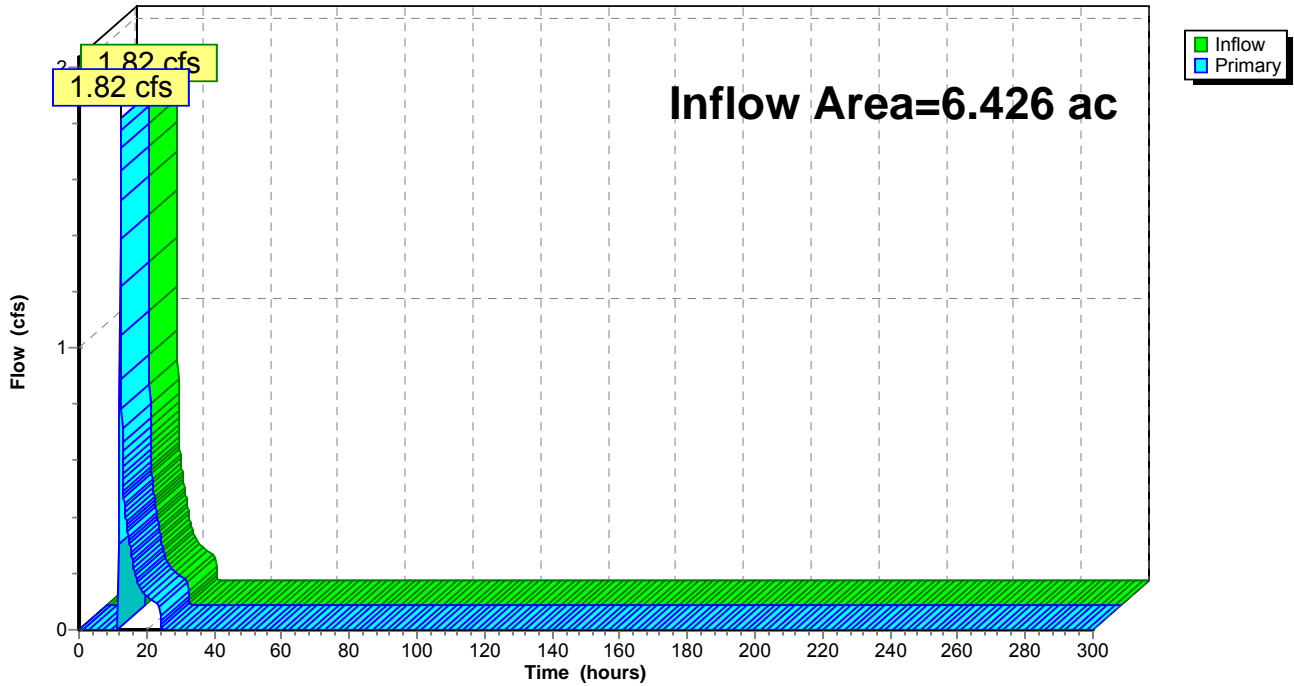
Summary for Pond DP 3: Design Point 3

Inflow Area = 6.426 ac, 1.07% Impervious, Inflow Depth = 0.49" for 2 Year - North Salem event
Inflow = 1.82 cfs @ 12.26 hrs, Volume= 0.264 af
Primary = 1.82 cfs @ 12.26 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C: Pre-Development C

Runoff Area=6.426 ac 1.07% Impervious Runoff Depth=1.38"
Flow Length=953' Tc=12.1 min CN=57 Runoff=7.40 cfs 0.740 af

Pond DP 3: Design Point 3

Inflow=7.40 cfs 0.740 af
Primary=7.40 cfs 0.740 af

Total Runoff Area = 6.426 ac Runoff Volume = 0.740 af Average Runoff Depth = 1.38"
98.93% Pervious = 6.357 ac 1.07% Impervious = 0.069 ac

Summary for Subcatchment C: Pre-Development C

Runoff = 7.40 cfs @ 12.19 hrs, Volume= 0.740 af, Depth= 1.38"

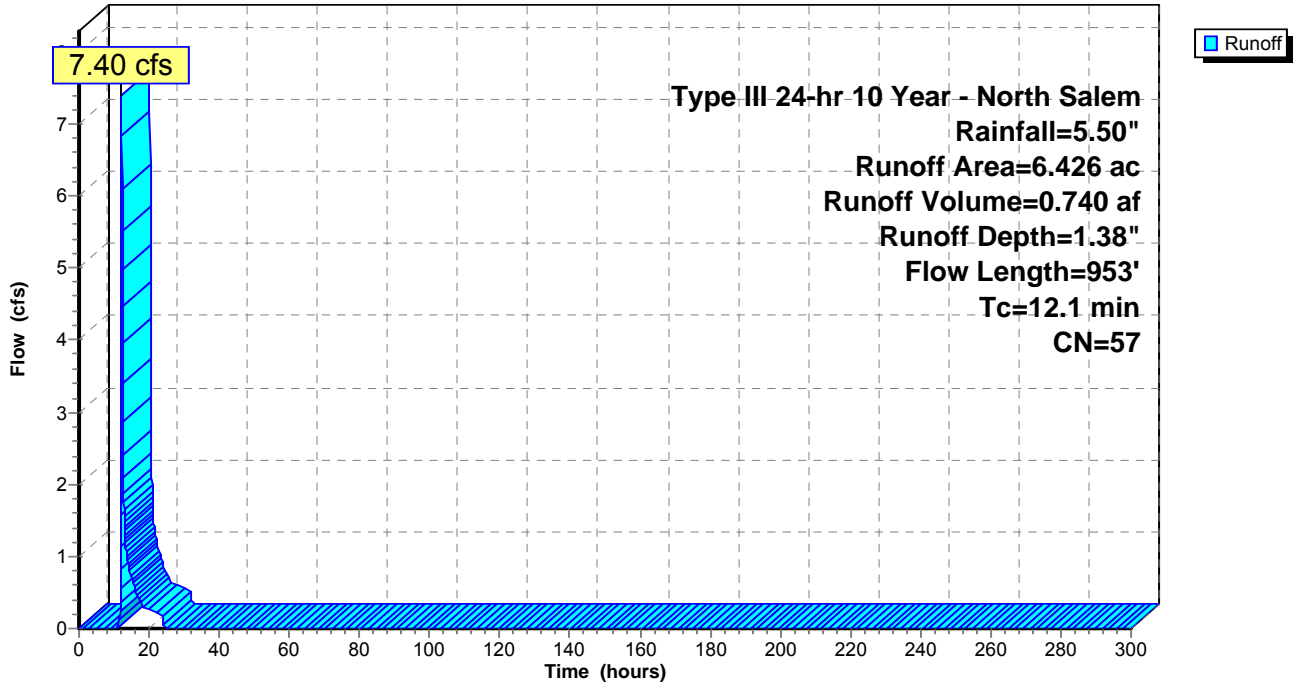
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.203	85	Gravel roads, HSG B, CsD Soils
* 5.570	55	Woods, Good, HSG B, CsD Soils
* 0.228	55	Woods, Good, HSG B, CrC Soils
* 0.356	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Existing Paved Access Road
6.426	57	Weighted Average
6.357		98.93% Pervious Area
0.069		1.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	90	0.3111	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	142	0.1830	6.89		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	102	0.3920	10.08		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	176	0.1364	5.95		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	152	0.1970	7.15		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.1	953	Total			

Subcatchment C: Pre-Development C

Hydrograph



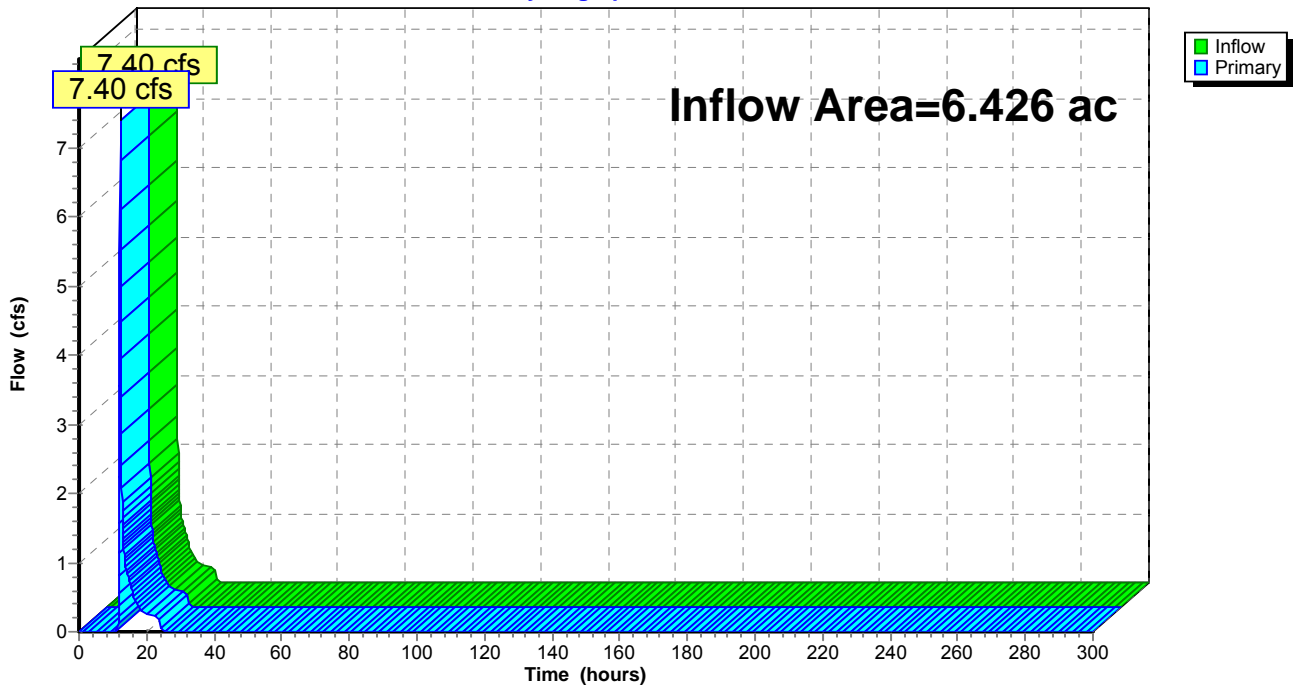
Summary for Pond DP 3: Design Point 3

Inflow Area = 6.426 ac, 1.07% Impervious, Inflow Depth = 1.38" for 10 Year - North Salem event
Inflow = 7.40 cfs @ 12.19 hrs, Volume= 0.740 af
Primary = 7.40 cfs @ 12.19 hrs, Volume= 0.740 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C: Pre-Development C

Runoff Area=6.426 ac 1.07% Impervious Runoff Depth=2.31"
Flow Length=953' Tc=12.1 min CN=57 Runoff=13.32 cfs 1.239 af

Pond DP 3: Design Point 3

Inflow=13.32 cfs 1.239 af
Primary=13.32 cfs 1.239 af

Total Runoff Area = 6.426 ac Runoff Volume = 1.239 af Average Runoff Depth = 2.31"
98.93% Pervious = 6.357 ac 1.07% Impervious = 0.069 ac

Summary for Subcatchment C: Pre-Development C

Runoff = 13.32 cfs @ 12.18 hrs, Volume= 1.239 af, Depth= 2.31"

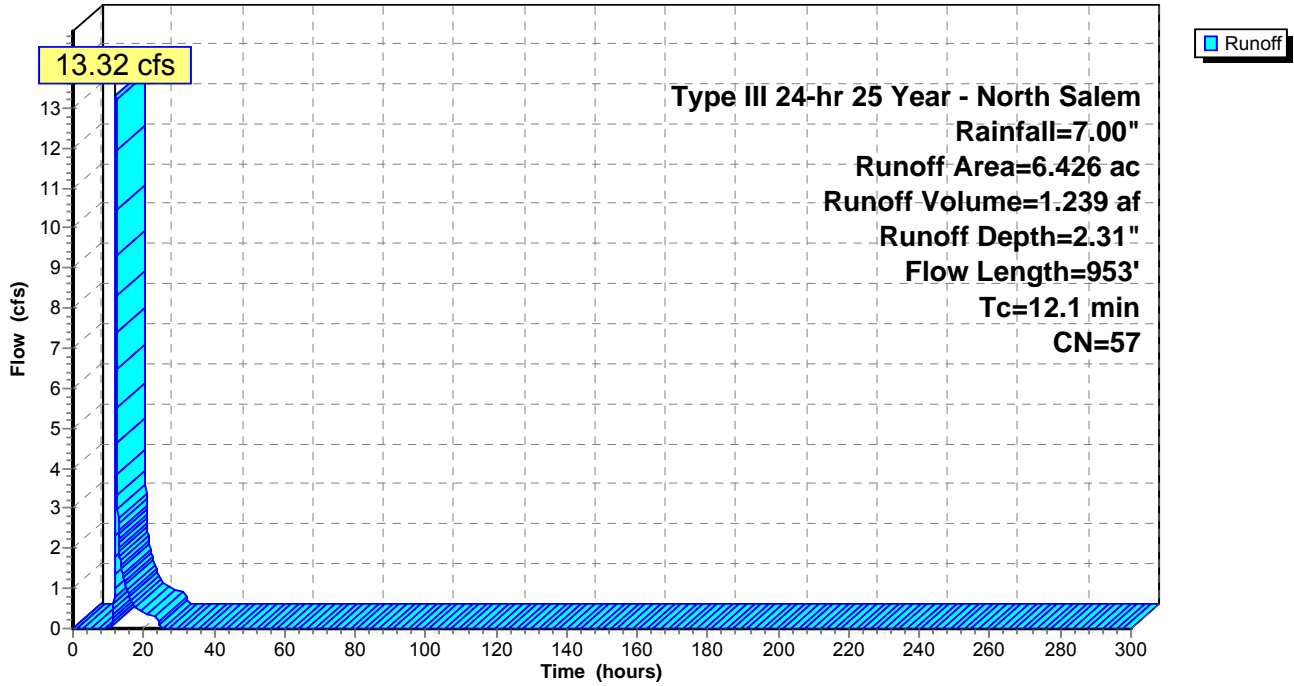
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.203	85	Gravel roads, HSG B, CsD Soils
* 5.570	55	Woods, Good, HSG B, CsD Soils
* 0.228	55	Woods, Good, HSG B, CrC Soils
* 0.356	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Existing Paved Access Road
6.426	57	Weighted Average
6.357		98.93% Pervious Area
0.069		1.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	90	0.3111	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	142	0.1830	6.89		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	102	0.3920	10.08		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	176	0.1364	5.95		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	152	0.1970	7.15		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.1	953	Total			

Subcatchment C: Pre-Development C

Hydrograph



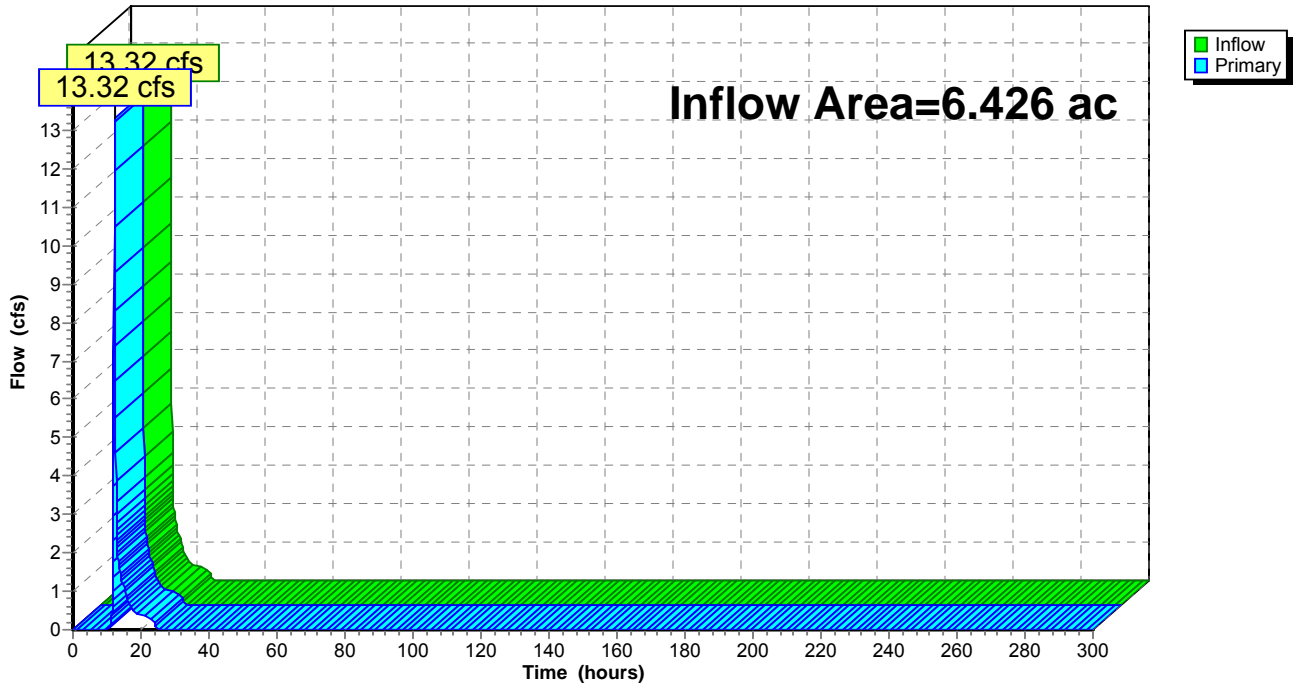
Summary for Pond DP 3: Design Point 3

Inflow Area = 6.426 ac, 1.07% Impervious, Inflow Depth = 2.31" for 25 Year - North Salem event
Inflow = 13.32 cfs @ 12.18 hrs, Volume= 1.239 af
Primary = 13.32 cfs @ 12.18 hrs, Volume= 1.239 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C: Pre-Development C

Runoff Area=6.426 ac 1.07% Impervious Runoff Depth=3.73"
Flow Length=953' Tc=12.1 min CN=57 Runoff=22.45 cfs 1.999 af

Pond DP 3: Design Point 3

Inflow=22.45 cfs 1.999 af
Primary=22.45 cfs 1.999 af

Total Runoff Area = 6.426 ac Runoff Volume = 1.999 af Average Runoff Depth = 3.73"
98.93% Pervious = 6.357 ac 1.07% Impervious = 0.069 ac

Summary for Subcatchment C: Pre-Development C

Runoff = 22.45 cfs @ 12.17 hrs, Volume= 1.999 af, Depth= 3.73"

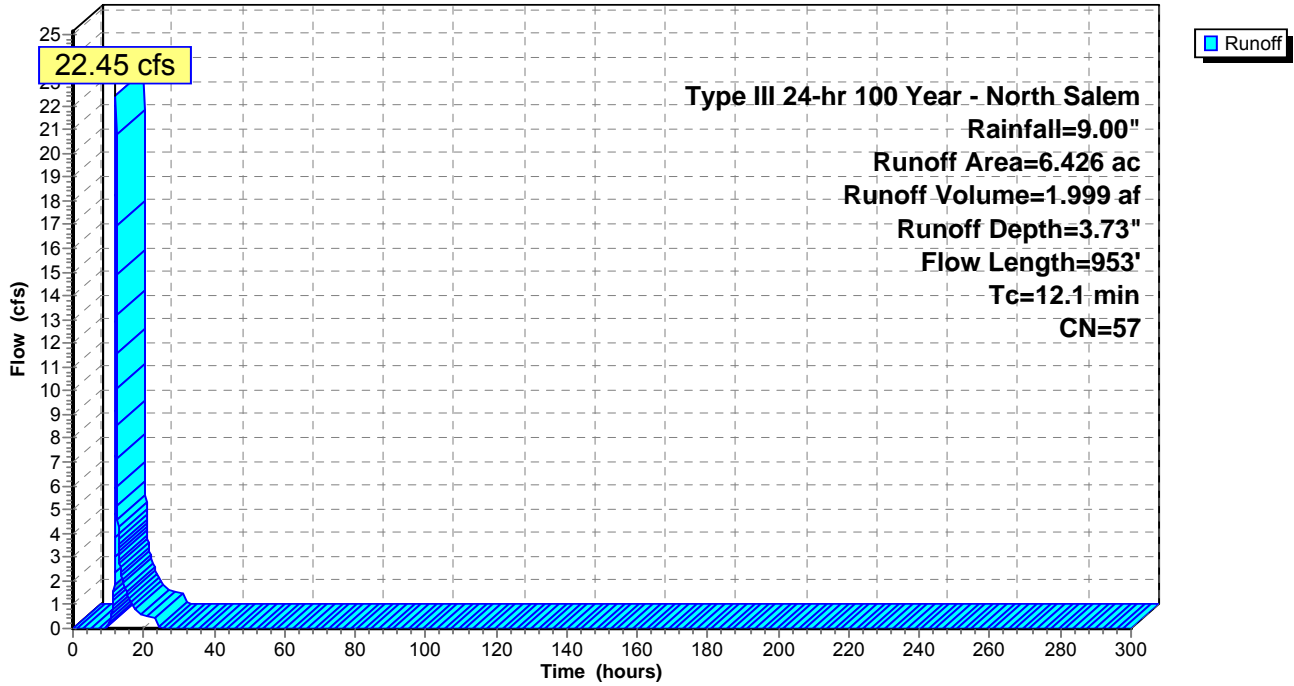
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.203	85	Gravel roads, HSG B, CsD Soils
* 5.570	55	Woods, Good, HSG B, CsD Soils
* 0.228	55	Woods, Good, HSG B, CrC Soils
* 0.356	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Existing Paved Access Road
6.426	57	Weighted Average
6.357		98.93% Pervious Area
0.069		1.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	90	0.3111	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	142	0.1830	6.89		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	102	0.3920	10.08		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	176	0.1364	5.95		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	152	0.1970	7.15		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.1	953	Total			

Subcatchment C: Pre-Development C

Hydrograph



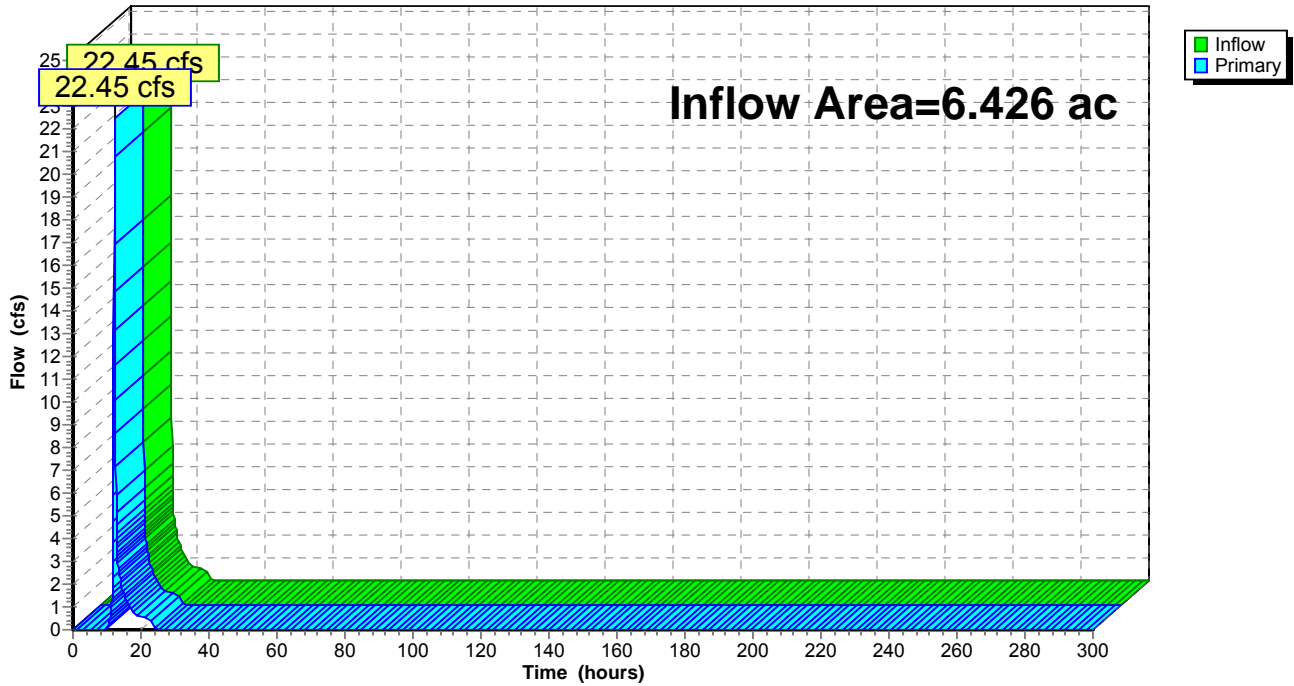
Summary for Pond DP 3: Design Point 3

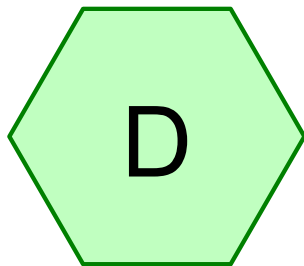
Inflow Area = 6.426 ac, 1.07% Impervious, Inflow Depth = 3.73" for 100 Year - North Salem event
Inflow = 22.45 cfs @ 12.17 hrs, Volume= 1.999 af
Primary = 22.45 cfs @ 12.17 hrs, Volume= 1.999 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

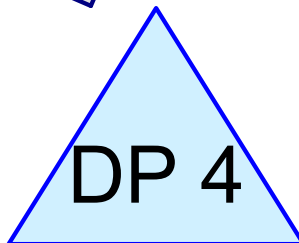
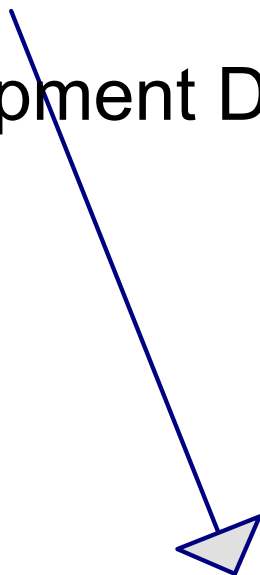
Pond DP 3: Design Point 3

Hydrograph

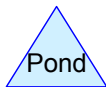
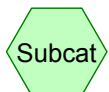




Pre-Development D



Design Point 4



Woodlands Pre-Dev Part 1 2012

Prepared by KCG Engineers, P.C.

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.384	55	Woods, Good, HSG B, CrC Soils (D)
6.210	55	Woods, Good, HSG B, CsD Soils (D)
6.594		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D: Pre-Development D

Runoff Area=6.594 ac 0.00% Impervious Runoff Depth=0.22"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=0.54 cfs 0.122 af

Pond DP 4: Design Point 4

Inflow=0.54 cfs 0.122 af
Primary=0.54 cfs 0.122 af

Total Runoff Area = 6.594 ac Runoff Volume = 0.122 af Average Runoff Depth = 0.22"
100.00% Pervious = 6.594 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D: Pre-Development D

Runoff = 0.54 cfs @ 12.43 hrs, Volume= 0.122 af, Depth= 0.22"

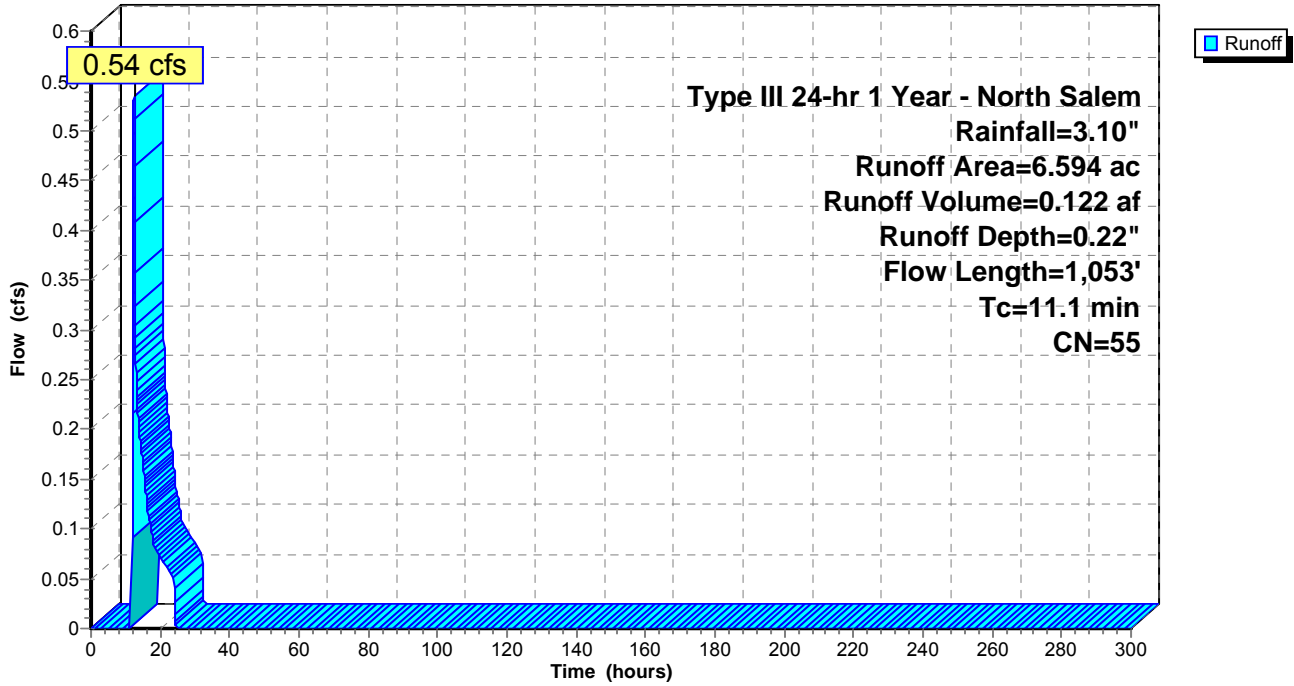
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 6.210	55	Woods, Good, HSG B, CsD Soils
* 0.384	55	Woods, Good, HSG B, CrC Soils
6.594	55	Weighted Average
6.594		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D: Pre-Development D

Hydrograph



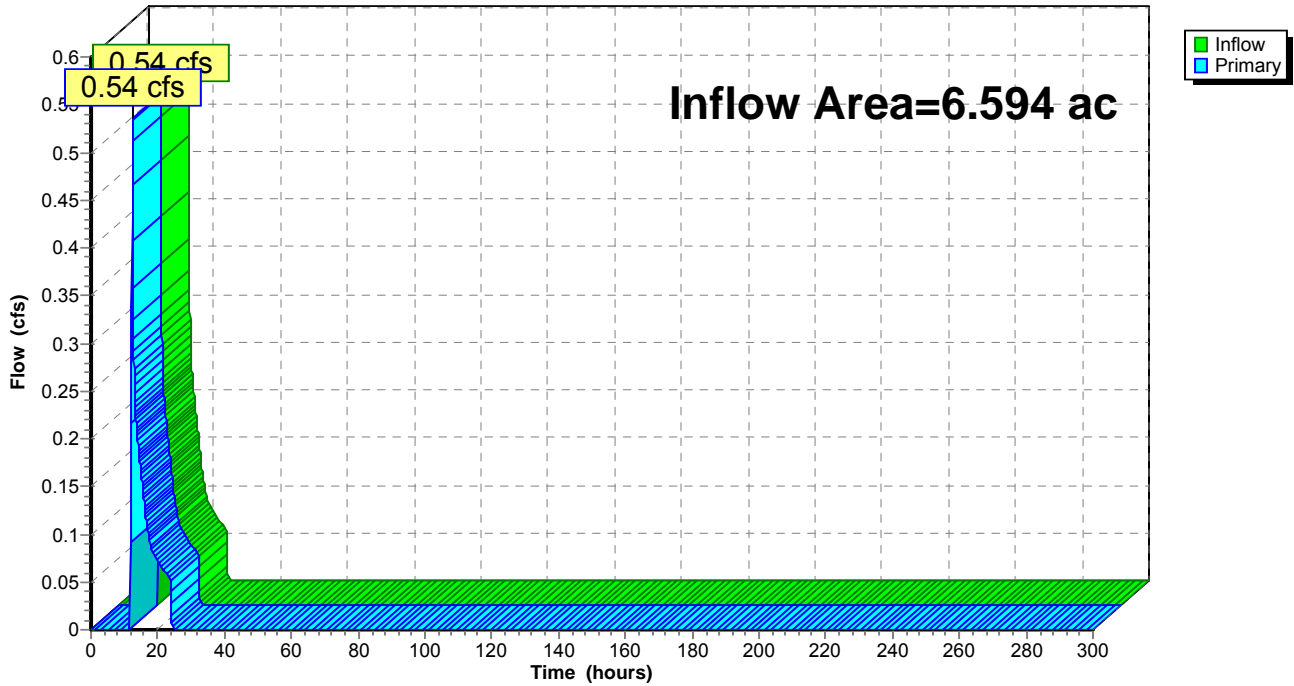
Summary for Pond DP 4: Design Point 4

Inflow Area = 6.594 ac, 0.00% Impervious, Inflow Depth = 0.22" for 1 Year - North Salem event
Inflow = 0.54 cfs @ 12.43 hrs, Volume= 0.122 af
Primary = 0.54 cfs @ 12.43 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D: Pre-Development D

Runoff Area=6.594 ac 0.00% Impervious Runoff Depth=0.42"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=1.38 cfs 0.228 af

Pond DP 4: Design Point 4

Inflow=1.38 cfs 0.228 af
Primary=1.38 cfs 0.228 af

Total Runoff Area = 6.594 ac Runoff Volume = 0.228 af Average Runoff Depth = 0.42"
100.00% Pervious = 6.594 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D: Pre-Development D

Runoff = 1.38 cfs @ 12.30 hrs, Volume= 0.228 af, Depth= 0.42"

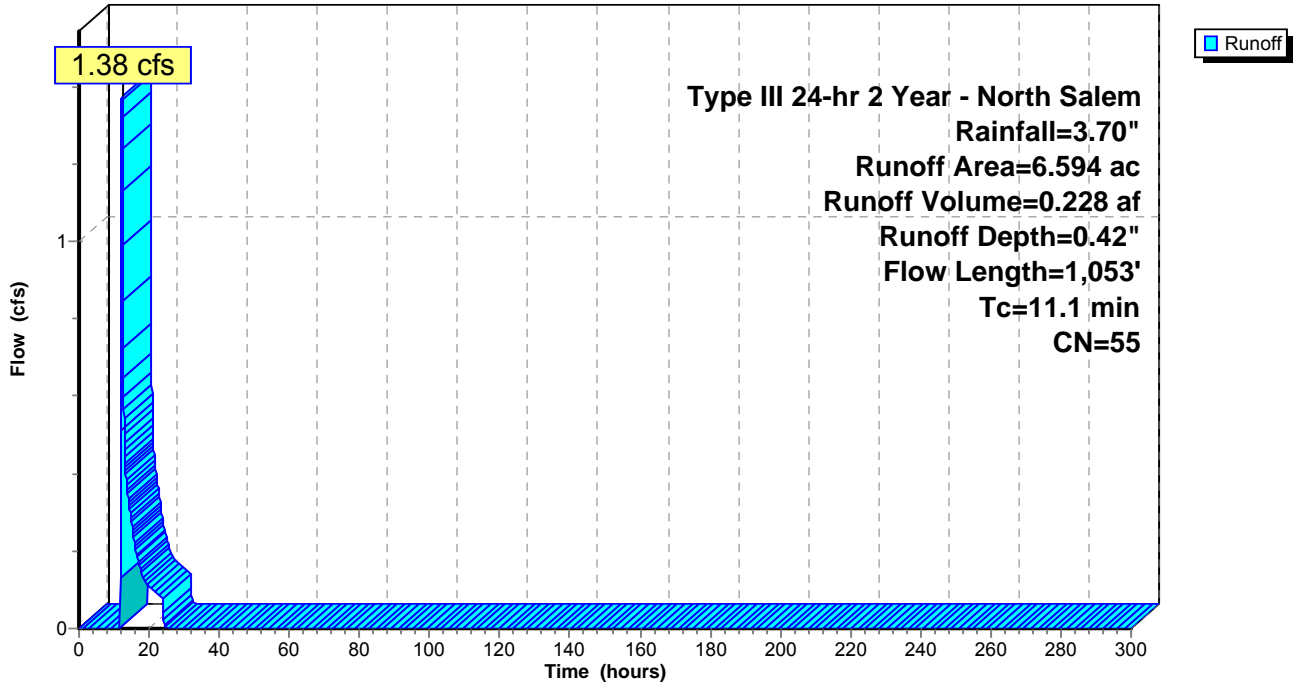
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 6.210	55	Woods, Good, HSG B, CsD Soils
* 0.384	55	Woods, Good, HSG B, CrC Soils
6.594	55	Weighted Average
6.594		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D: Pre-Development D

Hydrograph



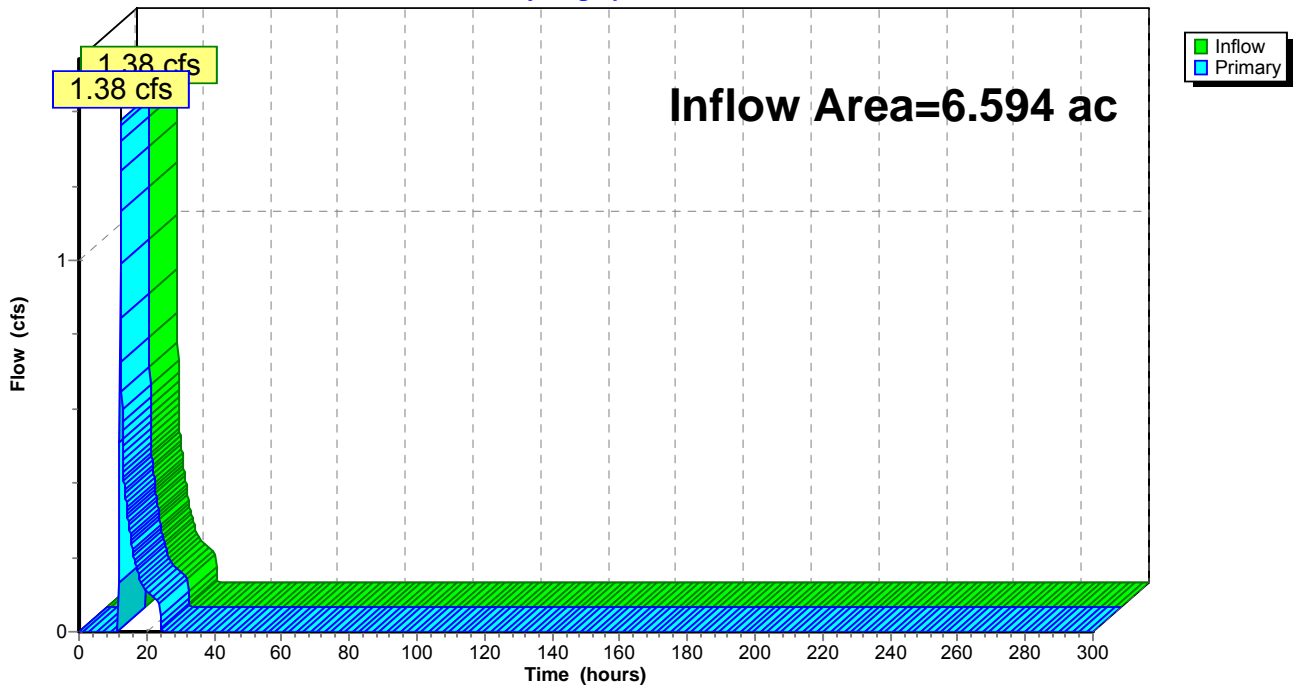
Summary for Pond DP 4: Design Point 4

Inflow Area = 6.594 ac, 0.00% Impervious, Inflow Depth = 0.42" for 2 Year - North Salem event
Inflow = 1.38 cfs @ 12.30 hrs, Volume= 0.228 af
Primary = 1.38 cfs @ 12.30 hrs, Volume= 0.228 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D: Pre-Development D

Runoff Area=6.594 ac 0.00% Impervious Runoff Depth=1.24"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=6.70 cfs 0.681 af

Pond DP 4: Design Point 4

Inflow=6.70 cfs 0.681 af
Primary=6.70 cfs 0.681 af

Total Runoff Area = 6.594 ac Runoff Volume = 0.681 af Average Runoff Depth = 1.24"
100.00% Pervious = 6.594 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D: Pre-Development D

Runoff = 6.70 cfs @ 12.18 hrs, Volume= 0.681 af, Depth= 1.24"

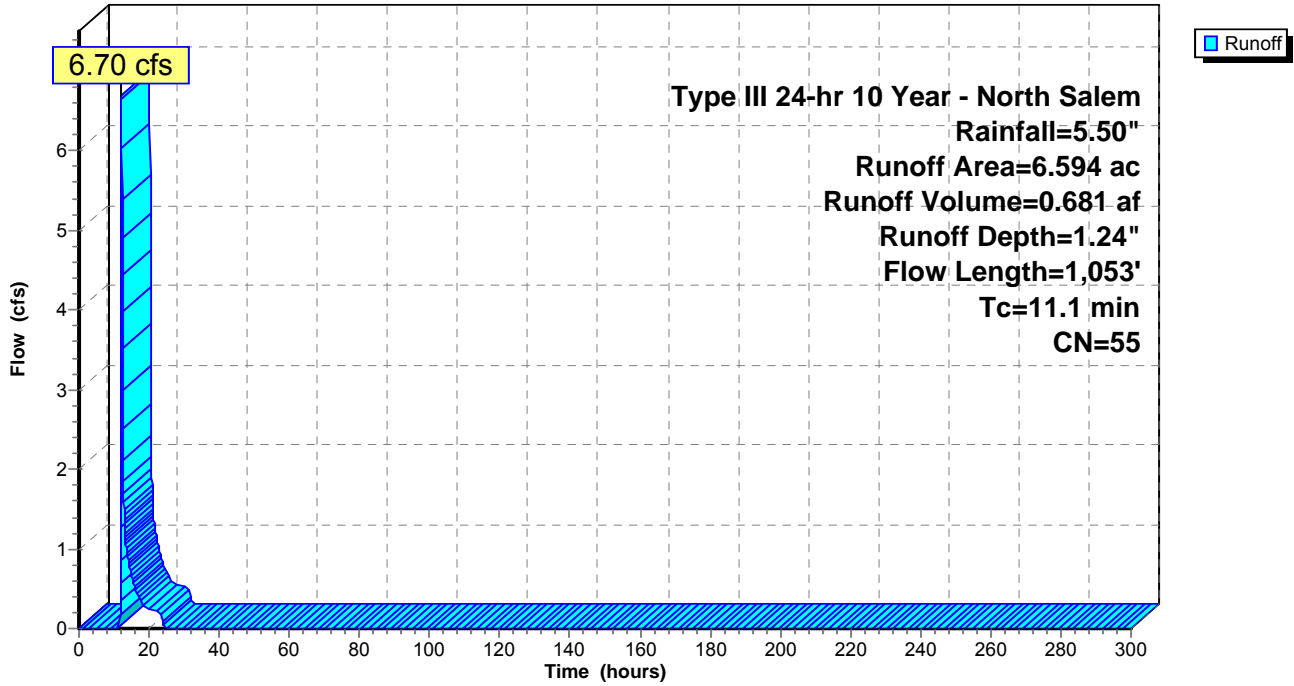
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 6.210	55	Woods, Good, HSG B, CsD Soils
* 0.384	55	Woods, Good, HSG B, CrC Soils
6.594	55	Weighted Average
6.594		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D: Pre-Development D

Hydrograph



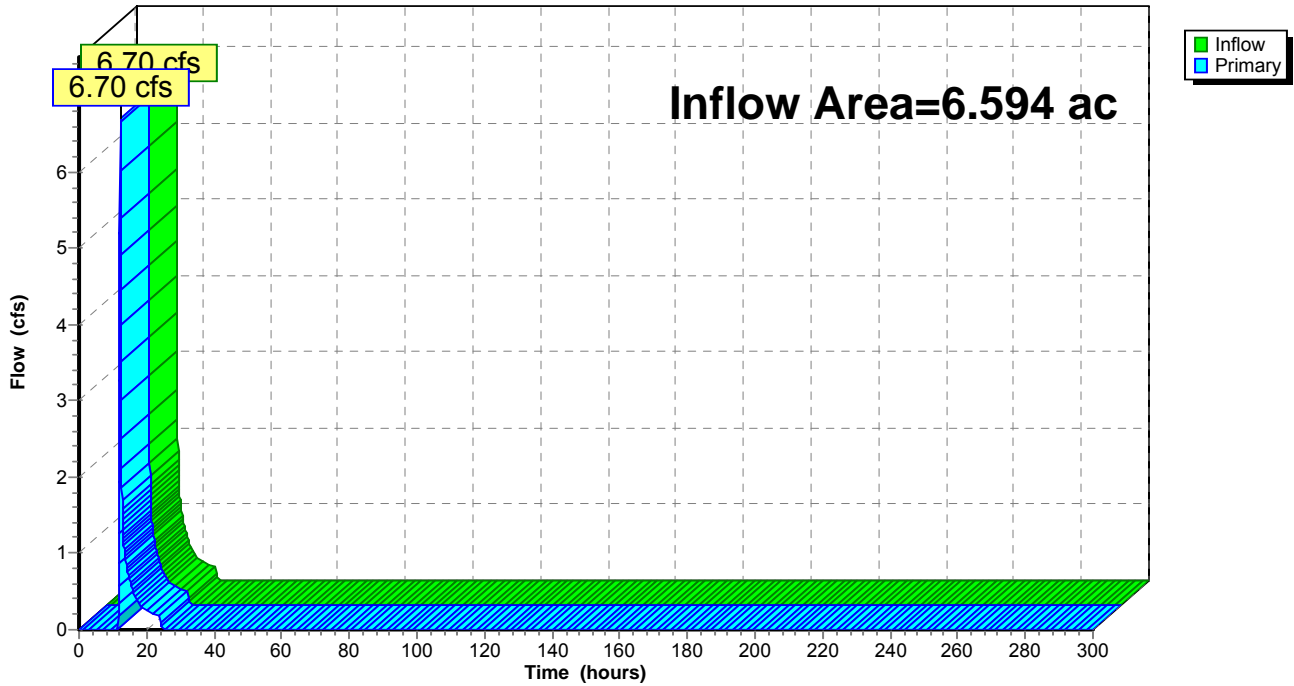
Summary for Pond DP 4: Design Point 4

Inflow Area = 6.594 ac, 0.00% Impervious, Inflow Depth = 1.24" for 10 Year - North Salem event
Inflow = 6.70 cfs @ 12.18 hrs, Volume= 0.681 af
Primary = 6.70 cfs @ 12.18 hrs, Volume= 0.681 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D: Pre-Development D

Runoff Area=6.594 ac 0.00% Impervious Runoff Depth=2.12"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=12.78 cfs 1.167 af

Pond DP 4: Design Point 4

Inflow=12.78 cfs 1.167 af
Primary=12.78 cfs 1.167 af

Total Runoff Area = 6.594 ac Runoff Volume = 1.167 af Average Runoff Depth = 2.12"
100.00% Pervious = 6.594 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D: Pre-Development D

Runoff = 12.78 cfs @ 12.17 hrs, Volume= 1.167 af, Depth= 2.12"

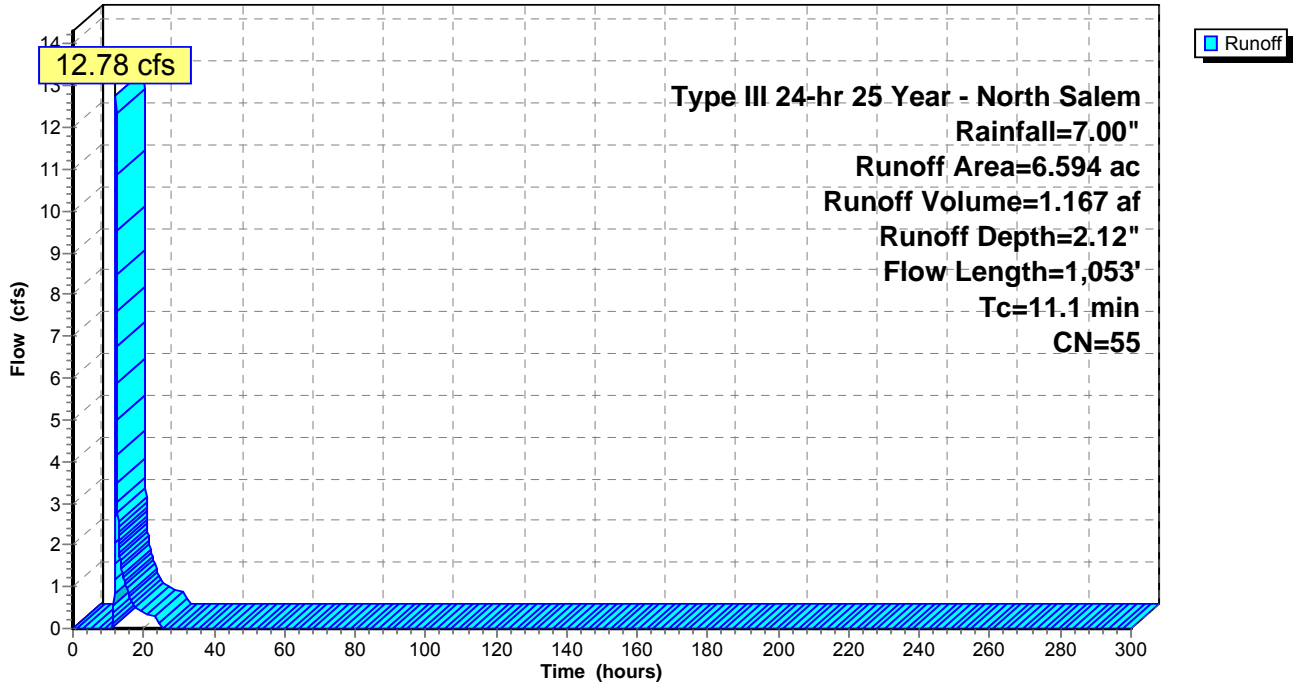
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 6.210	55	Woods, Good, HSG B, CsD Soils
* 0.384	55	Woods, Good, HSG B, CrC Soils
6.594	55	Weighted Average
6.594		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D: Pre-Development D

Hydrograph



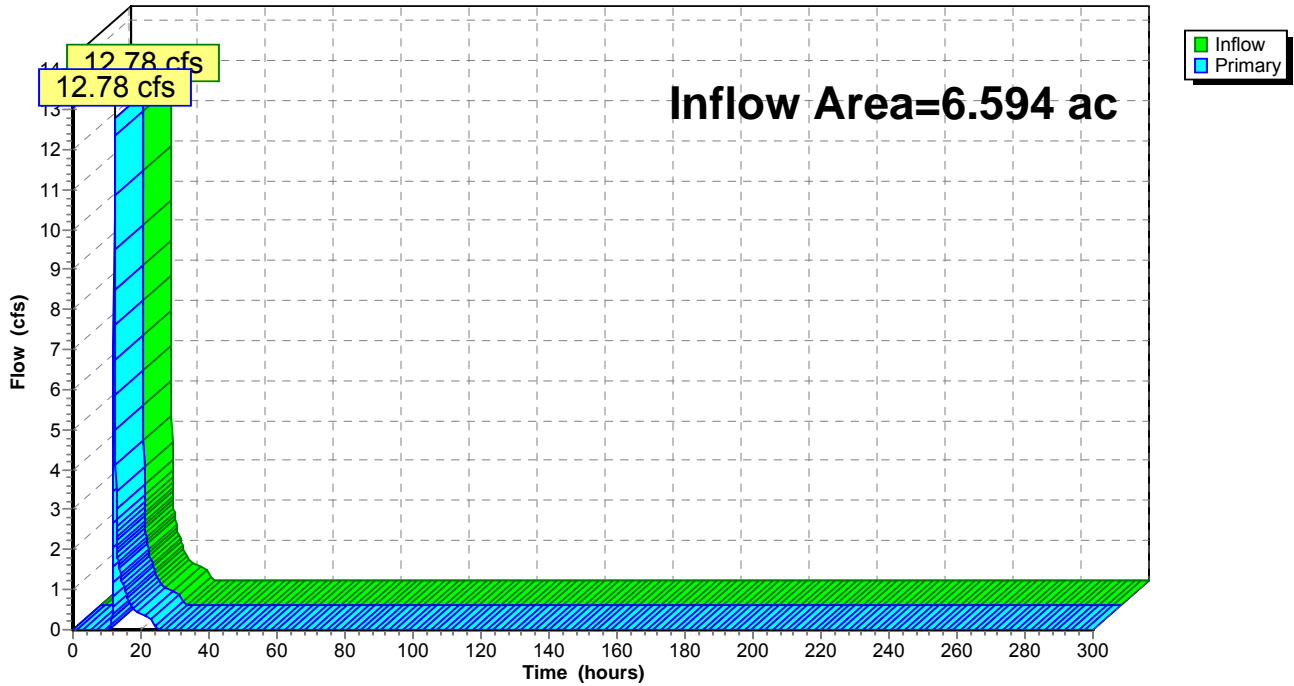
Summary for Pond DP 4: Design Point 4

Inflow Area = 6.594 ac, 0.00% Impervious, Inflow Depth = 2.12" for 25 Year - North Salem event
Inflow = 12.78 cfs @ 12.17 hrs, Volume= 1.167 af
Primary = 12.78 cfs @ 12.17 hrs, Volume= 1.167 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D: Pre-Development D

Runoff Area=6.594 ac 0.00% Impervious Runoff Depth=3.49"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=21.99 cfs 1.917 af

Pond DP 4: Design Point 4

Inflow=21.99 cfs 1.917 af
Primary=21.99 cfs 1.917 af

Total Runoff Area = 6.594 ac Runoff Volume = 1.917 af Average Runoff Depth = 3.49"
100.00% Pervious = 6.594 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D: Pre-Development D

Runoff = 21.99 cfs @ 12.16 hrs, Volume= 1.917 af, Depth= 3.49"

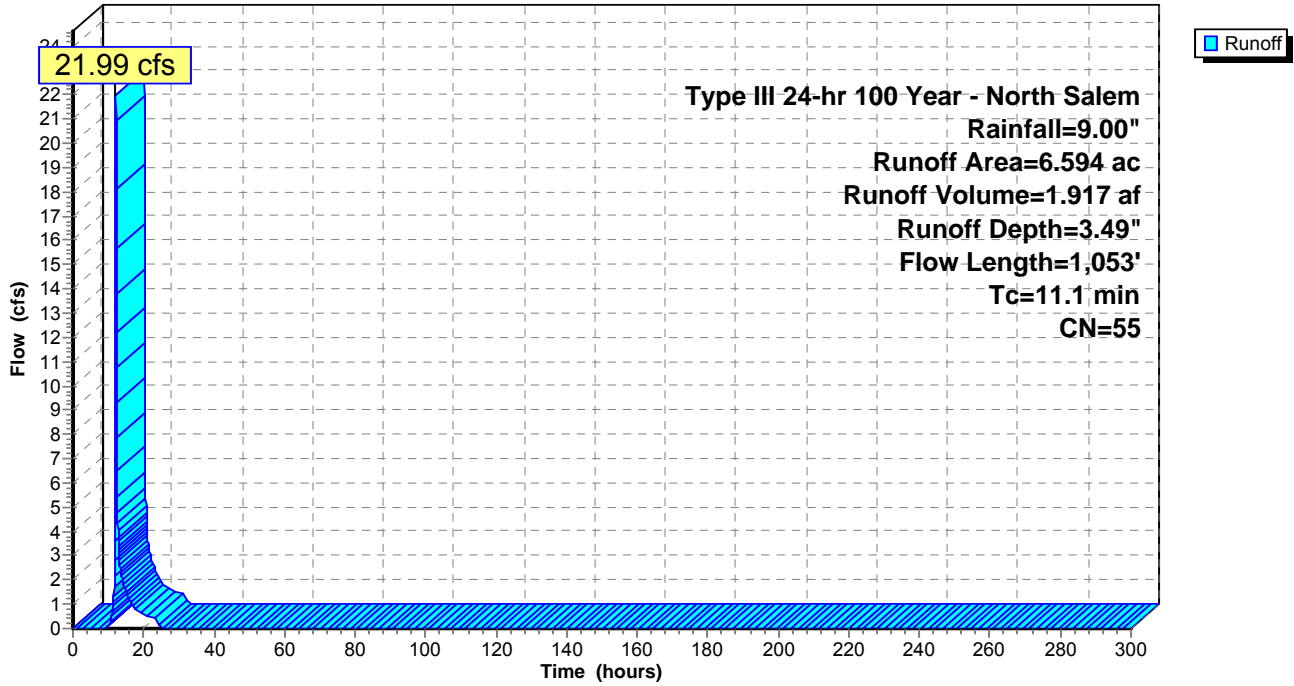
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 6.210	55	Woods, Good, HSG B, CsD Soils
* 0.384	55	Woods, Good, HSG B, CrC Soils
6.594	55	Weighted Average
6.594		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D: Pre-Development D

Hydrograph



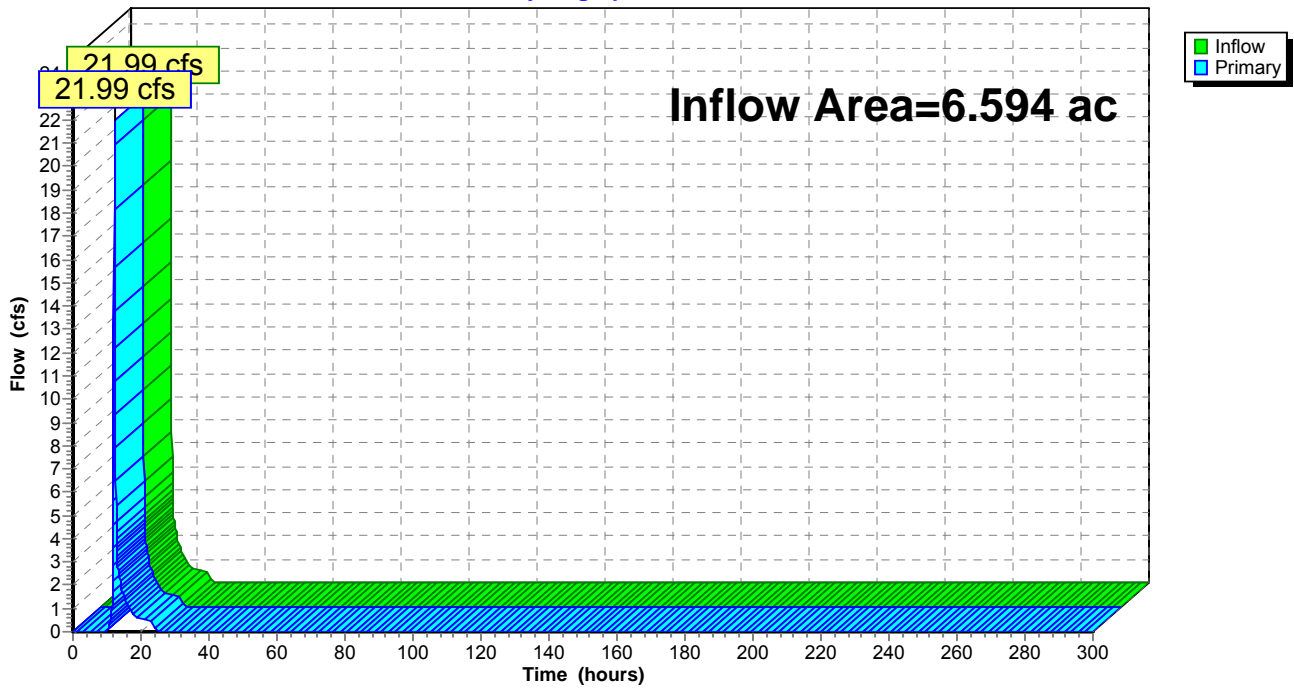
Summary for Pond DP 4: Design Point 4

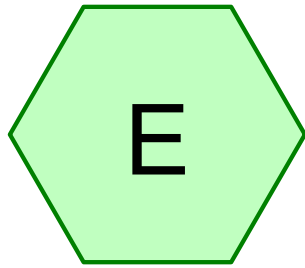
Inflow Area = 6.594 ac, 0.00% Impervious, Inflow Depth = 3.49" for 100 Year - North Salem event
Inflow = 21.99 cfs @ 12.16 hrs, Volume= 1.917 af
Primary = 21.99 cfs @ 12.16 hrs, Volume= 1.917 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

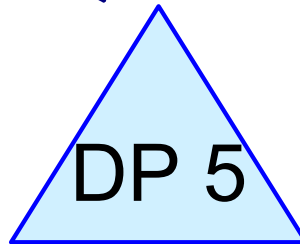
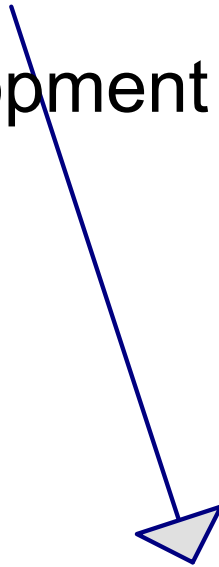
Pond DP 4: Design Point 4

Hydrograph

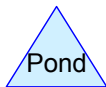
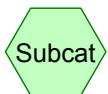




Pre-Development E



Design Point 5



Woodlands Pre-Dev Part 1 2012

Prepared by KCG Engineers, P.C.

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Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.806	55	Woods, Good, HSG B, CsD Soils (E)
1.806		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Pre-Development E

Runoff Area=1.806 ac 0.00% Impervious Runoff Depth=0.22"
Flow Length=705' Tc=10.6 min CN=55 Runoff=0.15 cfs 0.033 af

Pond DP 5: Design Point 5

Inflow=0.15 cfs 0.033 af
Primary=0.15 cfs 0.033 af

Total Runoff Area = 1.806 ac Runoff Volume = 0.033 af Average Runoff Depth = 0.22"
100.00% Pervious = 1.806 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E: Pre-Development E

Runoff = 0.15 cfs @ 12.42 hrs, Volume= 0.033 af, Depth= 0.22"

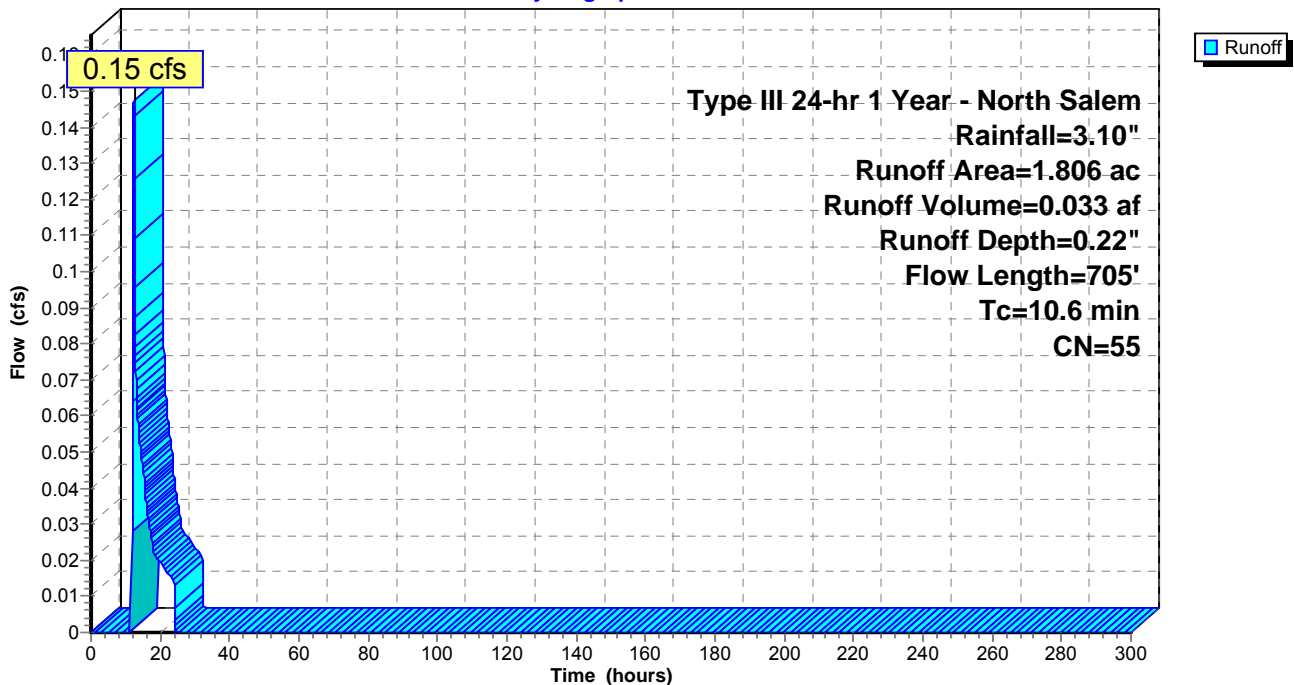
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 1.806	55	Woods, Good, HSG B, CsD Soils
1.806		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.1500	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1375	5.97		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.6	195	0.1230	5.65		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	97	0.2474	8.01		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	153	0.1176	5.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
10.6	705	Total			

Subcatchment E: Pre-Development E

Hydrograph



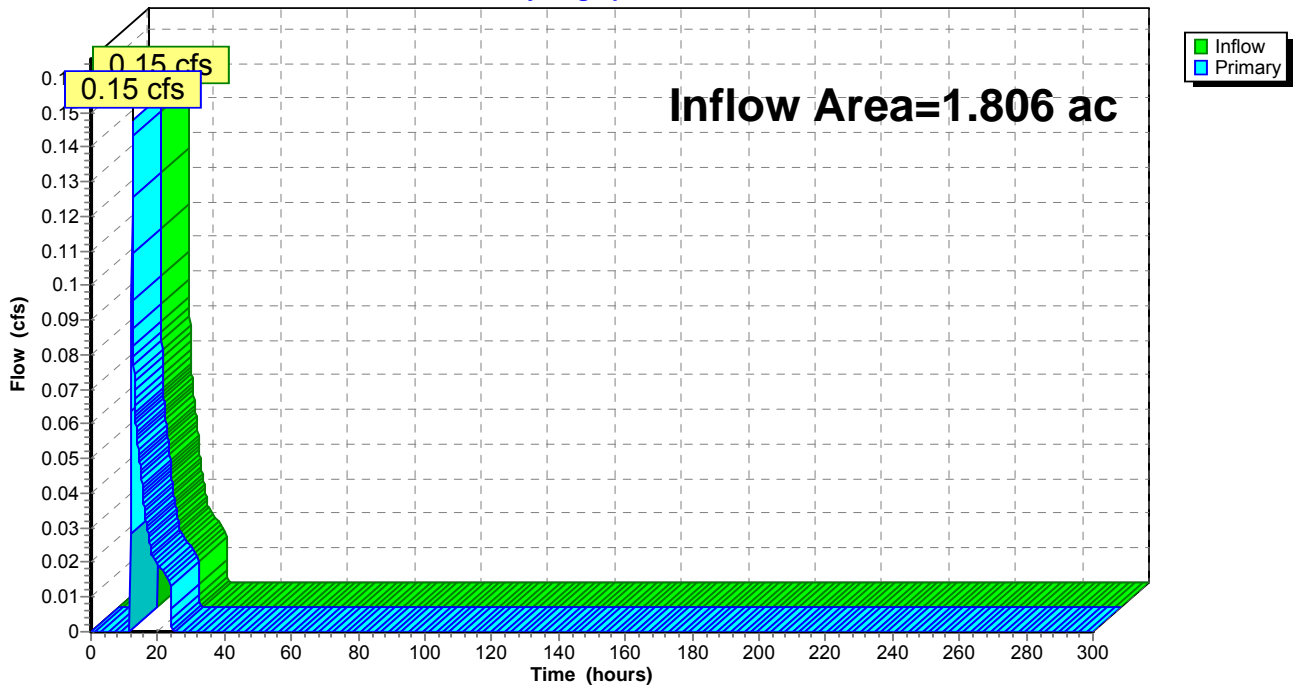
Summary for Pond DP 5: Design Point 5

Inflow Area = 1.806 ac, 0.00% Impervious, Inflow Depth = 0.22" for 1 Year - North Salem event
Inflow = 0.15 cfs @ 12.42 hrs, Volume= 0.033 af
Primary = 0.15 cfs @ 12.42 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Pre-Development E

Runoff Area=1.806 ac 0.00% Impervious Runoff Depth=0.42"
Flow Length=705' Tc=10.6 min CN=55 Runoff=0.38 cfs 0.063 af

Pond DP 5: Design Point 5

Inflow=0.38 cfs 0.063 af
Primary=0.38 cfs 0.063 af

Total Runoff Area = 1.806 ac Runoff Volume = 0.063 af Average Runoff Depth = 0.42"
100.00% Pervious = 1.806 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E: Pre-Development E

Runoff = 0.38 cfs @ 12.28 hrs, Volume= 0.063 af, Depth= 0.42"

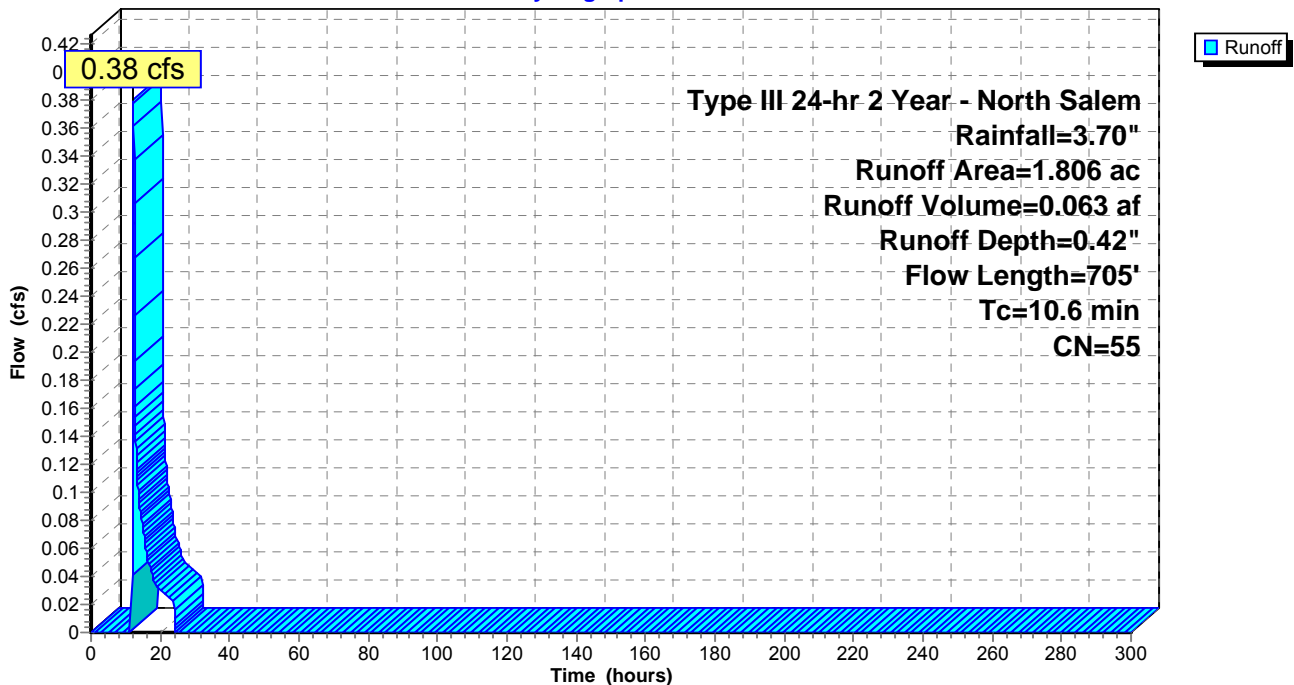
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 1.806	55	Woods, Good, HSG B, CsD Soils
1.806		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.1500	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1375	5.97		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.6	195	0.1230	5.65		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	97	0.2474	8.01		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	153	0.1176	5.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
10.6	705	Total			

Subcatchment E: Pre-Development E

Hydrograph



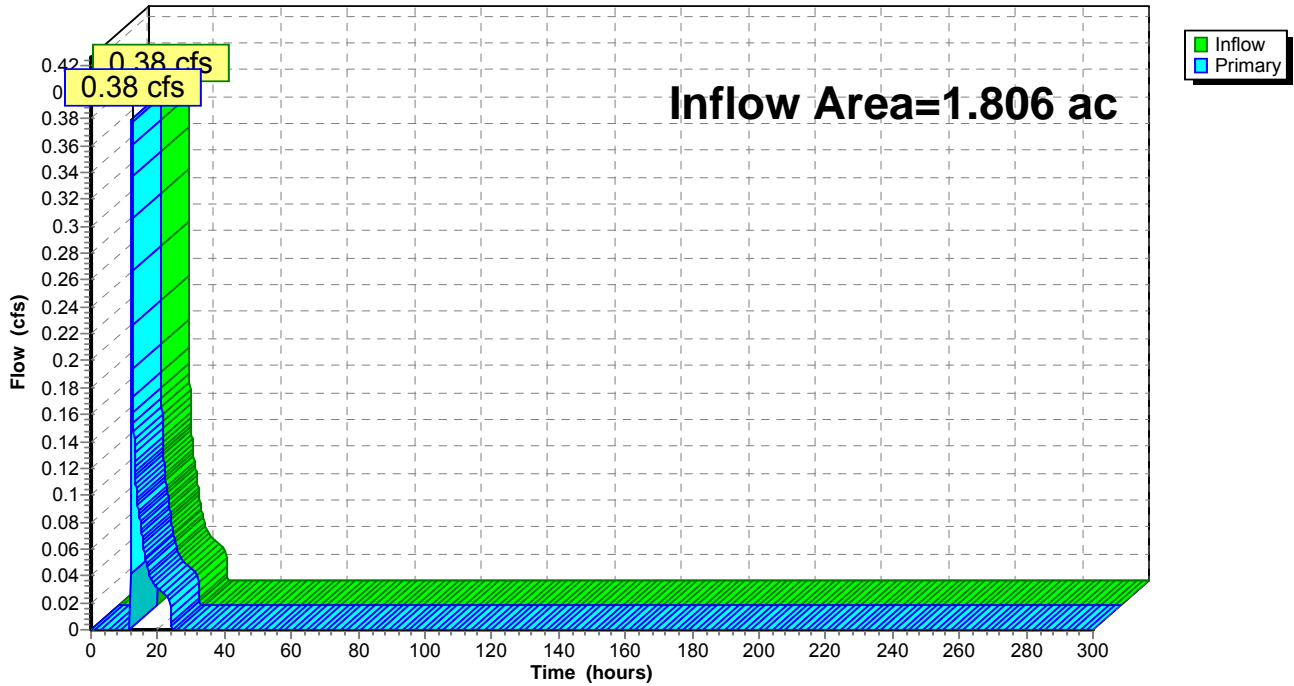
Summary for Pond DP 5: Design Point 5

Inflow Area = 1.806 ac, 0.00% Impervious, Inflow Depth = 0.42" for 2 Year - North Salem event
Inflow = 0.38 cfs @ 12.28 hrs, Volume= 0.063 af
Primary = 0.38 cfs @ 12.28 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Pre-Development E

Runoff Area=1.806 ac 0.00% Impervious Runoff Depth=1.24"
Flow Length=705' Tc=10.6 min CN=55 Runoff=1.89 cfs 0.187 af

Pond DP 5: Design Point 5

Inflow=1.89 cfs 0.187 af
Primary=1.89 cfs 0.187 af

Total Runoff Area = 1.806 ac Runoff Volume = 0.187 af Average Runoff Depth = 1.24"
100.00% Pervious = 1.806 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E: Pre-Development E

Runoff = 1.89 cfs @ 12.17 hrs, Volume= 0.187 af, Depth= 1.24"

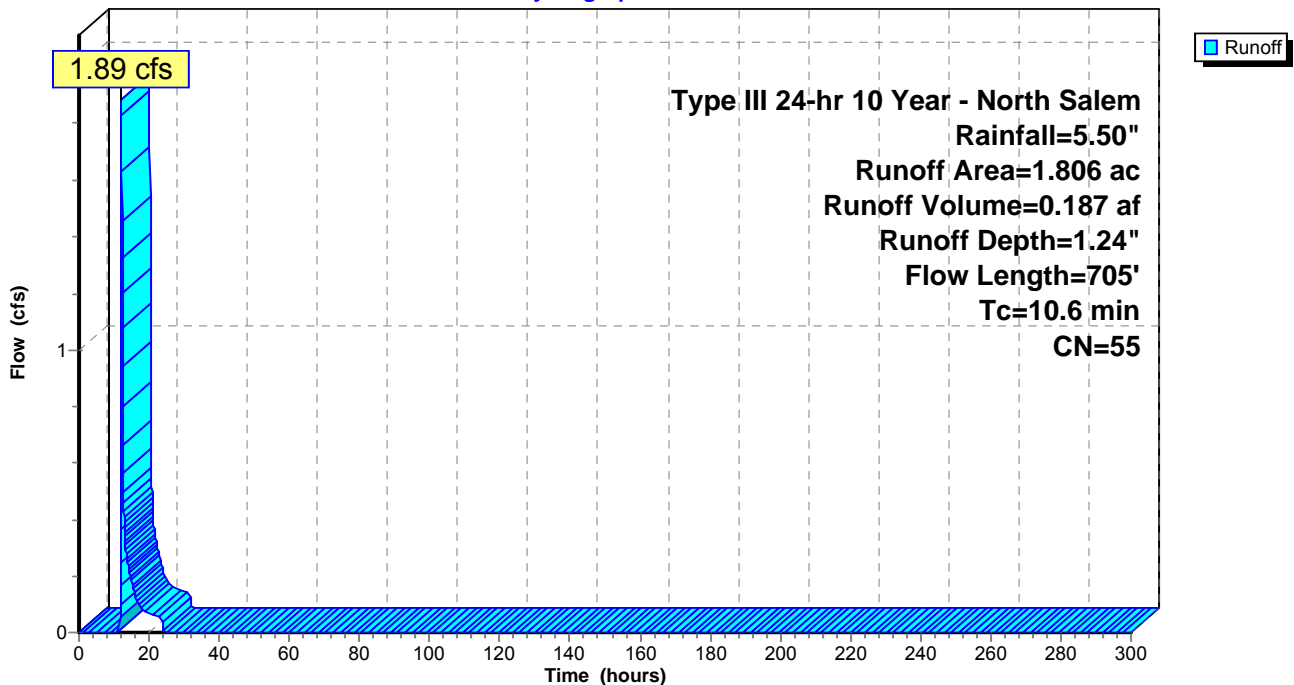
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 1.806	55	Woods, Good, HSG B, CsD Soils
1.806		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.1500	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1375	5.97		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.6	195	0.1230	5.65		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	97	0.2474	8.01		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	153	0.1176	5.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
10.6	705	Total			

Subcatchment E: Pre-Development E

Hydrograph



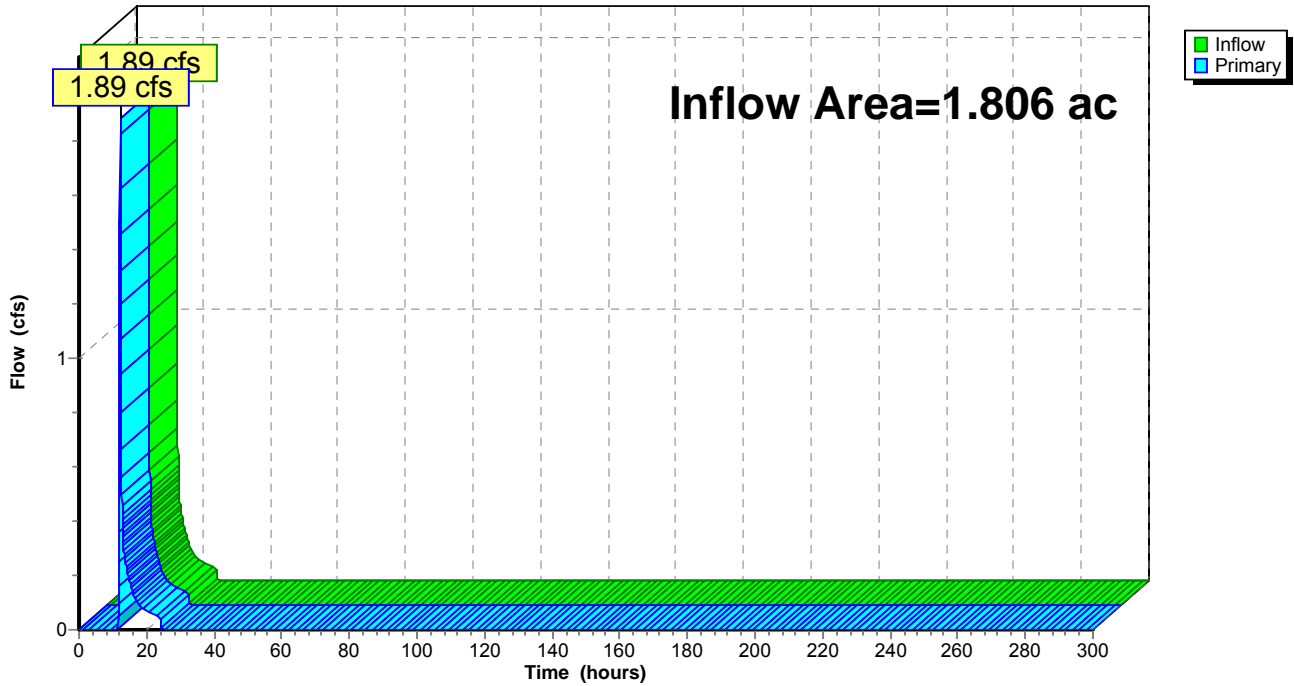
Summary for Pond DP 5: Design Point 5

Inflow Area = 1.806 ac, 0.00% Impervious, Inflow Depth = 1.24" for 10 Year - North Salem event
Inflow = 1.89 cfs @ 12.17 hrs, Volume= 0.187 af
Primary = 1.89 cfs @ 12.17 hrs, Volume= 0.187 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Pre-Development E

Runoff Area=1.806 ac 0.00% Impervious Runoff Depth=2.12"
Flow Length=705' Tc=10.6 min CN=55 Runoff=3.55 cfs 0.320 af

Pond DP 5: Design Point 5

Inflow=3.55 cfs 0.320 af
Primary=3.55 cfs 0.320 af

Total Runoff Area = 1.806 ac Runoff Volume = 0.320 af Average Runoff Depth = 2.12"
100.00% Pervious = 1.806 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E: Pre-Development E

Runoff = 3.55 cfs @ 12.16 hrs, Volume= 0.320 af, Depth= 2.12"

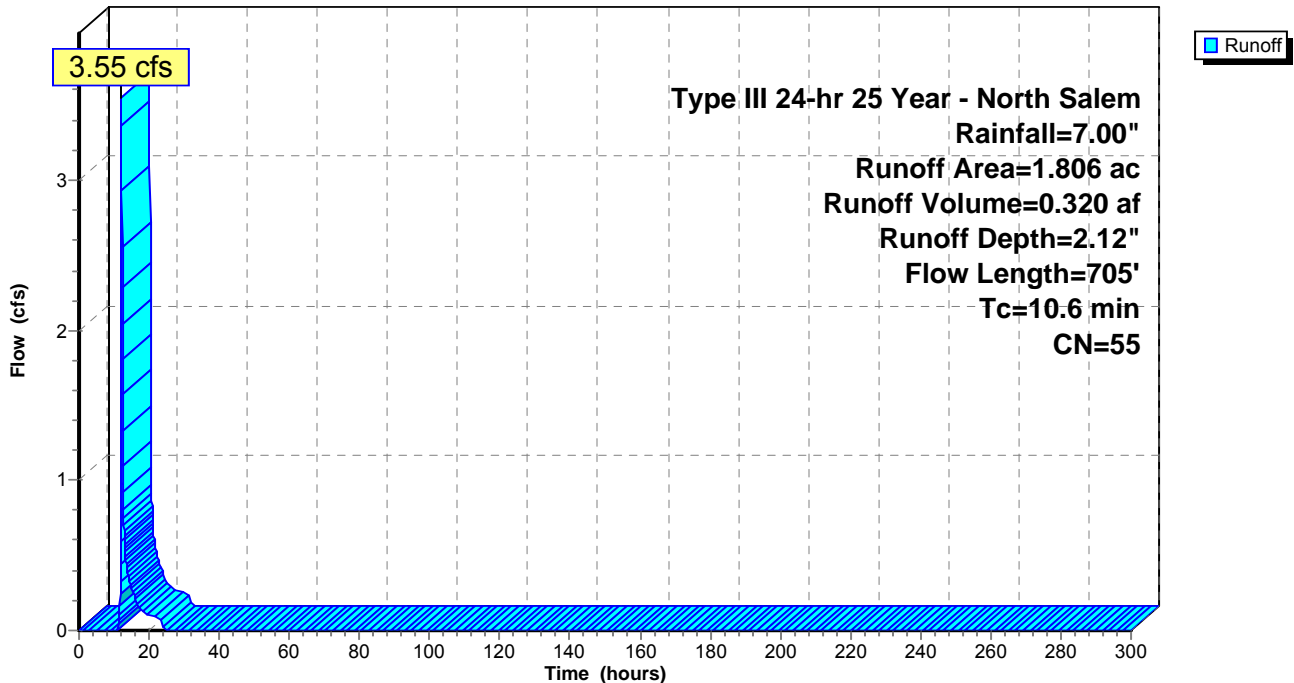
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 1.806	55	Woods, Good, HSG B, CsD Soils
1.806		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.1500	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1375	5.97		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.6	195	0.1230	5.65		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	97	0.2474	8.01		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	153	0.1176	5.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
10.6	705	Total			

Subcatchment E: Pre-Development E

Hydrograph



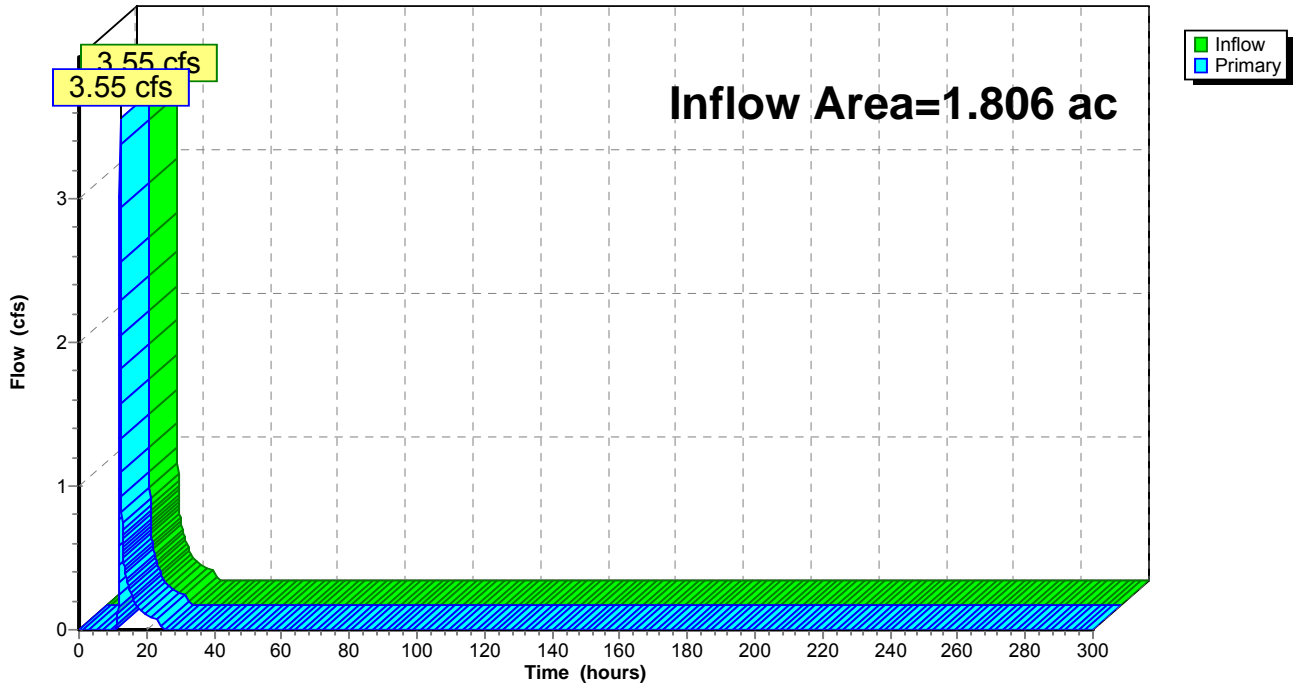
Summary for Pond DP 5: Design Point 5

Inflow Area = 1.806 ac, 0.00% Impervious, Inflow Depth = 2.12" for 25 Year - North Salem event
Inflow = 3.55 cfs @ 12.16 hrs, Volume= 0.320 af
Primary = 3.55 cfs @ 12.16 hrs, Volume= 0.320 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E: Pre-Development E

Runoff Area=1.806 ac 0.00% Impervious Runoff Depth=3.49"
Flow Length=705' Tc=10.6 min CN=55 Runoff=6.11 cfs 0.525 af

Pond DP 5: Design Point 5

Inflow=6.11 cfs 0.525 af
Primary=6.11 cfs 0.525 af

Total Runoff Area = 1.806 ac Runoff Volume = 0.525 af Average Runoff Depth = 3.49"
100.00% Pervious = 1.806 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E: Pre-Development E

Runoff = 6.11 cfs @ 12.16 hrs, Volume= 0.525 af, Depth= 3.49"

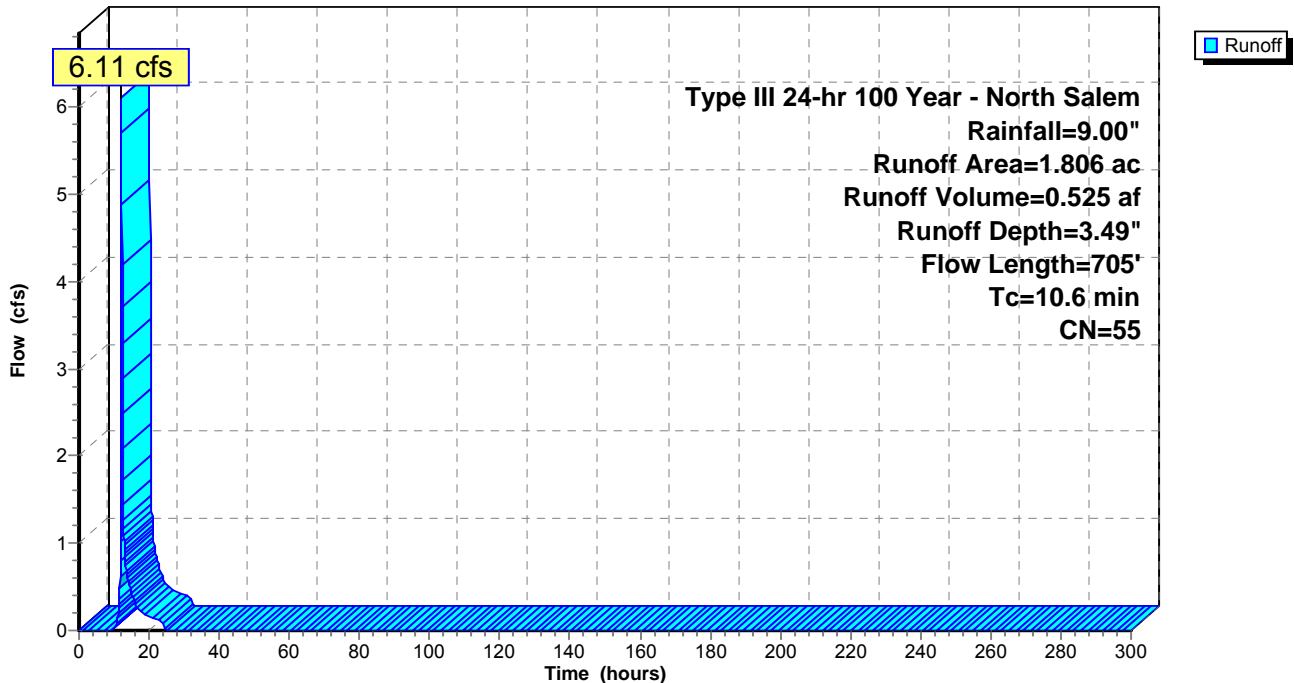
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 1.806	55	Woods, Good, HSG B, CsD Soils
1.806		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.1500	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1375	5.97		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.6	195	0.1230	5.65		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	97	0.2474	8.01		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	153	0.1176	5.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
10.6	705	Total			

Subcatchment E: Pre-Development E

Hydrograph



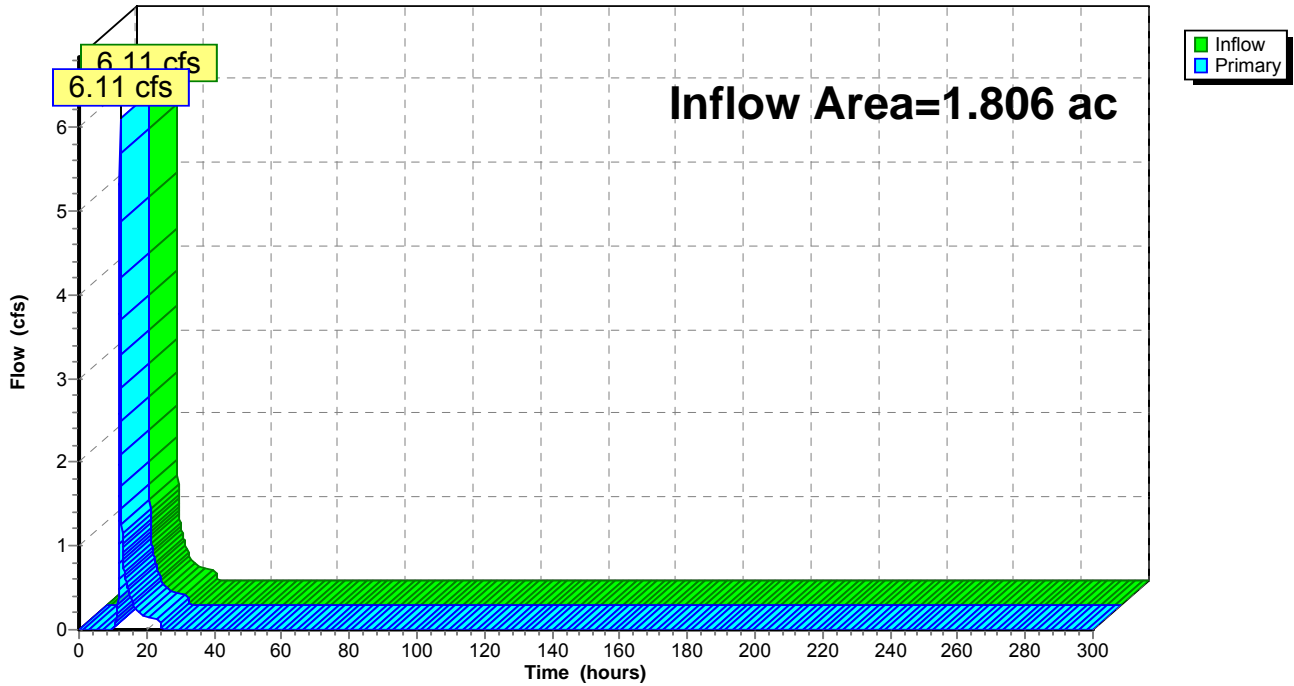
Summary for Pond DP 5: Design Point 5

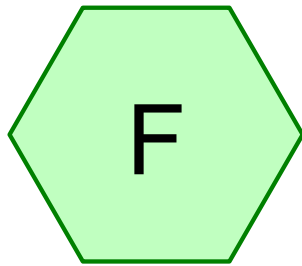
Inflow Area = 1.806 ac, 0.00% Impervious, Inflow Depth = 3.49" for 100 Year - North Salem event
Inflow = 6.11 cfs @ 12.16 hrs, Volume= 0.525 af
Primary = 6.11 cfs @ 12.16 hrs, Volume= 0.525 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

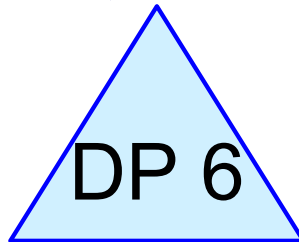
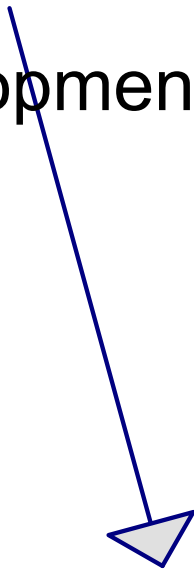
Pond DP 5: Design Point 5

Hydrograph

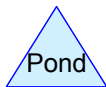
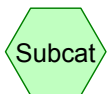




Pre-Development F



Design Point 6



Woodlands Pre-Dev Part 1 2012

Prepared by KCG Engineers, P.C.

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Page 2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
6.400	55	Woods, Good, HSG B, CsD Soils (F)
6.400		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F: Pre-Development F

Runoff Area=6.400 ac 0.00% Impervious Runoff Depth=0.22"
Flow Length=1,451' Tc=13.6 min CN=55 Runoff=0.50 cfs 0.118 af

Pond DP 6: Design Point 6

Inflow=0.50 cfs 0.118 af
Primary=0.50 cfs 0.118 af

Total Runoff Area = 6.400 ac Runoff Volume = 0.118 af Average Runoff Depth = 0.22"
100.00% Pervious = 6.400 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment F: Pre-Development F

Runoff = 0.50 cfs @ 12.47 hrs, Volume= 0.118 af, Depth= 0.22"

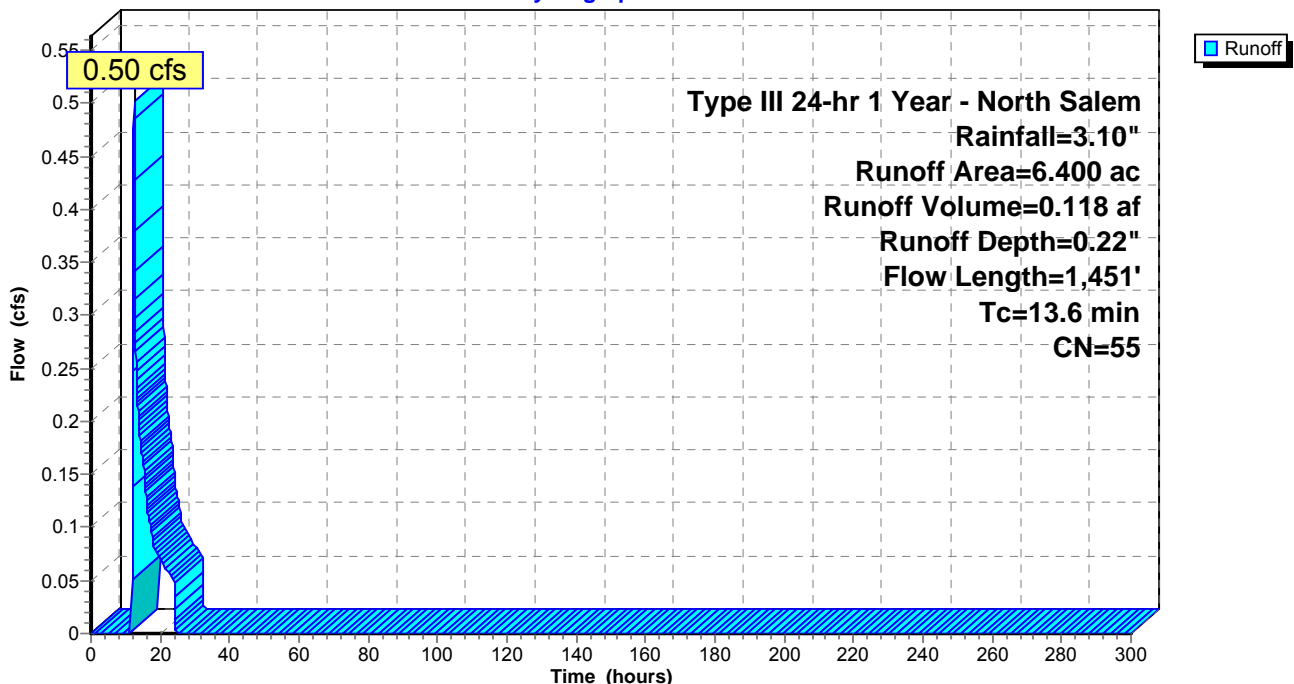
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 6.400	55	Woods, Good, HSG B, CsD Soils
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	155	0.2064	7.31		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.9	195	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	291	0.1718	6.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
2.3	450	0.0400	3.22		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	260	0.1769	6.77		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
13.6	1,451	Total			

Subcatchment F: Pre-Development F

Hydrograph



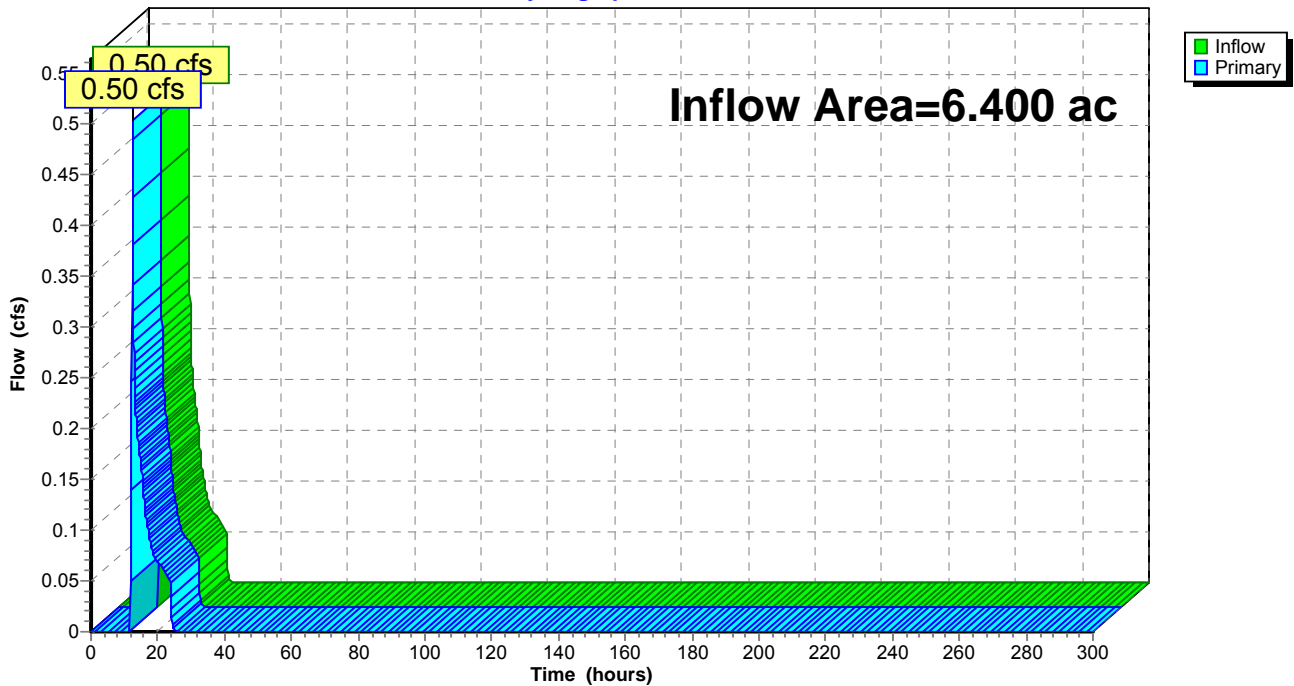
Summary for Pond DP 6: Design Point 6

Inflow Area = 6.400 ac, 0.00% Impervious, Inflow Depth = 0.22" for 1 Year - North Salem event
Inflow = 0.50 cfs @ 12.47 hrs, Volume= 0.118 af
Primary = 0.50 cfs @ 12.47 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F: Pre-Development F

Runoff Area=6.400 ac 0.00% Impervious Runoff Depth=0.42"
Flow Length=1,451' Tc=13.6 min CN=55 Runoff=1.30 cfs 0.222 af

Pond DP 6: Design Point 6

Inflow=1.30 cfs 0.222 af
Primary=1.30 cfs 0.222 af

Total Runoff Area = 6.400 ac Runoff Volume = 0.222 af Average Runoff Depth = 0.42"
100.00% Pervious = 6.400 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment F: Pre-Development F

Runoff = 1.30 cfs @ 12.35 hrs, Volume= 0.222 af, Depth= 0.42"

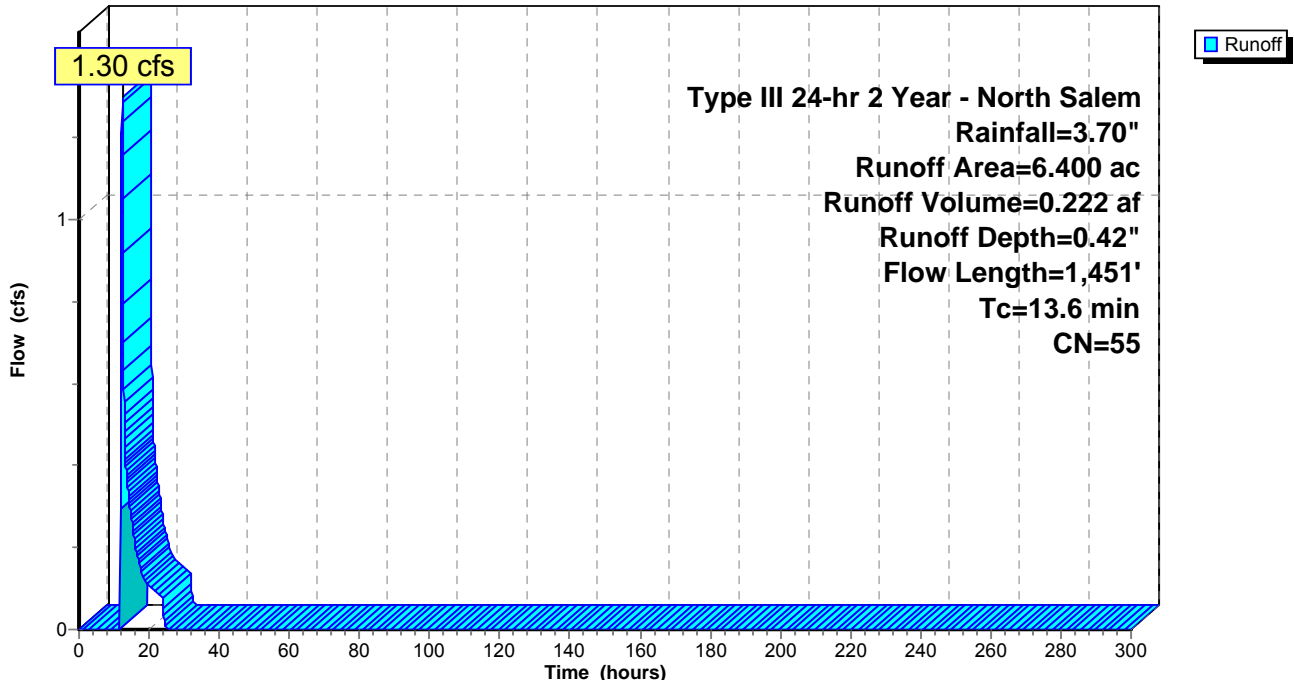
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 6.400	55	Woods, Good, HSG B, CsD Soils
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	155	0.2064	7.31		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.9	195	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	291	0.1718	6.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
2.3	450	0.0400	3.22		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	260	0.1769	6.77		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
13.6	1,451	Total			

Subcatchment F: Pre-Development F

Hydrograph



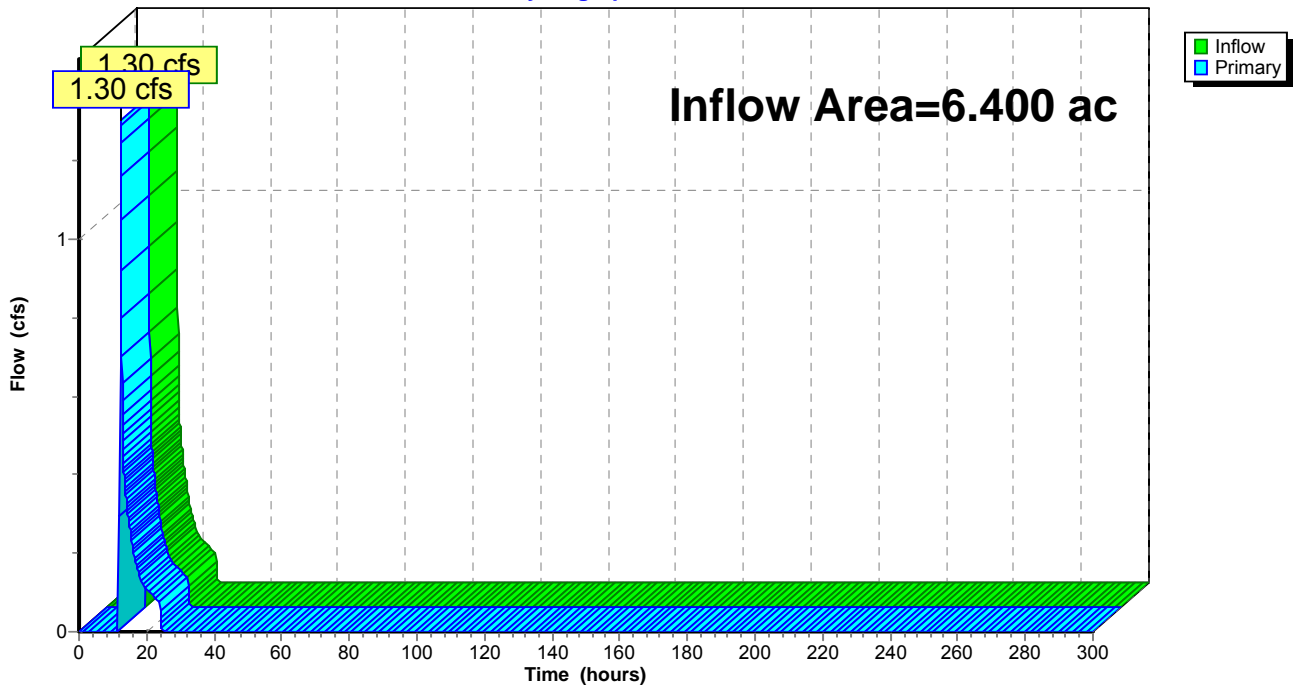
Summary for Pond DP 6: Design Point 6

Inflow Area = 6.400 ac, 0.00% Impervious, Inflow Depth = 0.42" for 2 Year - North Salem event
Inflow = 1.30 cfs @ 12.35 hrs, Volume= 0.222 af
Primary = 1.30 cfs @ 12.35 hrs, Volume= 0.222 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F: Pre-Development F

Runoff Area=6.400 ac 0.00% Impervious Runoff Depth=1.24"
Flow Length=1,451' Tc=13.6 min CN=55 Runoff=6.12 cfs 0.661 af

Pond DP 6: Design Point 6

Inflow=6.12 cfs 0.661 af
Primary=6.12 cfs 0.661 af

Total Runoff Area = 6.400 ac Runoff Volume = 0.661 af Average Runoff Depth = 1.24"
100.00% Pervious = 6.400 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment F: Pre-Development F

Runoff = 6.12 cfs @ 12.22 hrs, Volume= 0.661 af, Depth= 1.24"

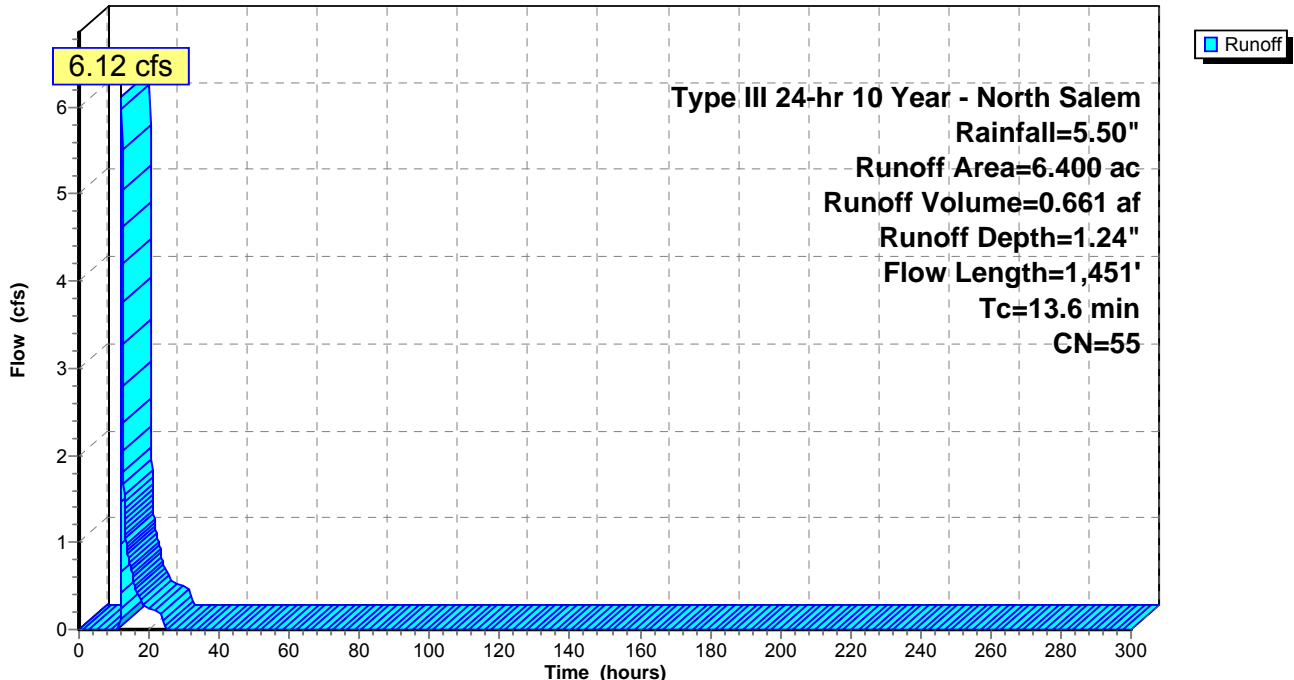
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 6.400	55	Woods, Good, HSG B, CsD Soils
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	155	0.2064	7.31		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.9	195	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	291	0.1718	6.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
2.3	450	0.0400	3.22		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	260	0.1769	6.77		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
13.6	1,451	Total			

Subcatchment F: Pre-Development F

Hydrograph



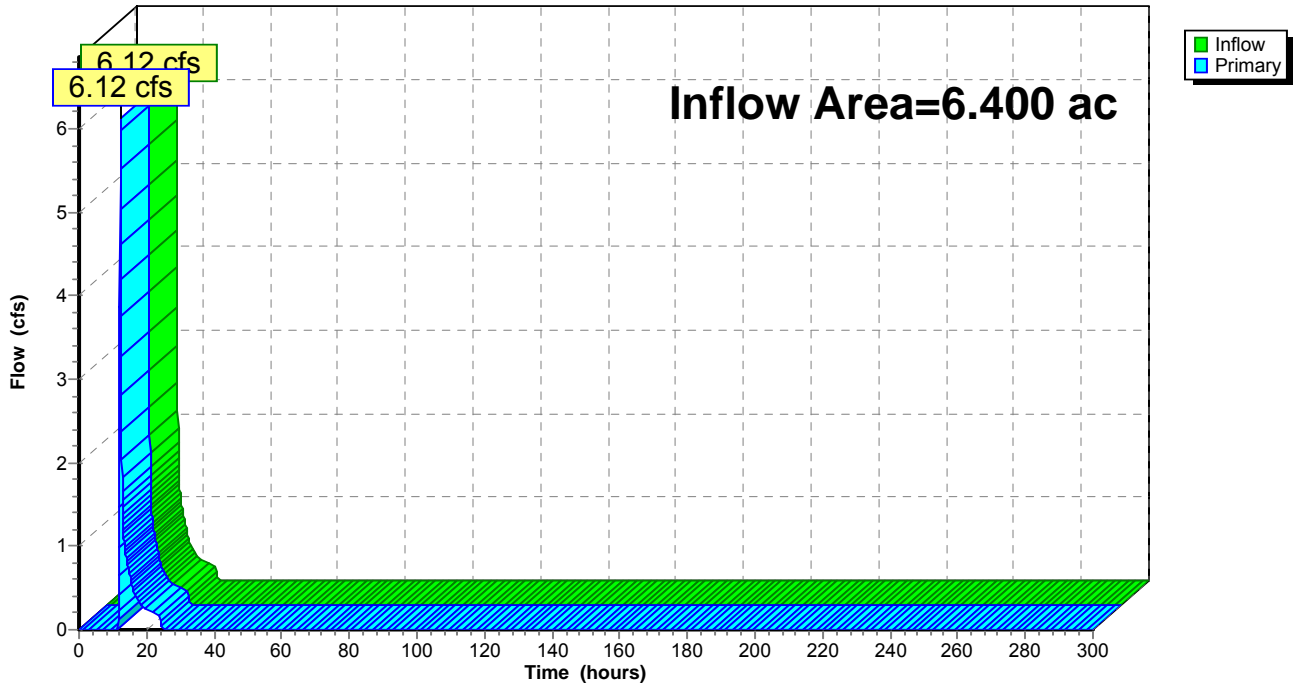
Summary for Pond DP 6: Design Point 6

Inflow Area = 6.400 ac, 0.00% Impervious, Inflow Depth = 1.24" for 10 Year - North Salem event
Inflow = 6.12 cfs @ 12.22 hrs, Volume= 0.661 af
Primary = 6.12 cfs @ 12.22 hrs, Volume= 0.661 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F: Pre-Development F

Runoff Area=6.400 ac 0.00% Impervious Runoff Depth=2.12"
Flow Length=1,451' Tc=13.6 min CN=55 Runoff=11.53 cfs 1.133 af

Pond DP 6: Design Point 6

Inflow=11.53 cfs 1.133 af
Primary=11.53 cfs 1.133 af

Total Runoff Area = 6.400 ac Runoff Volume = 1.133 af Average Runoff Depth = 2.12"
100.00% Pervious = 6.400 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment F: Pre-Development F

Runoff = 11.53 cfs @ 12.21 hrs, Volume= 1.133 af, Depth= 2.12"

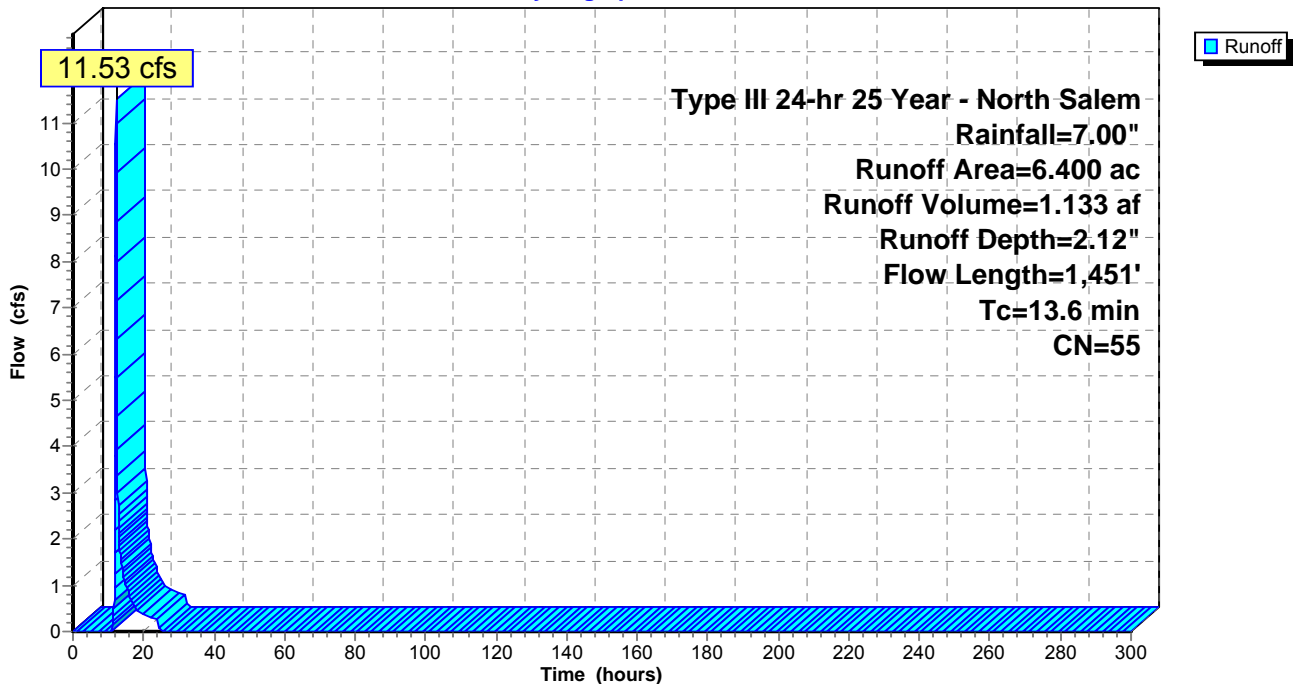
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 6.400	55	Woods, Good, HSG B, CsD Soils
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	155	0.2064	7.31		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.9	195	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	291	0.1718	6.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
2.3	450	0.0400	3.22		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	260	0.1769	6.77		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
13.6	1,451	Total			

Subcatchment F: Pre-Development F

Hydrograph



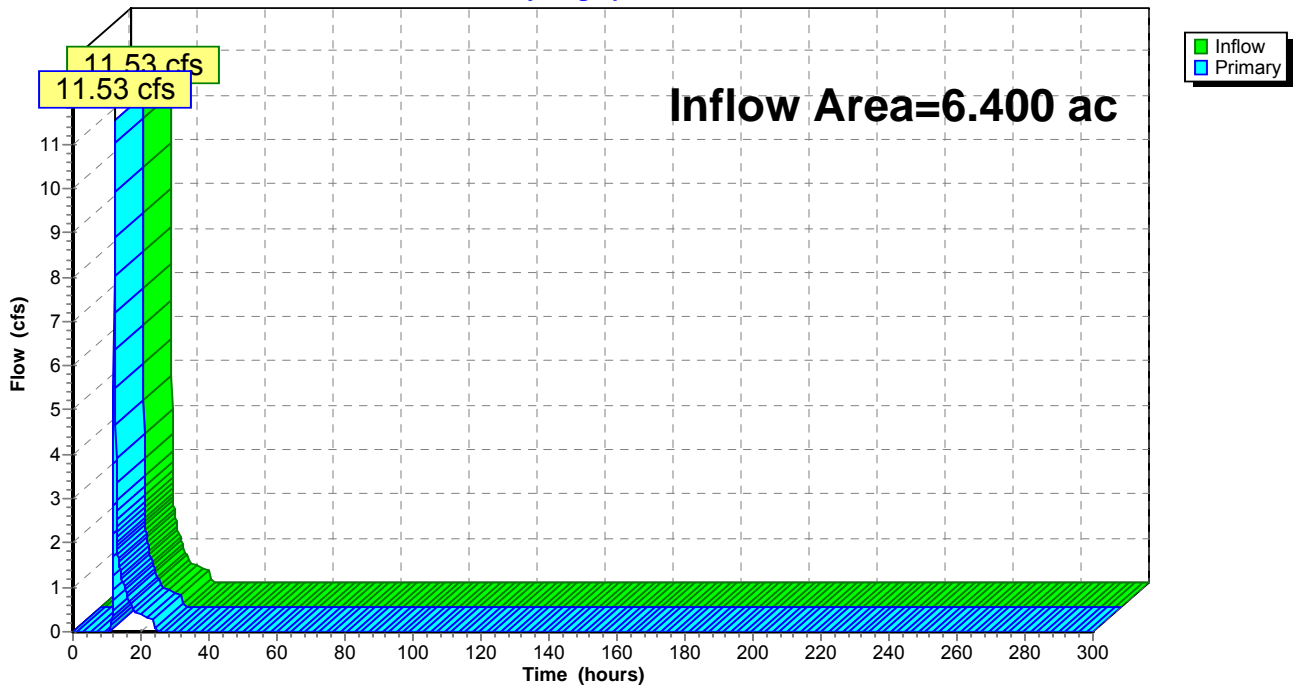
Summary for Pond DP 6: Design Point 6

Inflow Area = 6.400 ac, 0.00% Impervious, Inflow Depth = 2.12" for 25 Year - North Salem event
Inflow = 11.53 cfs @ 12.21 hrs, Volume= 1.133 af
Primary = 11.53 cfs @ 12.21 hrs, Volume= 1.133 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F: Pre-Development F

Runoff Area=6.400 ac 0.00% Impervious Runoff Depth=3.49"
Flow Length=1,451' Tc=13.6 min CN=55 Runoff=19.84 cfs 1.860 af

Pond DP 6: Design Point 6

Inflow=19.84 cfs 1.860 af
Primary=19.84 cfs 1.860 af

Total Runoff Area = 6.400 ac Runoff Volume = 1.860 af Average Runoff Depth = 3.49"
100.00% Pervious = 6.400 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment F: Pre-Development F

Runoff = 19.84 cfs @ 12.20 hrs, Volume= 1.860 af, Depth= 3.49"

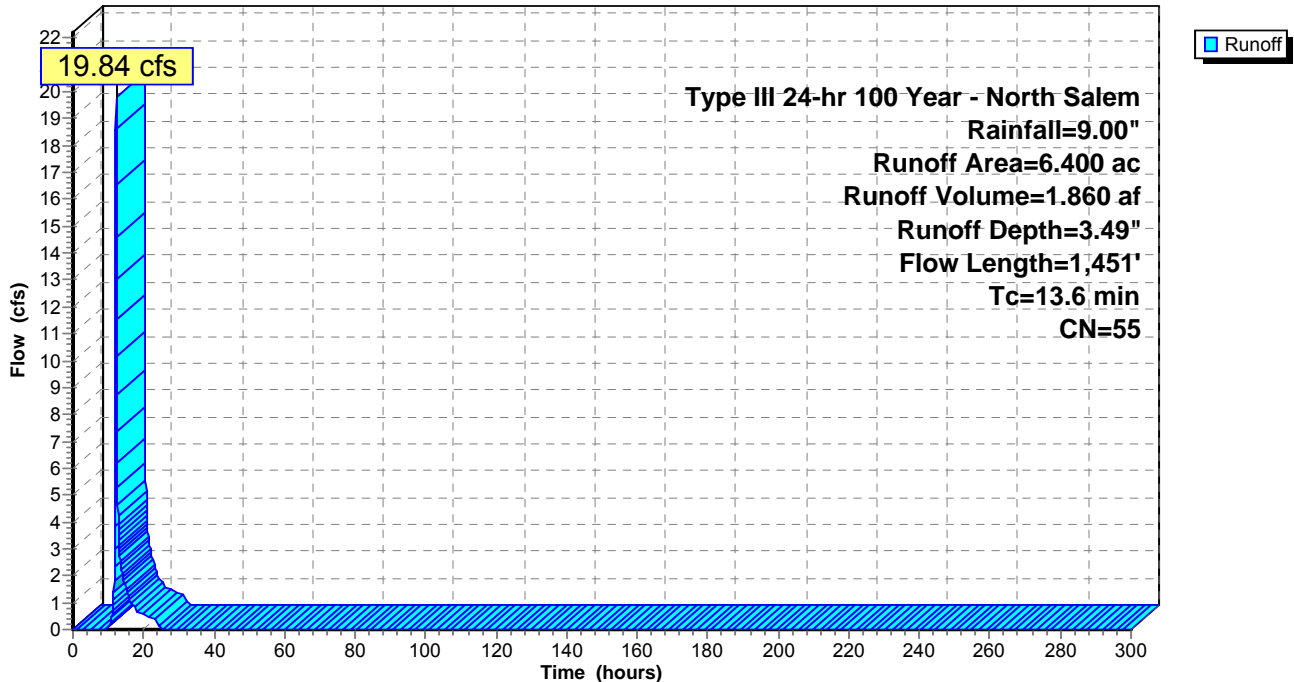
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 6.400	55	Woods, Good, HSG B, CsD Soils
6.400		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	155	0.2064	7.31		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.9	195	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	291	0.1718	6.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
2.3	450	0.0400	3.22		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	260	0.1769	6.77		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
13.6	1,451	Total			

Subcatchment F: Pre-Development F

Hydrograph



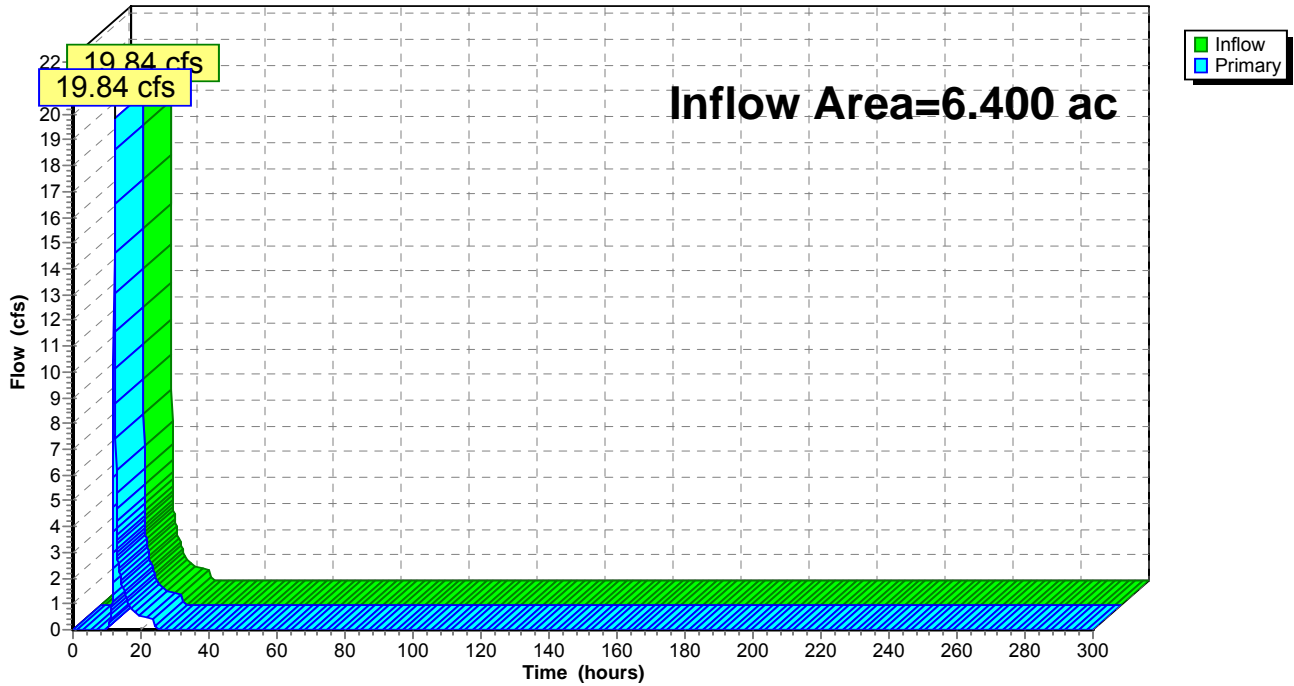
Summary for Pond DP 6: Design Point 6

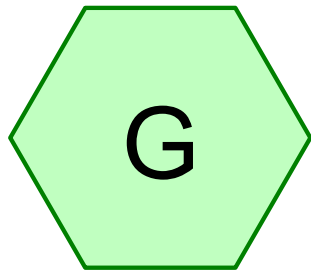
Inflow Area = 6.400 ac, 0.00% Impervious, Inflow Depth = 3.49" for 100 Year - North Salem event
Inflow = 19.84 cfs @ 12.20 hrs, Volume= 1.860 af
Primary = 19.84 cfs @ 12.20 hrs, Volume= 1.860 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

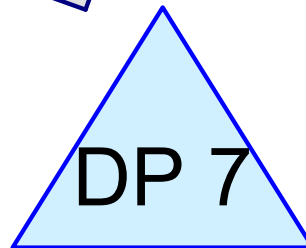
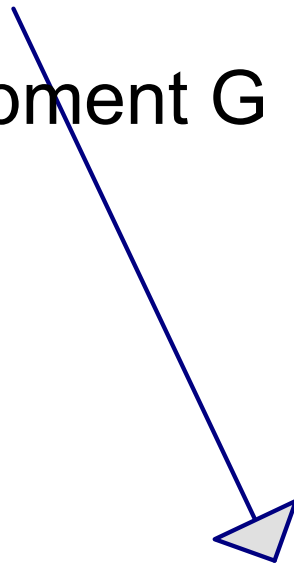
Pond DP 6: Design Point 6

Hydrograph

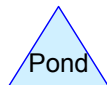
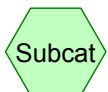




Pre-Development G



Design Point 7



Woodlands Pre-Dev Part 2 2012

Prepared by KCG Engineers, P.C.

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
12.161	58	Woods/grass comb, Good, HSG B, CsD Soils (G)
8.685	58	Woods/grass comb., Good, HSG B, CrC Soils (G)
0.400	61	>75% Grass cover, Good, HSG B, CrC, CsD Soils (Capucci/Bryson Property) (G)
1.995	70	Woods, Good, HSG C, CuD Soils (G)
12.356	72	Woods/grass comb., Good, HSG C, CtC Soils (G)
2.163	77	Woods, Poor, HSG C, LcB Soils (Wetlands) (G)
0.160	98	Asphalt Driveway (Capucci/Bryson Property) (G)
37.920		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment G: Pre-Development G

Runoff Area=37.920 ac 0.42% Impervious Runoff Depth=0.51"
Flow Length=2,750' Tc=29.5 min CN=64 Runoff=9.74 cfs 1.622 af

Pond DP 7: Design Point 7

Inflow=9.74 cfs 1.622 af
Primary=9.74 cfs 1.622 af

Total Runoff Area = 37.920 ac Runoff Volume = 1.622 af Average Runoff Depth = 0.51"
99.58% Pervious = 37.760 ac 0.42% Impervious = 0.160 ac

Summary for Subcatchment G: Pre-Development G

Runoff = 9.74 cfs @ 12.52 hrs, Volume= 1.622 af, Depth= 0.51"

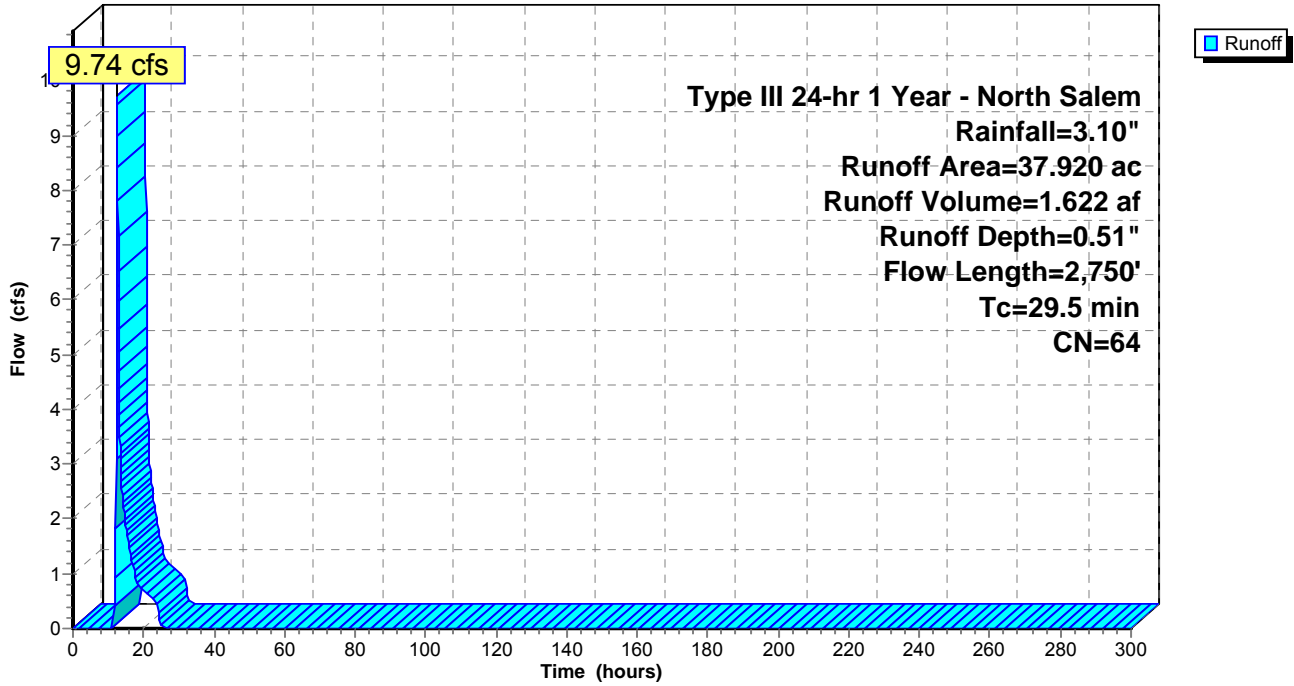
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, CsD Soils (Capucci/Bryson Property)
* 12.161	58	Woods/grass comb, Good, HSG B, CsD Soils
* 8.685	58	Woods/grass comb., Good, HSG B, CrC Soils
* 12.356	72	Woods/grass comb., Good, HSG C, CtC Soils
* 2.163	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
* 1.995	70	Woods, Good, HSG C, CuD Soils
37.920	64	Weighted Average
37.760		99.58% Pervious Area
0.160		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	462	0.0562	3.82		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.9	225	0.0711	4.00		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.2	64	0.0937	4.59		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	318	0.0503	3.36		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
1.5	340	0.0647	3.82		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.4	117	0.1026	4.80		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
0.9	196	0.0612	3.71		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, K-L Unpaved Kv= 16.1 fps
29.5	2,750	Total			

Subcatchment G: Pre-Development G

Hydrograph



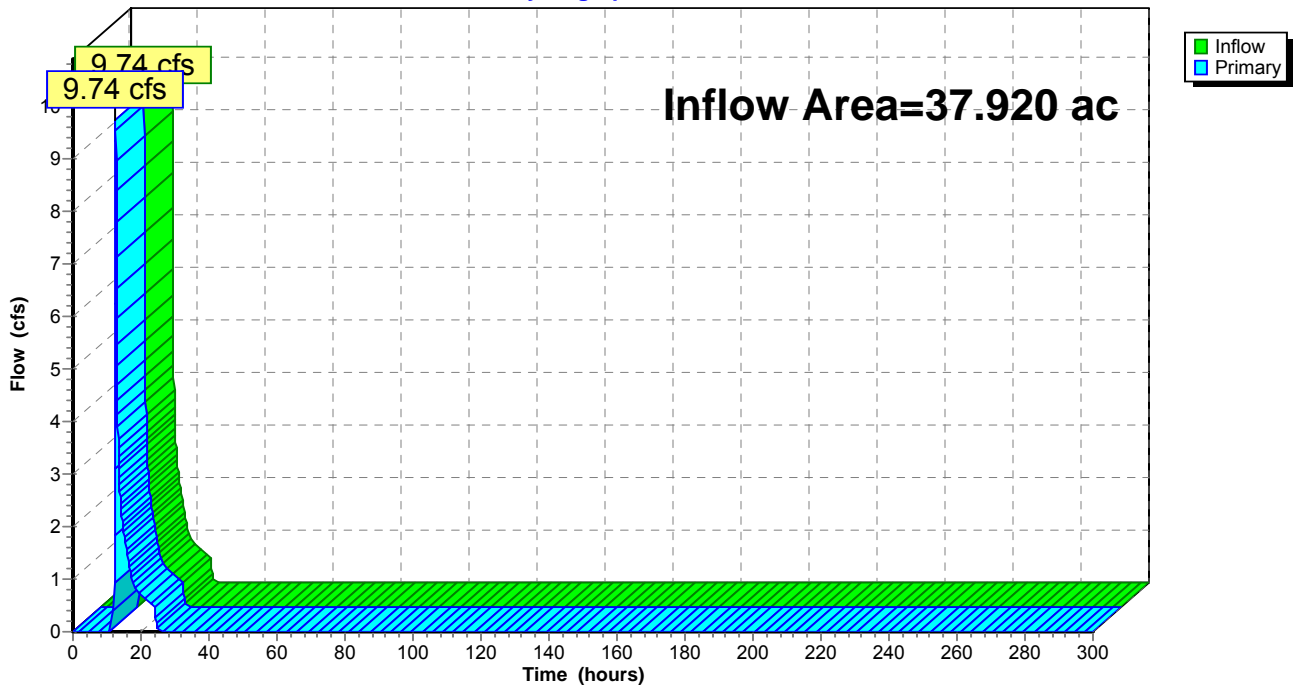
Summary for Pond DP 7: Design Point 7

Inflow Area = 37.920 ac, 0.42% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
Inflow = 9.74 cfs @ 12.52 hrs, Volume= 1.622 af
Primary = 9.74 cfs @ 12.52 hrs, Volume= 1.622 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7: Design Point 7

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment G: Pre-Development G

Runoff Area=37.920 ac 0.42% Impervious Runoff Depth=0.81"
Flow Length=2,750' Tc=29.5 min CN=64 Runoff=17.31 cfs 2.555 af

Pond DP 7: Design Point 7

Inflow=17.31 cfs 2.555 af
Primary=17.31 cfs 2.555 af

Total Runoff Area = 37.920 ac Runoff Volume = 2.555 af Average Runoff Depth = 0.81"
99.58% Pervious = 37.760 ac 0.42% Impervious = 0.160 ac

Summary for Subcatchment G: Pre-Development G

Runoff = 17.31 cfs @ 12.49 hrs, Volume= 2.555 af, Depth= 0.81"

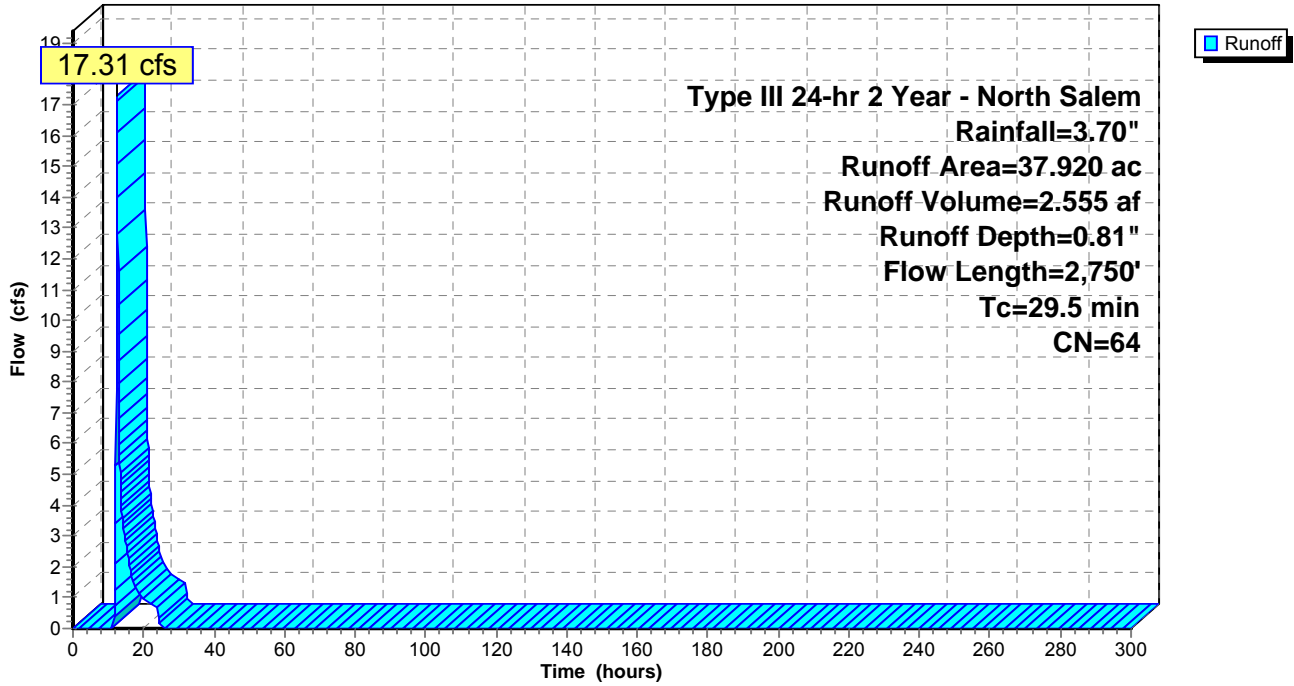
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, CsD Soils (Capucci/Bryson Property)
* 12.161	58	Woods/grass comb, Good, HSG B, CsD Soils
* 8.685	58	Woods/grass comb., Good, HSG B, CrC Soils
* 12.356	72	Woods/grass comb., Good, HSG C, CtC Soils
* 2.163	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
* 1.995	70	Woods, Good, HSG C, CuD Soils
37.920	64	Weighted Average
37.760		99.58% Pervious Area
0.160		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	462	0.0562	3.82		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.9	225	0.0711	4.00		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.2	64	0.0937	4.59		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	318	0.0503	3.36		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
1.5	340	0.0647	3.82		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.4	117	0.1026	4.80		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
0.9	196	0.0612	3.71		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, K-L Unpaved Kv= 16.1 fps
29.5	2,750	Total			

Subcatchment G: Pre-Development G

Hydrograph



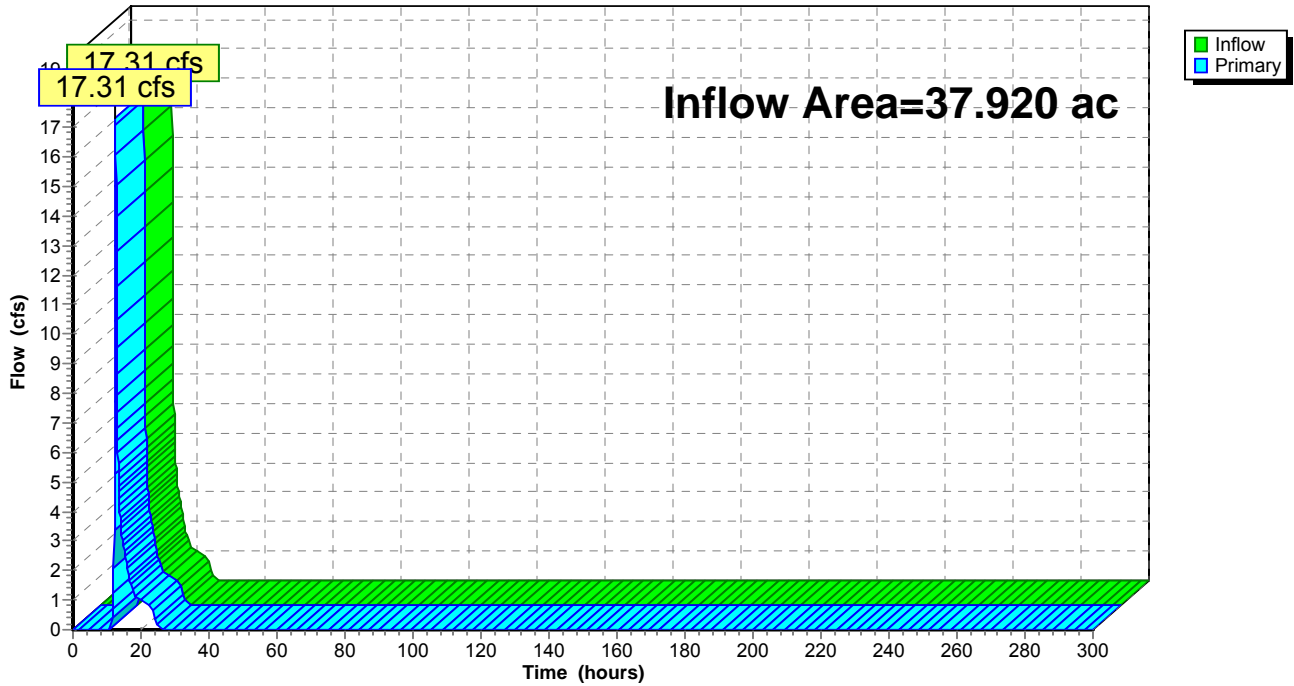
Summary for Pond DP 7: Design Point 7

Inflow Area = 37.920 ac, 0.42% Impervious, Inflow Depth = 0.81" for 2 Year - North Salem event
Inflow = 17.31 cfs @ 12.49 hrs, Volume= 2.555 af
Primary = 17.31 cfs @ 12.49 hrs, Volume= 2.555 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7: Design Point 7

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment G: Pre-Development G

Runoff Area=37.920 ac 0.42% Impervious Runoff Depth=1.91"
Flow Length=2,750' Tc=29.5 min CN=64 Runoff=46.31 cfs 6.048 af

Pond DP 7: Design Point 7

Inflow=46.31 cfs 6.048 af
Primary=46.31 cfs 6.048 af

Total Runoff Area = 37.920 ac Runoff Volume = 6.048 af Average Runoff Depth = 1.91"
99.58% Pervious = 37.760 ac 0.42% Impervious = 0.160 ac

Summary for Subcatchment G: Pre-Development G

Runoff = 46.31 cfs @ 12.44 hrs, Volume= 6.048 af, Depth= 1.91"

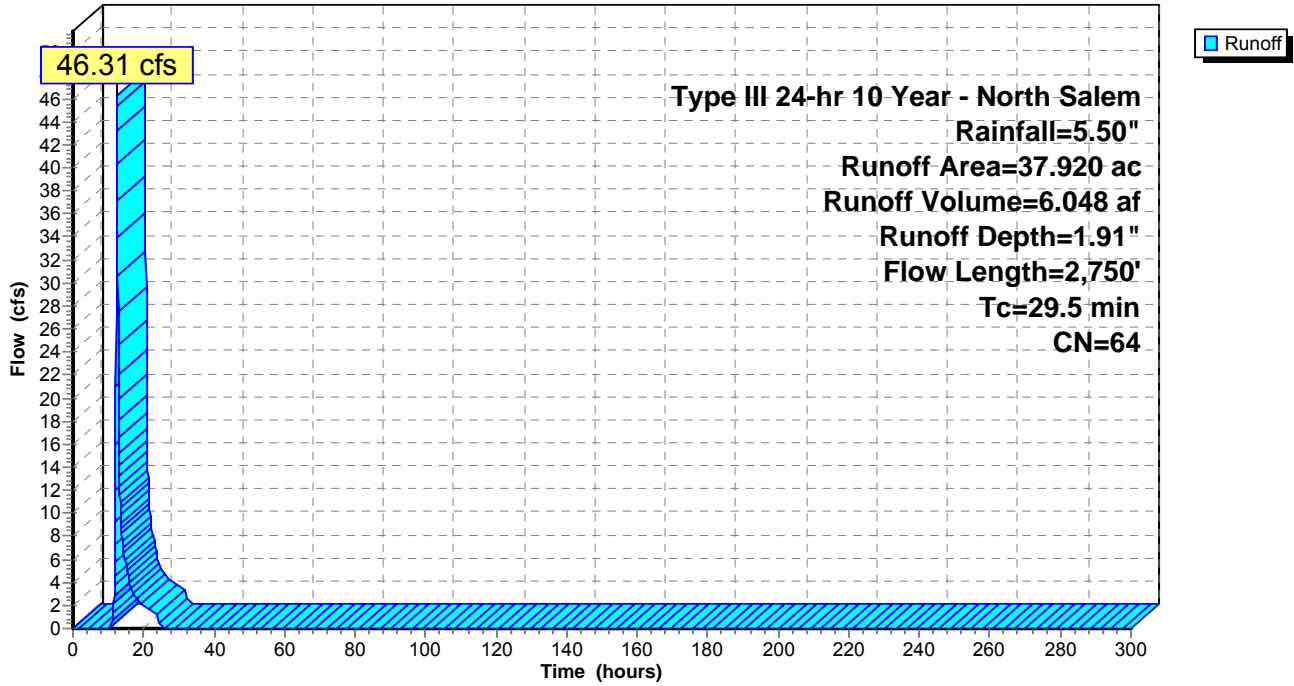
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, CsD Soils (Capucci/Bryson Property)
* 12.161	58	Woods/grass comb, Good, HSG B, CsD Soils
* 8.685	58	Woods/grass comb., Good, HSG B, CrC Soils
* 12.356	72	Woods/grass comb., Good, HSG C, CtC Soils
* 2.163	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
* 1.995	70	Woods, Good, HSG C, CuD Soils
37.920	64	Weighted Average
37.760		99.58% Pervious Area
0.160		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	462	0.0562	3.82		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.9	225	0.0711	4.00		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.2	64	0.0937	4.59		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	318	0.0503	3.36		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
1.5	340	0.0647	3.82		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.4	117	0.1026	4.80		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
0.9	196	0.0612	3.71		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, K-L Unpaved Kv= 16.1 fps
29.5	2,750	Total			

Subcatchment G: Pre-Development G

Hydrograph



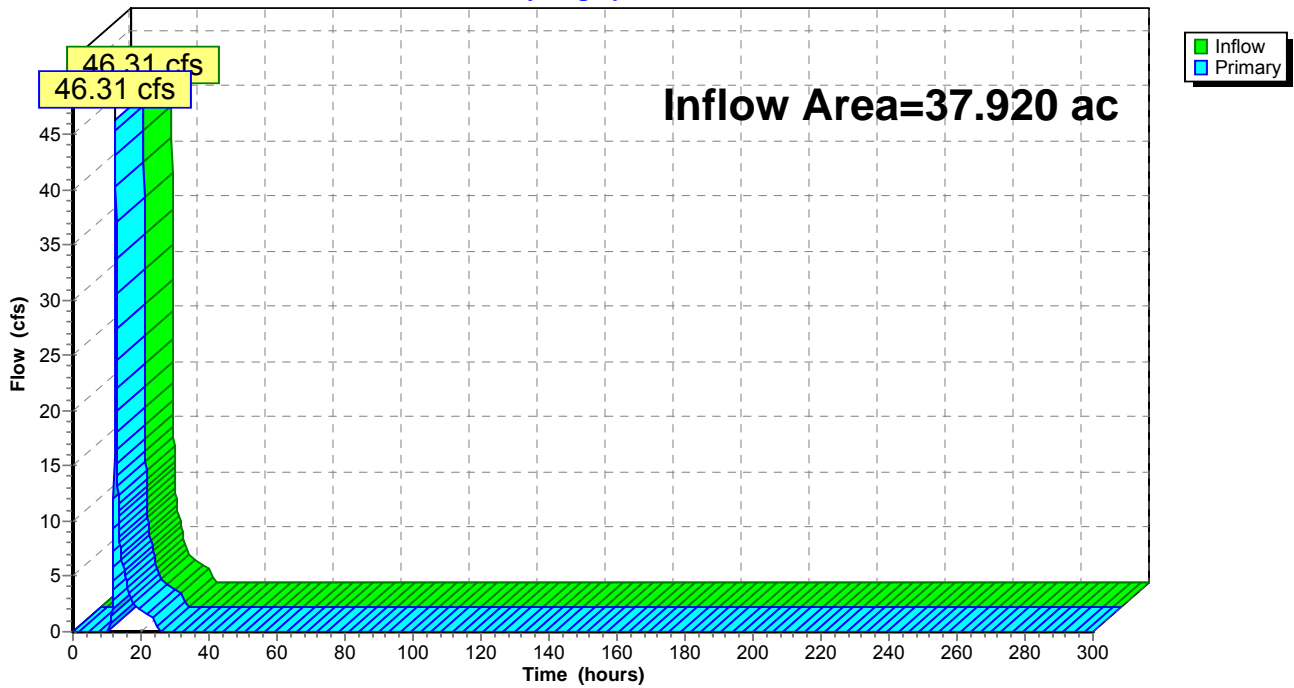
Summary for Pond DP 7: Design Point 7

Inflow Area = 37.920 ac, 0.42% Impervious, Inflow Depth = 1.91" for 10 Year - North Salem event
Inflow = 46.31 cfs @ 12.44 hrs, Volume= 6.048 af
Primary = 46.31 cfs @ 12.44 hrs, Volume= 6.048 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7: Design Point 7

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment G: Pre-Development G

Runoff Area=37.920 ac 0.42% Impervious Runoff Depth=3.00"
Flow Length=2,750' Tc=29.5 min CN=64 Runoff=74.70 cfs 9.484 af

Pond DP 7: Design Point 7

Inflow=74.70 cfs 9.484 af
Primary=74.70 cfs 9.484 af

Total Runoff Area = 37.920 ac Runoff Volume = 9.484 af Average Runoff Depth = 3.00"
99.58% Pervious = 37.760 ac 0.42% Impervious = 0.160 ac

Summary for Subcatchment G: Pre-Development G

Runoff = 74.70 cfs @ 12.43 hrs, Volume= 9.484 af, Depth= 3.00"

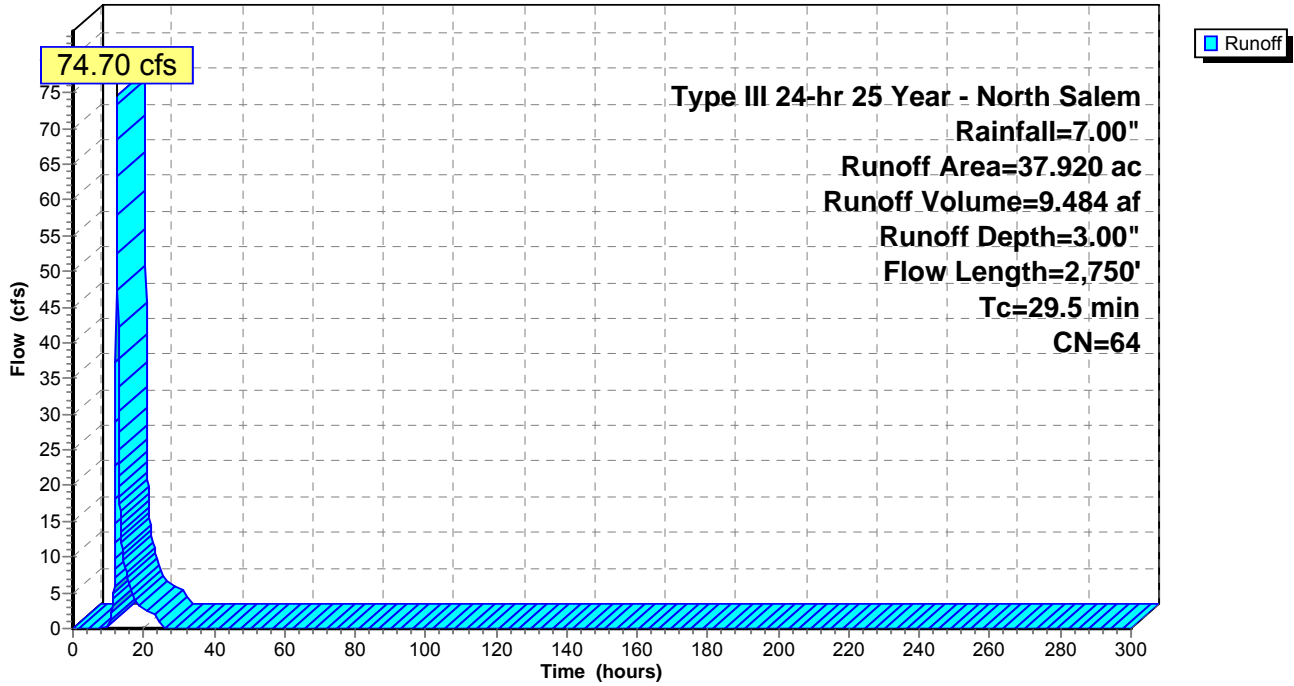
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, CsD Soils (Capucci/Bryson Property)
* 12.161	58	Woods/grass comb, Good, HSG B, CsD Soils
* 8.685	58	Woods/grass comb., Good, HSG B, CrC Soils
* 12.356	72	Woods/grass comb., Good, HSG C, CtC Soils
* 2.163	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
* 1.995	70	Woods, Good, HSG C, CuD Soils
37.920	64	Weighted Average
37.760		99.58% Pervious Area
0.160		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	462	0.0562	3.82		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.9	225	0.0711	4.00		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.2	64	0.0937	4.59		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	318	0.0503	3.36		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
1.5	340	0.0647	3.82		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.4	117	0.1026	4.80		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
0.9	196	0.0612	3.71		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, K-L Unpaved Kv= 16.1 fps
29.5	2,750	Total			

Subcatchment G: Pre-Development G

Hydrograph



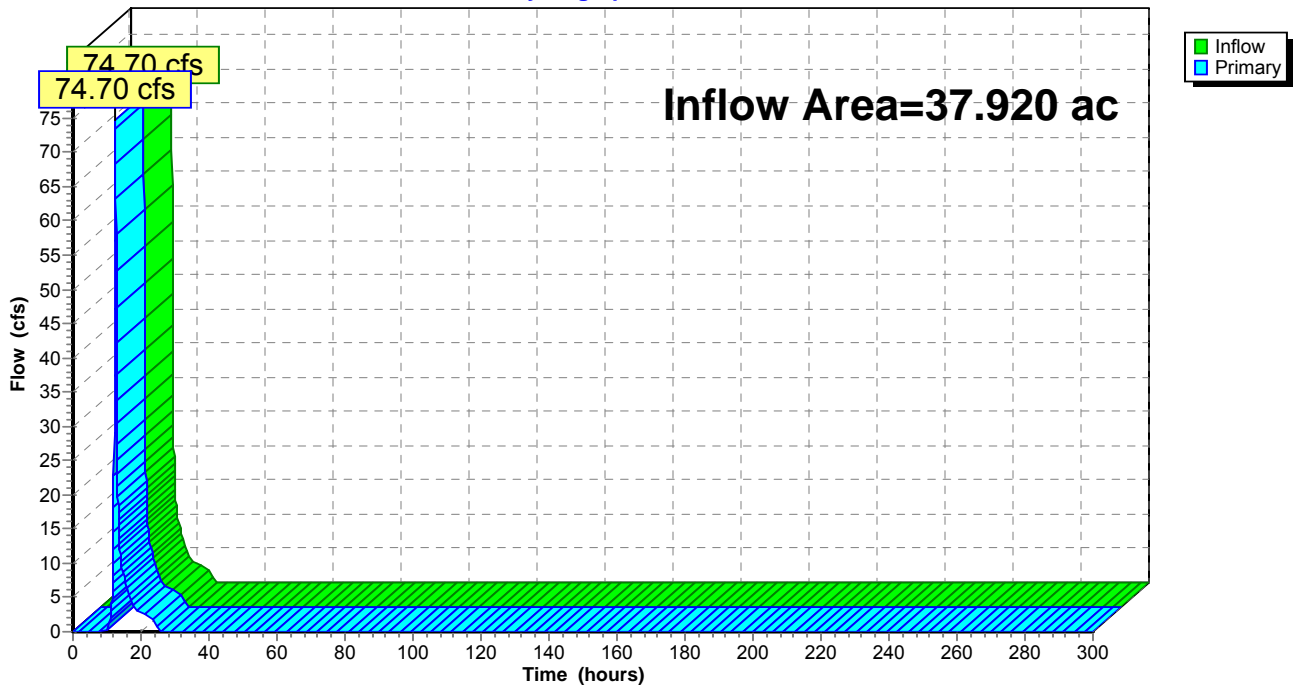
Summary for Pond DP 7: Design Point 7

Inflow Area = 37.920 ac, 0.42% Impervious, Inflow Depth = 3.00" for 25 Year - North Salem event
Inflow = 74.70 cfs @ 12.43 hrs, Volume= 9.484 af
Primary = 74.70 cfs @ 12.43 hrs, Volume= 9.484 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7: Design Point 7

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment G: Pre-Development G

Runoff Area=37.920 ac 0.42% Impervious Runoff Depth=4.59"

Flow Length=2,750' Tc=29.5 min CN=64 Runoff=115.88 cfs 14.516 af

Pond DP 7: Design Point 7

Inflow=115.88 cfs 14.516 af

Primary=115.88 cfs 14.516 af

Total Runoff Area = 37.920 ac Runoff Volume = 14.516 af Average Runoff Depth = 4.59"
99.58% Pervious = 37.760 ac 0.42% Impervious = 0.160 ac

Summary for Subcatchment G: Pre-Development G

Runoff = 115.88 cfs @ 12.42 hrs, Volume= 14.516 af, Depth= 4.59"

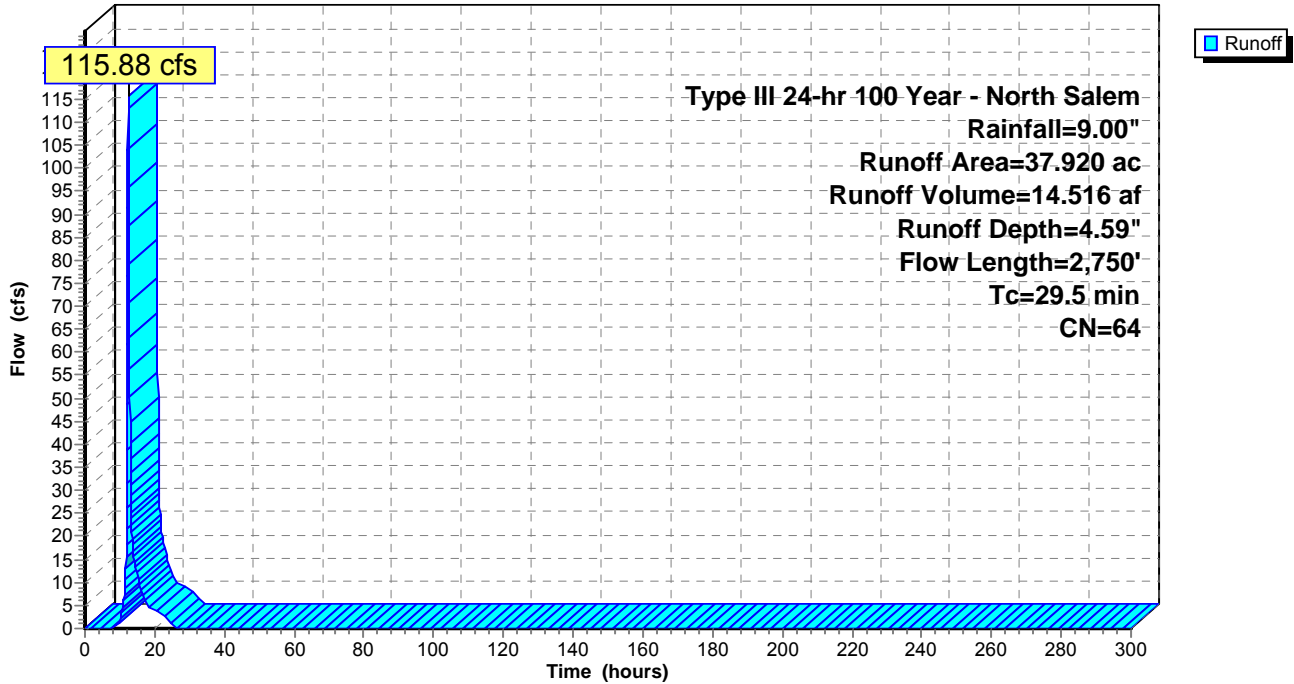
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, CsD Soils (Capucci/Bryson Property)
* 12.161	58	Woods/grass comb, Good, HSG B, CsD Soils
* 8.685	58	Woods/grass comb., Good, HSG B, CrC Soils
* 12.356	72	Woods/grass comb., Good, HSG C, CtC Soils
* 2.163	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
* 1.995	70	Woods, Good, HSG C, CuD Soils
37.920	64	Weighted Average
37.760		99.58% Pervious Area
0.160		0.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	462	0.0562	3.82		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.9	225	0.0711	4.00		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.2	64	0.0937	4.59		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	318	0.0503	3.36		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
1.5	340	0.0647	3.82		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.4	117	0.1026	4.80		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
0.9	196	0.0612	3.71		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, K-L Unpaved Kv= 16.1 fps
29.5	2,750	Total			

Subcatchment G: Pre-Development G

Hydrograph



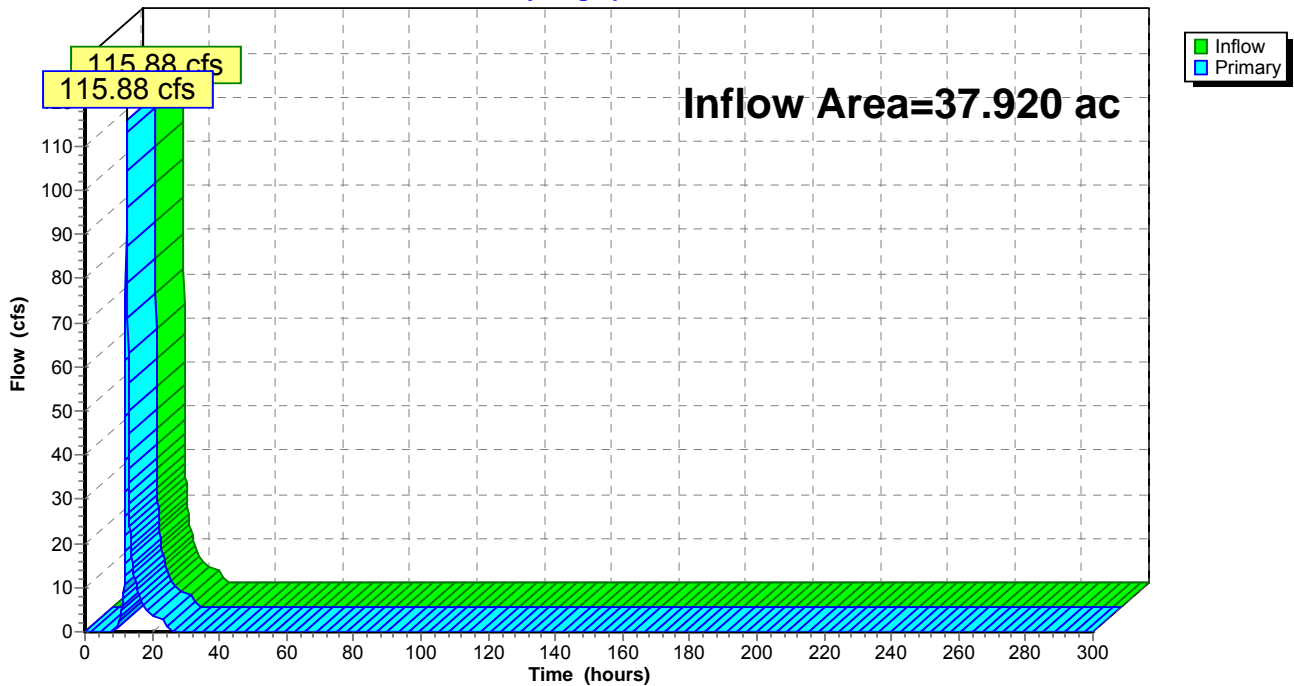
Summary for Pond DP 7: Design Point 7

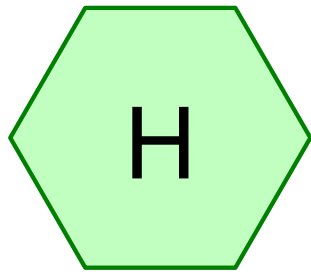
Inflow Area = 37.920 ac, 0.42% Impervious, Inflow Depth = 4.59" for 100 Year - North Salem event
Inflow = 115.88 cfs @ 12.42 hrs, Volume= 14.516 af
Primary = 115.88 cfs @ 12.42 hrs, Volume= 14.516 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

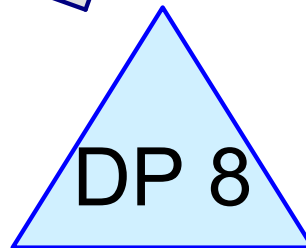
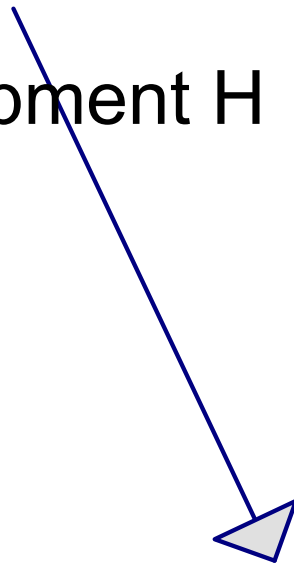
Pond DP 7: Design Point 7

Hydrograph

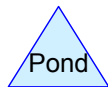
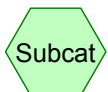




Pre-Development H



Design Point 8



Woodlands Pre-Dev Part 2 2012

Prepared by KCG Engineers, P.C.

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.806	55	Woods, Good, HSG B, CrC Soils (H)
7.225	70	Woods, Good, HSG C, CtC Soils (H)
2.770	70	Woods, Good, HSG C, CuD Soils (H)
0.069	98	Ledge (H)
10.870		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H: Pre-Development H

Runoff Area=10.870 ac 0.63% Impervious Runoff Depth=0.72"
Flow Length=1,078' Tc=20.0 min CN=69 Runoff=5.33 cfs 0.656 af

Pond DP 8: Design Point 8

Inflow=5.33 cfs 0.656 af
Primary=5.33 cfs 0.656 af

Total Runoff Area = 10.870 ac Runoff Volume = 0.656 af Average Runoff Depth = 0.72"
99.37% Pervious = 10.801 ac 0.63% Impervious = 0.069 ac

Summary for Subcatchment H: Pre-Development H

Runoff = 5.33 cfs @ 12.32 hrs, Volume= 0.656 af, Depth= 0.72"

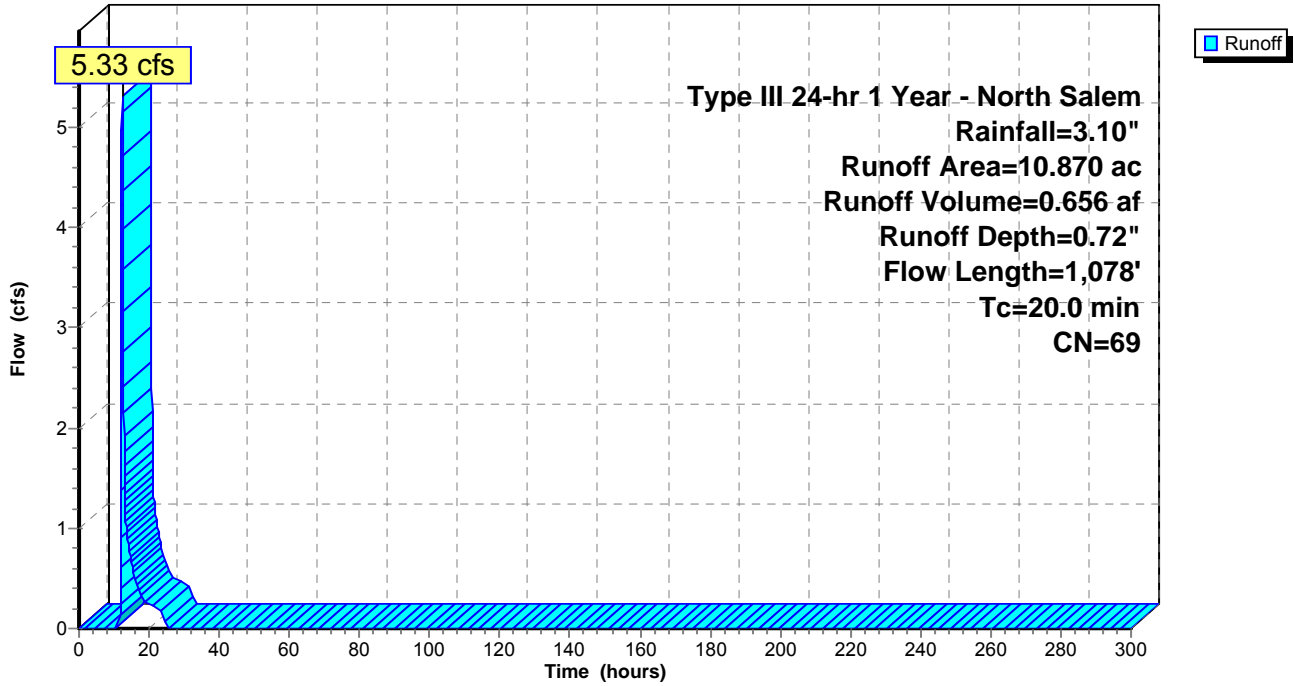
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.806	55	Woods, Good, HSG B, CrC Soils
* 2.770	70	Woods, Good, HSG C, CuD Soils
* 7.225	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Ledge
10.870	69	Weighted Average
10.801		99.37% Pervious Area
0.069		0.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.2	200	0.0300	2.79		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.5	191	0.1361	5.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	190	0.2105	7.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	164	0.1829	6.89		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.2	77	0.2337	7.78		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.3	156	0.2310	7.74		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
20.0	1,078	Total			

Subcatchment H: Pre-Development H

Hydrograph



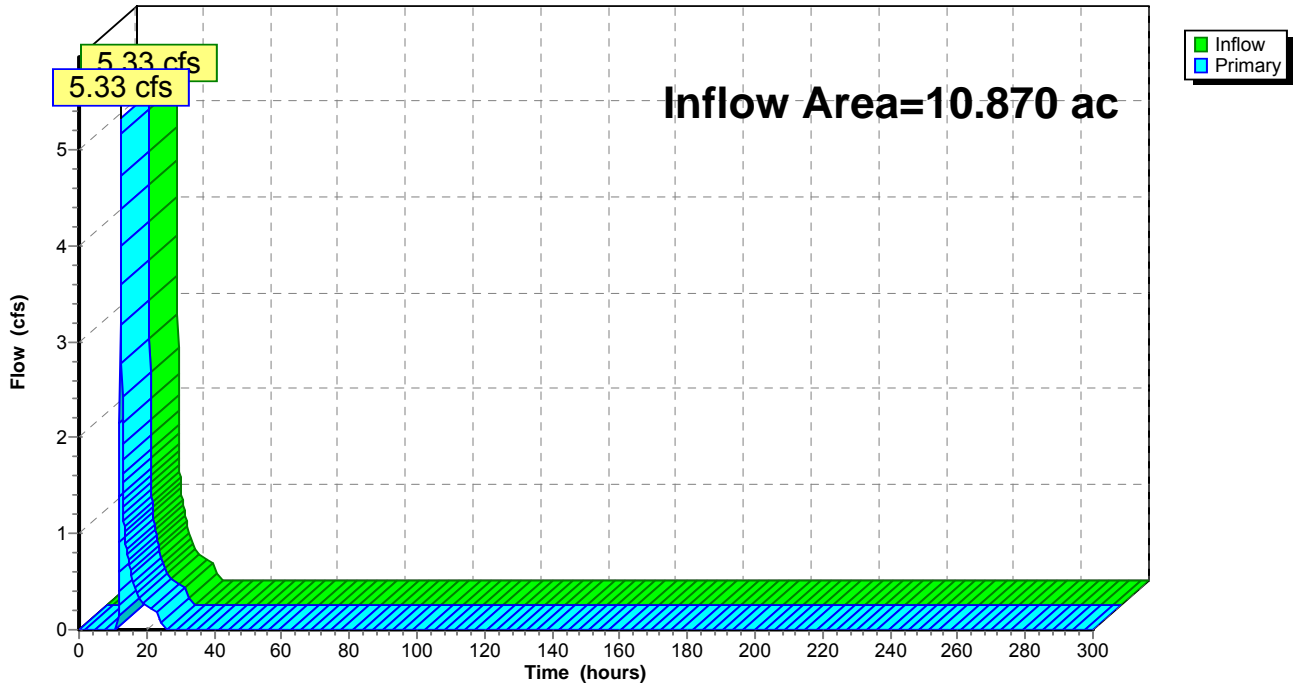
Summary for Pond DP 8: Design Point 8

Inflow Area = 10.870 ac, 0.63% Impervious, Inflow Depth = 0.72" for 1 Year - North Salem event
Inflow = 5.33 cfs @ 12.32 hrs, Volume= 0.656 af
Primary = 5.33 cfs @ 12.32 hrs, Volume= 0.656 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H: Pre-Development H

Runoff Area=10.870 ac 0.63% Impervious Runoff Depth=1.08"
Flow Length=1,078' Tc=20.0 min CN=69 Runoff=8.46 cfs 0.975 af

Pond DP 8: Design Point 8

Inflow=8.46 cfs 0.975 af
Primary=8.46 cfs 0.975 af

Total Runoff Area = 10.870 ac Runoff Volume = 0.975 af Average Runoff Depth = 1.08"
99.37% Pervious = 10.801 ac 0.63% Impervious = 0.069 ac

Summary for Subcatchment H: Pre-Development H

Runoff = 8.46 cfs @ 12.31 hrs, Volume= 0.975 af, Depth= 1.08"

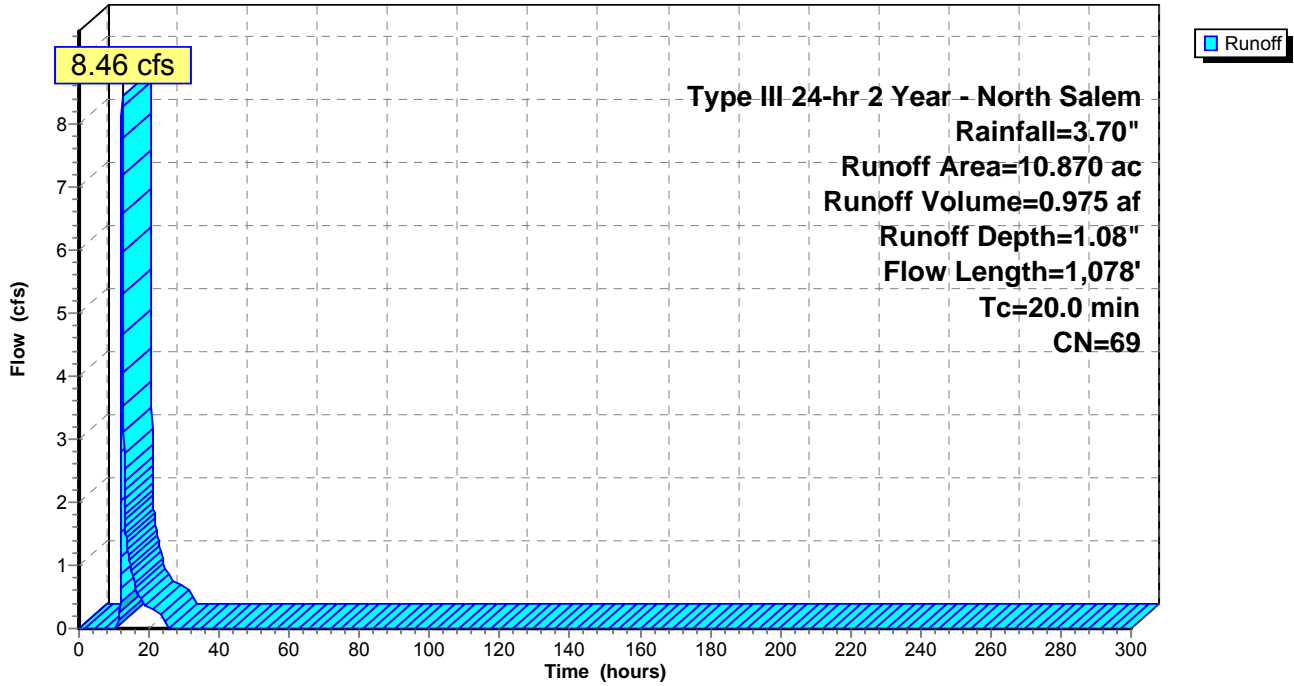
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.806	55	Woods, Good, HSG B, CrC Soils
* 2.770	70	Woods, Good, HSG C, CuD Soils
* 7.225	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Ledge
10.870	69	Weighted Average
10.801		99.37% Pervious Area
0.069		0.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.2	200	0.0300	2.79		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.5	191	0.1361	5.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	190	0.2105	7.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	164	0.1829	6.89		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.2	77	0.2337	7.78		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.3	156	0.2310	7.74		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
20.0	1,078	Total			

Subcatchment H: Pre-Development H

Hydrograph



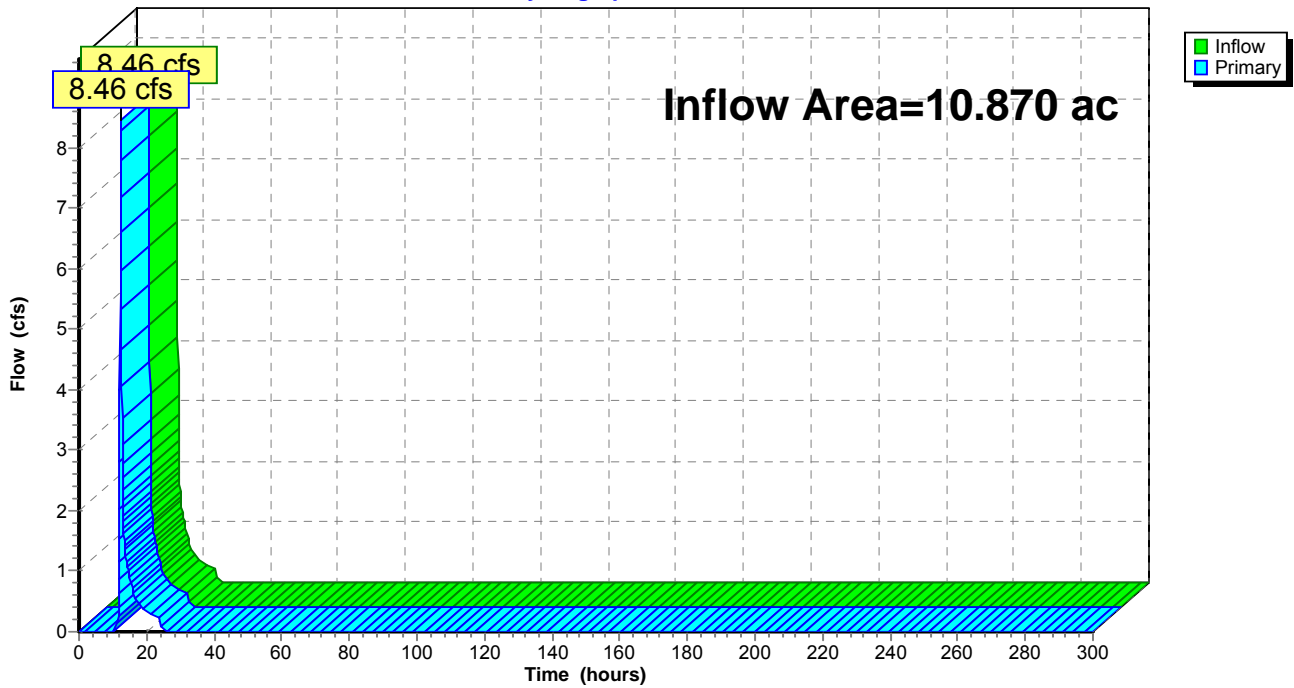
Summary for Pond DP 8: Design Point 8

Inflow Area = 10.870 ac, 0.63% Impervious, Inflow Depth = 1.08" for 2 Year - North Salem event
Inflow = 8.46 cfs @ 12.31 hrs, Volume= 0.975 af
Primary = 8.46 cfs @ 12.31 hrs, Volume= 0.975 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H: Pre-Development H

Runoff Area=10.870 ac 0.63% Impervious Runoff Depth=2.33"
Flow Length=1,078' Tc=20.0 min CN=69 Runoff=19.57 cfs 2.109 af

Pond DP 8: Design Point 8

Inflow=19.57 cfs 2.109 af
Primary=19.57 cfs 2.109 af

Total Runoff Area = 10.870 ac Runoff Volume = 2.109 af Average Runoff Depth = 2.33"
99.37% Pervious = 10.801 ac 0.63% Impervious = 0.069 ac

Summary for Subcatchment H: Pre-Development H

Runoff = 19.57 cfs @ 12.29 hrs, Volume= 2.109 af, Depth= 2.33"

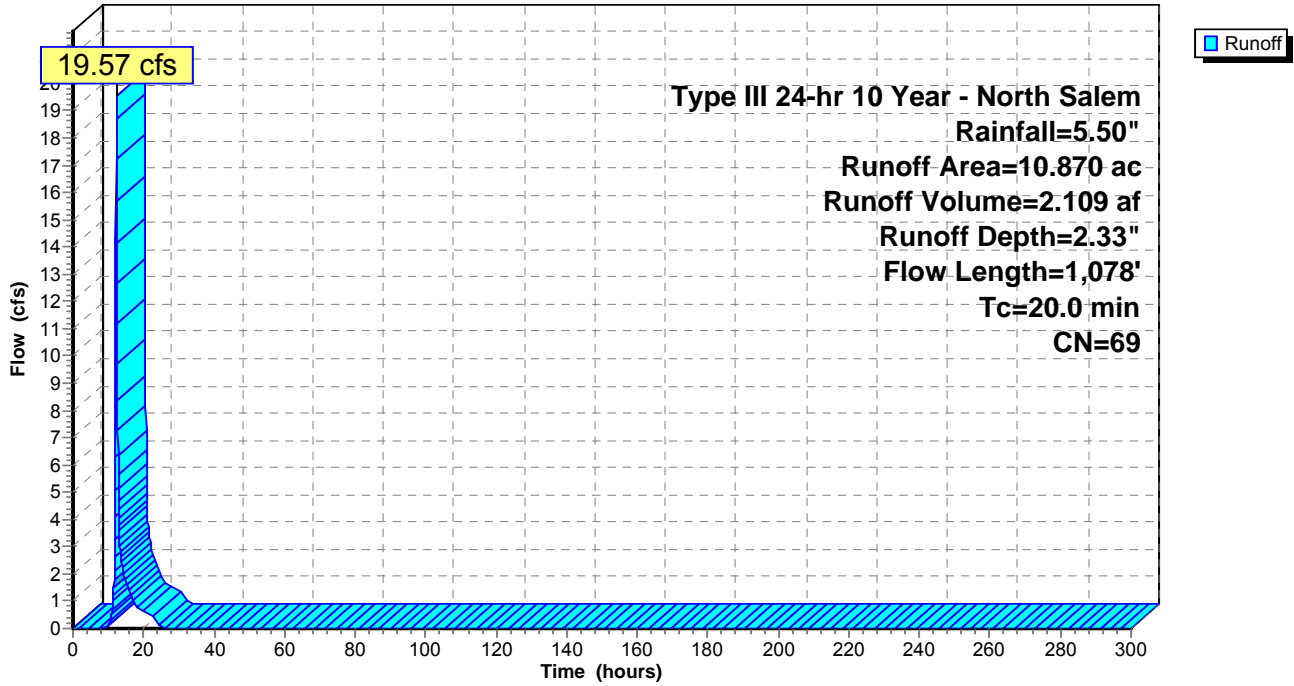
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.806	55	Woods, Good, HSG B, CrC Soils
* 2.770	70	Woods, Good, HSG C, CuD Soils
* 7.225	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Ledge
10.870	69	Weighted Average
10.801		99.37% Pervious Area
0.069		0.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.2	200	0.0300	2.79		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.5	191	0.1361	5.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	190	0.2105	7.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	164	0.1829	6.89		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.2	77	0.2337	7.78		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.3	156	0.2310	7.74		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
20.0	1,078	Total			

Subcatchment H: Pre-Development H

Hydrograph



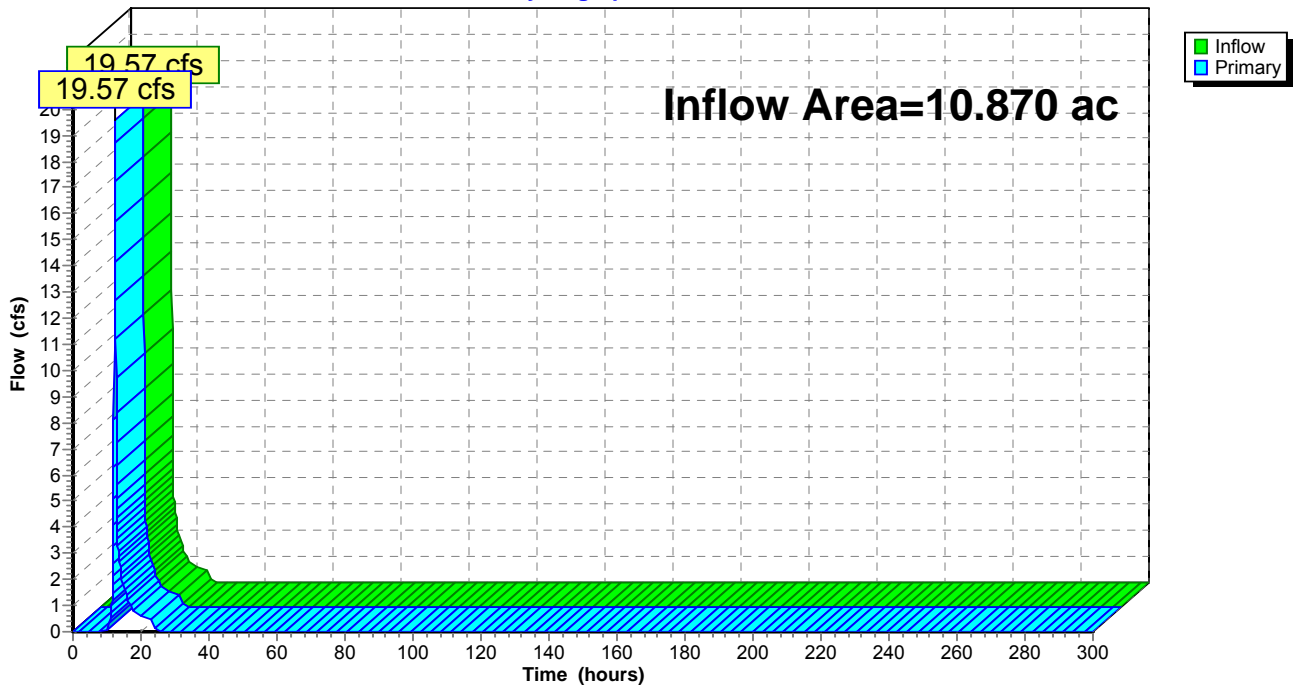
Summary for Pond DP 8: Design Point 8

Inflow Area = 10.870 ac, 0.63% Impervious, Inflow Depth = 2.33" for 10 Year - North Salem event
Inflow = 19.57 cfs @ 12.29 hrs, Volume= 2.109 af
Primary = 19.57 cfs @ 12.29 hrs, Volume= 2.109 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H: Pre-Development H

Runoff Area=10.870 ac 0.63% Impervious Runoff Depth=3.51"
Flow Length=1,078' Tc=20.0 min CN=69 Runoff=29.96 cfs 3.183 af

Pond DP 8: Design Point 8

Inflow=29.96 cfs 3.183 af
Primary=29.96 cfs 3.183 af

Total Runoff Area = 10.870 ac Runoff Volume = 3.183 af Average Runoff Depth = 3.51"
99.37% Pervious = 10.801 ac 0.63% Impervious = 0.069 ac

Summary for Subcatchment H: Pre-Development H

Runoff = 29.96 cfs @ 12.28 hrs, Volume= 3.183 af, Depth= 3.51"

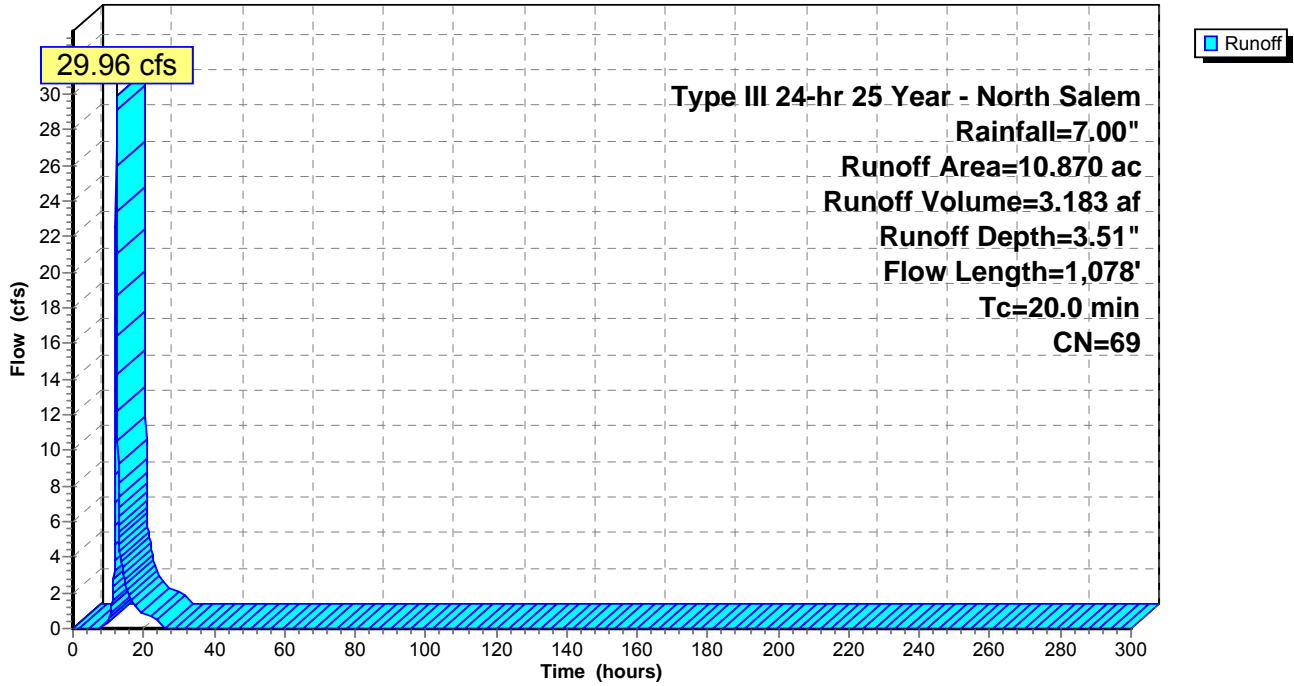
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.806	55	Woods, Good, HSG B, CrC Soils
* 2.770	70	Woods, Good, HSG C, CuD Soils
* 7.225	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Ledge
10.870	69	Weighted Average
10.801		99.37% Pervious Area
0.069		0.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.2	200	0.0300	2.79		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.5	191	0.1361	5.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	190	0.2105	7.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	164	0.1829	6.89		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.2	77	0.2337	7.78		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.3	156	0.2310	7.74		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
20.0	1,078	Total			

Subcatchment H: Pre-Development H

Hydrograph



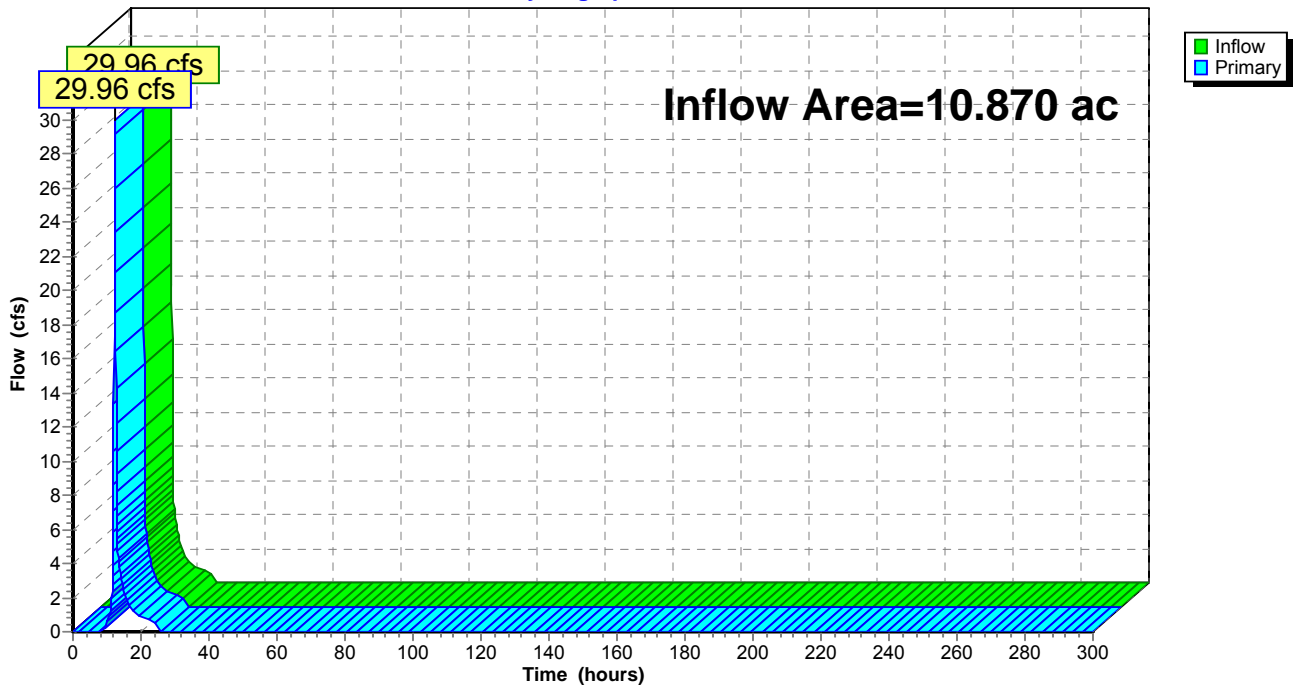
Summary for Pond DP 8: Design Point 8

Inflow Area = 10.870 ac, 0.63% Impervious, Inflow Depth = 3.51" for 25 Year - North Salem event
Inflow = 29.96 cfs @ 12.28 hrs, Volume= 3.183 af
Primary = 29.96 cfs @ 12.28 hrs, Volume= 3.183 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H: Pre-Development H

Runoff Area=10.870 ac 0.63% Impervious Runoff Depth=5.21"
Flow Length=1,078' Tc=20.0 min CN=69 Runoff=44.60 cfs 4.721 af

Pond DP 8: Design Point 8

Inflow=44.60 cfs 4.721 af
Primary=44.60 cfs 4.721 af

Total Runoff Area = 10.870 ac Runoff Volume = 4.721 af Average Runoff Depth = 5.21"
99.37% Pervious = 10.801 ac 0.63% Impervious = 0.069 ac

Summary for Subcatchment H: Pre-Development H

Runoff = 44.60 cfs @ 12.28 hrs, Volume= 4.721 af, Depth= 5.21"

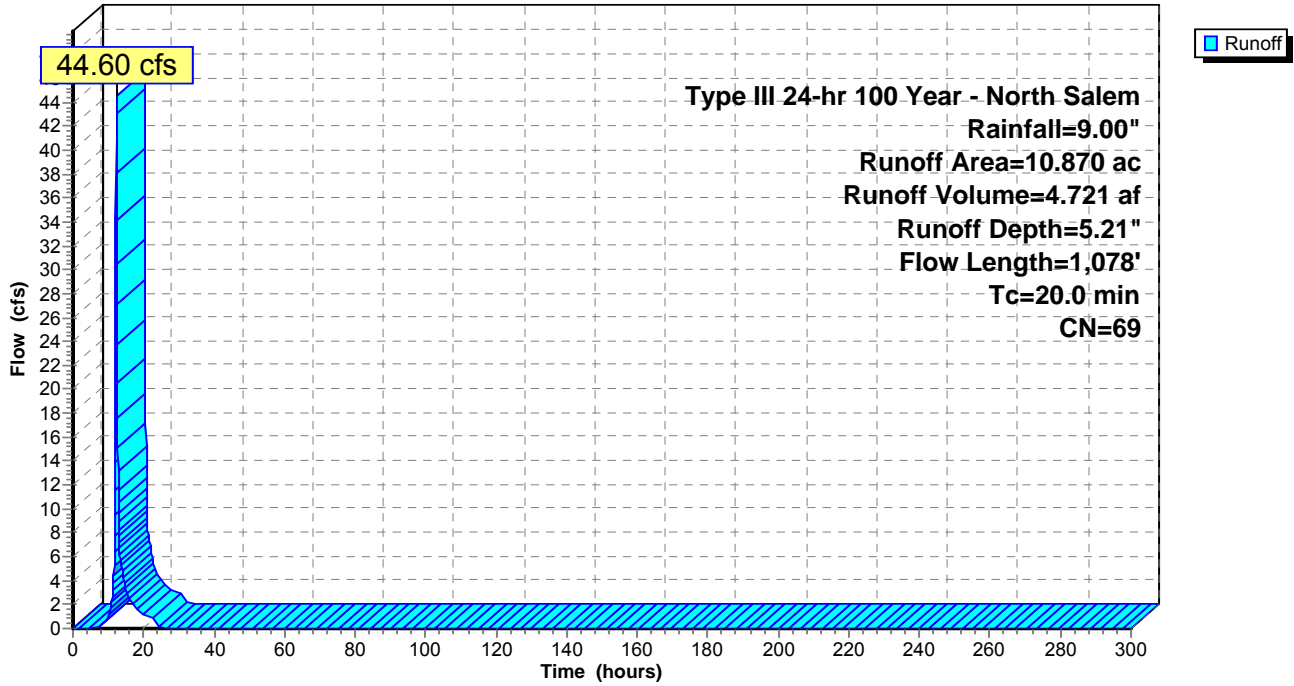
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.806	55	Woods, Good, HSG B, CrC Soils
* 2.770	70	Woods, Good, HSG C, CuD Soils
* 7.225	70	Woods, Good, HSG C, CtC Soils
* 0.069	98	Ledge
10.870	69	Weighted Average
10.801		99.37% Pervious Area
0.069		0.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.0	100	0.0300	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.2	200	0.0300	2.79		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.5	191	0.1361	5.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	190	0.2105	7.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.4	164	0.1829	6.89		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.2	77	0.2337	7.78		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.3	156	0.2310	7.74		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
20.0	1,078	Total			

Subcatchment H: Pre-Development H

Hydrograph



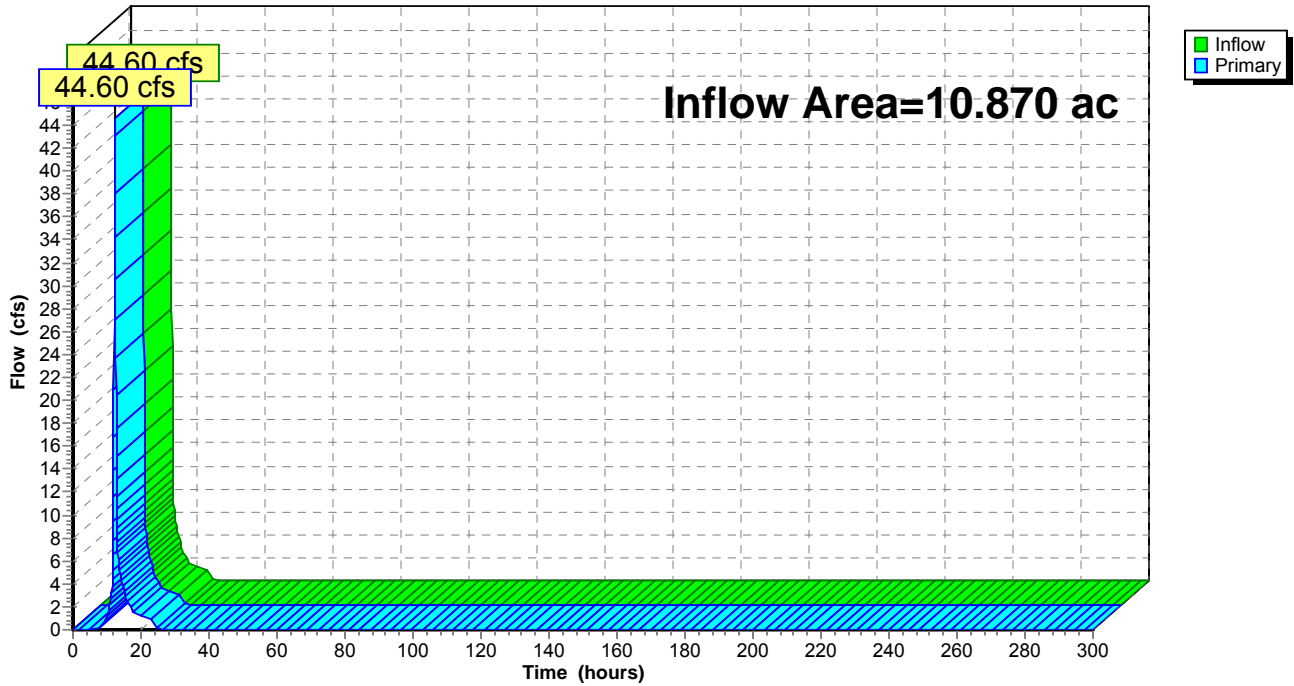
Summary for Pond DP 8: Design Point 8

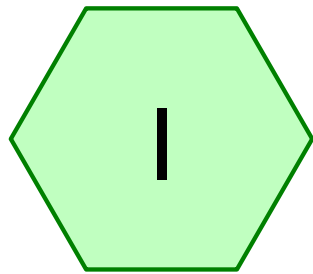
Inflow Area = 10.870 ac, 0.63% Impervious, Inflow Depth = 5.21" for 100 Year - North Salem event
Inflow = 44.60 cfs @ 12.28 hrs, Volume= 4.721 af
Primary = 44.60 cfs @ 12.28 hrs, Volume= 4.721 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

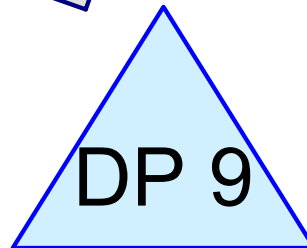
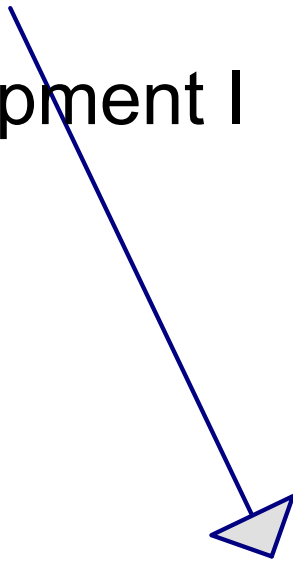
Pond DP 8: Design Point 8

Hydrograph

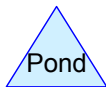
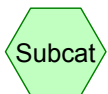




Pre-Development I



Design Point 9



Woodlands Pre-Dev Part 2 2012

Prepared by KCG Engineers, P.C.

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.203	70	Woods, Good, HSG C, CtC Soils (I)
2.321	70	Woods, Good, HSG C, CuD Soils (I)
2.524		TOTAL AREA

Woodlands Pre-Dev Part 2 2012

Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I: Pre-Development I

Runoff Area=2.524 ac 0.00% Impervious Runoff Depth=0.77"
Flow Length=871' Tc=10.6 min CN=70 Runoff=1.70 cfs 0.162 af

Pond DP 9: Design Point 9

Inflow=1.70 cfs 0.162 af
Primary=1.70 cfs 0.162 af

Total Runoff Area = 2.524 ac Runoff Volume = 0.162 af Average Runoff Depth = 0.77"
100.00% Pervious = 2.524 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I: Pre-Development I

Runoff = 1.70 cfs @ 12.17 hrs, Volume= 0.162 af, Depth= 0.77"

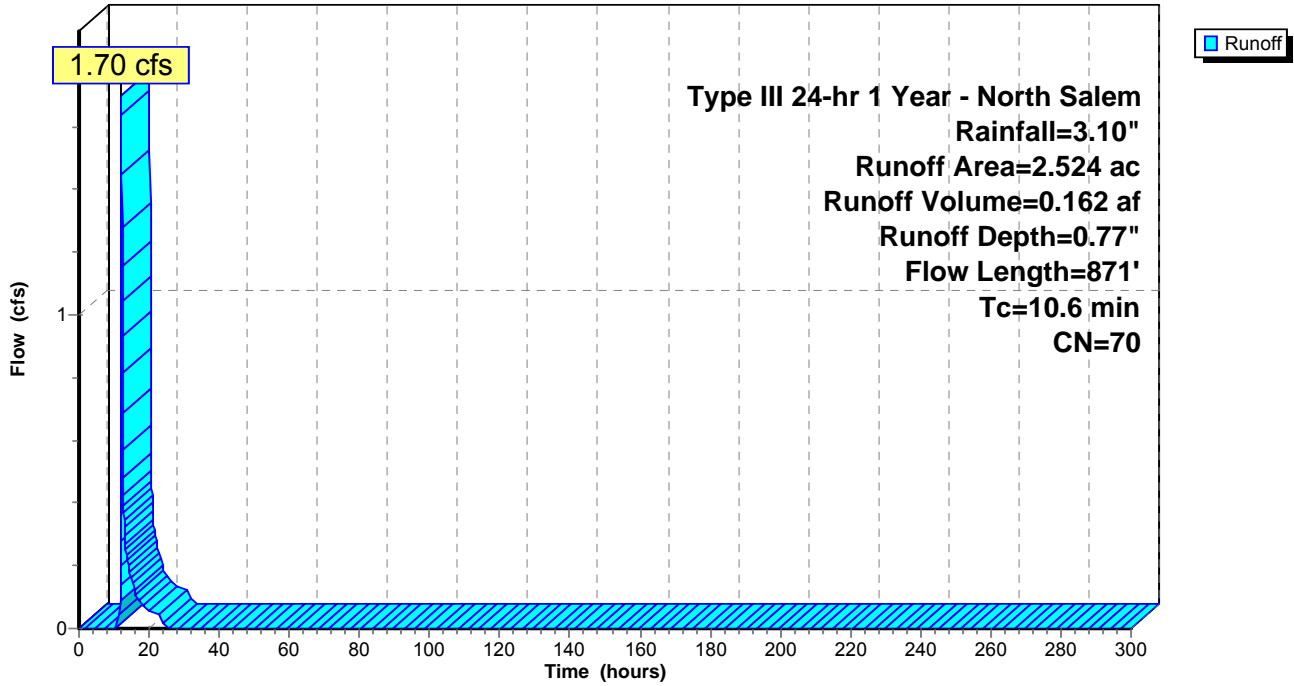
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 2.321	70	Woods, Good, HSG C, CuD Soils
* 0.203	70	Woods, Good, HSG C, CtC Soils
2.524	70	Weighted Average
2.524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	3.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.8	220	0.0909	4.85		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	215	0.2140	7.45		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	93	0.0645	4.09		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
10.6	871	Total			

Subcatchment I: Pre-Development I

Hydrograph



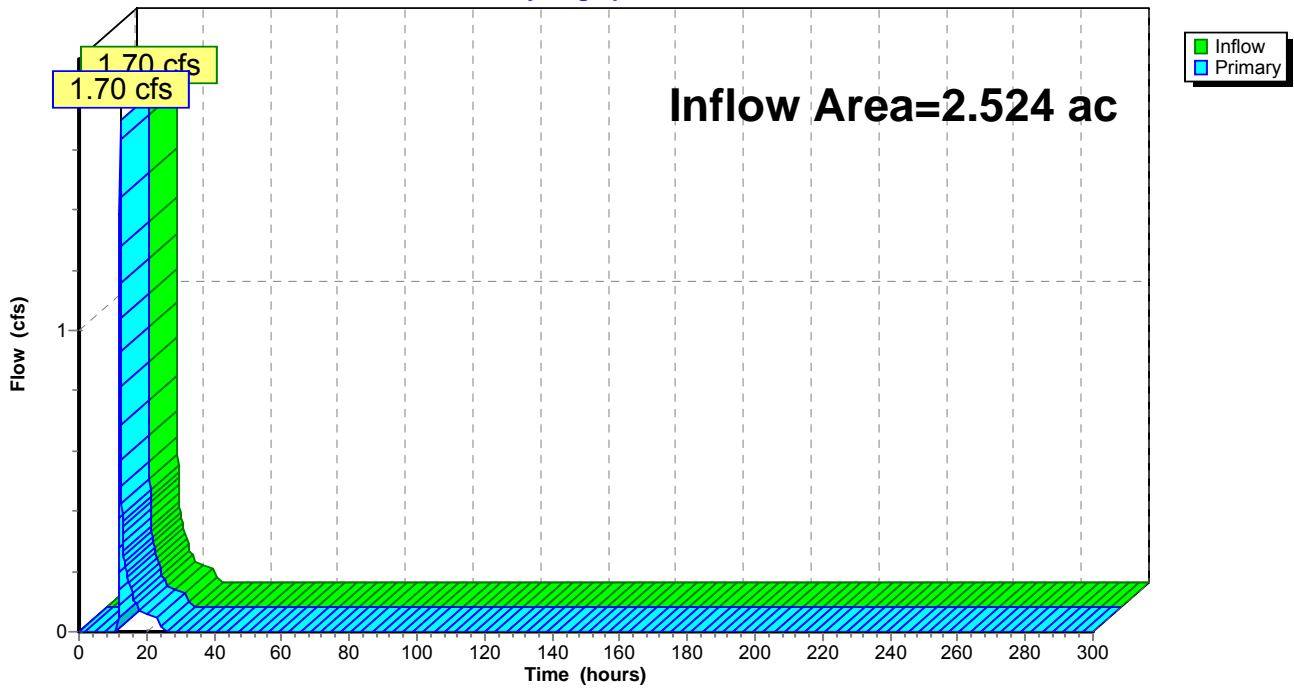
Summary for Pond DP 9: Design Point 9

Inflow Area = 2.524 ac, 0.00% Impervious, Inflow Depth = 0.77" for 1 Year - North Salem event
Inflow = 1.70 cfs @ 12.17 hrs, Volume= 0.162 af
Primary = 1.70 cfs @ 12.17 hrs, Volume= 0.162 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Woodlands Pre-Dev Part 2 2012

Type III 24-hr 2 Year - North Salem Rainfall=3.70"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I: Pre-Development I

Runoff Area=2.524 ac 0.00% Impervious Runoff Depth=1.13"
Flow Length=871' Tc=10.6 min CN=70 Runoff=2.66 cfs 0.238 af

Pond DP 9: Design Point 9

Inflow=2.66 cfs 0.238 af
Primary=2.66 cfs 0.238 af

Total Runoff Area = 2.524 ac Runoff Volume = 0.238 af Average Runoff Depth = 1.13"
100.00% Pervious = 2.524 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I: Pre-Development I

Runoff = 2.66 cfs @ 12.16 hrs, Volume= 0.238 af, Depth= 1.13"

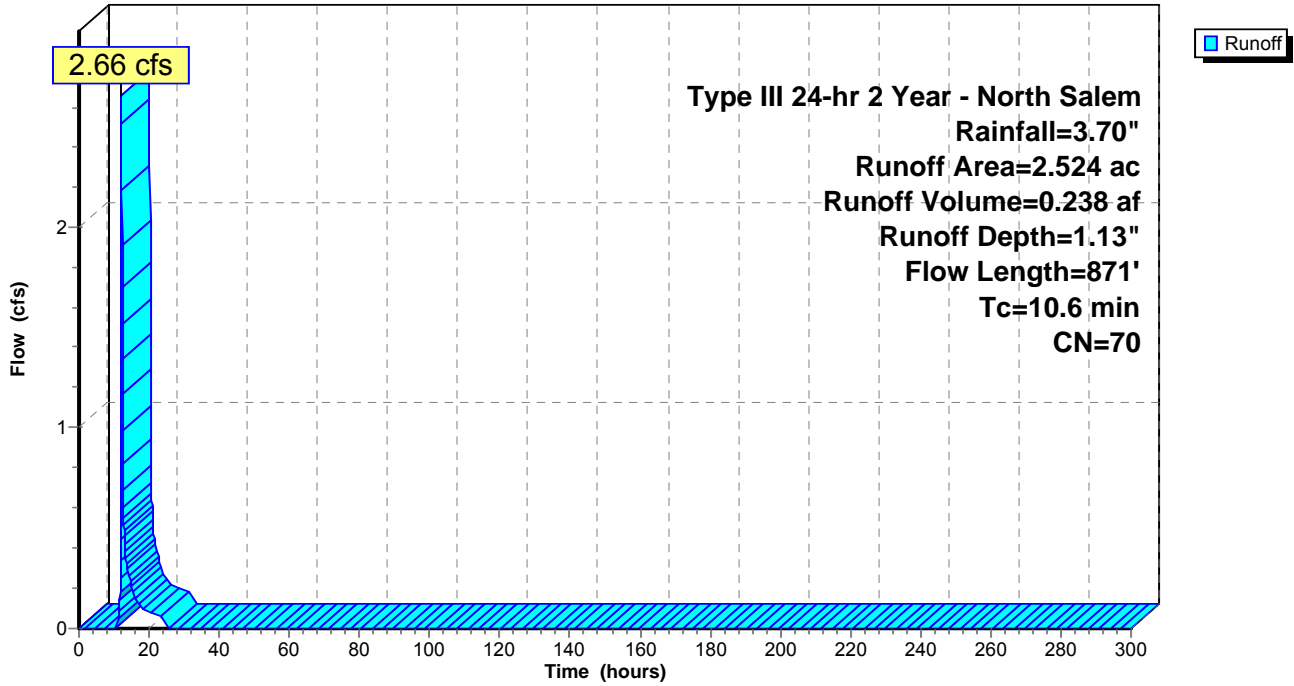
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 2.321	70	Woods, Good, HSG C, CuD Soils
* 0.203	70	Woods, Good, HSG C, CtC Soils
2.524	70	Weighted Average
2.524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	3.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.8	220	0.0909	4.85		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	215	0.2140	7.45		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	93	0.0645	4.09		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
10.6	871	Total			

Subcatchment I: Pre-Development I

Hydrograph



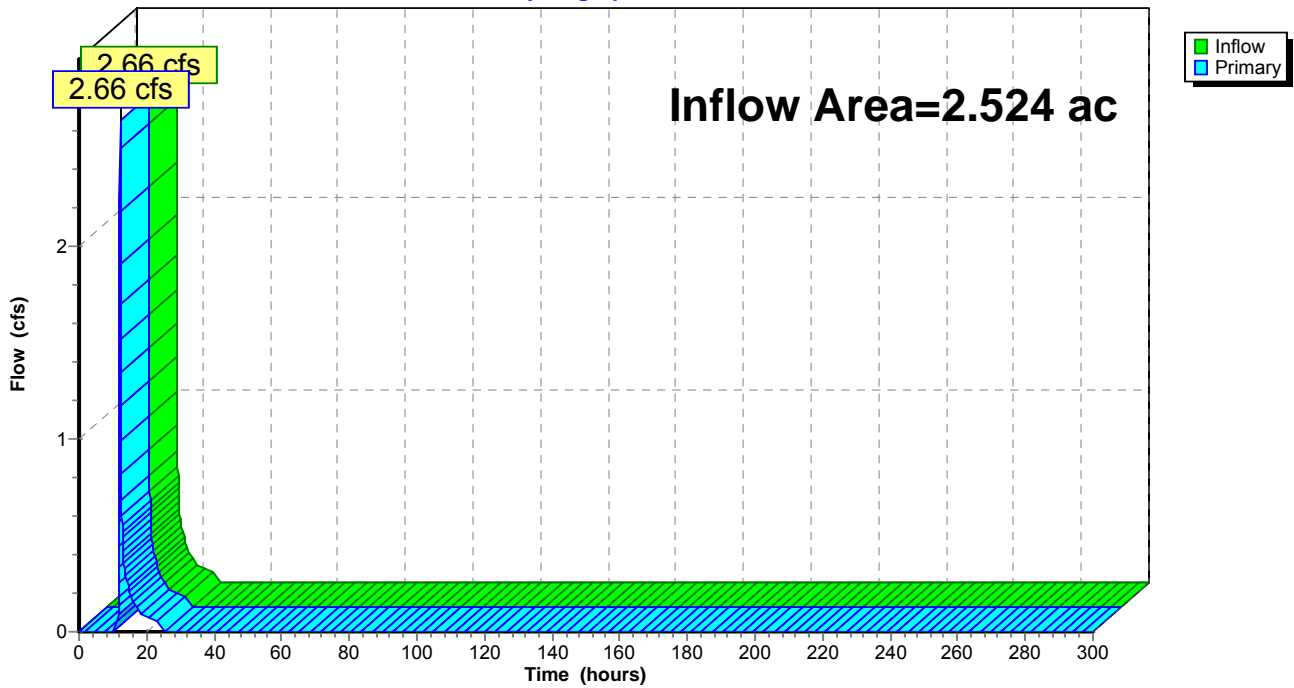
Summary for Pond DP 9: Design Point 9

Inflow Area = 2.524 ac, 0.00% Impervious, Inflow Depth = 1.13" for 2 Year - North Salem event
Inflow = 2.66 cfs @ 12.16 hrs, Volume= 0.238 af
Primary = 2.66 cfs @ 12.16 hrs, Volume= 0.238 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I: Pre-Development I

Runoff Area=2.524 ac 0.00% Impervious Runoff Depth=2.41"
Flow Length=871' Tc=10.6 min CN=70 Runoff=6.00 cfs 0.508 af

Pond DP 9: Design Point 9

Inflow=6.00 cfs 0.508 af
Primary=6.00 cfs 0.508 af

Total Runoff Area = 2.524 ac Runoff Volume = 0.508 af Average Runoff Depth = 2.41"
100.00% Pervious = 2.524 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I: Pre-Development I

Runoff = 6.00 cfs @ 12.16 hrs, Volume= 0.508 af, Depth= 2.41"

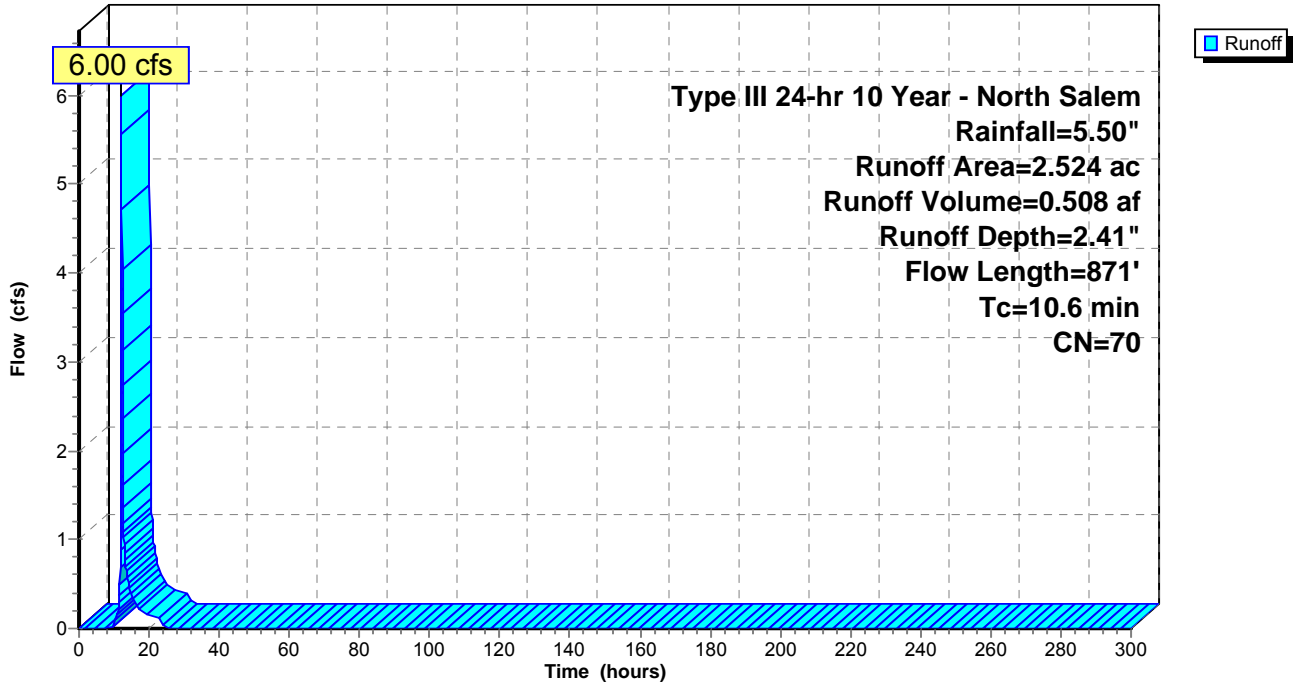
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 2.321	70	Woods, Good, HSG C, CuD Soils
* 0.203	70	Woods, Good, HSG C, CtC Soils
2.524	70	Weighted Average
2.524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	3.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.8	220	0.0909	4.85		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	215	0.2140	7.45		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	93	0.0645	4.09		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
10.6	871	Total			

Subcatchment I: Pre-Development I

Hydrograph



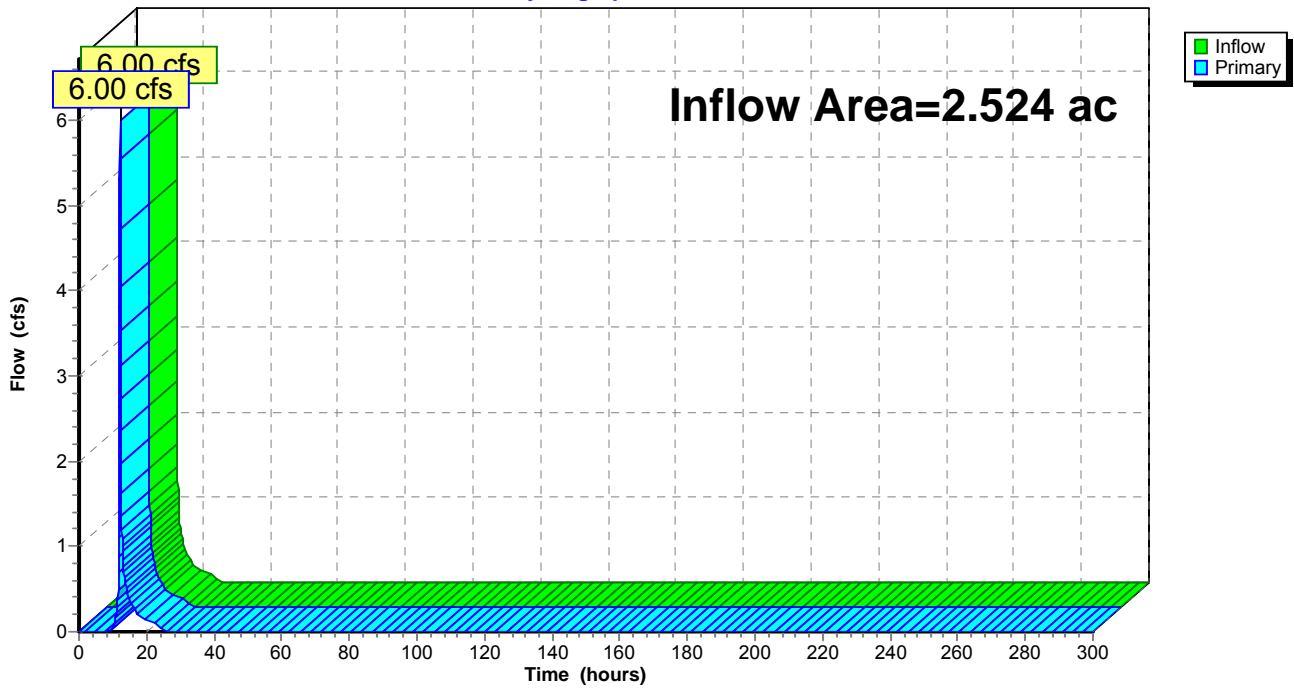
Summary for Pond DP 9: Design Point 9

Inflow Area = 2.524 ac, 0.00% Impervious, Inflow Depth = 2.41" for 10 Year - North Salem event
Inflow = 6.00 cfs @ 12.16 hrs, Volume= 0.508 af
Primary = 6.00 cfs @ 12.16 hrs, Volume= 0.508 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I: Pre-Development I

Runoff Area=2.524 ac 0.00% Impervious Runoff Depth=3.62"
Flow Length=871' Tc=10.6 min CN=70 Runoff=9.09 cfs 0.761 af

Pond DP 9: Design Point 9

Inflow=9.09 cfs 0.761 af
Primary=9.09 cfs 0.761 af

Total Runoff Area = 2.524 ac Runoff Volume = 0.761 af Average Runoff Depth = 3.62"
100.00% Pervious = 2.524 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I: Pre-Development I

Runoff = 9.09 cfs @ 12.15 hrs, Volume= 0.761 af, Depth= 3.62"

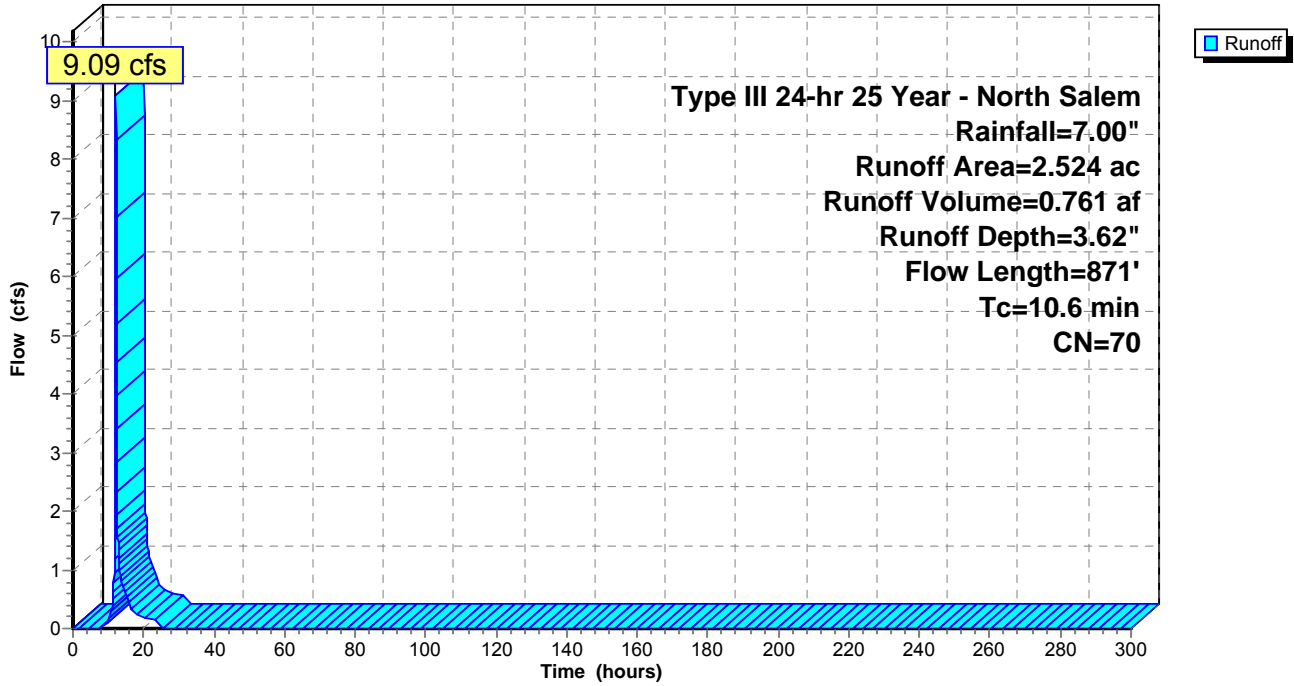
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 2.321	70	Woods, Good, HSG C, CuD Soils
* 0.203	70	Woods, Good, HSG C, CtC Soils
2.524	70	Weighted Average
2.524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	3.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.8	220	0.0909	4.85		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	215	0.2140	7.45		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	93	0.0645	4.09		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
10.6	871	Total			

Subcatchment I: Pre-Development I

Hydrograph



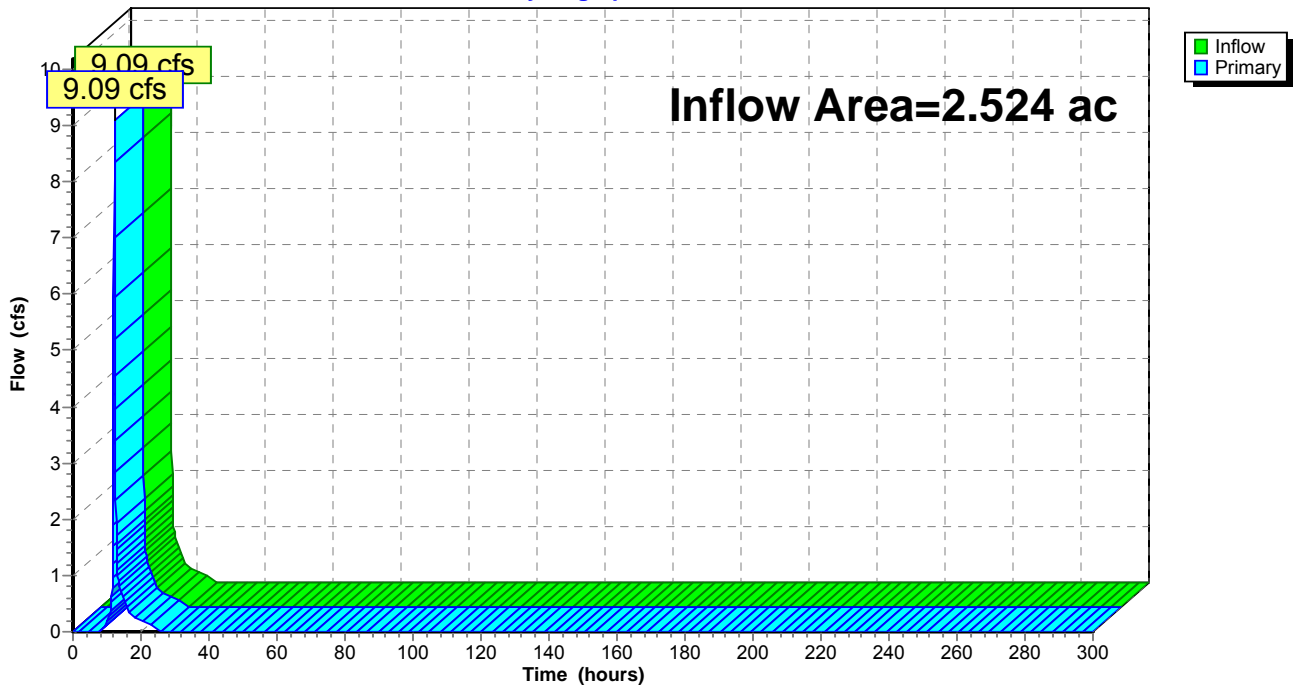
Summary for Pond DP 9: Design Point 9

Inflow Area = 2.524 ac, 0.00% Impervious, Inflow Depth = 3.62" for 25 Year - North Salem event
Inflow = 9.09 cfs @ 12.15 hrs, Volume= 0.761 af
Primary = 9.09 cfs @ 12.15 hrs, Volume= 0.761 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I: Pre-Development I

Runoff Area=2.524 ac 0.00% Impervious Runoff Depth=5.33"
Flow Length=871' Tc=10.6 min CN=70 Runoff=13.41 cfs 1.122 af

Pond DP 9: Design Point 9

Inflow=13.41 cfs 1.122 af
Primary=13.41 cfs 1.122 af

Total Runoff Area = 2.524 ac Runoff Volume = 1.122 af Average Runoff Depth = 5.33"
100.00% Pervious = 2.524 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I: Pre-Development I

Runoff = 13.41 cfs @ 12.15 hrs, Volume= 1.122 af, Depth= 5.33"

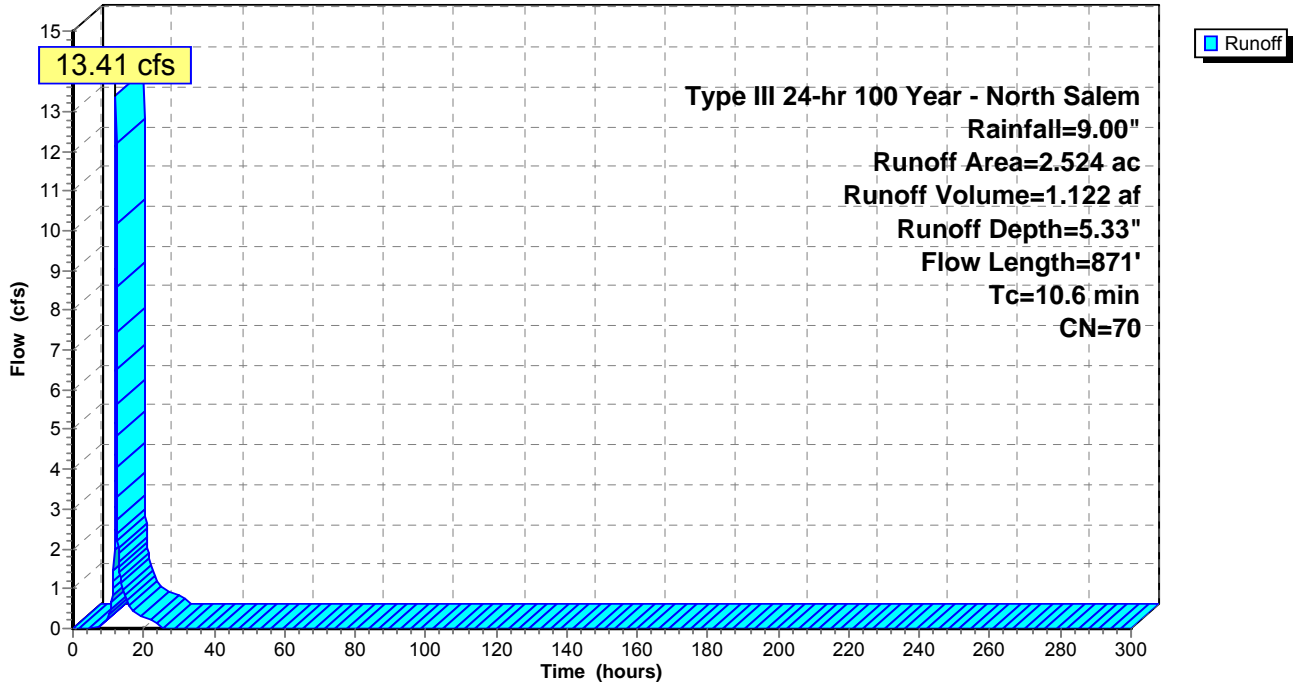
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 2.321	70	Woods, Good, HSG C, CuD Soils
* 0.203	70	Woods, Good, HSG C, CtC Soils
2.524	70	Weighted Average
2.524		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	3.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
0.8	220	0.0909	4.85		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	215	0.2140	7.45		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	93	0.0645	4.09		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
10.6	871	Total			

Subcatchment I: Pre-Development I

Hydrograph



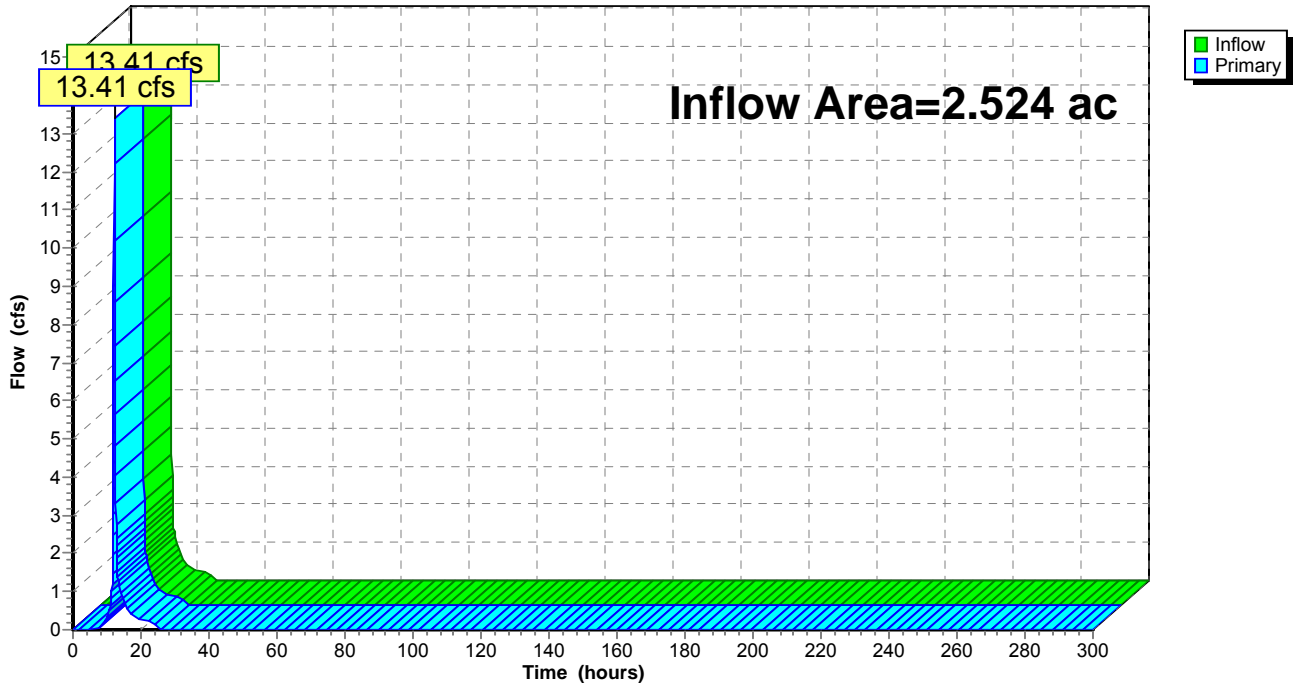
Summary for Pond DP 9: Design Point 9

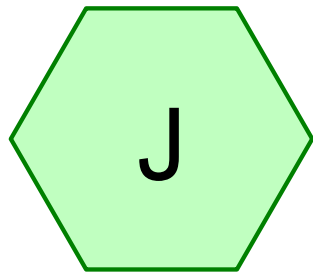
Inflow Area = 2.524 ac, 0.00% Impervious, Inflow Depth = 5.33" for 100 Year - North Salem event
Inflow = 13.41 cfs @ 12.15 hrs, Volume= 1.122 af
Primary = 13.41 cfs @ 12.15 hrs, Volume= 1.122 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

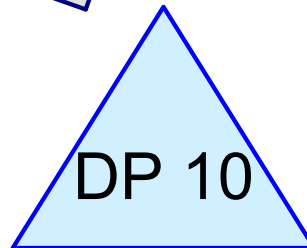
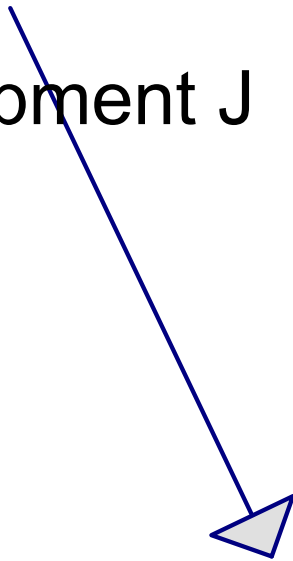
Pond DP 9: Design Point 9

Hydrograph

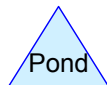
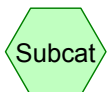




Pre-Development J



Design Point 10



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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.938	55	Woods, Good, HSG B, CrC Soils (J)
1.000	70	Woods, Good, HSG C, CuD Soils (J)
0.970	73	Woods, Fair, HSG C, HrF Soils (J)
2.908		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J: Pre-Development J

Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=0.59"
Flow Length=663' Tc=8.9 min CN=66 Runoff=1.42 cfs 0.144 af

Pond DP 10: Design Point 10

Inflow=1.42 cfs 0.144 af
Primary=1.42 cfs 0.144 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.144 af Average Runoff Depth = 0.59"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J: Pre-Development J

Runoff = 1.42 cfs @ 12.16 hrs, Volume= 0.144 af, Depth= 0.59"

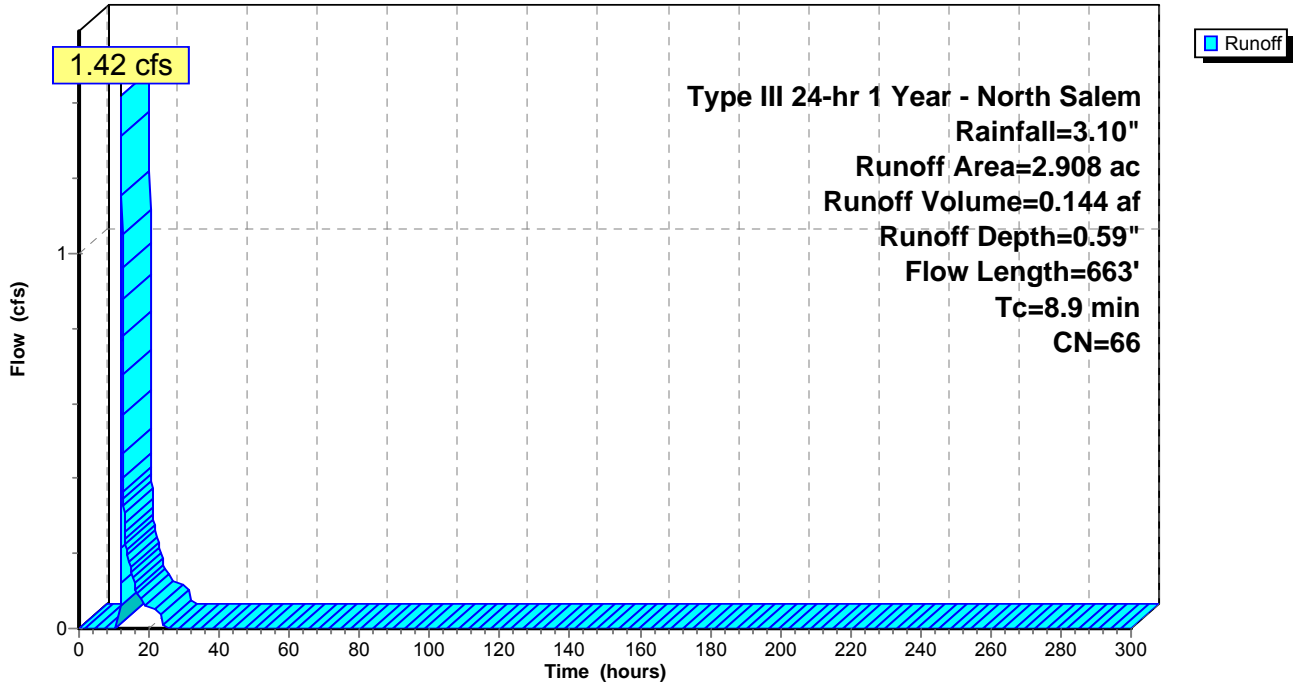
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J: Pre-Development J

Hydrograph



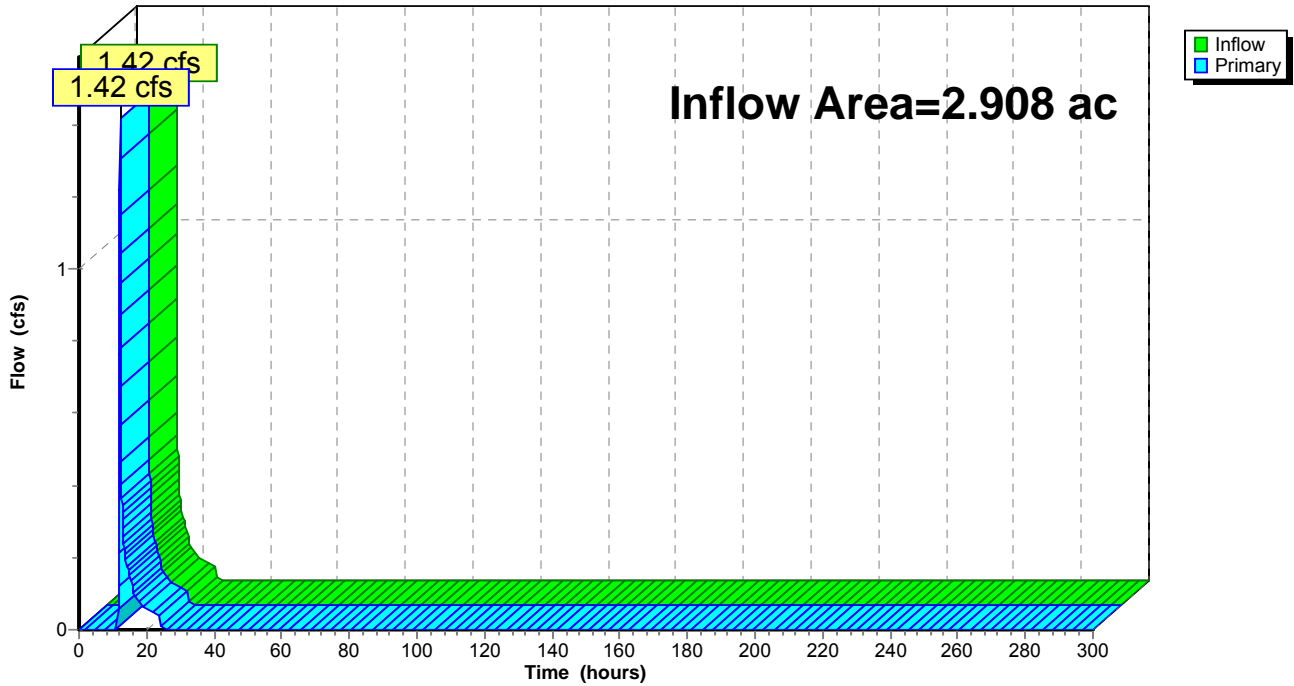
Summary for Pond DP 10: Design Point 10

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
Inflow = 1.42 cfs @ 12.16 hrs, Volume= 0.144 af
Primary = 1.42 cfs @ 12.16 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Woodlands Pre-Dev Part 2 2012

Type III 24-hr 2 Year - North Salem Rainfall=3.70"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J: Pre-Development J

Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=0.91"
Flow Length=663' Tc=8.9 min CN=66 Runoff=2.43 cfs 0.221 af

Pond DP 10: Design Point 10

Inflow=2.43 cfs 0.221 af
Primary=2.43 cfs 0.221 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.221 af Average Runoff Depth = 0.91"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J: Pre-Development J

Runoff = 2.43 cfs @ 12.15 hrs, Volume= 0.221 af, Depth= 0.91"

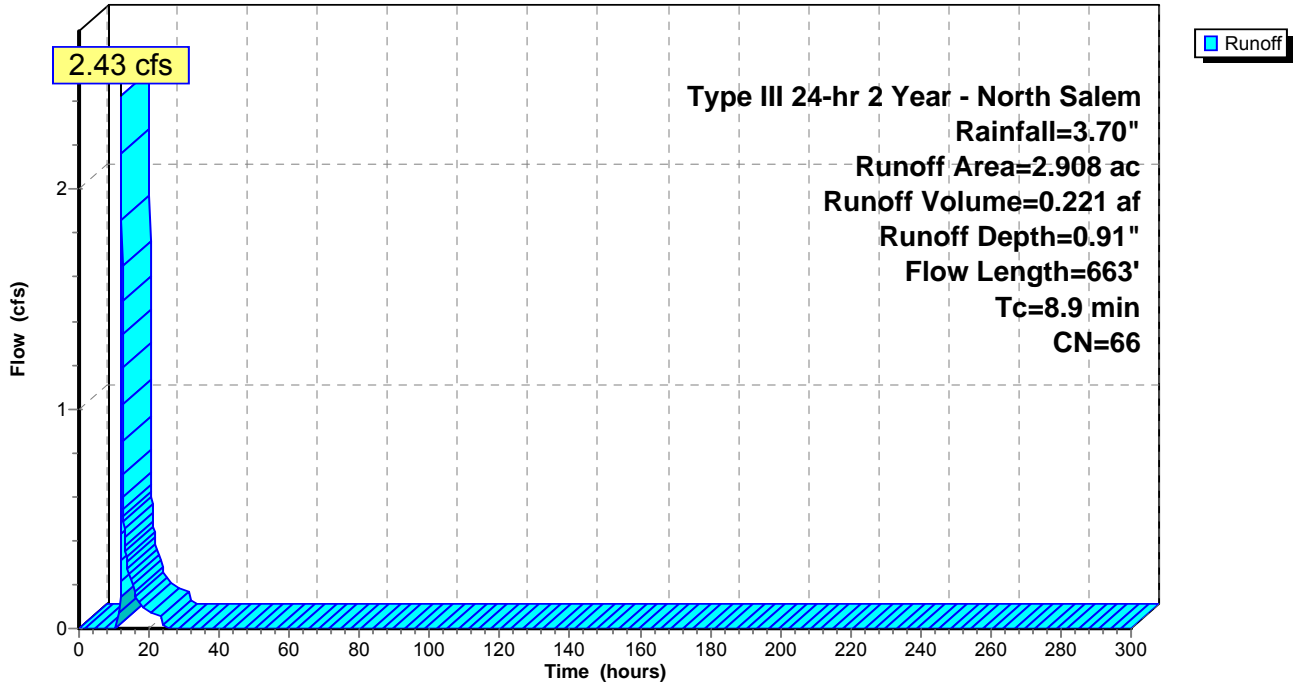
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J: Pre-Development J

Hydrograph



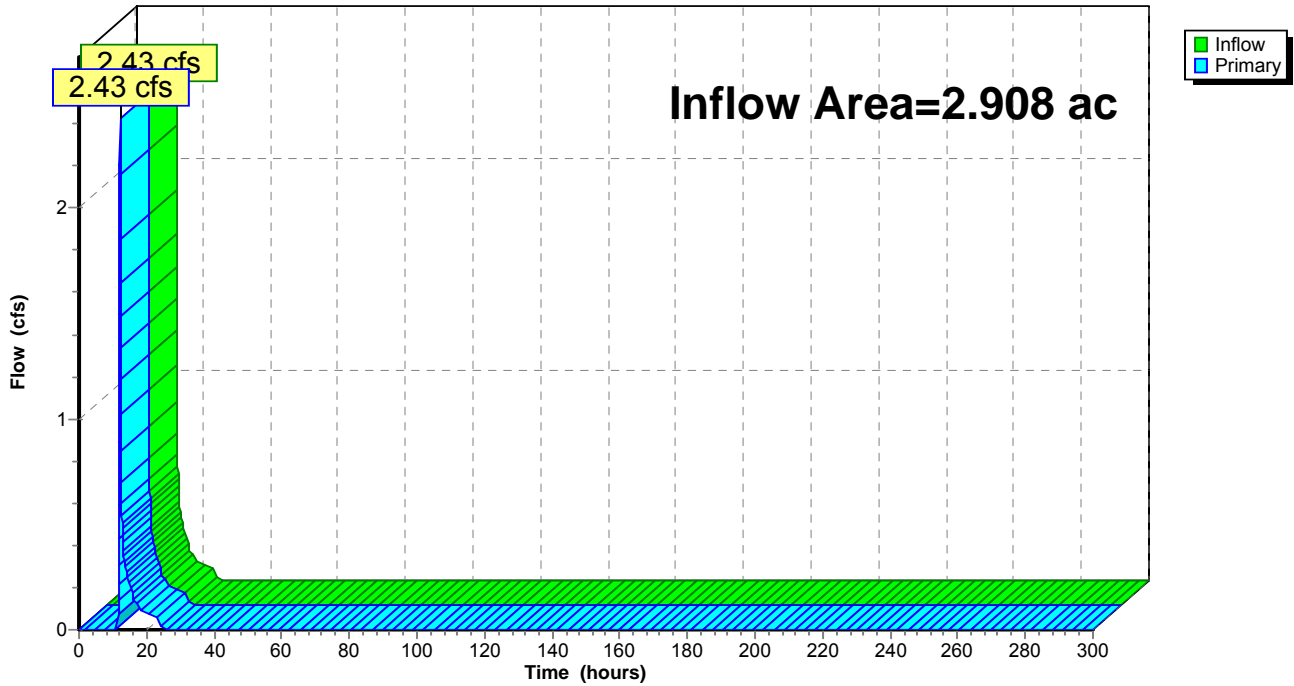
Summary for Pond DP 10: Design Point 10

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
Inflow = 2.43 cfs @ 12.15 hrs, Volume= 0.221 af
Primary = 2.43 cfs @ 12.15 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J: Pre-Development J

Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=2.08"
Flow Length=663' Tc=8.9 min CN=66 Runoff=6.10 cfs 0.503 af

Pond DP 10: Design Point 10

Inflow=6.10 cfs 0.503 af
Primary=6.10 cfs 0.503 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.503 af Average Runoff Depth = 2.08"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J: Pre-Development J

Runoff = 6.10 cfs @ 12.14 hrs, Volume= 0.503 af, Depth= 2.08"

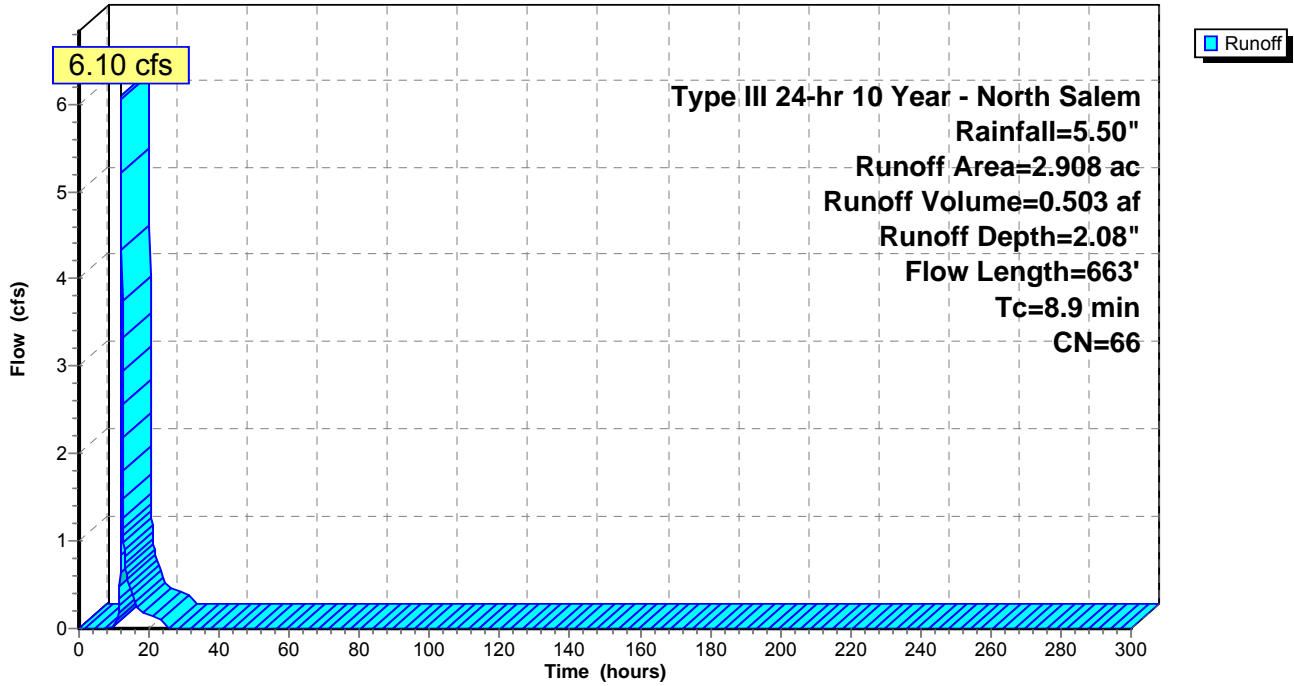
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J: Pre-Development J

Hydrograph



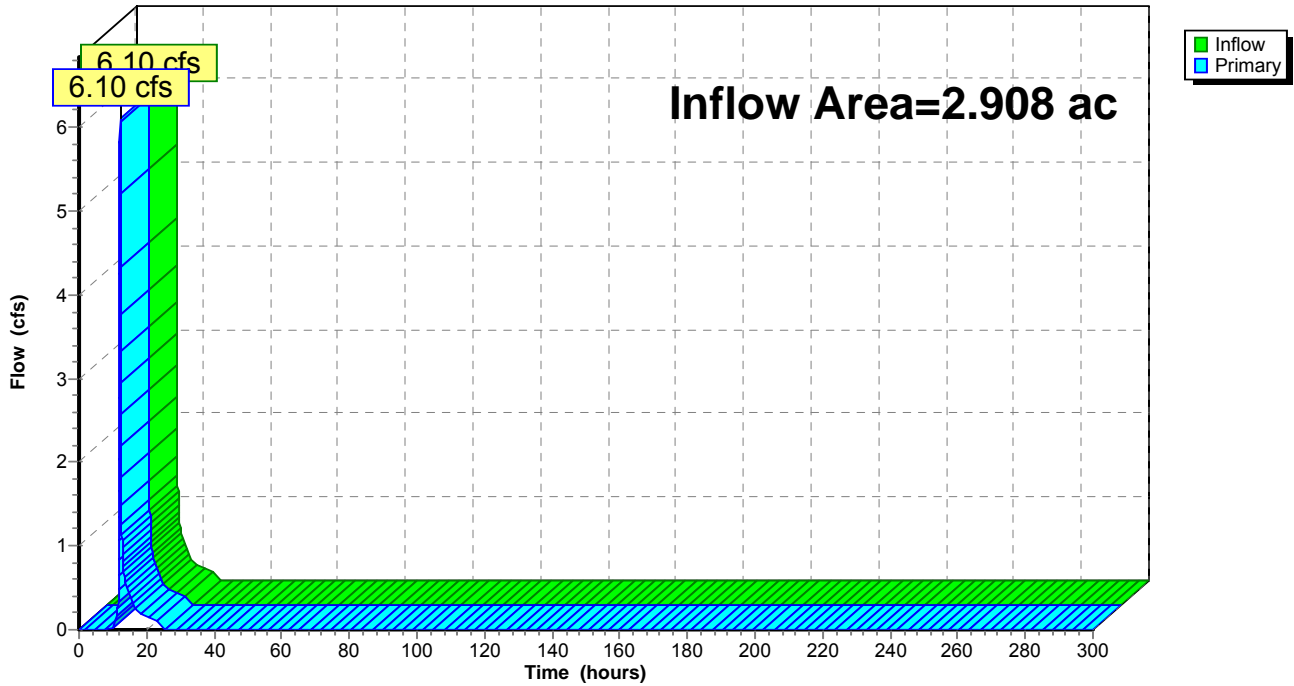
Summary for Pond DP 10: Design Point 10

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 2.08" for 10 Year - North Salem event
Inflow = 6.10 cfs @ 12.14 hrs, Volume= 0.503 af
Primary = 6.10 cfs @ 12.14 hrs, Volume= 0.503 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Woodlands Pre-Dev Part 2 2012

Type III 24-hr 25 Year - North Salem Rainfall=7.00"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J: Pre-Development J

Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=3.20"
Flow Length=663' Tc=8.9 min CN=66 Runoff=9.62 cfs 0.777 af

Pond DP 10: Design Point 10

Inflow=9.62 cfs 0.777 af
Primary=9.62 cfs 0.777 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.777 af Average Runoff Depth = 3.20"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J: Pre-Development J

Runoff = 9.62 cfs @ 12.13 hrs, Volume= 0.777 af, Depth= 3.20"

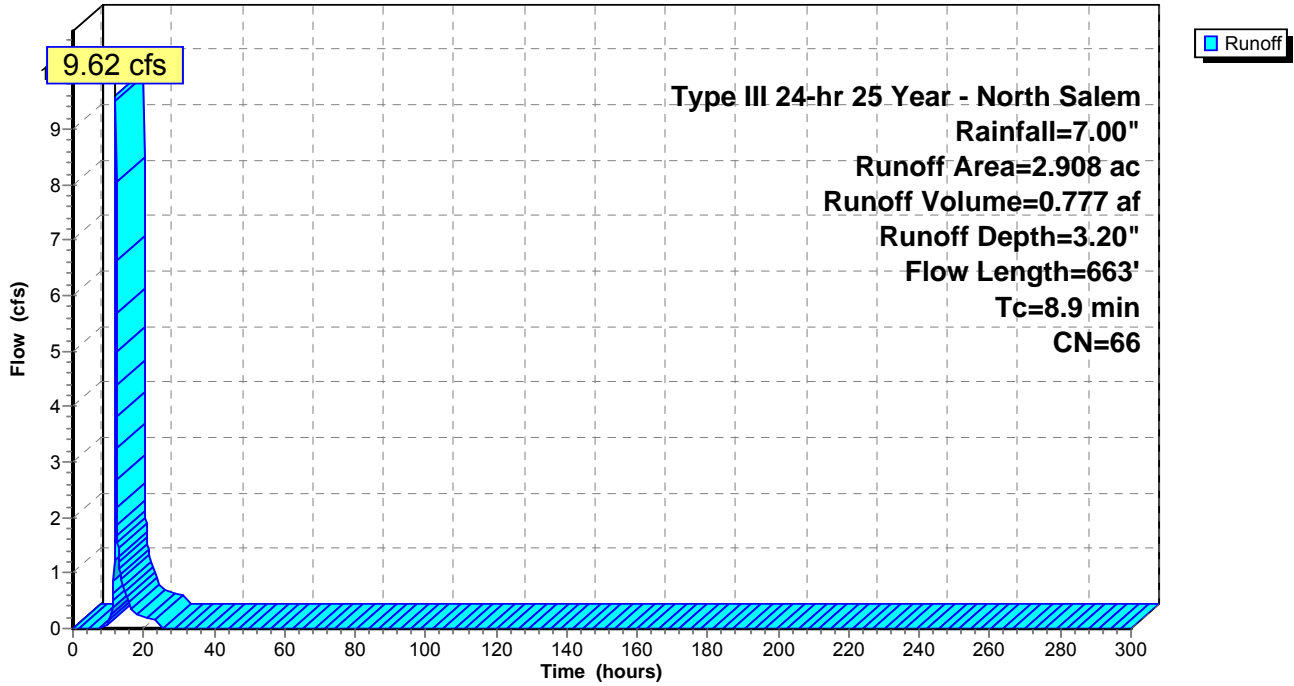
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J: Pre-Development J

Hydrograph



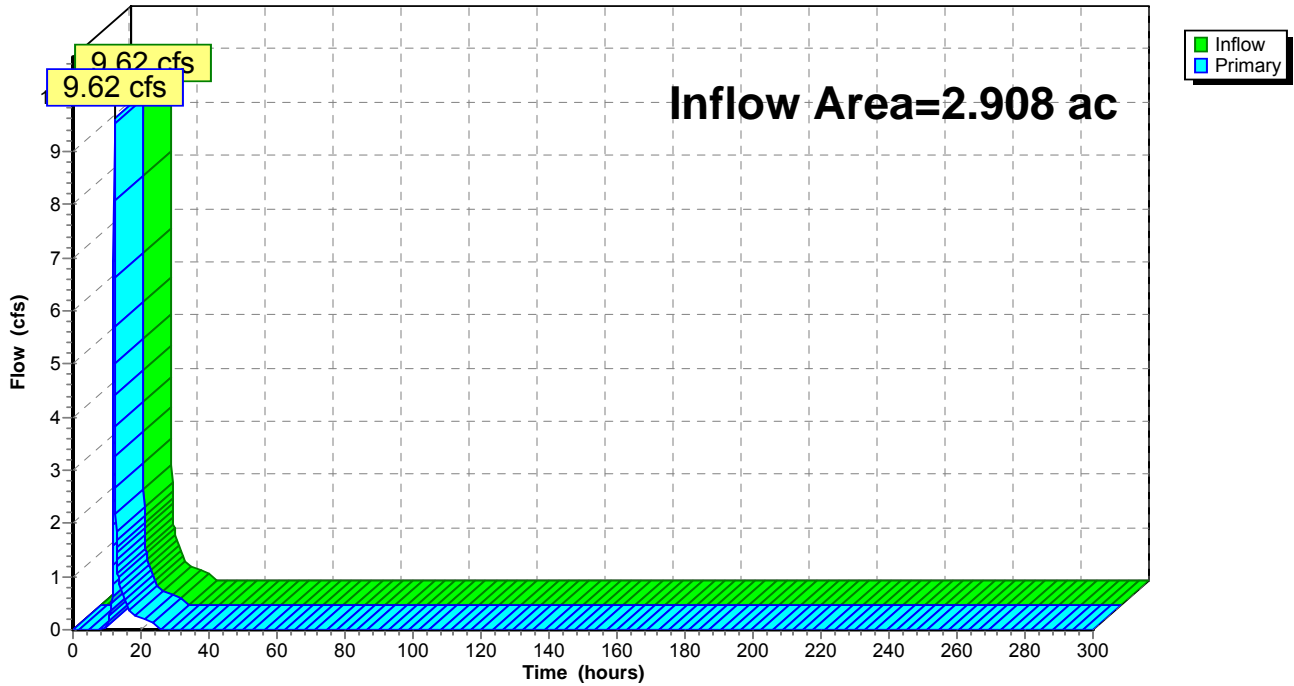
Summary for Pond DP 10: Design Point 10

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
Inflow = 9.62 cfs @ 12.13 hrs, Volume= 0.777 af
Primary = 9.62 cfs @ 12.13 hrs, Volume= 0.777 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J: Pre-Development J

Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=4.84"
Flow Length=663' Tc=8.9 min CN=66 Runoff=14.64 cfs 1.173 af

Pond DP 10: Design Point 10

Inflow=14.64 cfs 1.173 af
Primary=14.64 cfs 1.173 af

Total Runoff Area = 2.908 ac Runoff Volume = 1.173 af Average Runoff Depth = 4.84"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J: Pre-Development J

Runoff = 14.64 cfs @ 12.13 hrs, Volume= 1.173 af, Depth= 4.84"

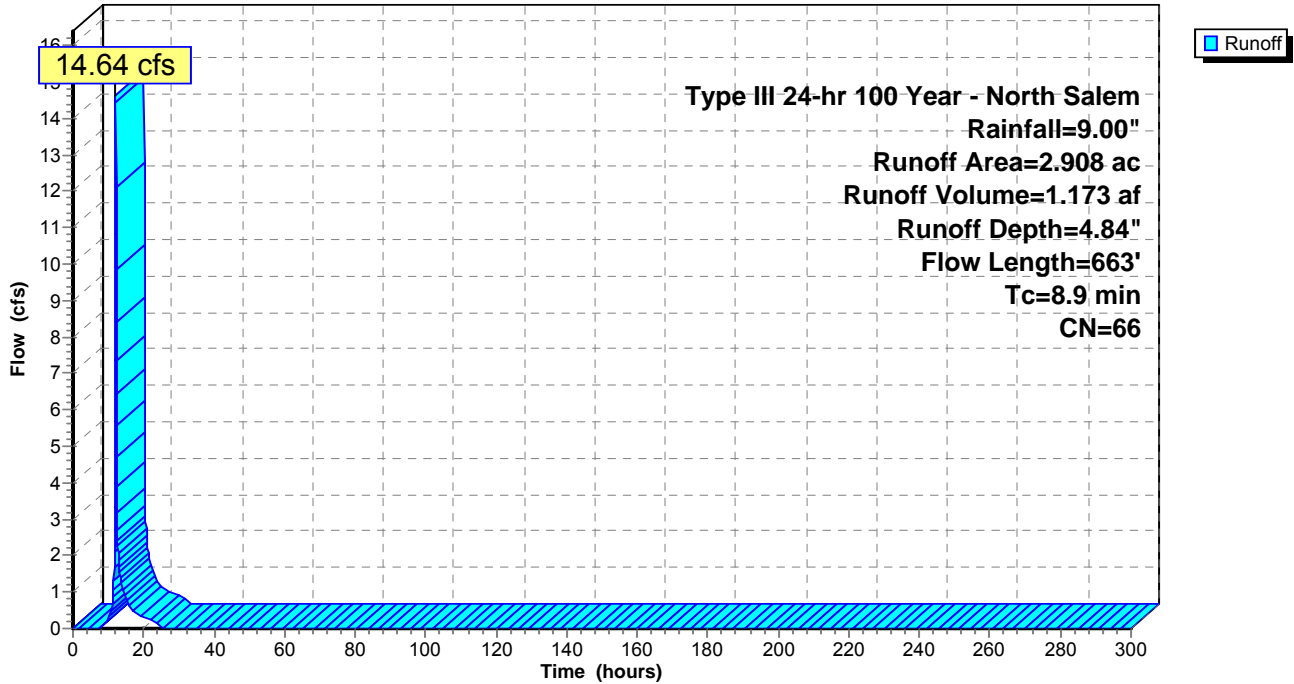
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J: Pre-Development J

Hydrograph



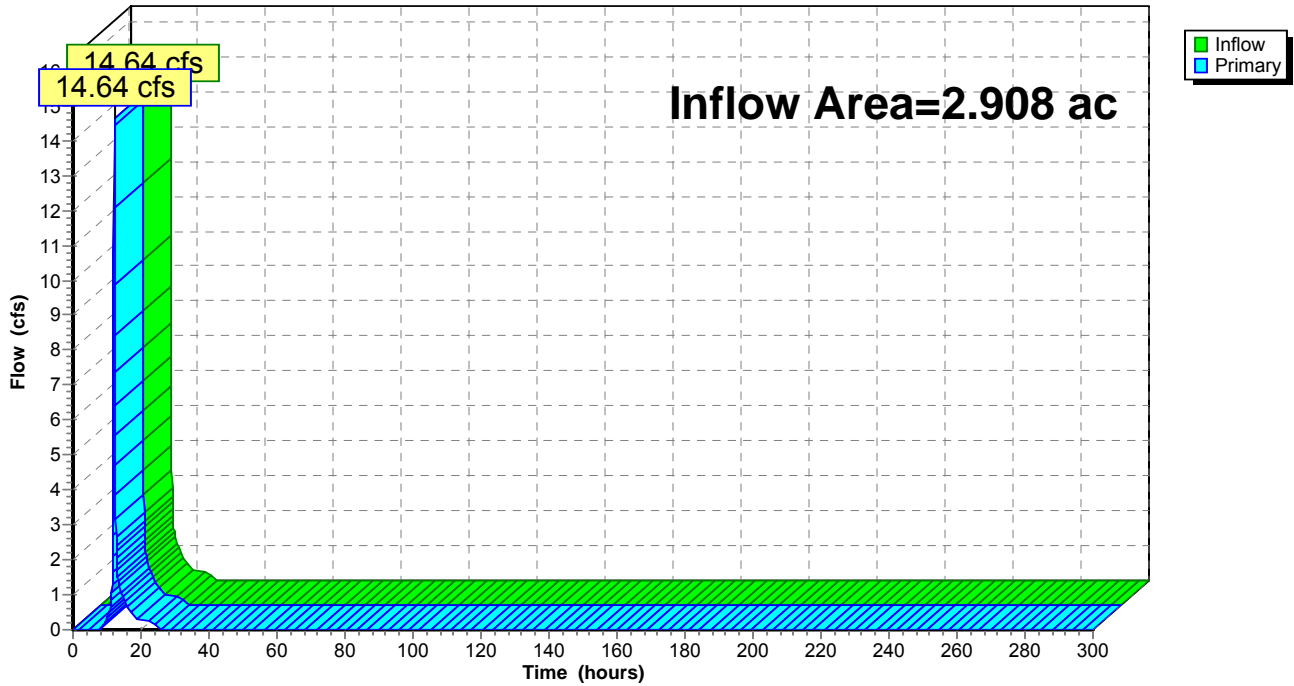
Summary for Pond DP 10: Design Point 10

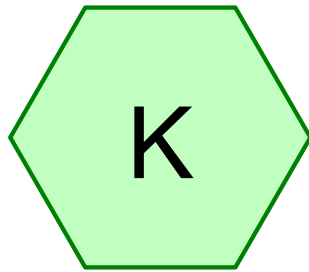
Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 4.84" for 100 Year - North Salem event
Inflow = 14.64 cfs @ 12.13 hrs, Volume= 1.173 af
Primary = 14.64 cfs @ 12.13 hrs, Volume= 1.173 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

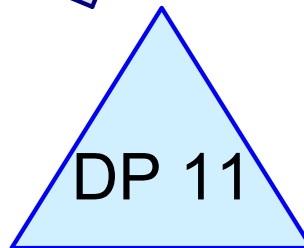
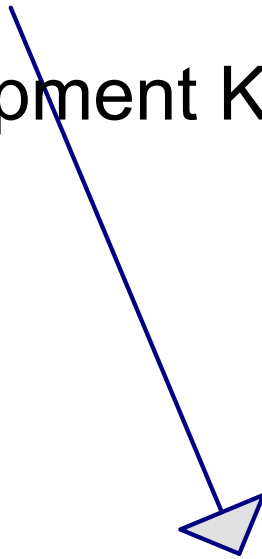
Pond DP 10: Design Point 10

Hydrograph

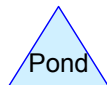
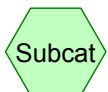




Pre-Development K



Design Point 11



Woodlands Pre-Dev Part 2 2012

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.172	55	Woods, Good, HSG B, CrC Soils (K)
1.904	55	Woods, Good, HSG B, CsD Soils (K)
31.680	70	Woods, Good, HSG C, CtC Soils (K)
20.506	70	Woods, Good, HSG C, CuD Soils (K)
3.151	70	Woods, Good, HSG C, LcB Soils (K)
3.196	83	Woods, Poor, HSG D, Sh Soils (K)
0.367	85	Gravel roads, HSG B (K)
0.079	98	Roofs (K)
0.115	100	Open Water (K)
64.170		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K: Pre-Development K

Runoff Area=64.170 ac 0.30% Impervious Runoff Depth=0.77"
Flow Length=3,260' Tc=22.8 min CN=70 Runoff=32.45 cfs 4.120 af

Pond DP 11: Design Point 11

Inflow=32.45 cfs 4.120 af
Primary=32.45 cfs 4.120 af

Total Runoff Area = 64.170 ac Runoff Volume = 4.120 af Average Runoff Depth = 0.77"
99.70% Pervious = 63.976 ac 0.30% Impervious = 0.194 ac

Summary for Subcatchment K: Pre-Development K

Runoff = 32.45 cfs @ 12.36 hrs, Volume= 4.120 af, Depth= 0.77"

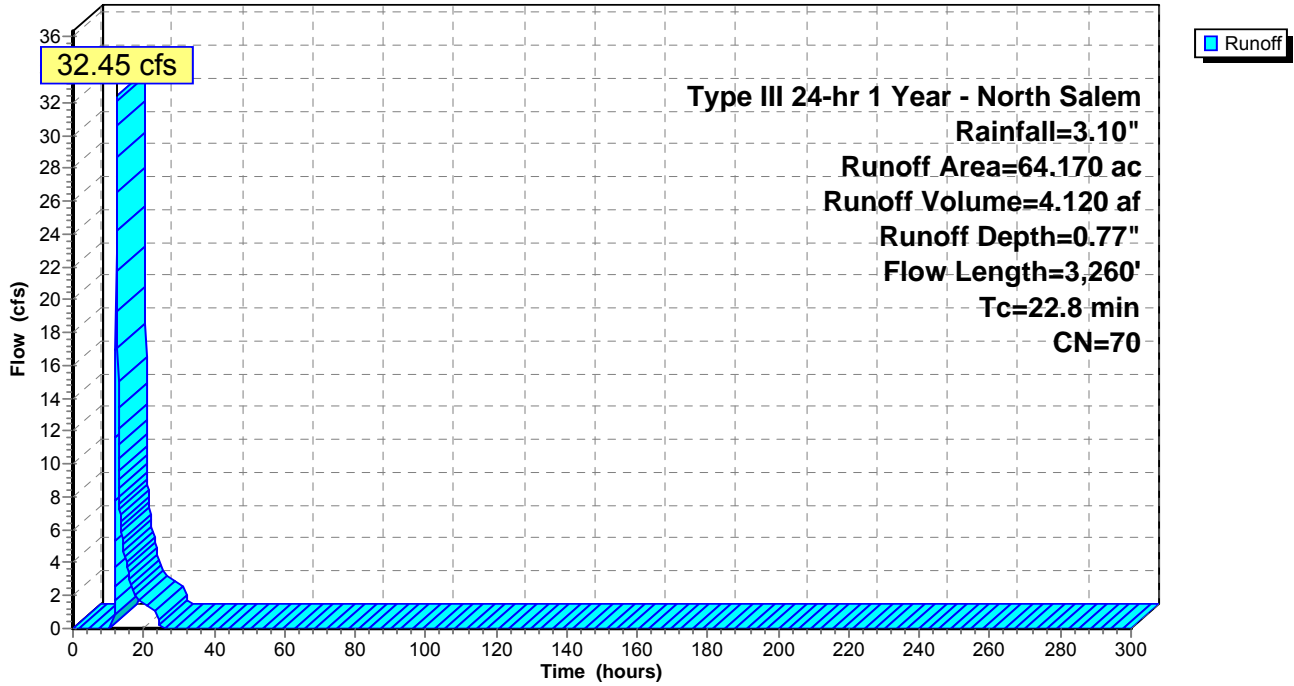
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 1.904	55	Woods, Good, HSG B, CsD Soils
* 3.151	70	Woods, Good, HSG C, LcB Soils
* 3.196	83	Woods, Poor, HSG D, Sh Soils
* 31.680	70	Woods, Good, HSG C, CtC Soils
* 20.506	70	Woods, Good, HSG C, CuD Soils
* 0.115	100	Open Water
* 3.172	55	Woods, Good, HSG B, CrC Soils
0.367	85	Gravel roads, HSG B
* 0.079	98	Roofs
64.170	70	Weighted Average
63.976		99.70% Pervious Area
0.194		0.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.8	295	0.1500	6.24		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	712	0.1517	6.27		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.1	305	0.0852	4.70		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
1.8	294	0.0340	2.77		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	321	0.1184	5.16		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.3	120	0.1667	6.12		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	408	0.0833	4.33		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
22.8	3,260	Total			

Subcatchment K: Pre-Development K

Hydrograph



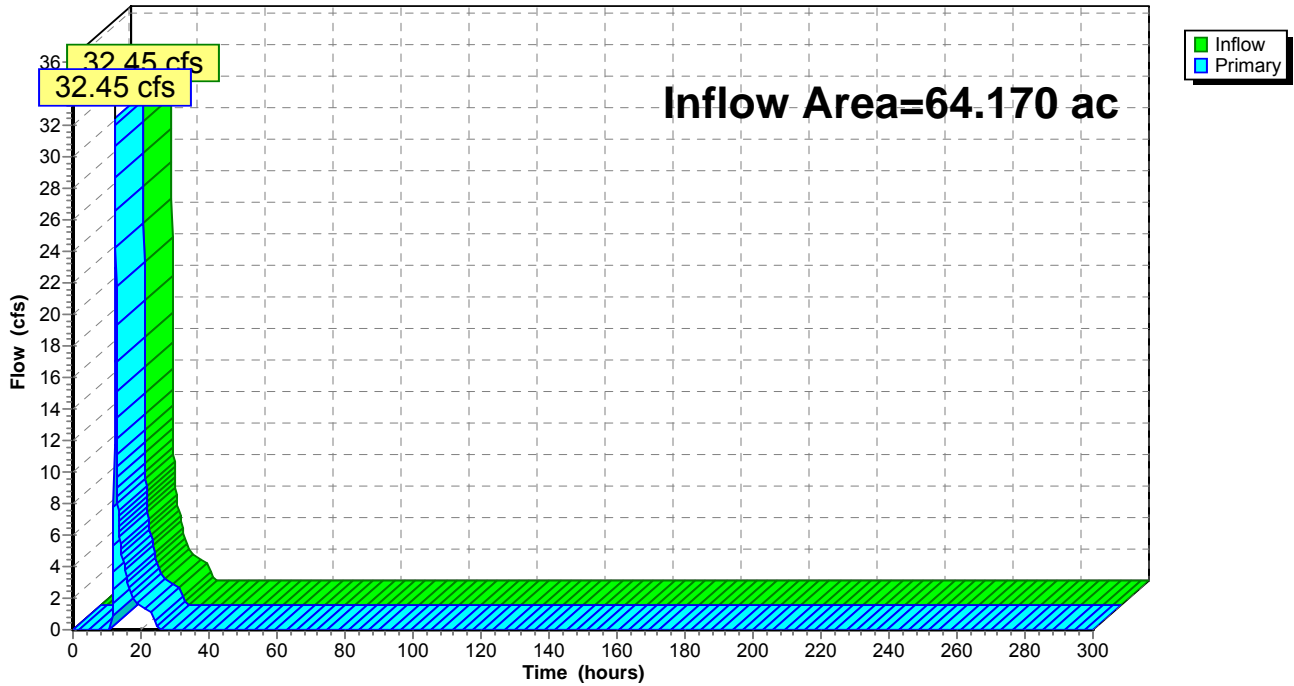
Summary for Pond DP 11: Design Point 11

Inflow Area = 64.170 ac, 0.30% Impervious, Inflow Depth = 0.77" for 1 Year - North Salem event
Inflow = 32.45 cfs @ 12.36 hrs, Volume= 4.120 af
Primary = 32.45 cfs @ 12.36 hrs, Volume= 4.120 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K: Pre-Development K

Runoff Area=64.170 ac 0.30% Impervious Runoff Depth=1.13"
Flow Length=3,260' Tc=22.8 min CN=70 Runoff=50.52 cfs 6.063 af

Pond DP 11: Design Point 11

Inflow=50.52 cfs 6.063 af
Primary=50.52 cfs 6.063 af

Total Runoff Area = 64.170 ac Runoff Volume = 6.063 af Average Runoff Depth = 1.13"
99.70% Pervious = 63.976 ac 0.30% Impervious = 0.194 ac

Summary for Subcatchment K: Pre-Development K

Runoff = 50.52 cfs @ 12.35 hrs, Volume= 6.063 af, Depth= 1.13"

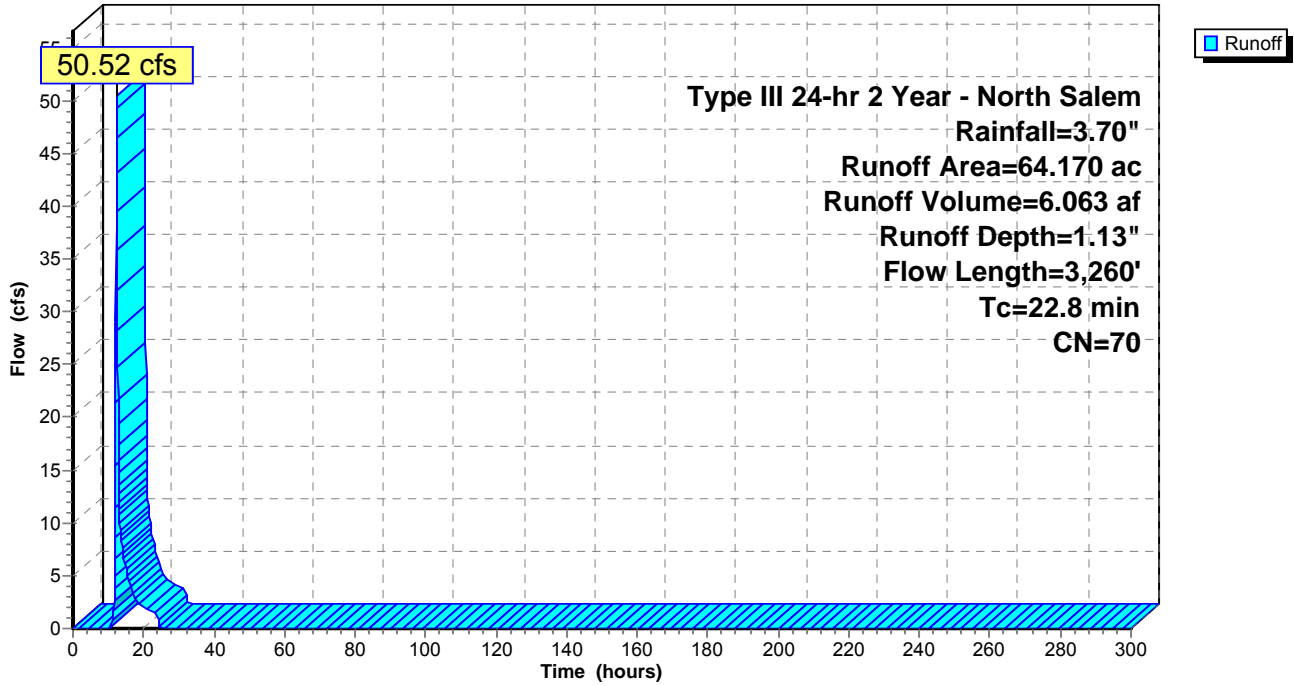
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 1.904	55	Woods, Good, HSG B, CsD Soils
* 3.151	70	Woods, Good, HSG C, LcB Soils
* 3.196	83	Woods, Poor, HSG D, Sh Soils
* 31.680	70	Woods, Good, HSG C, CtC Soils
* 20.506	70	Woods, Good, HSG C, CuD Soils
* 0.115	100	Open Water
* 3.172	55	Woods, Good, HSG B, CrC Soils
0.367	85	Gravel roads, HSG B
* 0.079	98	Roofs
64.170	70	Weighted Average
63.976		99.70% Pervious Area
0.194		0.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.8	295	0.1500	6.24		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	712	0.1517	6.27		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.1	305	0.0852	4.70		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
1.8	294	0.0340	2.77		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	321	0.1184	5.16		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.3	120	0.1667	6.12		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	408	0.0833	4.33		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
22.8	3,260	Total			

Subcatchment K: Pre-Development K

Hydrograph



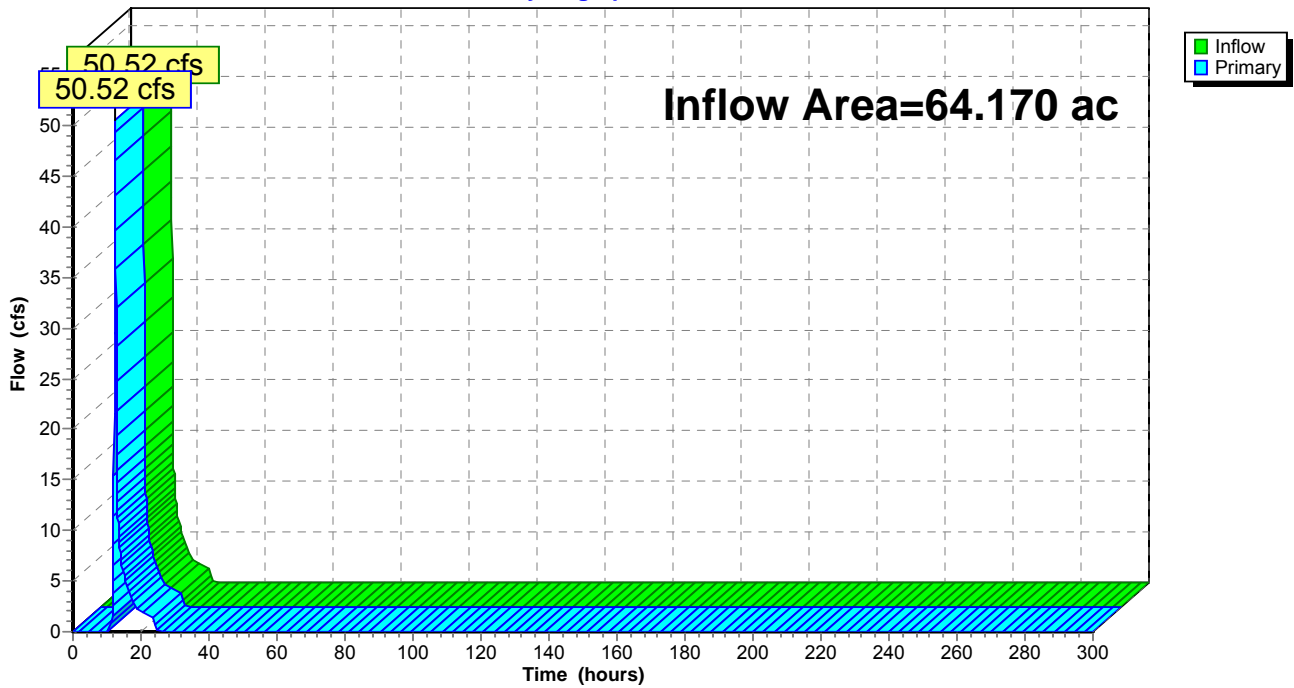
Summary for Pond DP 11: Design Point 11

Inflow Area = 64.170 ac, 0.30% Impervious, Inflow Depth = 1.13" for 2 Year - North Salem event
Inflow = 50.52 cfs @ 12.35 hrs, Volume= 6.063 af
Primary = 50.52 cfs @ 12.35 hrs, Volume= 6.063 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K: Pre-Development K

Runoff Area=64.170 ac 0.30% Impervious Runoff Depth=2.41"

Flow Length=3,260' Tc=22.8 min CN=70 Runoff=113.91 cfs 12.910 af

Pond DP 11: Design Point 11

Inflow=113.91 cfs 12.910 af

Primary=113.91 cfs 12.910 af

Total Runoff Area = 64.170 ac Runoff Volume = 12.910 af Average Runoff Depth = 2.41"
99.70% Pervious = 63.976 ac 0.30% Impervious = 0.194 ac

Summary for Subcatchment K: Pre-Development K

Runoff = 113.91 cfs @ 12.33 hrs, Volume= 12.910 af, Depth= 2.41"

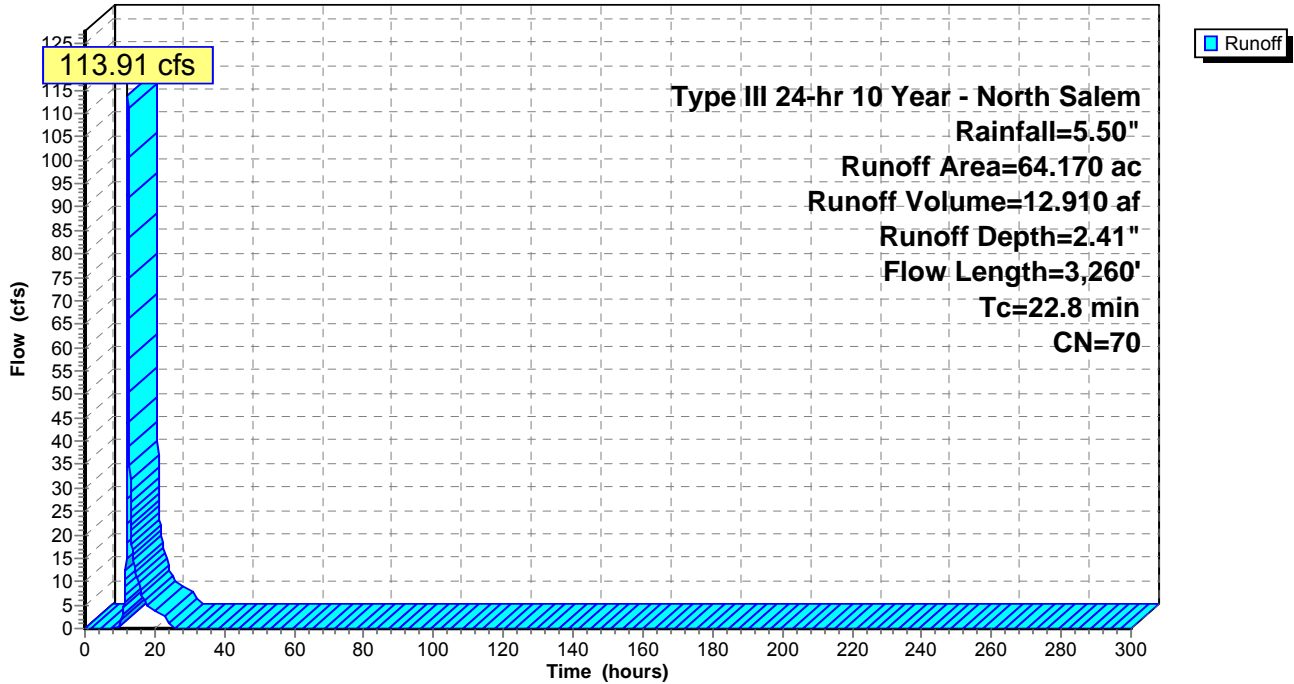
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 1.904	55	Woods, Good, HSG B, CsD Soils
* 3.151	70	Woods, Good, HSG C, LcB Soils
* 3.196	83	Woods, Poor, HSG D, Sh Soils
* 31.680	70	Woods, Good, HSG C, CtC Soils
* 20.506	70	Woods, Good, HSG C, CuD Soils
* 0.115	100	Open Water
* 3.172	55	Woods, Good, HSG B, CrC Soils
0.367	85	Gravel roads, HSG B
* 0.079	98	Roofs
64.170	70	Weighted Average
63.976		99.70% Pervious Area
0.194		0.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.8	295	0.1500	6.24		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	712	0.1517	6.27		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.1	305	0.0852	4.70		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
1.8	294	0.0340	2.77		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	321	0.1184	5.16		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.3	120	0.1667	6.12		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	408	0.0833	4.33		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
22.8	3,260	Total			

Subcatchment K: Pre-Development K

Hydrograph



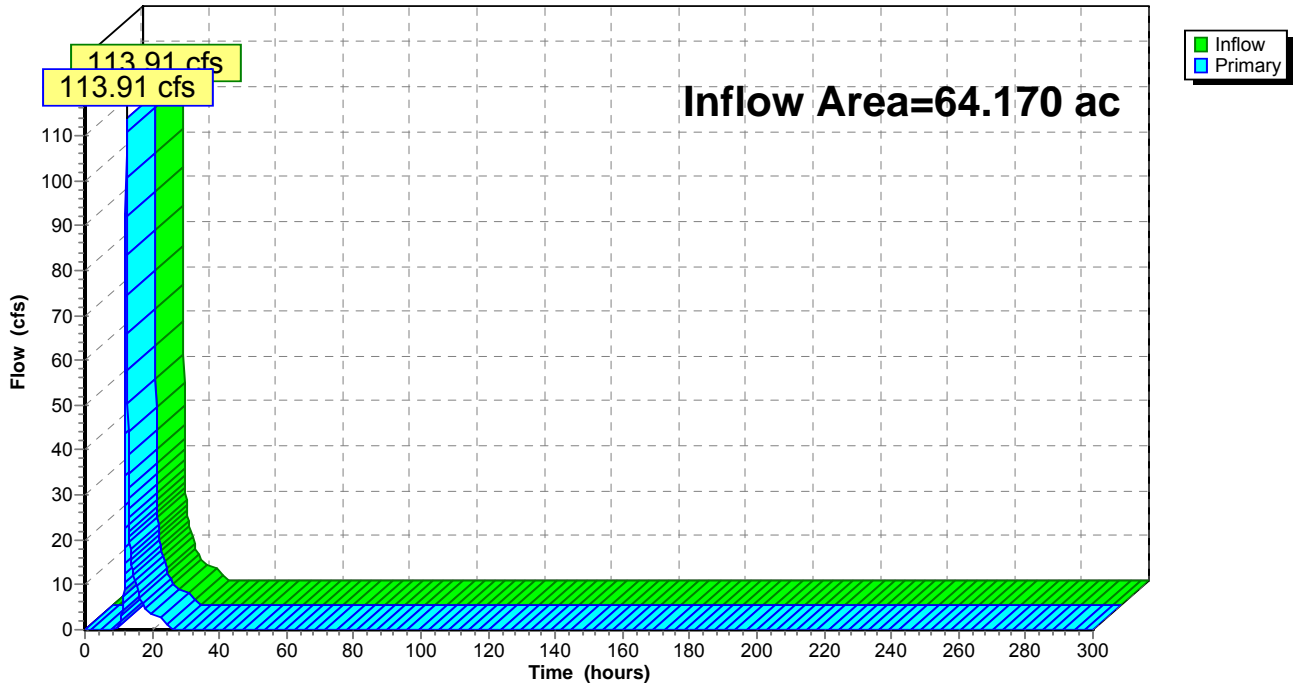
Summary for Pond DP 11: Design Point 11

Inflow Area = 64.170 ac, 0.30% Impervious, Inflow Depth = 2.41" for 10 Year - North Salem event
Inflow = 113.91 cfs @ 12.33 hrs, Volume= 12.910 af
Primary = 113.91 cfs @ 12.33 hrs, Volume= 12.910 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K: Pre-Development K

Runoff Area=64.170 ac 0.30% Impervious Runoff Depth=3.62"

Flow Length=3,260' Tc=22.8 min CN=70 Runoff=173.04 cfs 19.349 af

Pond DP 11: Design Point 11

Inflow=173.04 cfs 19.349 af

Primary=173.04 cfs 19.349 af

Total Runoff Area = 64.170 ac Runoff Volume = 19.349 af Average Runoff Depth = 3.62"
99.70% Pervious = 63.976 ac 0.30% Impervious = 0.194 ac

Summary for Subcatchment K: Pre-Development K

Runoff = 173.04 cfs @ 12.32 hrs, Volume= 19.349 af, Depth= 3.62"

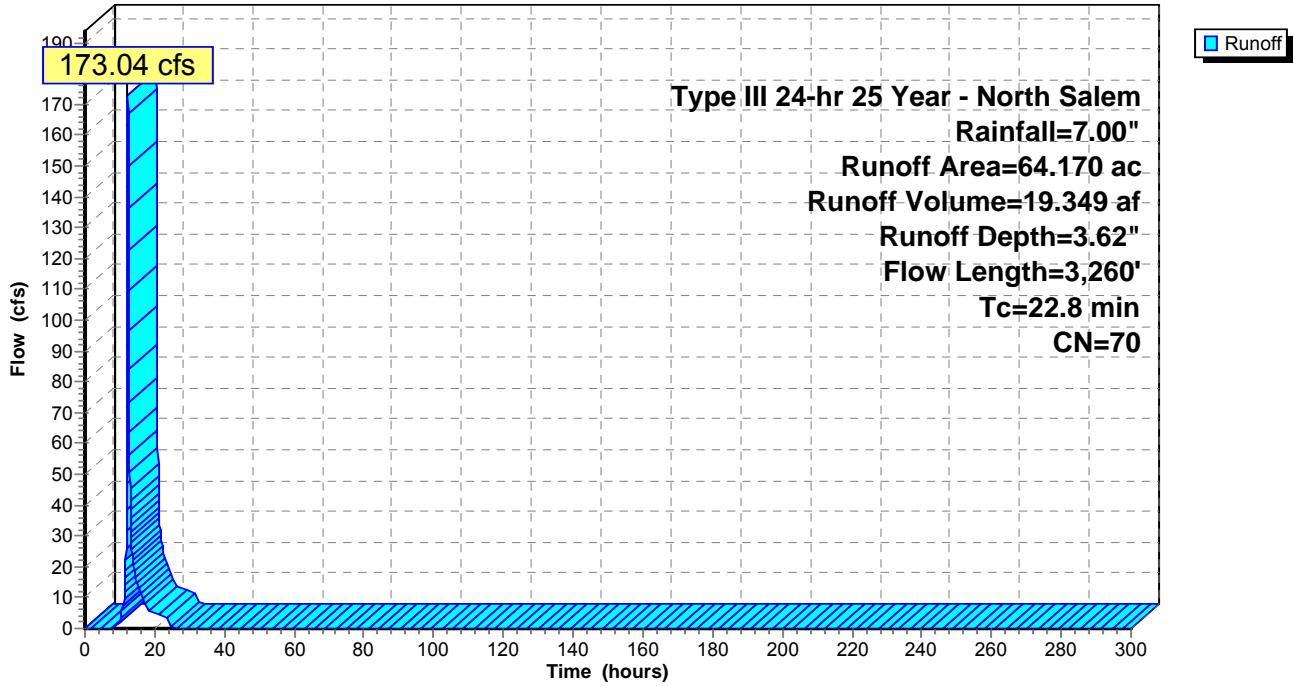
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 1.904	55	Woods, Good, HSG B, CsD Soils
* 3.151	70	Woods, Good, HSG C, LcB Soils
* 3.196	83	Woods, Poor, HSG D, Sh Soils
* 31.680	70	Woods, Good, HSG C, CtC Soils
* 20.506	70	Woods, Good, HSG C, CuD Soils
* 0.115	100	Open Water
* 3.172	55	Woods, Good, HSG B, CrC Soils
0.367	85	Gravel roads, HSG B
* 0.079	98	Roofs
64.170	70	Weighted Average
63.976		99.70% Pervious Area
0.194		0.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.8	295	0.1500	6.24		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	712	0.1517	6.27		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.1	305	0.0852	4.70		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
1.8	294	0.0340	2.77		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	321	0.1184	5.16		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.3	120	0.1667	6.12		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	408	0.0833	4.33		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
22.8	3,260	Total			

Subcatchment K: Pre-Development K

Hydrograph



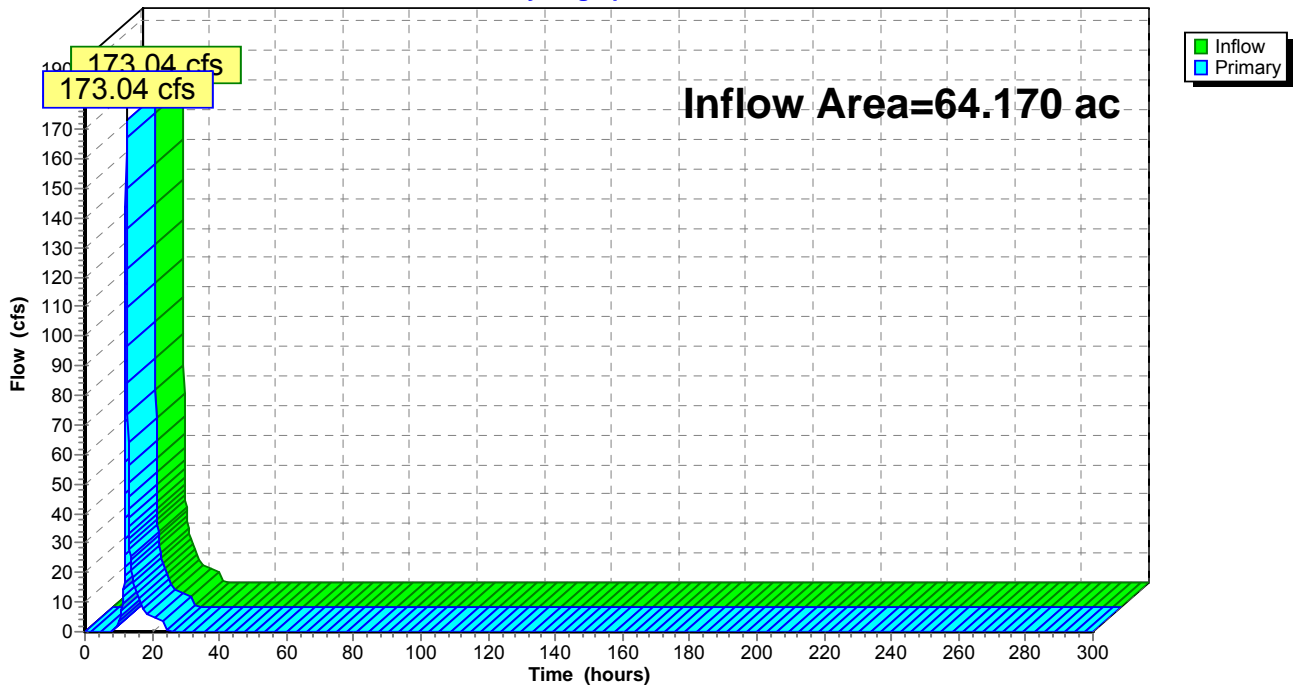
Summary for Pond DP 11: Design Point 11

Inflow Area = 64.170 ac, 0.30% Impervious, Inflow Depth = 3.62" for 25 Year - North Salem event
Inflow = 173.04 cfs @ 12.32 hrs, Volume= 19.349 af
Primary = 173.04 cfs @ 12.32 hrs, Volume= 19.349 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K: Pre-Development K

Runoff Area=64.170 ac 0.30% Impervious Runoff Depth=5.33"

Flow Length=3,260' Tc=22.8 min CN=70 Runoff=255.62 cfs 28.529 af

Pond DP 11: Design Point 11

Inflow=255.62 cfs 28.529 af

Primary=255.62 cfs 28.529 af

Total Runoff Area = 64.170 ac Runoff Volume = 28.529 af Average Runoff Depth = 5.33"
99.70% Pervious = 63.976 ac 0.30% Impervious = 0.194 ac

Summary for Subcatchment K: Pre-Development K

Runoff = 255.62 cfs @ 12.32 hrs, Volume= 28.529 af, Depth= 5.33"

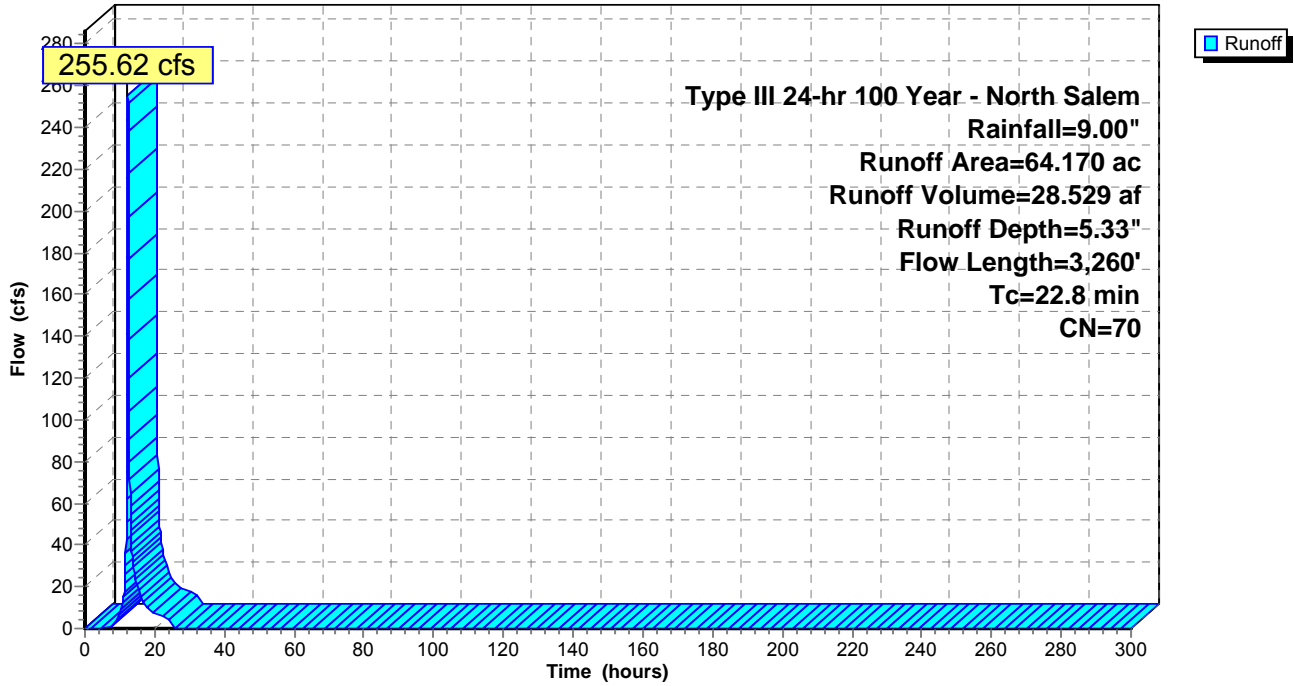
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 1.904	55	Woods, Good, HSG B, CsD Soils
* 3.151	70	Woods, Good, HSG C, LcB Soils
* 3.196	83	Woods, Poor, HSG D, Sh Soils
* 31.680	70	Woods, Good, HSG C, CtC Soils
* 20.506	70	Woods, Good, HSG C, CuD Soils
* 0.115	100	Open Water
* 3.172	55	Woods, Good, HSG B, CrC Soils
0.367	85	Gravel roads, HSG B
* 0.079	98	Roofs
64.170	70	Weighted Average
63.976		99.70% Pervious Area
0.194		0.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.8	295	0.1500	6.24		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	712	0.1517	6.27		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.1	305	0.0852	4.70		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
1.8	294	0.0340	2.77		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	321	0.1184	5.16		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
0.3	120	0.1667	6.12		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	408	0.0833	4.33		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, J-K Unpaved Kv= 16.1 fps
22.8	3,260	Total			

Subcatchment K: Pre-Development K

Hydrograph



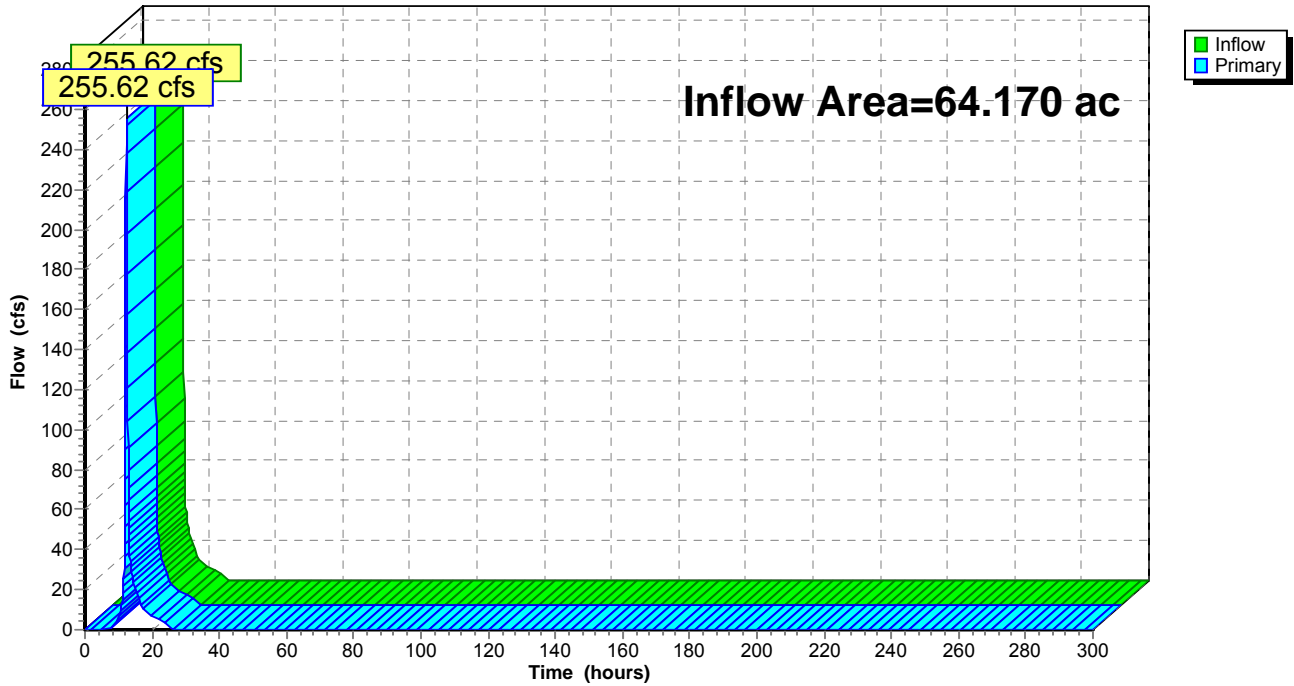
Summary for Pond DP 11: Design Point 11

Inflow Area = 64.170 ac, 0.30% Impervious, Inflow Depth = 5.33" for 100 Year - North Salem event
Inflow = 255.62 cfs @ 12.32 hrs, Volume= 28.529 af
Primary = 255.62 cfs @ 12.32 hrs, Volume= 28.529 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



KEANE
COPPELMAN
GREGORY

ENGINEERS, P.C.

CIVIL & ENVIRONMENTAL CONSULTANTS



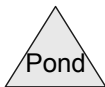
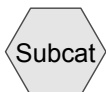
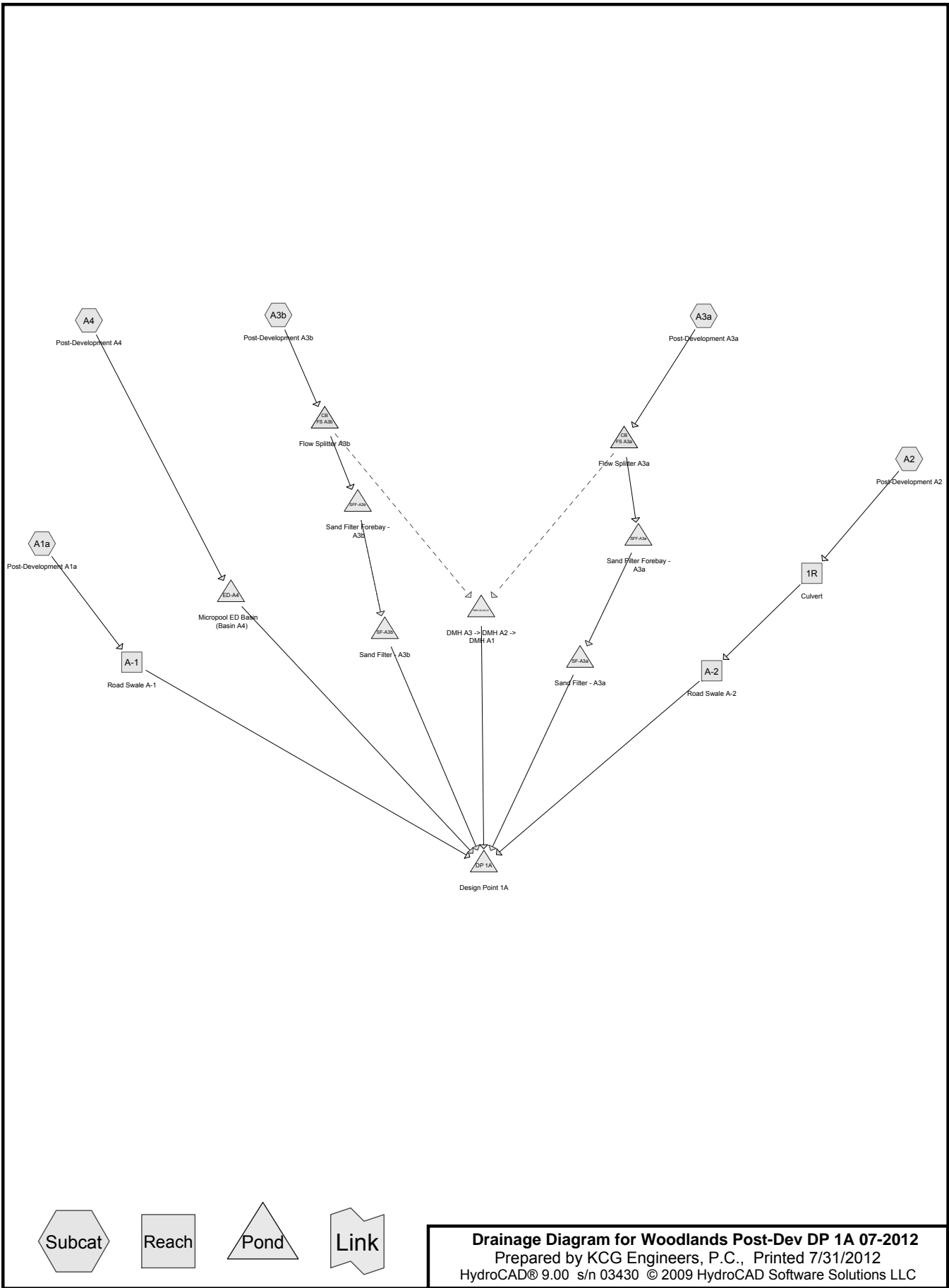
113 SMITH AVENUE MOUNT KISCO, NY 10549

T:(914) 241-2235 F:(914) 241-6787

POST-DEVELOPMENT DRAINAGE REPORT

FOR

HIGHGATE-WOODLANDS AT NORTH SALEM SUBDIVISION
REED ROAD
TOWN OF NORTH SALEM
WESTCHESTER COUNTY, NEW YORK



Drainage Diagram for Woodlands Post-Dev DP 1A 07-2012
 Prepared by KCG Engineers, P.C., Printed 7/31/2012
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Woodlands Post-Dev DP 1A 07-2012

Prepared by KCG Engineers, P.C.

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.353	55	Woods, Good, HSG B (A3a, A3b)
2.790	55	Woods, Good, HSG B (Undisturbed) (A2, A4)
1.016	55	Woods, Good, HSG B, (Undisurbed) (A1a)
8.798	61	>75% Grass cover, Good, HSG B (A1a, A2, A3a, A3b, A4)
0.012	98	Gatehouse (A4)
0.048	98	Paved roads w/curbs & sewers (A1a)
1.451	98	Paved roads w/curbs & sewers, HSG B (A2, A3a, A3b, A4)
0.004	98	Pillars (A4)
0.109	98	Sidewalk (A4)
14.581		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=0.31"
Flow Length=649' Tc=11.3 min CN=58 Runoff=0.22 cfs 0.040 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=0.37"
Flow Length=724' Tc=19.0 min CN=60 Runoff=0.58 cfs 0.101 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=0.55"
Flow Length=367' Tc=6.2 min CN=65 Runoff=0.34 cfs 0.032 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=0.51"
Flow Length=598' Tc=7.3 min CN=64 Runoff=0.85 cfs 0.090 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=0.59"
Flow Length=775' Tc=9.8 min CN=66 Runoff=3.29 cfs 0.343 af

Reach 1R: Culvert Avg. Depth=0.08' Max Vel=2.30 fps Inflow=0.58 cfs 0.101 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=0.58 cfs 0.101 af

Reach A-1: Road Swale A-1 Avg. Depth=0.10' Max Vel=0.39 fps Inflow=0.22 cfs 0.040 af
n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=0.12 cfs 0.040 af

Reach A-2: Road Swale A-2 Avg. Depth=0.28' Max Vel=0.54 fps Inflow=0.58 cfs 0.101 af
n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=0.54 cfs 0.101 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Pond DP 1A: Design Point 1A Inflow=0.59 cfs 0.606 af
Primary=0.59 cfs 0.606 af

Pond ED-A4: Micropool ED Basin (Basin Peak Elev=364.55' Storage=15,194 cf Inflow=3.29 cfs 0.343 af
Primary=0.14 cfs 0.343 af Secondary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.343 af

Pond FS A3a: Flow Splitter A3a Peak Elev=339.50' Inflow=0.34 cfs 0.032 af
Primary=0.34 cfs 0.032 af Secondary=0.00 cfs 0.000 af Outflow=0.34 cfs 0.032 af

Pond FS A3b: Flow Splitter A3b Peak Elev=351.78' Inflow=0.85 cfs 0.090 af
Primary=0.85 cfs 0.090 af Secondary=0.00 cfs 0.000 af Outflow=0.85 cfs 0.090 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=336.42' Storage=874 cf Inflow=0.16 cfs 0.032 af
Primary=0.02 cfs 0.032 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.032 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=343.89' Storage=2,996 cf Inflow=0.21 cfs 0.090 af
Primary=0.02 cfs 0.090 af Secondary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.090 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=337.88' Storage=225 cf Inflow=0.34 cfs 0.032 af
Primary=0.16 cfs 0.032 af Secondary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.032 af

Pond SFF-A3b: Sand Filter Forebay - A3b

Peak Elev=349.08' Storage=989 cf Inflow=0.85 cfs 0.090 af

Primary=0.21 cfs 0.090 af Secondary=0.00 cfs 0.000 af Outflow=0.21 cfs 0.090 af

Total Runoff Area = 14.581 ac Runoff Volume = 0.606 af Average Runoff Depth = 0.50"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 0.22 cfs @ 12.36 hrs, Volume= 0.040 af, Depth= 0.31"

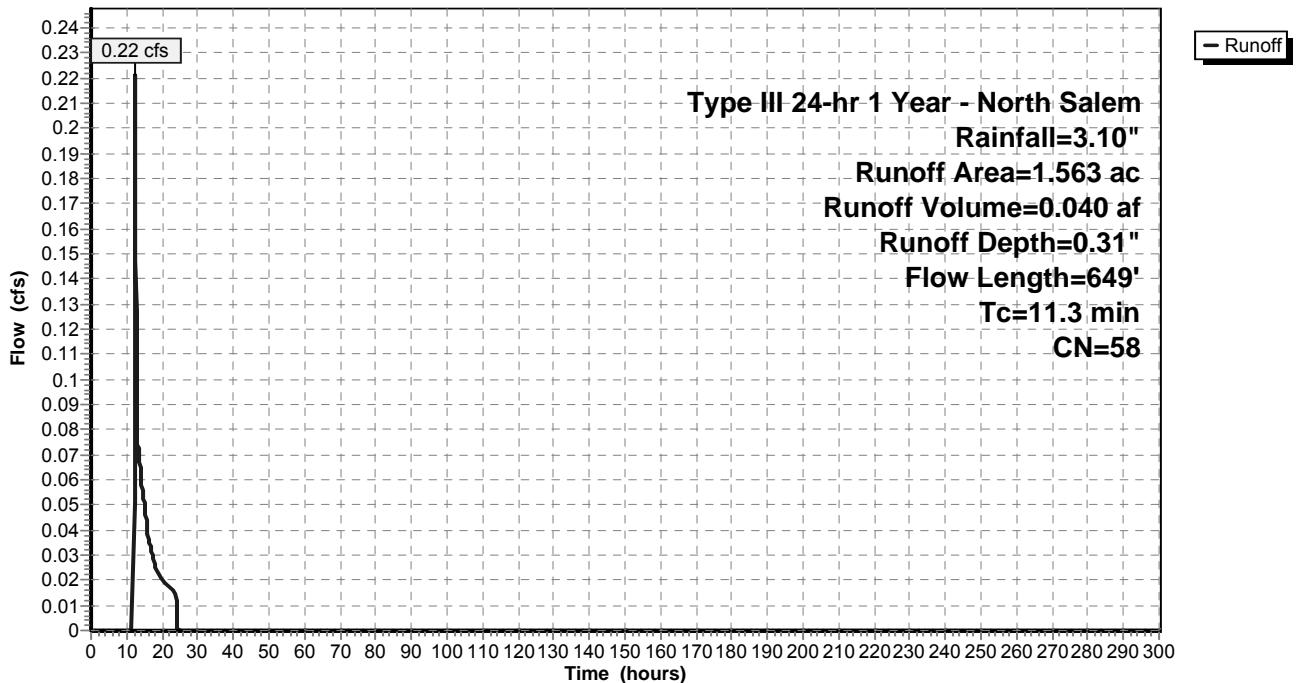
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

Runoff = 0.58 cfs @ 12.43 hrs, Volume= 0.101 af, Depth= 0.37"

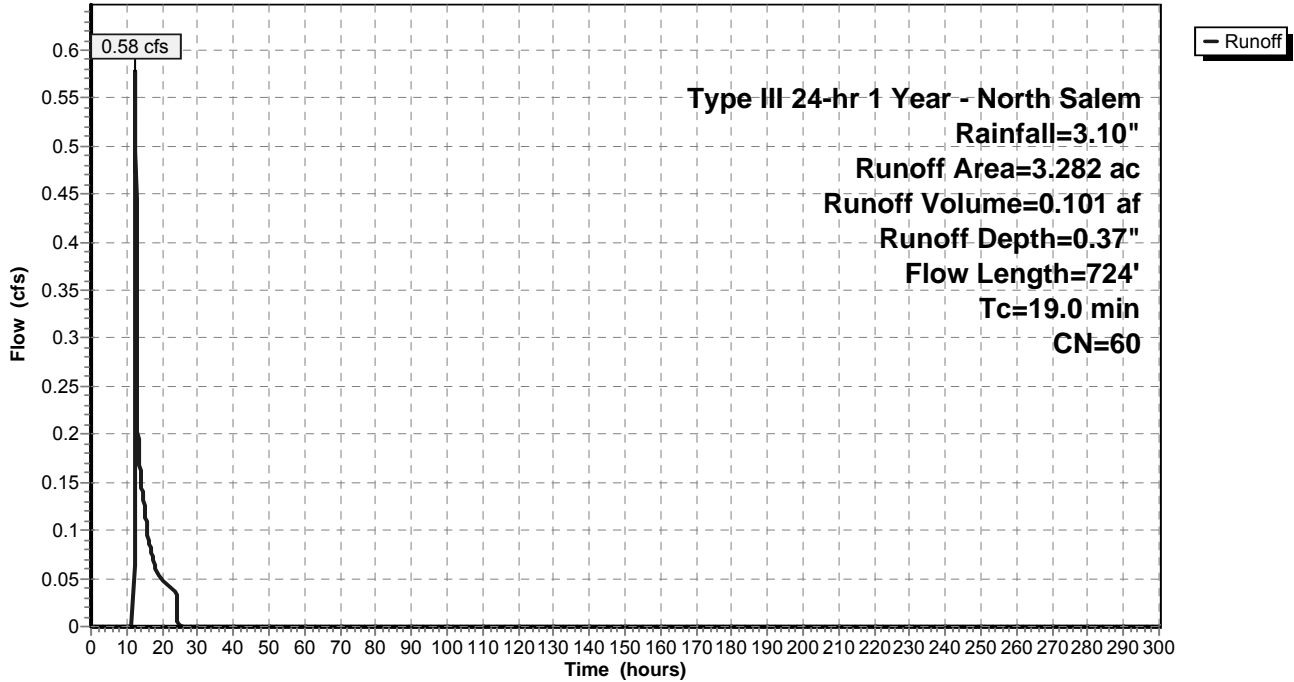
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2

Hydrograph



Summary for Subcatchment A3a: Post-Development A3a

Runoff = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af, Depth= 0.55"

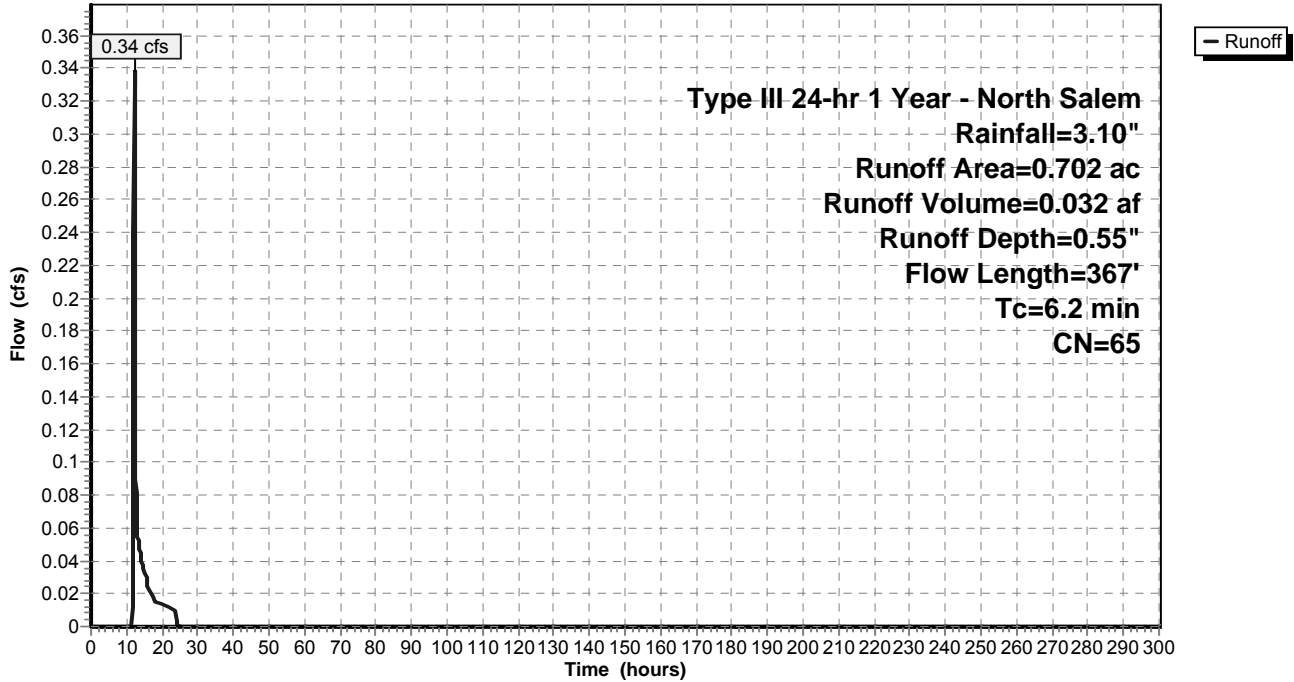
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a

Hydrograph



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af, Depth= 0.51"

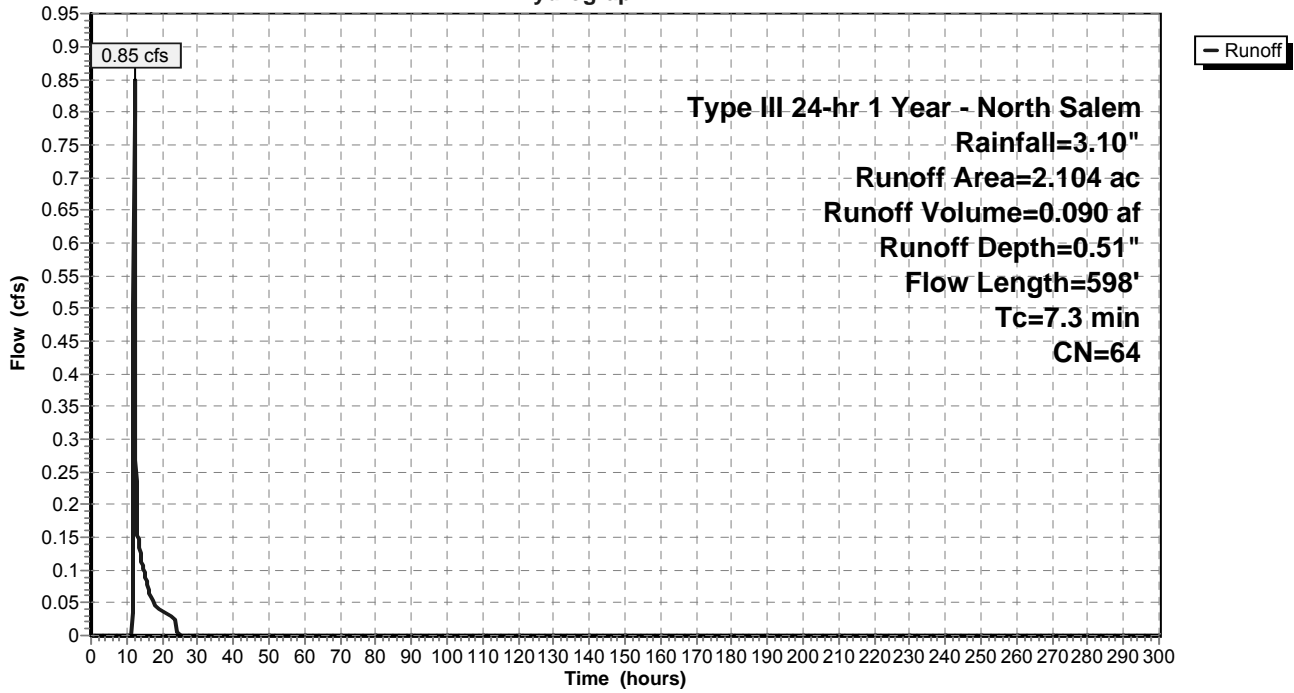
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 3.29 cfs @ 12.17 hrs, Volume= 0.343 af, Depth= 0.59"

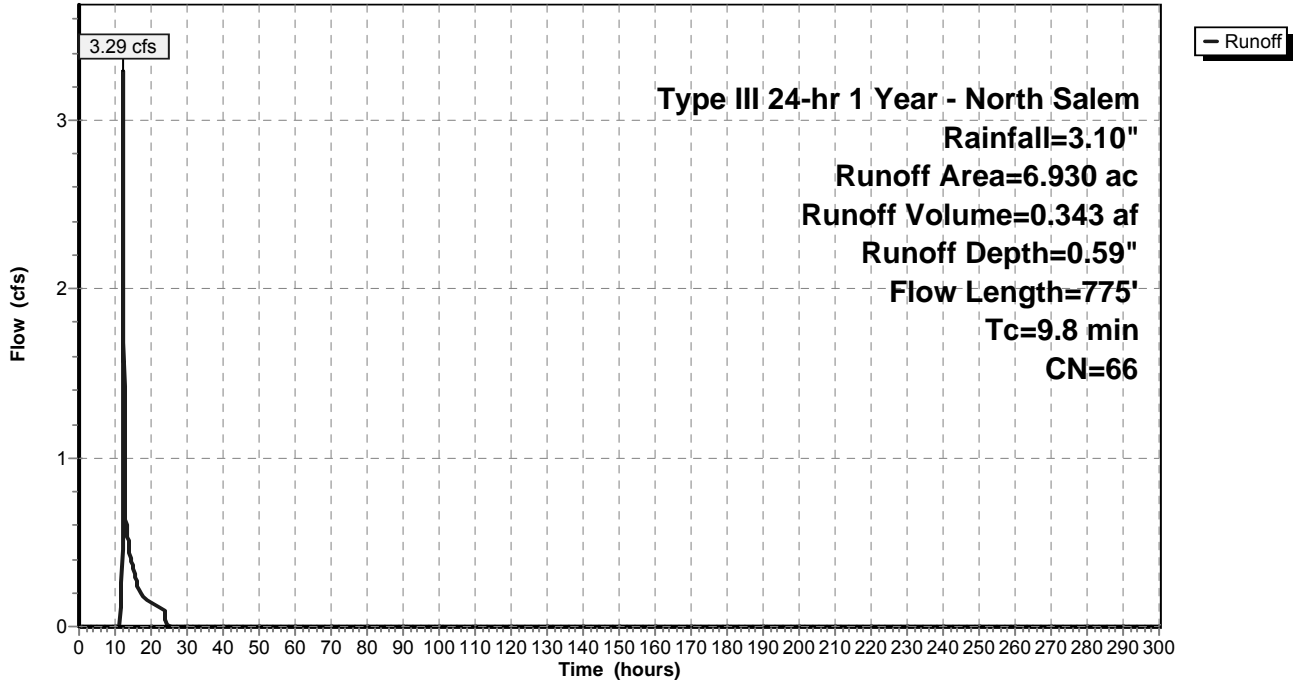
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.37" for 1 Year - North Salem event
 Inflow = 0.58 cfs @ 12.43 hrs, Volume= 0.101 af
 Outflow = 0.58 cfs @ 12.44 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.30 fps, Min. Travel Time= 0.5 min
 Avg. Velocity = 1.11 fps, Avg. Travel Time= 1.0 min

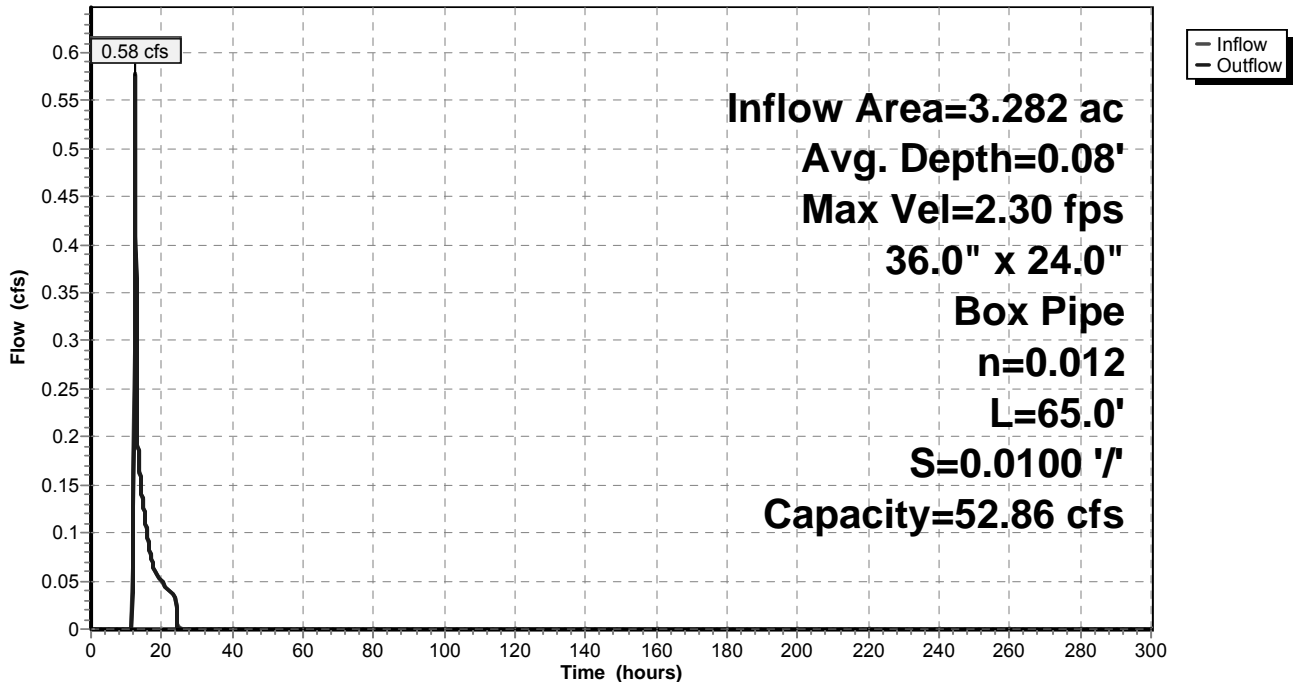
Peak Storage= 16 cf @ 12.43 hrs, Average Depth at Peak Storage= 0.08'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/
 Inlet Invert= 334.65', Outlet Invert= 334.00'

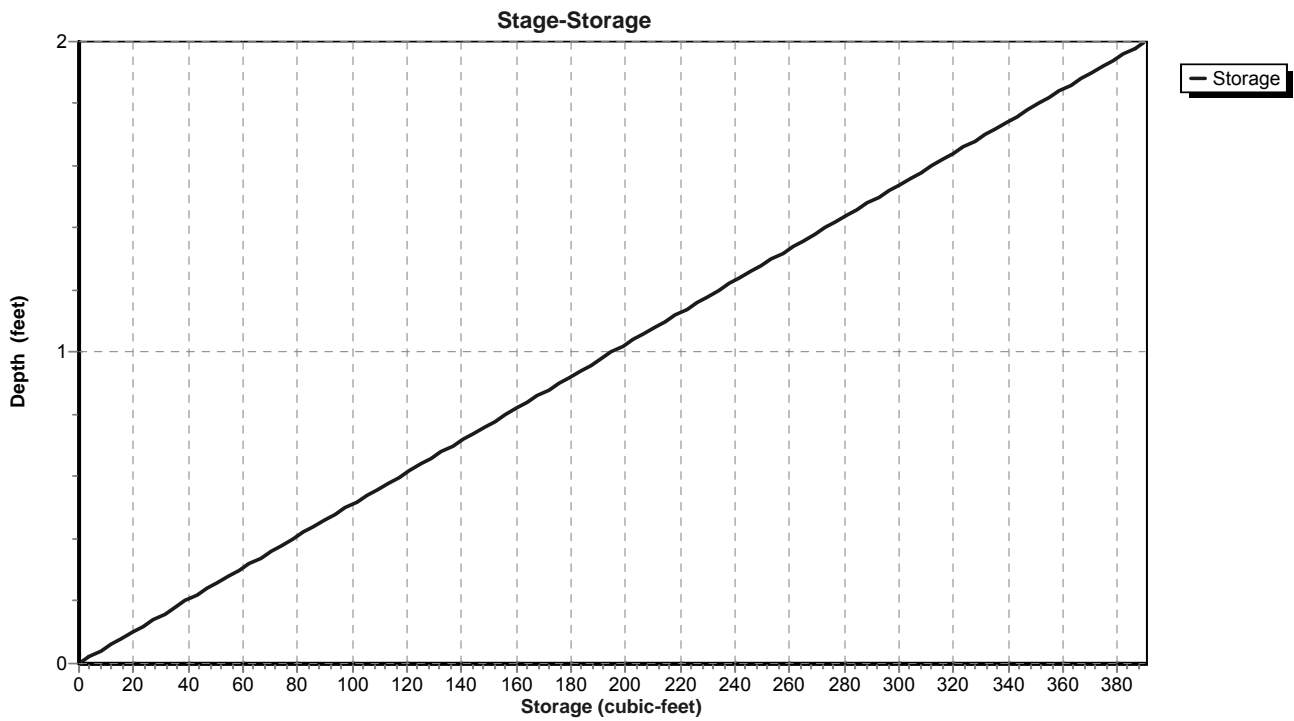


Reach 1R: Culvert

Hydrograph



Reach 1R: Culvert



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 0.31" for 1 Year - North Salem event
 Inflow = 0.22 cfs @ 12.36 hrs, Volume= 0.040 af
 Outflow = 0.12 cfs @ 13.23 hrs, Volume= 0.040 af, Atten= 46%, Lag= 52.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.39 fps, Min. Travel Time= 33.2 min
 Avg. Velocity = 0.20 fps, Avg. Travel Time= 65.5 min

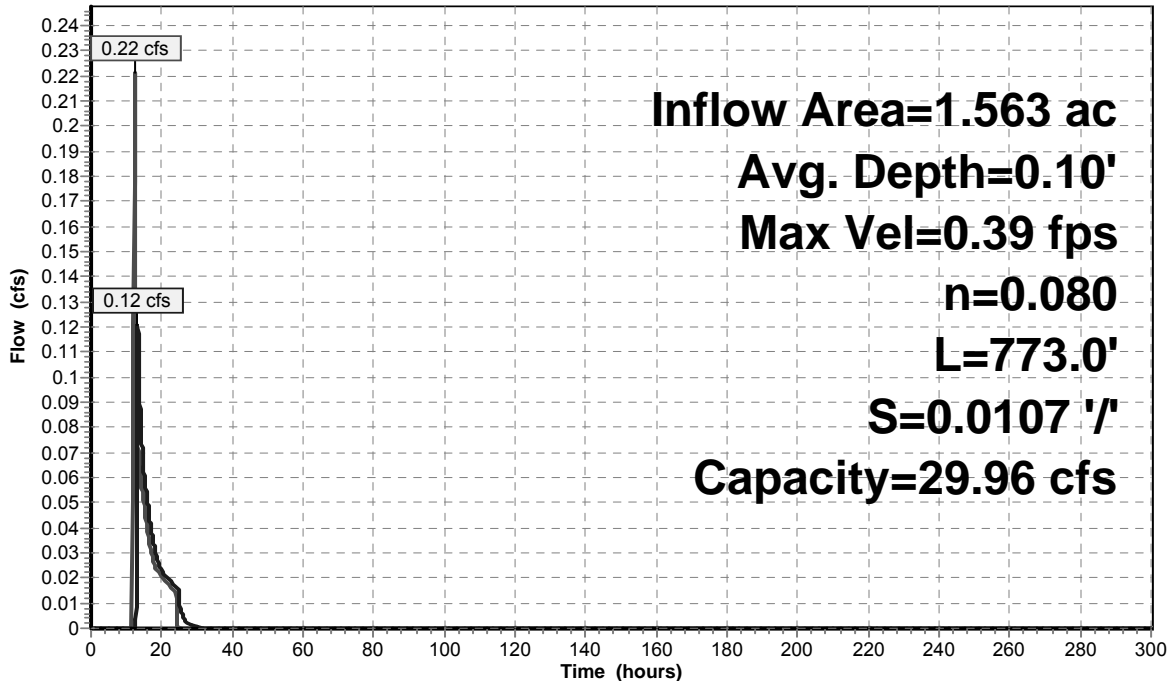
Peak Storage= 240 cf @ 12.67 hrs, Average Depth at Peak Storage= 0.10'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/'
 Inlet Invert= 340.00', Outlet Invert= 331.70'



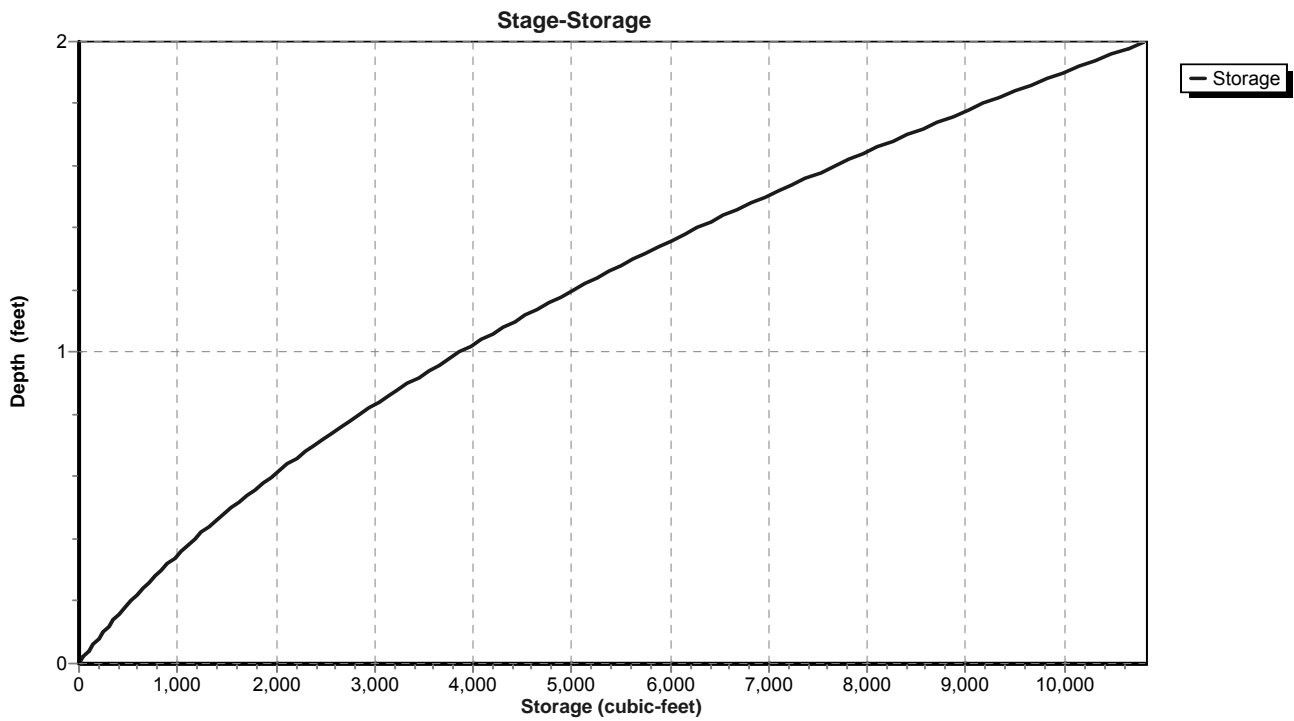
Reach A-1: Road Swale A-1

Hydrograph



— Inflow
 — Outflow

Reach A-1: Road Swale A-1



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.37" for 1 Year - North Salem event
 Inflow = 0.58 cfs @ 12.44 hrs, Volume= 0.101 af
 Outflow = 0.54 cfs @ 12.67 hrs, Volume= 0.101 af, Atten= 6%, Lag= 13.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.54 fps, Min. Travel Time= 7.2 min
 Avg. Velocity = 0.23 fps, Avg. Travel Time= 16.8 min

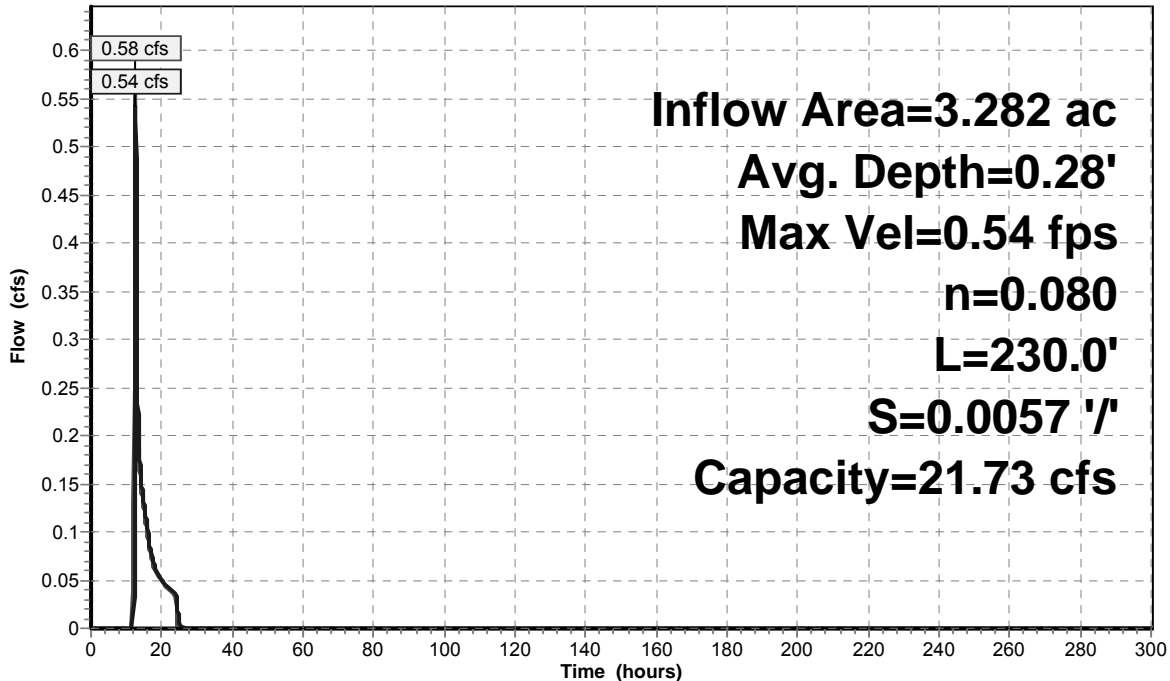
Peak Storage= 234 cf @ 12.55 hrs, Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 ' / ' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 ' / '
 Inlet Invert= 333.00', Outlet Invert= 331.70'



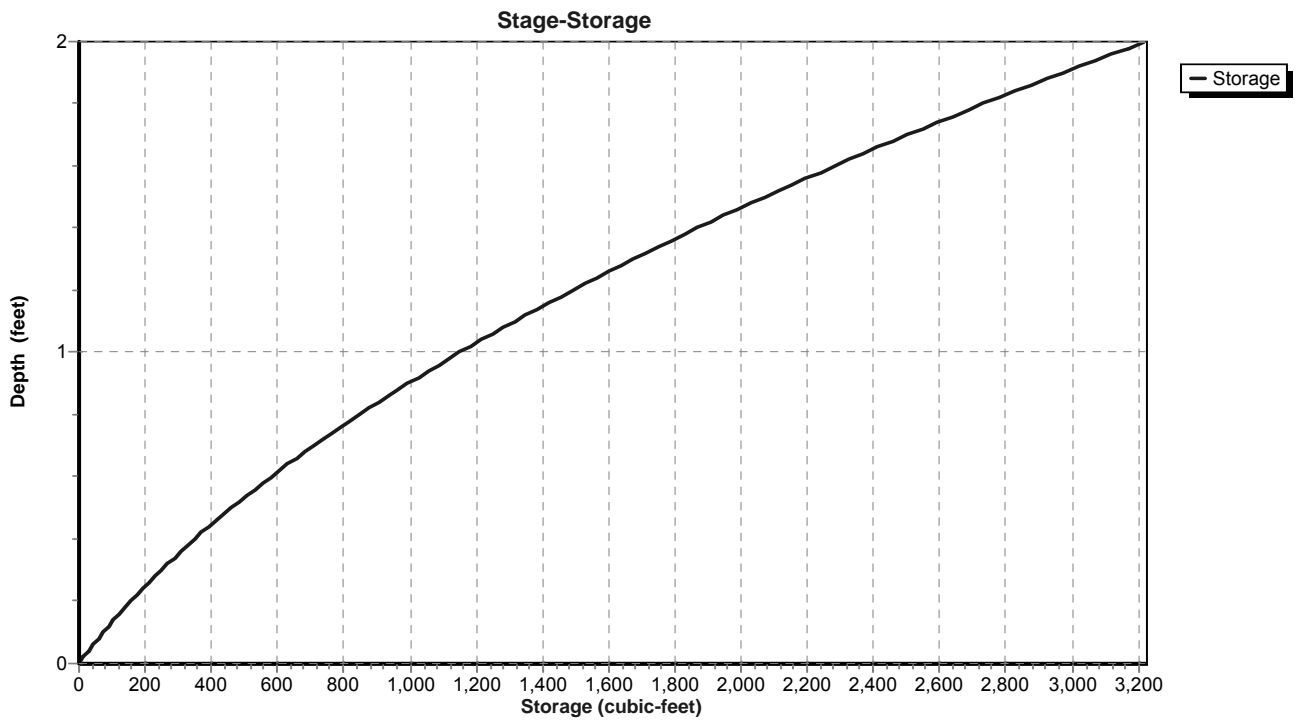
Reach A-2: Road Swale A-2

Hydrograph



— Inflow
 - - - Outflow

Reach A-2: Road Swale A-2



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

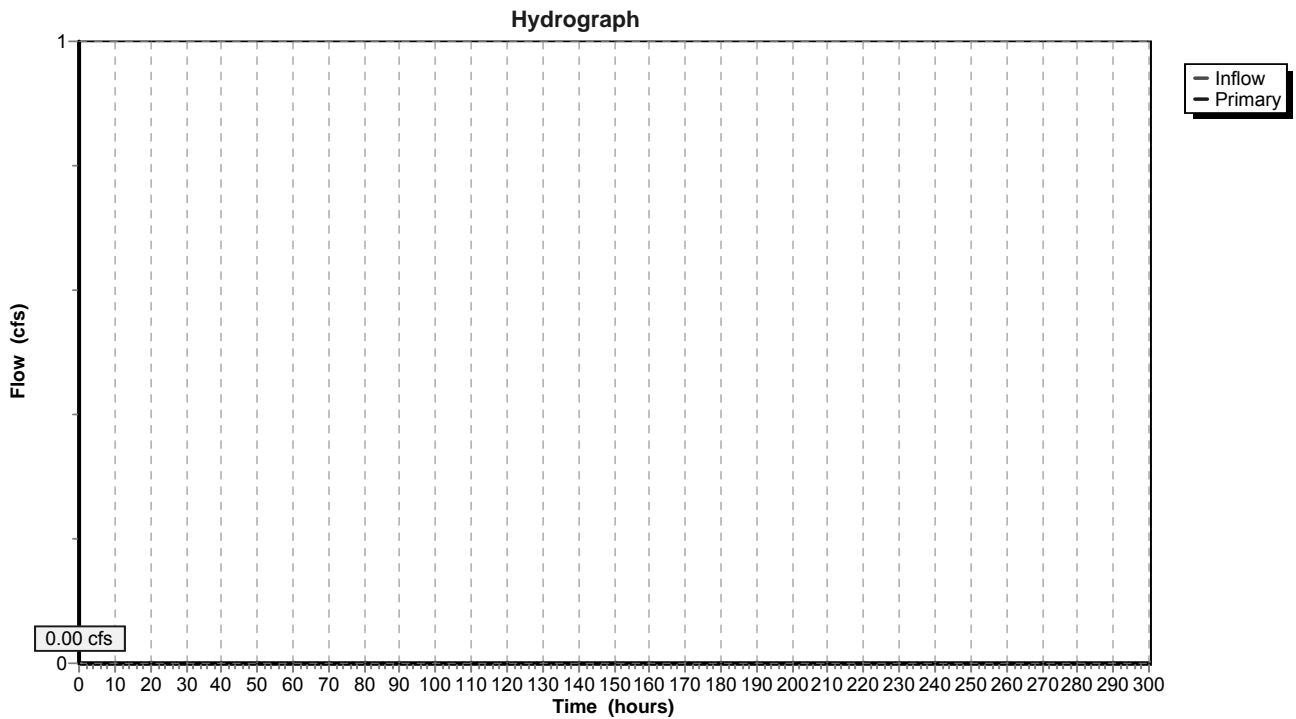
Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

[40] Hint: Not Described (Outflow=Inflow)

Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1



Summary for Pond DP 1A: Design Point 1A

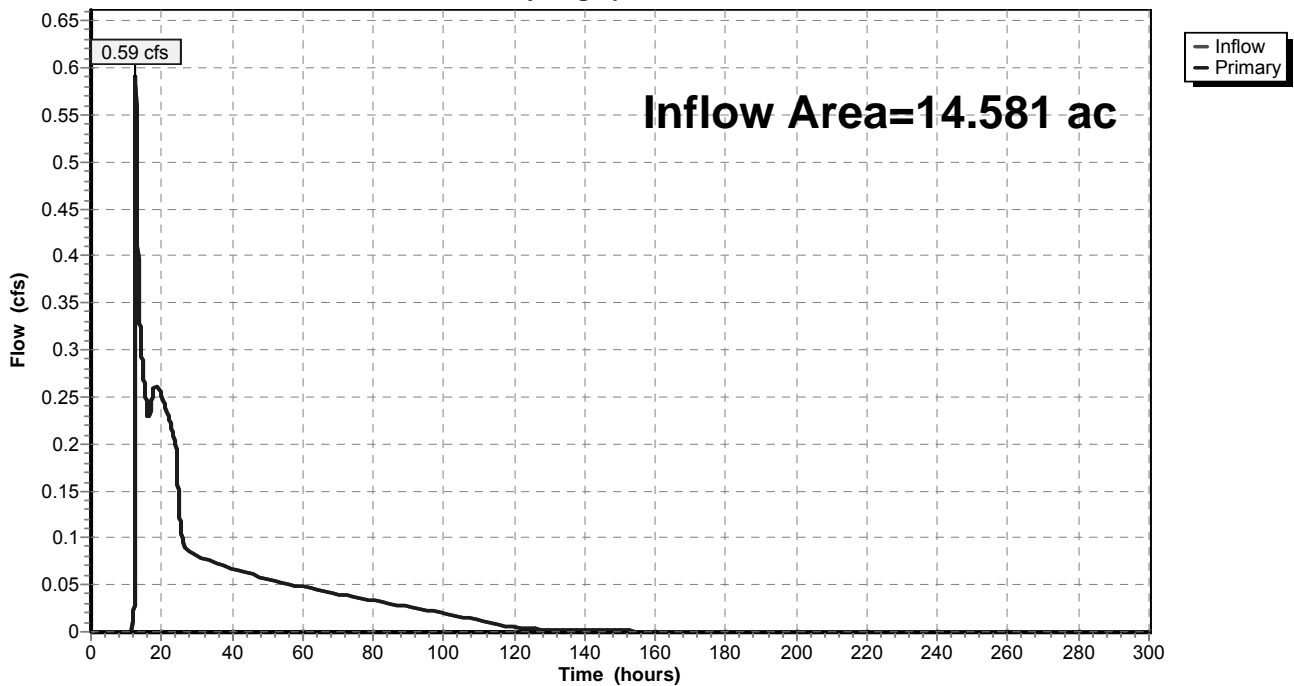
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 0.50" for 1 Year - North Salem event
Inflow = 0.59 cfs @ 12.68 hrs, Volume= 0.606 af
Primary = 0.59 cfs @ 12.68 hrs, Volume= 0.606 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
 Inflow = 3.29 cfs @ 12.17 hrs, Volume= 0.343 af
 Outflow = 0.14 cfs @ 19.47 hrs, Volume= 0.343 af, Atten= 96%, Lag= 438.4 min
 Primary = 0.14 cfs @ 19.47 hrs, Volume= 0.343 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 364.55' @ 19.47 hrs Surf.Area= 8,949 sf Storage= 15,194 cf (10,987 cf above start)

Plug-Flow detention time= 2,864.8 min calculated for 0.246 af (72% of inflow)
 Center-of-Mass det. time= 2,058.1 min (2,955.8 - 897.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

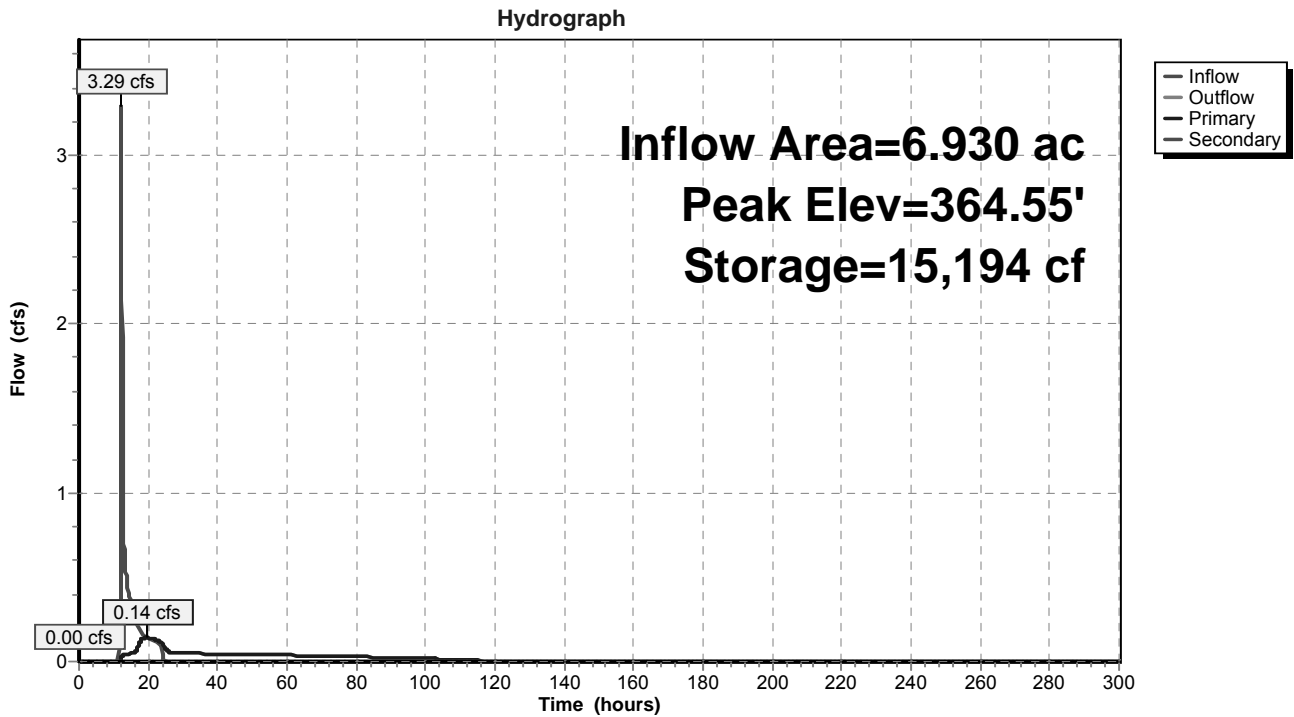
Primary OutFlow Max=0.14 cfs @ 19.47 hrs HW=364.55' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.14 cfs of 33.50 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.05 cfs @ 2.38 fps)
- ↑ 3=Orifice #1 (Orifice Controls 0.09 cfs @ 0.94 fps)
- ↑ 4=Orifice #2 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

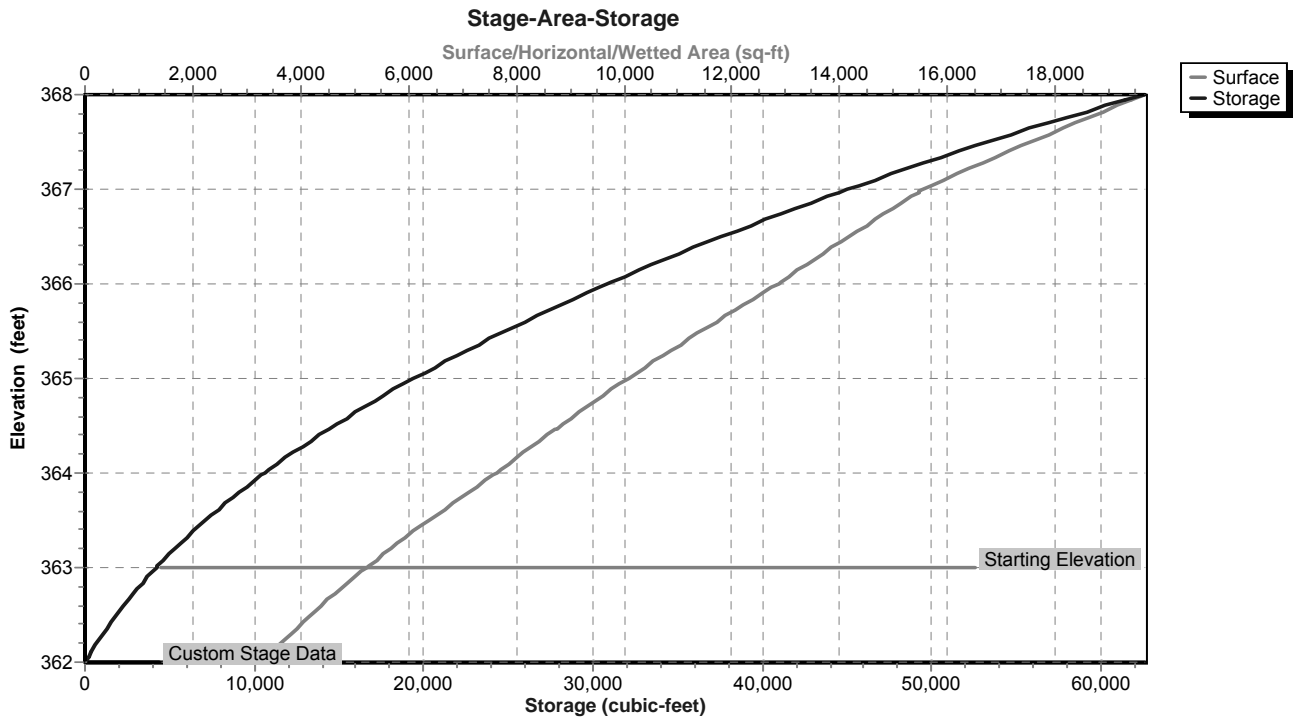
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-A4: Micropool ED Basin (Basin A4)



Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.55" for 1 Year - North Salem event
 Inflow = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af
 Outflow = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.50' @ 12.12 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.33 cfs @ 12.12 hrs HW=339.50' (Free Discharge)

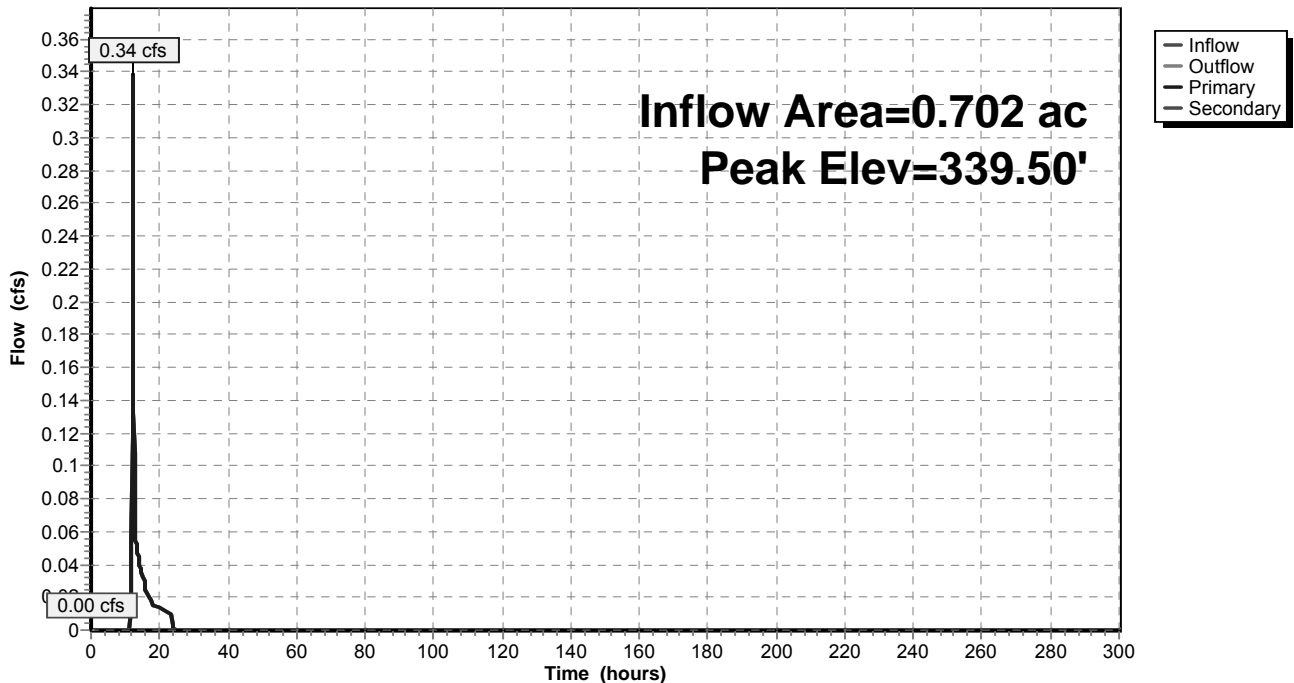
↑1=Outlet to Sand Filter (Barrel Controls 0.33 cfs @ 2.69 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=339.16' (Free Discharge)

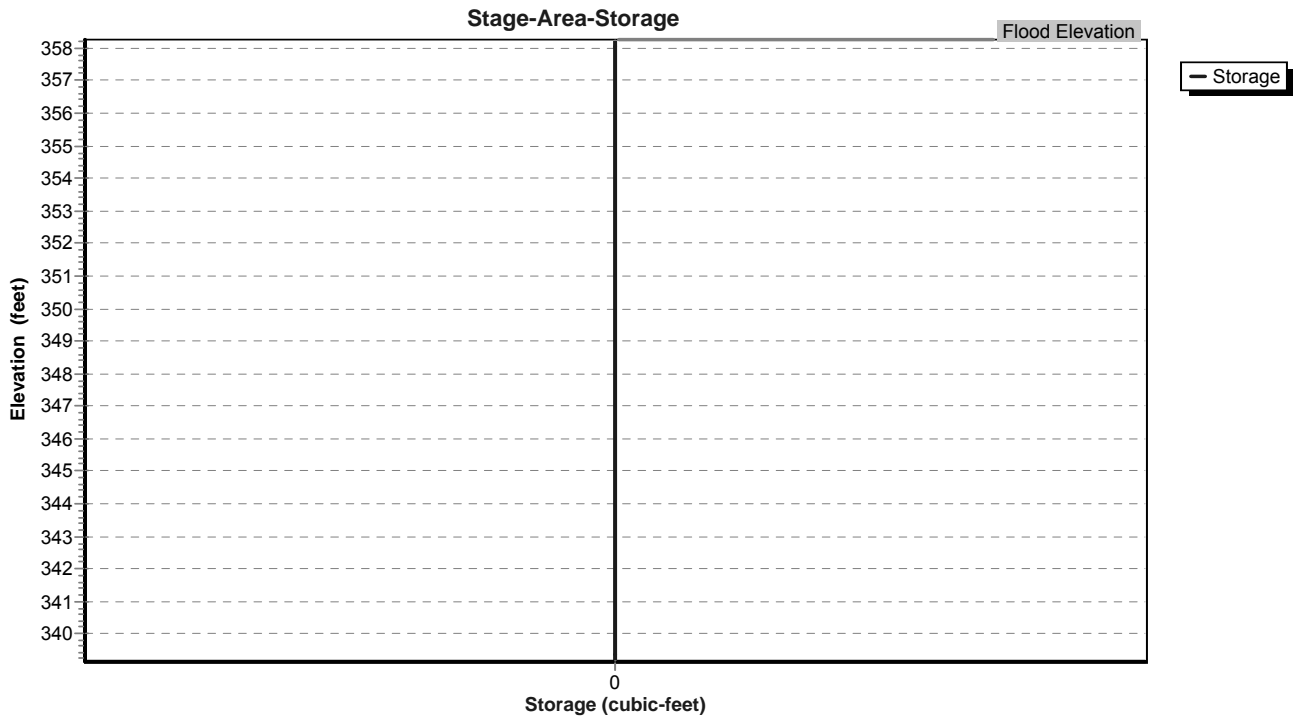
↑2=Outlet to DP (Controls 0.00 cfs)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Pond FS A3a: Flow Splitter A3a



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
 Inflow = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af
 Outflow = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 351.78' @ 12.14 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.84 cfs @ 12.14 hrs HW=351.77' (Free Discharge)

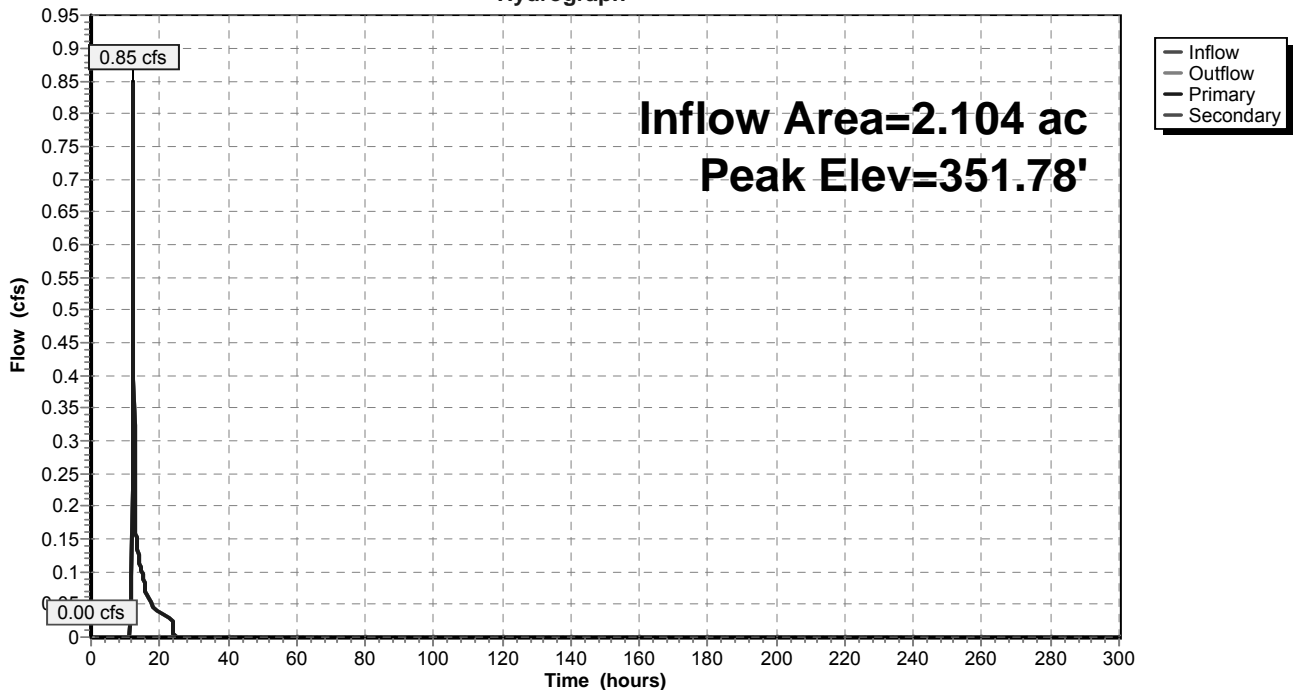
↑1=Outlet to Sand Filter (Barrel Controls 0.84 cfs @ 3.25 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=351.16' (Free Discharge)

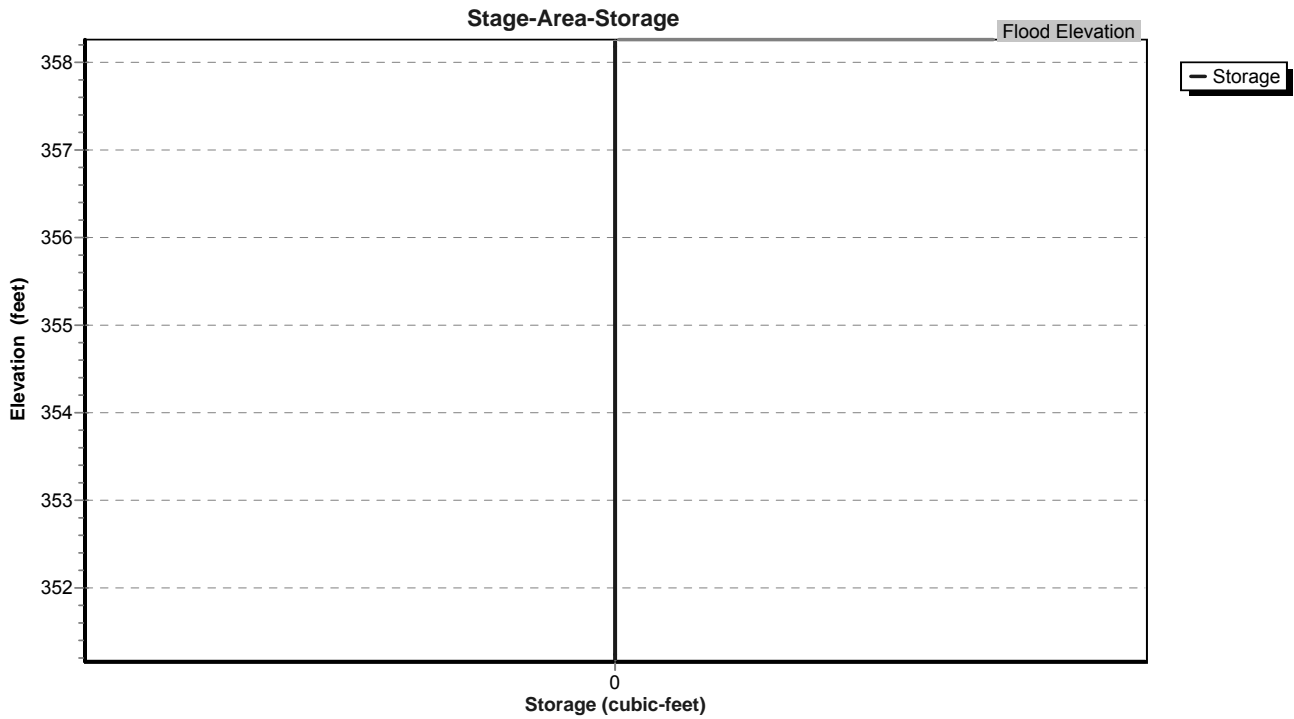
↑2=Outlet to DP (Controls 0.00 cfs)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Pond FS A3b: Flow Splitter A3b



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.55" for 1 Year - North Salem event
 Inflow = 0.16 cfs @ 12.44 hrs, Volume= 0.032 af
 Outflow = 0.02 cfs @ 18.64 hrs, Volume= 0.032 af, Atten= 91%, Lag= 371.7 min
 Primary = 0.02 cfs @ 18.64 hrs, Volume= 0.032 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 336.42' @ 18.64 hrs Surf.Area= 807 sf Storage= 874 cf

Plug-Flow detention time= 892.4 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 891.7 min (1,813.6 - 921.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
335.00	432	111.0	0	0	432
336.00	693	141.0	557	557	1,047
338.00	1,313	168.0	1,973	2,531	1,779

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

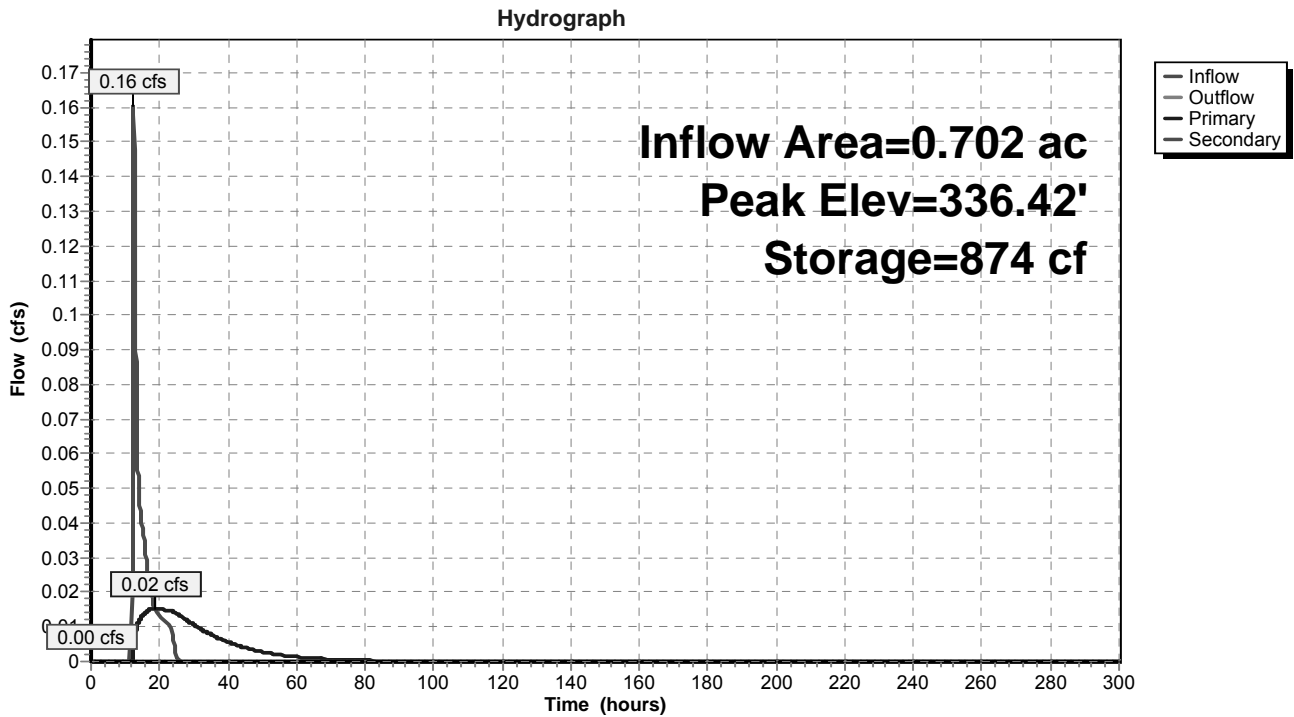
Primary OutFlow Max=0.02 cfs @ 18.64 hrs HW=336.42' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.02 cfs of 6.17 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.02 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

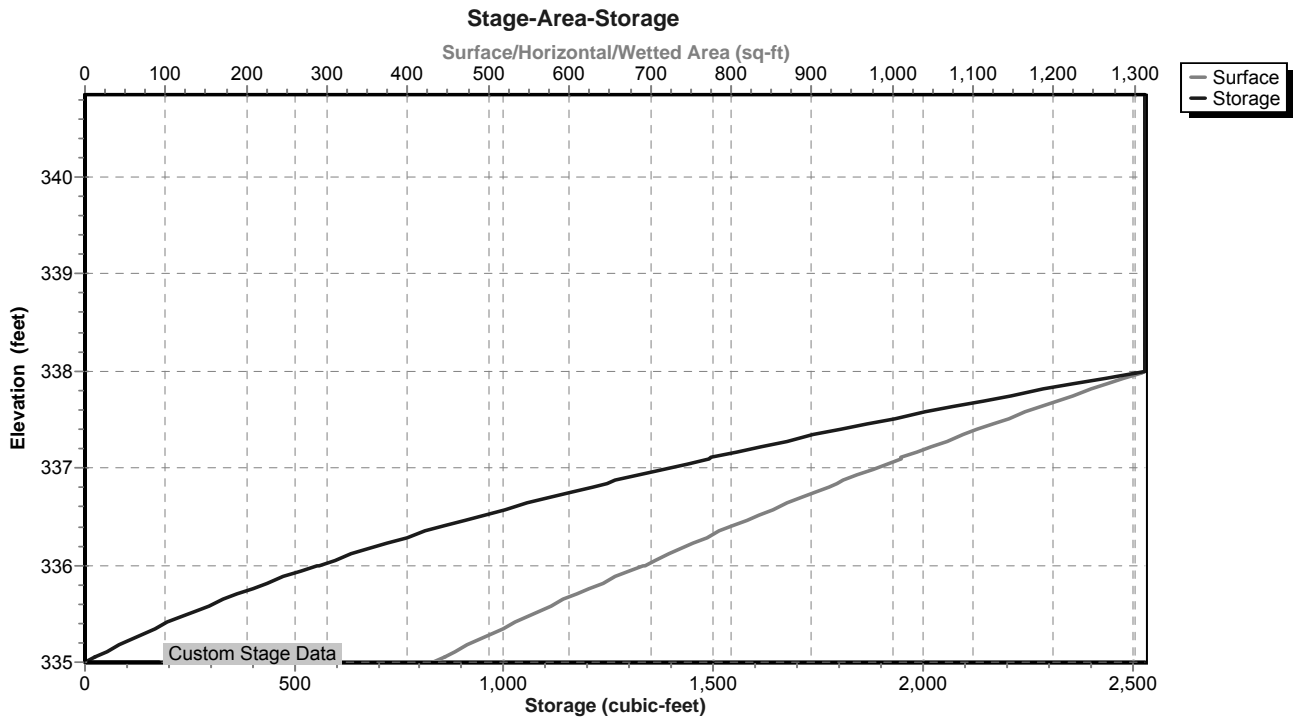
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3a: Sand Filter - A3a



Pond SF-A3a: Sand Filter - A3a



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
 Inflow = 0.21 cfs @ 12.76 hrs, Volume= 0.090 af
 Outflow = 0.02 cfs @ 24.70 hrs, Volume= 0.090 af, Atten= 89%, Lag= 716.1 min
 Primary = 0.02 cfs @ 24.70 hrs, Volume= 0.090 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.89' @ 24.70 hrs Surf.Area= 1,889 sf Storage= 2,996 cf

Plug-Flow detention time= 1,984.6 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 1,986.7 min (2,975.3 - 988.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.02 cfs @ 24.70 hrs HW=343.89' (Free Discharge)

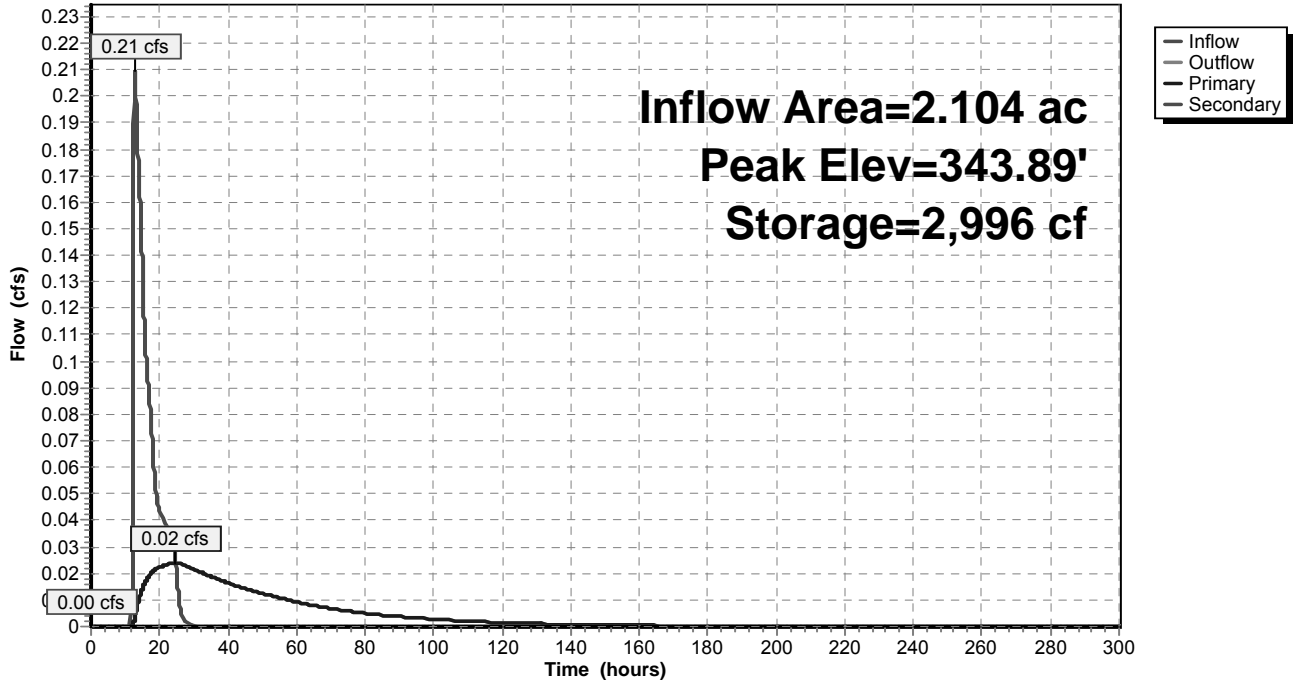
- ↑ 1=Outlet Pipe (Passes 0.02 cfs of 6.58 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.02 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

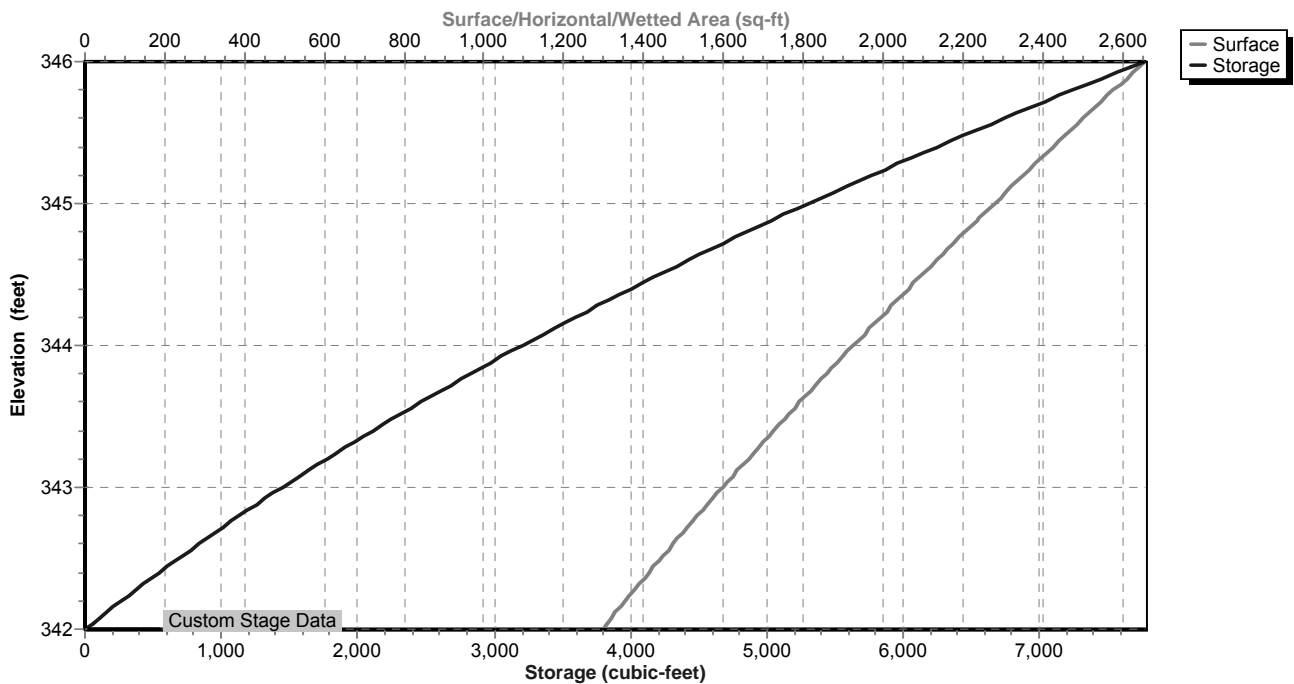
Pond SF-A3b: Sand Filter - A3b

Hydrograph



Pond SF-A3b: Sand Filter - A3b

Stage-Area-Storage



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.55" for 1 Year - North Salem event
 Inflow = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af
 Outflow = 0.16 cfs @ 12.44 hrs, Volume= 0.032 af, Atten= 53%, Lag= 19.6 min
 Primary = 0.16 cfs @ 12.44 hrs, Volume= 0.032 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 337.88' @ 12.44 hrs Surf.Area= 318 sf Storage= 225 cf

Plug-Flow detention time= 23.1 min calculated for 0.032 af (100% of inflow)
 Center-of-Mass det. time= 23.2 min (921.9 - 898.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
337.00	200	57.0	0	0	200
338.00	336	71.0	265	265	356
339.00	490	83.0	411	676	522
340.00	670	96.0	578	1,253	728

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

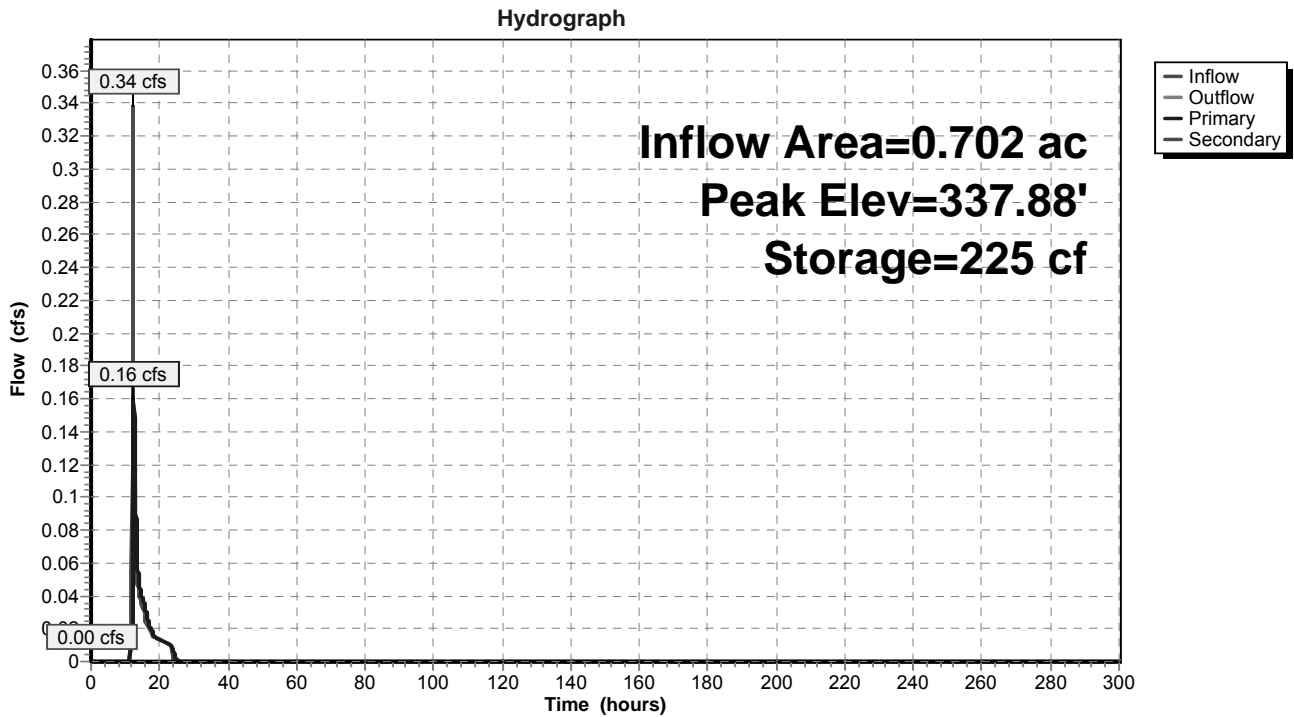
Primary OutFlow Max=0.16 cfs @ 12.44 hrs HW=337.88' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.16 cfs of 2.32 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.16 cfs @ 3.26 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

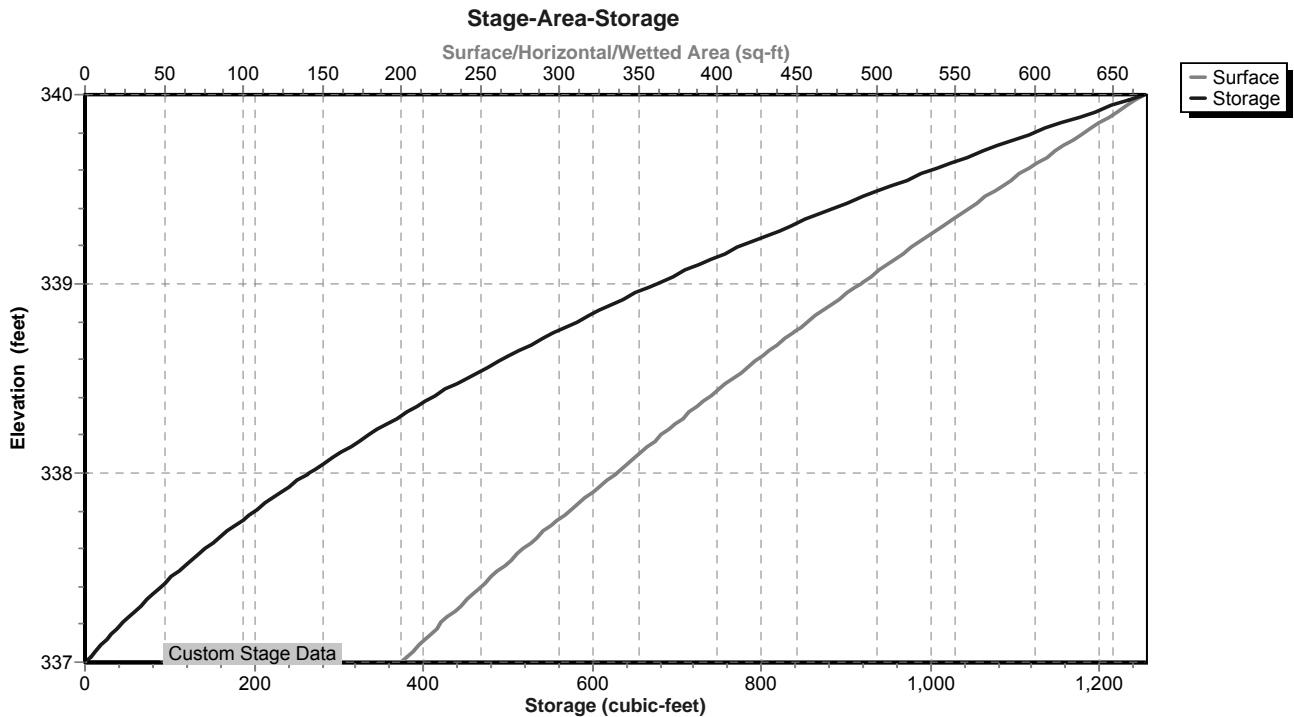
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3a: Sand Filter Forebay - A3a



Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
 Inflow = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af
 Outflow = 0.21 cfs @ 12.76 hrs, Volume= 0.090 af, Atten= 75%, Lag= 37.4 min
 Primary = 0.21 cfs @ 12.76 hrs, Volume= 0.090 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 349.08' @ 12.76 hrs Surf.Area= 1,144 sf Storage= 989 cf

Plug-Flow detention time= 84.3 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 84.2 min (988.6 - 904.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

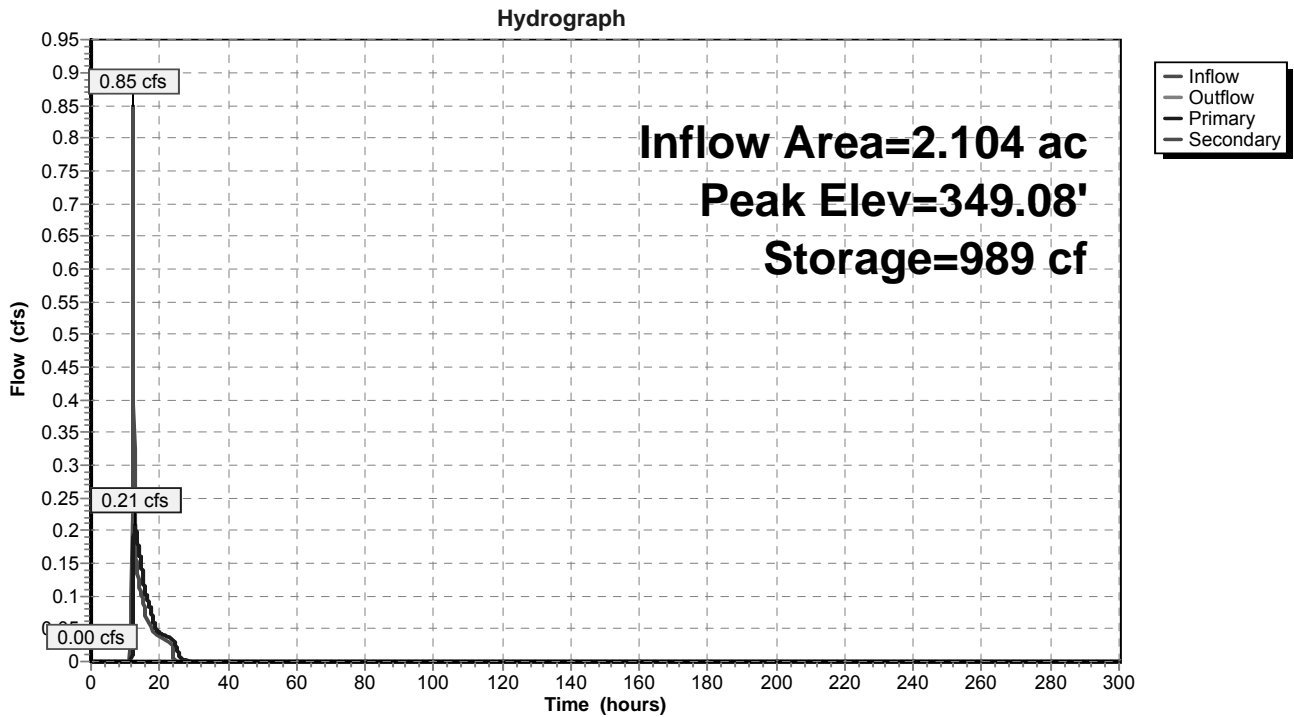
Primary OutFlow Max=0.21 cfs @ 12.76 hrs HW=349.08' (Free Discharge)

- 1=Outlet Pipe (Passes 0.21 cfs of 3.98 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.21 cfs @ 3.22 fps)
- 3=Top of Standpipe (Controls 0.00 cfs)
- 4=Orifice #1 (Controls 0.00 cfs)
- 5=Top of Outlet Box (Controls 0.00 cfs)

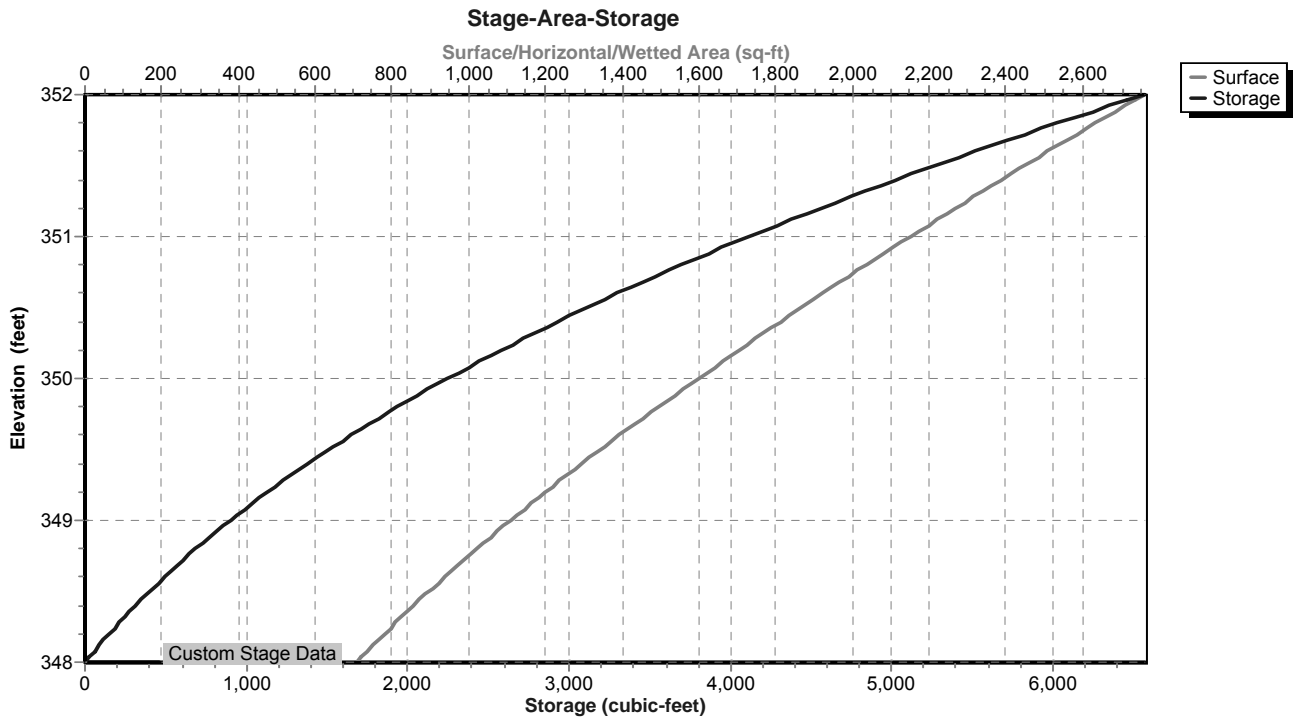
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- 6=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3b: Sand Filter Forebay - A3b



Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=0.53"
Flow Length=649' Tc=11.3 min CN=58 Runoff=0.53 cfs 0.070 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=0.62"
Flow Length=724' Tc=19.0 min CN=60 Runoff=1.20 cfs 0.170 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=0.86"
Flow Length=367' Tc=6.2 min CN=65 Runoff=0.60 cfs 0.050 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=0.81"
Flow Length=598' Tc=7.3 min CN=64 Runoff=1.58 cfs 0.142 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=0.91"
Flow Length=775' Tc=9.8 min CN=66 Runoff=5.64 cfs 0.526 af

Reach 1R: Culvert Avg. Depth=0.13' Max Vel=3.04 fps Inflow=1.20 cfs 0.170 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=1.20 cfs 0.170 af

Reach A-1: Road Swale A-1 Avg. Depth=0.17' Max Vel=0.55 fps Inflow=0.53 cfs 0.070 af
n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=0.32 cfs 0.070 af

Reach A-2: Road Swale A-2 Avg. Depth=0.43' Max Vel=0.68 fps Inflow=1.20 cfs 0.170 af
n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=1.14 cfs 0.170 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=0.40 cfs 0.004 af
Primary=0.40 cfs 0.004 af

Pond DP 1A: Design Point 1A Inflow=1.28 cfs 0.957 af
Primary=1.28 cfs 0.957 af

Pond ED-A4: Micropool ED Basin (Basin Peak Elev=364.73' Storage=16,766 cf Inflow=5.64 cfs 0.526 af
Primary=0.51 cfs 0.526 af Secondary=0.00 cfs 0.000 af Outflow=0.51 cfs 0.526 af

Pond FS A3a: Flow Splitter A3a Peak Elev=339.60' Inflow=0.60 cfs 0.050 af
Primary=0.51 cfs 0.049 af Secondary=0.09 cfs 0.001 af Outflow=0.60 cfs 0.050 af

Pond FS A3b: Flow Splitter A3b Peak Elev=352.06' Inflow=1.58 cfs 0.142 af
Primary=1.26 cfs 0.138 af Secondary=0.31 cfs 0.003 af Outflow=1.58 cfs 0.142 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=336.86' Storage=1,256 cf Inflow=0.26 cfs 0.049 af
Primary=0.04 cfs 0.049 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.049 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=344.10' Storage=3,403 cf Inflow=0.35 cfs 0.138 af
Primary=0.13 cfs 0.138 af Secondary=0.00 cfs 0.000 af Outflow=0.13 cfs 0.138 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=338.29' Storage=370 cf Inflow=0.51 cfs 0.049 af
Primary=0.26 cfs 0.049 af Secondary=0.00 cfs 0.000 af Outflow=0.26 cfs 0.049 af

Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=349.59' Storage=1,641 cf Inflow=1.26 cfs 0.138 af
Primary=0.35 cfs 0.138 af Secondary=0.00 cfs 0.000 af Outflow=0.35 cfs 0.138 af

Total Runoff Area = 14.581 ac Runoff Volume = 0.957 af Average Runoff Depth = 0.79"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 0.53 cfs @ 12.22 hrs, Volume= 0.070 af, Depth= 0.53"

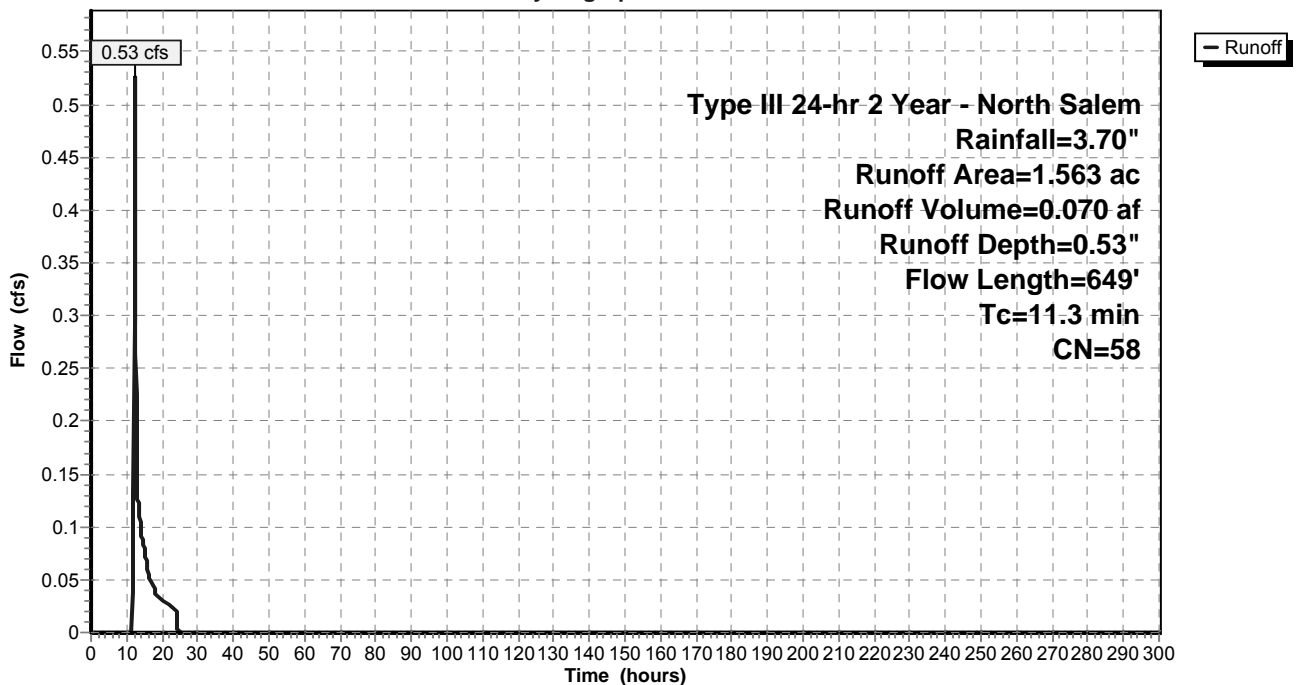
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

Runoff = 1.20 cfs @ 12.35 hrs, Volume= 0.170 af, Depth= 0.62"

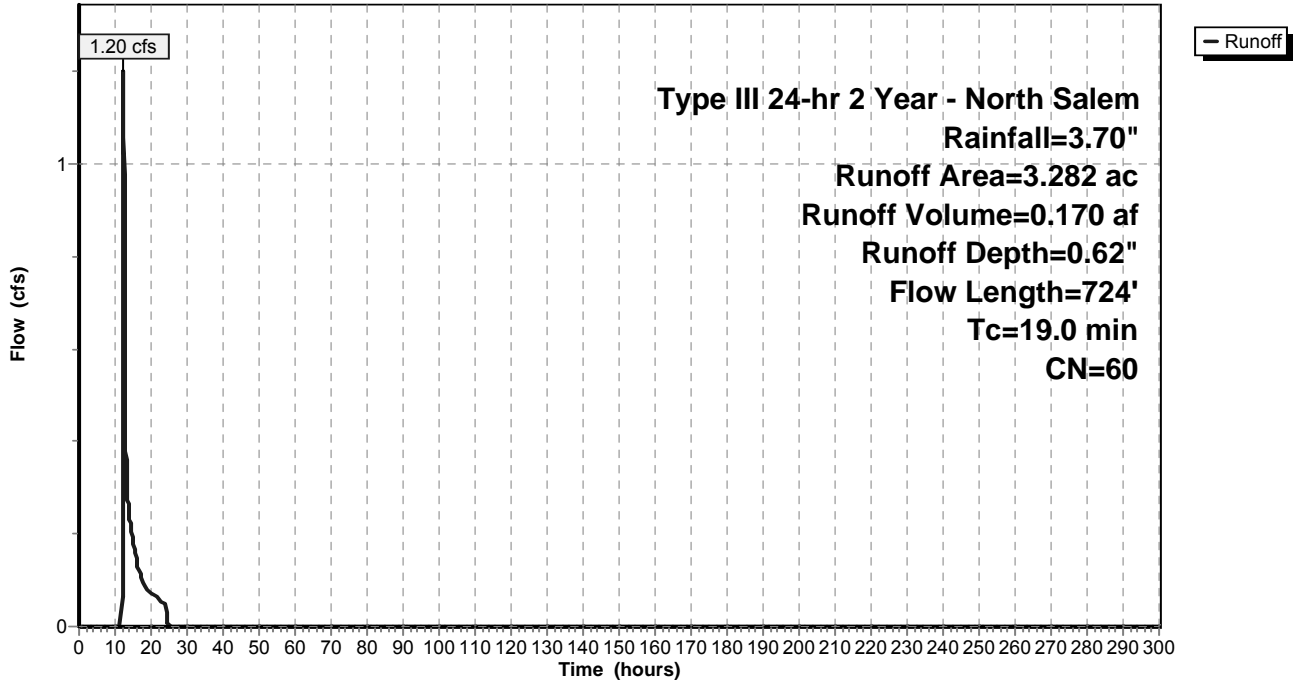
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2

Hydrograph



Summary for Subcatchment A3a: Post-Development A3a

Runoff = 0.60 cfs @ 12.11 hrs, Volume= 0.050 af, Depth= 0.86"

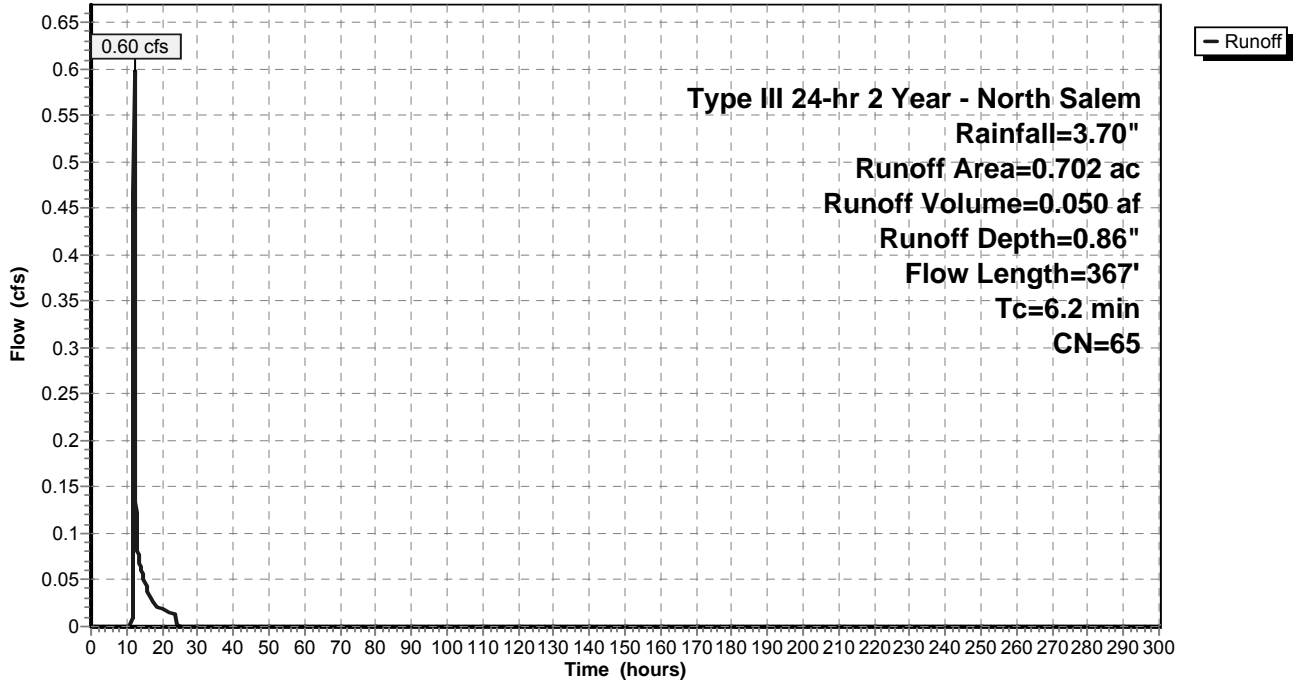
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a

Hydrograph



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 1.58 cfs @ 12.12 hrs, Volume= 0.142 af, Depth= 0.81"

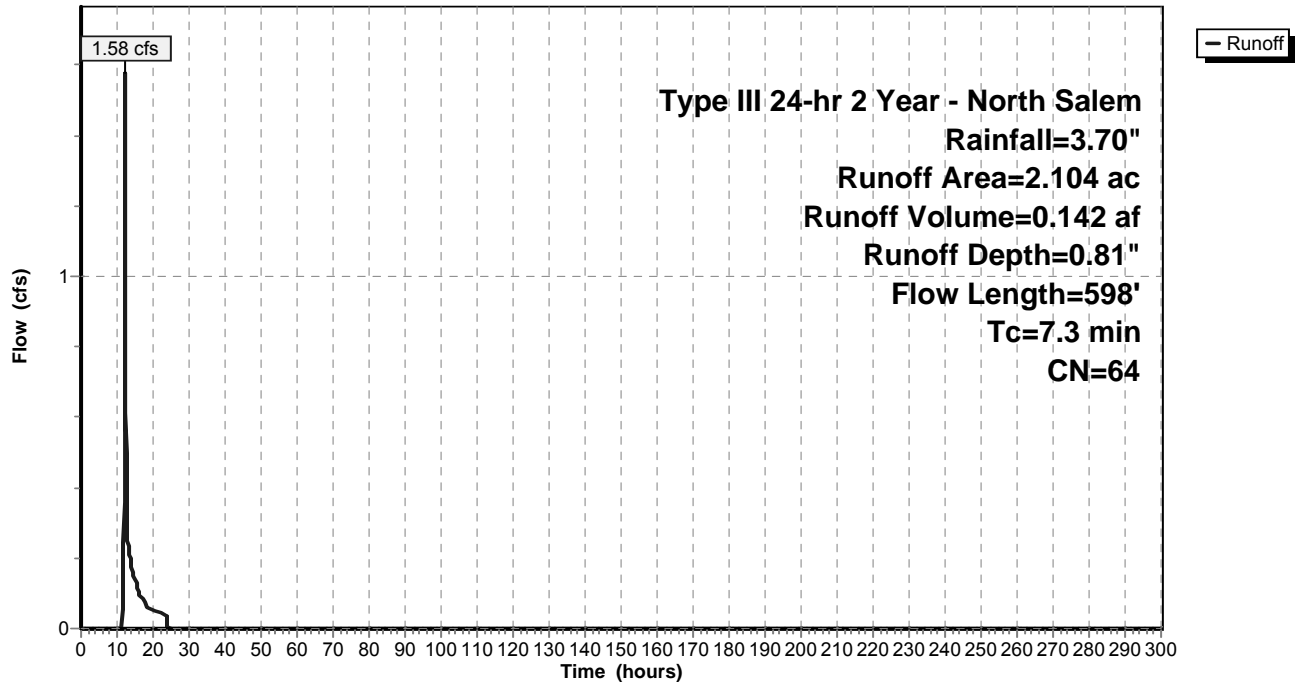
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 5.64 cfs @ 12.16 hrs, Volume= 0.526 af, Depth= 0.91"

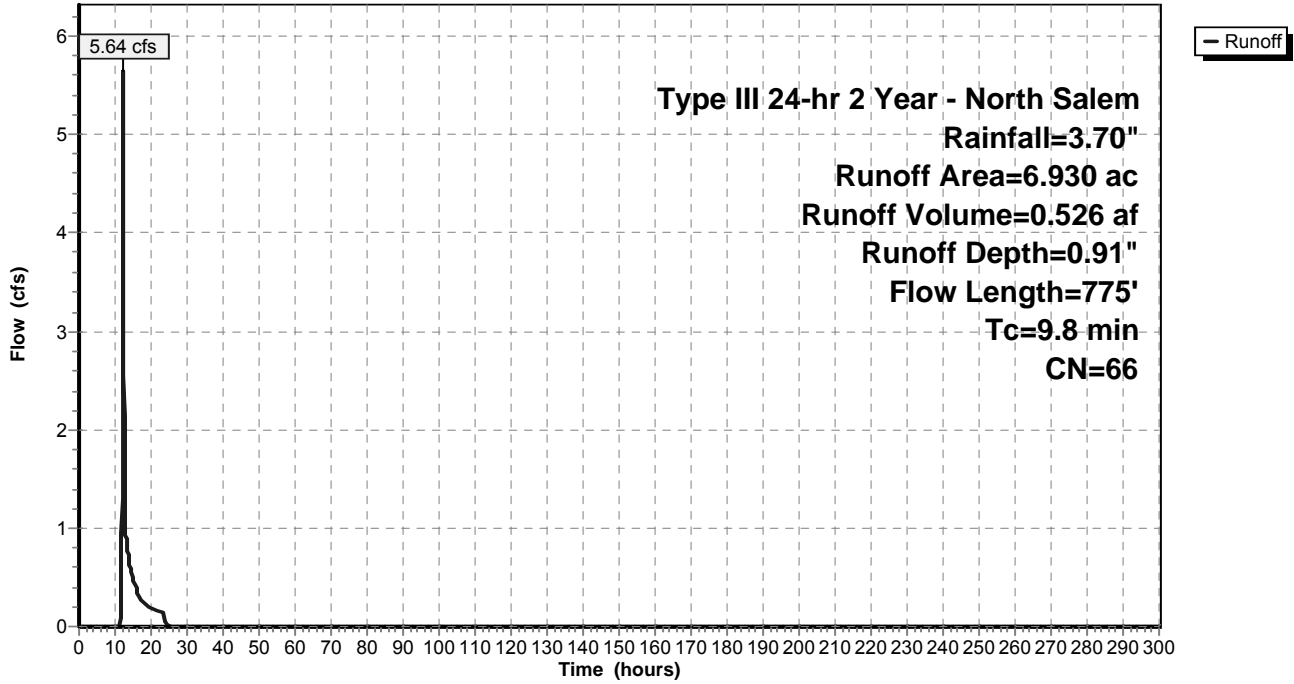
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.62" for 2 Year - North Salem event
 Inflow = 1.20 cfs @ 12.35 hrs, Volume= 0.170 af
 Outflow = 1.20 cfs @ 12.36 hrs, Volume= 0.170 af, Atten= 0%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.04 fps, Min. Travel Time= 0.4 min
 Avg. Velocity = 1.27 fps, Avg. Travel Time= 0.9 min

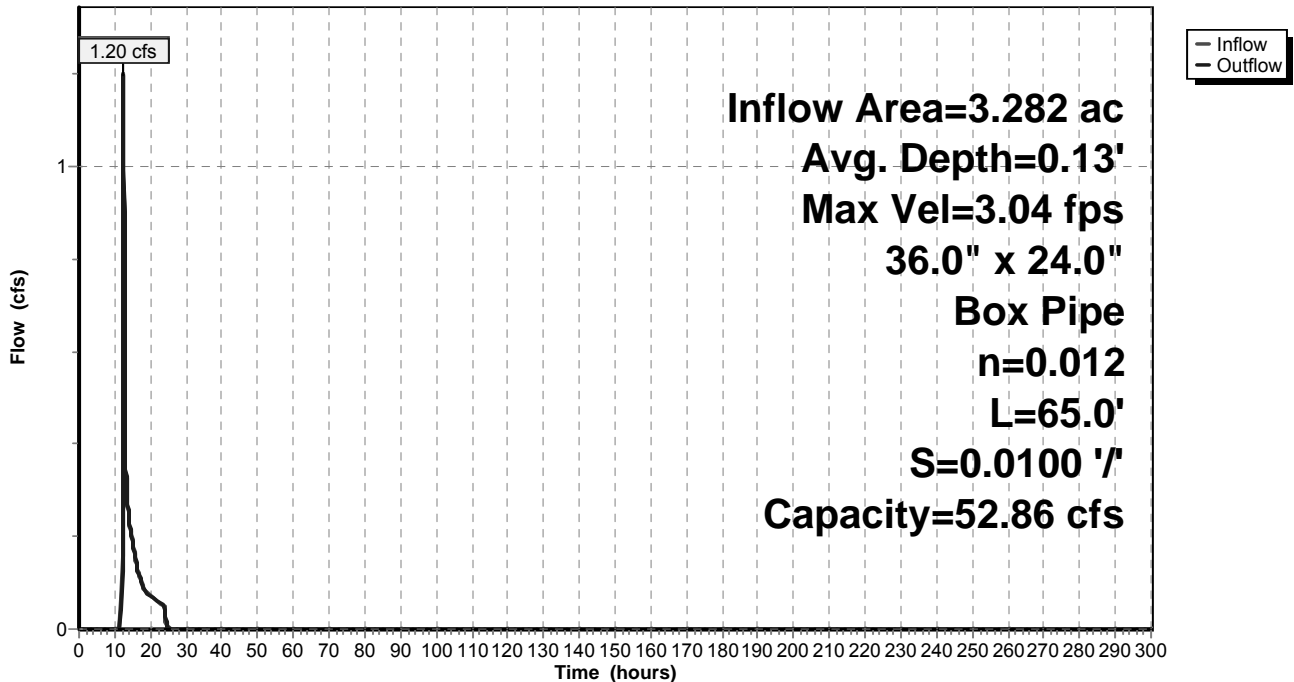
Peak Storage= 26 cf @ 12.35 hrs, Average Depth at Peak Storage= 0.13'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/
 Inlet Invert= 334.65', Outlet Invert= 334.00'

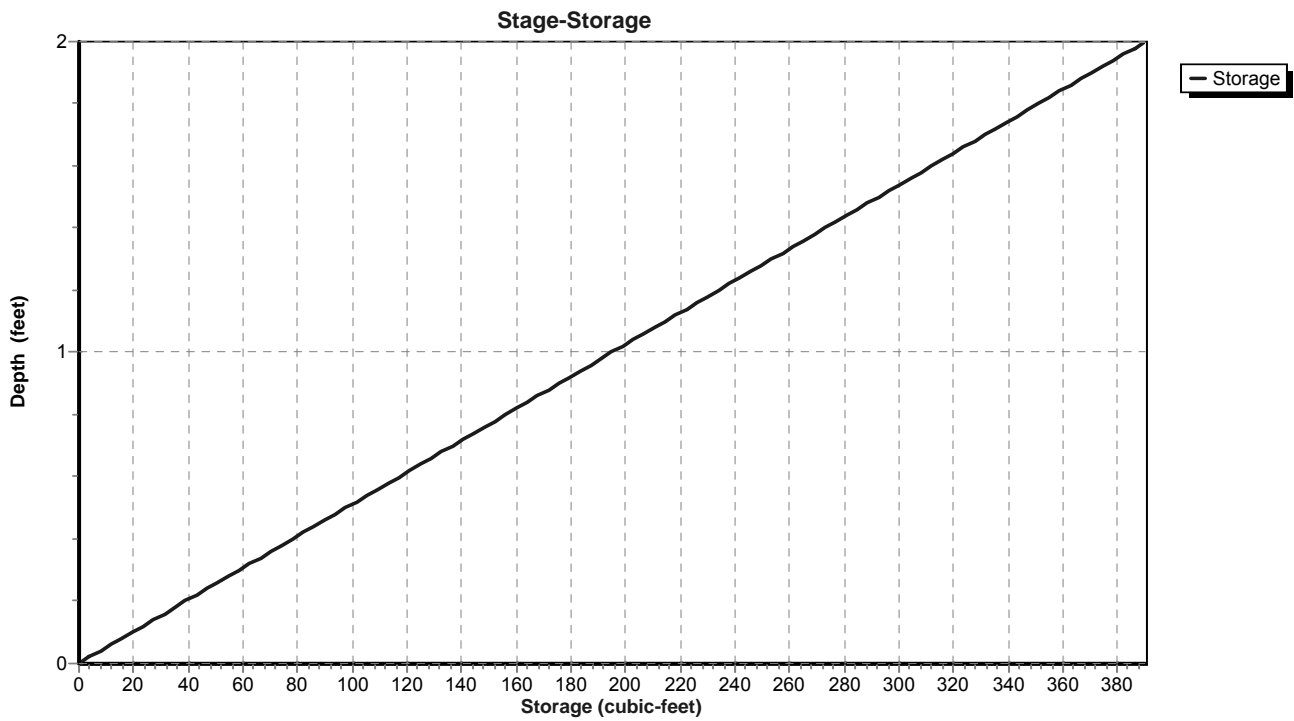


Reach 1R: Culvert

Hydrograph



Reach 1R: Culvert



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 0.53" for 2 Year - North Salem event
 Inflow = 0.53 cfs @ 12.22 hrs, Volume= 0.070 af
 Outflow = 0.32 cfs @ 12.93 hrs, Volume= 0.070 af, Atten= 39%, Lag= 42.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.55 fps, Min. Travel Time= 23.3 min
 Avg. Velocity = 0.22 fps, Avg. Travel Time= 58.0 min

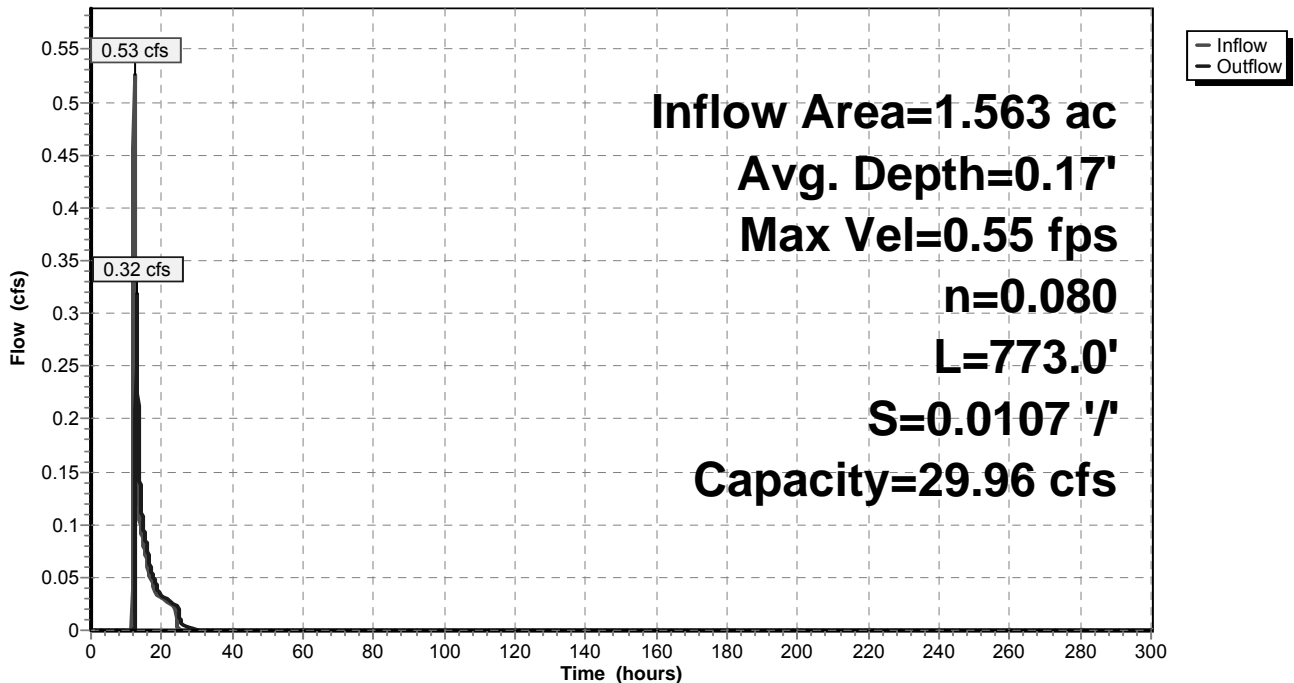
Peak Storage= 447 cf @ 12.55 hrs, Average Depth at Peak Storage= 0.17'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/'
 Inlet Invert= 340.00', Outlet Invert= 331.70'

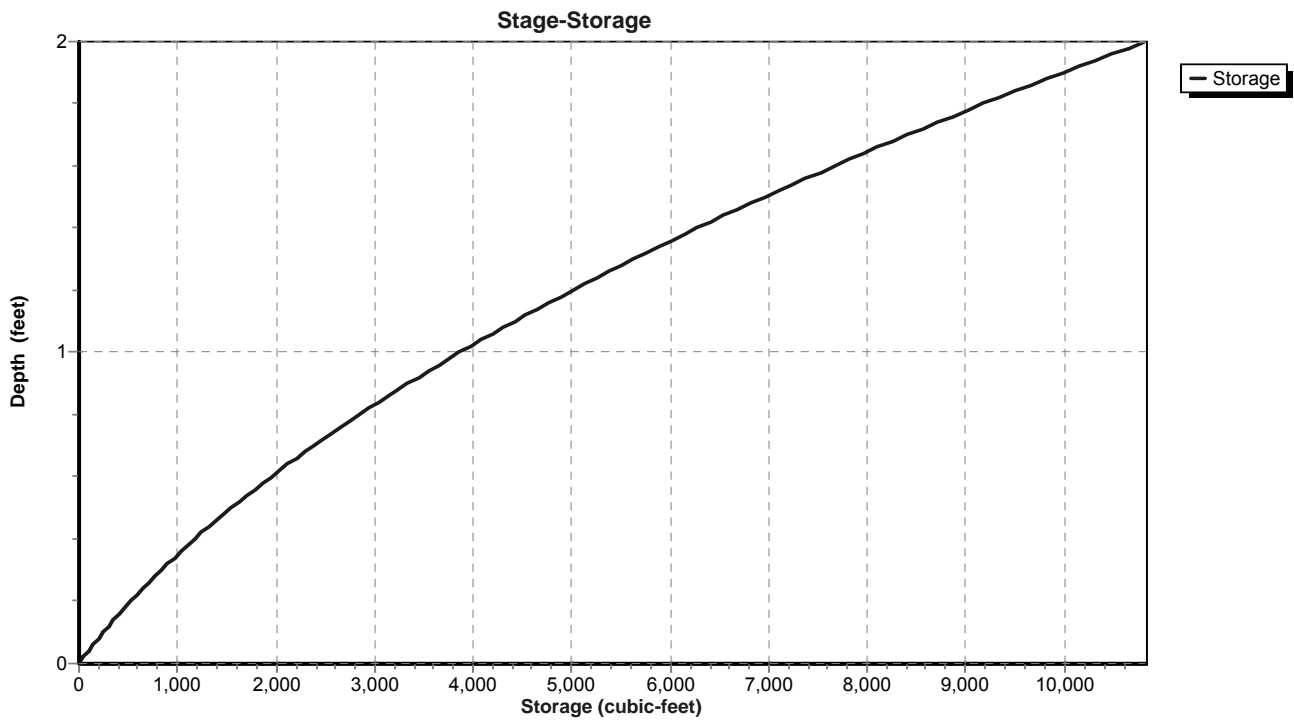


Reach A-1: Road Swale A-1

Hydrograph



Reach A-1: Road Swale A-1



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.62" for 2 Year - North Salem event
 Inflow = 1.20 cfs @ 12.36 hrs, Volume= 0.170 af
 Outflow = 1.14 cfs @ 12.54 hrs, Volume= 0.170 af, Atten= 5%, Lag= 11.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.68 fps, Min. Travel Time= 5.6 min
 Avg. Velocity = 0.26 fps, Avg. Travel Time= 14.6 min

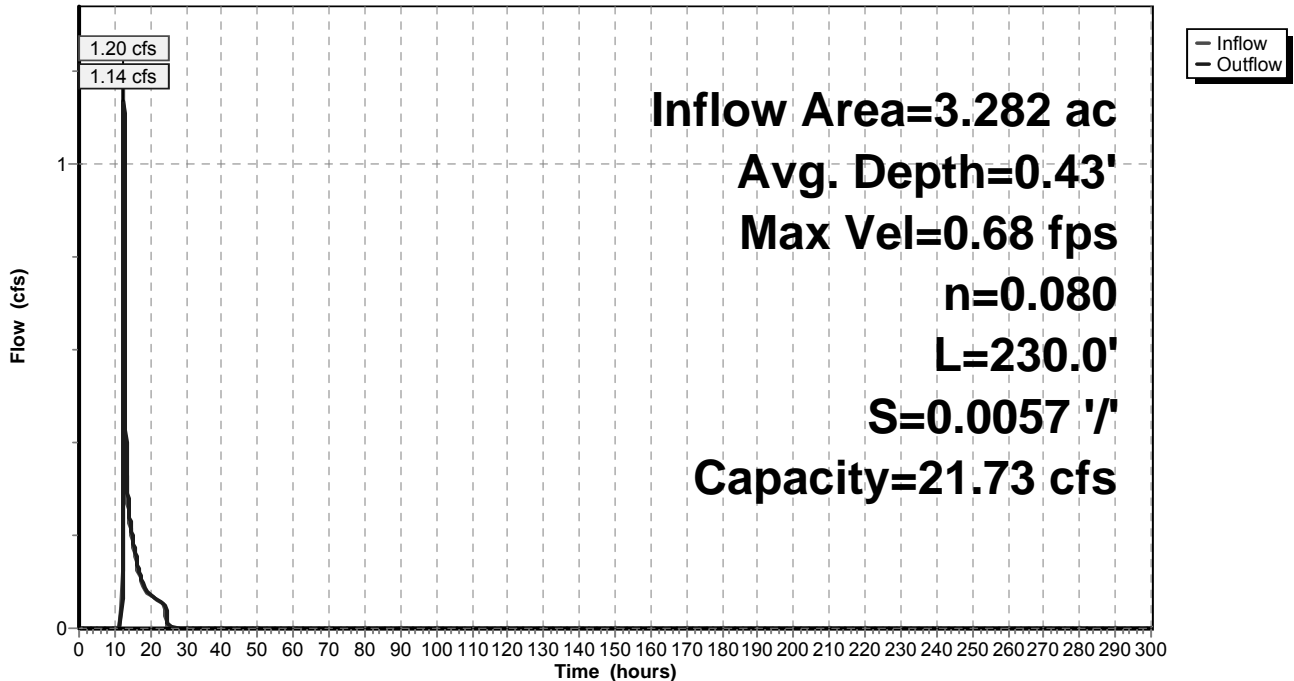
Peak Storage= 385 cf @ 12.45 hrs, Average Depth at Peak Storage= 0.43'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 ' / ' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 ' / '
 Inlet Invert= 333.00', Outlet Invert= 331.70'

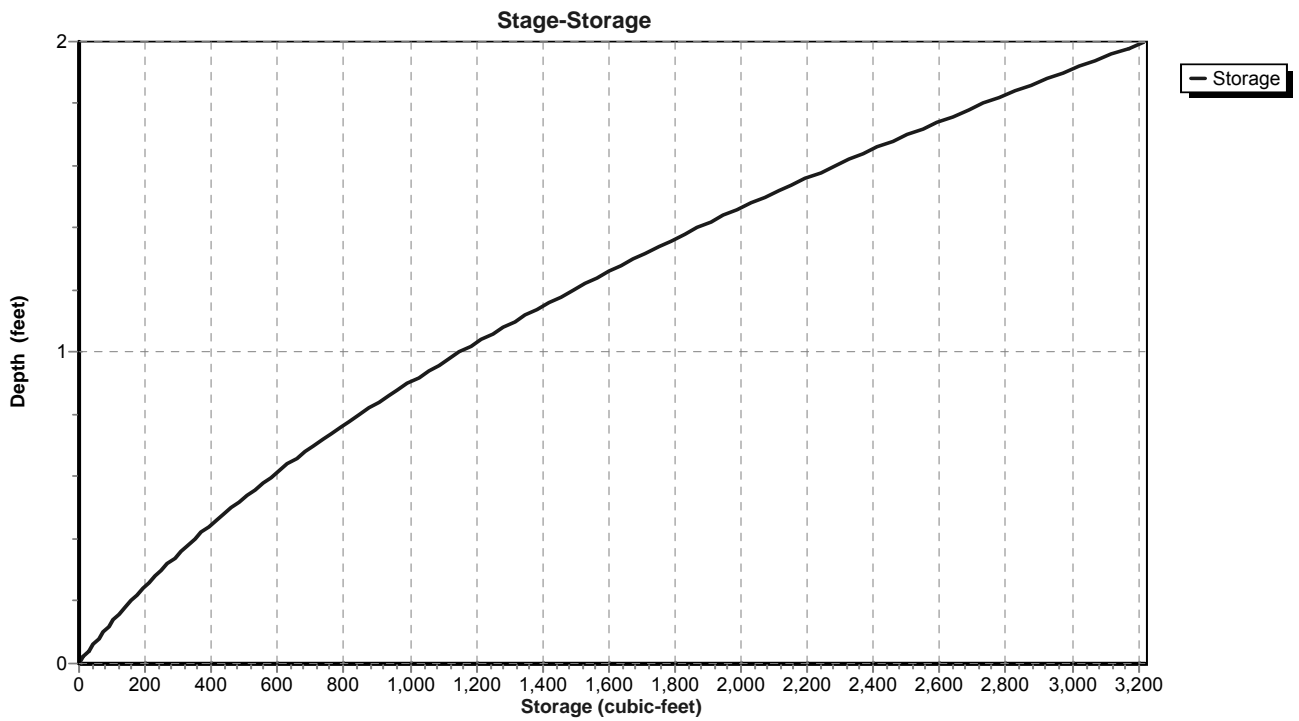


Reach A-2: Road Swale A-2

Hydrograph



Reach A-2: Road Swale A-2



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

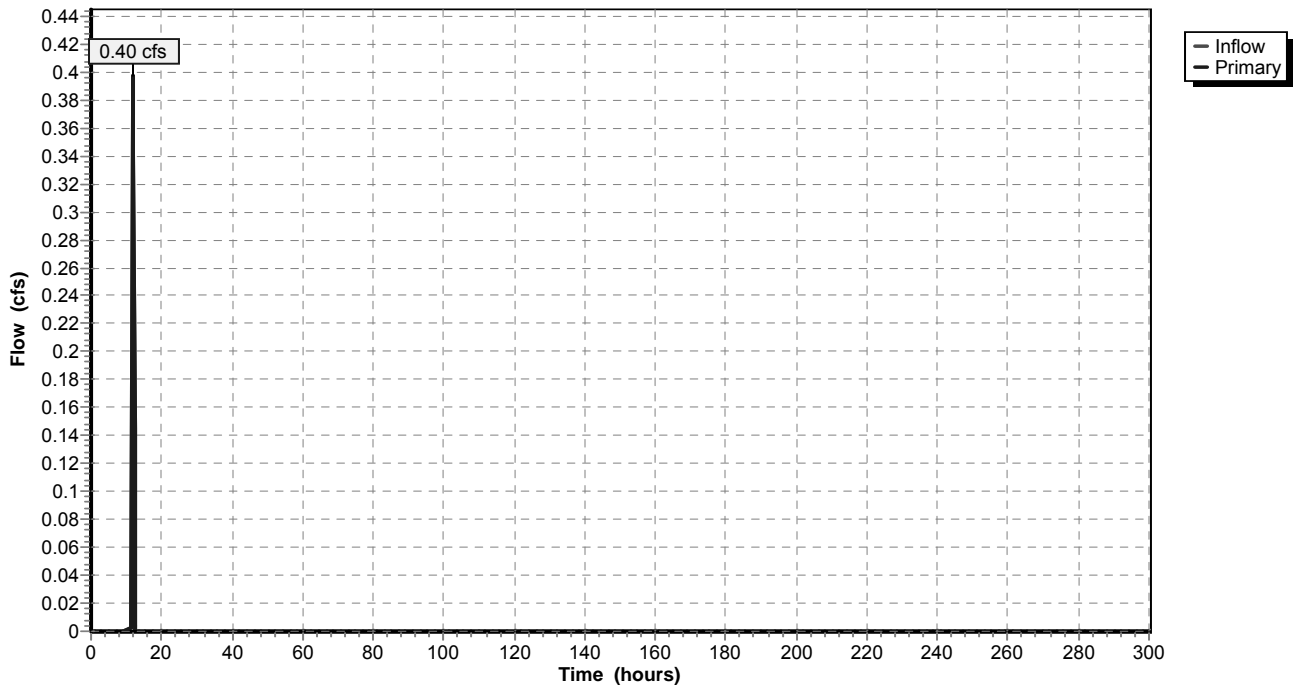
[40] Hint: Not Described (Outflow=Inflow)

Inflow = 0.40 cfs @ 12.12 hrs, Volume= 0.004 af
Primary = 0.40 cfs @ 12.12 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

Hydrograph



Summary for Pond DP 1A: Design Point 1A

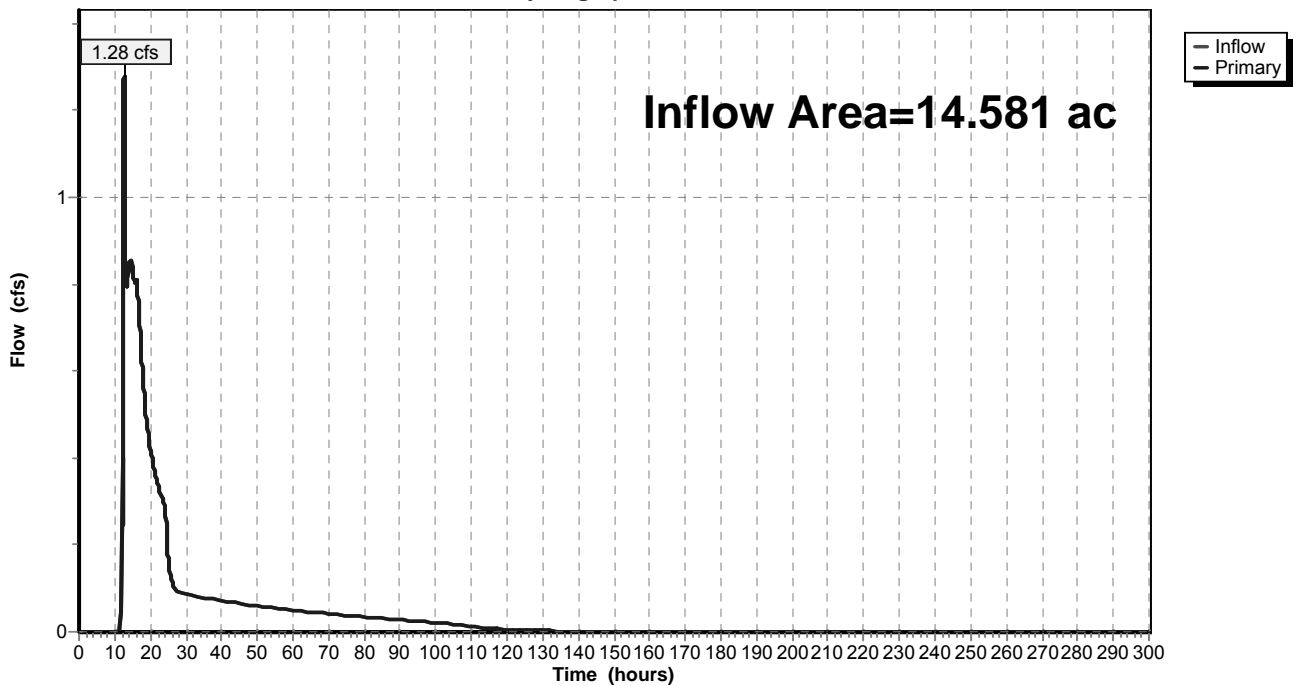
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 0.79" for 2 Year - North Salem event
Inflow = 1.28 cfs @ 12.64 hrs, Volume= 0.957 af
Primary = 1.28 cfs @ 12.64 hrs, Volume= 0.957 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
 Inflow = 5.64 cfs @ 12.16 hrs, Volume= 0.526 af
 Outflow = 0.51 cfs @ 14.96 hrs, Volume= 0.526 af, Atten= 91%, Lag= 168.2 min
 Primary = 0.51 cfs @ 14.96 hrs, Volume= 0.526 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 364.73' @ 14.96 hrs Surf.Area= 9,376 sf Storage= 16,766 cf (12,559 cf above start)

Plug-Flow detention time= 1,803.1 min calculated for 0.430 af (82% of inflow)
 Center-of-Mass det. time= 1,408.1 min (2,290.3 - 882.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

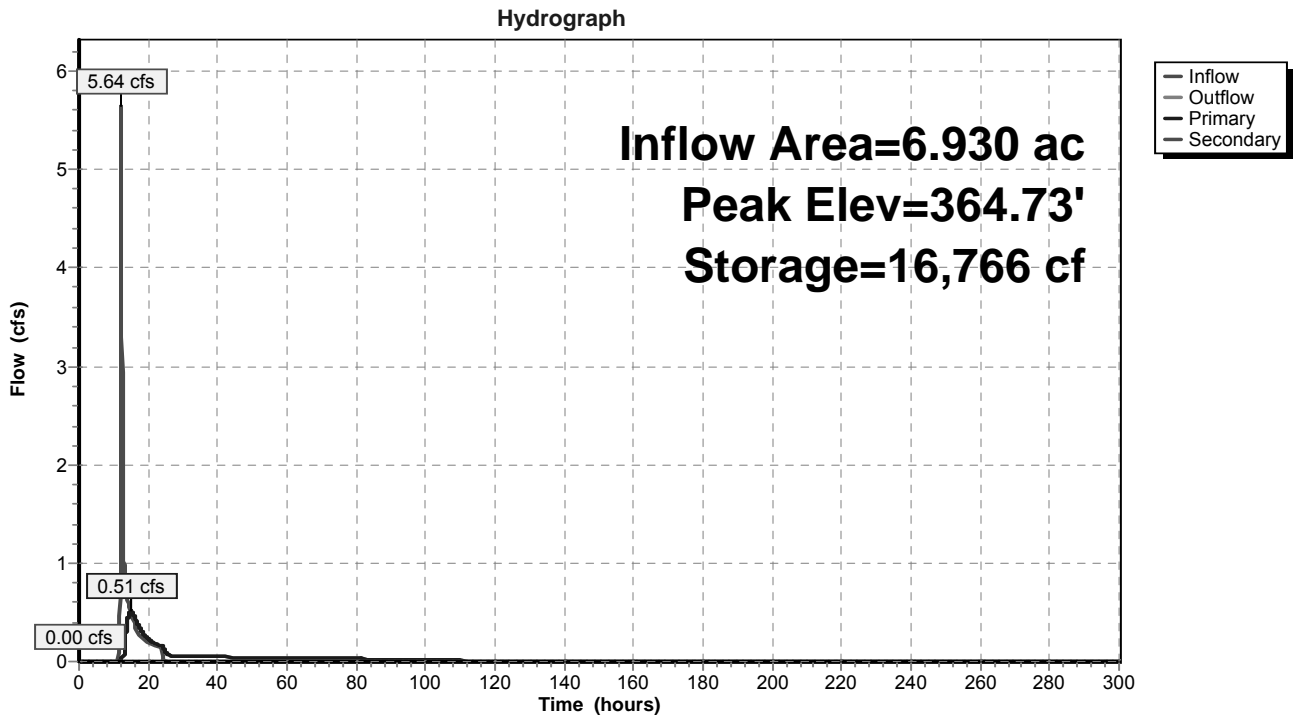
Primary OutFlow Max=0.51 cfs @ 14.96 hrs HW=364.73' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.51 cfs of 33.94 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.05 cfs @ 2.51 fps)
- ↑ 3=Orifice #1 (Orifice Controls 0.45 cfs @ 1.63 fps)
- ↑ 4=Orifice #2 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

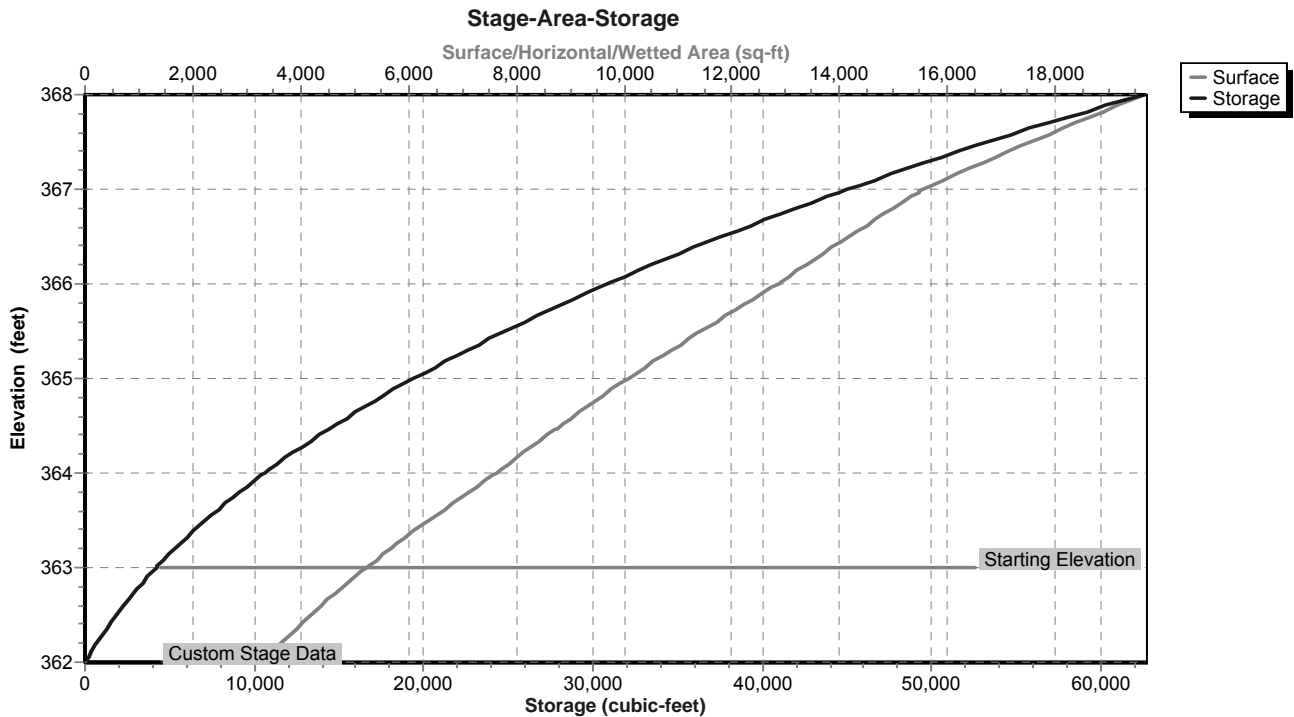
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-A4: Micropool ED Basin (Basin A4)



Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.86" for 2 Year - North Salem event
 Inflow = 0.60 cfs @ 12.11 hrs, Volume= 0.050 af
 Outflow = 0.60 cfs @ 12.11 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.51 cfs @ 12.11 hrs, Volume= 0.049 af
 Secondary = 0.09 cfs @ 12.11 hrs, Volume= 0.001 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.60' @ 12.11 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.50 cfs @ 12.11 hrs HW=339.60' (Free Discharge)

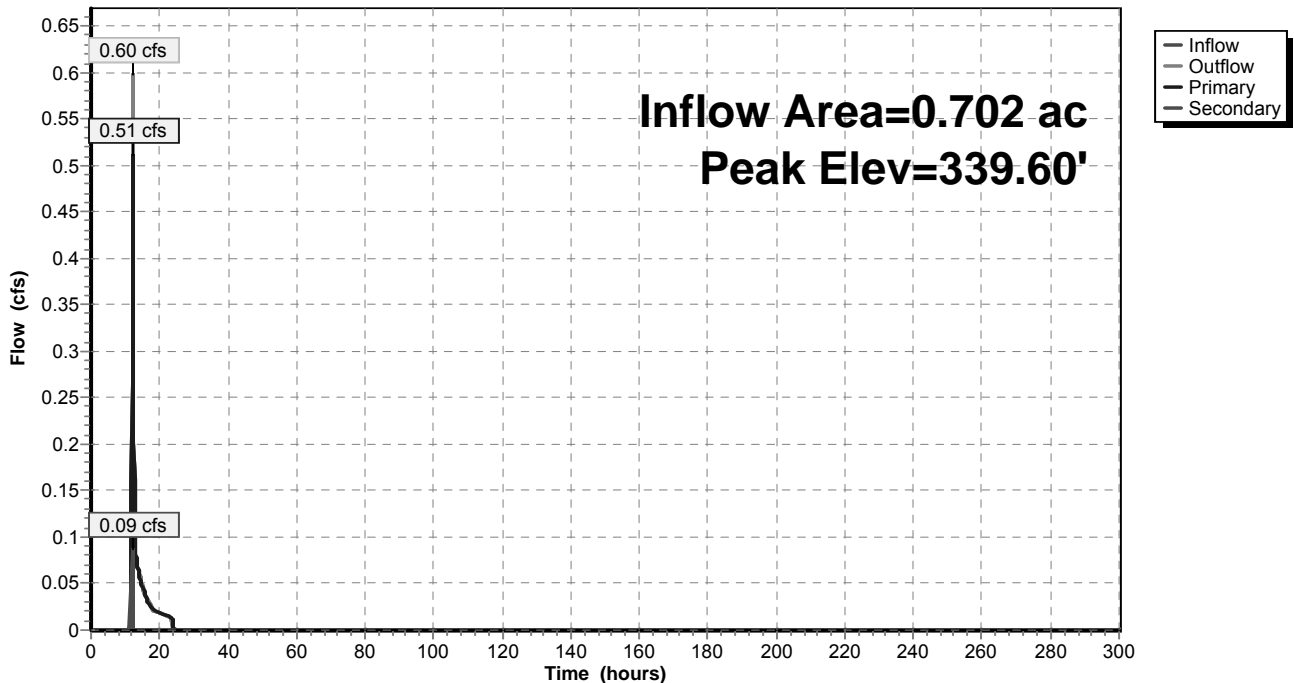
↑1=Outlet to Sand Filter (Barrel Controls 0.50 cfs @ 2.93 fps)

Secondary OutFlow Max=0.05 cfs @ 12.11 hrs HW=339.60' (Free Discharge)

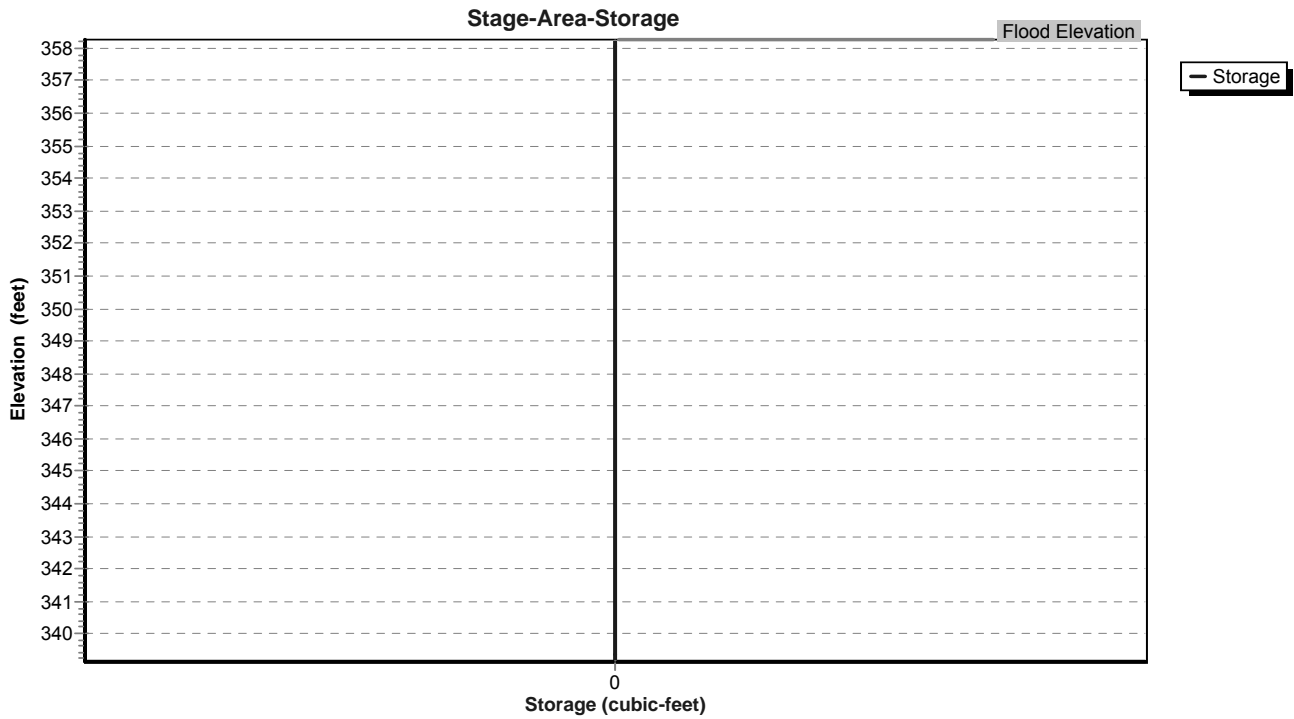
↑2=Outlet to DP (Inlet Controls 0.05 cfs @ 1.06 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Pond FS A3a: Flow Splitter A3a



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.81" for 2 Year - North Salem event
 Inflow = 1.58 cfs @ 12.12 hrs, Volume= 0.142 af
 Outflow = 1.58 cfs @ 12.12 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.26 cfs @ 12.12 hrs, Volume= 0.138 af
 Secondary = 0.31 cfs @ 12.12 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 352.06' @ 12.12 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.23 cfs @ 12.12 hrs HW=352.04' (Free Discharge)

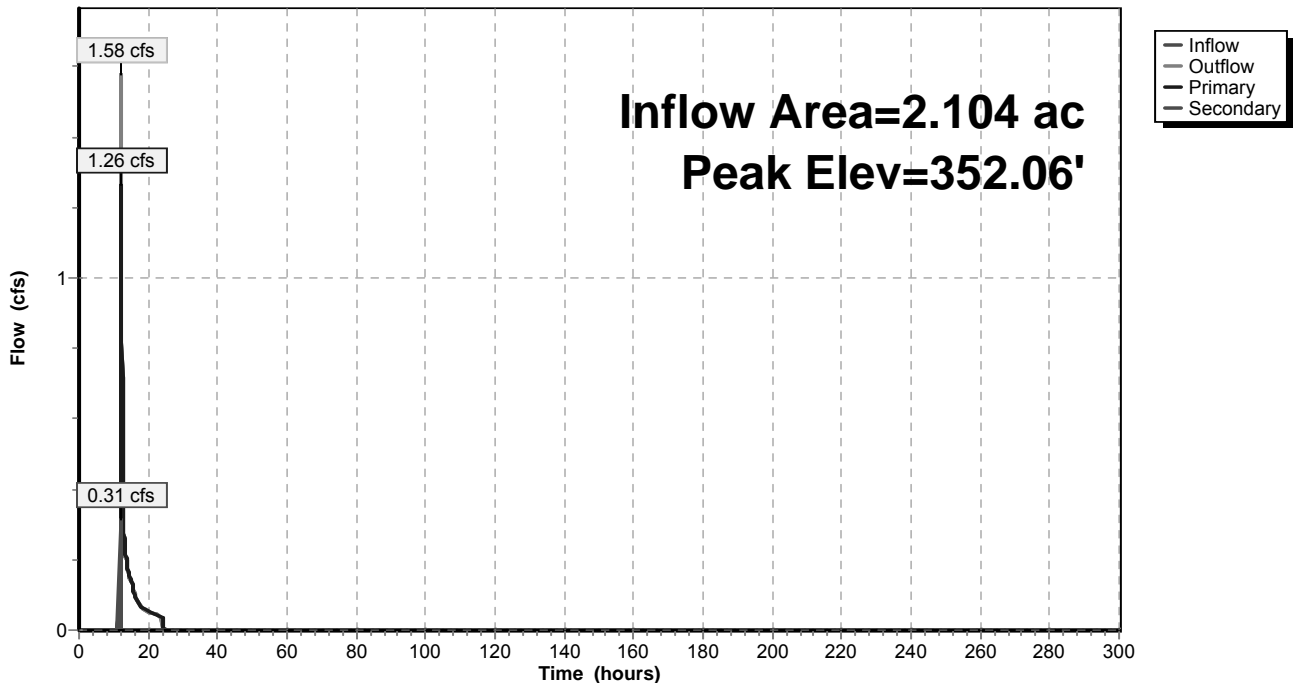
↑1=Outlet to Sand Filter (Barrel Controls 1.23 cfs @ 3.52 fps)

Secondary OutFlow Max=0.28 cfs @ 12.12 hrs HW=352.04' (Free Discharge)

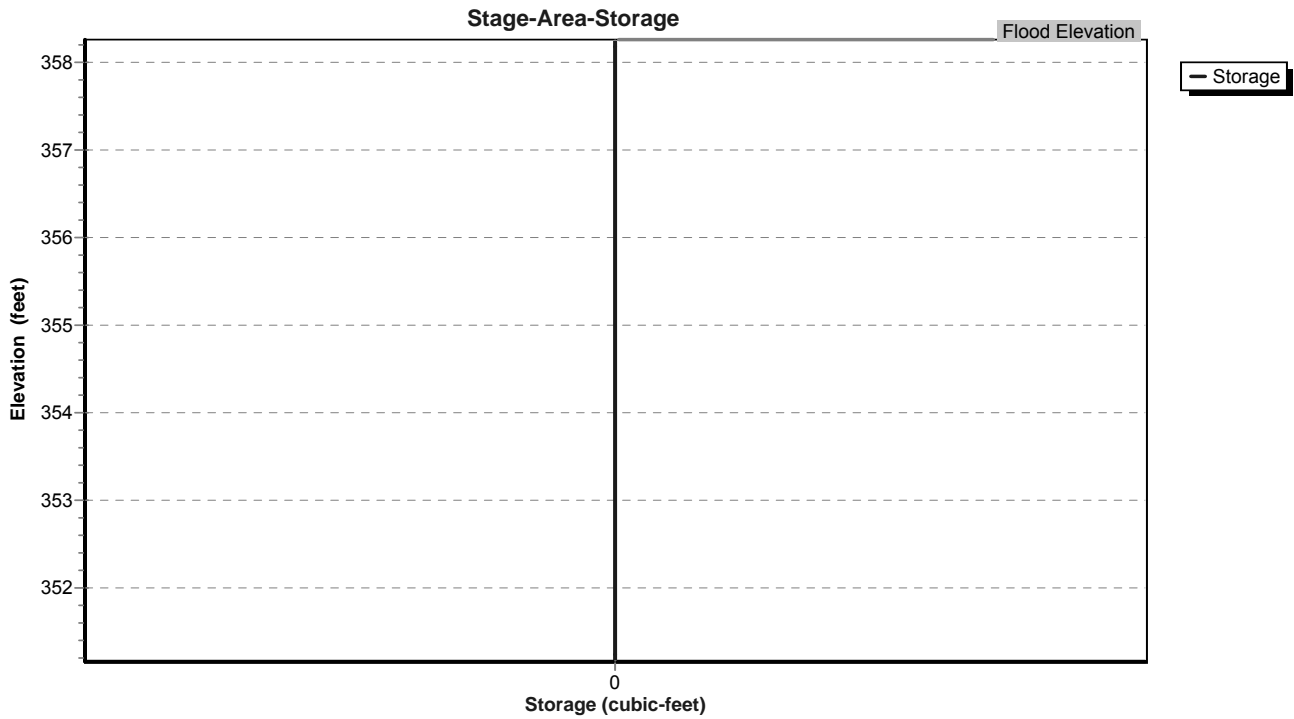
↑2=Outlet to DP (Inlet Controls 0.28 cfs @ 1.67 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Pond FS A3b: Flow Splitter A3b



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.85" for 2 Year - North Salem event
 Inflow = 0.26 cfs @ 12.42 hrs, Volume= 0.049 af
 Outflow = 0.04 cfs @ 15.91 hrs, Volume= 0.049 af, Atten= 84%, Lag= 209.6 min
 Primary = 0.04 cfs @ 15.91 hrs, Volume= 0.049 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 336.86' @ 15.91 hrs Surf.Area= 936 sf Storage= 1,256 cf

Plug-Flow detention time= 878.2 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 877.5 min (1,785.9 - 908.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
335.00	432	111.0	0	0	432
336.00	693	141.0	557	557	1,047
338.00	1,313	168.0	1,973	2,531	1,779

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.04 cfs @ 15.91 hrs HW=336.86' (Free Discharge)

↑ **1=Outlet Pipe** (Passes 0.04 cfs of 6.56 cfs potential flow)

↑ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)

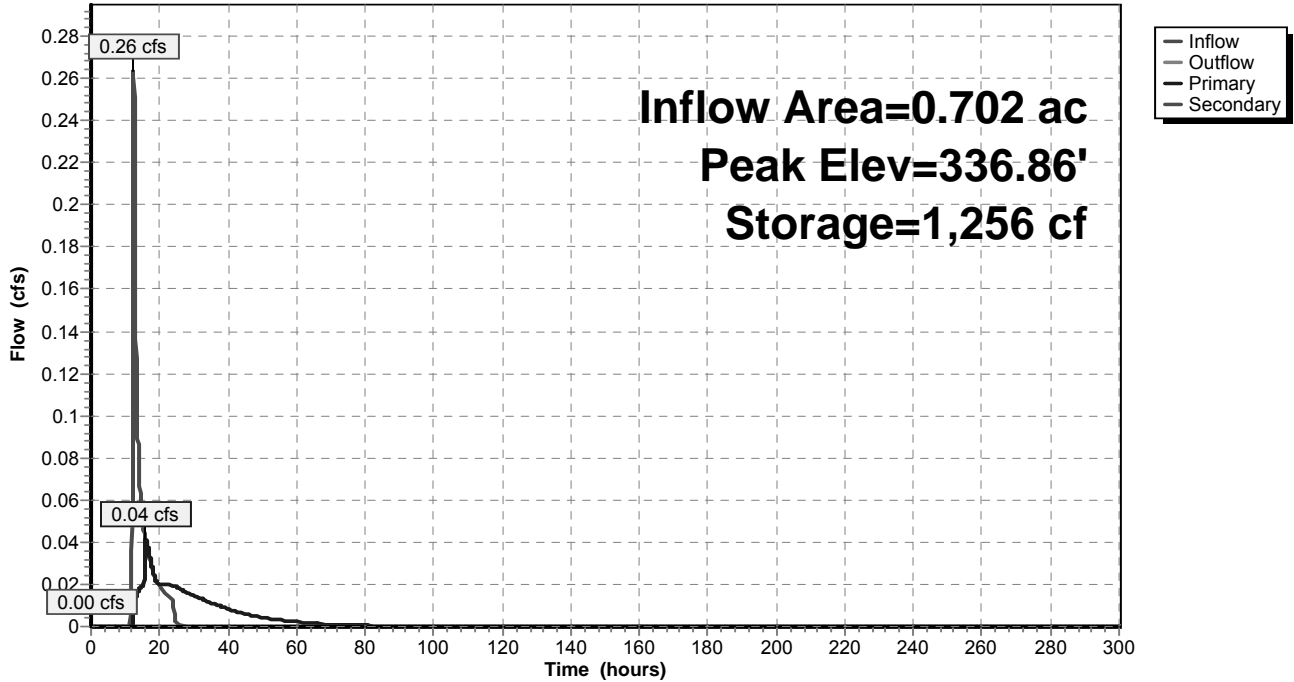
↑ **3=Top of Outlet Box** (Orifice Controls 0.02 cfs @ 0.34 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)

↑ **4=Emergency Overflow** (Controls 0.00 cfs)

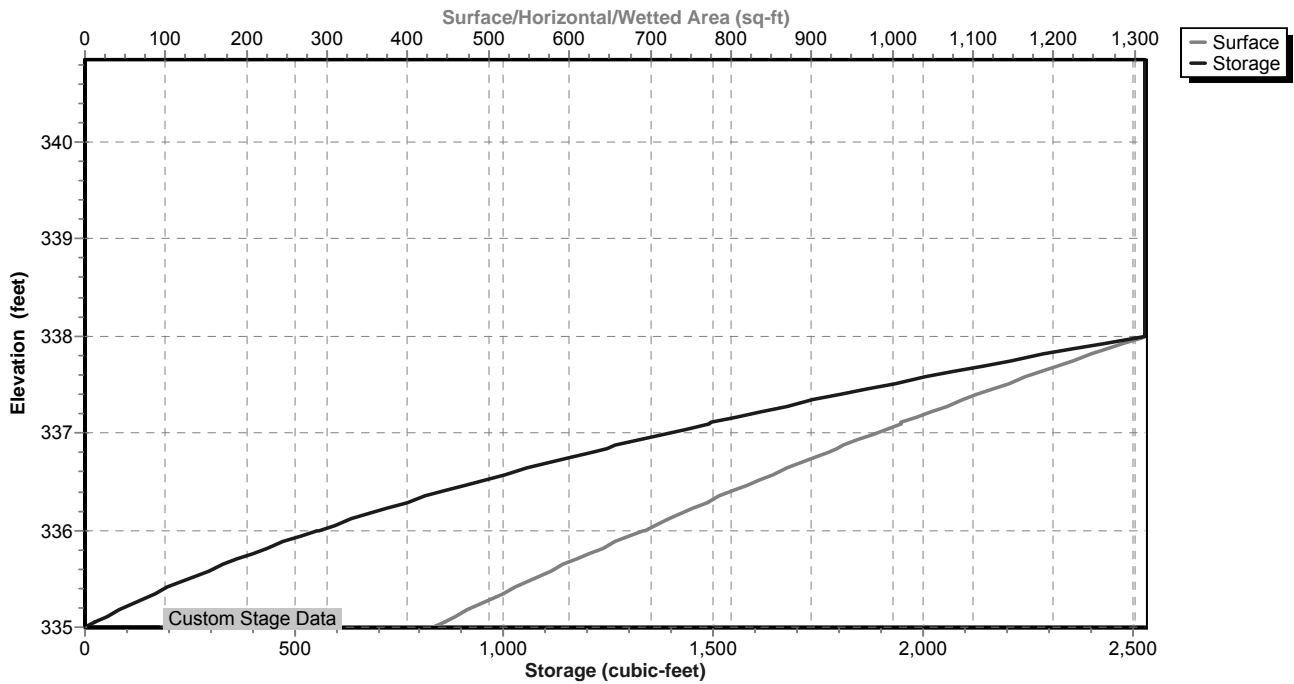
Pond SF-A3a: Sand Filter - A3a

Hydrograph



Pond SF-A3a: Sand Filter - A3a

Stage-Area-Storage



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.79" for 2 Year - North Salem event
 Inflow = 0.35 cfs @ 12.67 hrs, Volume= 0.138 af
 Outflow = 0.13 cfs @ 16.63 hrs, Volume= 0.138 af, Atten= 63%, Lag= 237.7 min
 Primary = 0.13 cfs @ 16.63 hrs, Volume= 0.138 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 344.10' @ 16.63 hrs Surf.Area= 1,961 sf Storage= 3,403 cf

Plug-Flow detention time= 1,472.2 min calculated for 0.138 af (100% of inflow)
 Center-of-Mass det. time= 1,472.1 min (2,444.6 - 972.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.13 cfs @ 16.63 hrs HW=344.10' (Free Discharge)

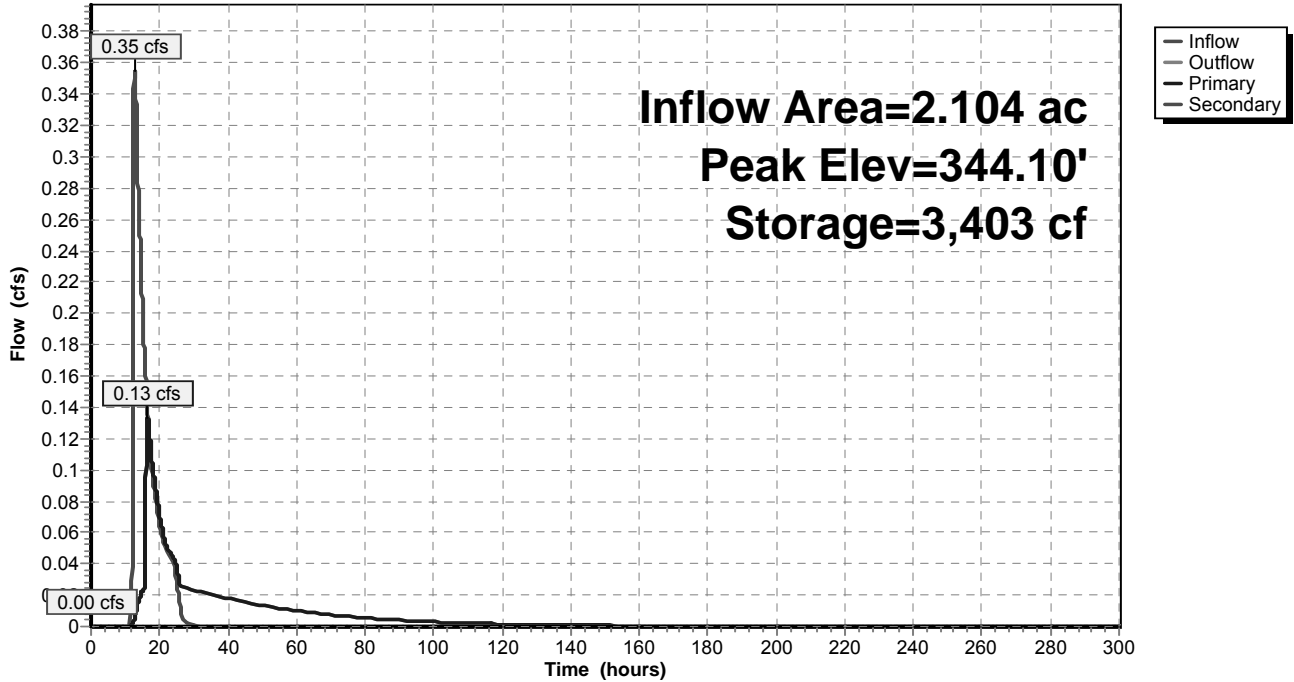
- ↑ 1=Outlet Pipe (Passes 0.13 cfs of 6.76 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.10 cfs @ 1.02 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

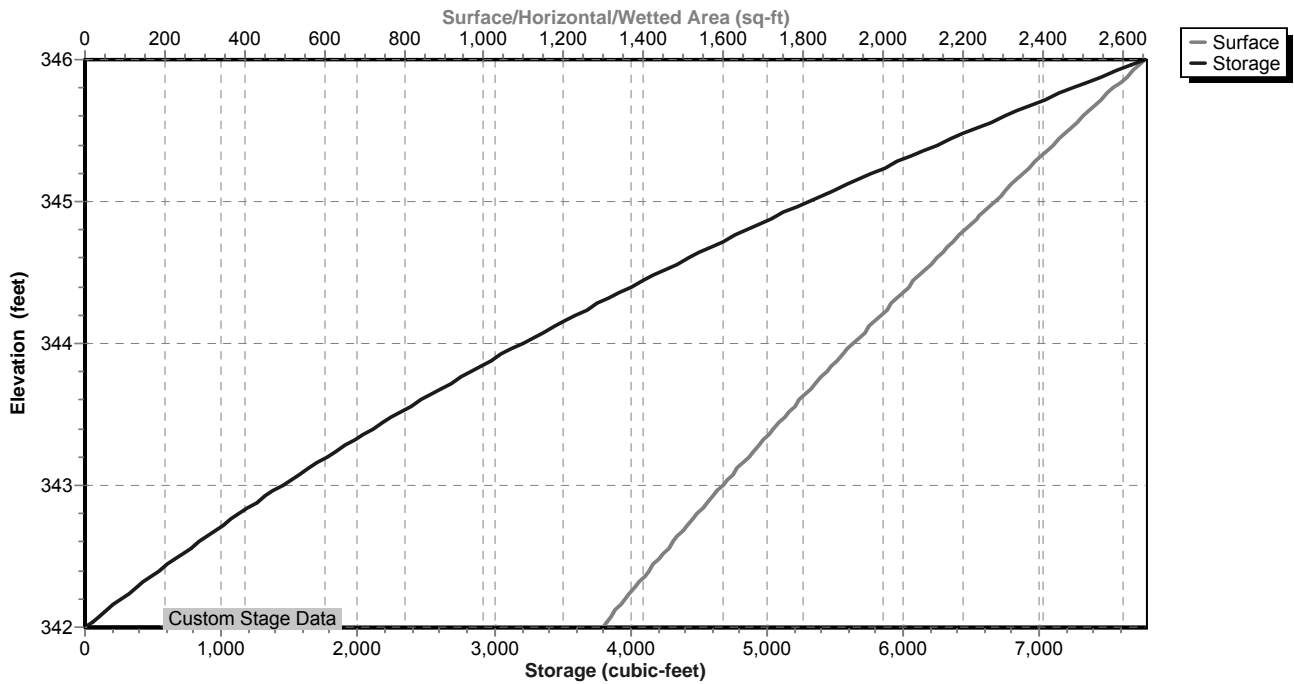
Pond SF-A3b: Sand Filter - A3b

Hydrograph



Pond SF-A3b: Sand Filter - A3b

Stage-Area-Storage



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.85" for 2 Year - North Salem event
 Inflow = 0.51 cfs @ 12.11 hrs, Volume= 0.049 af
 Outflow = 0.26 cfs @ 12.42 hrs, Volume= 0.049 af, Atten= 49%, Lag= 18.6 min
 Primary = 0.26 cfs @ 12.42 hrs, Volume= 0.049 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.29' @ 12.42 hrs Surf.Area= 378 sf Storage= 370 cf

Plug-Flow detention time= 23.4 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 23.3 min (908.3 - 885.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
337.00	200	57.0	0	0	200
338.00	336	71.0	265	265	356
339.00	490	83.0	411	676	522
340.00	670	96.0	578	1,253	728

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

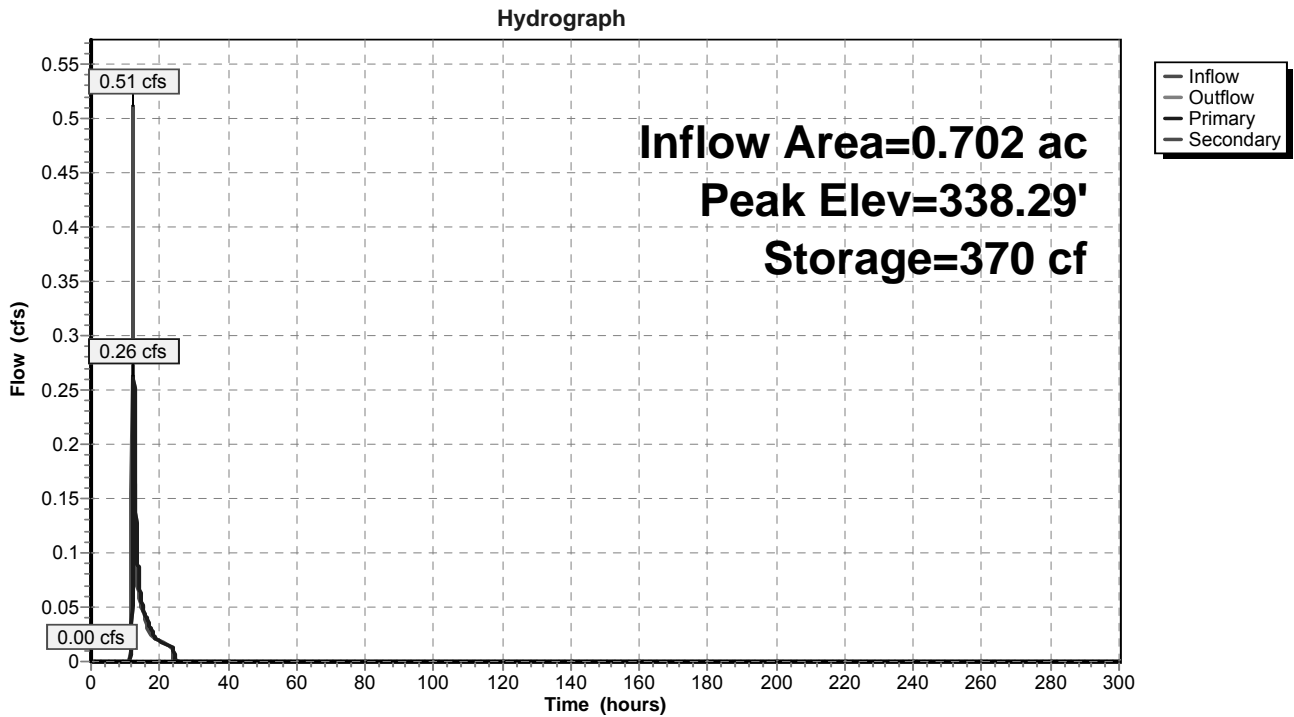
Primary OutFlow Max=0.26 cfs @ 12.42 hrs HW=338.29' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.26 cfs of 4.20 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.26 cfs @ 4.02 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

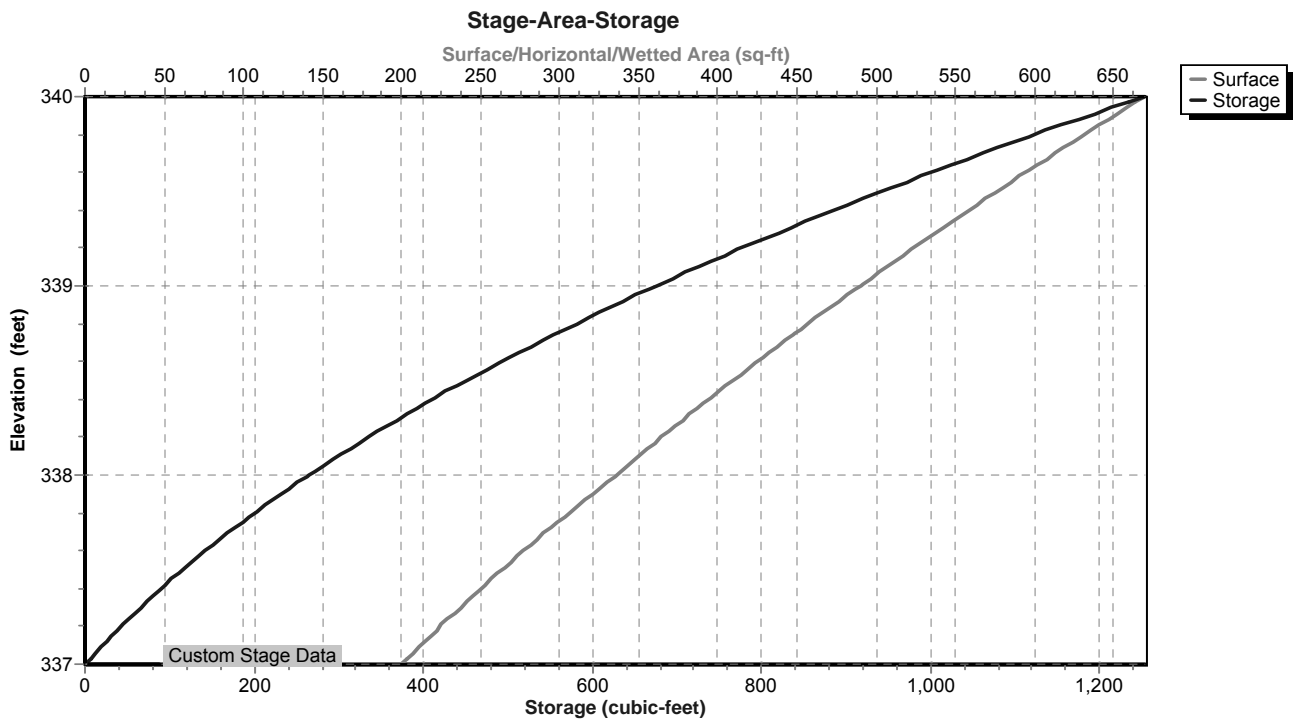
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3a: Sand Filter Forebay - A3a



Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.79" for 2 Year - North Salem event
 Inflow = 1.26 cfs @ 12.12 hrs, Volume= 0.138 af
 Outflow = 0.35 cfs @ 12.67 hrs, Volume= 0.138 af, Atten= 72%, Lag= 32.6 min
 Primary = 0.35 cfs @ 12.67 hrs, Volume= 0.138 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 349.59' @ 12.67 hrs Surf.Area= 1,390 sf Storage= 1,641 cf

Plug-Flow detention time= 81.5 min calculated for 0.138 af (100% of inflow)
 Center-of-Mass det. time= 81.6 min (972.5 - 891.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

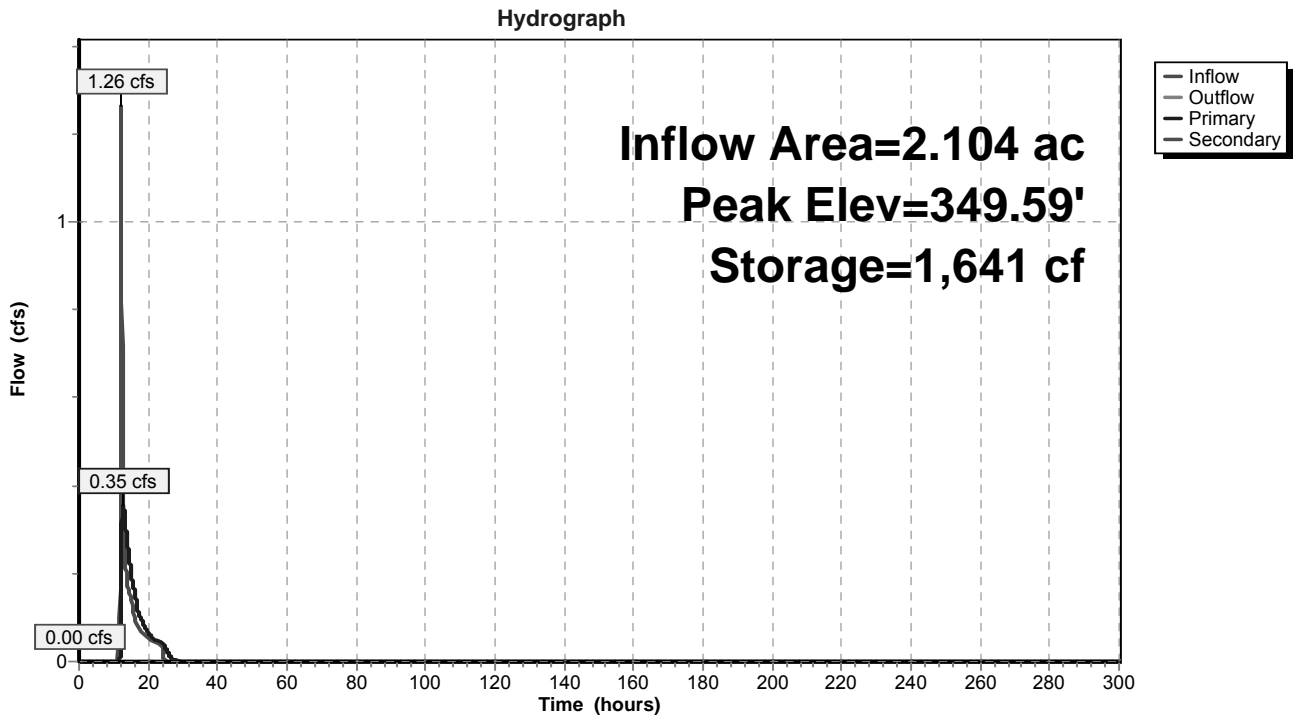
Primary OutFlow Max=0.35 cfs @ 12.67 hrs HW=349.59' (Free Discharge)

- 1=Outlet Pipe (Passes 0.35 cfs of 5.82 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.35 cfs @ 4.33 fps)
- 3=Top of Standpipe (Controls 0.00 cfs)
- 4=Orifice #1 (Controls 0.00 cfs)
- 5=Top of Outlet Box (Controls 0.00 cfs)

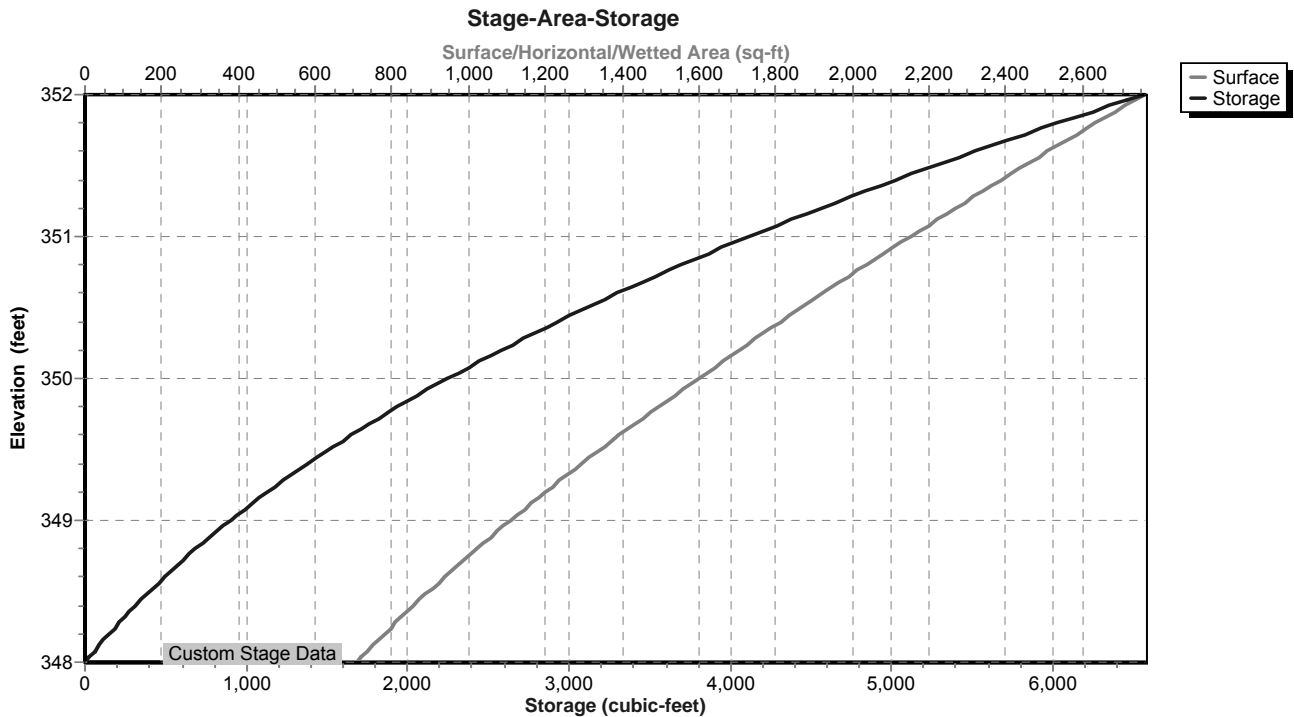
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- 6=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3b: Sand Filter Forebay - A3b



Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
 Runoff by SCS TR-20 method, UH=SCS
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=1.45"
 Flow Length=649' Tc=11.3 min CN=58 Runoff=1.96 cfs 0.189 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=1.60"
 Flow Length=724' Tc=19.0 min CN=60 Runoff=3.88 cfs 0.438 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=1.99"
 Flow Length=367' Tc=6.2 min CN=65 Runoff=1.55 cfs 0.117 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=1.91"
 Flow Length=598' Tc=7.3 min CN=64 Runoff=4.27 cfs 0.336 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=2.08"
 Flow Length=775' Tc=9.8 min CN=66 Runoff=14.22 cfs 1.199 af

Reach 1R: Culvert Avg. Depth=0.28' Max Vel=4.69 fps Inflow=3.88 cfs 0.438 af
 36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/ Capacity=52.86 cfs Outflow=3.87 cfs 0.438 af

Reach A-1: Road Swale A-1 Avg. Depth=0.40' Max Vel=0.90 fps Inflow=1.96 cfs 0.189 af
 n=0.080 L=773.0' S=0.0107 '/ Capacity=29.96 cfs Outflow=1.37 cfs 0.189 af

Reach A-2: Road Swale A-2 Avg. Depth=0.83' Max Vel=0.97 fps Inflow=3.87 cfs 0.438 af
 n=0.080 L=230.0' S=0.0057 '/ Capacity=21.73 cfs Outflow=3.73 cfs 0.438 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=3.09 cfs 0.064 af
 Primary=3.09 cfs 0.064 af

Pond DP 1A: Design Point 1A Inflow=8.17 cfs 2.279 af
 Primary=8.17 cfs 2.279 af

Pond ED-A4: Micropool ED Basin (Basin) Peak Elev=365.51' Storage=24,937 cf Inflow=14.22 cfs 1.199 af
 Primary=3.22 cfs 1.199 af Secondary=0.00 cfs 0.000 af Outflow=3.22 cfs 1.199 af

Pond FS A3a: Flow Splitter A3a Peak Elev=339.85' Inflow=1.55 cfs 0.117 af
 Primary=0.96 cfs 0.106 af Secondary=0.59 cfs 0.011 af Outflow=1.55 cfs 0.117 af

Pond FS A3b: Flow Splitter A3b Peak Elev=352.60' Inflow=4.27 cfs 0.336 af
 Primary=1.77 cfs 0.283 af Secondary=2.51 cfs 0.053 af Outflow=4.27 cfs 0.336 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=336.94' Storage=1,329 cf Inflow=0.91 cfs 0.106 af
 Primary=0.36 cfs 0.106 af Secondary=0.00 cfs 0.000 af Outflow=0.36 cfs 0.106 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=344.26' Storage=3,719 cf Inflow=1.36 cfs 0.283 af
 Primary=0.46 cfs 0.283 af Secondary=0.00 cfs 0.000 af Outflow=0.46 cfs 0.283 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=338.80' Storage=582 cf Inflow=0.96 cfs 0.106 af
 Primary=0.91 cfs 0.106 af Secondary=0.00 cfs 0.000 af Outflow=0.91 cfs 0.106 af

Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=350.12' Storage=2,447 cf Inflow=1.77 cfs 0.283 af
Primary=1.36 cfs 0.283 af Secondary=0.00 cfs 0.000 af Outflow=1.36 cfs 0.283 af

Total Runoff Area = 14.581 ac Runoff Volume = 2.279 af Average Runoff Depth = 1.88"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 1.96 cfs @ 12.18 hrs, Volume= 0.189 af, Depth= 1.45"

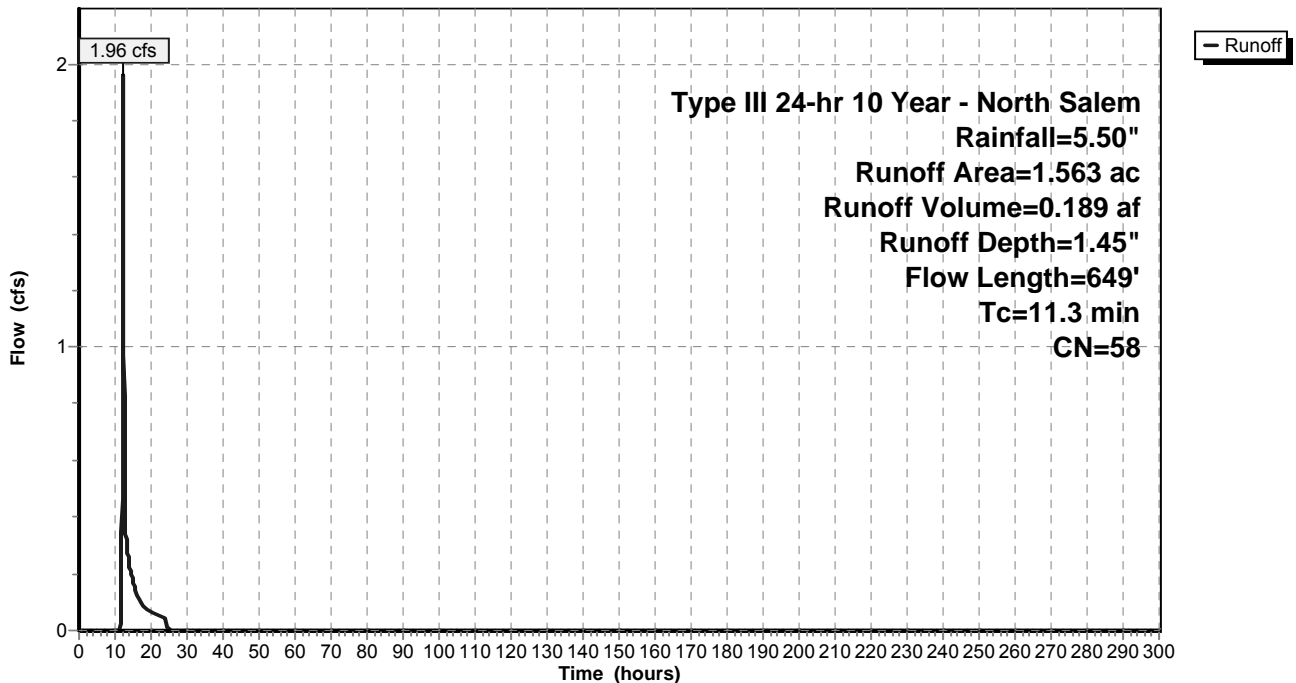
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

Runoff = 3.88 cfs @ 12.29 hrs, Volume= 0.438 af, Depth= 1.60"

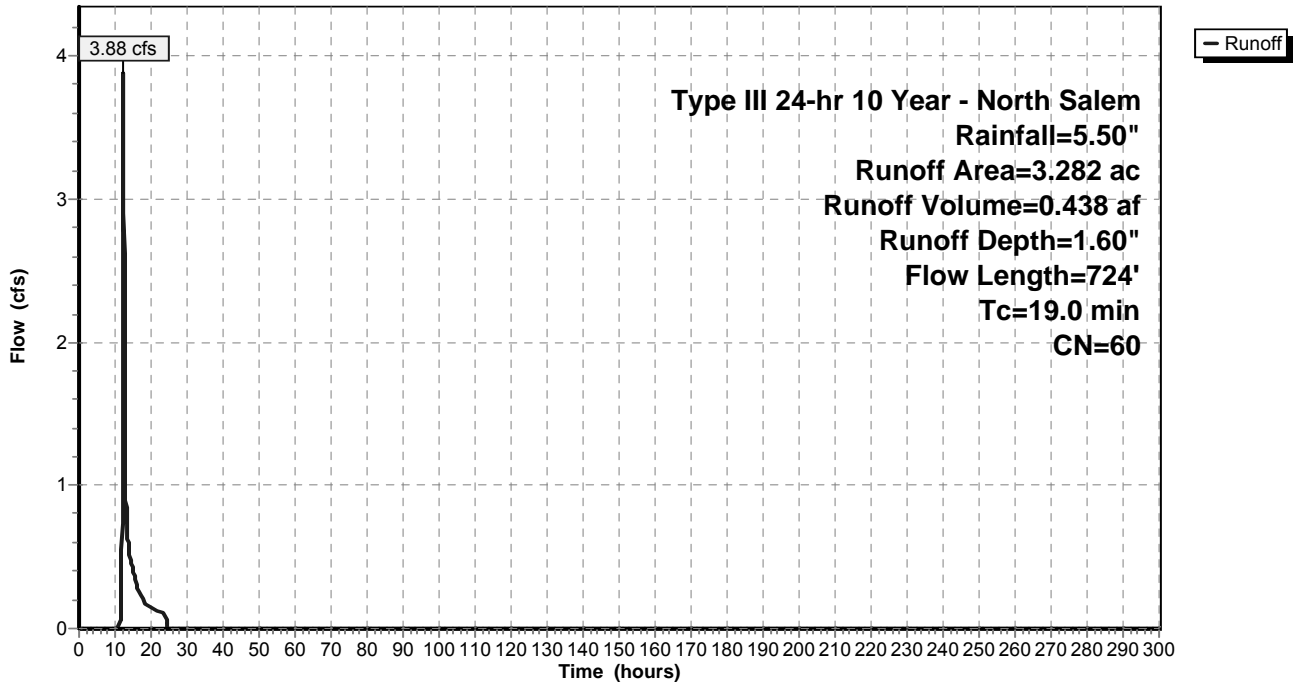
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2

Hydrograph



Summary for Subcatchment A3a: Post-Development A3a

Runoff = 1.55 cfs @ 12.10 hrs, Volume= 0.117 af, Depth= 1.99"

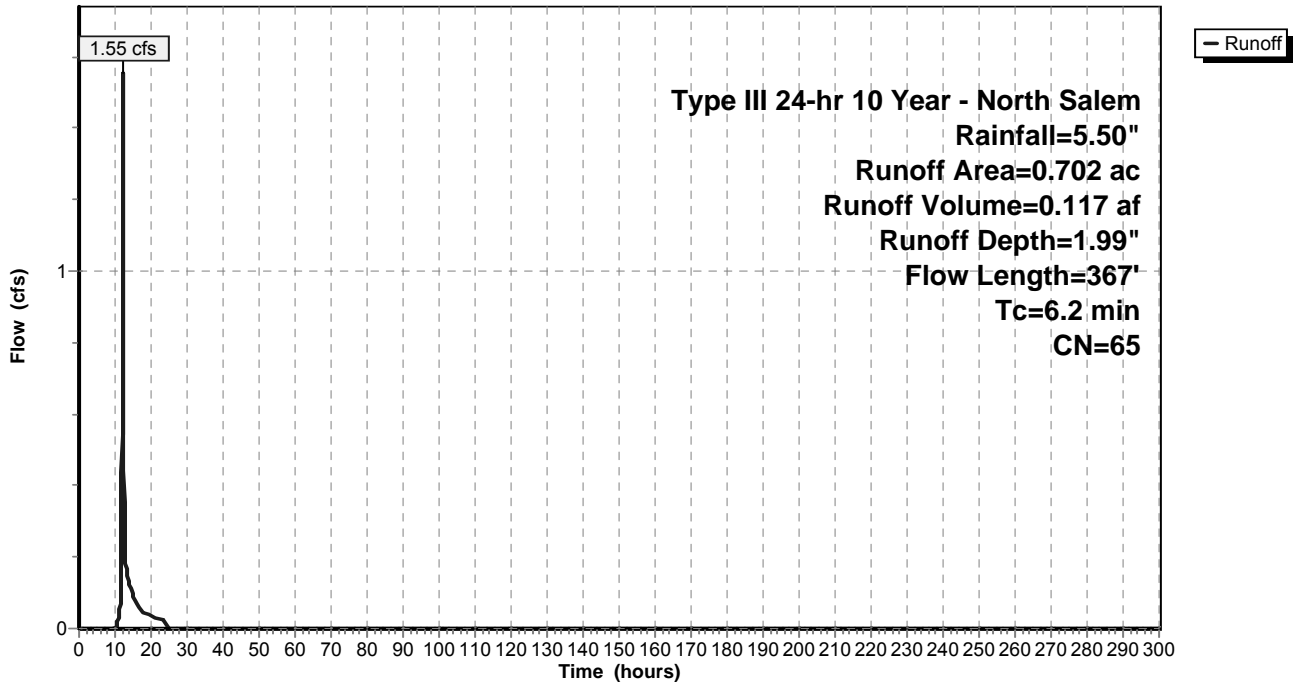
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a

Hydrograph



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 4.27 cfs @ 12.11 hrs, Volume= 0.336 af, Depth= 1.91"

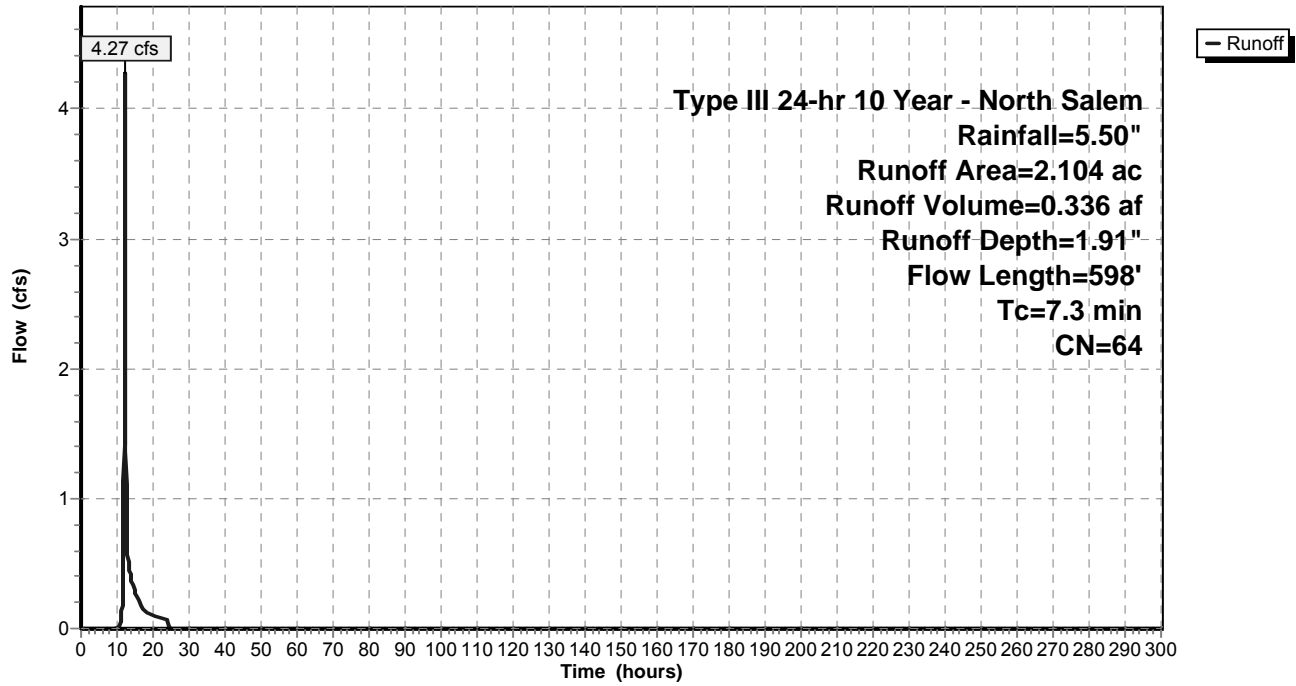
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 14.22 cfs @ 12.15 hrs, Volume= 1.199 af, Depth= 2.08"

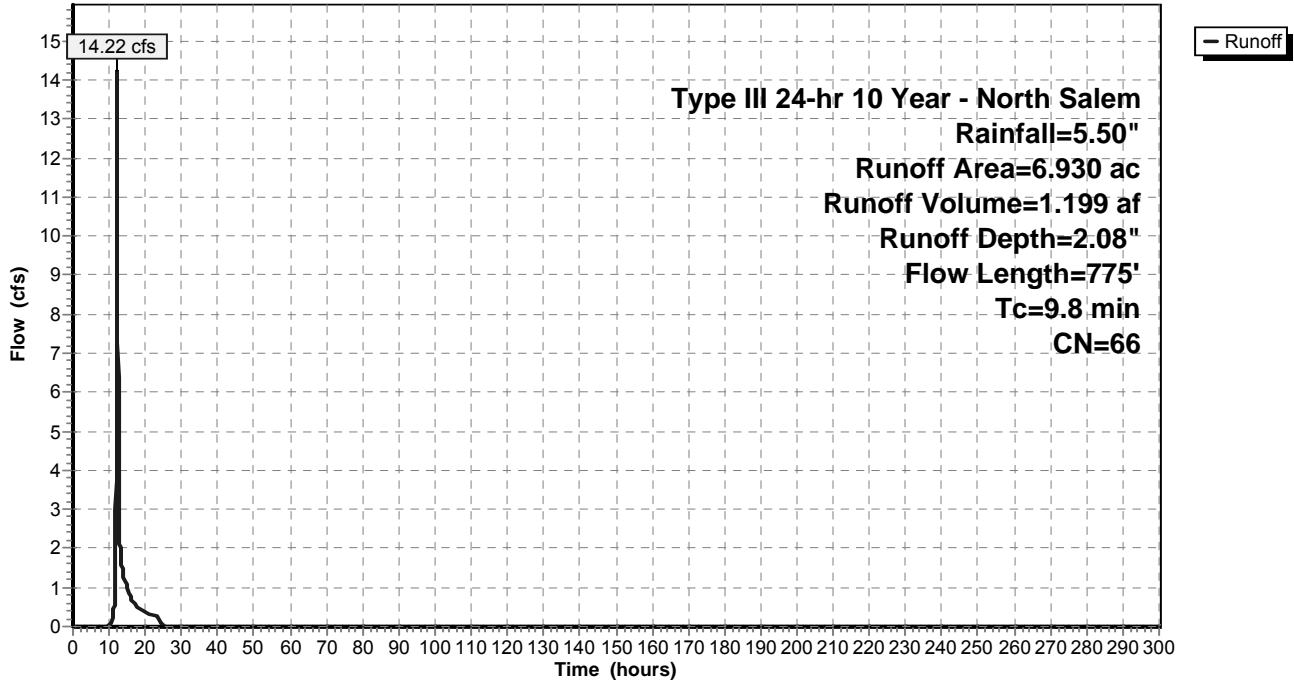
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 1.60" for 10 Year - North Salem event
 Inflow = 3.88 cfs @ 12.29 hrs, Volume= 0.438 af
 Outflow = 3.87 cfs @ 12.30 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.69 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.70 fps, Avg. Travel Time= 0.6 min

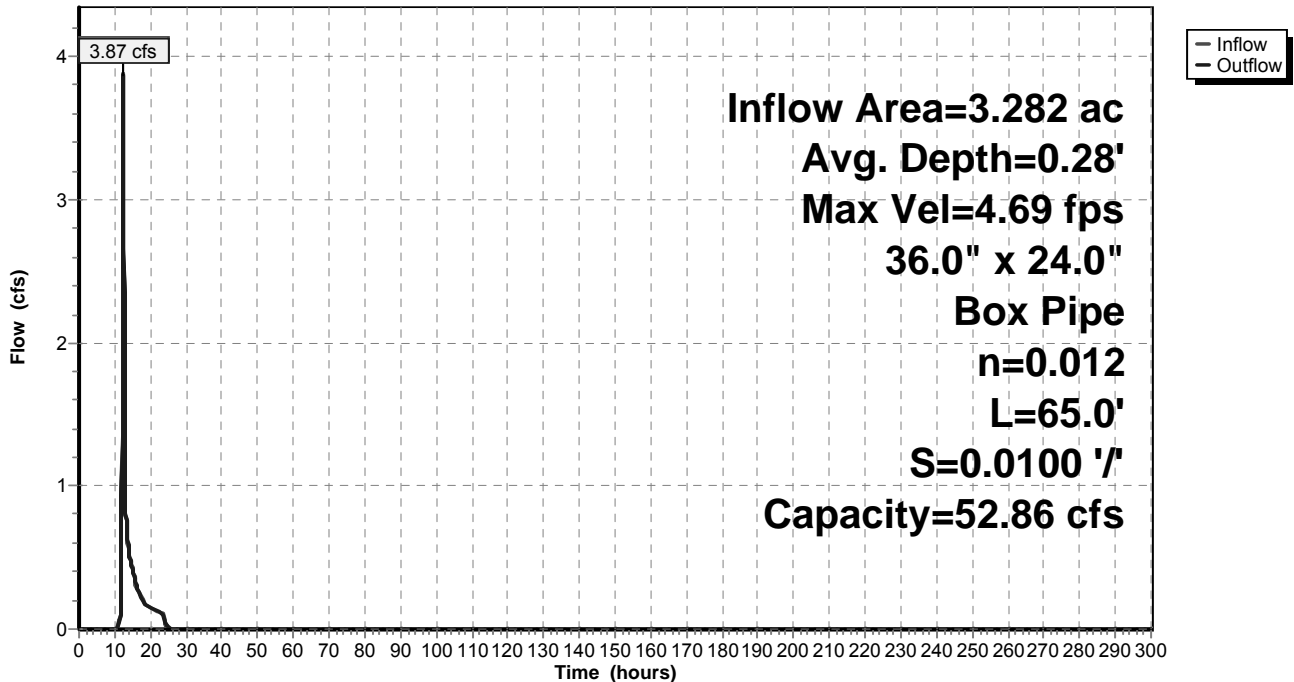
Peak Storage= 54 cf @ 12.30 hrs, Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/'
 Inlet Invert= 334.65', Outlet Invert= 334.00'

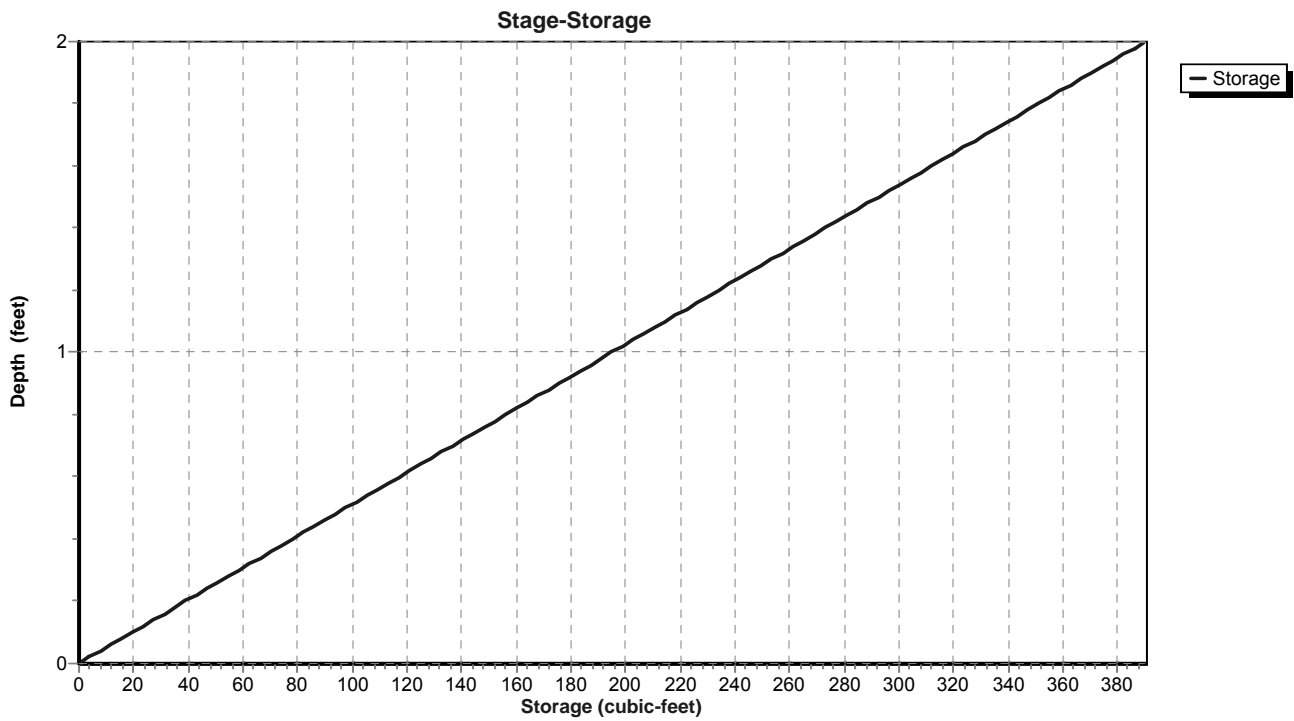


Reach 1R: Culvert

Hydrograph



Reach 1R: Culvert



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 1.45" for 10 Year - North Salem event
 Inflow = 1.96 cfs @ 12.18 hrs, Volume= 0.189 af
 Outflow = 1.37 cfs @ 12.60 hrs, Volume= 0.189 af, Atten= 30%, Lag= 25.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.90 fps, Min. Travel Time= 14.4 min
 Avg. Velocity = 0.28 fps, Avg. Travel Time= 46.4 min

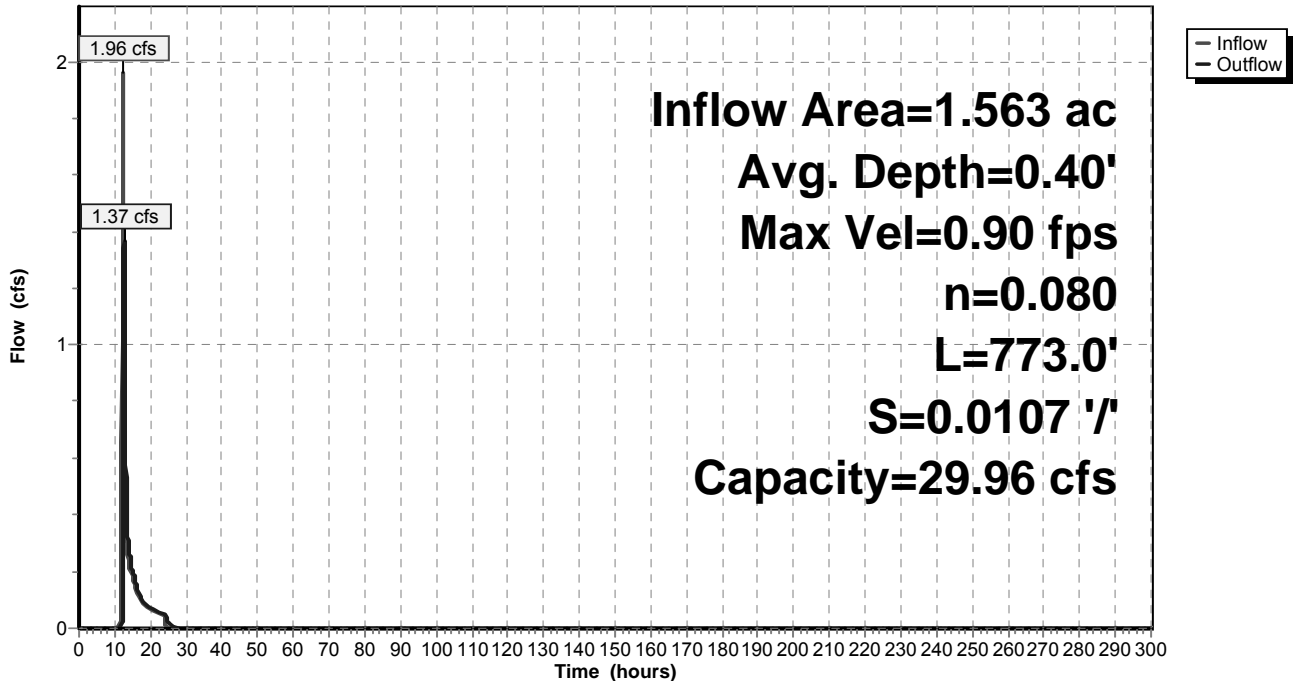
Peak Storage= 1,180 cf @ 12.36 hrs, Average Depth at Peak Storage= 0.40'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/'
 Inlet Invert= 340.00', Outlet Invert= 331.70'

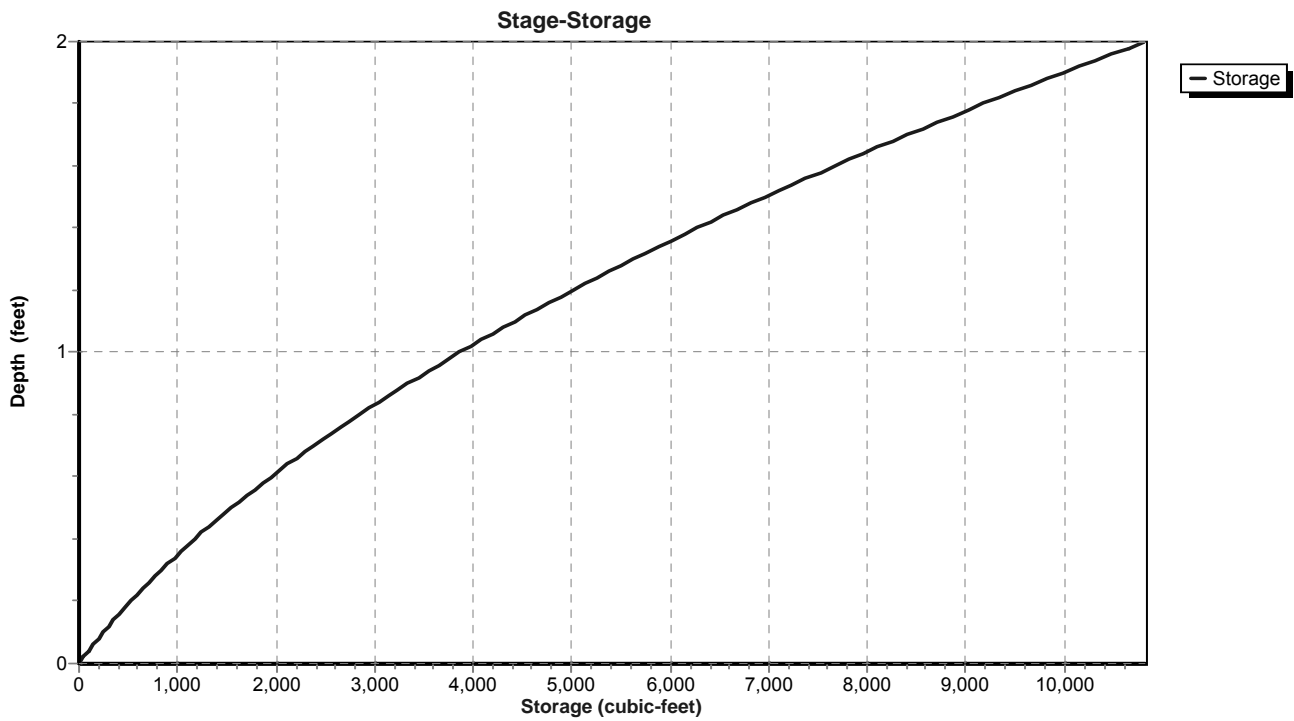


Reach A-1: Road Swale A-1

Hydrograph



Reach A-1: Road Swale A-1



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 1.60" for 10 Year - North Salem event
 Inflow = 3.87 cfs @ 12.30 hrs, Volume= 0.438 af
 Outflow = 3.73 cfs @ 12.42 hrs, Volume= 0.438 af, Atten= 4%, Lag= 7.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.97 fps, Min. Travel Time= 4.0 min
 Avg. Velocity = 0.33 fps, Avg. Travel Time= 11.5 min

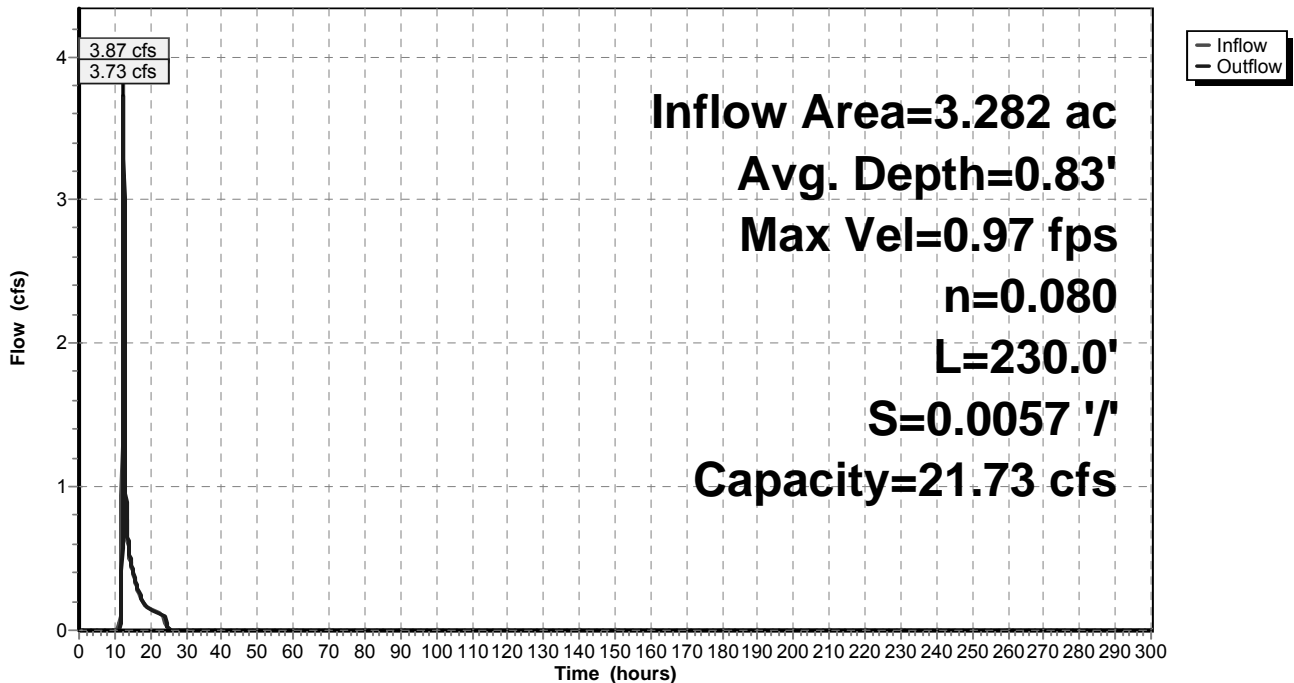
Peak Storage= 891 cf @ 12.36 hrs, Average Depth at Peak Storage= 0.83'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 ' / ' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 ' / '
 Inlet Invert= 333.00', Outlet Invert= 331.70'

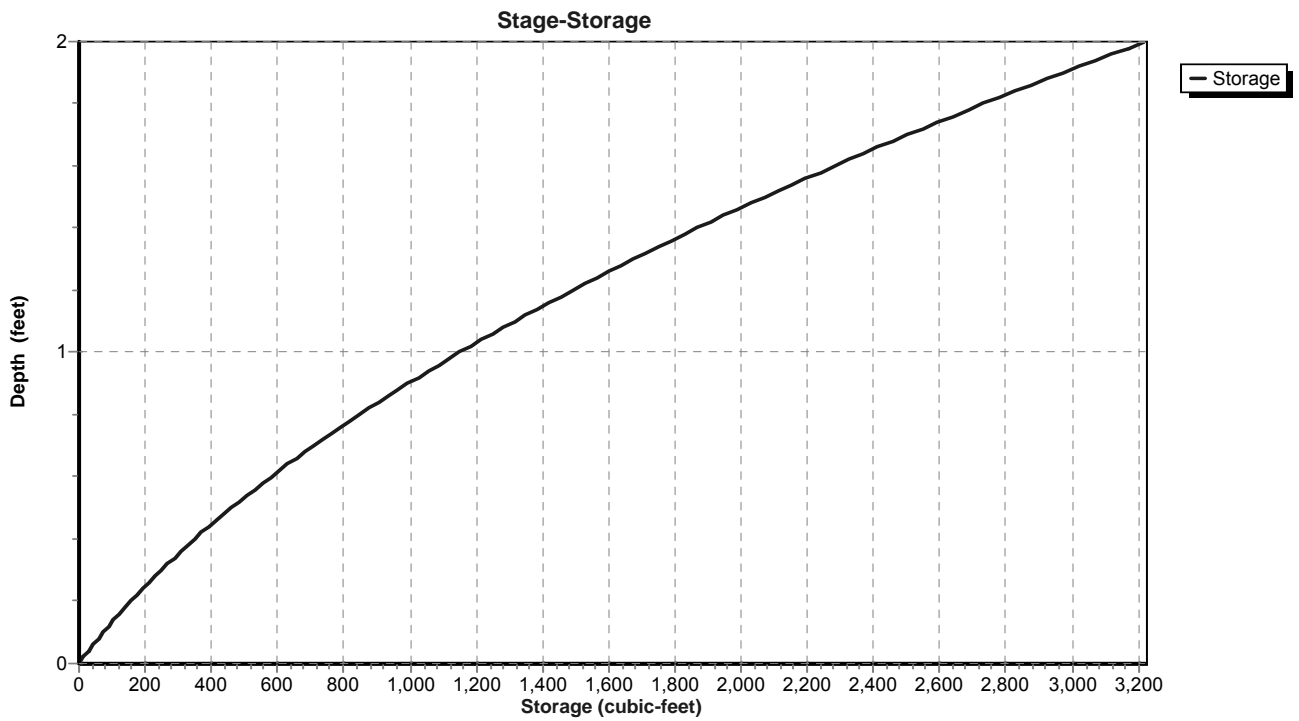


Reach A-2: Road Swale A-2

Hydrograph



Reach A-2: Road Swale A-2



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

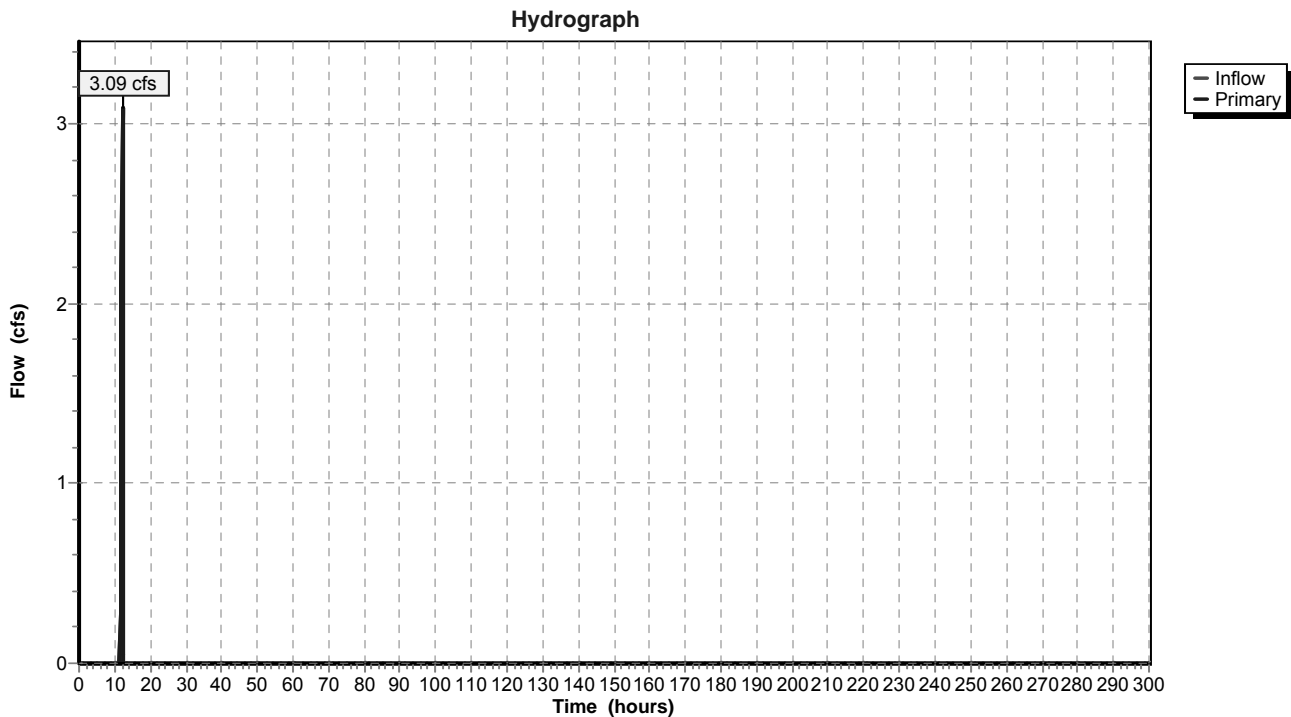
Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

[40] Hint: Not Described (Outflow=Inflow)

Inflow = 3.09 cfs @ 12.11 hrs, Volume= 0.064 af
Primary = 3.09 cfs @ 12.11 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1



Summary for Pond DP 1A: Design Point 1A

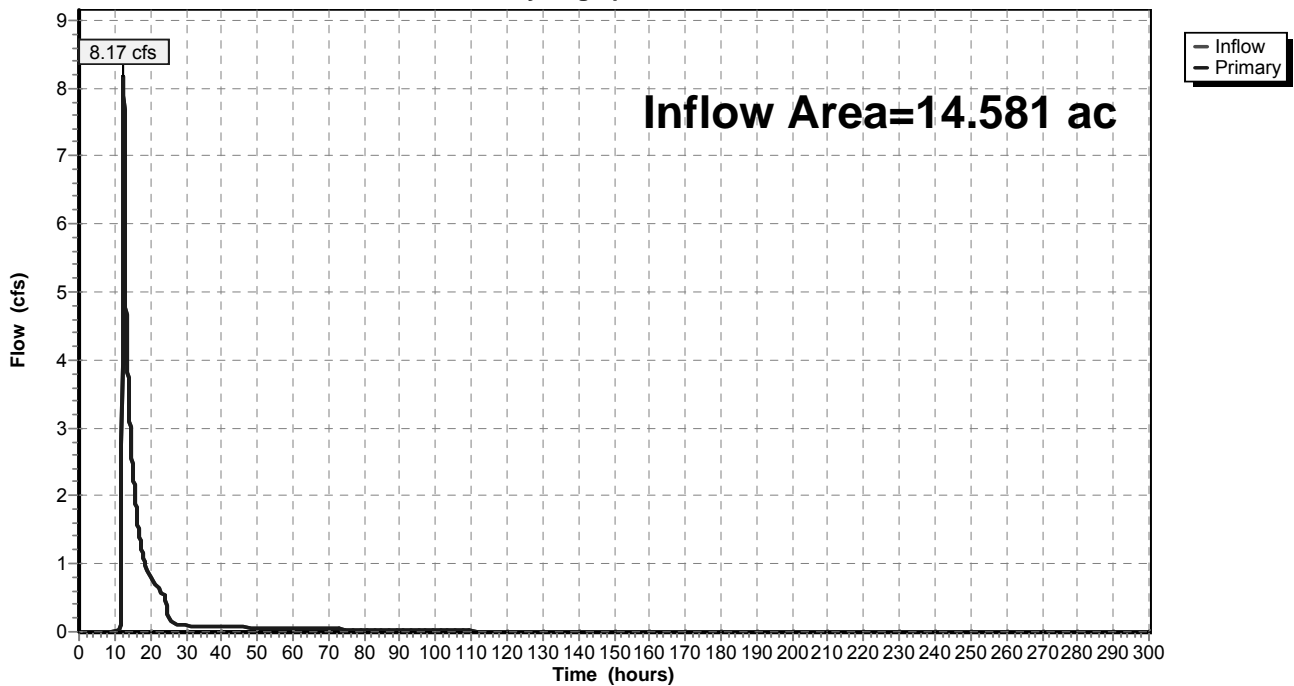
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 1.88" for 10 Year - North Salem event
Inflow = 8.17 cfs @ 12.46 hrs, Volume= 2.279 af
Primary = 8.17 cfs @ 12.46 hrs, Volume= 2.279 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 2.08" for 10 Year - North Salem event
 Inflow = 14.22 cfs @ 12.15 hrs, Volume= 1.199 af
 Outflow = 3.22 cfs @ 12.65 hrs, Volume= 1.199 af, Atten= 77%, Lag= 30.1 min
 Primary = 3.22 cfs @ 12.65 hrs, Volume= 1.199 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 365.51' @ 12.65 hrs Surf.Area= 11,460 sf Storage= 24,937 cf (20,730 cf above start)

Plug-Flow detention time= 772.4 min calculated for 1.103 af (92% of inflow)
 Center-of-Mass det. time= 663.7 min (1,519.8 - 856.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

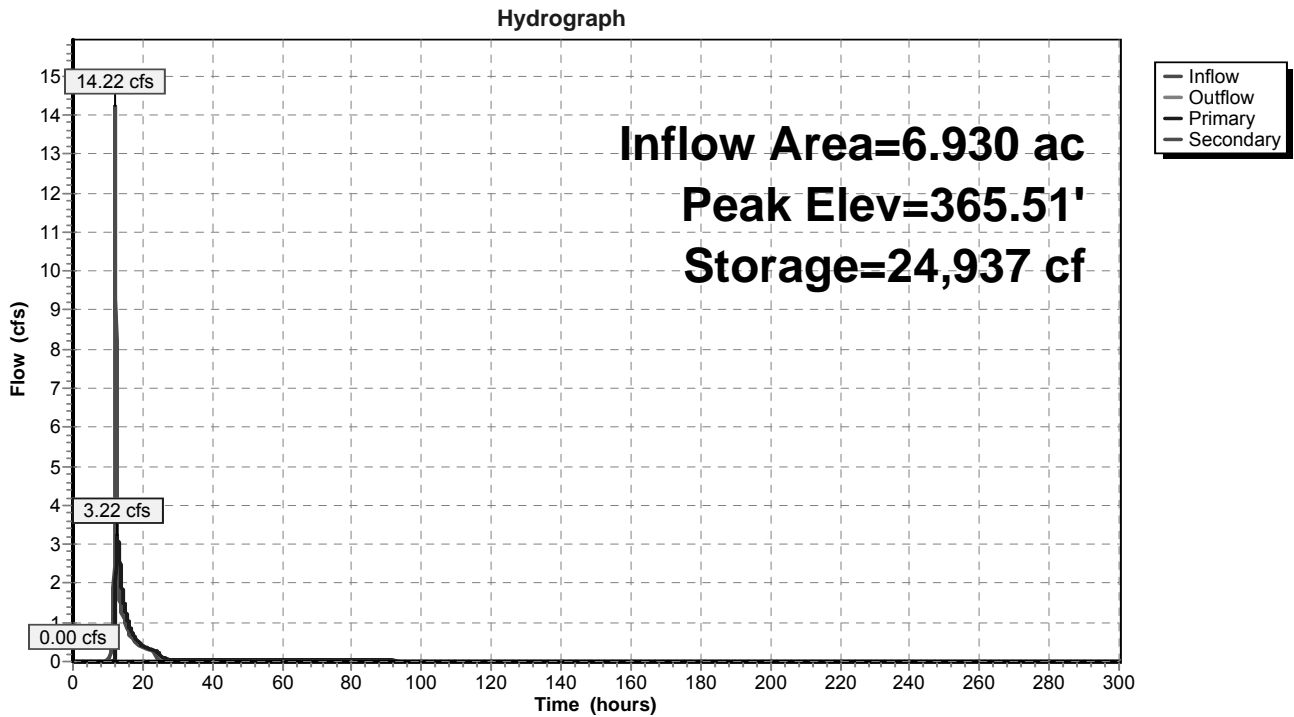
Primary OutFlow Max=3.22 cfs @ 12.65 hrs HW=365.51' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 3.22 cfs of 35.86 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.07 cfs @ 3.02 fps)
- ↑ 3=Orifice #1 (Orifice Controls 3.15 cfs @ 3.88 fps)
- ↑ 4=Orifice #2 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

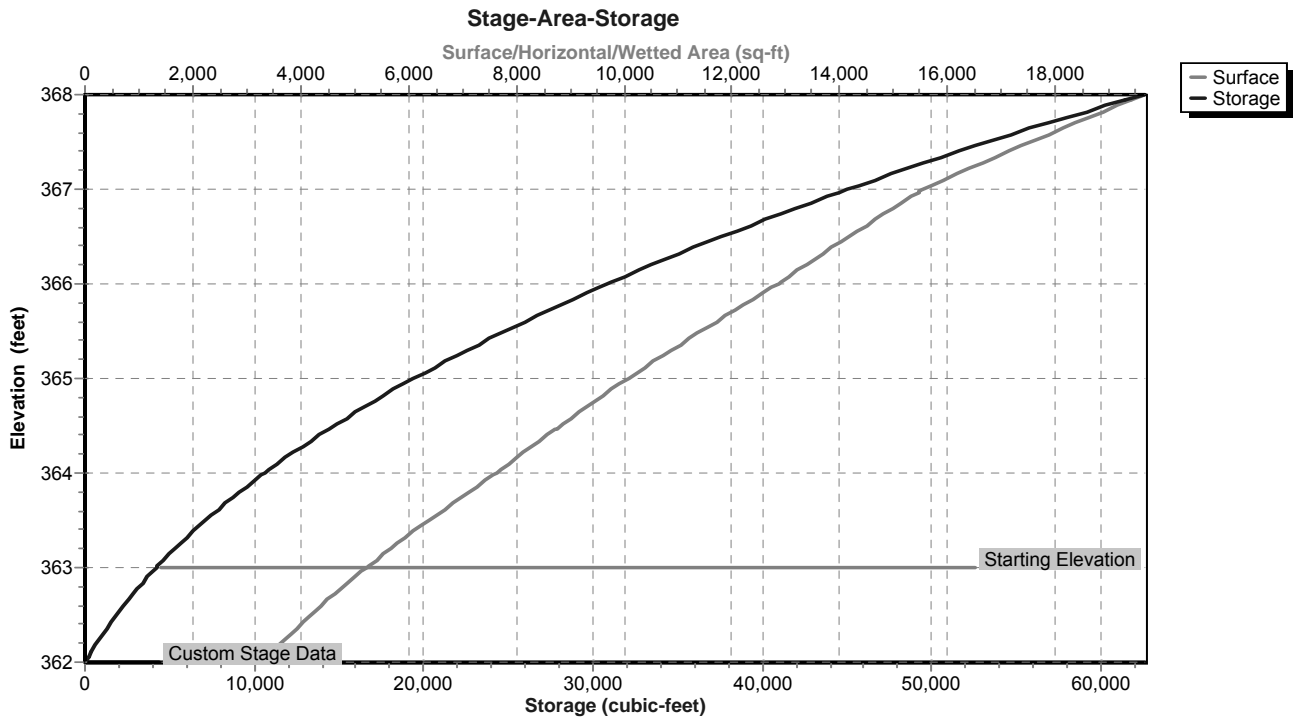
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-A4: Micropool ED Basin (Basin A4)



Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 1.99" for 10 Year - North Salem event
 Inflow = 1.55 cfs @ 12.10 hrs, Volume= 0.117 af
 Outflow = 1.55 cfs @ 12.10 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.96 cfs @ 12.10 hrs, Volume= 0.106 af
 Secondary = 0.59 cfs @ 12.10 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.85' @ 12.10 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.97 cfs @ 12.10 hrs HW=339.85' (Free Discharge)

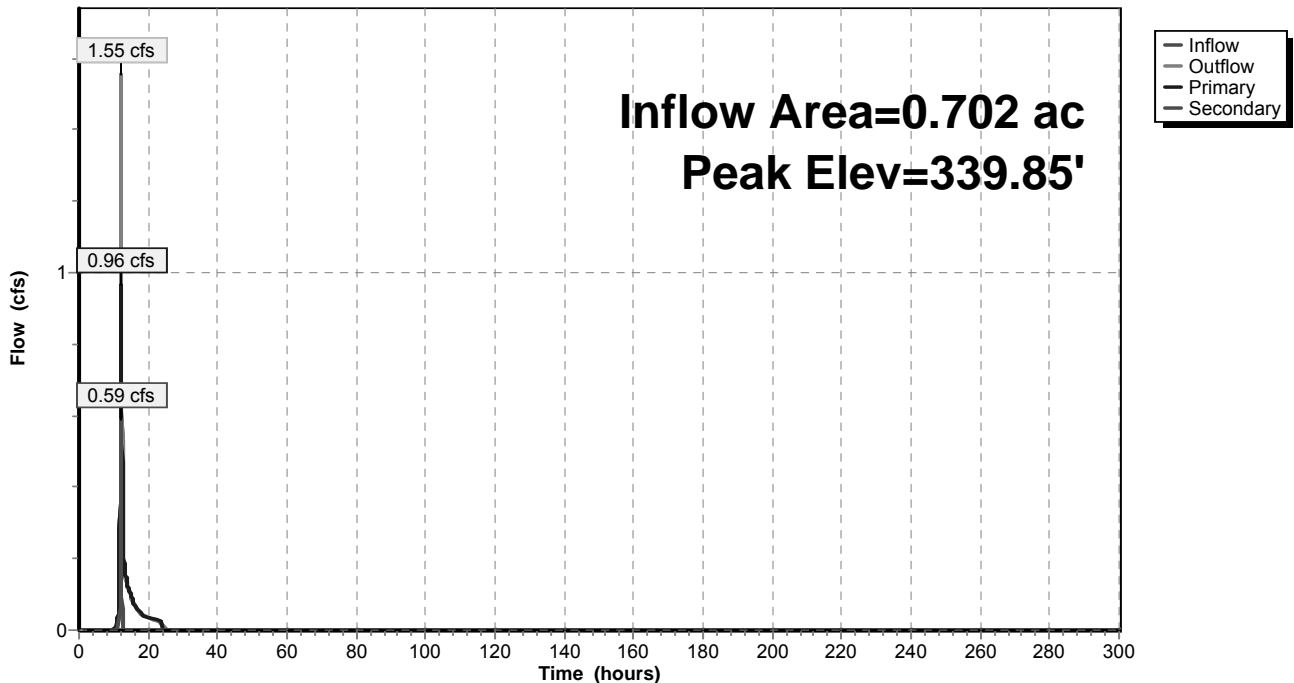
↑1=Outlet to Sand Filter (Barrel Controls 0.97 cfs @ 3.36 fps)

Secondary OutFlow Max=0.55 cfs @ 12.10 hrs HW=339.85' (Free Discharge)

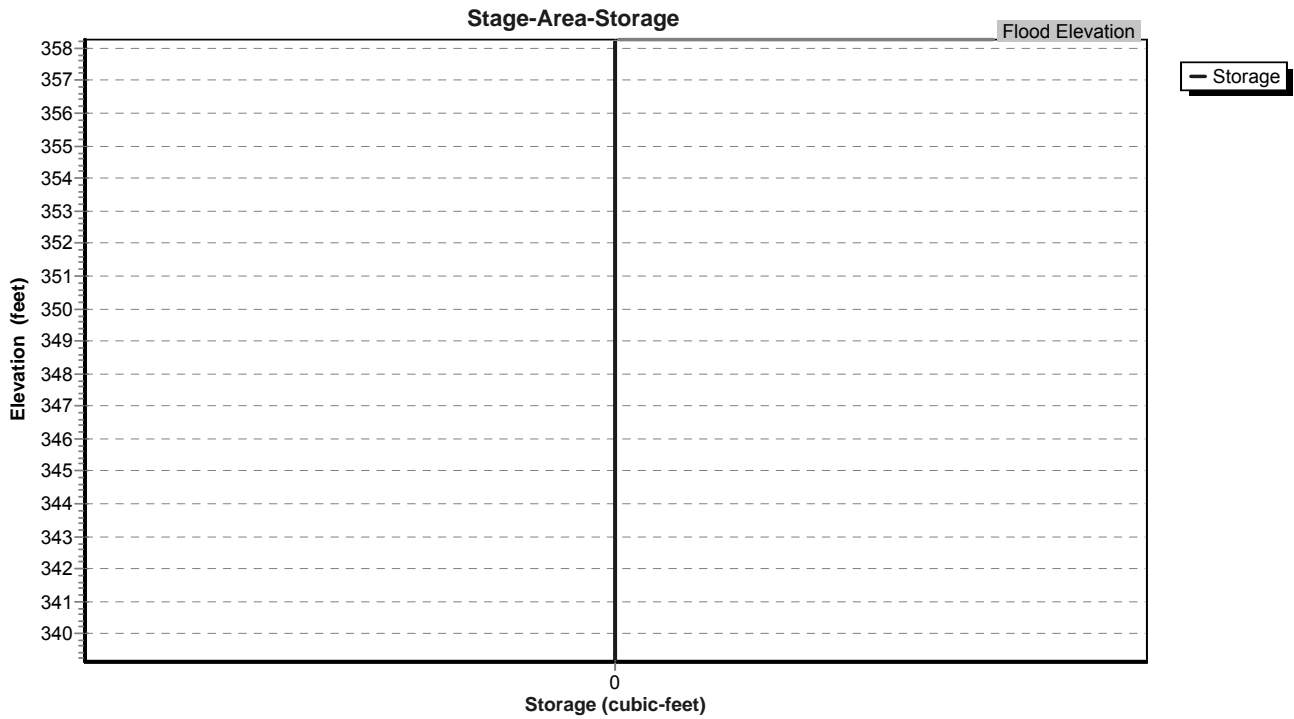
↑2=Outlet to DP (Inlet Controls 0.55 cfs @ 2.00 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Pond FS A3a: Flow Splitter A3a



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 1.91" for 10 Year - North Salem event
 Inflow = 4.27 cfs @ 12.11 hrs, Volume= 0.336 af
 Outflow = 4.27 cfs @ 12.11 hrs, Volume= 0.336 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.77 cfs @ 12.11 hrs, Volume= 0.283 af
 Secondary = 2.51 cfs @ 12.11 hrs, Volume= 0.053 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 352.60' @ 12.11 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.75 cfs @ 12.11 hrs HW=352.58' (Free Discharge)

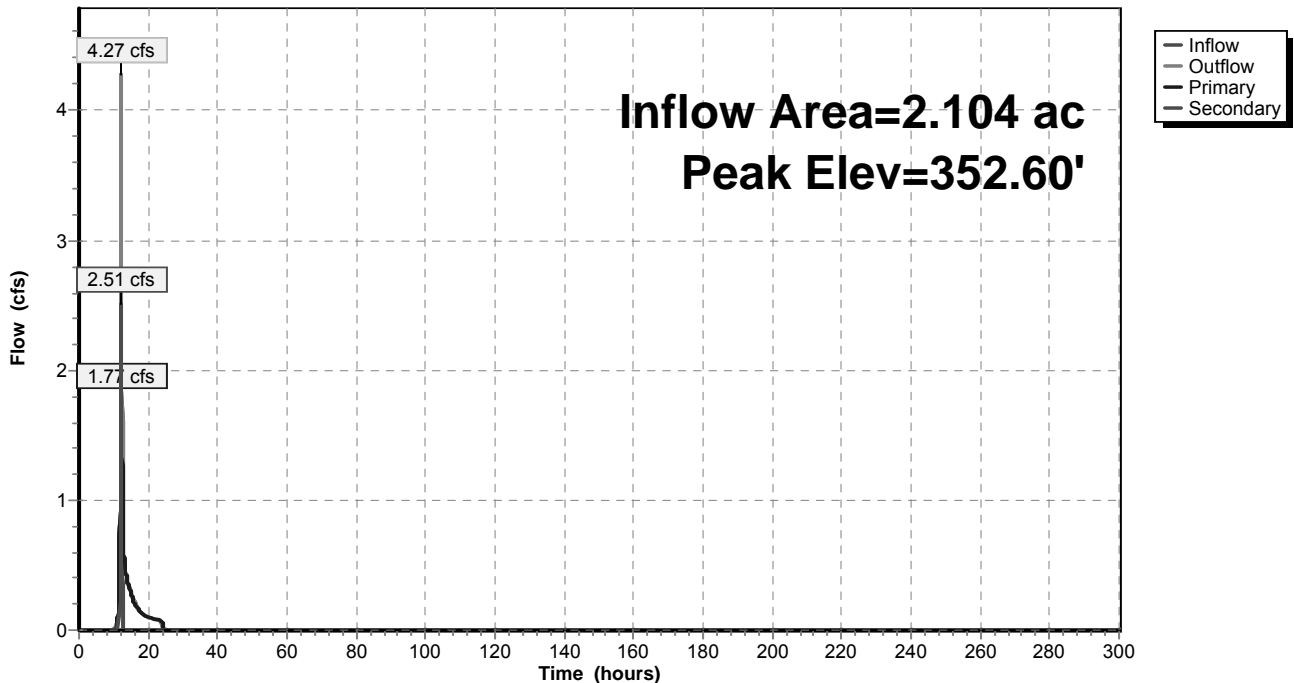
↑1=Outlet to Sand Filter (Inlet Controls 1.75 cfs @ 5.01 fps)

Secondary OutFlow Max=2.40 cfs @ 12.11 hrs HW=352.58' (Free Discharge)

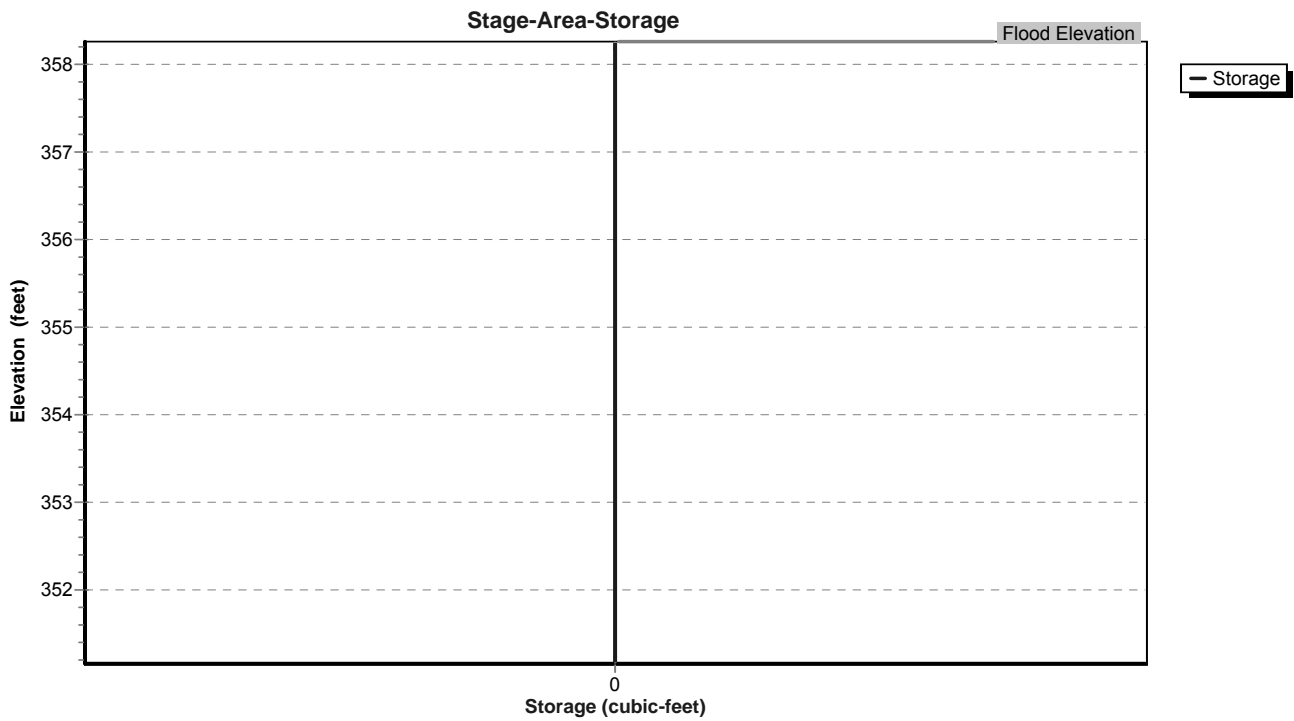
↑2=Outlet to DP (Inlet Controls 2.40 cfs @ 3.00 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Pond FS A3b: Flow Splitter A3b



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

[79] Warning: Submerged Pond SFF-A3a Primary device # 1 OUTLET by 0.04'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 1.81" for 10 Year - North Salem event
 Inflow = 0.91 cfs @ 12.17 hrs, Volume= 0.106 af
 Outflow = 0.36 cfs @ 12.71 hrs, Volume= 0.106 af, Atten= 60%, Lag= 32.5 min
 Primary = 0.36 cfs @ 12.71 hrs, Volume= 0.106 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 336.94' @ 12.71 hrs Surf.Area= 959 sf Storage= 1,329 cf

Plug-Flow detention time= 448.1 min calculated for 0.106 af (100% of inflow)
 Center-of-Mass det. time= 447.4 min (1,338.2 - 890.8)

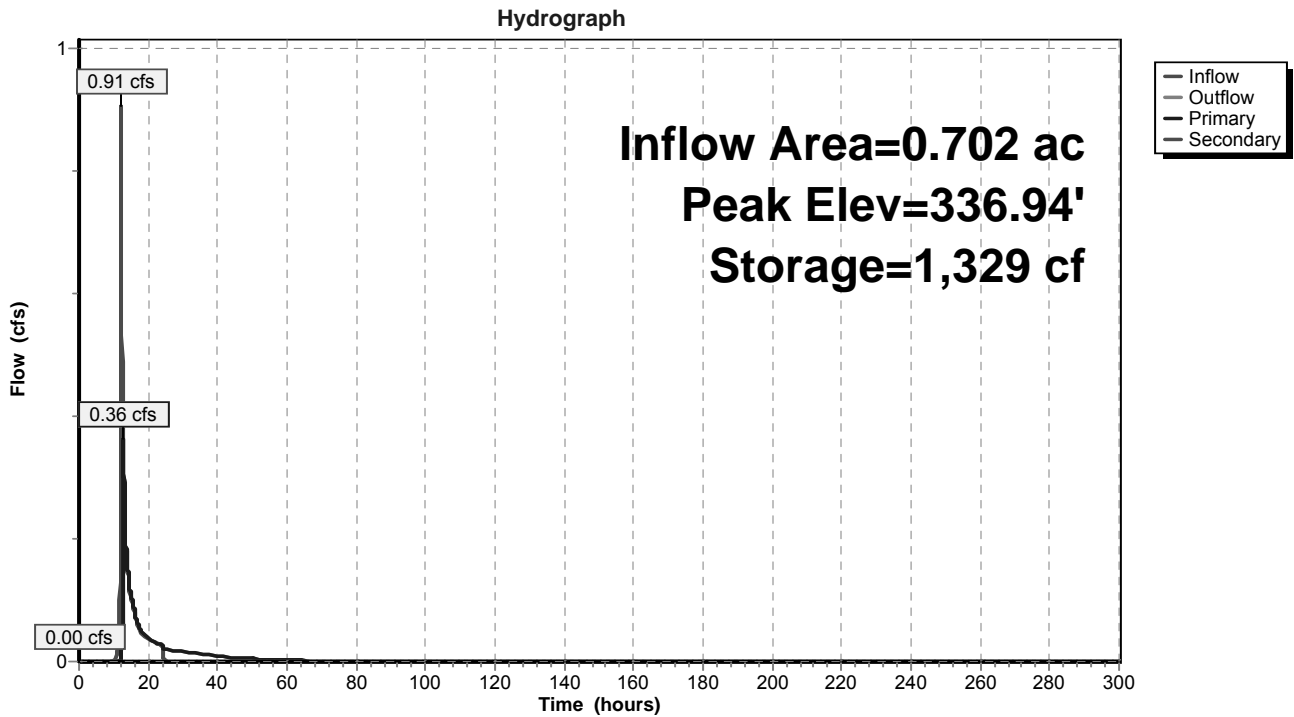
Volume	Invert	Avail.Storage	Storage Description		
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
335.00	432	111.0	0	0	432
336.00	693	141.0	557	557	1,047
338.00	1,313	168.0	1,973	2,531	1,779

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

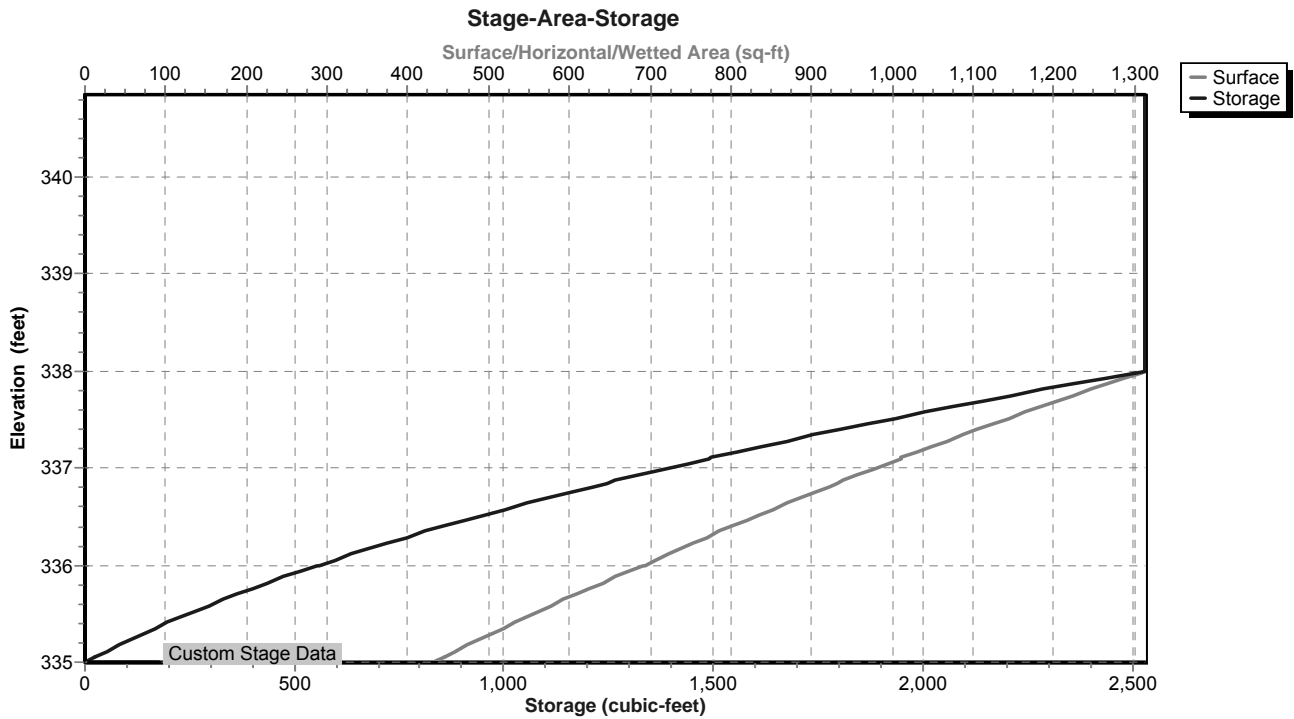
Primary OutFlow Max=0.36 cfs @ 12.71 hrs HW=336.94' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 0.36 cfs of 6.62 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.02 cfs)
 ↑ 3=Top of Outlet Box (Orifice Controls 0.33 cfs @ 0.95 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3a: Sand Filter - A3a



Pond SF-A3a: Sand Filter - A3a



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 1.61" for 10 Year - North Salem event
 Inflow = 1.36 cfs @ 12.39 hrs, Volume= 0.283 af
 Outflow = 0.46 cfs @ 14.01 hrs, Volume= 0.283 af, Atten= 66%, Lag= 96.7 min
 Primary = 0.46 cfs @ 14.01 hrs, Volume= 0.283 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 344.26' @ 14.01 hrs Surf.Area= 2,015 sf Storage= 3,719 cf

Plug-Flow detention time= 759.2 min calculated for 0.283 af (100% of inflow)
 Center-of-Mass det. time= 761.4 min (1,715.2 - 953.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

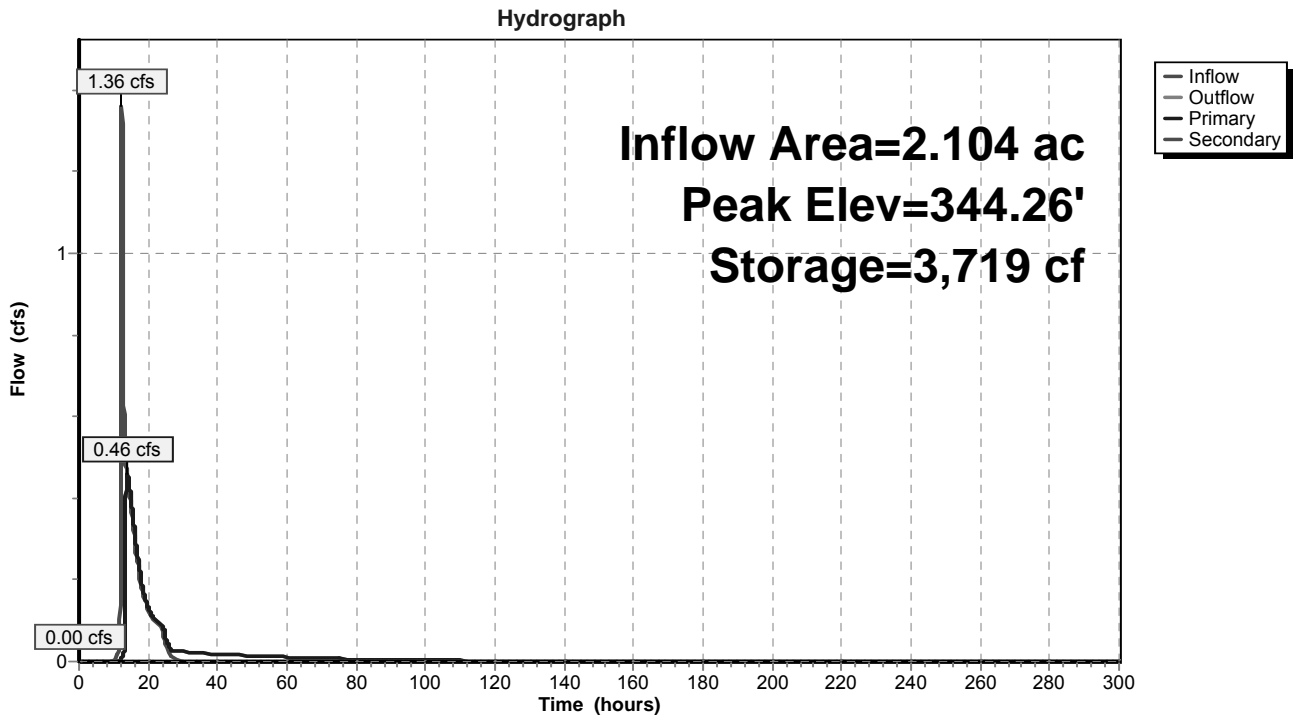
Primary OutFlow Max=0.46 cfs @ 14.01 hrs HW=344.26' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.46 cfs of 6.89 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.43 cfs @ 1.64 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

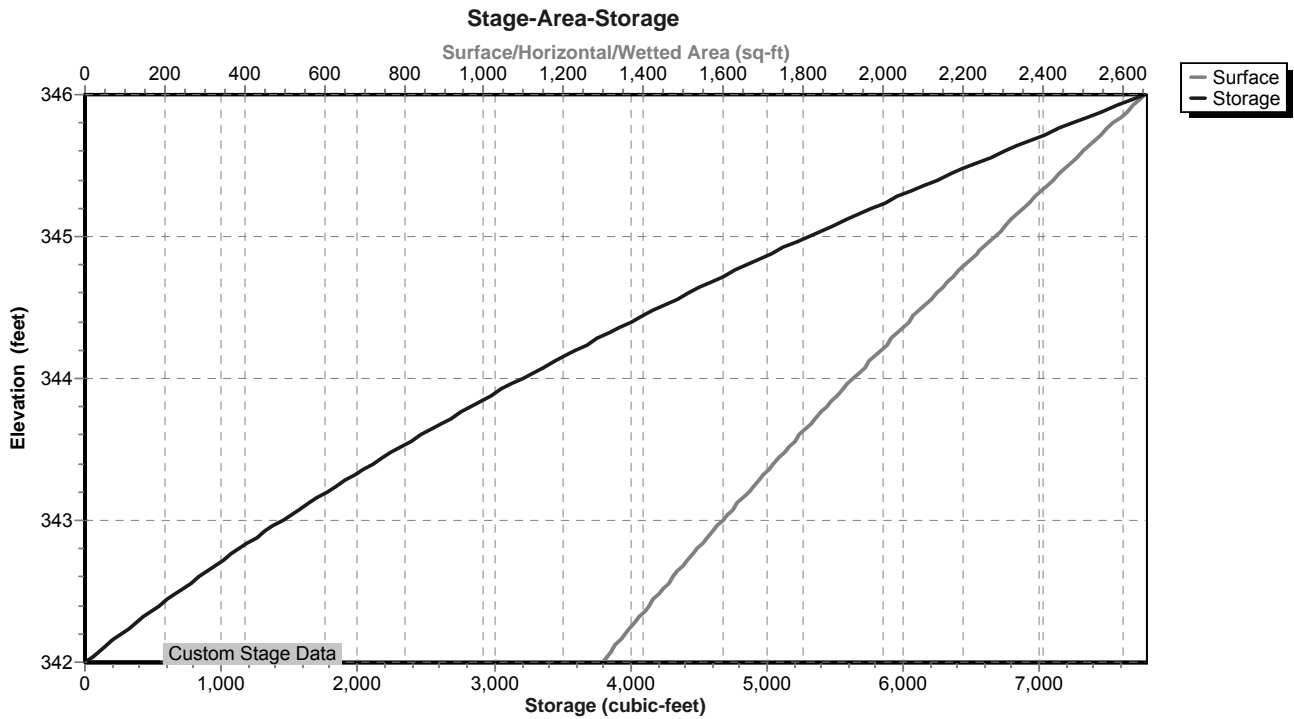
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3b: Sand Filter - A3b



Pond SF-A3b: Sand Filter - A3b



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 1.81" for 10 Year - North Salem event
 Inflow = 0.96 cfs @ 12.10 hrs, Volume= 0.106 af
 Outflow = 0.91 cfs @ 12.17 hrs, Volume= 0.106 af, Atten= 6%, Lag= 4.1 min
 Primary = 0.91 cfs @ 12.17 hrs, Volume= 0.106 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.80' @ 12.15 hrs Surf.Area= 457 sf Storage= 582 cf

Plug-Flow detention time= 22.3 min calculated for 0.106 af (100% of inflow)
 Center-of-Mass det. time= 22.3 min (890.8 - 868.4)

Volume	Invert	Avail.Storage	Storage Description			
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
337.00	200	57.0	0	0	200	
338.00	336	71.0	265	265	356	
339.00	490	83.0	411	676	522	
340.00	670	96.0	578	1,253	728	

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

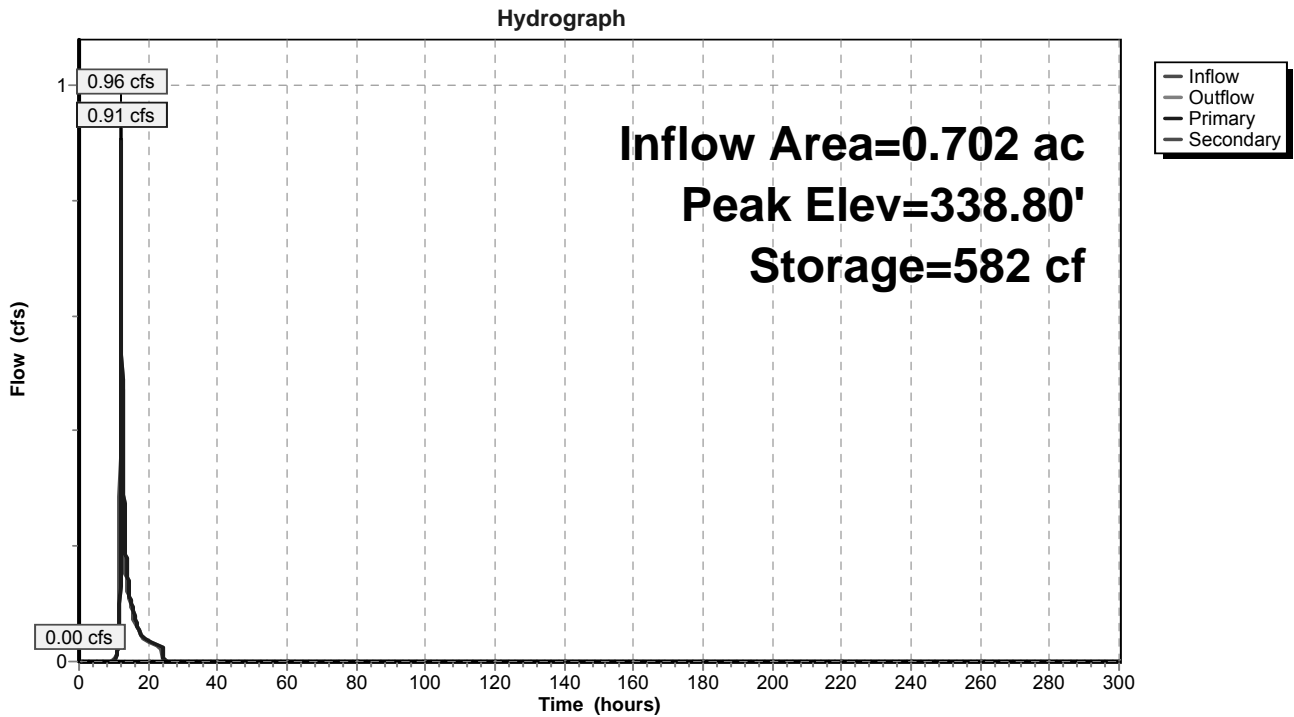
Primary OutFlow Max=0.84 cfs @ 12.17 hrs HW=338.80' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.84 cfs of 6.21 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.42 cfs @ 4.33 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.12 cfs @ 0.73 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.30 cfs @ 0.73 fps)

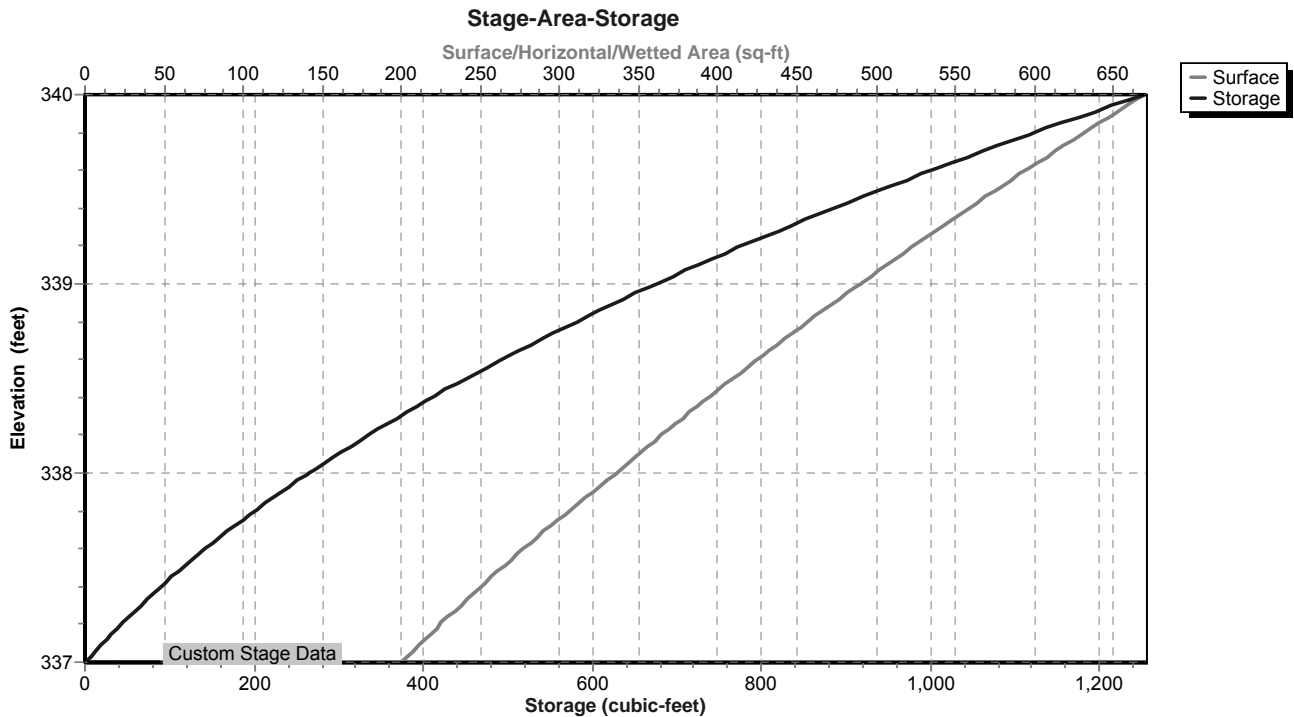
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3a: Sand Filter Forebay - A3a



Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 1.61" for 10 Year - North Salem event
 Inflow = 1.77 cfs @ 12.11 hrs, Volume= 0.283 af
 Outflow = 1.36 cfs @ 12.39 hrs, Volume= 0.283 af, Atten= 23%, Lag= 16.8 min
 Primary = 1.36 cfs @ 12.39 hrs, Volume= 0.283 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 350.12' @ 12.39 hrs Surf.Area= 1,664 sf Storage= 2,447 cf

Plug-Flow detention time= 71.2 min calculated for 0.283 af (100% of inflow)
 Center-of-Mass det. time= 71.0 min (953.8 - 882.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

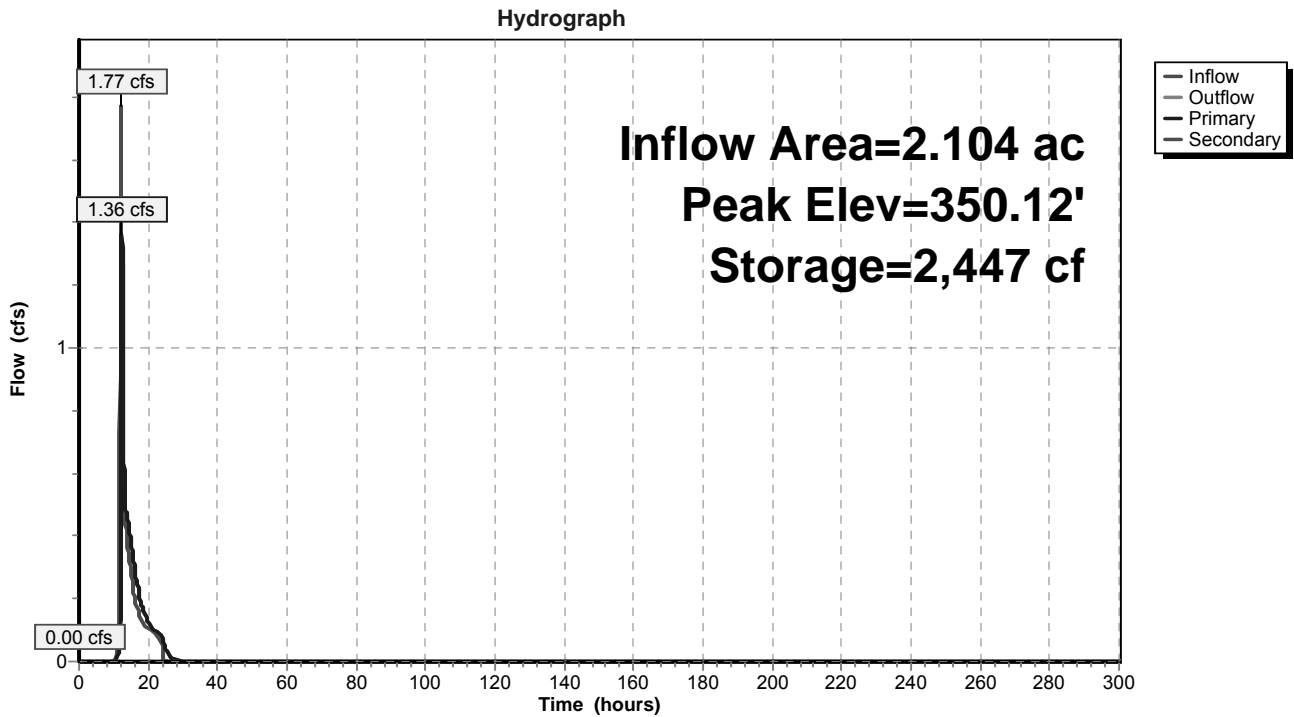
Primary OutFlow Max=1.36 cfs @ 12.39 hrs HW=350.12' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.36 cfs of 7.23 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.51 cfs @ 5.21 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.44 cfs @ 1.14 fps)
- ↑ 4=Orifice #1 (Orifice Controls 0.41 cfs @ 1.12 fps)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

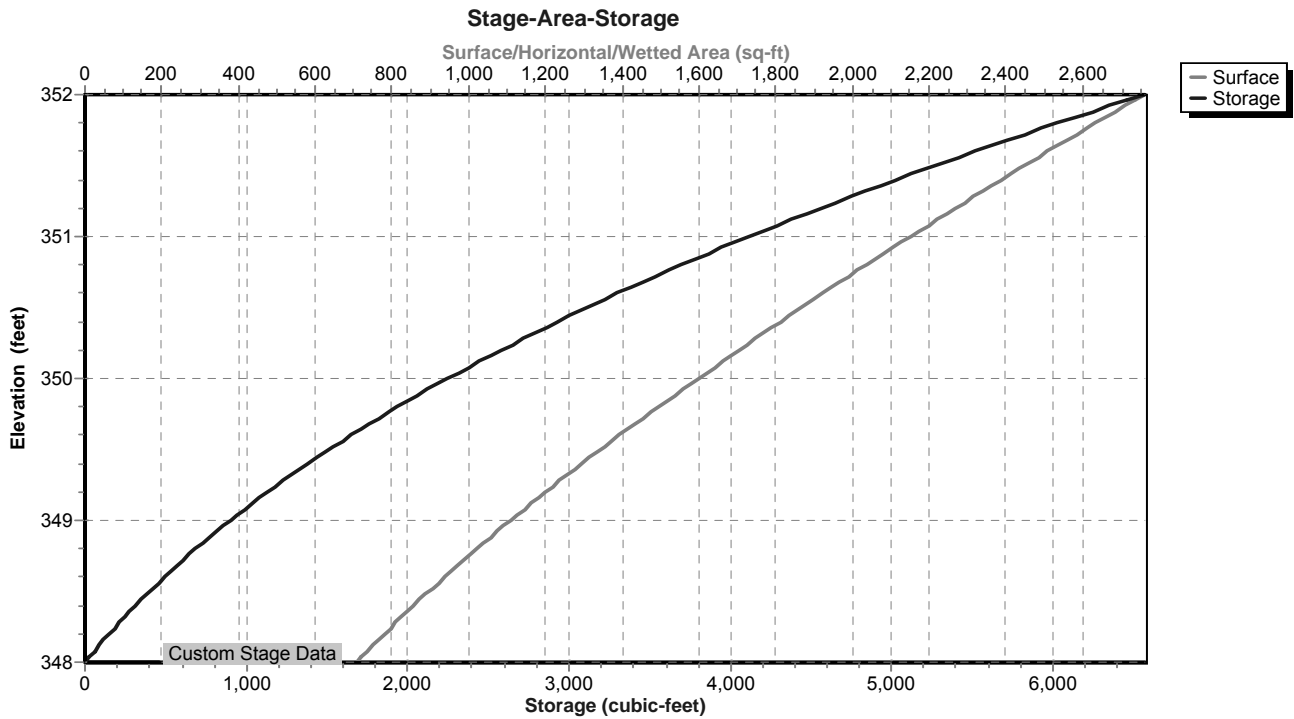
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- ↑ 6=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3b: Sand Filter Forebay - A3b



Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
 Runoff by SCS TR-20 method, UH=SCS
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=2.41"
 Flow Length=649' Tc=11.3 min CN=58 Runoff=3.51 cfs 0.314 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=2.60"
 Flow Length=724' Tc=19.0 min CN=60 Runoff=6.62 cfs 0.712 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=3.10"
 Flow Length=367' Tc=6.2 min CN=65 Runoff=2.47 cfs 0.181 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=3.00"
 Flow Length=598' Tc=7.3 min CN=64 Runoff=6.90 cfs 0.526 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=3.20"
 Flow Length=775' Tc=9.8 min CN=66 Runoff=22.42 cfs 1.851 af

Reach 1R: Culvert Avg. Depth=0.39' Max Vel=5.66 fps Inflow=6.62 cfs 0.712 af
 36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=6.61 cfs 0.712 af

Reach A-1: Road Swale A-1 Avg. Depth=0.57' Max Vel=1.09 fps Inflow=3.51 cfs 0.314 af
 n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=2.60 cfs 0.314 af

Reach A-2: Road Swale A-2 Avg. Depth=1.10' Max Vel=1.12 fps Inflow=6.61 cfs 0.712 af
 n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=6.42 cfs 0.712 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=6.02 cfs 0.149 af
 Primary=6.02 cfs 0.149 af

Pond DP 1A: Design Point 1A Inflow=17.32 cfs 3.584 af
 Primary=17.32 cfs 3.584 af

Pond ED-A4: Micropool ED Basin (Basin) Peak Elev=366.33' Storage=35,317 cf Inflow=22.42 cfs 1.851 af
 Primary=7.12 cfs 1.851 af Secondary=0.00 cfs 0.000 af Outflow=7.12 cfs 1.851 af

Pond FS A3a: Flow Splitter A3a Peak Elev=340.03' Inflow=2.47 cfs 0.181 af
 Primary=1.22 cfs 0.155 af Secondary=1.25 cfs 0.027 af Outflow=2.47 cfs 0.181 af

Pond FS A3b: Flow Splitter A3b Peak Elev=353.08' Inflow=6.90 cfs 0.526 af
 Primary=2.11 cfs 0.404 af Secondary=4.78 cfs 0.122 af Outflow=6.90 cfs 0.526 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=337.01' Storage=1,398 cf Inflow=1.22 cfs 0.155 af
 Primary=0.84 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=0.84 cfs 0.155 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=344.42' Storage=4,049 cf Inflow=1.93 cfs 0.404 af
 Primary=0.91 cfs 0.404 af Secondary=0.00 cfs 0.000 af Outflow=0.91 cfs 0.404 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=338.83' Storage=594 cf Inflow=1.22 cfs 0.155 af
 Primary=1.22 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=1.22 cfs 0.155 af

Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=350.17' Storage=2,529 cf Inflow=2.11 cfs 0.404 af
Primary=1.93 cfs 0.404 af Secondary=0.00 cfs 0.000 af Outflow=1.93 cfs 0.404 af

Total Runoff Area = 14.581 ac Runoff Volume = 3.584 af Average Runoff Depth = 2.95"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 3.51 cfs @ 12.17 hrs, Volume= 0.314 af, Depth= 2.41"

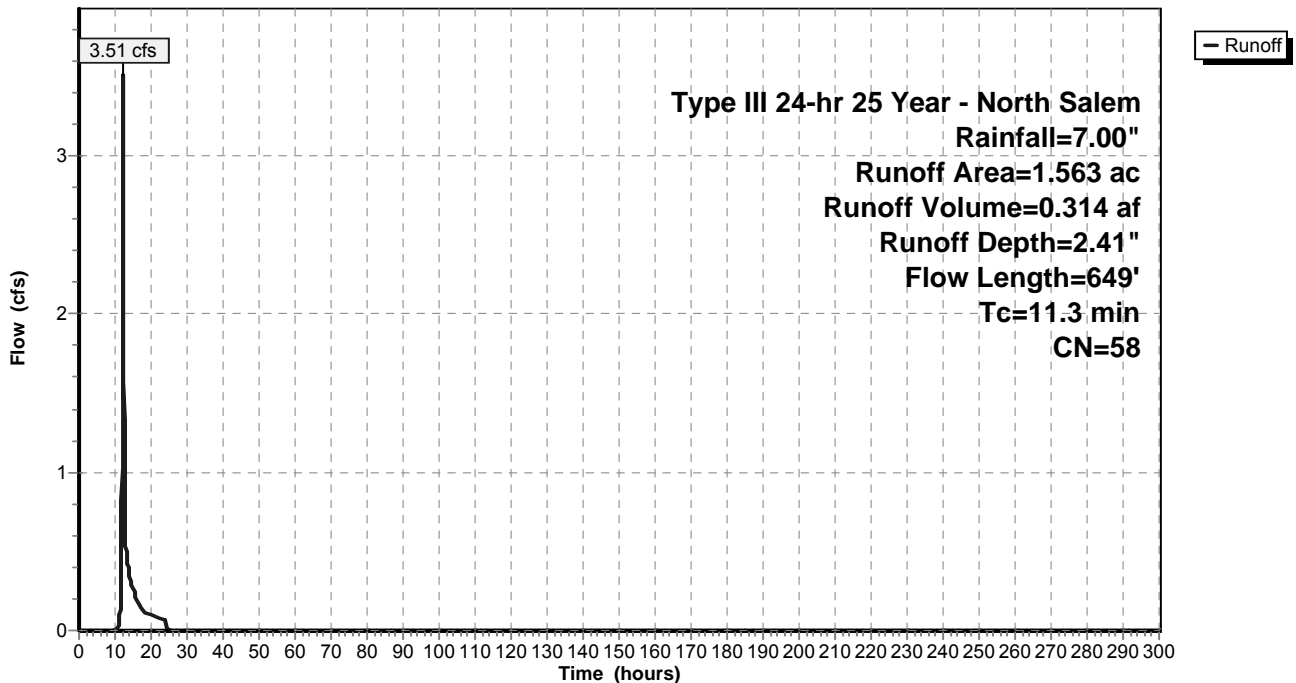
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

Runoff = 6.62 cfs @ 12.28 hrs, Volume= 0.712 af, Depth= 2.60"

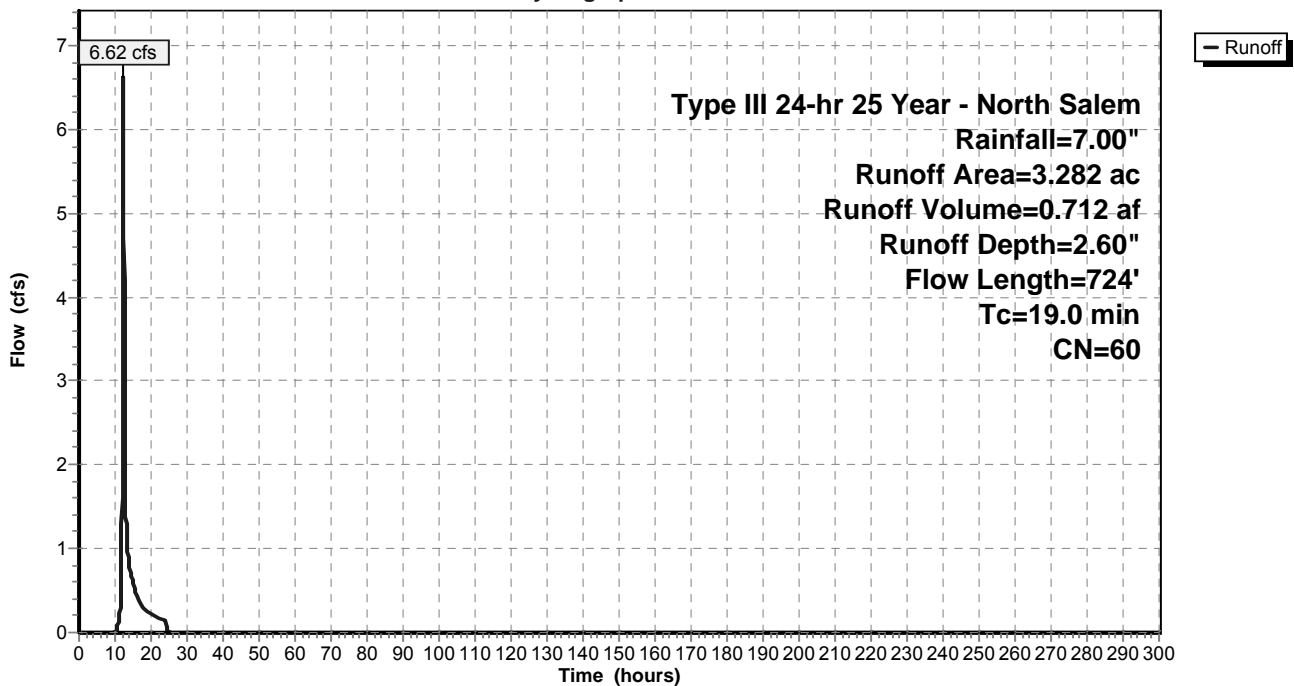
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2

Hydrograph



Summary for Subcatchment A3a: Post-Development A3a

Runoff = 2.47 cfs @ 12.10 hrs, Volume= 0.181 af, Depth= 3.10"

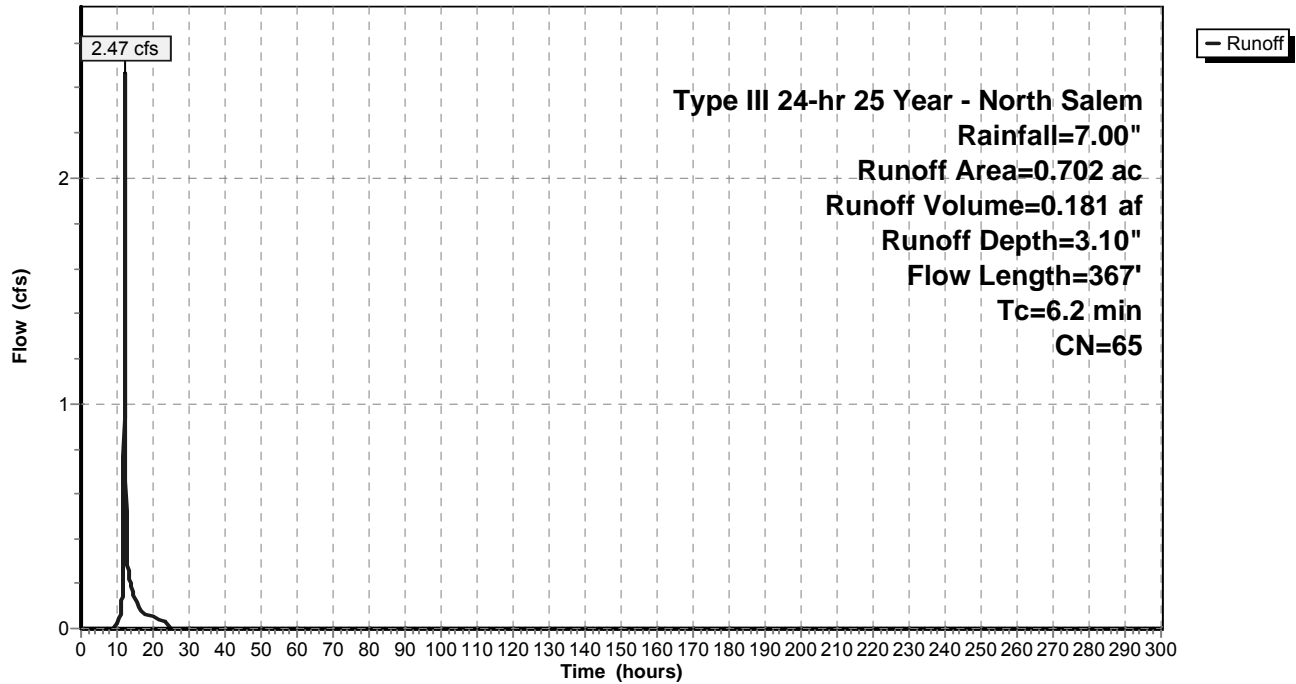
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a

Hydrograph



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 6.90 cfs @ 12.11 hrs, Volume= 0.526 af, Depth= 3.00"

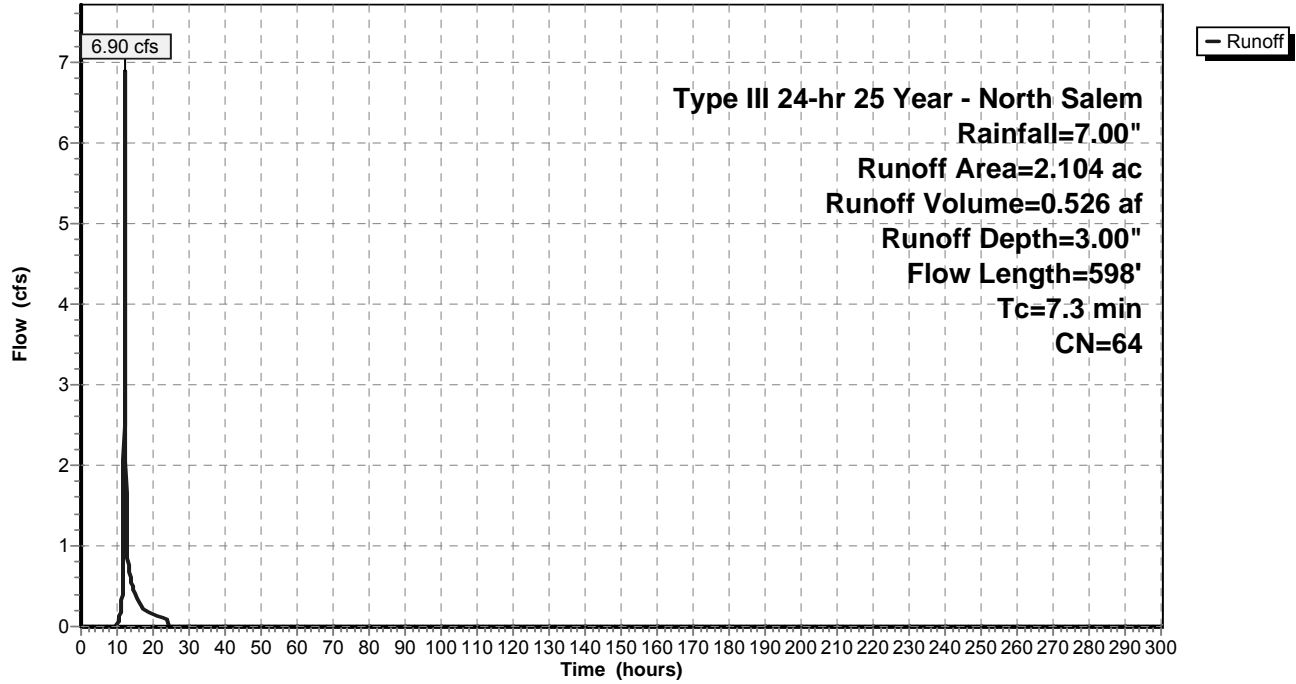
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 22.42 cfs @ 12.15 hrs, Volume= 1.851 af, Depth= 3.20"

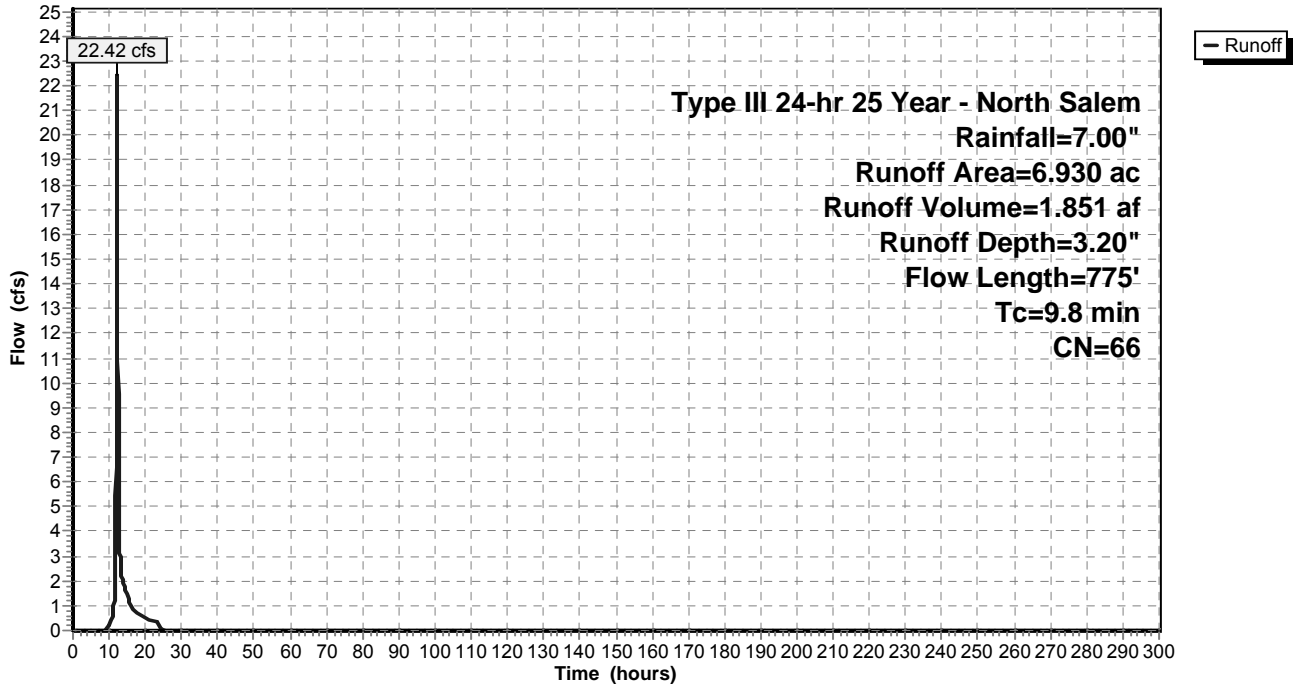
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 2.60" for 25 Year - North Salem event
 Inflow = 6.62 cfs @ 12.28 hrs, Volume= 0.712 af
 Outflow = 6.61 cfs @ 12.29 hrs, Volume= 0.712 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 5.66 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.94 fps, Avg. Travel Time= 0.6 min

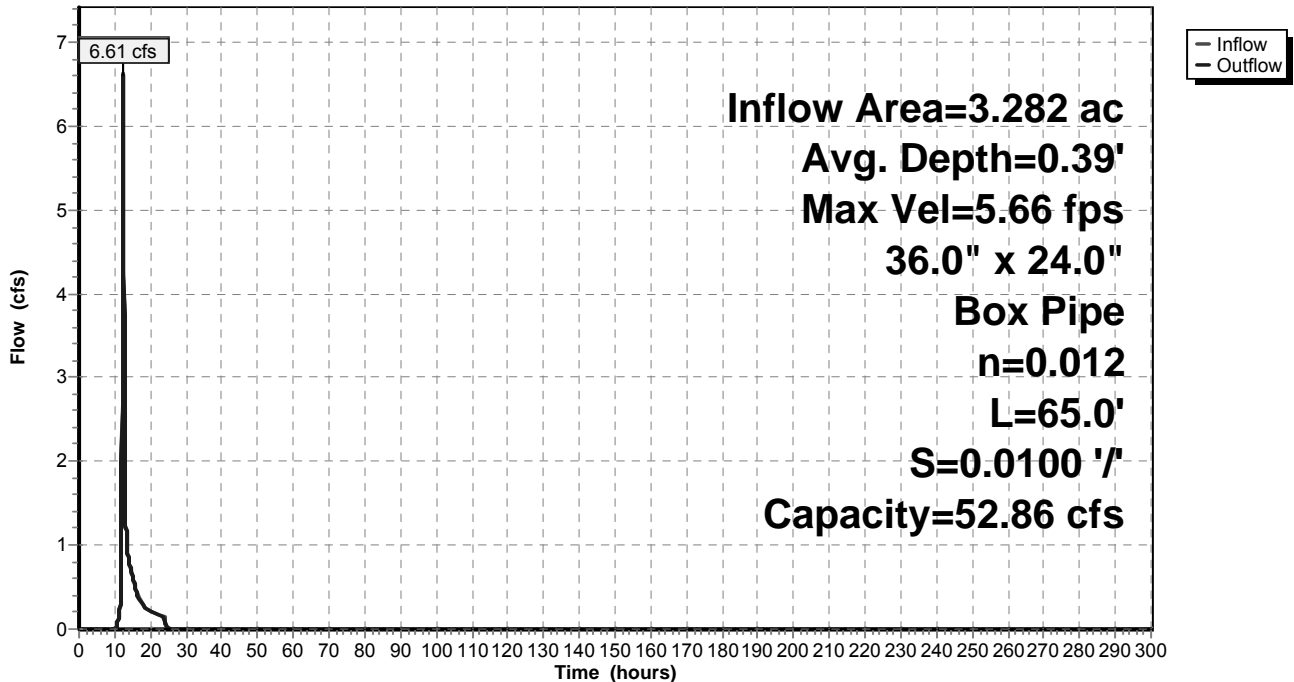
Peak Storage= 76 cf @ 12.28 hrs, Average Depth at Peak Storage= 0.39'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/'
 Inlet Invert= 334.65', Outlet Invert= 334.00'

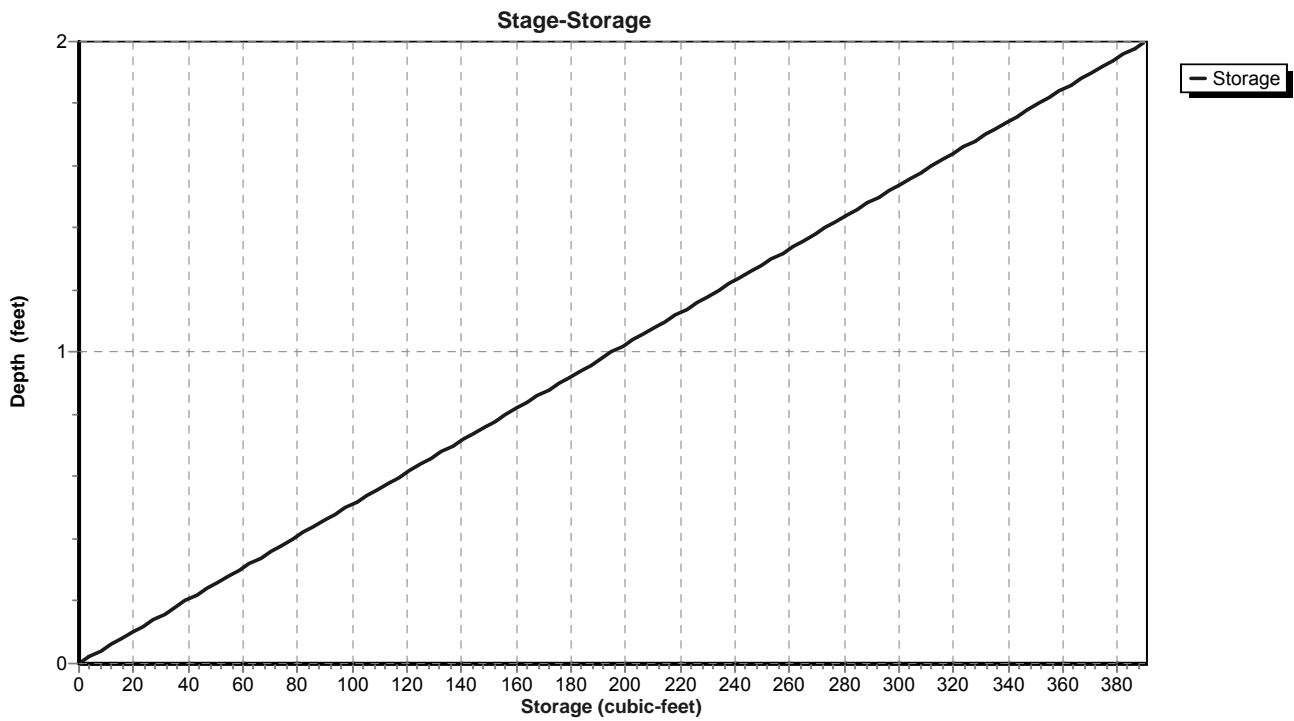


Reach 1R: Culvert

Hydrograph



Reach 1R: Culvert



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 2.41" for 25 Year - North Salem event
 Inflow = 3.51 cfs @ 12.17 hrs, Volume= 0.314 af
 Outflow = 2.60 cfs @ 12.50 hrs, Volume= 0.314 af, Atten= 26%, Lag= 20.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.09 fps, Min. Travel Time= 11.8 min
 Avg. Velocity = 0.31 fps, Avg. Travel Time= 41.3 min

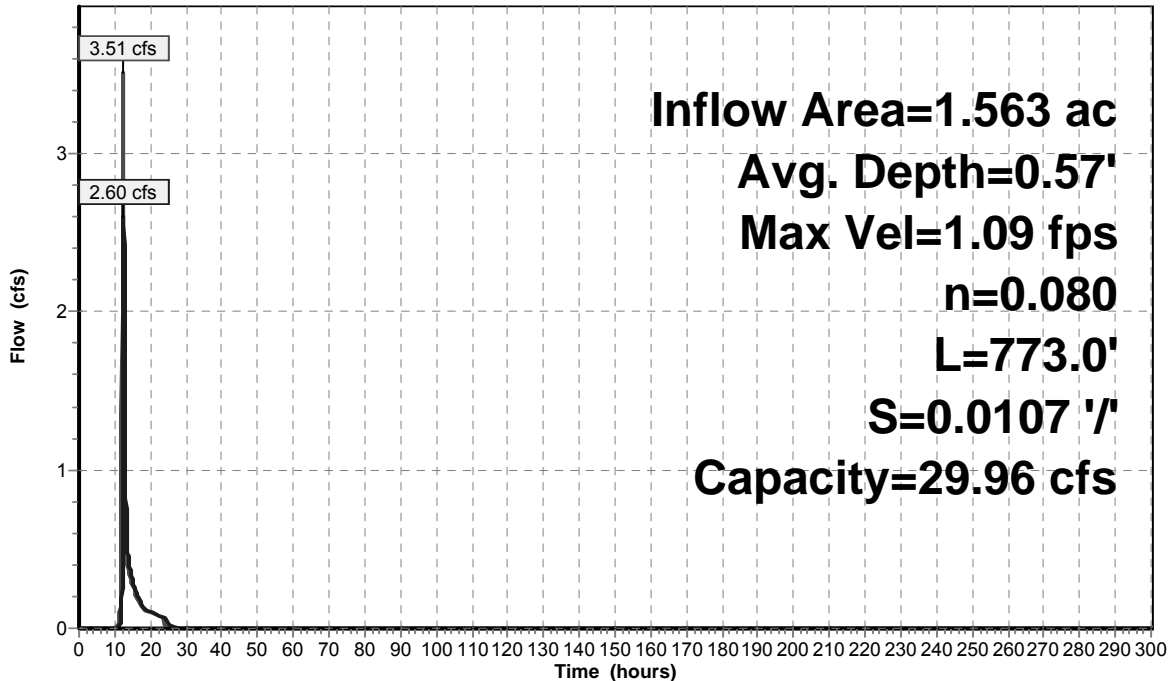
Peak Storage= 1,842 cf @ 12.31 hrs, Average Depth at Peak Storage= 0.57'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 ' / ' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 ' / '
 Inlet Invert= 340.00', Outlet Invert= 331.70'

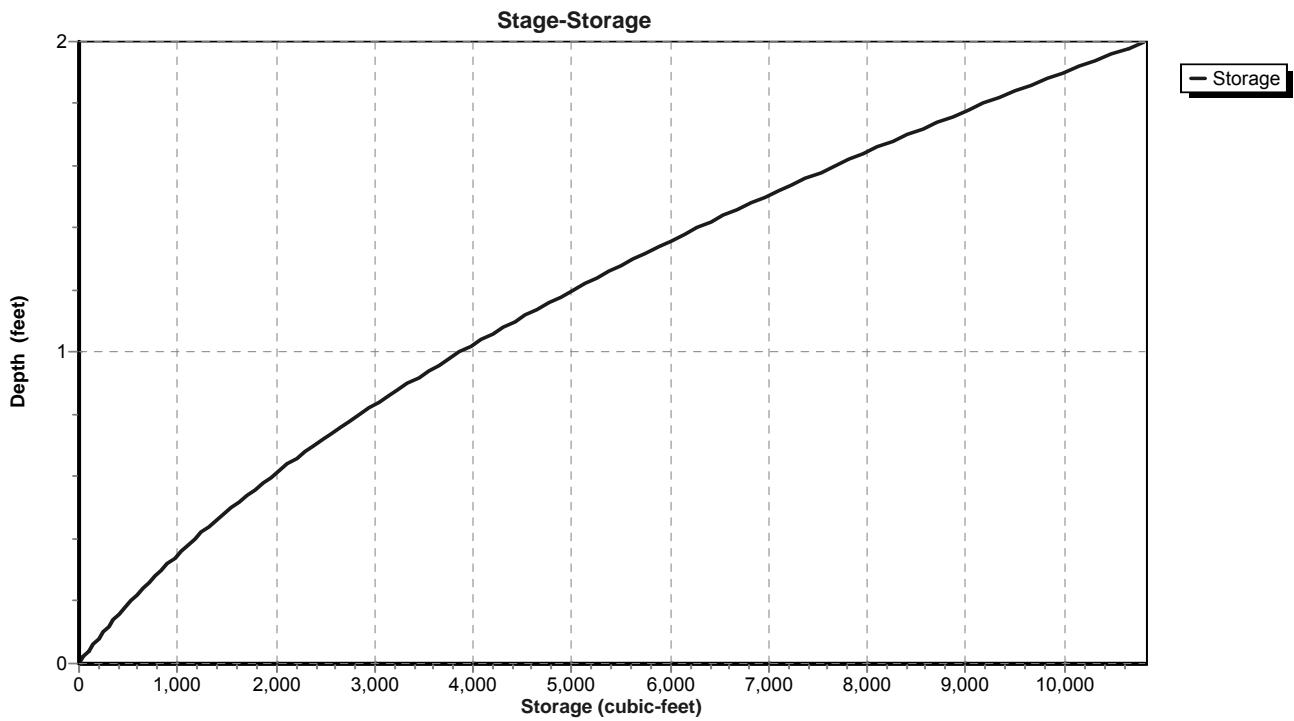


Reach A-1: Road Swale A-1

Hydrograph



Reach A-1: Road Swale A-1



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

[61] Hint: Exceeded Reach 1R outlet invert by 0.10' @ 12.35 hrs

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 2.60" for 25 Year - North Salem event
 Inflow = 6.61 cfs @ 12.29 hrs, Volume= 0.712 af
 Outflow = 6.42 cfs @ 12.39 hrs, Volume= 0.712 af, Atten= 3%, Lag= 6.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.12 fps, Min. Travel Time= 3.4 min
 Avg. Velocity = 0.38 fps, Avg. Travel Time= 10.1 min

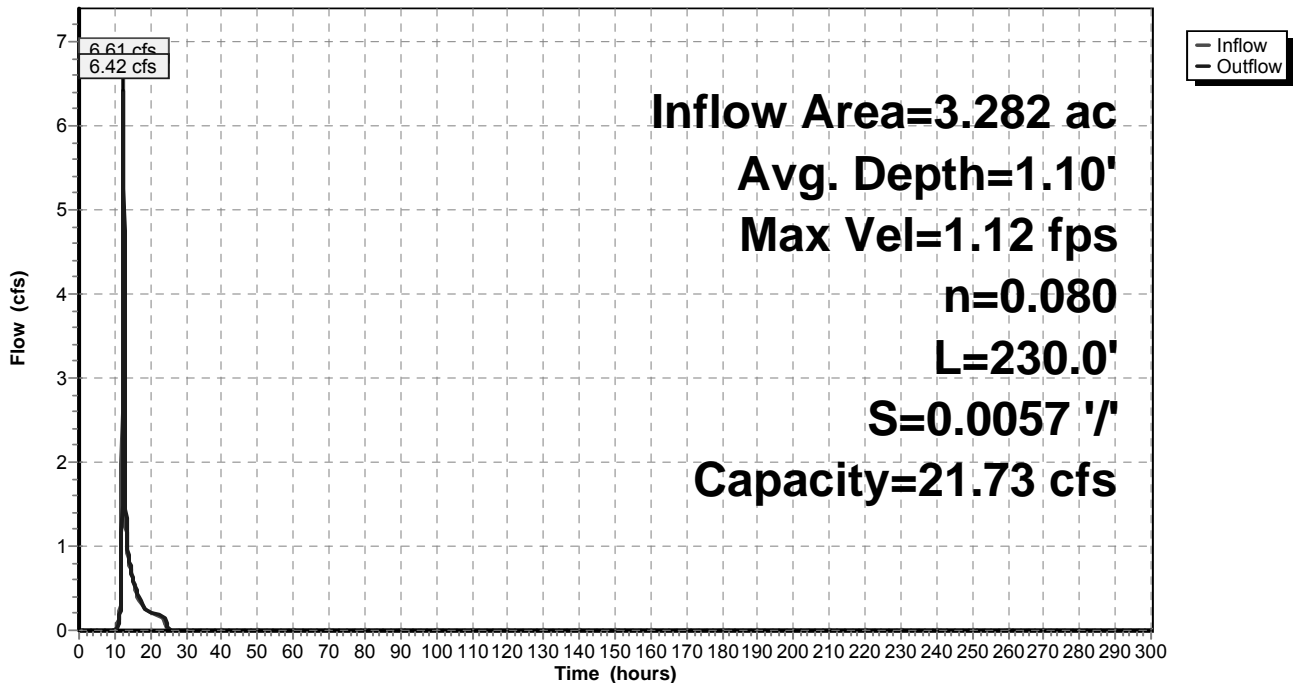
Peak Storage= 1,317 cf @ 12.33 hrs, Average Depth at Peak Storage= 1.10'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 '/'
 Inlet Invert= 333.00', Outlet Invert= 331.70'

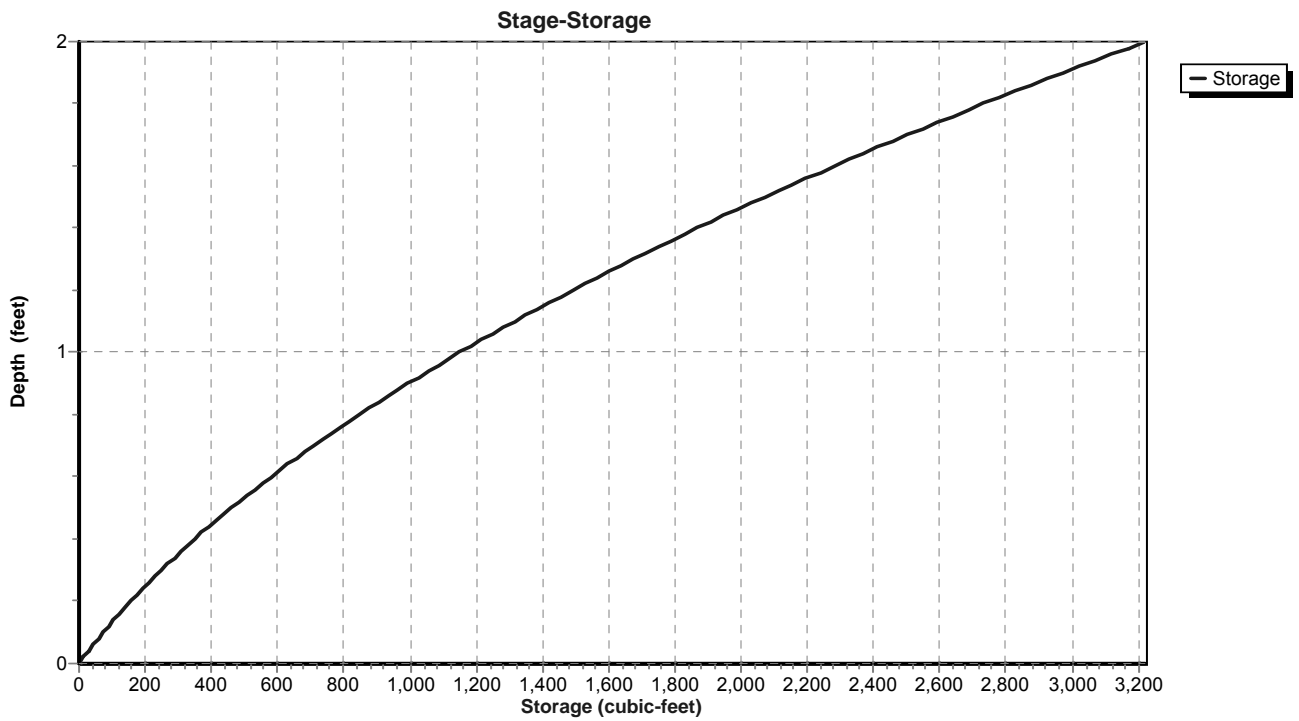


Reach A-2: Road Swale A-2

Hydrograph



Reach A-2: Road Swale A-2



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

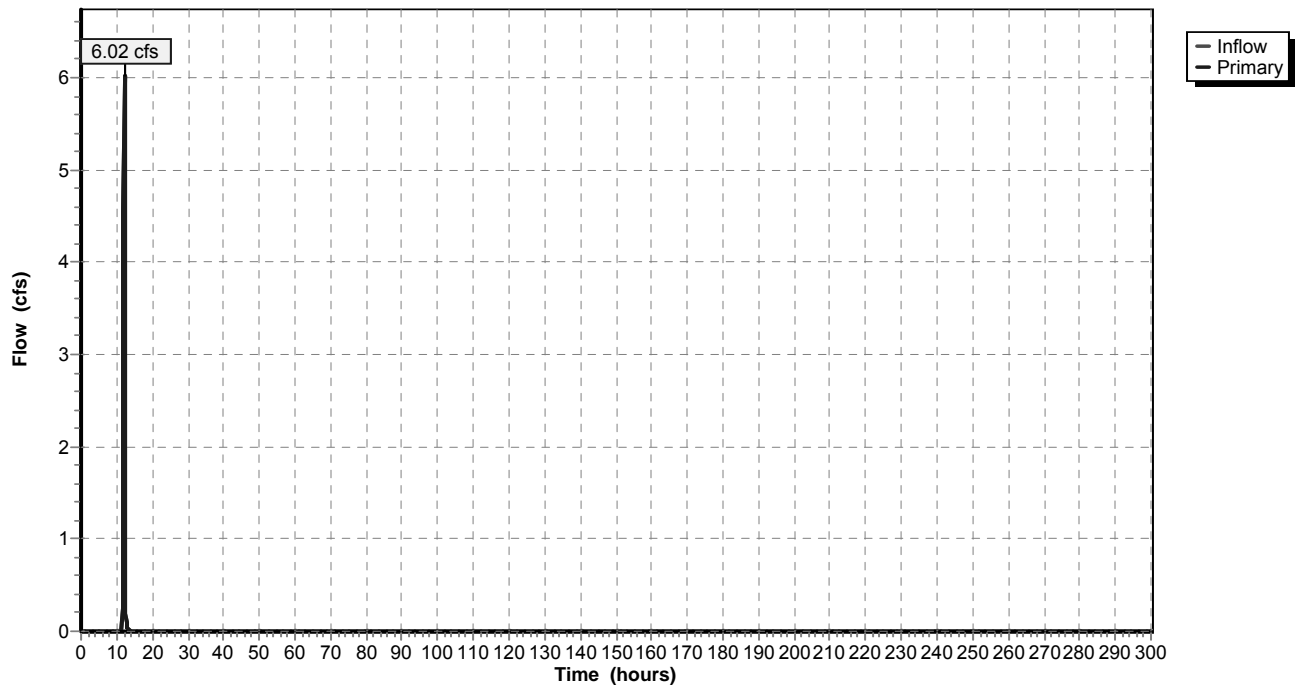
[40] Hint: Not Described (Outflow=Inflow)

Inflow = 6.02 cfs @ 12.11 hrs, Volume= 0.149 af
Primary = 6.02 cfs @ 12.11 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

Hydrograph



Summary for Pond DP 1A: Design Point 1A

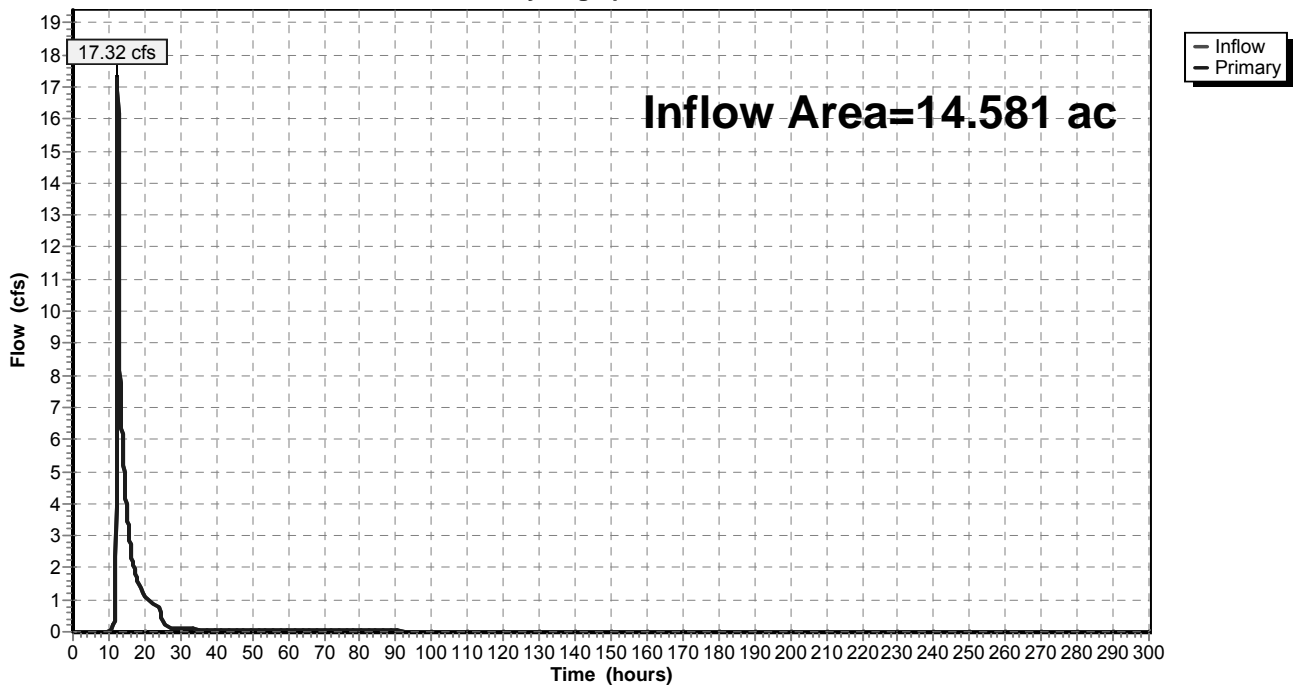
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 2.95" for 25 Year - North Salem event
Inflow = 17.32 cfs @ 12.44 hrs, Volume= 3.584 af
Primary = 17.32 cfs @ 12.44 hrs, Volume= 3.584 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
 Inflow = 22.42 cfs @ 12.15 hrs, Volume= 1.851 af
 Outflow = 7.12 cfs @ 12.54 hrs, Volume= 1.851 af, Atten= 68%, Lag= 23.7 min
 Primary = 7.12 cfs @ 12.54 hrs, Volume= 1.851 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 366.33' @ 12.54 hrs Surf.Area= 13,730 sf Storage= 35,317 cf (31,110 cf above start)

Plug-Flow detention time= 513.2 min calculated for 1.754 af (95% of inflow)
 Center-of-Mass det. time= 455.9 min (1,299.1 - 843.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

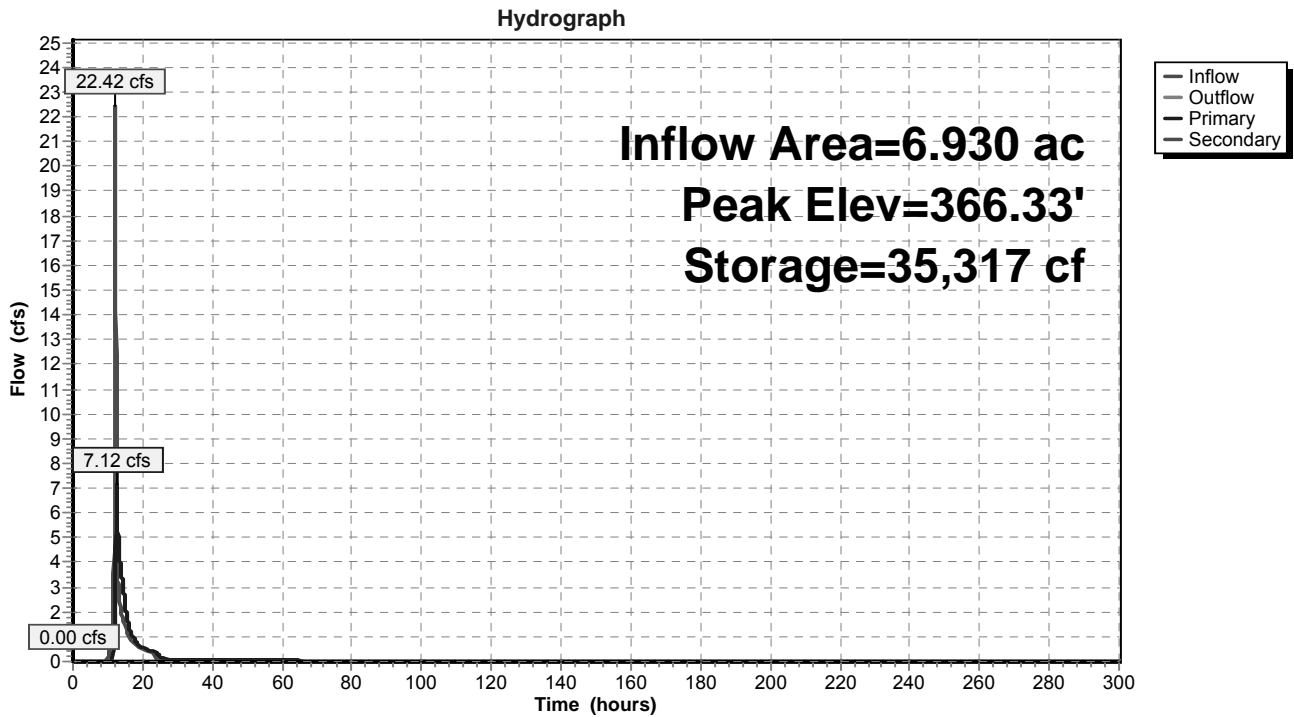
Primary OutFlow Max=7.10 cfs @ 12.54 hrs HW=366.33' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 7.10 cfs of 37.77 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.08 cfs @ 3.48 fps)
- ↑ 3=Orifice #1 (Orifice Controls 4.76 cfs @ 5.86 fps)
- ↑ 4=Orifice #2 (Orifice Controls 2.27 cfs @ 1.85 fps)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

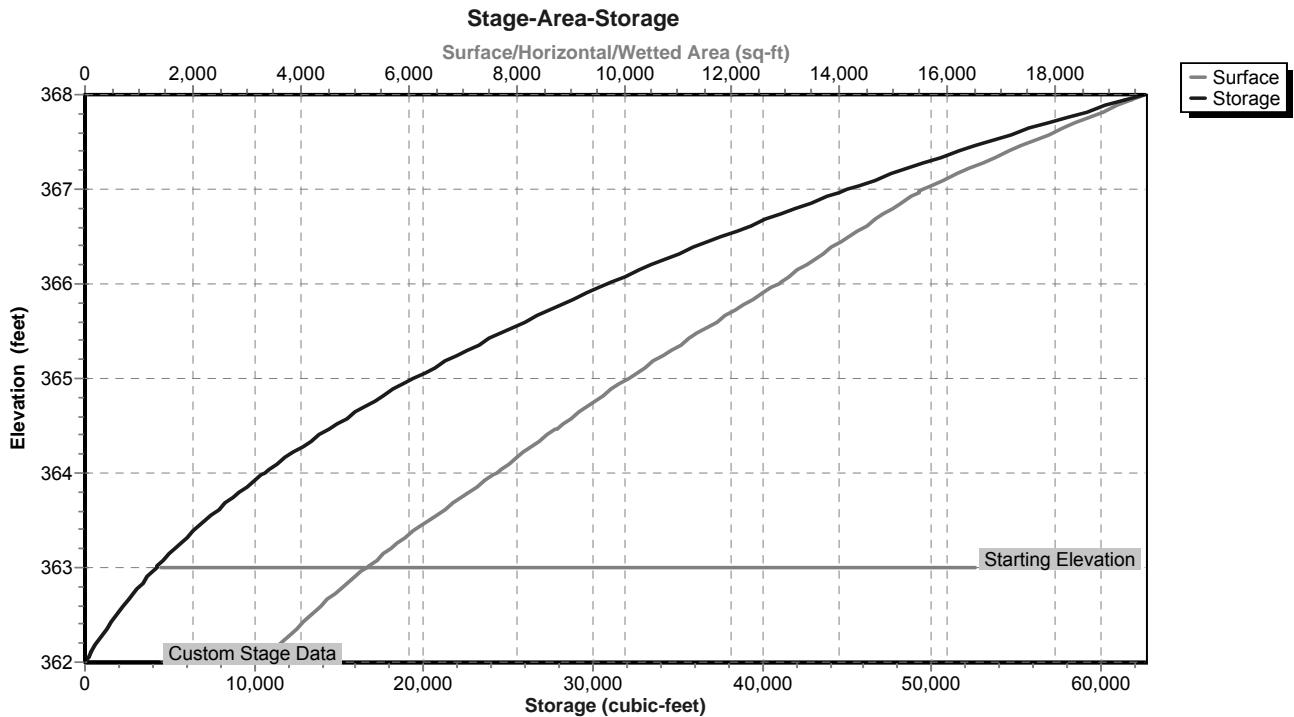
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-A4: Micropool ED Basin (Basin A4)



Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 3.10" for 25 Year - North Salem event
 Inflow = 2.47 cfs @ 12.10 hrs, Volume= 0.181 af
 Outflow = 2.47 cfs @ 12.10 hrs, Volume= 0.181 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.22 cfs @ 12.10 hrs, Volume= 0.155 af
 Secondary = 1.25 cfs @ 12.10 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 340.03' @ 12.10 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.22 cfs @ 12.10 hrs HW=340.03' (Free Discharge)

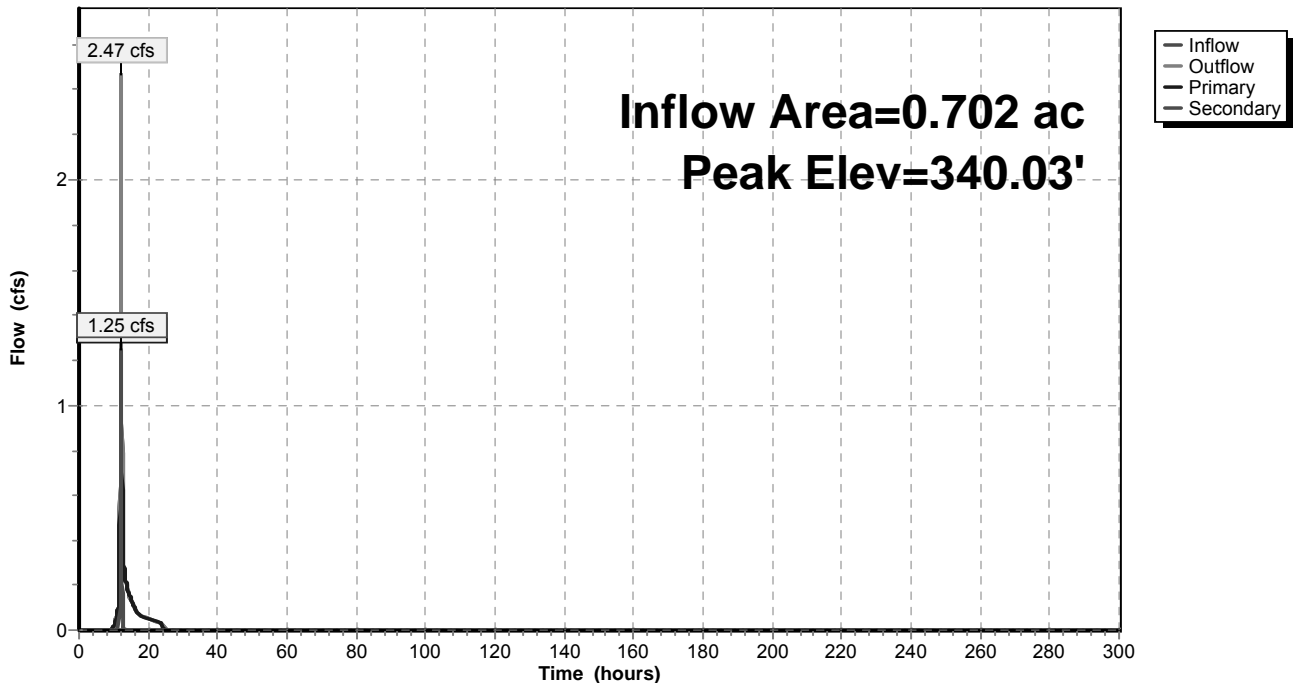
↑1=Outlet to Sand Filter (Barrel Controls 1.22 cfs @ 3.53 fps)

Secondary OutFlow Max=1.21 cfs @ 12.10 hrs HW=340.03' (Free Discharge)

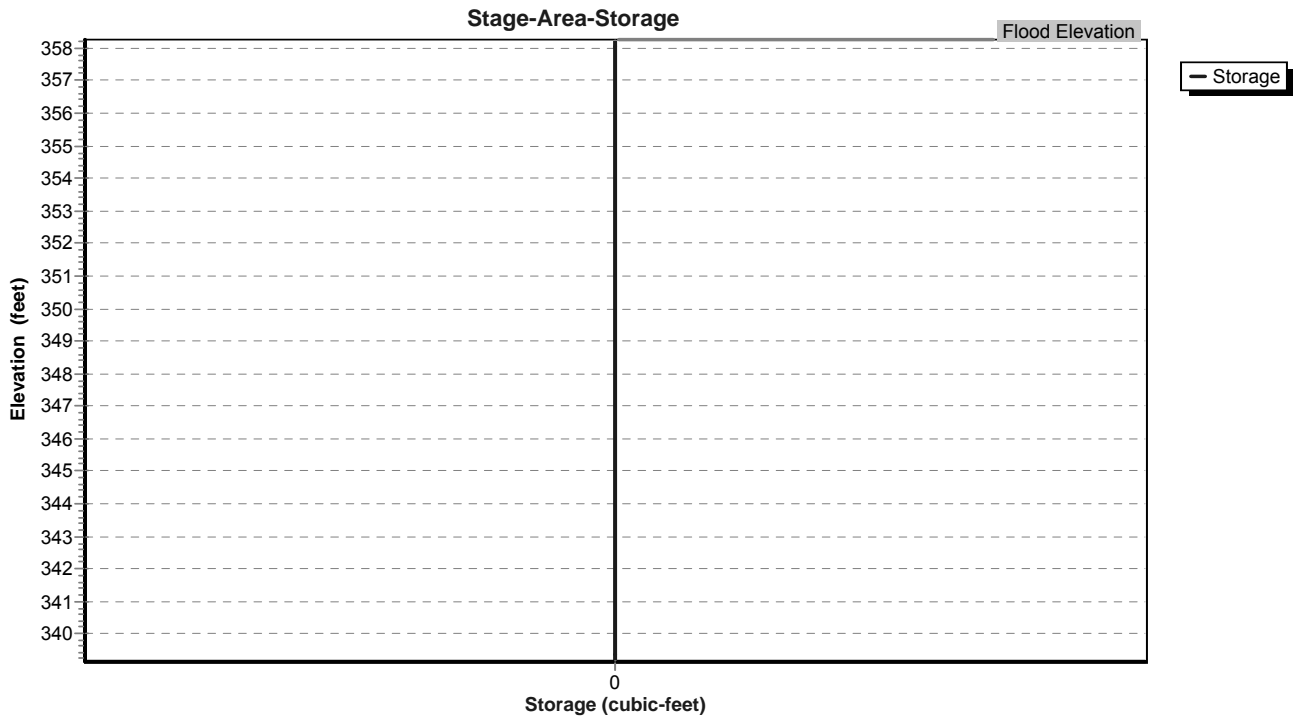
↑2=Outlet to DP (Inlet Controls 1.21 cfs @ 2.47 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Pond FS A3a: Flow Splitter A3a



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 3.00" for 25 Year - North Salem event
 Inflow = 6.90 cfs @ 12.11 hrs, Volume= 0.526 af
 Outflow = 6.90 cfs @ 12.11 hrs, Volume= 0.526 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.11 cfs @ 12.11 hrs, Volume= 0.404 af
 Secondary = 4.78 cfs @ 12.11 hrs, Volume= 0.122 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 353.08' @ 12.11 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.09 cfs @ 12.11 hrs HW=353.04' (Free Discharge)

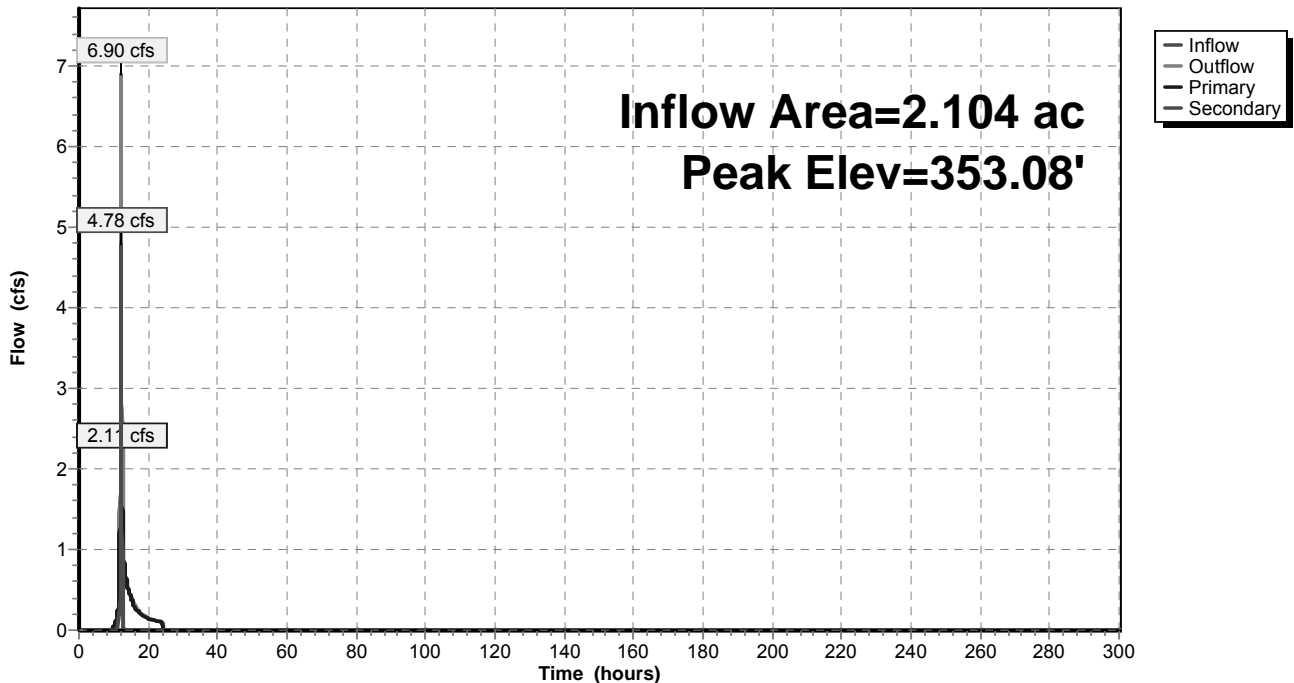
↑1=Outlet to Sand Filter (Inlet Controls 2.09 cfs @ 6.00 fps)

Secondary OutFlow Max=4.65 cfs @ 12.11 hrs HW=353.04' (Free Discharge)

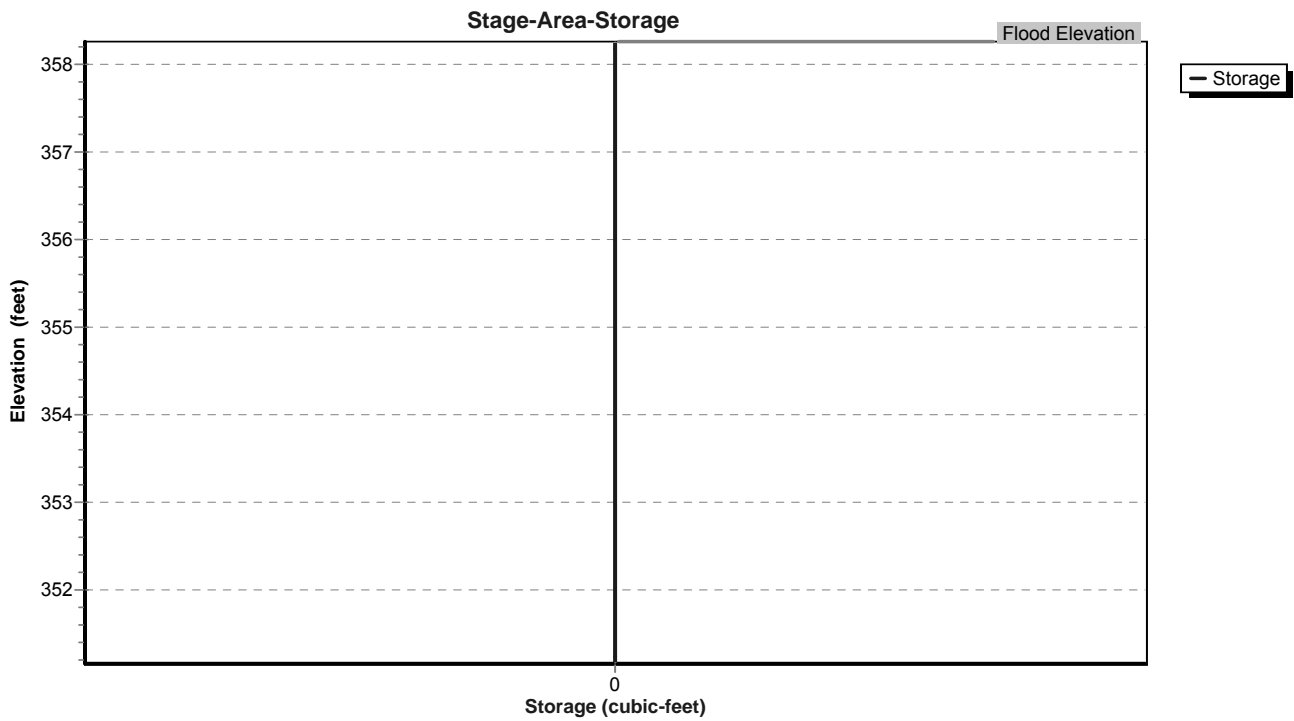
↑2=Outlet to DP (Inlet Controls 4.65 cfs @ 3.79 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Pond FS A3b: Flow Splitter A3b



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

[79] Warning: Submerged Pond SFF-A3a Primary device # 1 INLET by 0.01'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 2.64" for 25 Year - North Salem event
 Inflow = 1.22 cfs @ 12.11 hrs, Volume= 0.155 af
 Outflow = 0.84 cfs @ 12.32 hrs, Volume= 0.155 af, Atten= 31%, Lag= 12.6 min
 Primary = 0.84 cfs @ 12.32 hrs, Volume= 0.155 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 337.01' @ 12.32 hrs Surf.Area= 981 sf Storage= 1,398 cf

Plug-Flow detention time= 313.8 min calculated for 0.155 af (100% of inflow)
 Center-of-Mass det. time= 313.1 min (1,195.8 - 882.8)

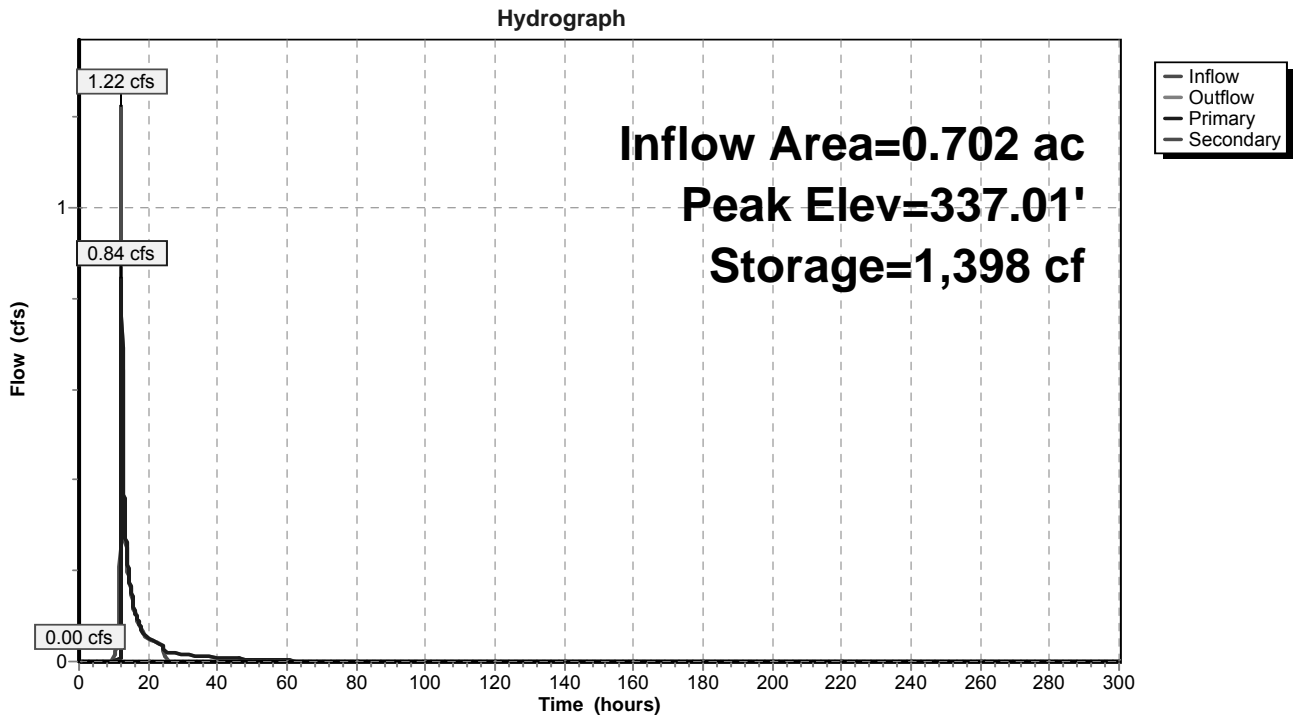
Volume	Invert	Avail.Storage	Storage Description			
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
335.00	432	111.0	0	0	432	
336.00	693	141.0	557	557	1,047	
338.00	1,313	168.0	1,973	2,531	1,779	

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

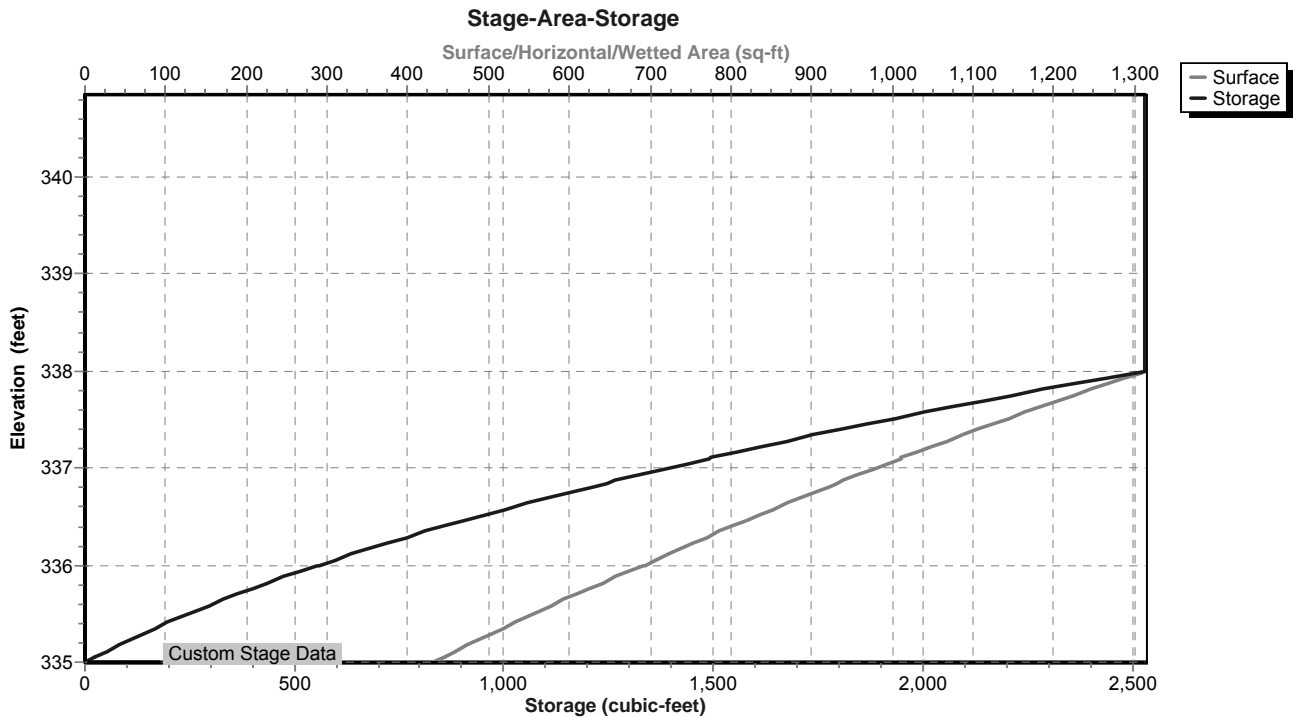
Primary OutFlow Max=0.82 cfs @ 12.32 hrs HW=337.01' (Free Discharge)
 ↑ **1=Outlet Pipe** (Passes 0.82 cfs of 6.68 cfs potential flow)
 ↑ **2=Exfiltration** (Exfiltration Controls 0.02 cfs)
 ↑ **3=Top of Outlet Box** (Orifice Controls 0.79 cfs @ 1.27 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)
 ↑ **4=Emergency Overflow** (Controls 0.00 cfs)

Pond SF-A3a: Sand Filter - A3a



Pond SF-A3a: Sand Filter - A3a



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 2.31" for 25 Year - North Salem event
 Inflow = 1.93 cfs @ 12.19 hrs, Volume= 0.404 af
 Outflow = 0.91 cfs @ 12.94 hrs, Volume= 0.404 af, Atten= 53%, Lag= 44.8 min
 Primary = 0.91 cfs @ 12.94 hrs, Volume= 0.404 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 344.42' @ 12.94 hrs Surf.Area= 2,072 sf Storage= 4,049 cf

Plug-Flow detention time= 547.2 min calculated for 0.404 af (100% of inflow)
 Center-of-Mass det. time= 547.0 min (1,490.3 - 943.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

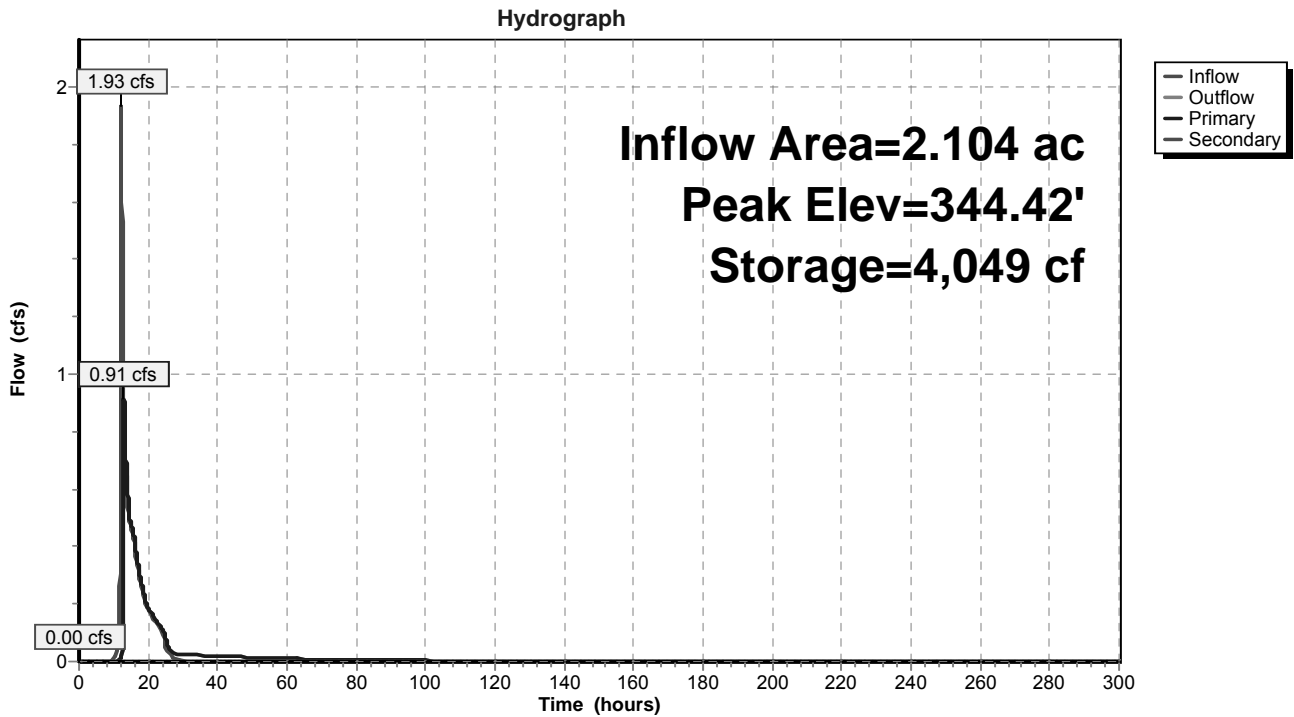
Primary OutFlow Max=0.91 cfs @ 12.94 hrs HW=344.42' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.91 cfs of 7.02 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.88 cfs @ 2.09 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

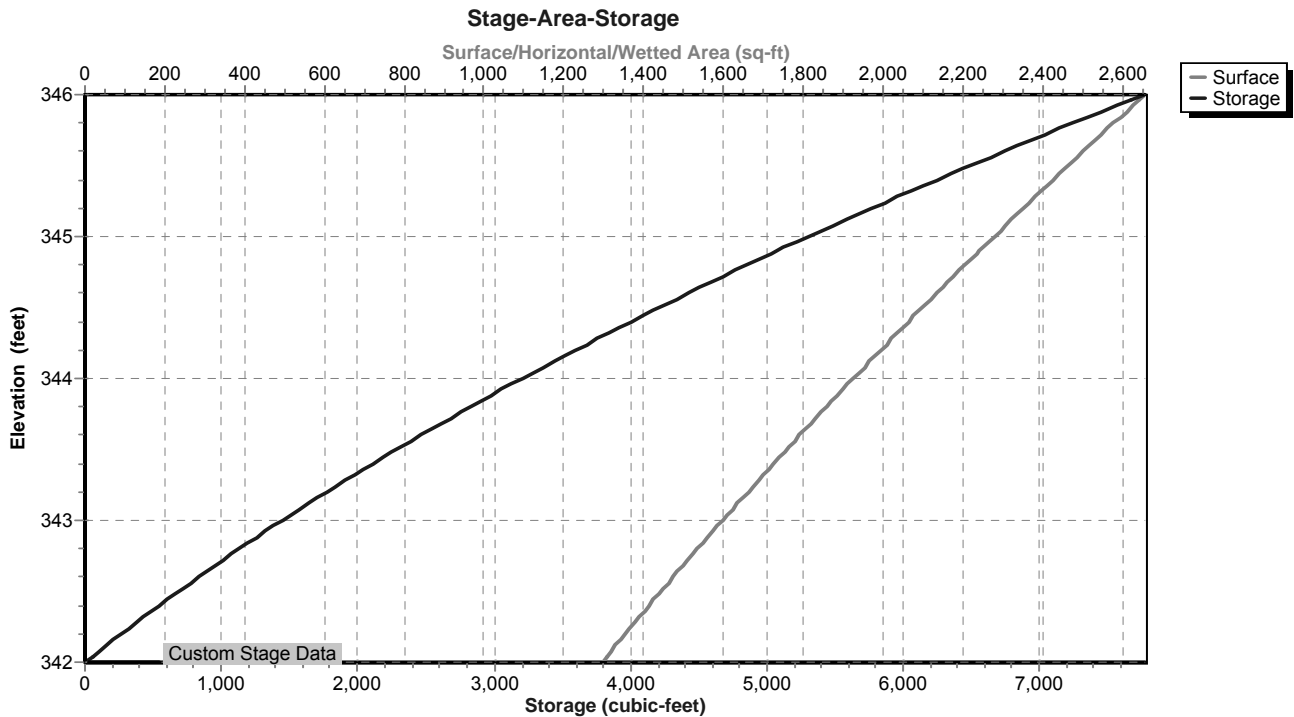
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3b: Sand Filter - A3b



Pond SF-A3b: Sand Filter - A3b



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 2.64" for 25 Year - North Salem event
 Inflow = 1.22 cfs @ 12.10 hrs, Volume= 0.155 af
 Outflow = 1.22 cfs @ 12.11 hrs, Volume= 0.155 af, Atten= 0%, Lag= 0.5 min
 Primary = 1.22 cfs @ 12.11 hrs, Volume= 0.155 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.83' @ 12.11 hrs Surf.Area= 461 sf Storage= 594 cf

Plug-Flow detention time= 21.0 min calculated for 0.155 af (100% of inflow)
 Center-of-Mass det. time= 21.0 min (882.8 - 861.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
337.00	200	57.0	0	0	200
338.00	336	71.0	265	265	356
339.00	490	83.0	411	676	522
340.00	670	96.0	578	1,253	728

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

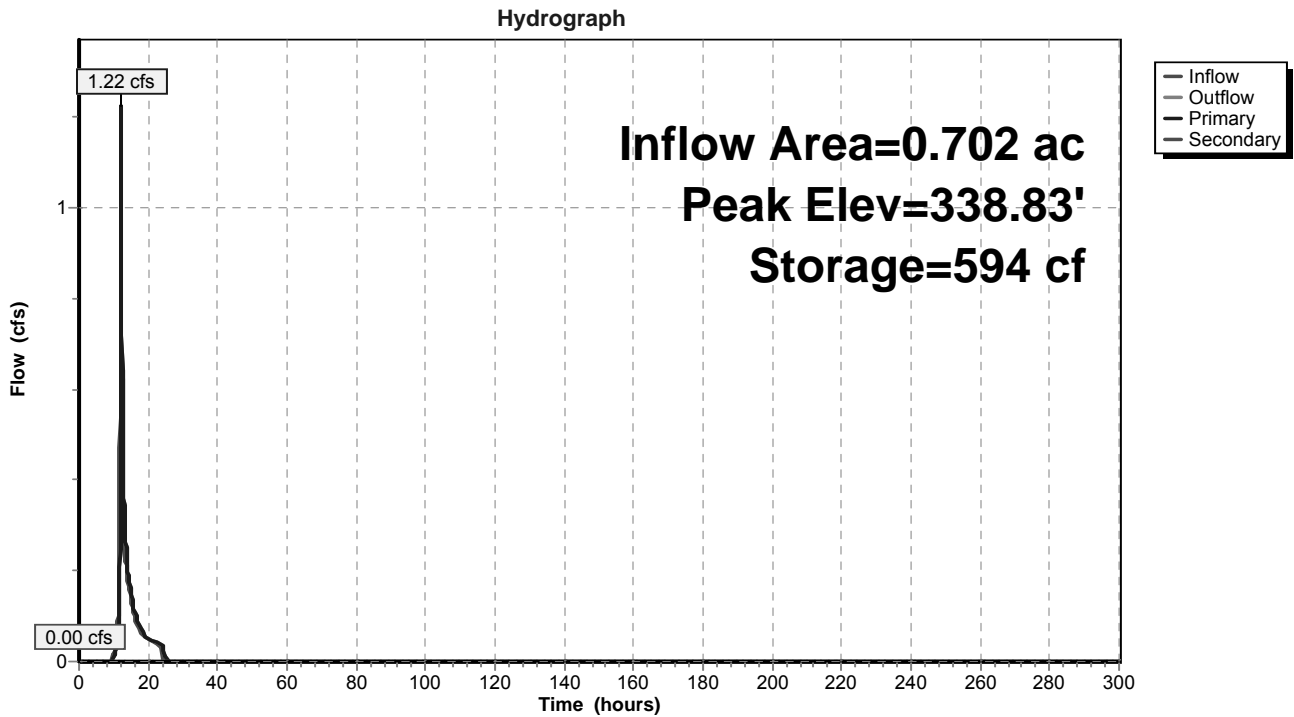
Primary OutFlow Max=1.21 cfs @ 12.11 hrs HW=338.83' (Free Discharge)

- 1=Outlet Pipe (Passes 1.21 cfs of 6.33 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.43 cfs @ 4.41 fps)
- 3=Top of Standpipe (Weir Controls 0.22 cfs @ 0.91 fps)
- 4=Top of Outlet Box (Weir Controls 0.56 cfs @ 0.91 fps)

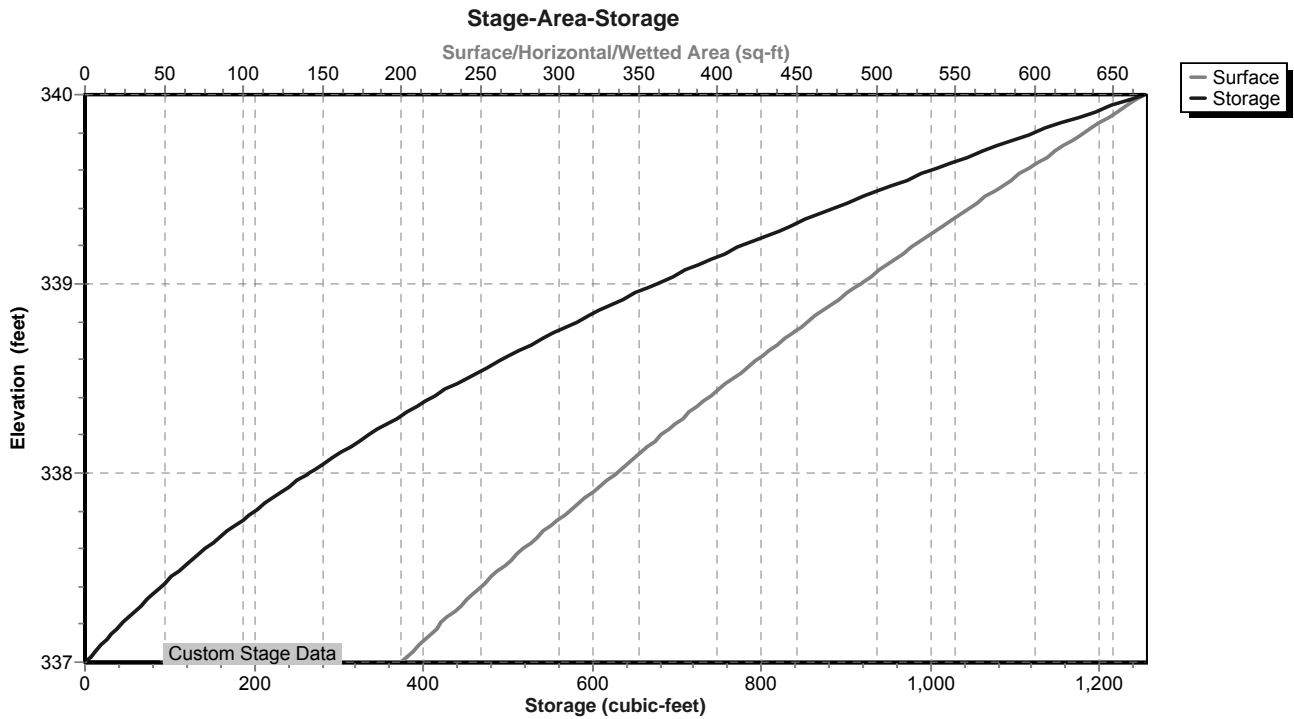
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

- 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3a: Sand Filter Forebay - A3a



Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 2.31" for 25 Year - North Salem event
 Inflow = 2.11 cfs @ 12.11 hrs, Volume= 0.404 af
 Outflow = 1.93 cfs @ 12.19 hrs, Volume= 0.404 af, Atten= 9%, Lag= 5.0 min
 Primary = 1.93 cfs @ 12.19 hrs, Volume= 0.404 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 350.17' @ 12.19 hrs Surf.Area= 1,689 sf Storage= 2,529 cf

Plug-Flow detention time= 63.2 min calculated for 0.404 af (100% of inflow)
 Center-of-Mass det. time= 63.3 min (943.3 - 880.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

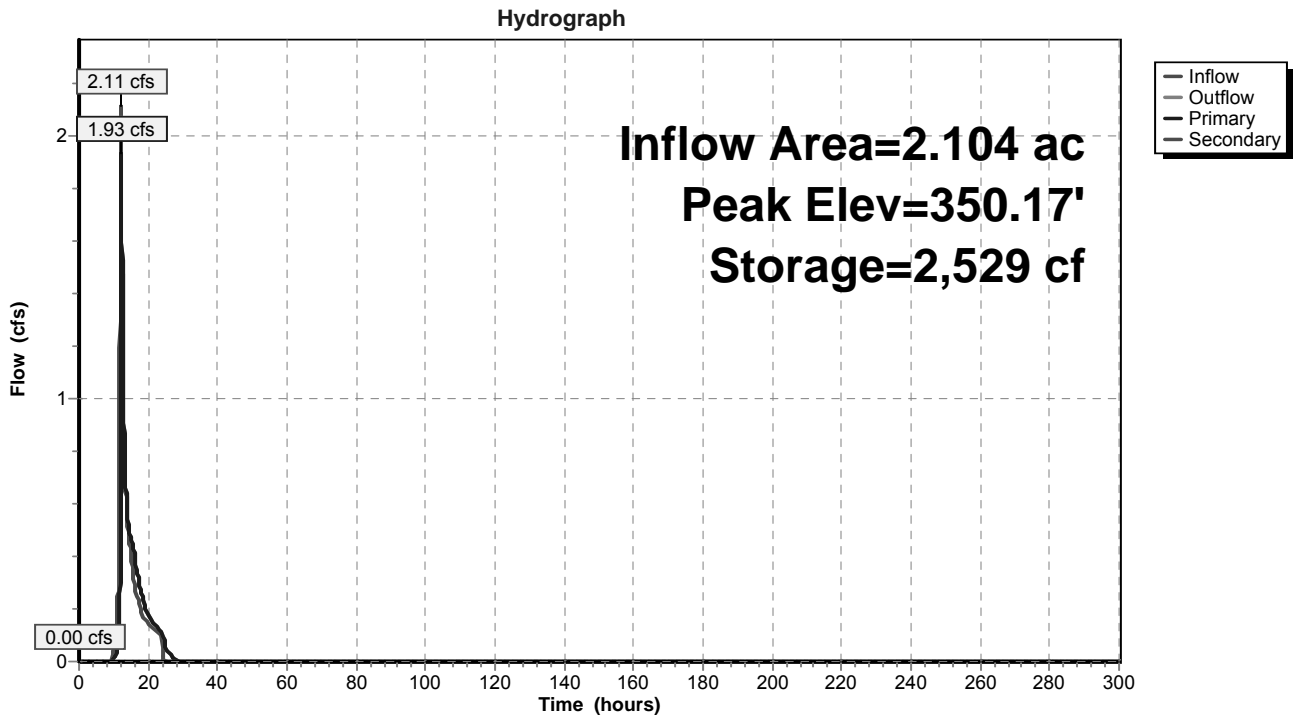
Primary OutFlow Max=1.92 cfs @ 12.19 hrs HW=350.17' (Free Discharge)

- 1=Outlet Pipe (Passes 1.92 cfs of 7.34 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.52 cfs @ 5.33 fps)
- 3=Top of Standpipe (Weir Controls 0.72 cfs @ 1.35 fps)
- 4=Orifice #1 (Orifice Controls 0.67 cfs @ 1.32 fps)
- 5=Top of Outlet Box (Controls 0.00 cfs)

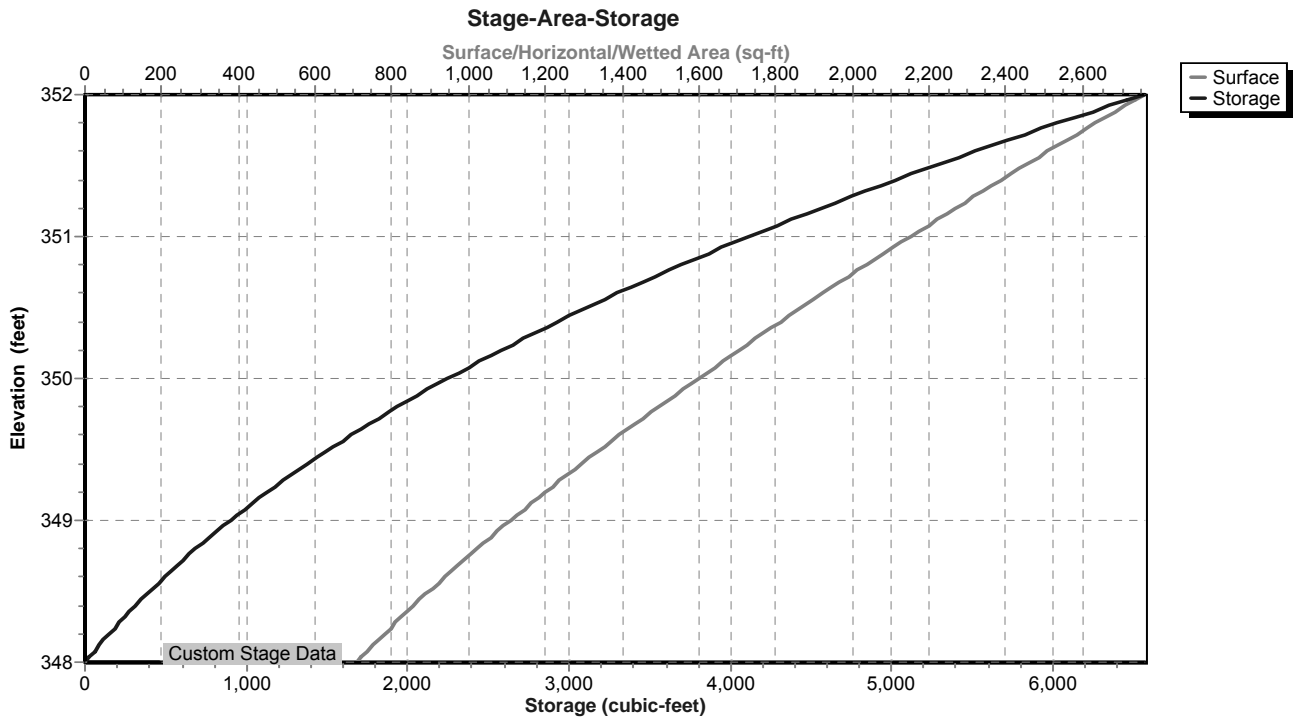
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- 6=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3b: Sand Filter Forebay - A3b



Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=3.86"
Flow Length=649' Tc=11.3 min CN=58 Runoff=5.80 cfs 0.502 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=4.10"
Flow Length=724' Tc=19.0 min CN=60 Runoff=10.73 cfs 1.122 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=4.72"
Flow Length=367' Tc=6.2 min CN=65 Runoff=3.79 cfs 0.276 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=4.59"
Flow Length=598' Tc=7.3 min CN=64 Runoff=10.69 cfs 0.805 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=4.84"
Flow Length=775' Tc=9.8 min CN=66 Runoff=34.12 cfs 2.796 af

Reach 1R: Culvert Avg. Depth=0.54' Max Vel=6.65 fps Inflow=10.73 cfs 1.122 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=10.71 cfs 1.122 af

Reach A-1: Road Swale A-1 Avg. Depth=0.78' Max Vel=1.28 fps Inflow=5.80 cfs 0.502 af
n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=4.49 cfs 0.502 af

Reach A-2: Road Swale A-2 Avg. Depth=1.41' Max Vel=1.28 fps Inflow=10.71 cfs 1.122 af
n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=10.49 cfs 1.122 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=10.21 cfs 0.295 af
Primary=10.21 cfs 0.295 af

Pond DP 1A: Design Point 1A Inflow=37.21 cfs 5.501 af
Primary=37.21 cfs 5.501 af

Pond ED-A4: Micropool ED Basin (Basin) Peak Elev=366.97' Storage=44,513 cf Inflow=34.12 cfs 2.796 af
Primary=16.94 cfs 2.795 af Secondary=0.00 cfs 0.000 af Outflow=16.94 cfs 2.795 af

Pond FS A3a: Flow Splitter A3a Peak Elev=340.26' Inflow=3.79 cfs 0.276 af
Primary=1.47 cfs 0.219 af Secondary=2.32 cfs 0.057 af Outflow=3.79 cfs 0.276 af

Pond FS A3b: Flow Splitter A3b Peak Elev=354.21' Inflow=10.69 cfs 0.805 af
Primary=2.77 cfs 0.567 af Secondary=7.91 cfs 0.238 af Outflow=10.69 cfs 0.805 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=337.08' Storage=1,465 cf Inflow=1.46 cfs 0.219 af
Primary=1.42 cfs 0.219 af Secondary=0.00 cfs 0.000 af Outflow=1.42 cfs 0.219 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=344.62' Storage=4,468 cf Inflow=2.65 cfs 0.567 af
Primary=1.61 cfs 0.567 af Secondary=0.00 cfs 0.000 af Outflow=1.61 cfs 0.567 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=338.84' Storage=600 cf Inflow=1.47 cfs 0.219 af
Primary=1.46 cfs 0.219 af Secondary=0.00 cfs 0.000 af Outflow=1.46 cfs 0.219 af

Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=350.22' Storage=2,620 cf Inflow=2.77 cfs 0.567 af
Primary=2.65 cfs 0.567 af Secondary=0.00 cfs 0.000 af Outflow=2.65 cfs 0.567 af

Total Runoff Area = 14.581 ac Runoff Volume = 5.501 af Average Runoff Depth = 4.53"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 5.80 cfs @ 12.16 hrs, Volume= 0.502 af, Depth= 3.86"

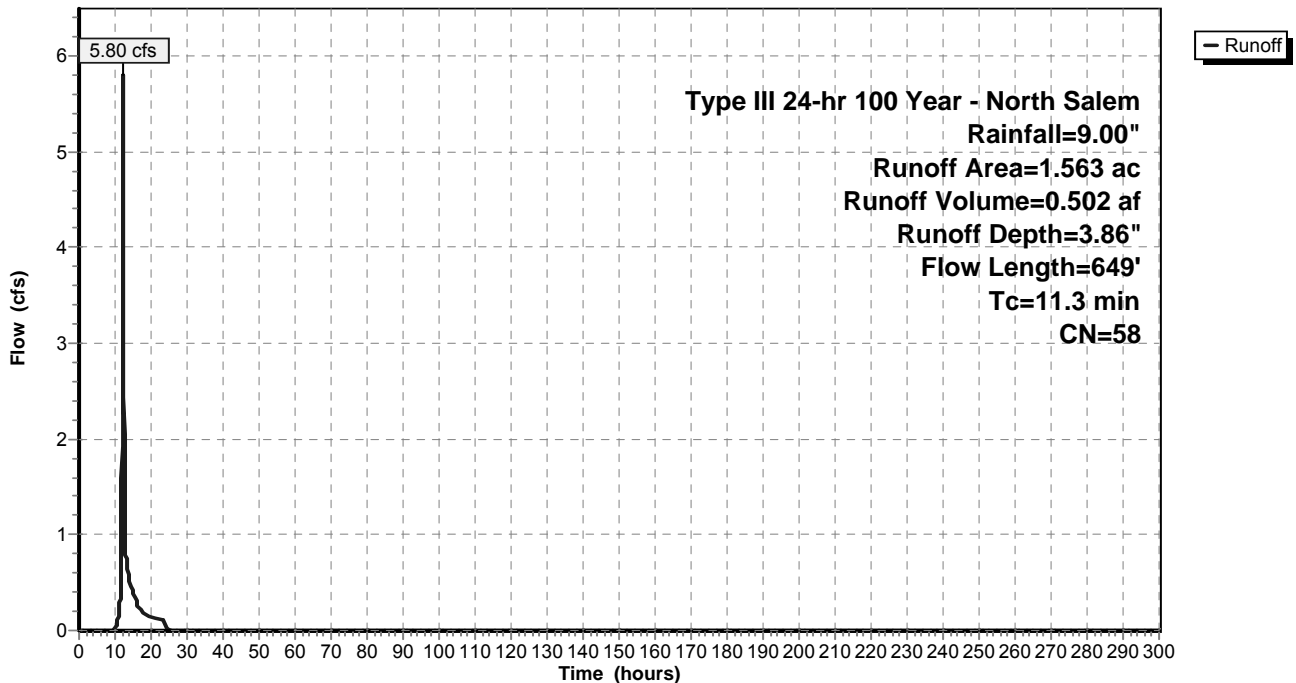
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

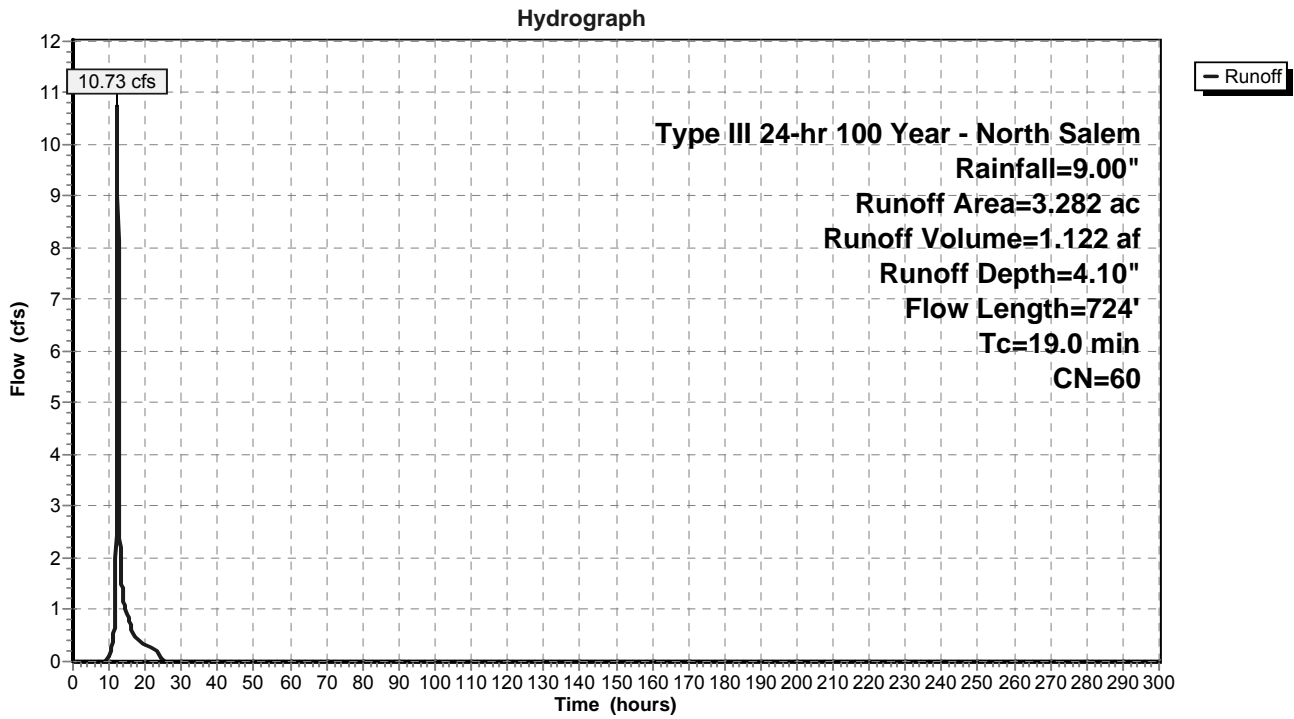
Runoff = 10.73 cfs @ 12.27 hrs, Volume= 1.122 af, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2



Summary for Subcatchment A3a: Post-Development A3a

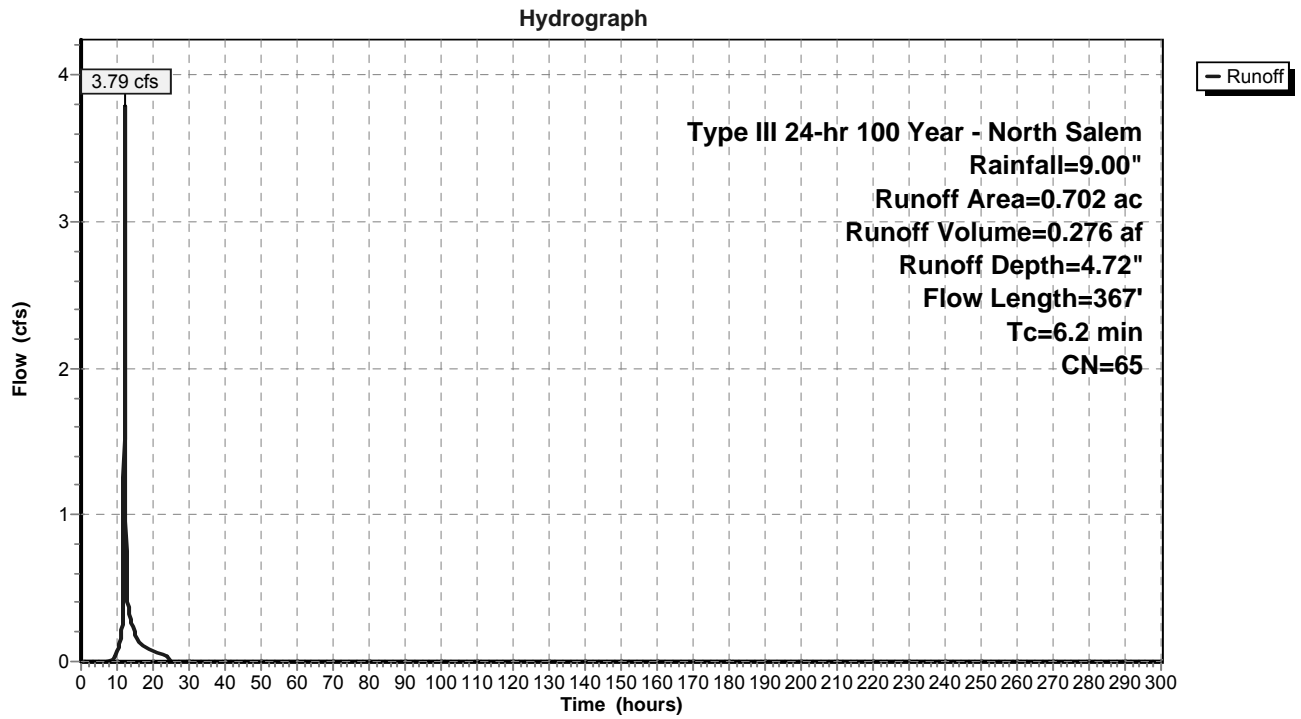
Runoff = 3.79 cfs @ 12.10 hrs, Volume= 0.276 af, Depth= 4.72"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 10.69 cfs @ 12.11 hrs, Volume= 0.805 af, Depth= 4.59"

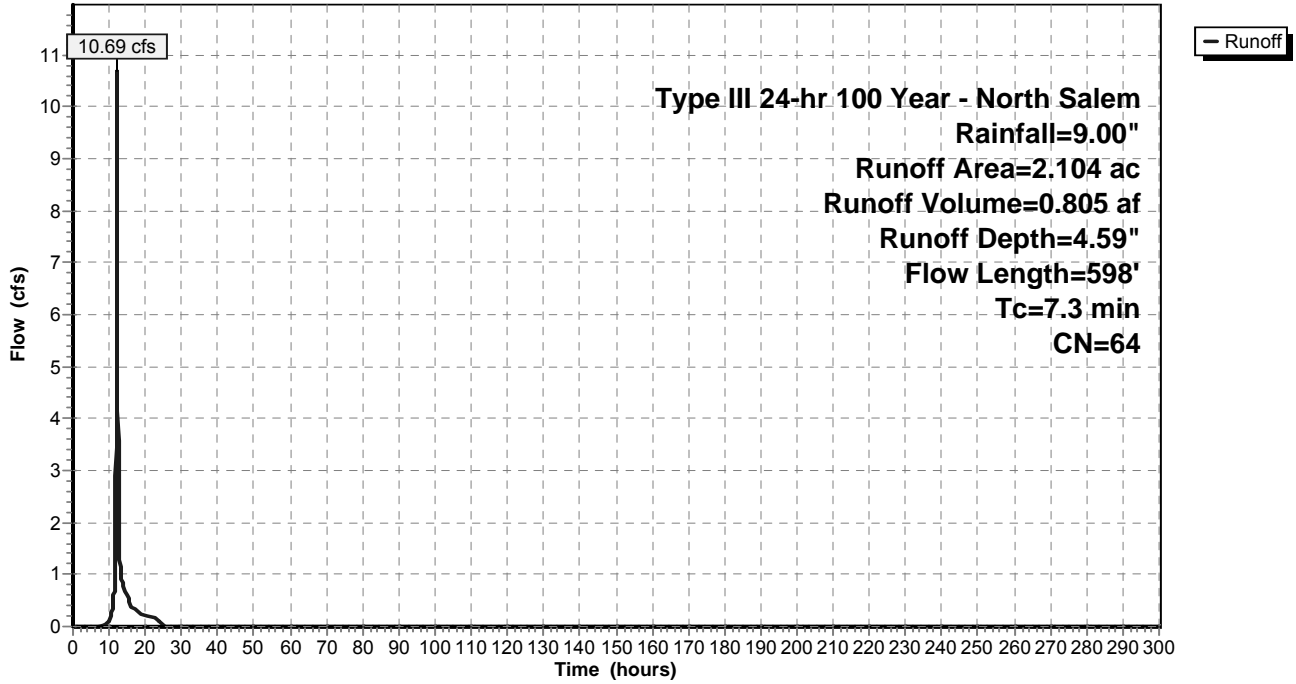
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 34.12 cfs @ 12.14 hrs, Volume= 2.796 af, Depth= 4.84"

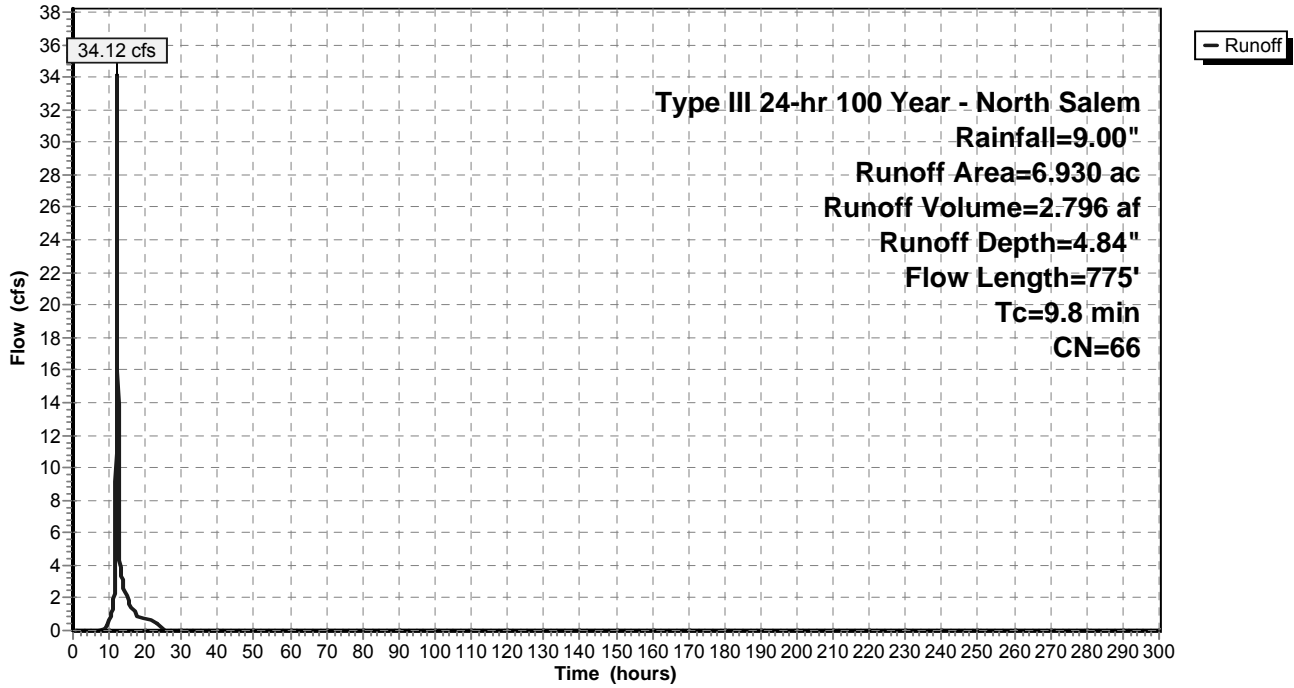
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 4.10" for 100 Year - North Salem event
 Inflow = 10.73 cfs @ 12.27 hrs, Volume= 1.122 af
 Outflow = 10.71 cfs @ 12.27 hrs, Volume= 1.122 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 6.65 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.21 fps, Avg. Travel Time= 0.5 min

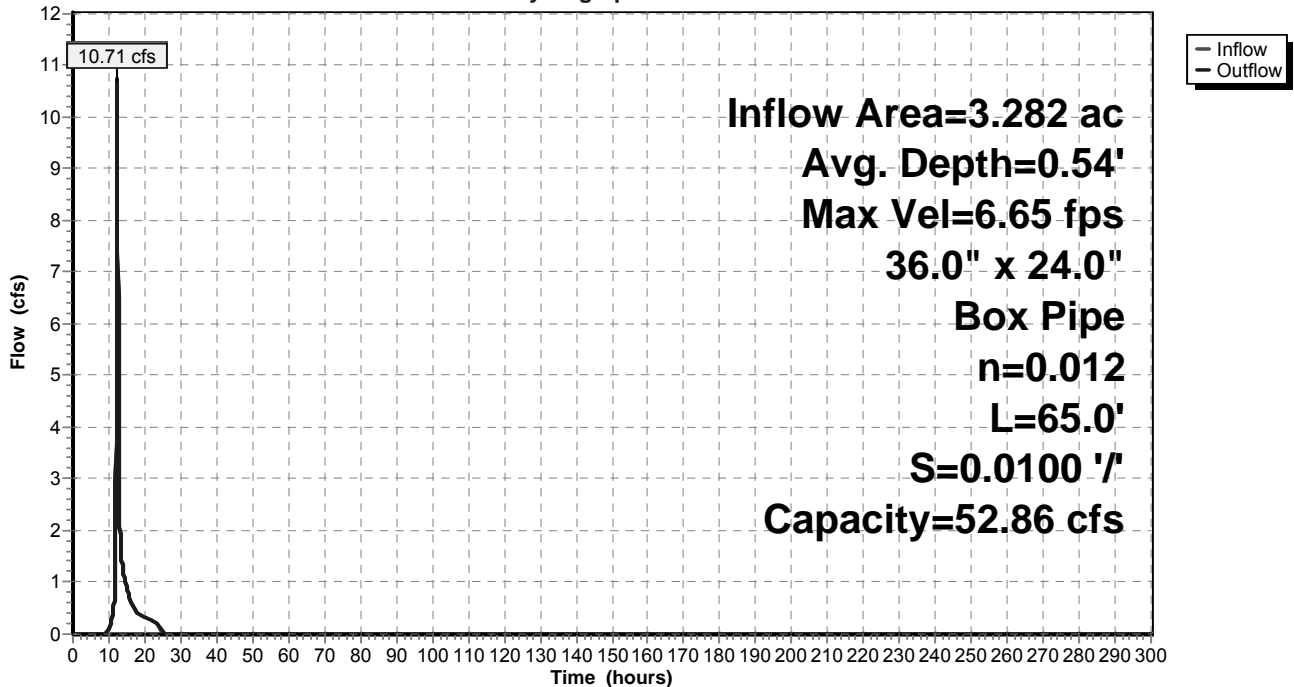
Peak Storage= 105 cf @ 12.27 hrs, Average Depth at Peak Storage= 0.54'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/
 Inlet Invert= 334.65', Outlet Invert= 334.00'

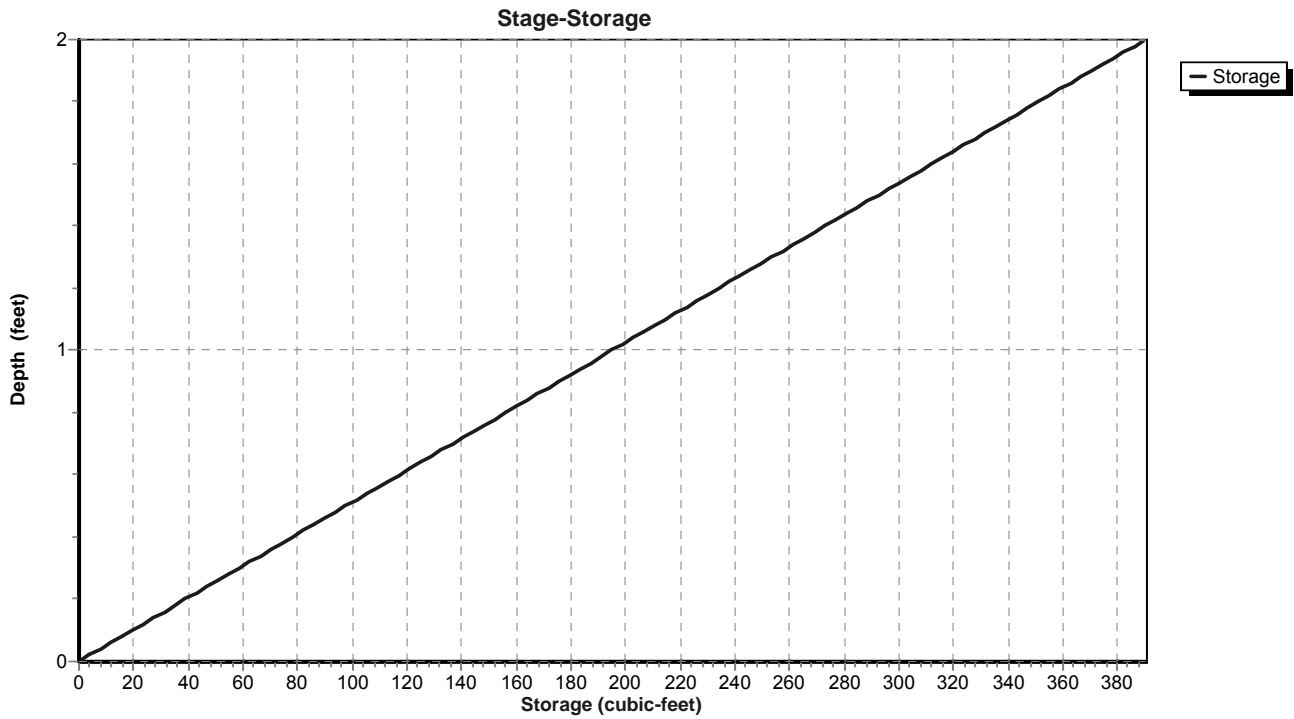


Reach 1R: Culvert

Hydrograph



Reach 1R: Culvert



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 3.86" for 100 Year - North Salem event
 Inflow = 5.80 cfs @ 12.16 hrs, Volume= 0.502 af
 Outflow = 4.49 cfs @ 12.45 hrs, Volume= 0.502 af, Atten= 23%, Lag= 17.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.28 fps, Min. Travel Time= 10.0 min
 Avg. Velocity = 0.35 fps, Avg. Travel Time= 36.9 min

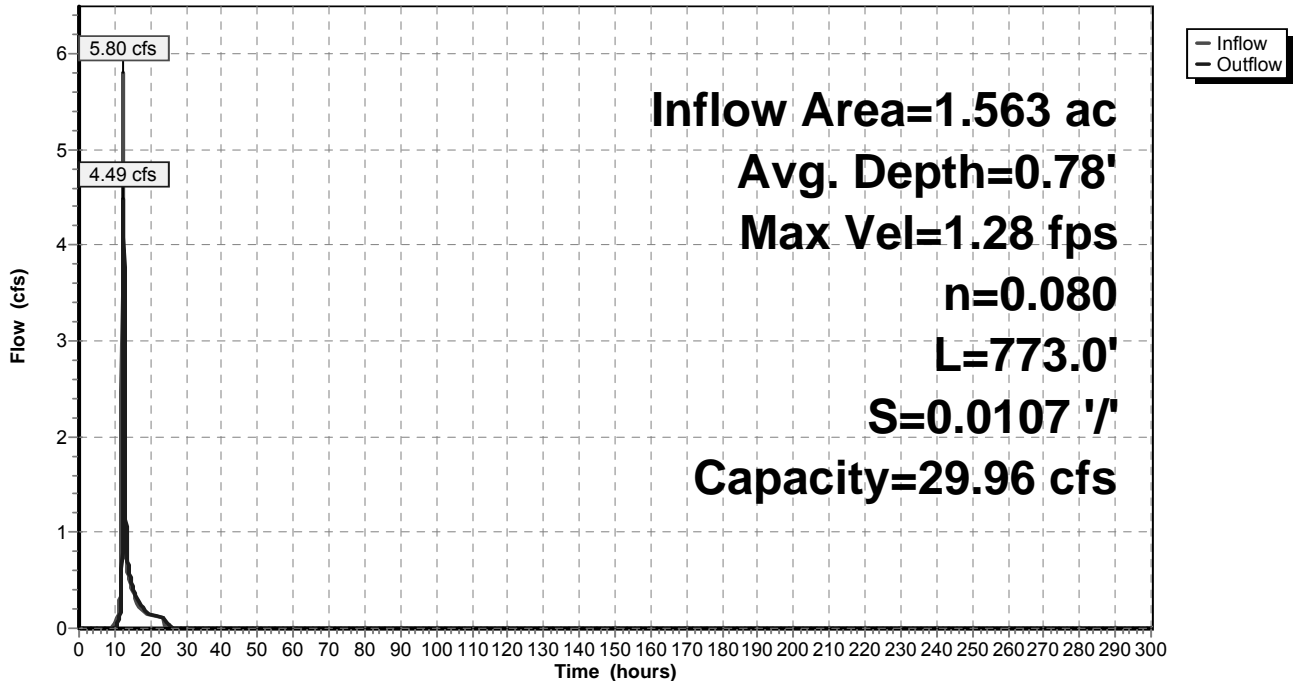
Peak Storage= 2,728 cf @ 12.27 hrs, Average Depth at Peak Storage= 0.78'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/'
 Inlet Invert= 340.00', Outlet Invert= 331.70'

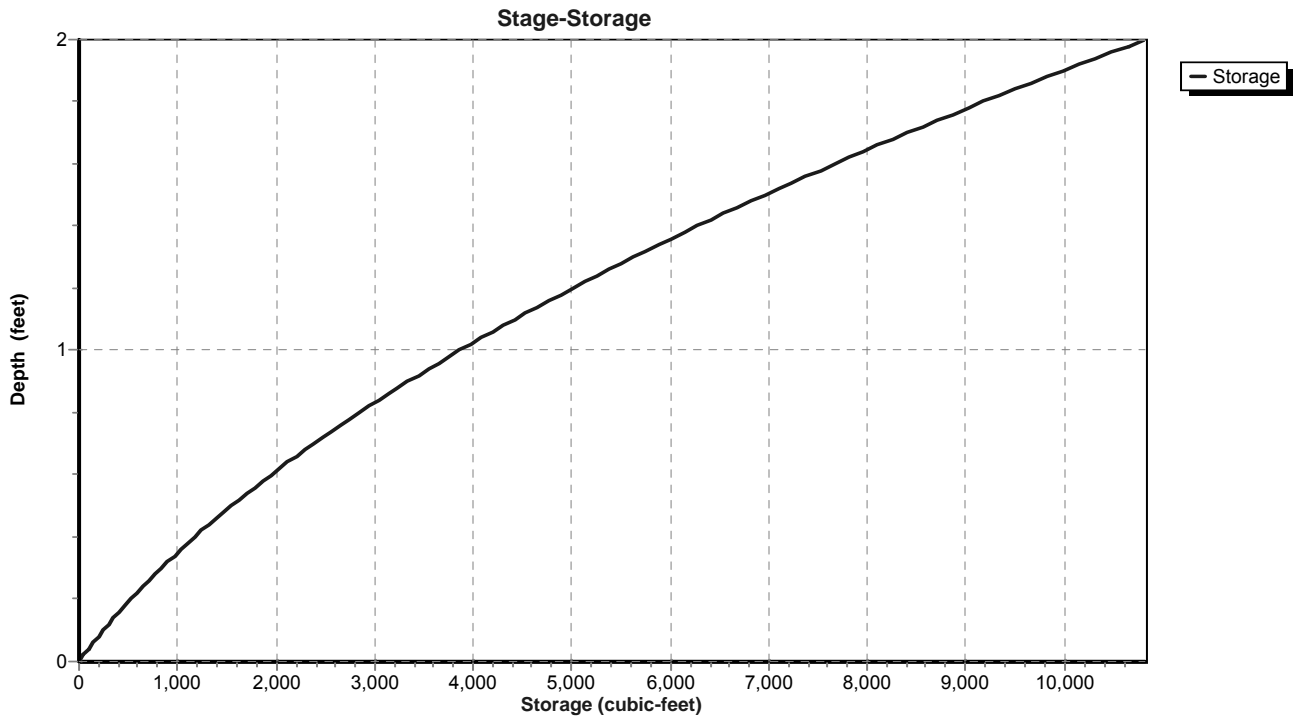


Reach A-1: Road Swale A-1

Hydrograph



Reach A-1: Road Swale A-1



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

[61] Hint: Exceeded Reach 1R outlet invert by 0.40' @ 12.30 hrs

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 4.10" for 100 Year - North Salem event
 Inflow = 10.71 cfs @ 12.27 hrs, Volume= 1.122 af
 Outflow = 10.49 cfs @ 12.37 hrs, Volume= 1.122 af, Atten= 2%, Lag= 5.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.28 fps, Min. Travel Time= 3.0 min
 Avg. Velocity = 0.43 fps, Avg. Travel Time= 9.0 min

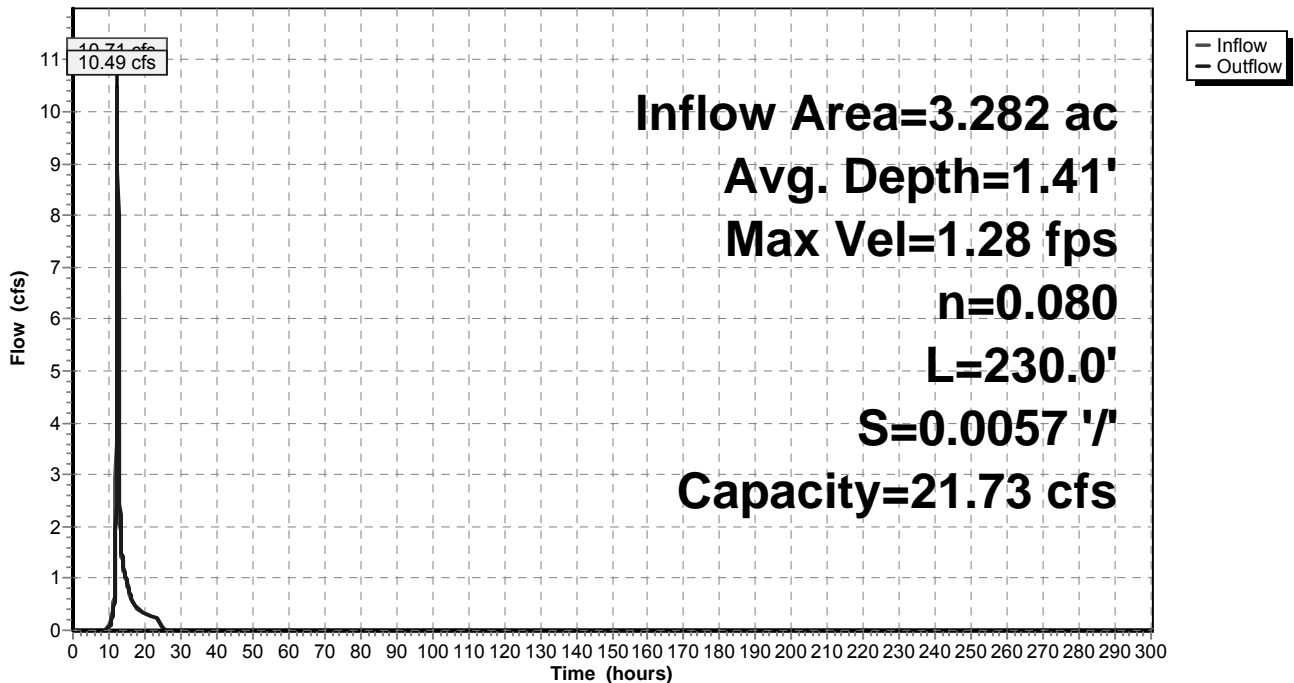
Peak Storage= 1,881 cf @ 12.32 hrs, Average Depth at Peak Storage= 1.41'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/ Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 '/
 Inlet Invert= 333.00', Outlet Invert= 331.70'

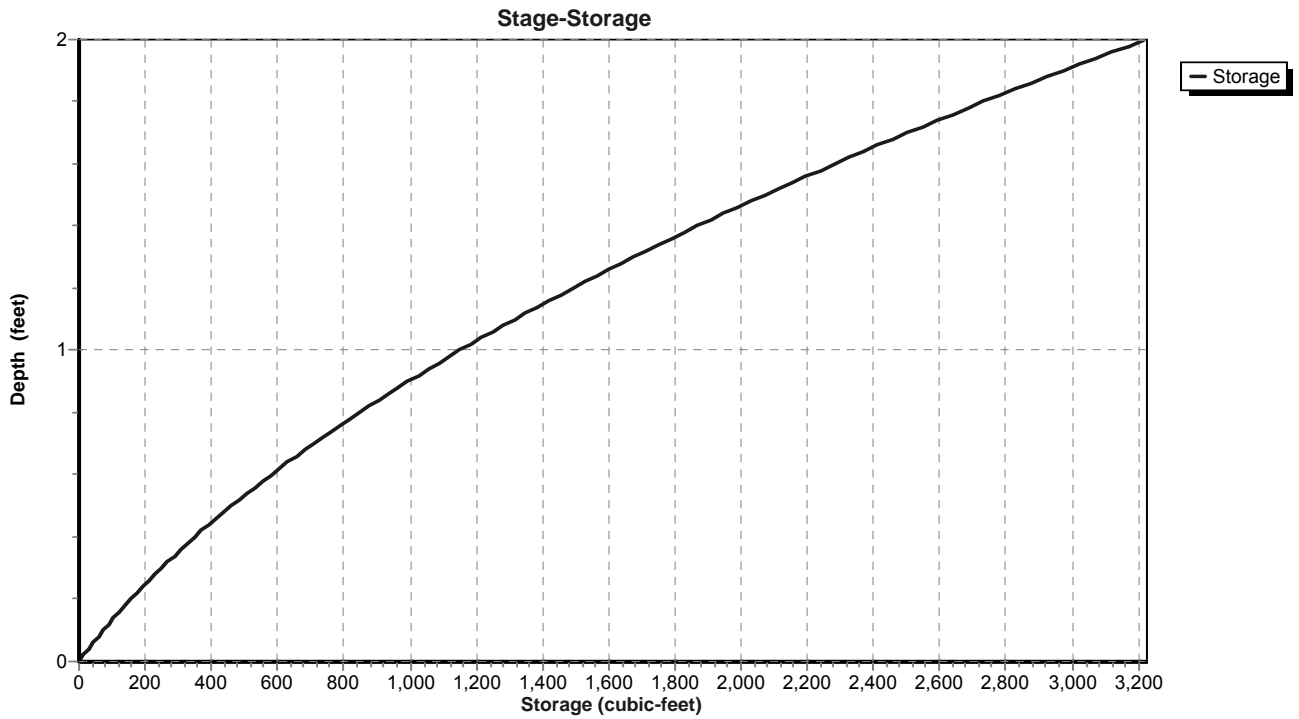


Reach A-2: Road Swale A-2

Hydrograph



Reach A-2: Road Swale A-2



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

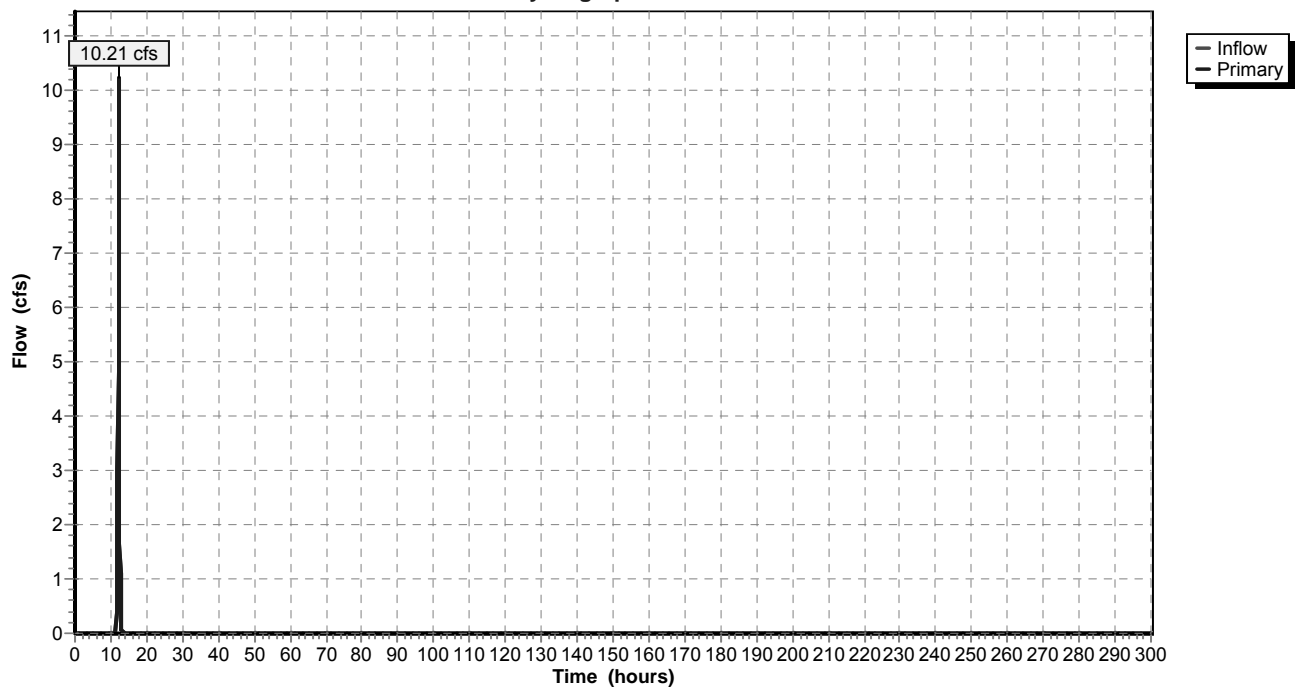
[40] Hint: Not Described (Outflow=Inflow)

Inflow = 10.21 cfs @ 12.11 hrs, Volume= 0.295 af
Primary = 10.21 cfs @ 12.11 hrs, Volume= 0.295 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

Hydrograph



Summary for Pond DP 1A: Design Point 1A

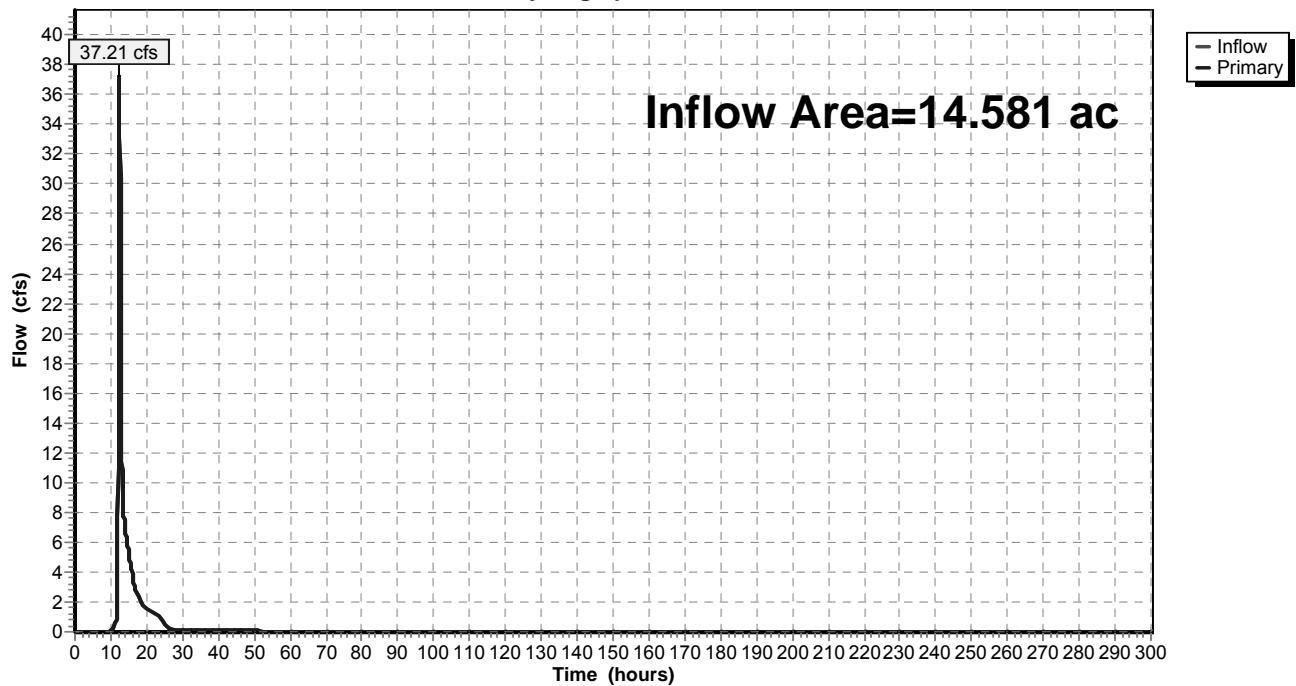
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 4.53" for 100 Year - North Salem event
 Inflow = 37.21 cfs @ 12.37 hrs, Volume= 5.501 af
 Primary = 37.21 cfs @ 12.37 hrs, Volume= 5.501 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 4.84" for 100 Year - North Salem event
 Inflow = 34.12 cfs @ 12.14 hrs, Volume= 2.796 af
 Outflow = 16.94 cfs @ 12.38 hrs, Volume= 2.795 af, Atten= 50%, Lag= 14.3 min
 Primary = 16.94 cfs @ 12.38 hrs, Volume= 2.795 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 366.97' @ 12.38 hrs Surf.Area= 15,447 sf Storage= 44,513 cf (40,306 cf above start)

Plug-Flow detention time= 354.4 min calculated for 2.699 af (97% of inflow)
 Center-of-Mass det. time= 319.0 min (1,150.3 - 831.3)

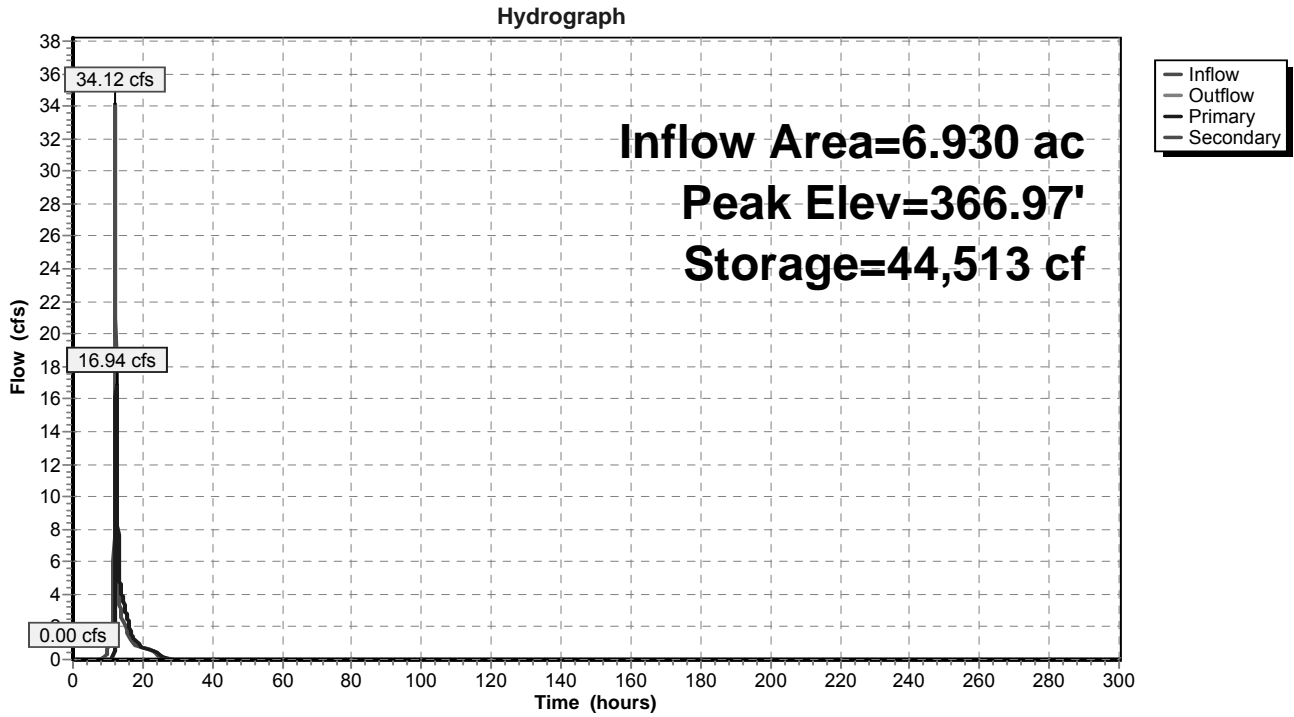
Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

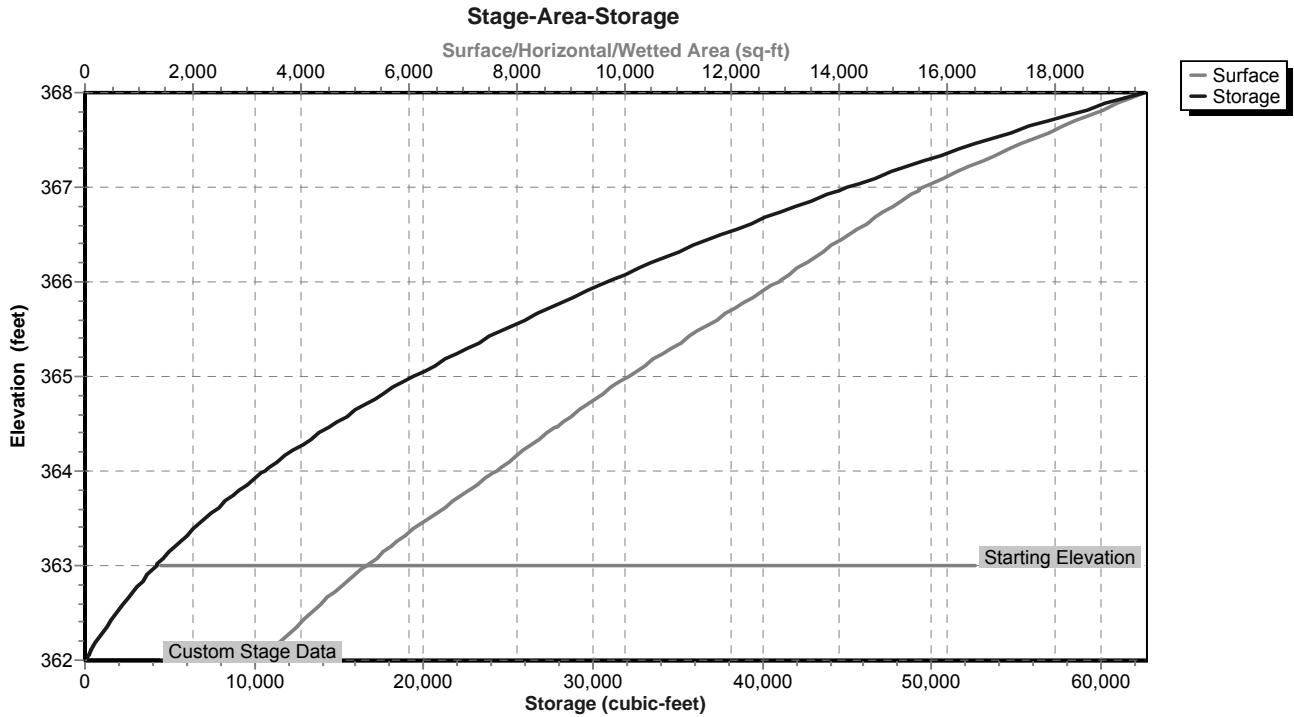
Primary OutFlow Max=16.89 cfs @ 12.38 hrs HW=366.96' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 16.89 cfs of 39.17 cfs potential flow)
 ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.08 cfs @ 3.80 fps)
 ↑ 3=Orifice #1 (Orifice Controls 5.69 cfs @ 7.00 fps)
 ↑ 4=Orifice #2 (Orifice Controls 11.12 cfs @ 3.15 fps)
 ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)
 ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-A4: Micropool ED Basin (Basin A4)



Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 4.72" for 100 Year - North Salem event
 Inflow = 3.79 cfs @ 12.10 hrs, Volume= 0.276 af
 Outflow = 3.79 cfs @ 12.10 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.47 cfs @ 12.10 hrs, Volume= 0.219 af
 Secondary = 2.32 cfs @ 12.10 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 340.26' @ 12.10 hrs
 Flood Elev= 358.26'

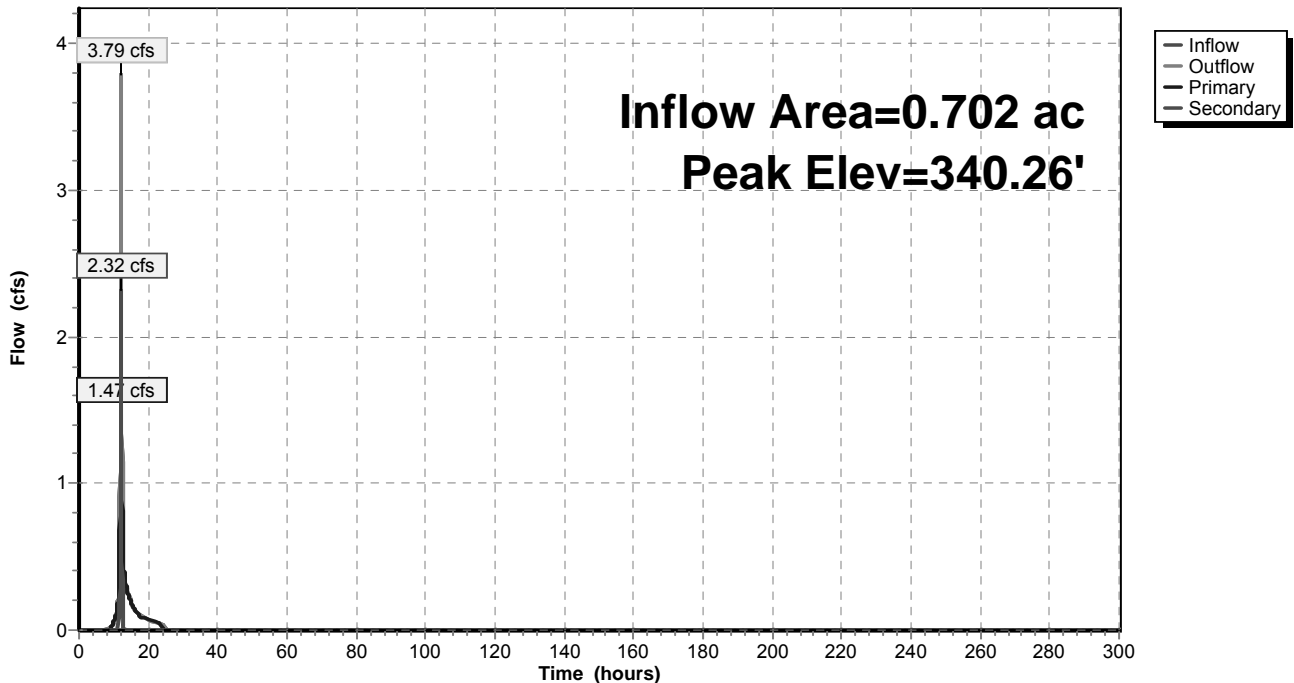
Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.46 cfs @ 12.10 hrs HW=340.25' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.46 cfs @ 4.19 fps)

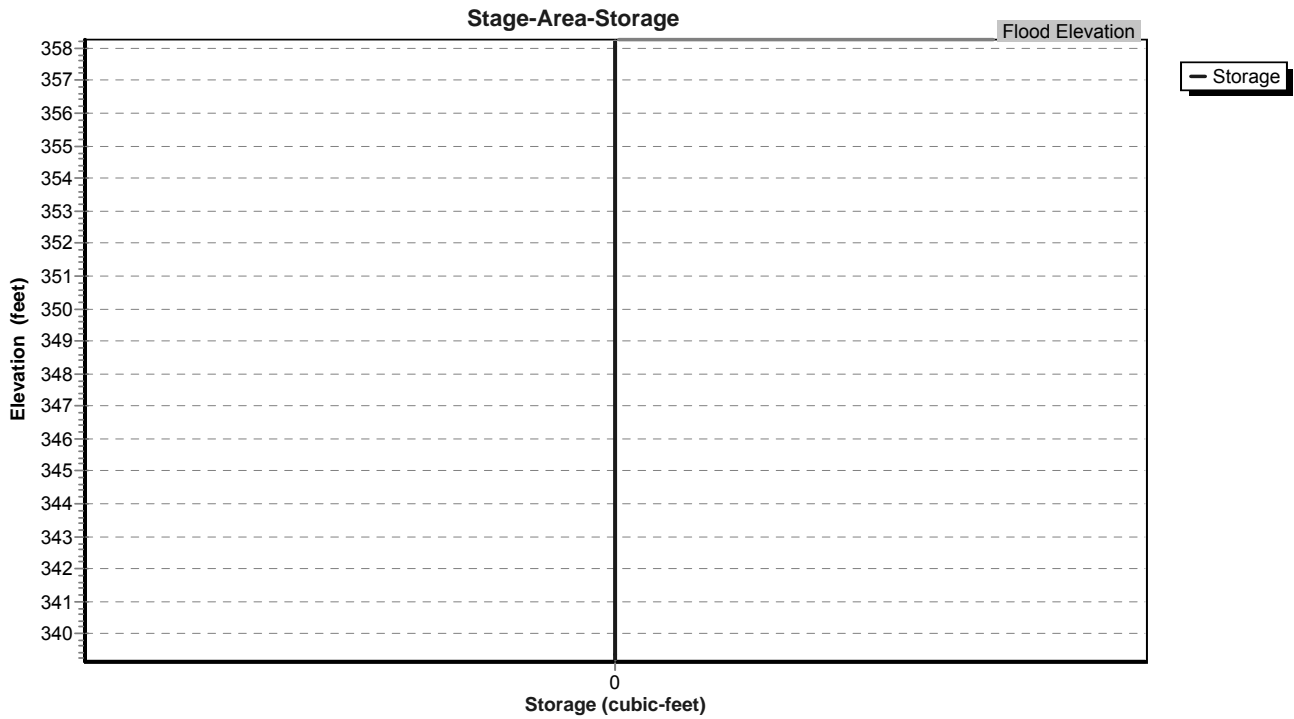
Secondary OutFlow Max=2.27 cfs @ 12.10 hrs HW=340.25' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 2.27 cfs @ 2.95 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Pond FS A3a: Flow Splitter A3a



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 4.59" for 100 Year - North Salem event
 Inflow = 10.69 cfs @ 12.11 hrs, Volume= 0.805 af
 Outflow = 10.69 cfs @ 12.11 hrs, Volume= 0.805 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.77 cfs @ 12.11 hrs, Volume= 0.567 af
 Secondary = 7.91 cfs @ 12.11 hrs, Volume= 0.238 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 354.21' @ 12.11 hrs
 Flood Elev= 358.26'

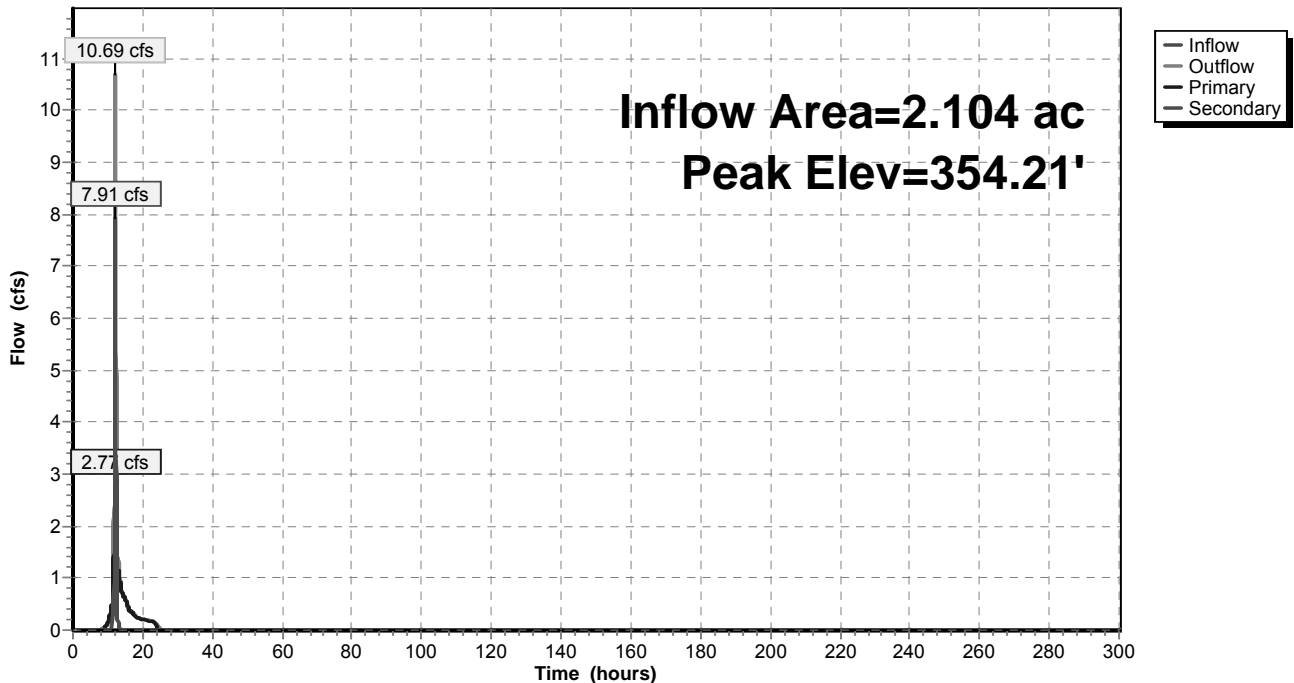
Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.74 cfs @ 12.11 hrs HW=354.14' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.74 cfs @ 7.84 fps)

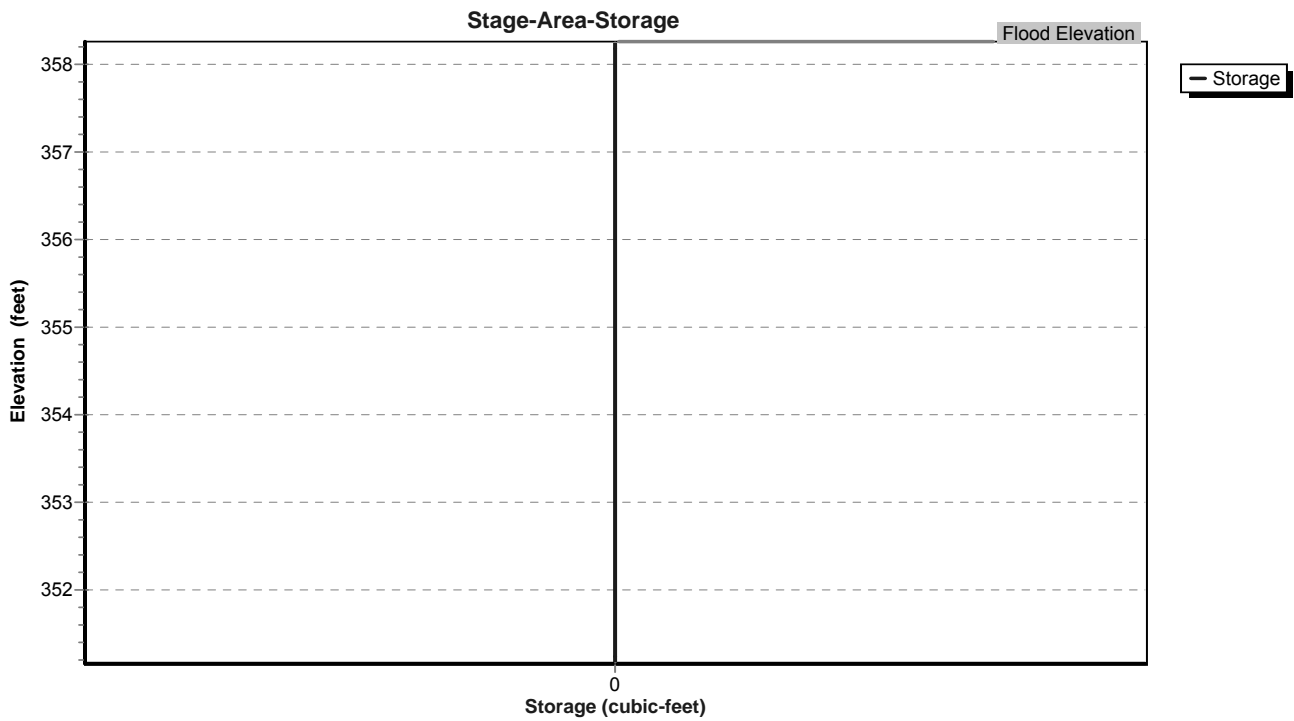
Secondary OutFlow Max=7.74 cfs @ 12.11 hrs HW=354.14' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 7.74 cfs @ 6.31 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Pond FS A3b: Flow Splitter A3b



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

[79] Warning: Submerged Pond SFF-A3a Primary device # 1 INLET by 0.08'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 3.75" for 100 Year - North Salem event
 Inflow = 1.46 cfs @ 12.10 hrs, Volume= 0.219 af
 Outflow = 1.42 cfs @ 12.14 hrs, Volume= 0.219 af, Atten= 3%, Lag= 2.5 min
 Primary = 1.42 cfs @ 12.14 hrs, Volume= 0.219 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 337.08' @ 12.14 hrs Surf.Area= 1,002 sf Storage= 1,465 cf

Plug-Flow detention time= 226.1 min calculated for 0.219 af (100% of inflow)
 Center-of-Mass det. time= 227.1 min (1,102.8 - 875.7)

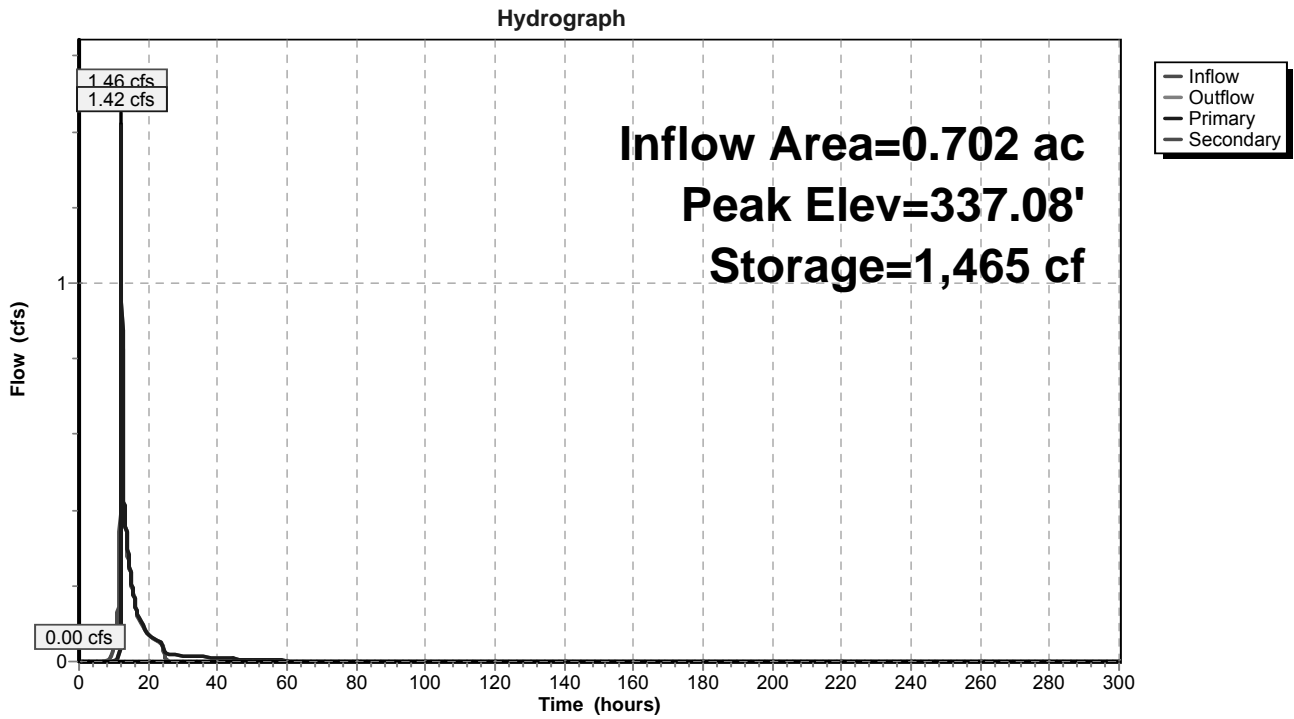
Volume	Invert	Avail.Storage	Storage Description		
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
335.00	432	111.0	0	0	432
336.00	693	141.0	557	557	1,047
338.00	1,313	168.0	1,973	2,531	1,779

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

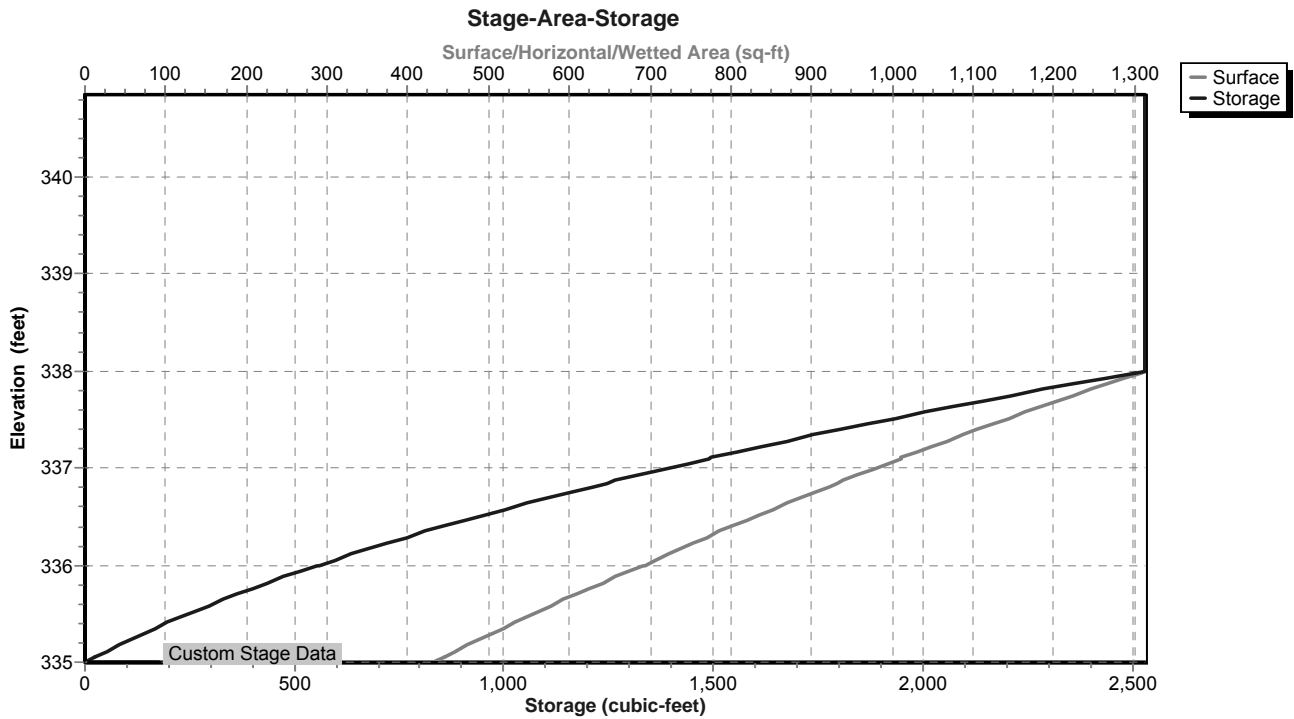
Primary OutFlow Max=1.40 cfs @ 12.14 hrs HW=337.08' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 1.40 cfs of 6.74 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.02 cfs)
 ↑ 3=Top of Outlet Box (Orifice Controls 1.38 cfs @ 1.53 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3a: Sand Filter - A3a



Pond SF-A3a: Sand Filter - A3a



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 3.23" for 100 Year - North Salem event
 Inflow = 2.65 cfs @ 12.15 hrs, Volume= 0.567 af
 Outflow = 1.61 cfs @ 12.52 hrs, Volume= 0.567 af, Atten= 39%, Lag= 22.7 min
 Primary = 1.61 cfs @ 12.52 hrs, Volume= 0.567 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 344.62' @ 12.52 hrs Surf.Area= 2,142 sf Storage= 4,468 cf

Plug-Flow detention time= 398.7 min calculated for 0.567 af (100% of inflow)
 Center-of-Mass det. time= 400.8 min (1,332.7 - 931.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

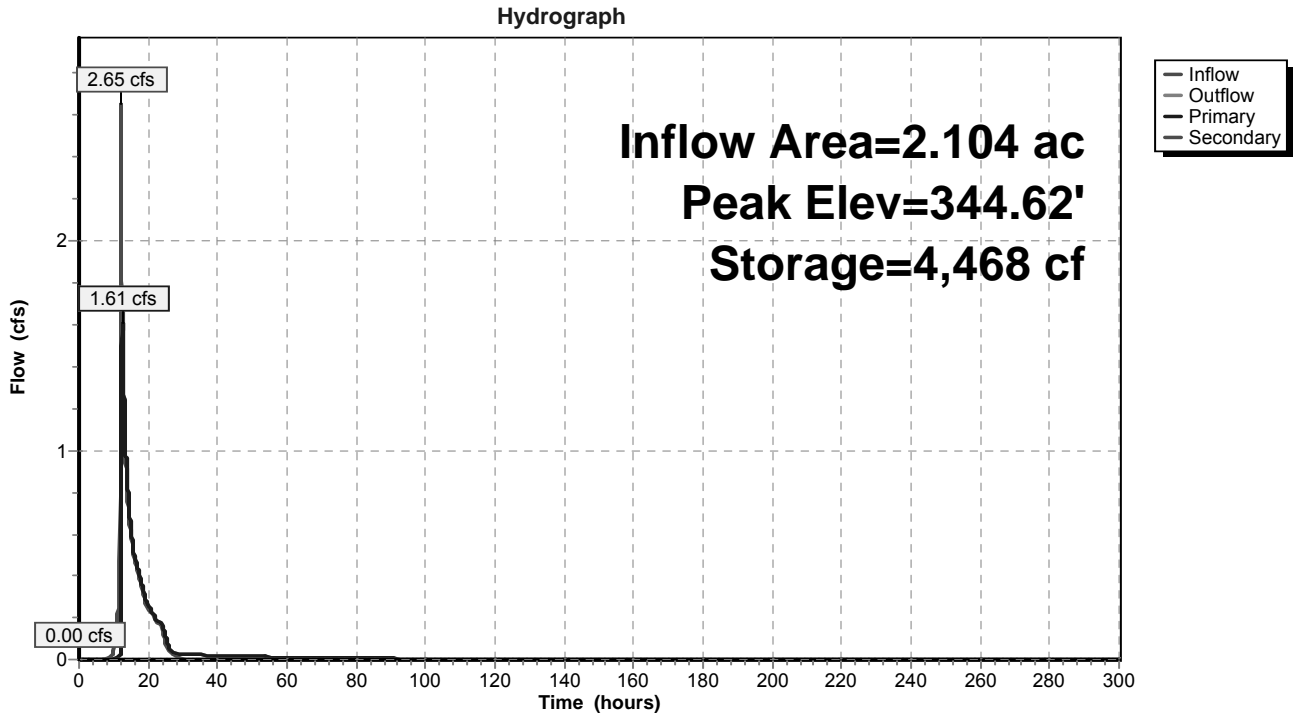
Primary OutFlow Max=1.60 cfs @ 12.52 hrs HW=344.62' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.60 cfs of 7.17 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 1.57 cfs @ 2.53 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

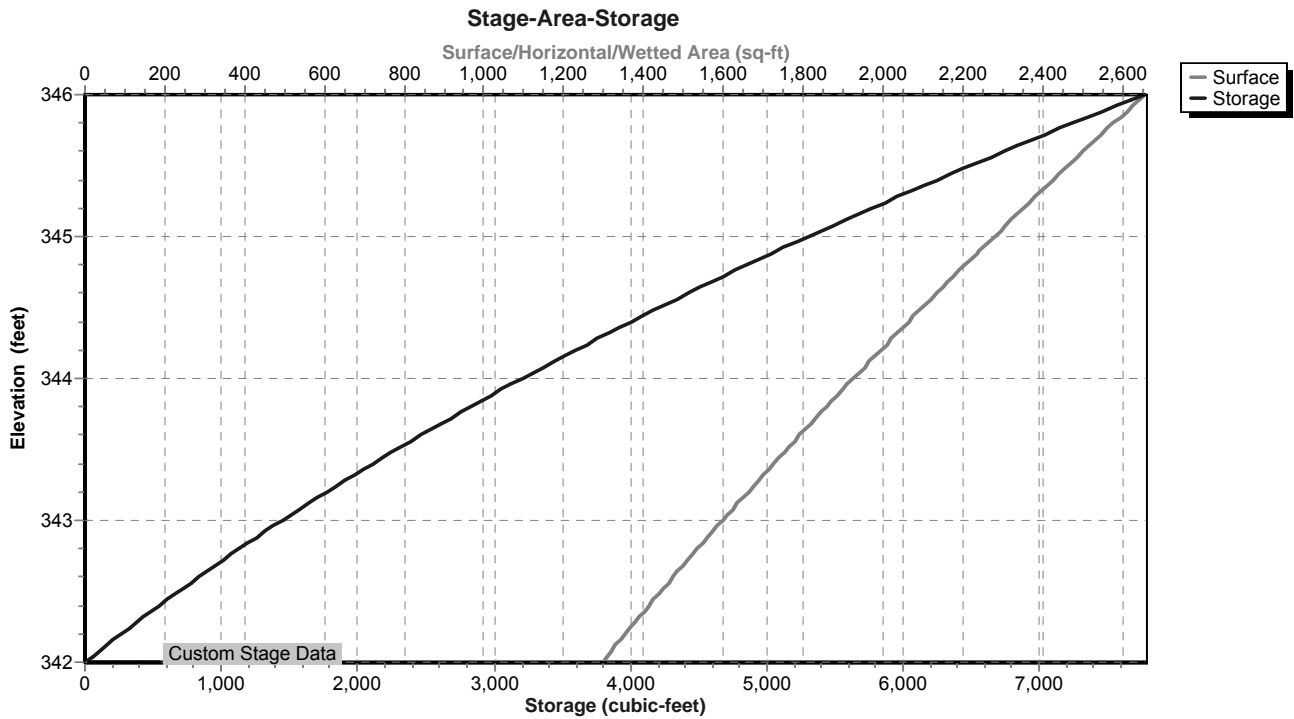
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3b: Sand Filter - A3b



Pond SF-A3b: Sand Filter - A3b



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 3.75" for 100 Year - North Salem event
 Inflow = 1.47 cfs @ 12.10 hrs, Volume= 0.219 af
 Outflow = 1.46 cfs @ 12.10 hrs, Volume= 0.219 af, Atten= 0%, Lag= 0.4 min
 Primary = 1.46 cfs @ 12.10 hrs, Volume= 0.219 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 338.84' @ 12.10 hrs Surf.Area= 464 sf Storage= 600 cf

Plug-Flow detention time= 19.6 min calculated for 0.219 af (100% of inflow)
 Center-of-Mass det. time= 19.7 min (875.7 - 856.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
337.00	200	57.0	0	0	200
338.00	336	71.0	265	265	356
339.00	490	83.0	411	676	522
340.00	670	96.0	578	1,253	728

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

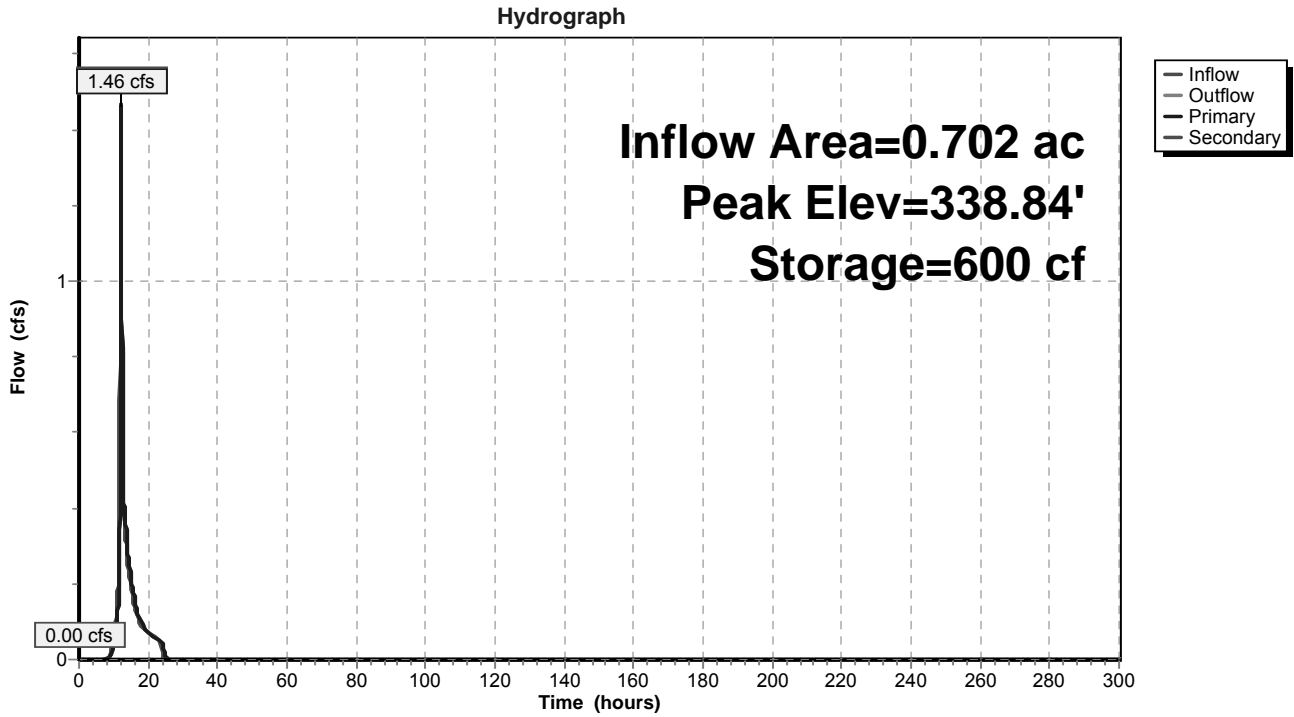
Primary OutFlow Max=1.45 cfs @ 12.10 hrs HW=338.84' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.45 cfs of 6.40 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.44 cfs @ 4.46 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.29 cfs @ 0.99 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.73 cfs @ 0.99 fps)

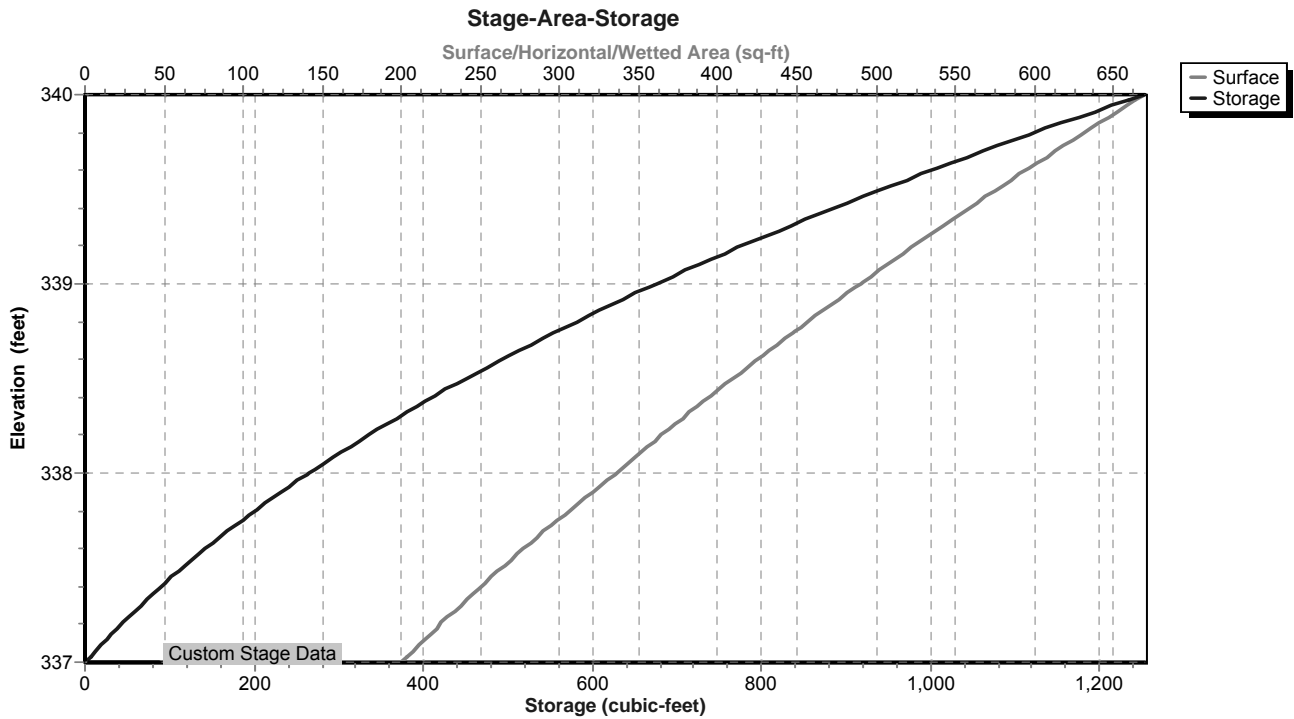
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3a: Sand Filter Forebay - A3a



Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 3.23" for 100 Year - North Salem event
 Inflow = 2.77 cfs @ 12.11 hrs, Volume= 0.567 af
 Outflow = 2.65 cfs @ 12.15 hrs, Volume= 0.567 af, Atten= 4%, Lag= 2.2 min
 Primary = 2.65 cfs @ 12.15 hrs, Volume= 0.567 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 350.22' @ 12.15 hrs Surf.Area= 1,718 sf Storage= 2,620 cf

Plug-Flow detention time= 56.1 min calculated for 0.567 af (100% of inflow)
 Center-of-Mass det. time= 56.0 min (931.9 - 876.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

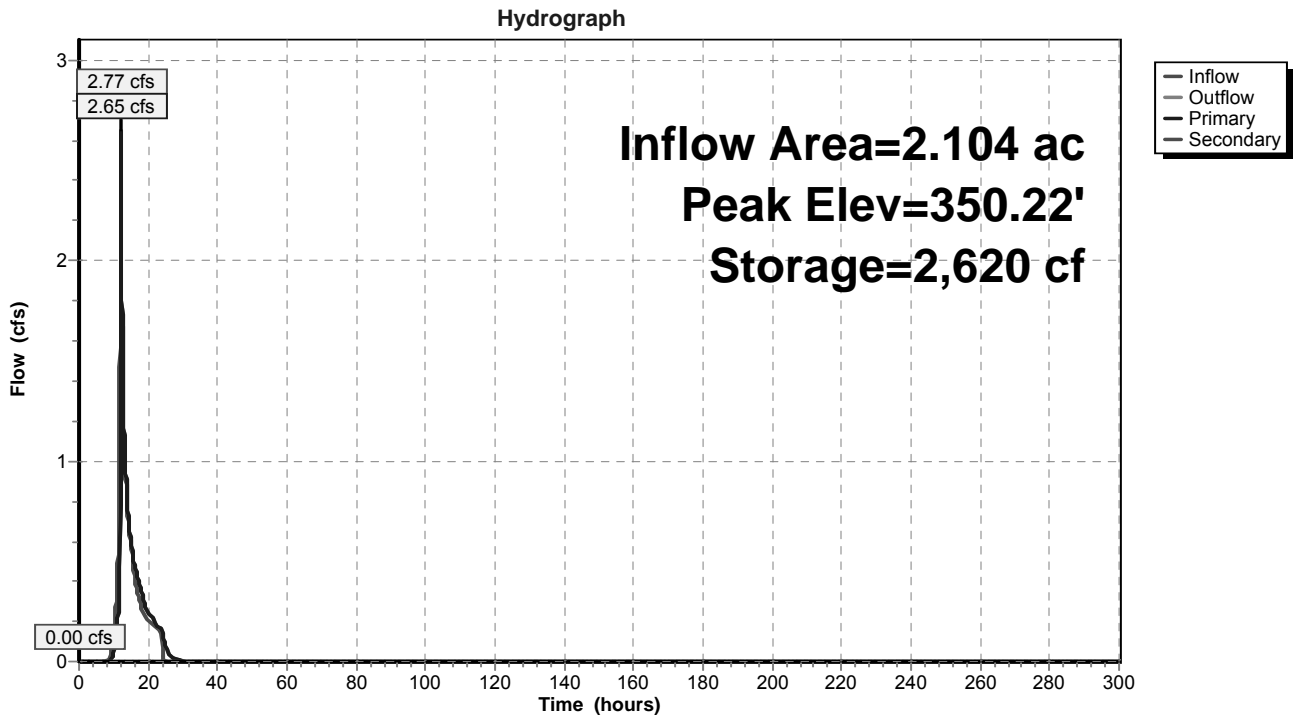
Primary OutFlow Max=2.63 cfs @ 12.15 hrs HW=350.22' (Free Discharge)

- 1=Outlet Pipe (Passes 2.63 cfs of 7.47 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.54 cfs @ 5.45 fps)
- 3=Top of Standpipe (Weir Controls 1.08 cfs @ 1.54 fps)
- 4=Orifice #1 (Orifice Controls 1.01 cfs @ 1.52 fps)
- 5=Top of Outlet Box (Controls 0.00 cfs)

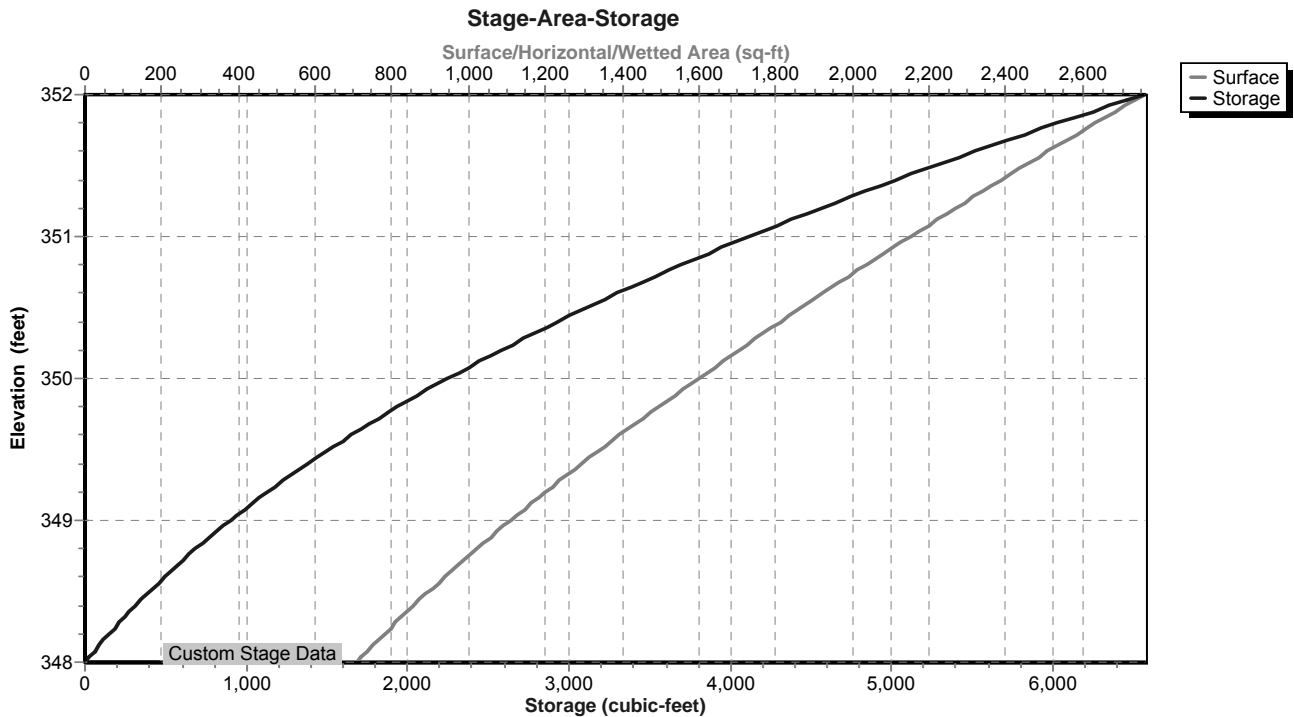
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- 6=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3b: Sand Filter Forebay - A3b



Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

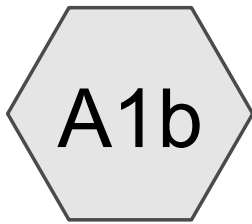
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

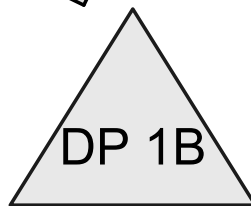
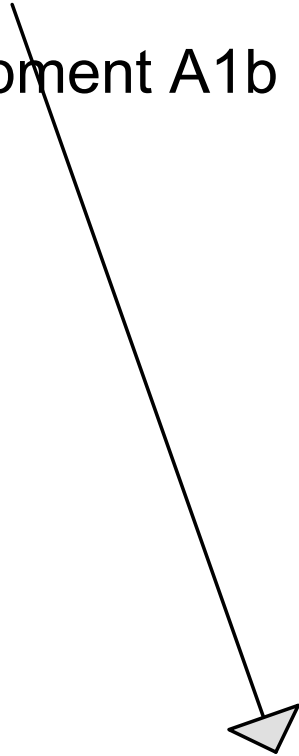
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

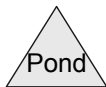
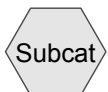
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			



Post-Development A1b



Design Point 1B



Woodlands Post-Dev DP 1B 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.982	55	Woods, Good, HSG B, (Undisurbed) (A1b)
0.009	61	>75% Grass cover, Good, HSG B (A1b)
0.040	98	Ledge Rock (A1b)
1.031		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1b: Post-Development A1b Runoff Area=1.031 ac 3.88% Impervious Runoff Depth=0.28"
Flow Length=435' Tc=8.0 min CN=57 Runoff=0.13 cfs 0.024 af

Pond DP 1B: Design Point 1B

Inflow=0.13 cfs 0.024 af
Primary=0.13 cfs 0.024 af

Total Runoff Area = 1.031 ac Runoff Volume = 0.024 af Average Runoff Depth = 0.28"
96.12% Pervious = 0.991 ac 3.88% Impervious = 0.040 ac

Summary for Subcatchment A1b: Post-Development A1b

Runoff = 0.13 cfs @ 12.33 hrs, Volume= 0.024 af, Depth= 0.28"

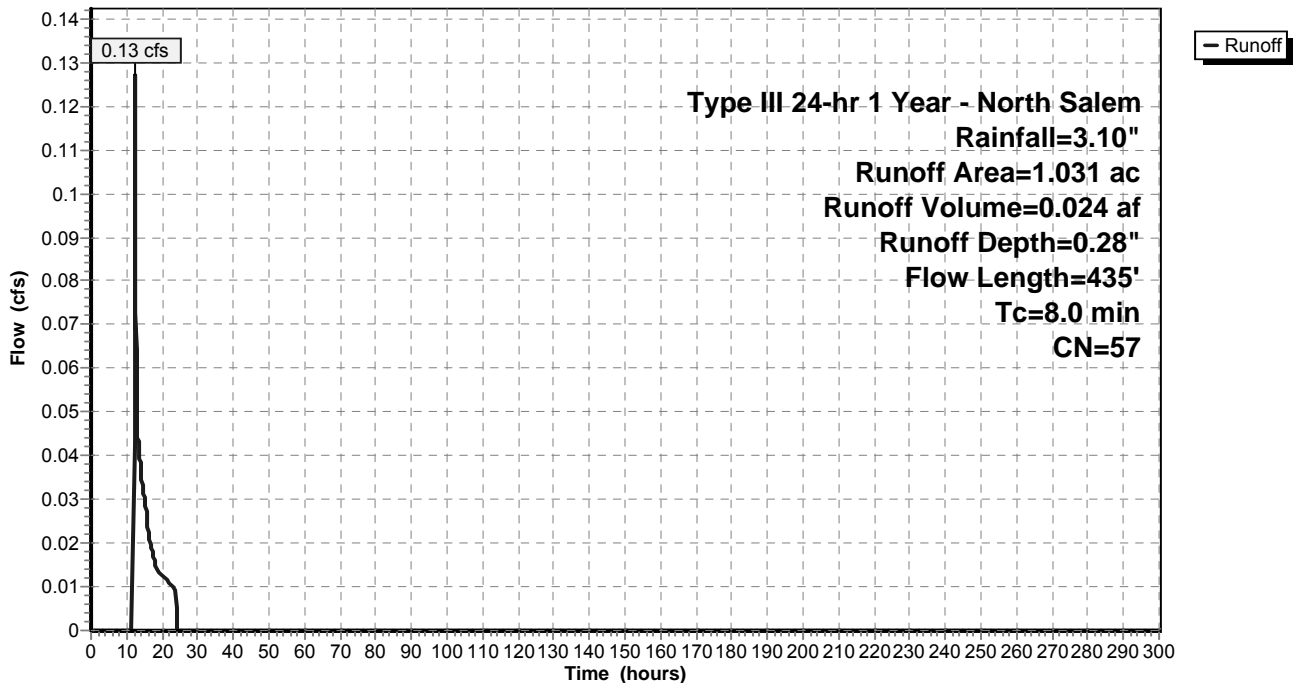
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.009	61	>75% Grass cover, Good, HSG B
* 0.982	55	Woods, Good, HSG B, (Undisturbed)
* 0.040	98	Ledge Rock
1.031	57	Weighted Average
0.991		96.12% Pervious Area
0.040		3.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.3400	0.26		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	48	0.4170	10.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.5	287	0.0383	3.15		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.0	435	Total			

Subcatchment A1b: Post-Development A1b

Hydrograph



Summary for Pond DP 1B: Design Point 1B

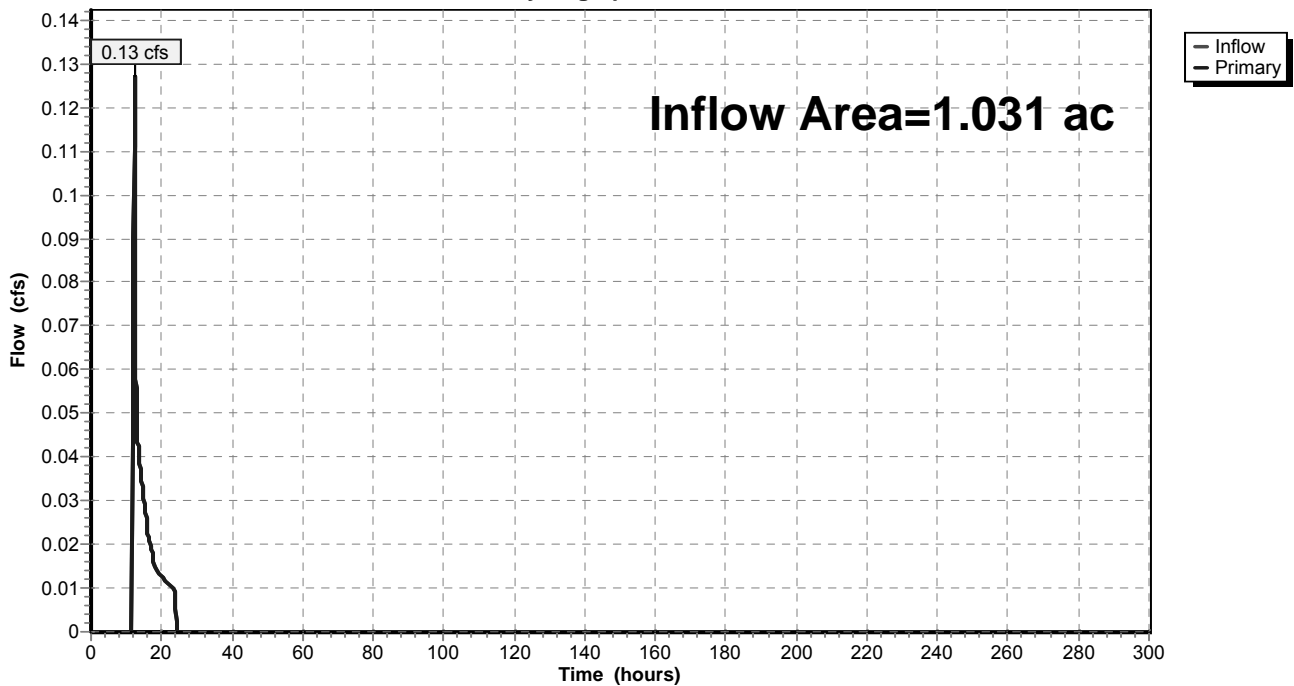
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.031 ac, 3.88% Impervious, Inflow Depth = 0.28" for 1 Year - North Salem event
Inflow = 0.13 cfs @ 12.33 hrs, Volume= 0.024 af
Primary = 0.13 cfs @ 12.33 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1b: Post-Development A1b Runoff Area=1.031 ac 3.88% Impervious Runoff Depth=0.49"
Flow Length=435' Tc=8.0 min CN=57 Runoff=0.33 cfs 0.042 af

Pond DP 1B: Design Point 1B

Inflow=0.33 cfs 0.042 af
Primary=0.33 cfs 0.042 af

Total Runoff Area = 1.031 ac Runoff Volume = 0.042 af Average Runoff Depth = 0.49"
96.12% Pervious = 0.991 ac 3.88% Impervious = 0.040 ac

Summary for Subcatchment A1b: Post-Development A1b

Runoff = 0.33 cfs @ 12.17 hrs, Volume= 0.042 af, Depth= 0.49"

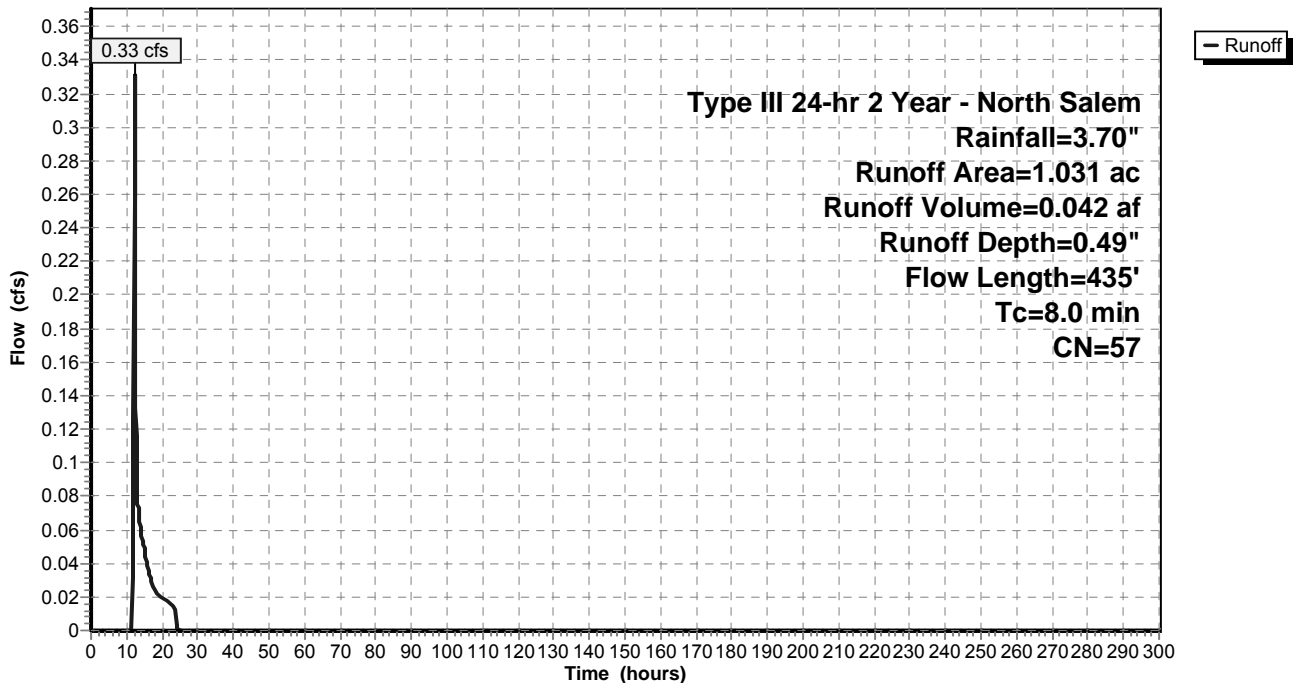
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.009	61	>75% Grass cover, Good, HSG B
* 0.982	55	Woods, Good, HSG B, (Undisturbed)
* 0.040	98	Ledge Rock
1.031	57	Weighted Average
0.991		96.12% Pervious Area
0.040		3.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.3400	0.26		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	48	0.4170	10.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.5	287	0.0383	3.15		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.0	435	Total			

Subcatchment A1b: Post-Development A1b

Hydrograph



Summary for Pond DP 1B: Design Point 1B

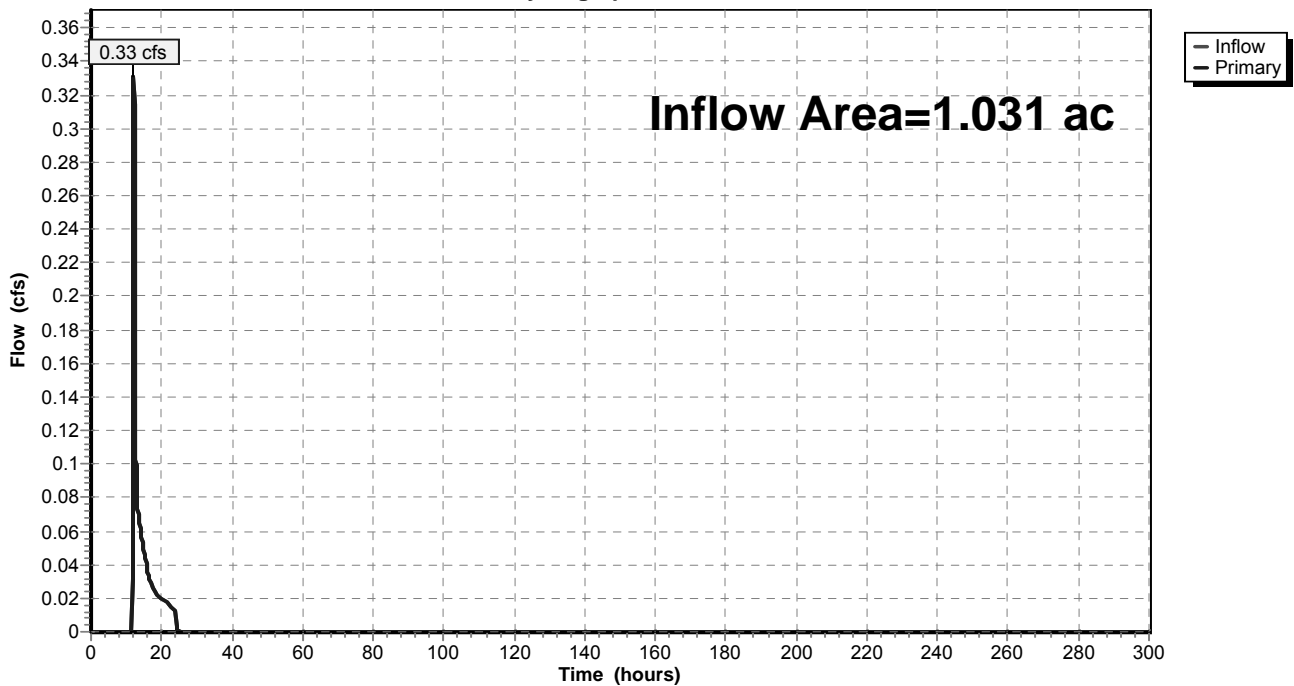
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.031 ac, 3.88% Impervious, Inflow Depth = 0.49" for 2 Year - North Salem event
Inflow = 0.33 cfs @ 12.17 hrs, Volume= 0.042 af
Primary = 0.33 cfs @ 12.17 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1b: Post-Development A1b Runoff Area=1.031 ac 3.88% Impervious Runoff Depth=1.38"
Flow Length=435' Tc=8.0 min CN=57 Runoff=1.34 cfs 0.119 af

Pond DP 1B: Design Point 1B

Inflow=1.34 cfs 0.119 af
Primary=1.34 cfs 0.119 af

Total Runoff Area = 1.031 ac Runoff Volume = 0.119 af Average Runoff Depth = 1.38"
96.12% Pervious = 0.991 ac 3.88% Impervious = 0.040 ac

Summary for Subcatchment A1b: Post-Development A1b

Runoff = 1.34 cfs @ 12.13 hrs, Volume= 0.119 af, Depth= 1.38"

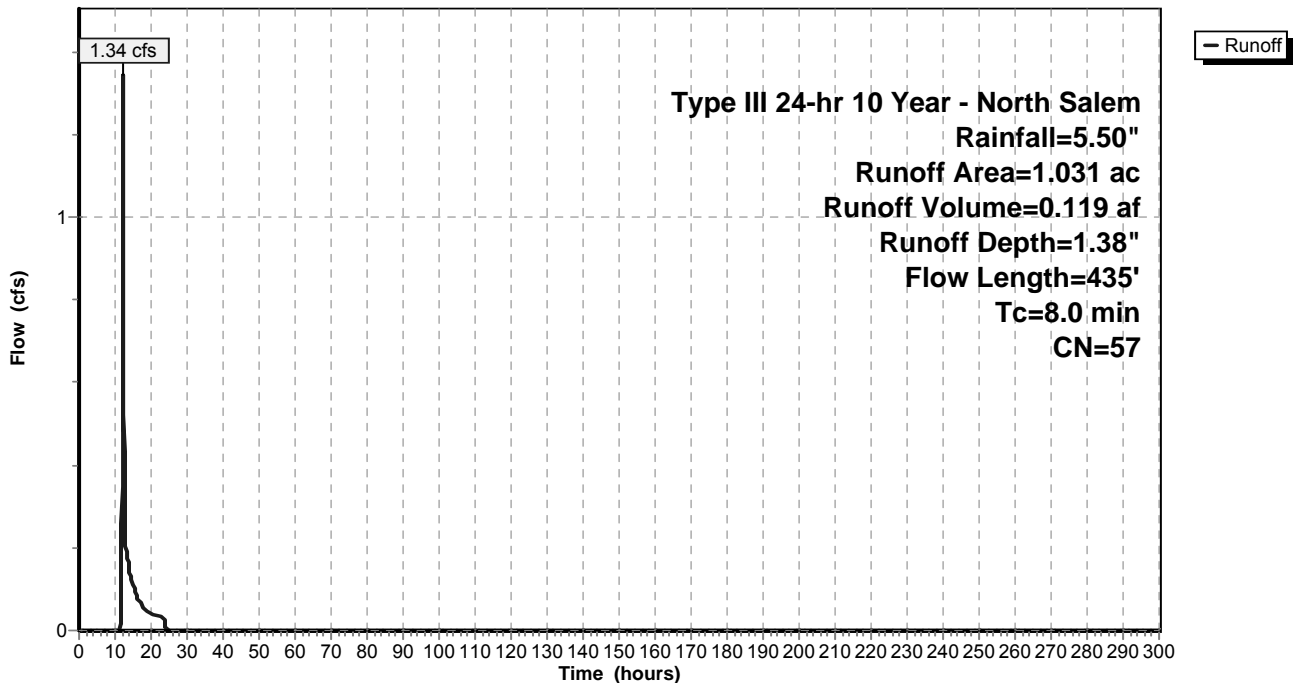
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.009	61	>75% Grass cover, Good, HSG B
* 0.982	55	Woods, Good, HSG B, (Undisturbed)
* 0.040	98	Ledge Rock
1.031	57	Weighted Average
0.991		96.12% Pervious Area
0.040		3.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.3400	0.26		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	48	0.4170	10.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.5	287	0.0383	3.15		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.0	435	Total			

Subcatchment A1b: Post-Development A1b

Hydrograph



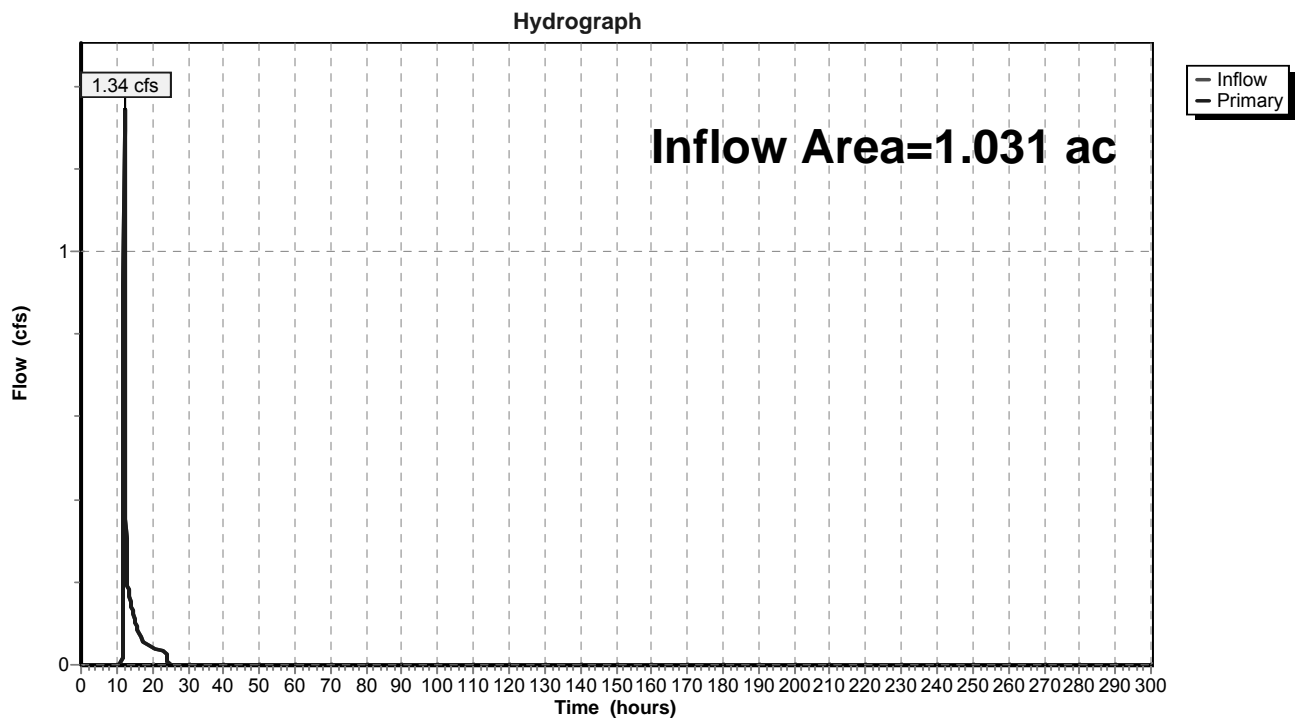
Summary for Pond DP 1B: Design Point 1B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.031 ac, 3.88% Impervious, Inflow Depth = 1.38" for 10 Year - North Salem event
 Inflow = 1.34 cfs @ 12.13 hrs, Volume= 0.119 af
 Primary = 1.34 cfs @ 12.13 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1b: Post-Development A1b Runoff Area=1.031 ac 3.88% Impervious Runoff Depth=2.31"
Flow Length=435' Tc=8.0 min CN=57 Runoff=2.44 cfs 0.199 af

Pond DP 1B: Design Point 1B

Inflow=2.44 cfs 0.199 af
Primary=2.44 cfs 0.199 af

Total Runoff Area = 1.031 ac Runoff Volume = 0.199 af Average Runoff Depth = 2.31"
96.12% Pervious = 0.991 ac 3.88% Impervious = 0.040 ac

Summary for Subcatchment A1b: Post-Development A1b

Runoff = 2.44 cfs @ 12.12 hrs, Volume= 0.199 af, Depth= 2.31"

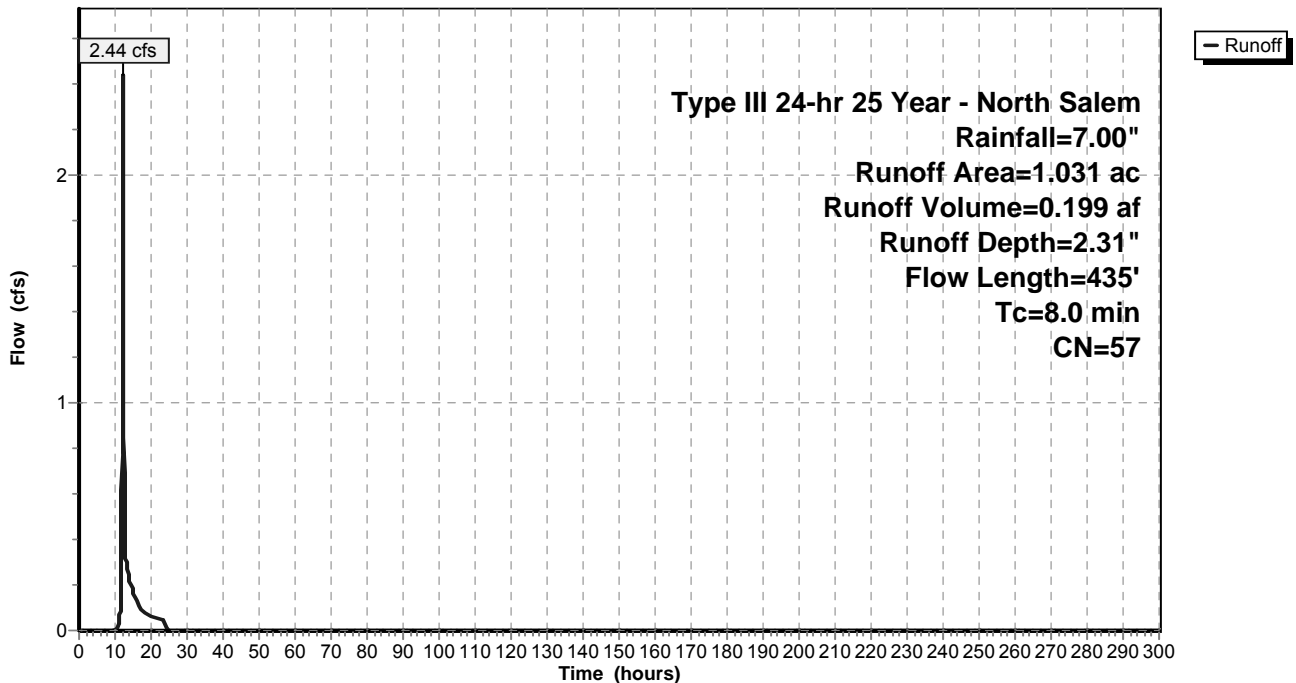
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.009	61	>75% Grass cover, Good, HSG B
* 0.982	55	Woods, Good, HSG B, (Undisturbed)
* 0.040	98	Ledge Rock
1.031	57	Weighted Average
0.991		96.12% Pervious Area
0.040		3.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.3400	0.26		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	48	0.4170	10.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.5	287	0.0383	3.15		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.0	435	Total			

Subcatchment A1b: Post-Development A1b

Hydrograph



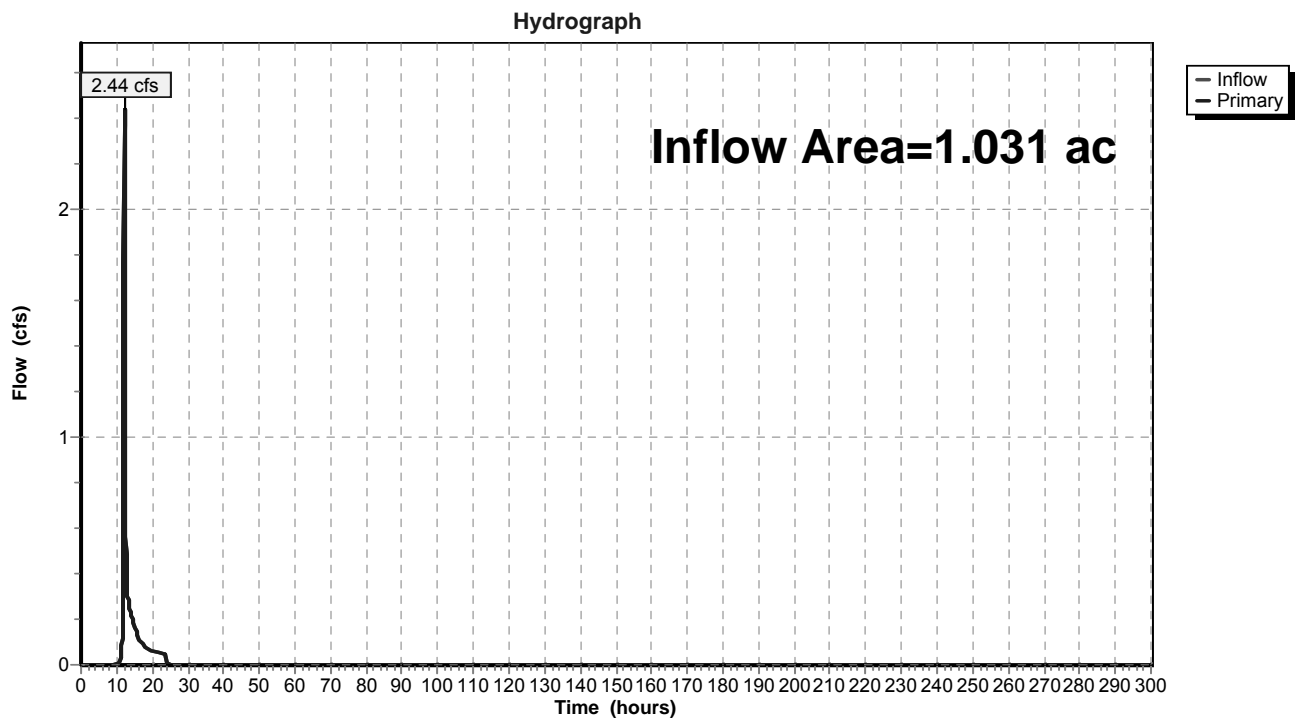
Summary for Pond DP 1B: Design Point 1B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.031 ac, 3.88% Impervious, Inflow Depth = 2.31" for 25 Year - North Salem event
 Inflow = 2.44 cfs @ 12.12 hrs, Volume= 0.199 af
 Primary = 2.44 cfs @ 12.12 hrs, Volume= 0.199 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1b: Post-Development A1b Runoff Area=1.031 ac 3.88% Impervious Runoff Depth=3.73"
Flow Length=435' Tc=8.0 min CN=57 Runoff=4.08 cfs 0.321 af

Pond DP 1B: Design Point 1B

Inflow=4.08 cfs 0.321 af
Primary=4.08 cfs 0.321 af

Total Runoff Area = 1.031 ac Runoff Volume = 0.321 af Average Runoff Depth = 3.73"
96.12% Pervious = 0.991 ac 3.88% Impervious = 0.040 ac

Summary for Subcatchment A1b: Post-Development A1b

Runoff = 4.08 cfs @ 12.12 hrs, Volume= 0.321 af, Depth= 3.73"

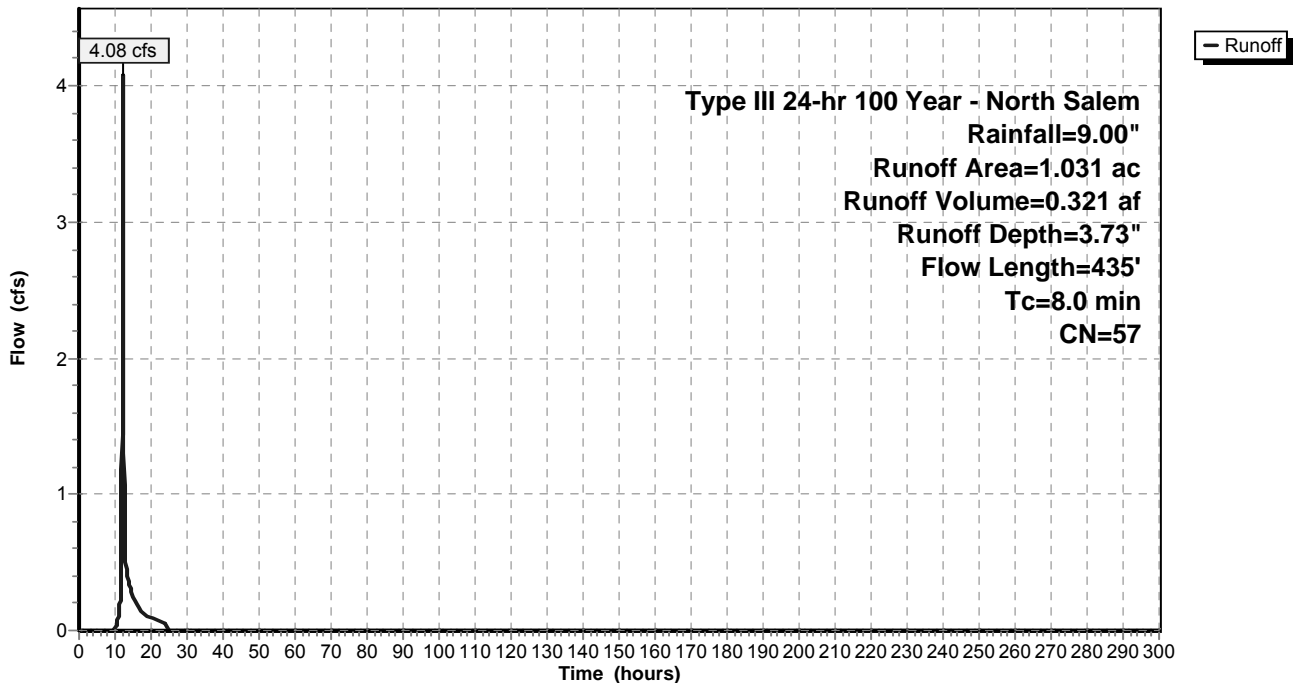
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.009	61	>75% Grass cover, Good, HSG B
* 0.982	55	Woods, Good, HSG B, (Undisturbed)
* 0.040	98	Ledge Rock
1.031	57	Weighted Average
0.991		96.12% Pervious Area
0.040		3.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	100	0.3400	0.26		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	48	0.4170	10.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.5	287	0.0383	3.15		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.0	435	Total			

Subcatchment A1b: Post-Development A1b

Hydrograph



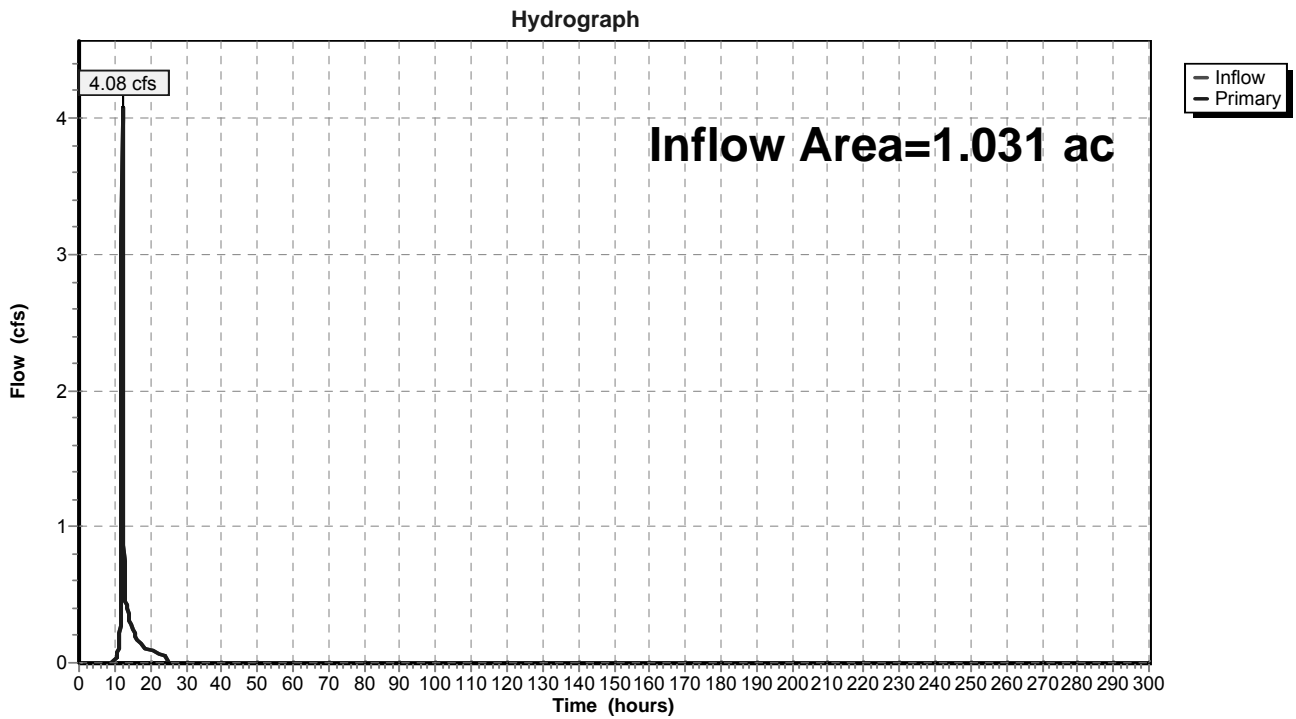
Summary for Pond DP 1B: Design Point 1B

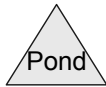
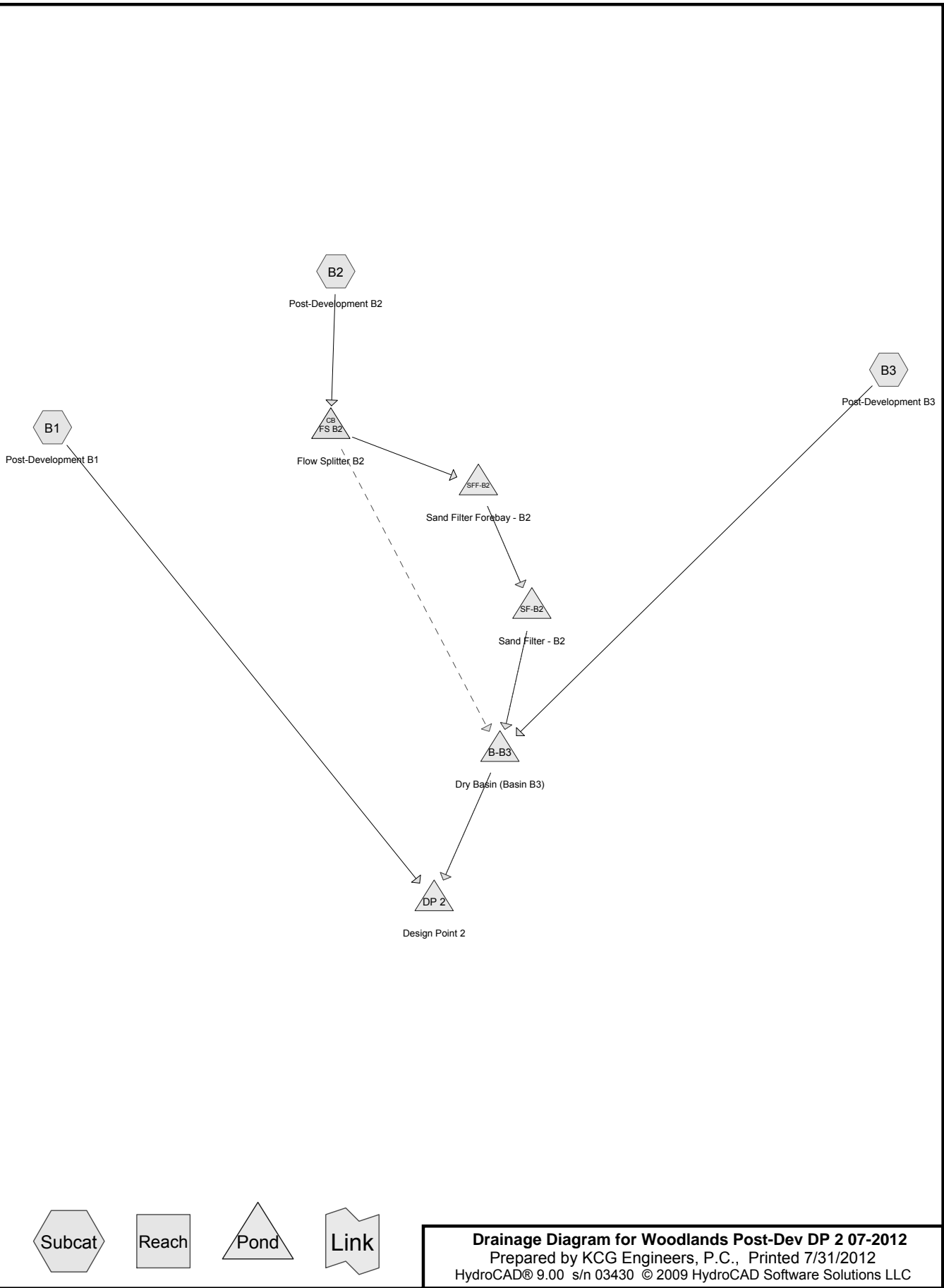
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.031 ac, 3.88% Impervious, Inflow Depth = 3.73" for 100 Year - North Salem event
Inflow = 4.08 cfs @ 12.12 hrs, Volume= 0.321 af
Primary = 4.08 cfs @ 12.12 hrs, Volume= 0.321 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1B: Design Point 1B





Drainage Diagram for Woodlands Post-Dev DP 2 07-2012
 Prepared by KCG Engineers, P.C., Printed 7/31/2012
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Woodlands Post-Dev DP 2 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.214	55	Woods, Good, HSG B (B1)
1.110	55	Woods, Good, HSG B, (Undisturbed) (B2, B3)
4.938	61	>75% Grass cover, Good, HSG B (B1, B2, B3)
0.085	98	Driveway (B2)
0.547	98	Paved roads w/curbs & sewers, HSG B (B2)
0.064	98	Roof/Walkway (B2)
0.096	98	Sidewalk (B2)
9.054		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=917' Tc=9.6 min CN=58 Runoff=0.56 cfs 0.100 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=0.59"
Flow Length=602' Tc=10.9 min CN=66 Runoff=2.05 cfs 0.224 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=0.34"
Flow Length=230' Tc=8.5 min CN=59 Runoff=0.11 cfs 0.017 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=420.64' Storage=734 cf Inflow=0.11 cfs 0.241 af
Primary=0.06 cfs 0.228 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.228 af

Pond DP 2: Design Point 2 Inflow=0.56 cfs 0.328 af
Primary=0.56 cfs 0.328 af

Pond FS B2: Flow Splitter B2 Peak Elev=463.82' Inflow=2.05 cfs 0.224 af
Primary=2.05 cfs 0.224 af Secondary=0.00 cfs 0.000 af Outflow=2.05 cfs 0.224 af

Pond SF-B2: Sand Filter - B2 Peak Elev=436.62' Storage=7,454 cf Inflow=0.47 cfs 0.224 af
Primary=0.06 cfs 0.224 af Secondary=0.00 cfs 0.000 af Outflow=0.06 cfs 0.224 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=457.95' Storage=2,818 cf Inflow=2.05 cfs 0.224 af
Primary=0.47 cfs 0.224 af Secondary=0.00 cfs 0.000 af Outflow=0.47 cfs 0.224 af

Total Runoff Area = 9.054 ac Runoff Volume = 0.341 af Average Runoff Depth = 0.45"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 0.56 cfs @ 12.33 hrs, Volume= 0.100 af, Depth= 0.31"

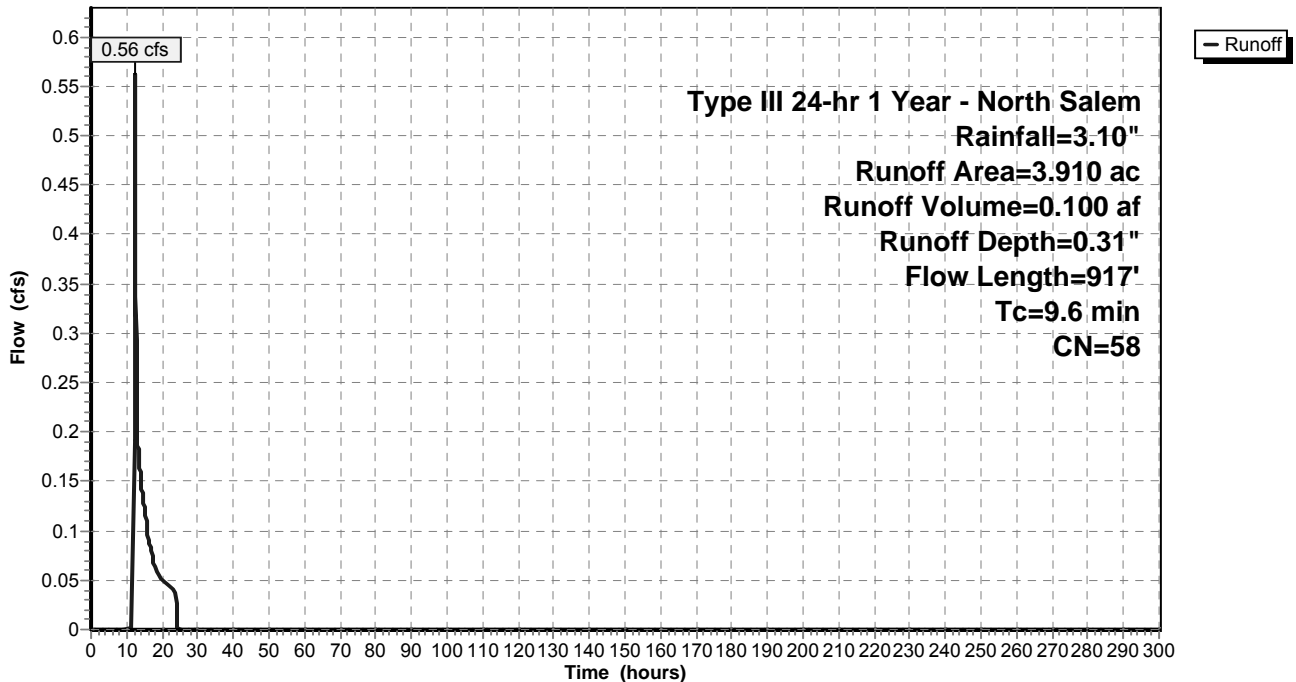
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

Runoff = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af, Depth= 0.59"

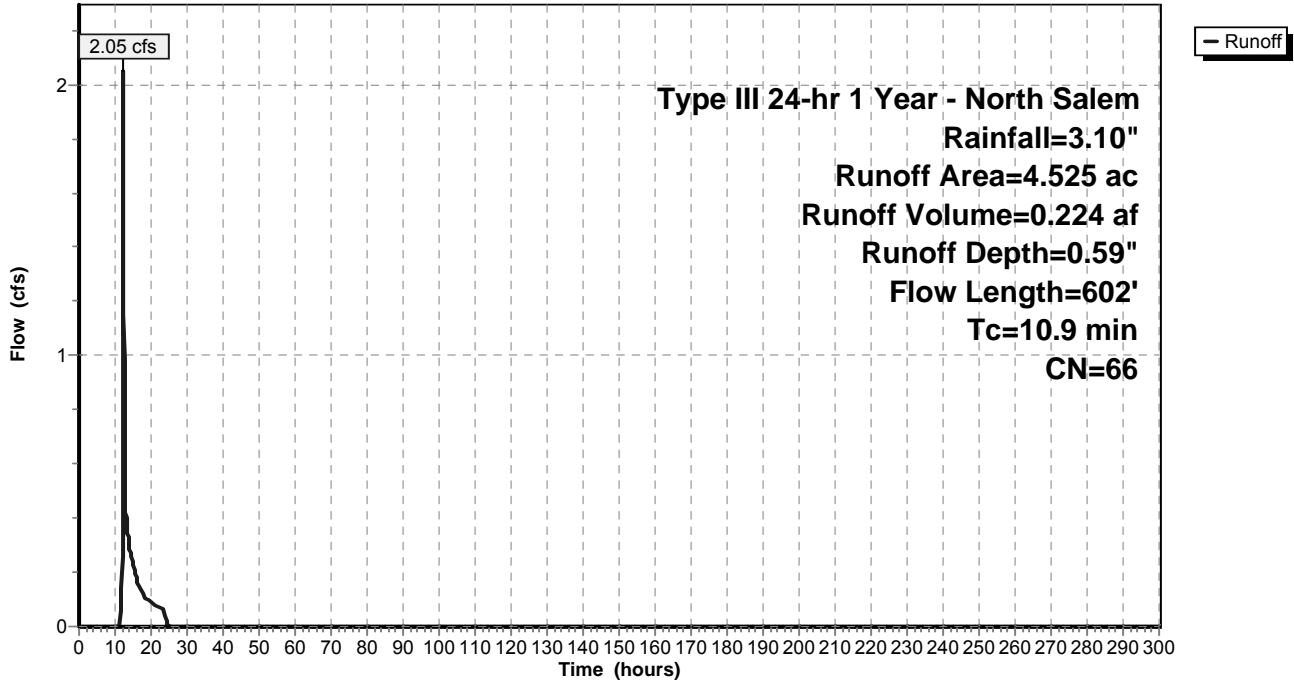
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2

Hydrograph



Summary for Subcatchment B3: Post-Development B3

Runoff = 0.11 cfs @ 12.20 hrs, Volume= 0.017 af, Depth= 0.34"

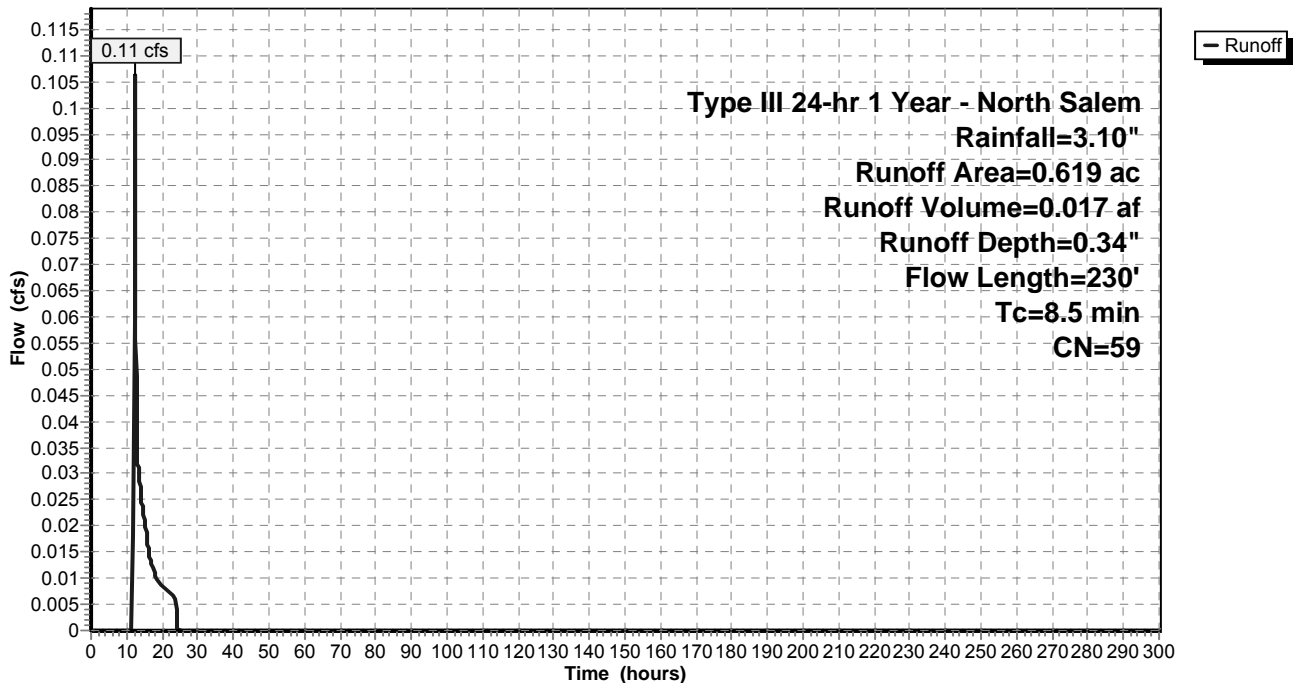
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth > 0.56" for 1 Year - North Salem event
 Inflow = 0.11 cfs @ 12.20 hrs, Volume= 0.241 af
 Outflow = 0.06 cfs @ 23.67 hrs, Volume= 0.228 af, Atten= 43%, Lag= 688.5 min
 Primary = 0.06 cfs @ 23.67 hrs, Volume= 0.228 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 420.64' @ 23.67 hrs Surf.Area= 1,358 sf Storage= 734 cf

Plug-Flow detention time= 515.6 min calculated for 0.228 af (95% of inflow)
 Center-of-Mass det. time= 194.4 min (3,148.0 - 2,953.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.06 cfs @ 23.67 hrs HW=420.64' (Free Discharge)

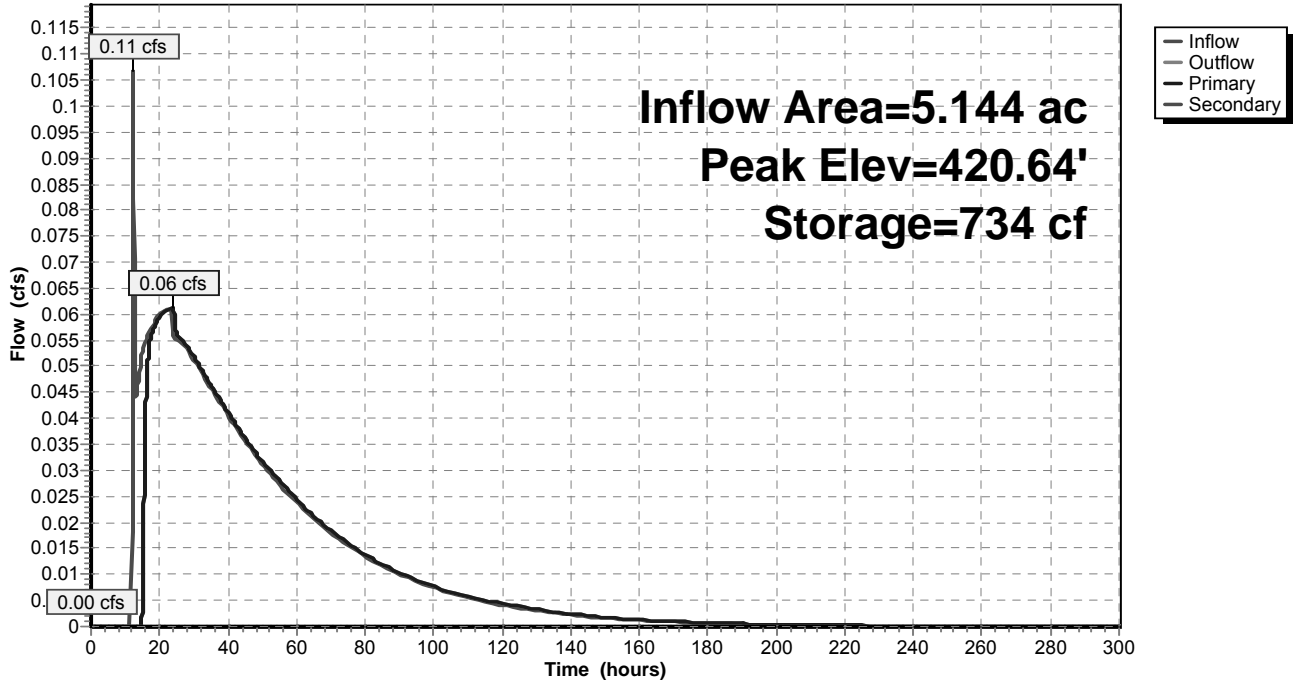
- ↑ 1=Outlet Pipe (Passes 0.06 cfs of 68.10 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.06 cfs @ 1.29 fps)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

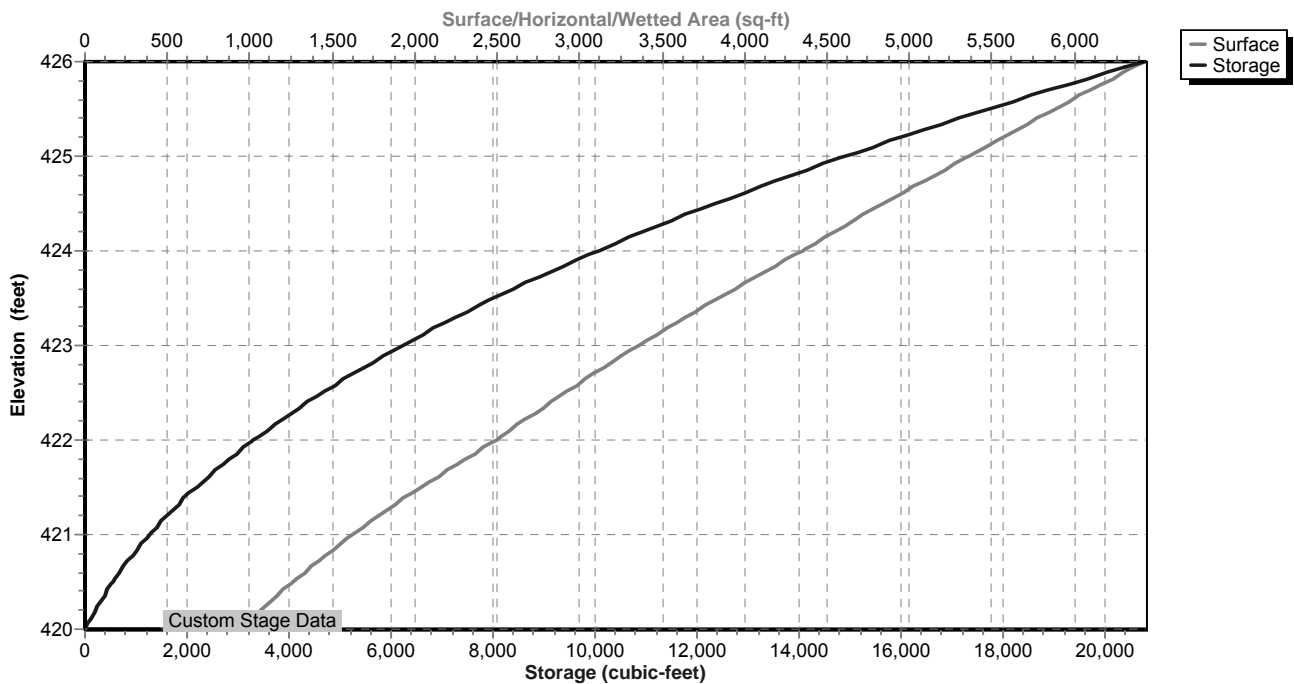
Pond B-B3: Dry Basin (Basin B3)

Hydrograph



Pond B-B3: Dry Basin (Basin B3)

Stage-Area-Storage



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

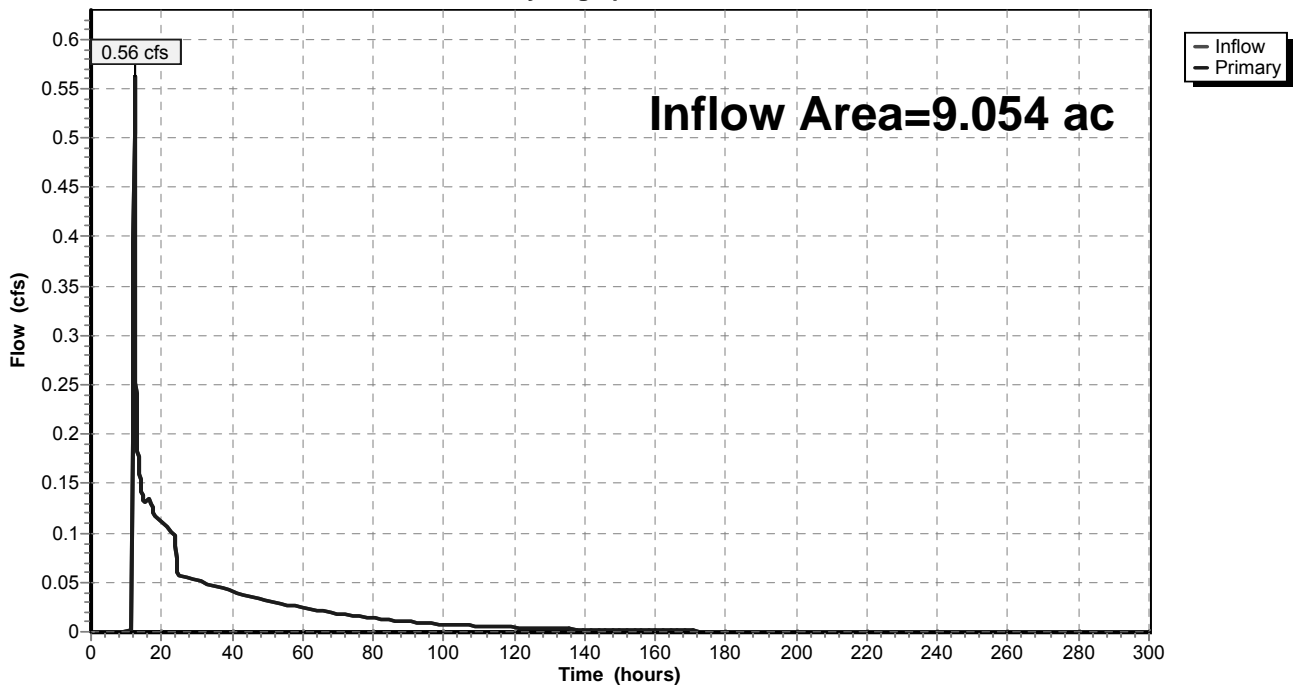
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 0.44" for 1 Year - North Salem event
Inflow = 0.56 cfs @ 12.33 hrs, Volume= 0.328 af
Primary = 0.56 cfs @ 12.33 hrs, Volume= 0.328 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
 Inflow = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af
 Outflow = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 463.82' @ 12.19 hrs
 Flood Elev= 468.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.03 cfs @ 12.19 hrs HW=463.79' (Free Discharge)

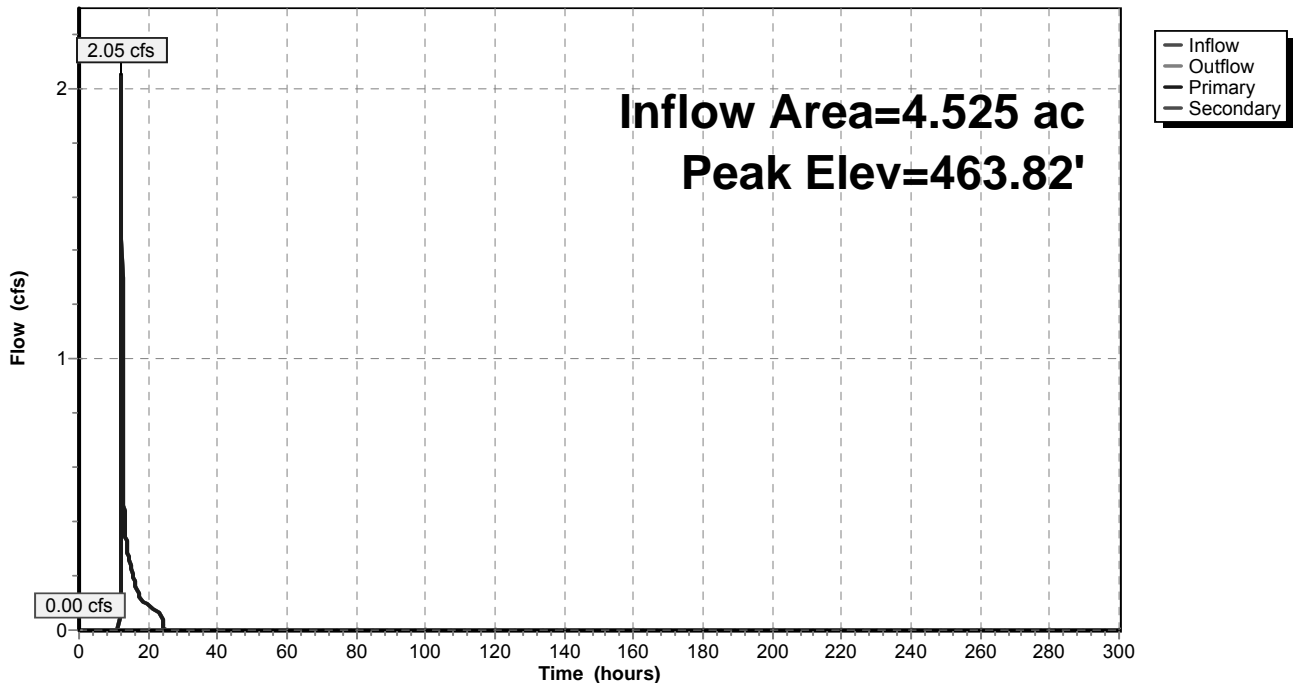
↳ **1=Outlet to Sand Filter** (Inlet Controls 2.03 cfs @ 5.82 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=462.00' (Free Discharge)

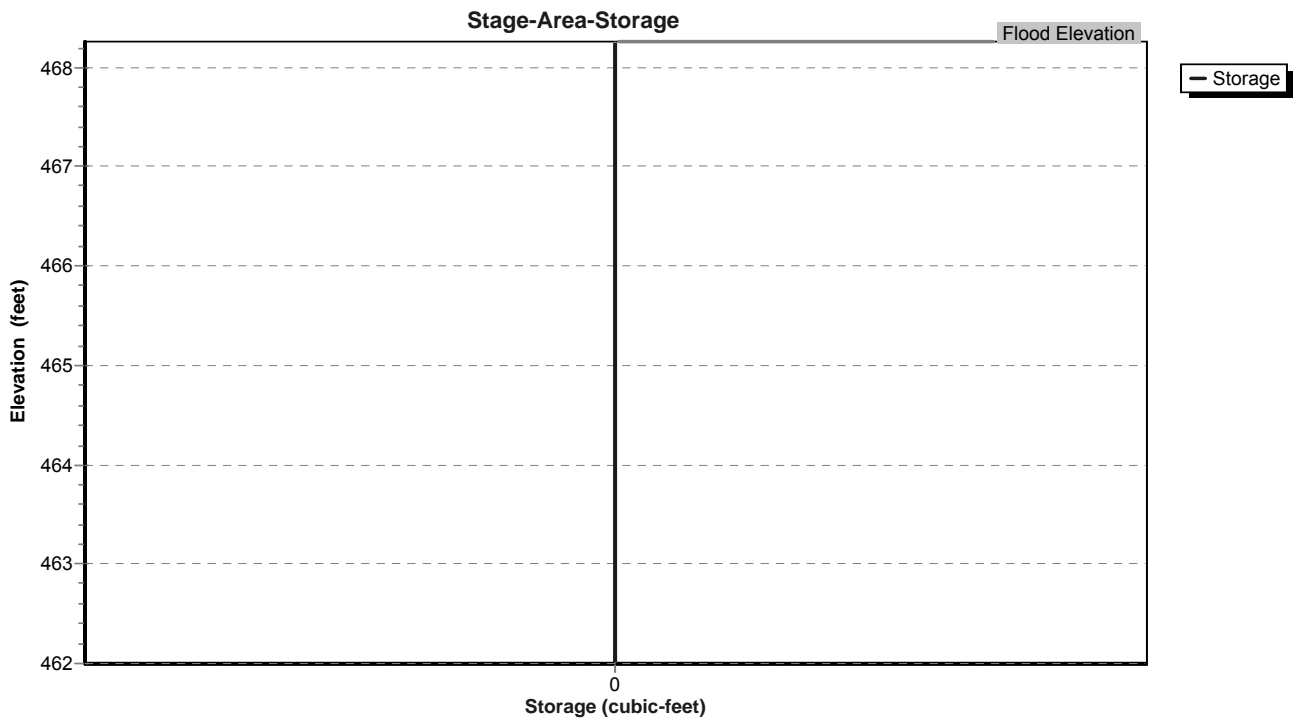
↳ **2=Outlet to Dry Basin** (Controls 0.00 cfs)

Pond FS B2: Flow Splitter B2

Hydrograph



Pond FS B2: Flow Splitter B2



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
 Inflow = 0.47 cfs @ 12.94 hrs, Volume= 0.224 af
 Outflow = 0.06 cfs @ 24.60 hrs, Volume= 0.224 af, Atten= 88%, Lag= 699.7 min
 Primary = 0.06 cfs @ 24.60 hrs, Volume= 0.224 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 436.62' @ 24.60 hrs Surf.Area= 3,550 sf Storage= 7,454 cf

Plug-Flow detention time= 2,104.8 min calculated for 0.224 af (100% of inflow)
 Center-of-Mass det. time= 2,104.5 min (3,110.9 - 1,006.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

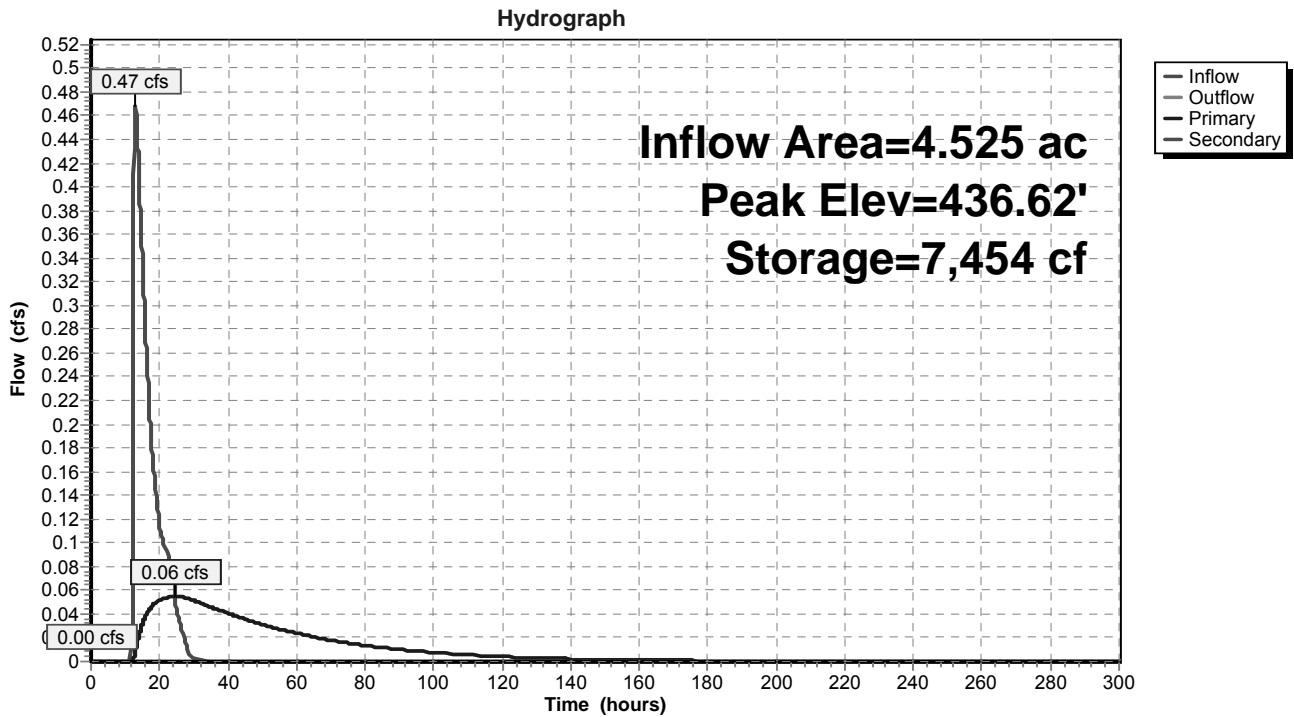
Primary OutFlow Max=0.06 cfs @ 24.60 hrs HW=436.62' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.06 cfs of 7.17 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.06 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

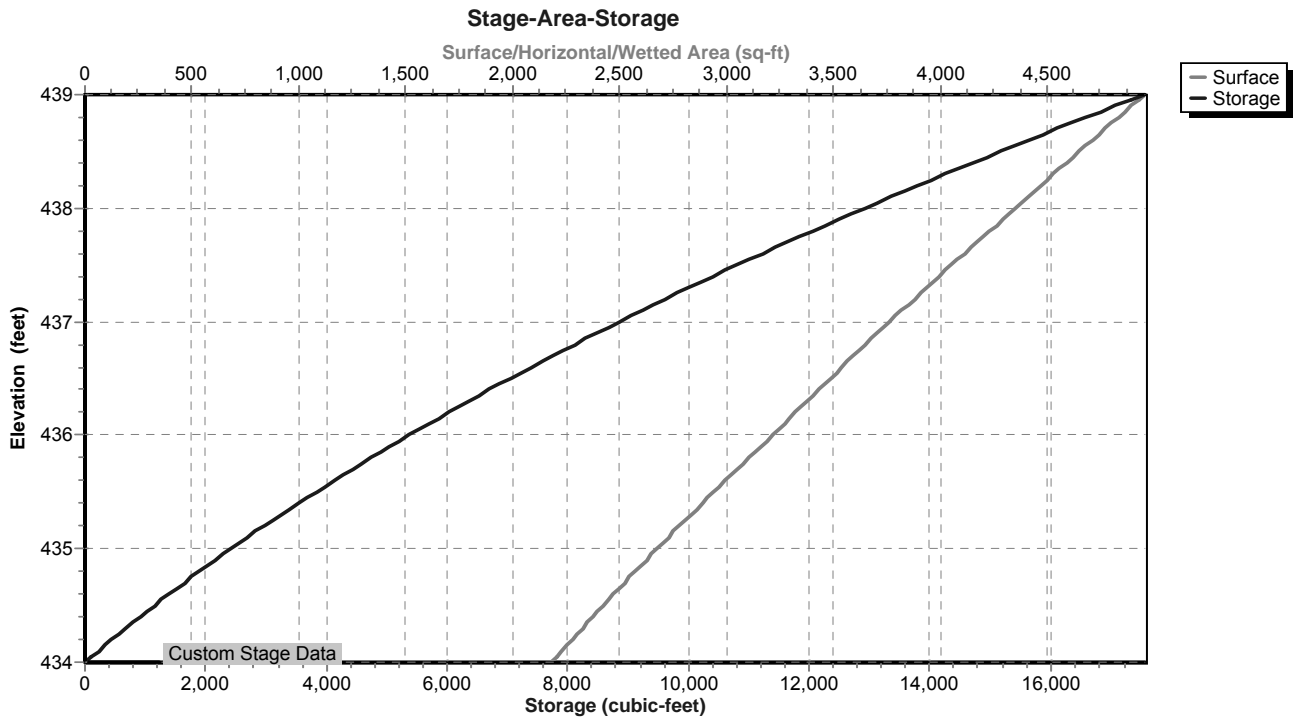
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-B2: Sand Filter - B2



Pond SF-B2: Sand Filter - B2



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
 Inflow = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af
 Outflow = 0.47 cfs @ 12.94 hrs, Volume= 0.224 af, Atten= 77%, Lag= 44.8 min
 Primary = 0.47 cfs @ 12.94 hrs, Volume= 0.224 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 457.95' @ 12.94 hrs Surf.Area= 1,897 sf Storage= 2,818 cf

Plug-Flow detention time= 107.6 min calculated for 0.224 af (100% of inflow)
 Center-of-Mass det. time= 107.7 min (1,006.4 - 898.7)

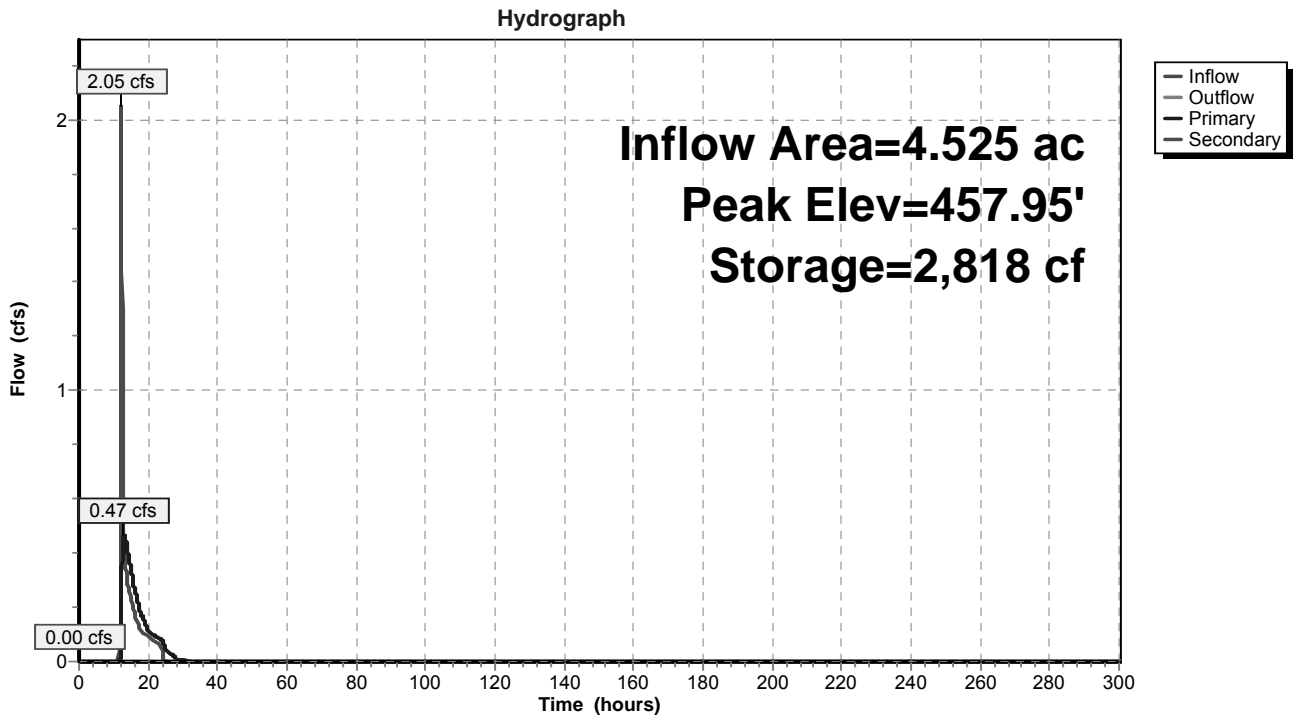
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

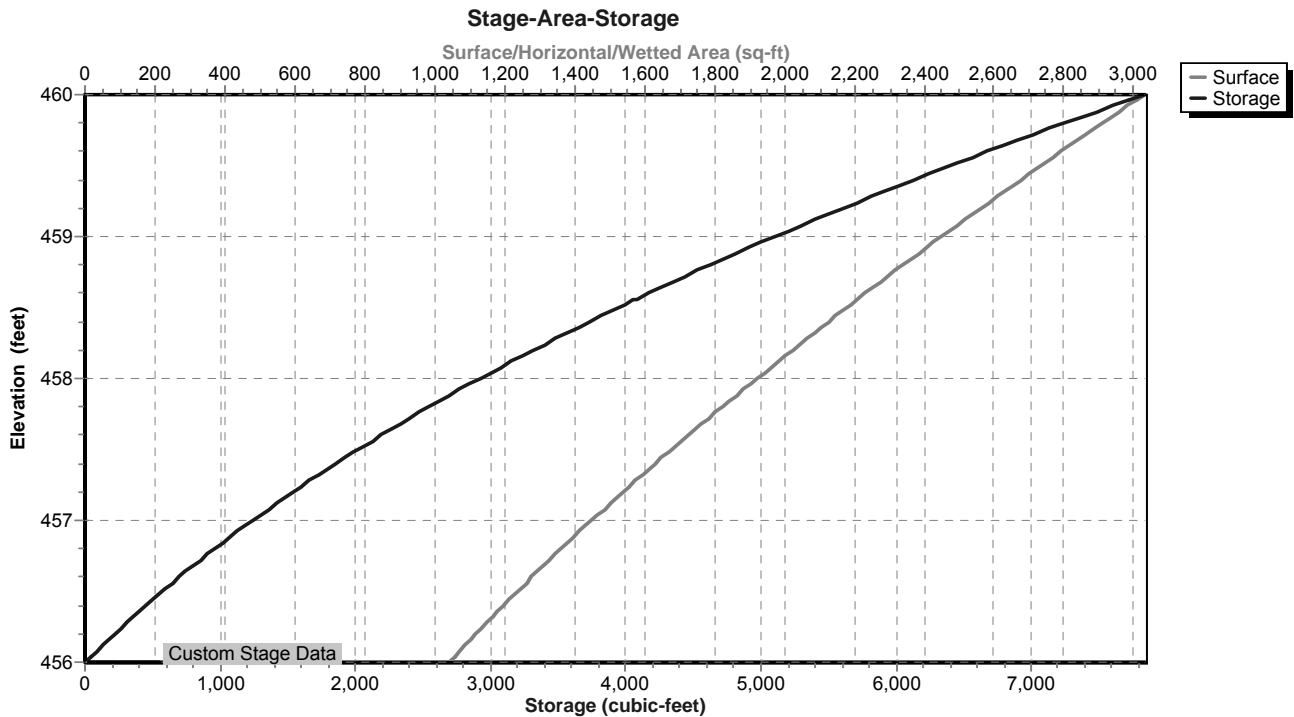
Primary OutFlow Max=0.47 cfs @ 12.94 hrs HW=457.95' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 0.47 cfs of 4.55 cfs potential flow)
 ↑ 2=Standpipe Openings (Orifice Controls 0.47 cfs @ 4.77 fps)
 ↑ 3=Top of Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-B2: Sand Filter Forebay - B2



Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=0.53"
Flow Length=917' Tc=9.6 min CN=58 Runoff=1.36 cfs 0.174 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=0.91"
Flow Length=602' Tc=10.9 min CN=66 Runoff=3.56 cfs 0.344 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=0.58"
Flow Length=230' Tc=8.5 min CN=59 Runoff=0.26 cfs 0.030 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=420.82' Storage=991 cf Inflow=1.48 cfs 0.373 af
Primary=0.26 cfs 0.361 af Secondary=0.00 cfs 0.000 af Outflow=0.26 cfs 0.361 af

Pond DP 2: Design Point 2 Inflow=1.38 cfs 0.535 af
Primary=1.38 cfs 0.535 af

Pond FS B2: Flow Splitter B2 Peak Elev=464.27' Inflow=3.56 cfs 0.344 af
Primary=2.34 cfs 0.325 af Secondary=1.22 cfs 0.019 af Outflow=3.56 cfs 0.344 af

Pond SF-B2: Sand Filter - B2 Peak Elev=437.12' Storage=9,299 cf Inflow=0.77 cfs 0.325 af
Primary=0.20 cfs 0.325 af Secondary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.325 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=458.61' Storage=4,190 cf Inflow=2.34 cfs 0.325 af
Primary=0.77 cfs 0.325 af Secondary=0.00 cfs 0.000 af Outflow=0.77 cfs 0.325 af

Total Runoff Area = 9.054 ac Runoff Volume = 0.547 af Average Runoff Depth = 0.73"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 1.36 cfs @ 12.19 hrs, Volume= 0.174 af, Depth= 0.53"

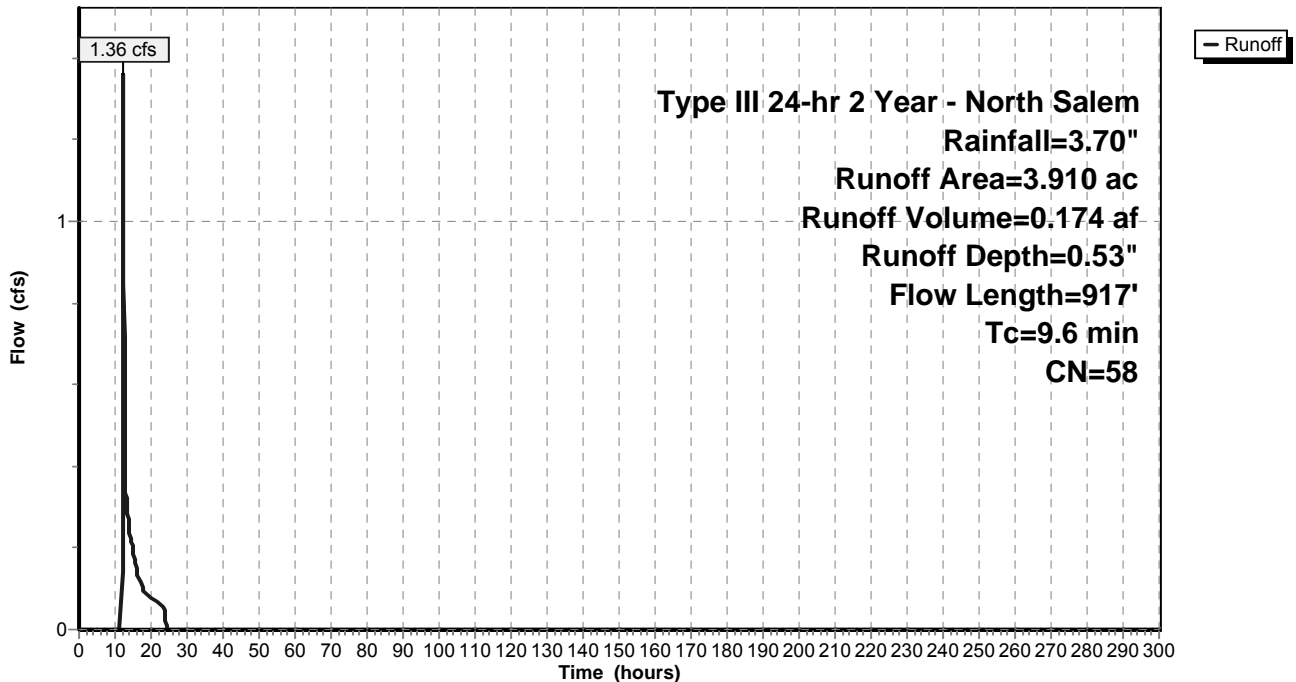
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

Runoff = 3.56 cfs @ 12.17 hrs, Volume= 0.344 af, Depth= 0.91"

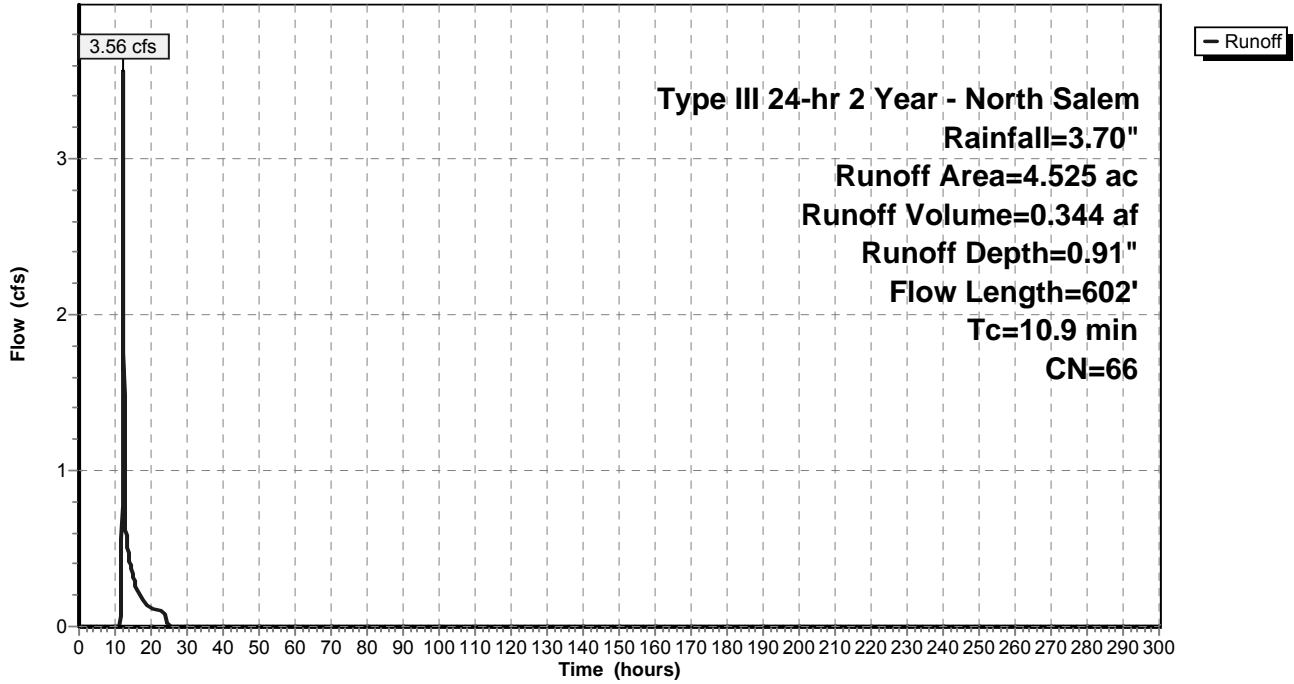
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2

Hydrograph



Summary for Subcatchment B3: Post-Development B3

Runoff = 0.26 cfs @ 12.16 hrs, Volume= 0.030 af, Depth= 0.58"

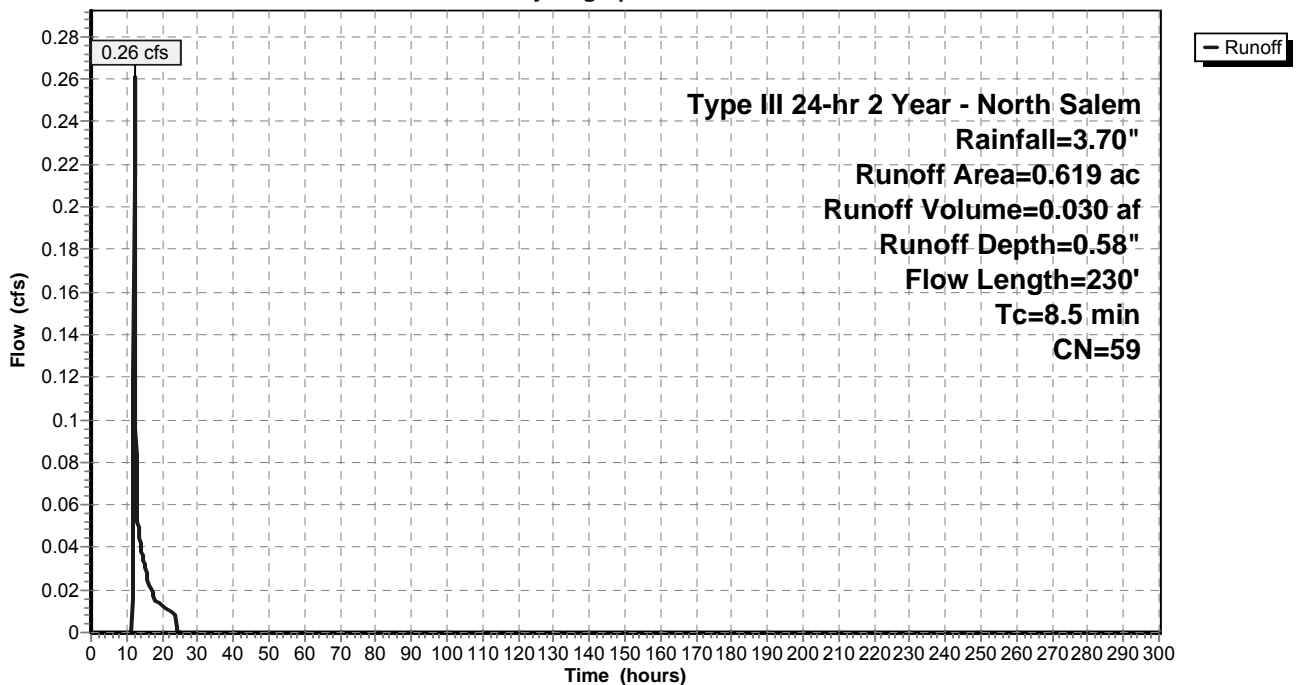
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 0.87" for 2 Year - North Salem event
 Inflow = 1.48 cfs @ 12.17 hrs, Volume= 0.373 af
 Outflow = 0.26 cfs @ 12.41 hrs, Volume= 0.361 af, Atten= 82%, Lag= 14.6 min
 Primary = 0.26 cfs @ 12.41 hrs, Volume= 0.361 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 420.82' @ 12.41 hrs Surf.Area= 1,489 sf Storage= 991 cf

Plug-Flow detention time= 355.9 min calculated for 0.361 af (97% of inflow)
 Center-of-Mass det. time= 124.5 min (2,685.9 - 2,561.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

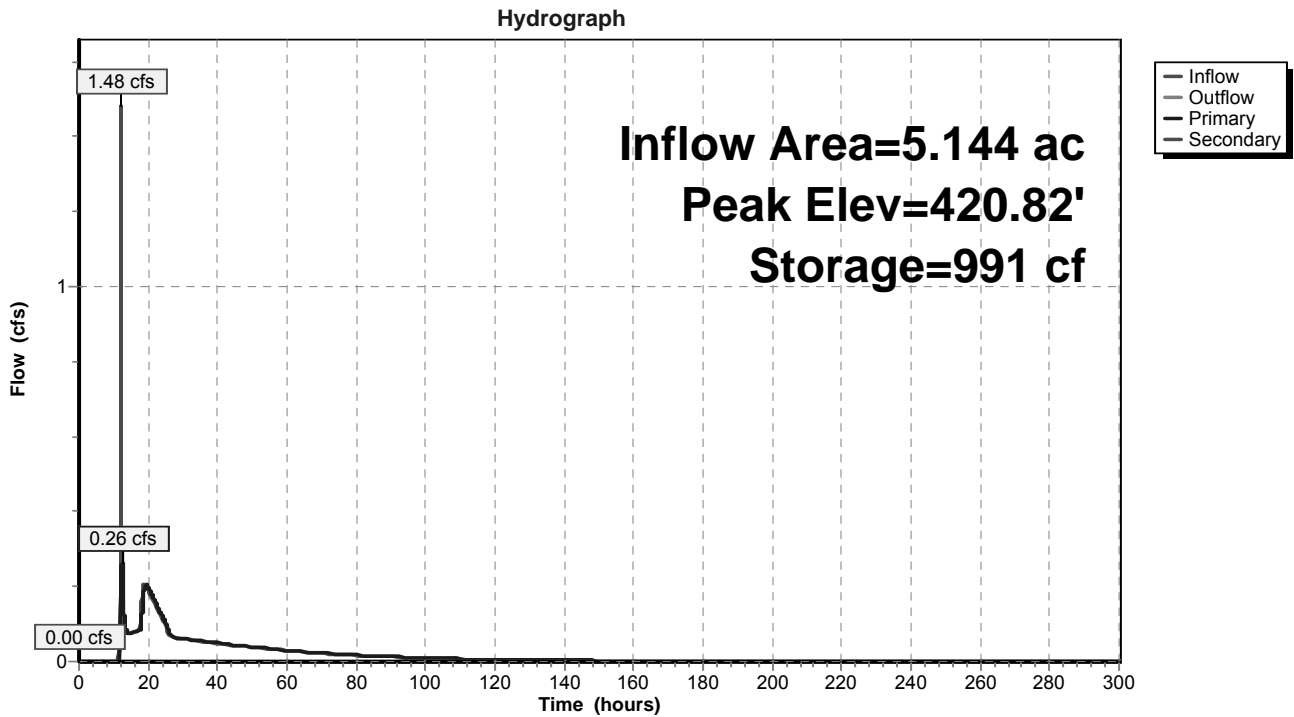
Primary OutFlow Max=0.26 cfs @ 12.41 hrs HW=420.82' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.26 cfs of 69.27 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.26 cfs @ 1.93 fps)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

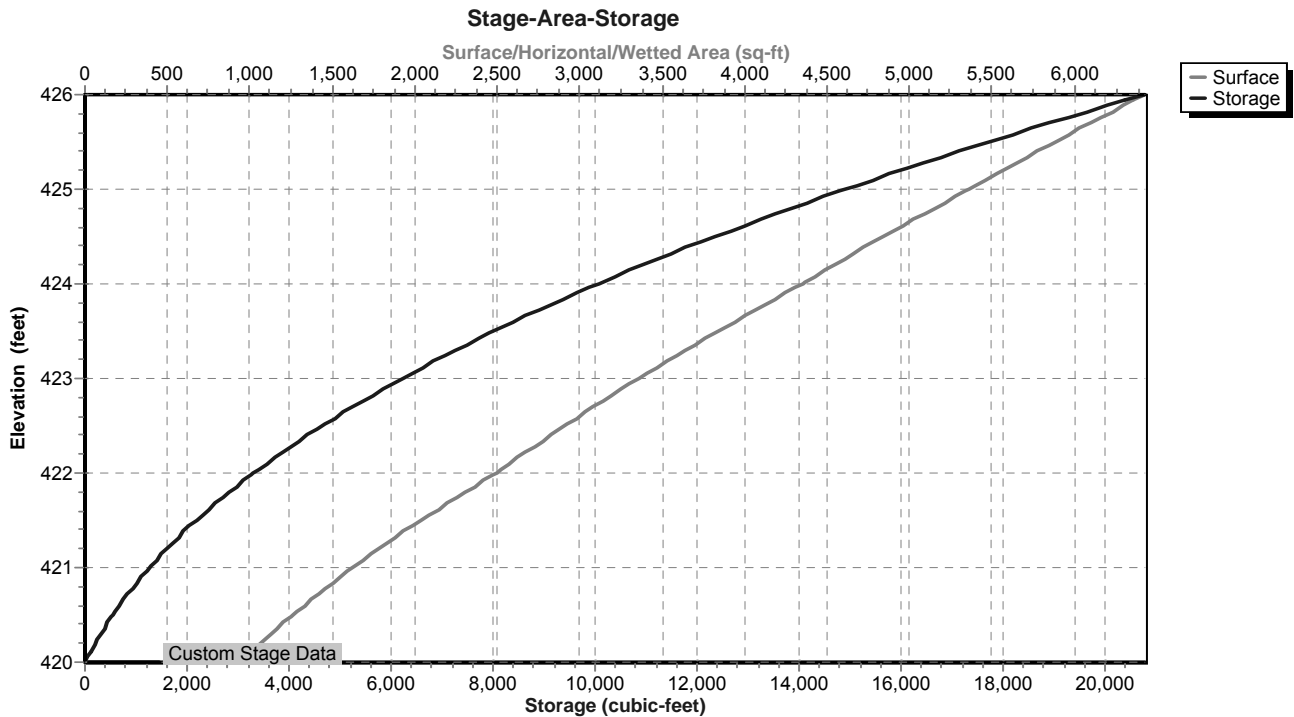
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-B3: Dry Basin (Basin B3)



Pond B-B3: Dry Basin (Basin B3)



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

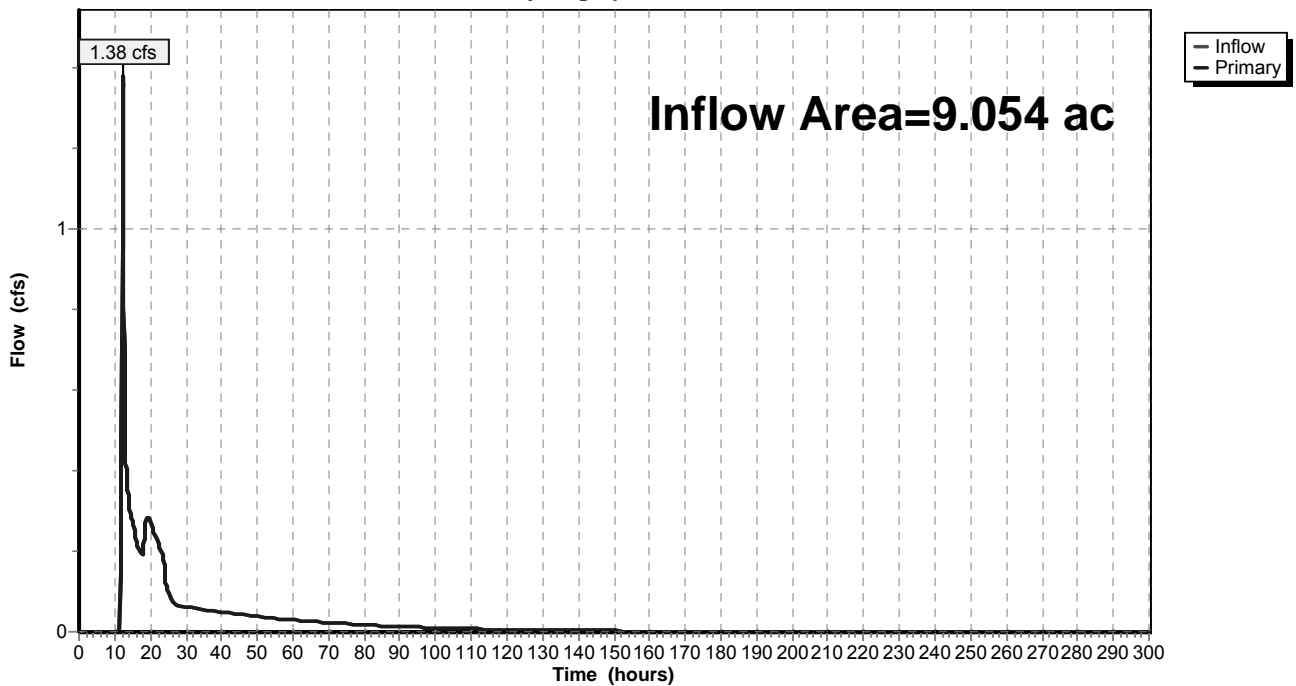
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 0.71" for 2 Year - North Salem event
Inflow = 1.38 cfs @ 12.31 hrs, Volume= 0.535 af
Primary = 1.38 cfs @ 12.31 hrs, Volume= 0.535 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
 Inflow = 3.56 cfs @ 12.17 hrs, Volume= 0.344 af
 Outflow = 3.56 cfs @ 12.17 hrs, Volume= 0.344 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.34 cfs @ 12.17 hrs, Volume= 0.325 af
 Secondary = 1.22 cfs @ 12.17 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.27' @ 12.17 hrs
 Flood Elev= 468.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.33 cfs @ 12.17 hrs HW=464.26' (Free Discharge)

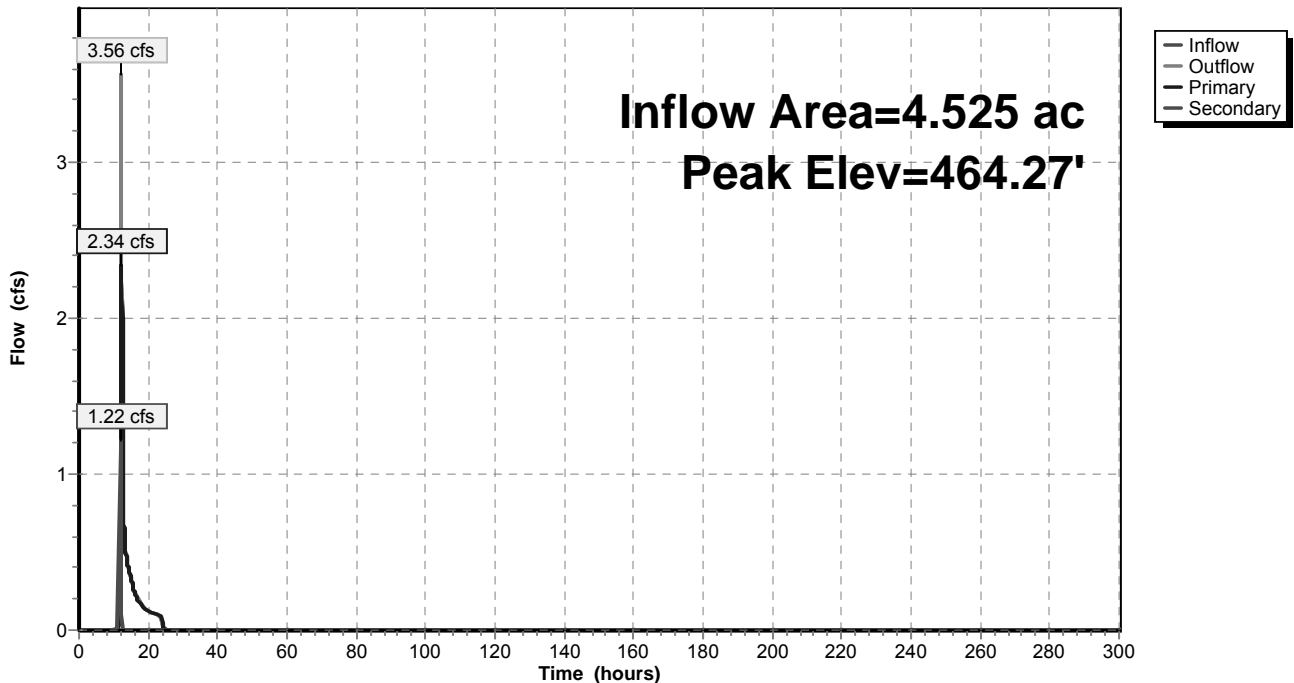
↑1=Outlet to Sand Filter (Inlet Controls 2.33 cfs @ 6.68 fps)

Secondary OutFlow Max=1.14 cfs @ 12.17 hrs HW=464.26' (Free Discharge)

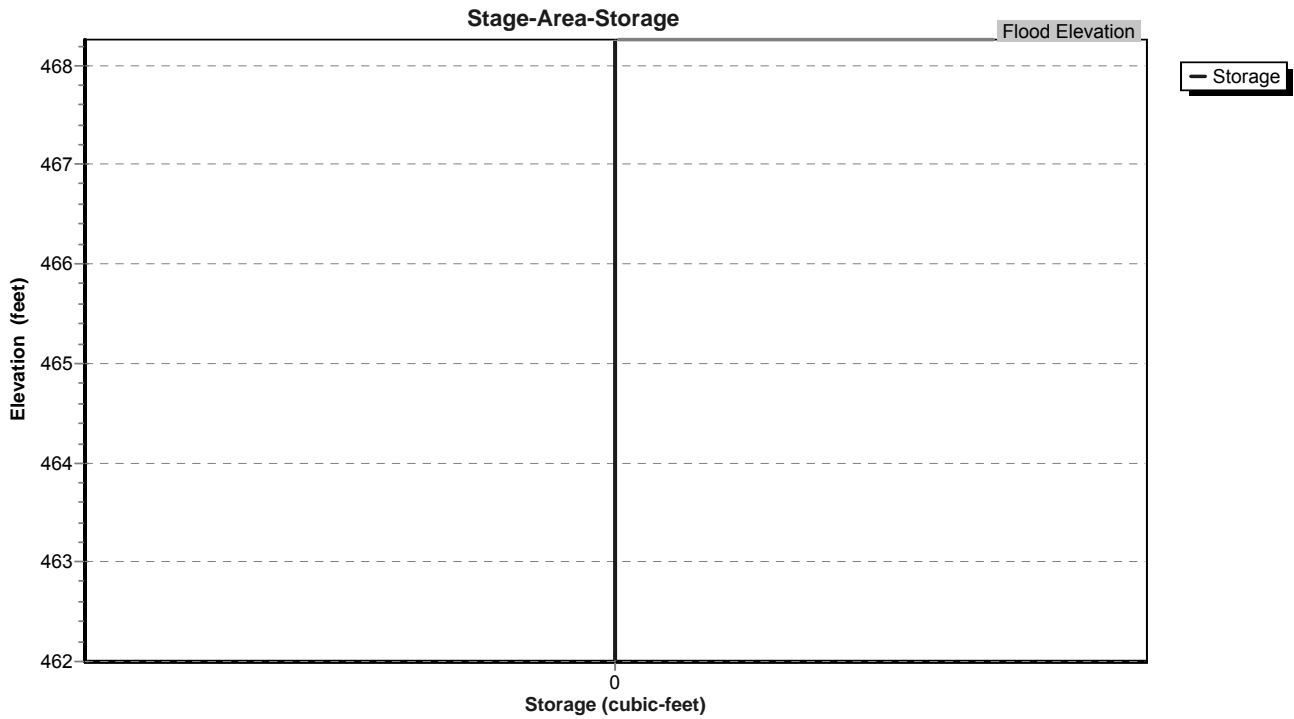
↑2=Outlet to Dry Basin (Inlet Controls 1.14 cfs @ 2.25 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Pond FS B2: Flow Splitter B2



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.86" for 2 Year - North Salem event
 Inflow = 0.77 cfs @ 12.82 hrs, Volume= 0.325 af
 Outflow = 0.20 cfs @ 18.93 hrs, Volume= 0.325 af, Atten= 74%, Lag= 366.4 min
 Primary = 0.20 cfs @ 18.93 hrs, Volume= 0.325 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 437.12' @ 18.93 hrs Surf.Area= 3,831 sf Storage= 9,299 cf

Plug-Flow detention time= 1,819.7 min calculated for 0.325 af (100% of inflow)
 Center-of-Mass det. time= 1,819.5 min (2,818.6 - 999.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.19 cfs @ 18.93 hrs HW=437.12' (Free Discharge)

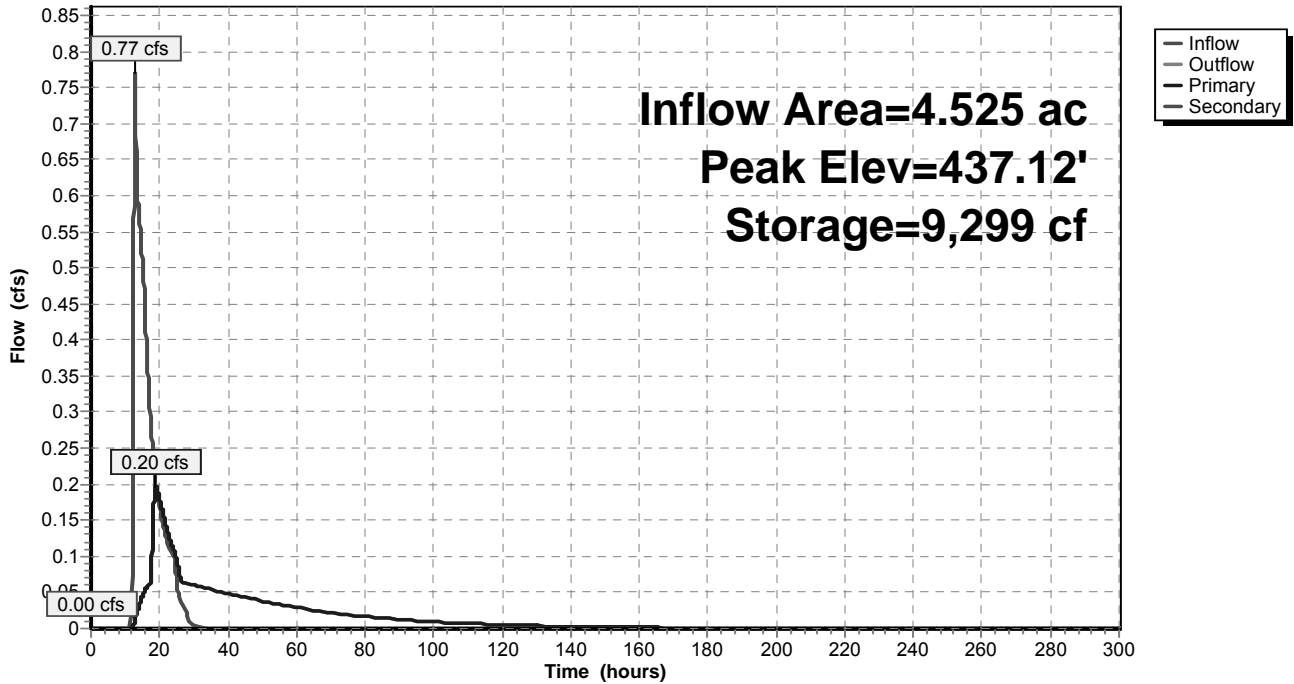
- ↑ 1=Outlet Pipe (Passes 0.19 cfs of 7.55 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.07 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.13 cfs @ 1.10 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

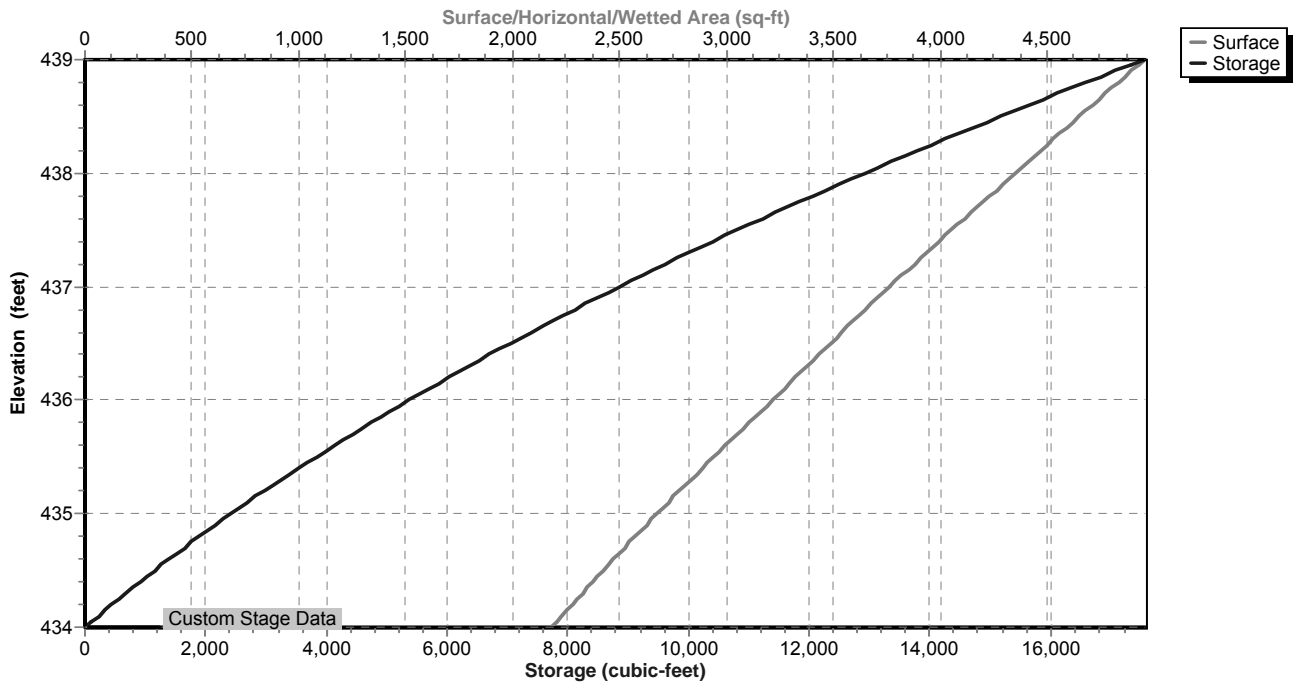
Pond SF-B2: Sand Filter - B2

Hydrograph



Pond SF-B2: Sand Filter - B2

Stage-Area-Storage



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.86" for 2 Year - North Salem event
 Inflow = 2.34 cfs @ 12.17 hrs, Volume= 0.325 af
 Outflow = 0.77 cfs @ 12.82 hrs, Volume= 0.325 af, Atten= 67%, Lag= 39.0 min
 Primary = 0.77 cfs @ 12.82 hrs, Volume= 0.325 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.61' @ 12.82 hrs Surf.Area= 2,237 sf Storage= 4,190 cf

Plug-Flow detention time= 107.0 min calculated for 0.325 af (100% of inflow)
 Center-of-Mass det. time= 107.1 min (999.1 - 892.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

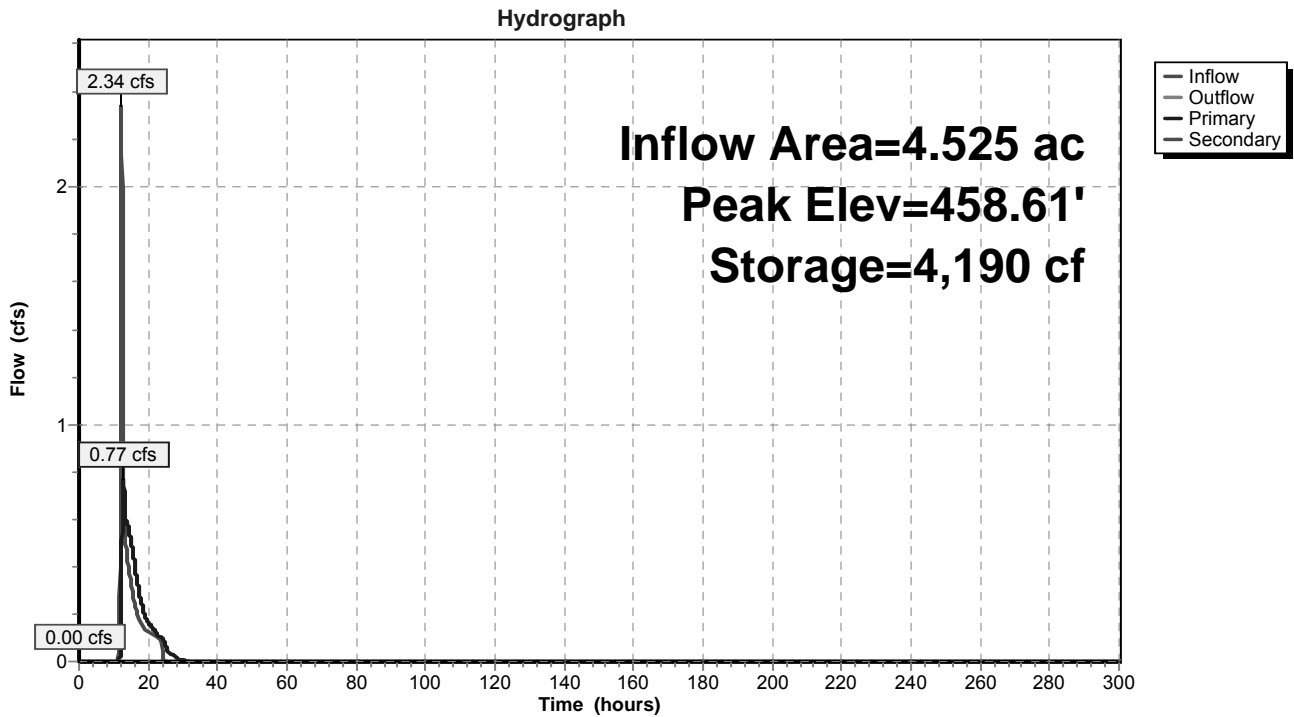
Primary OutFlow Max=0.76 cfs @ 12.82 hrs HW=458.61' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.76 cfs of 5.49 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.61 cfs @ 6.25 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.15 cfs @ 0.80 fps)

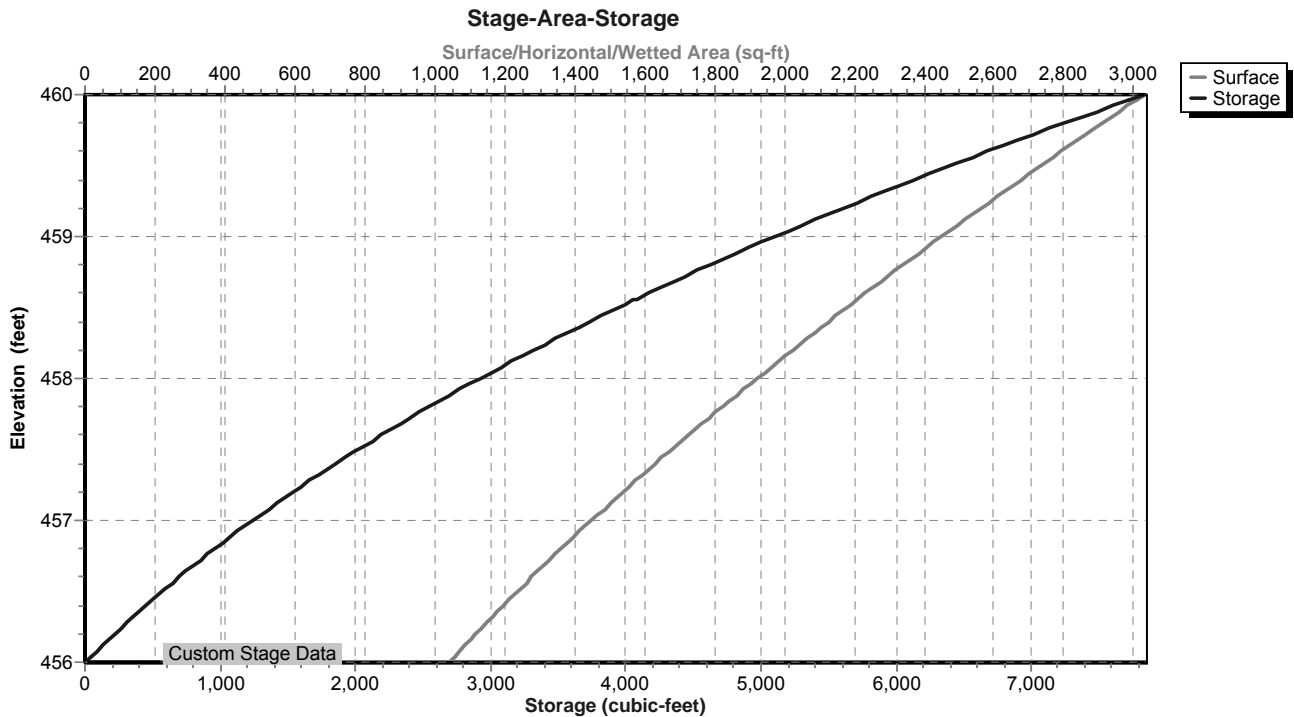
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-B2: Sand Filter Forebay - B2



Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=1.45"
Flow Length=917' Tc=9.6 min CN=58 Runoff=5.23 cfs 0.474 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=2.08"
Flow Length=602' Tc=10.9 min CN=66 Runoff=9.00 cfs 0.783 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=1.53"
Flow Length=230' Tc=8.5 min CN=59 Runoff=0.91 cfs 0.079 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=423.08' Storage=6,492 cf Inflow=7.20 cfs 0.862 af
Primary=1.44 cfs 0.849 af Secondary=0.00 cfs 0.000 af Outflow=1.44 cfs 0.849 af

Pond DP 2: Design Point 2 Inflow=6.22 cfs 1.323 af
Primary=6.22 cfs 1.323 af

Pond FS B2: Flow Splitter B2 Peak Elev=464.92' Inflow=9.00 cfs 0.783 af
Primary=2.70 cfs 0.613 af Secondary=6.30 cfs 0.170 af Outflow=9.00 cfs 0.783 af

Pond SF-B2: Sand Filter - B2 Peak Elev=437.34' Storage=10,185 cf Inflow=2.38 cfs 0.613 af
Primary=0.72 cfs 0.613 af Secondary=0.00 cfs 0.000 af Outflow=0.72 cfs 0.613 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=458.85' Storage=4,751 cf Inflow=2.70 cfs 0.613 af
Primary=2.38 cfs 0.613 af Secondary=0.00 cfs 0.000 af Outflow=2.38 cfs 0.613 af

Total Runoff Area = 9.054 ac Runoff Volume = 1.335 af Average Runoff Depth = 1.77"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 5.23 cfs @ 12.15 hrs, Volume= 0.474 af, Depth= 1.45"

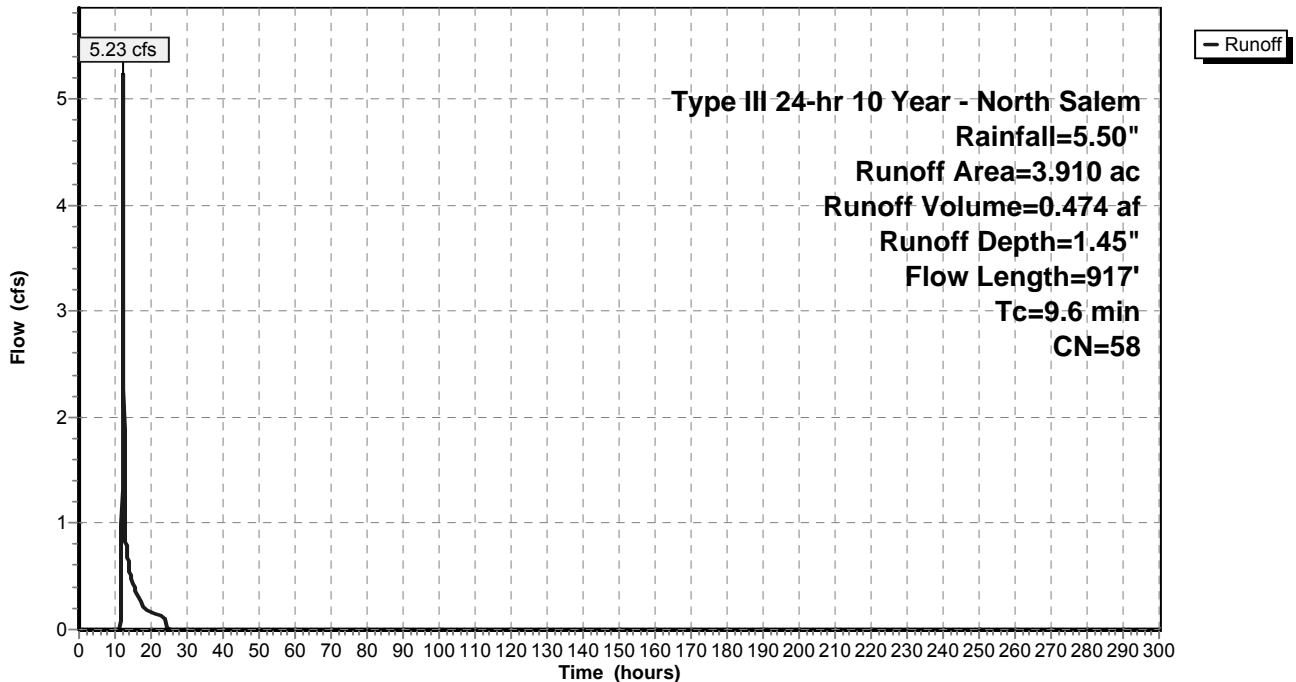
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

Runoff = 9.00 cfs @ 12.16 hrs, Volume= 0.783 af, Depth= 2.08"

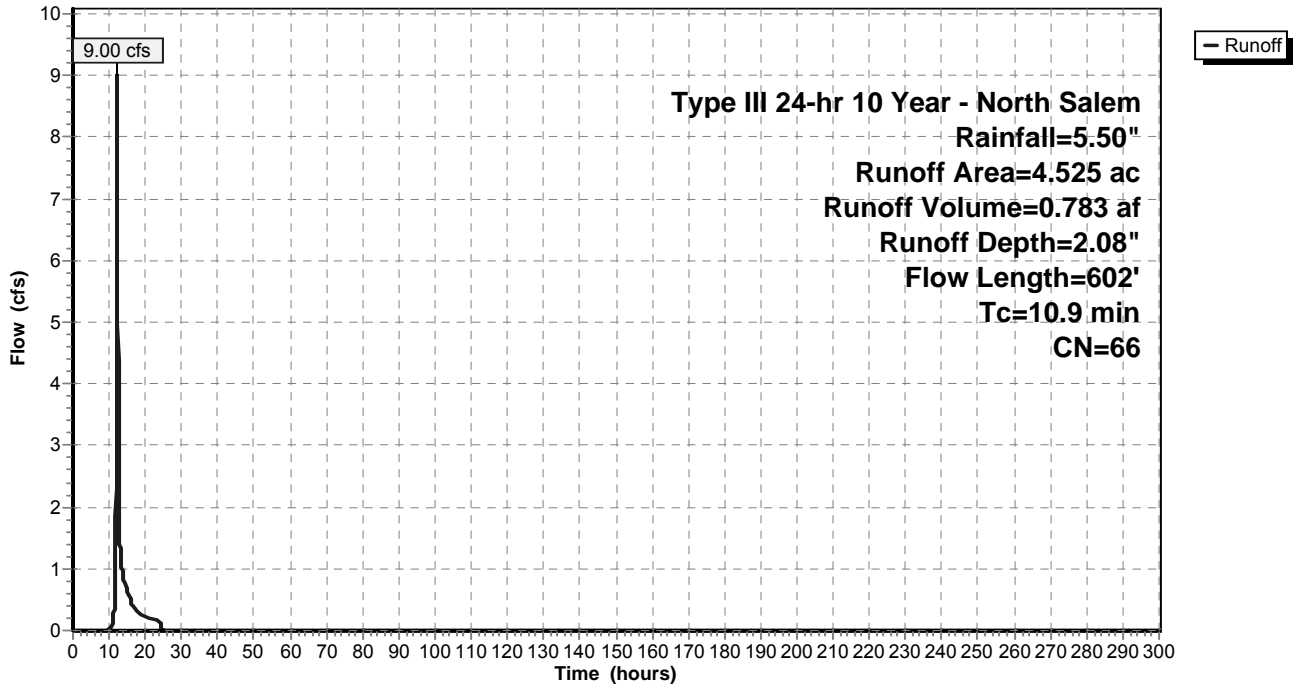
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2

Hydrograph



Summary for Subcatchment B3: Post-Development B3

Runoff = 0.91 cfs @ 12.14 hrs, Volume= 0.079 af, Depth= 1.53"

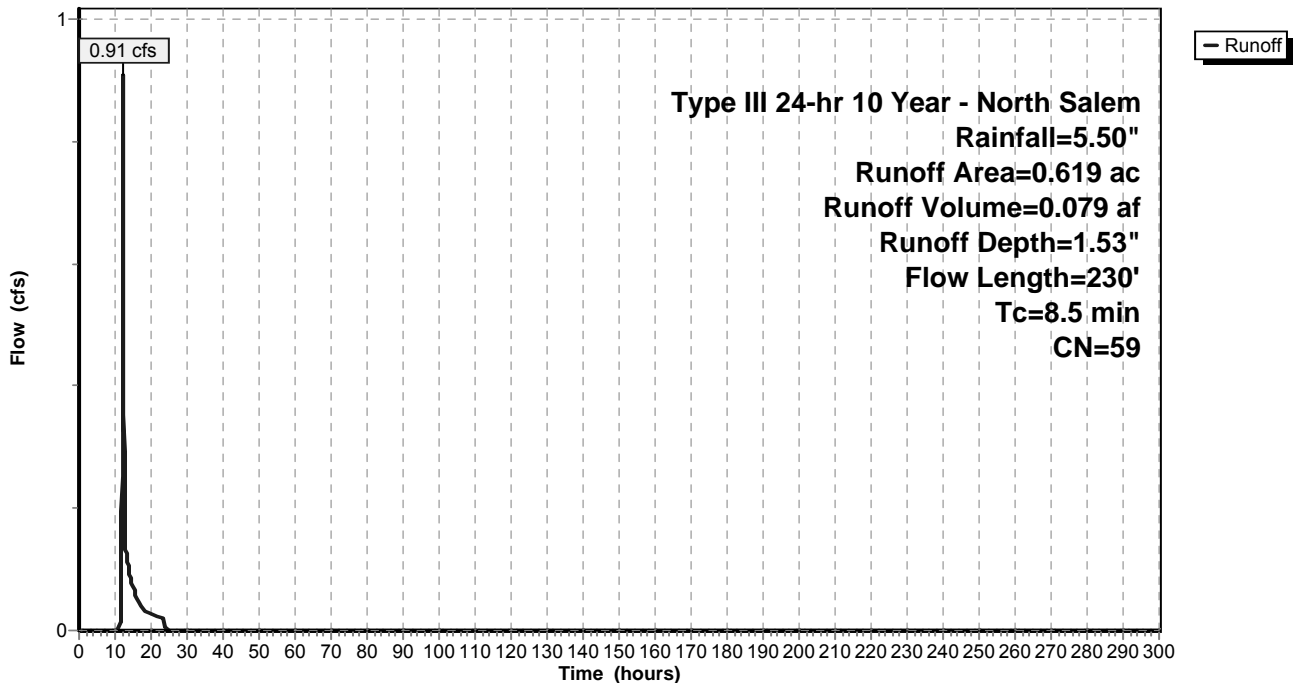
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 2.01" for 10 Year - North Salem event
 Inflow = 7.20 cfs @ 12.16 hrs, Volume= 0.862 af
 Outflow = 1.44 cfs @ 12.53 hrs, Volume= 0.849 af, Atten= 80%, Lag= 22.3 min
 Primary = 1.44 cfs @ 12.53 hrs, Volume= 0.849 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 423.08' @ 12.53 hrs Surf.Area= 3,431 sf Storage= 6,492 cf

Plug-Flow detention time= 171.9 min calculated for 0.849 af (99% of inflow)
 Center-of-Mass det. time= 60.1 min (1,715.5 - 1,655.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

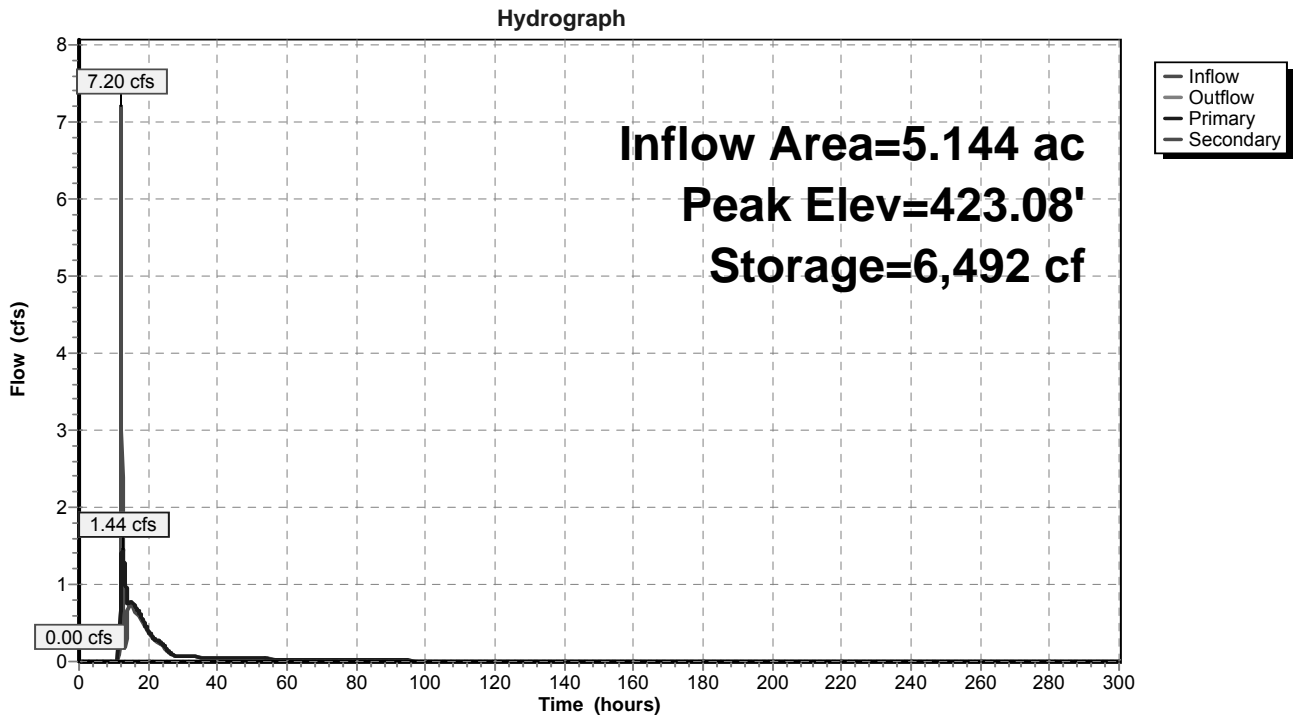
Primary OutFlow Max=1.44 cfs @ 12.53 hrs HW=423.07' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.44 cfs of 82.65 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 1.44 cfs @ 7.34 fps)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

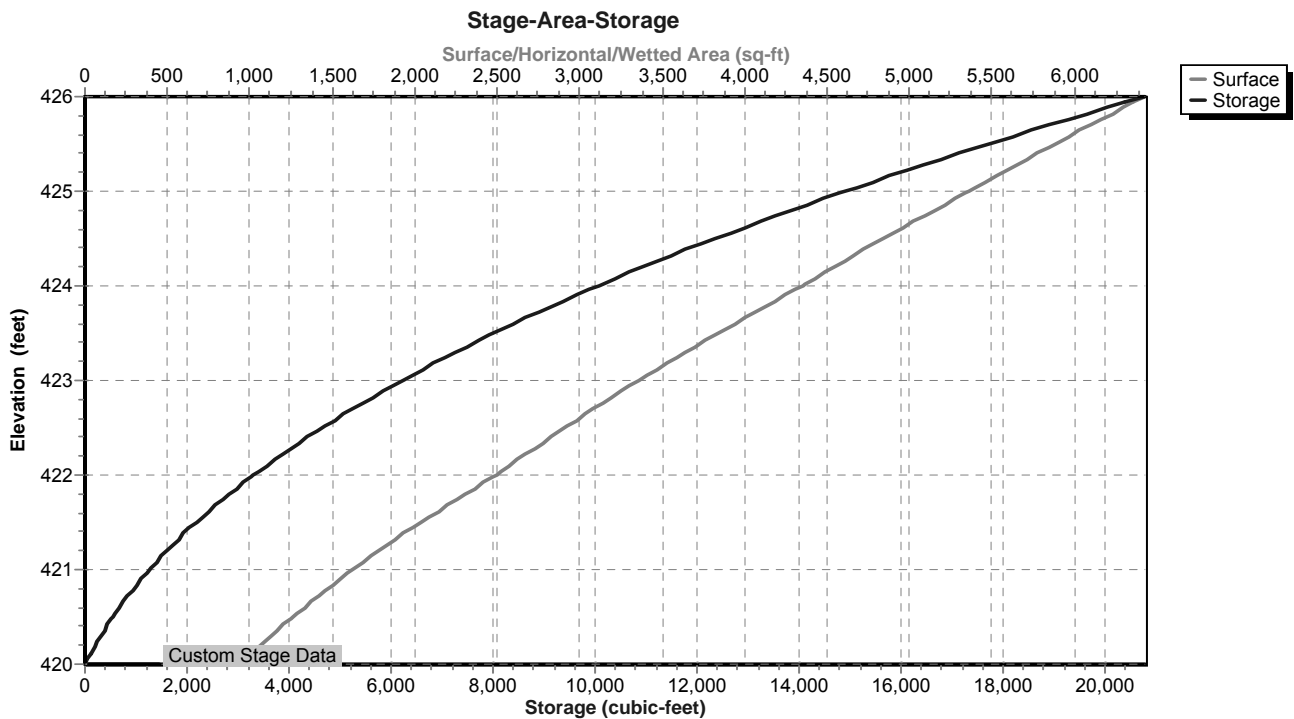
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-B3: Dry Basin (Basin B3)



Pond B-B3: Dry Basin (Basin B3)



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

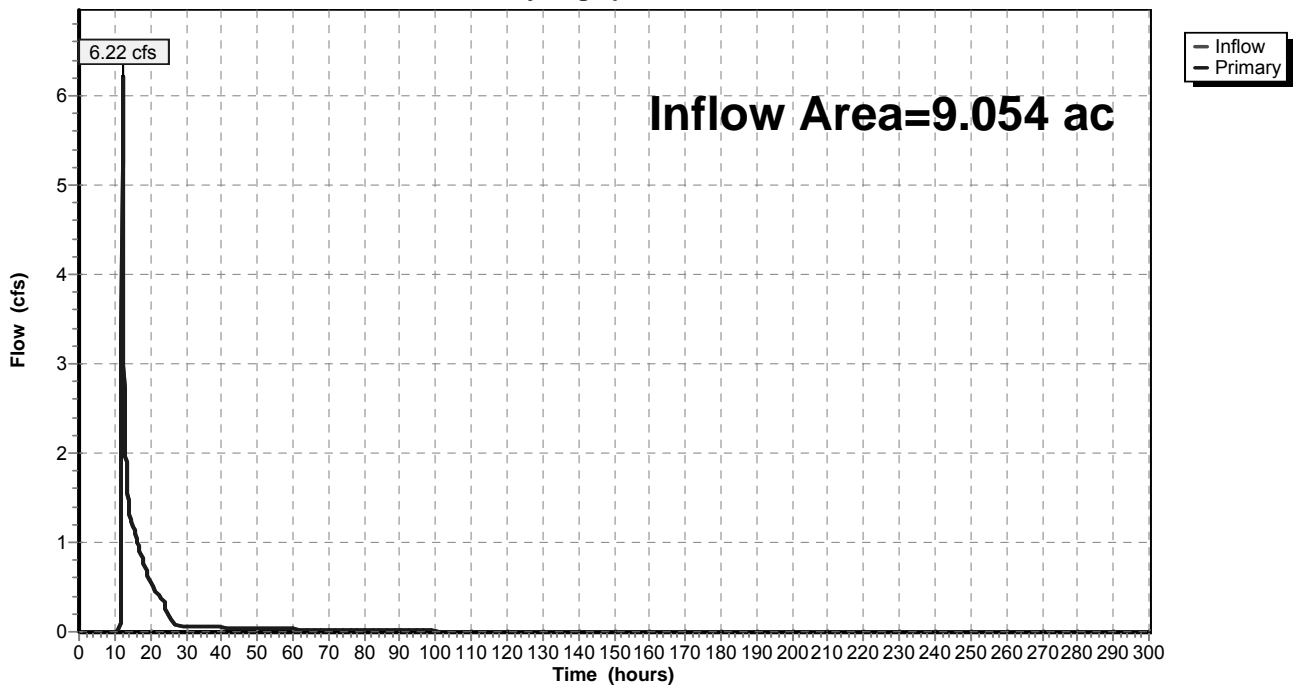
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 1.75" for 10 Year - North Salem event
Inflow = 6.22 cfs @ 12.16 hrs, Volume= 1.323 af
Primary = 6.22 cfs @ 12.16 hrs, Volume= 1.323 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 2.08" for 10 Year - North Salem event
 Inflow = 9.00 cfs @ 12.16 hrs, Volume= 0.783 af
 Outflow = 9.00 cfs @ 12.16 hrs, Volume= 0.783 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.70 cfs @ 12.16 hrs, Volume= 0.613 af
 Secondary = 6.30 cfs @ 12.16 hrs, Volume= 0.170 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.92' @ 12.16 hrs
 Flood Elev= 468.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.69 cfs @ 12.16 hrs HW=464.90' (Free Discharge)

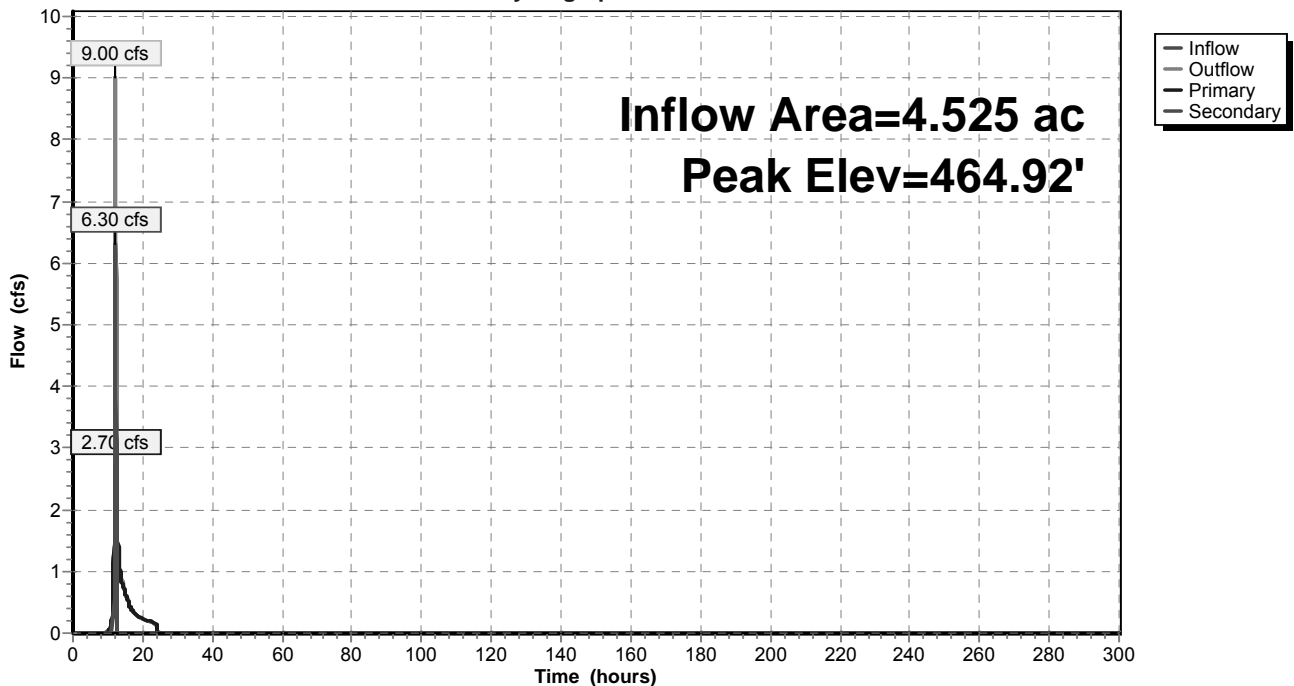
↑1=Outlet to Sand Filter (Inlet Controls 2.69 cfs @ 7.72 fps)

Secondary OutFlow Max=6.15 cfs @ 12.16 hrs HW=464.90' (Free Discharge)

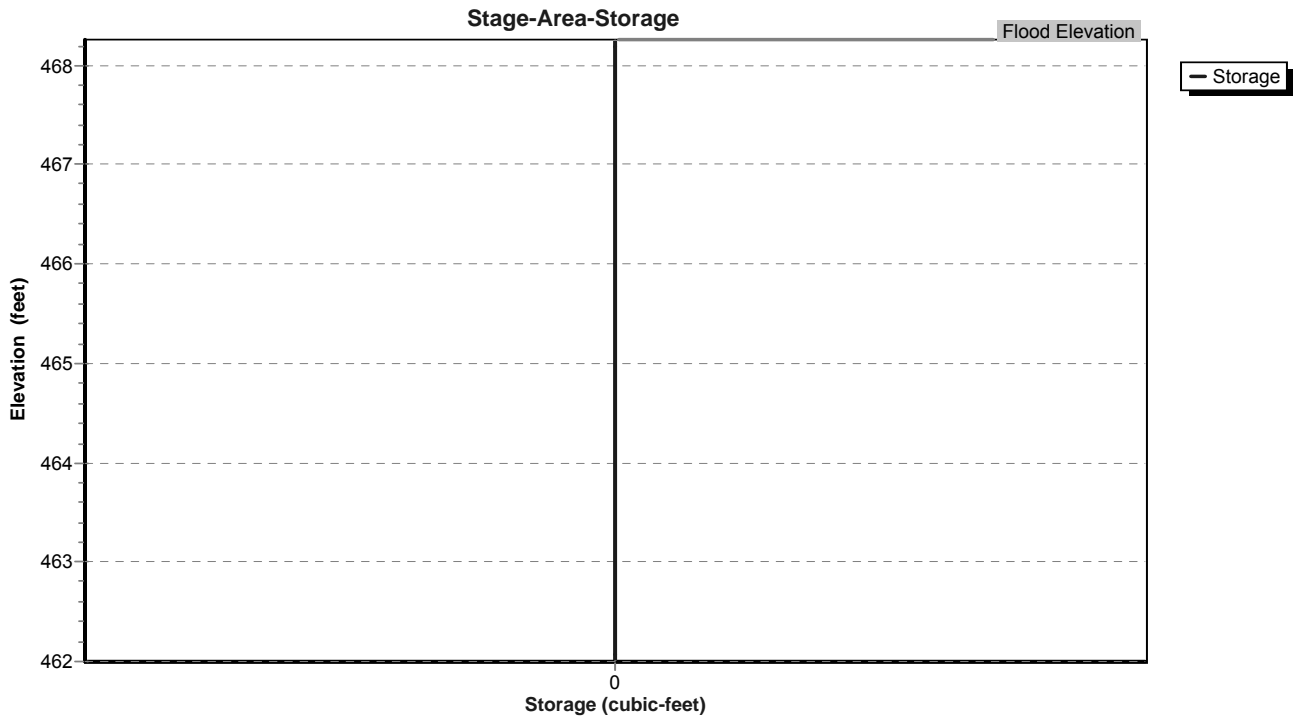
↑2=Outlet to Dry Basin (Inlet Controls 6.15 cfs @ 3.54 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Pond FS B2: Flow Splitter B2



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 1.63" for 10 Year - North Salem event
 Inflow = 2.38 cfs @ 12.49 hrs, Volume= 0.613 af
 Outflow = 0.72 cfs @ 14.75 hrs, Volume= 0.613 af, Atten= 70%, Lag= 135.4 min
 Primary = 0.72 cfs @ 14.75 hrs, Volume= 0.613 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 437.34' @ 14.75 hrs Surf.Area= 3,962 sf Storage= 10,185 cf

Plug-Flow detention time= 1,034.6 min calculated for 0.613 af (100% of inflow)
 Center-of-Mass det. time= 1,034.5 min (2,010.8 - 976.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

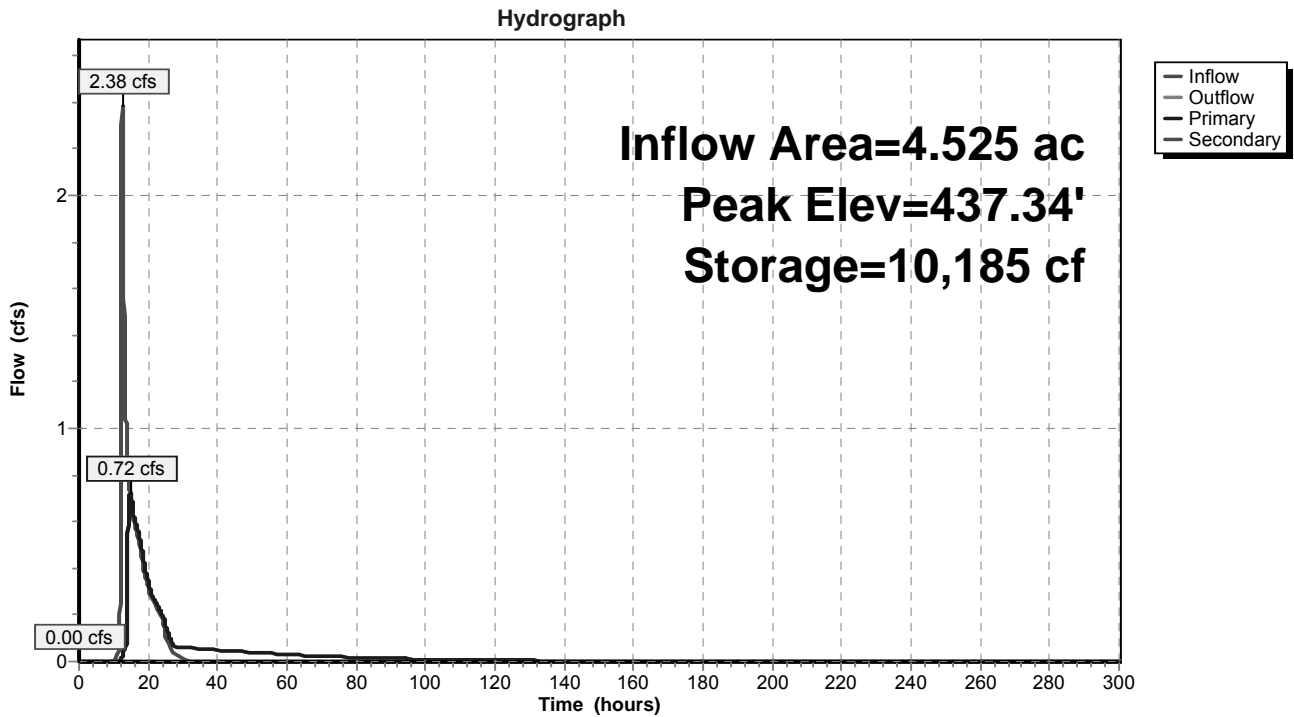
Primary OutFlow Max=0.72 cfs @ 14.75 hrs HW=437.34' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.72 cfs of 7.71 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.07 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.65 cfs @ 1.88 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

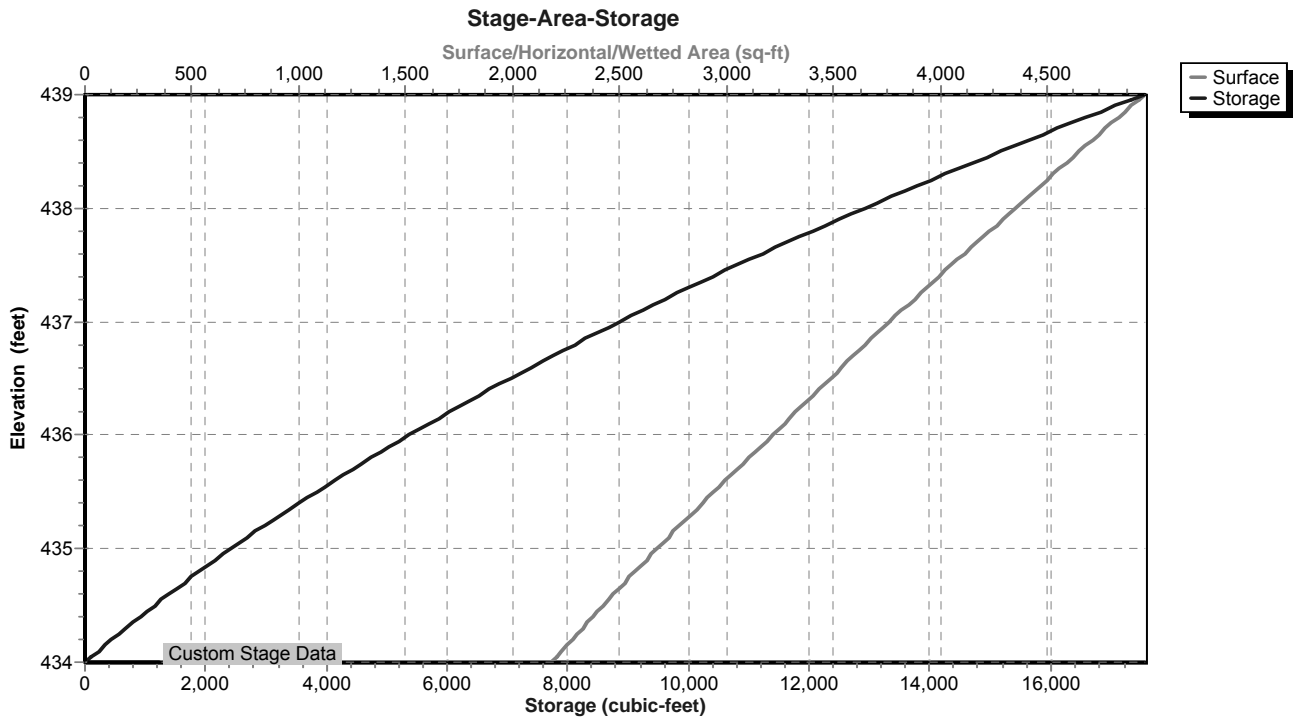
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-B2: Sand Filter - B2



Pond SF-B2: Sand Filter - B2



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 1.63" for 10 Year - North Salem event
 Inflow = 2.70 cfs @ 12.16 hrs, Volume= 0.613 af
 Outflow = 2.38 cfs @ 12.49 hrs, Volume= 0.613 af, Atten= 12%, Lag= 19.7 min
 Primary = 2.38 cfs @ 12.49 hrs, Volume= 0.613 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.85' @ 12.49 hrs Surf.Area= 2,369 sf Storage= 4,751 cf

Plug-Flow detention time= 85.4 min calculated for 0.613 af (100% of inflow)
 Center-of-Mass det. time= 85.2 min (976.4 - 891.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
456.00	1,042	128.0	0	0	1,042	
458.00	1,924	166.0	2,921	2,921	1,978	
459.00	2,450	185.0	2,182	5,103	2,537	
460.00	3,032	204.0	2,736	7,839	3,157	

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

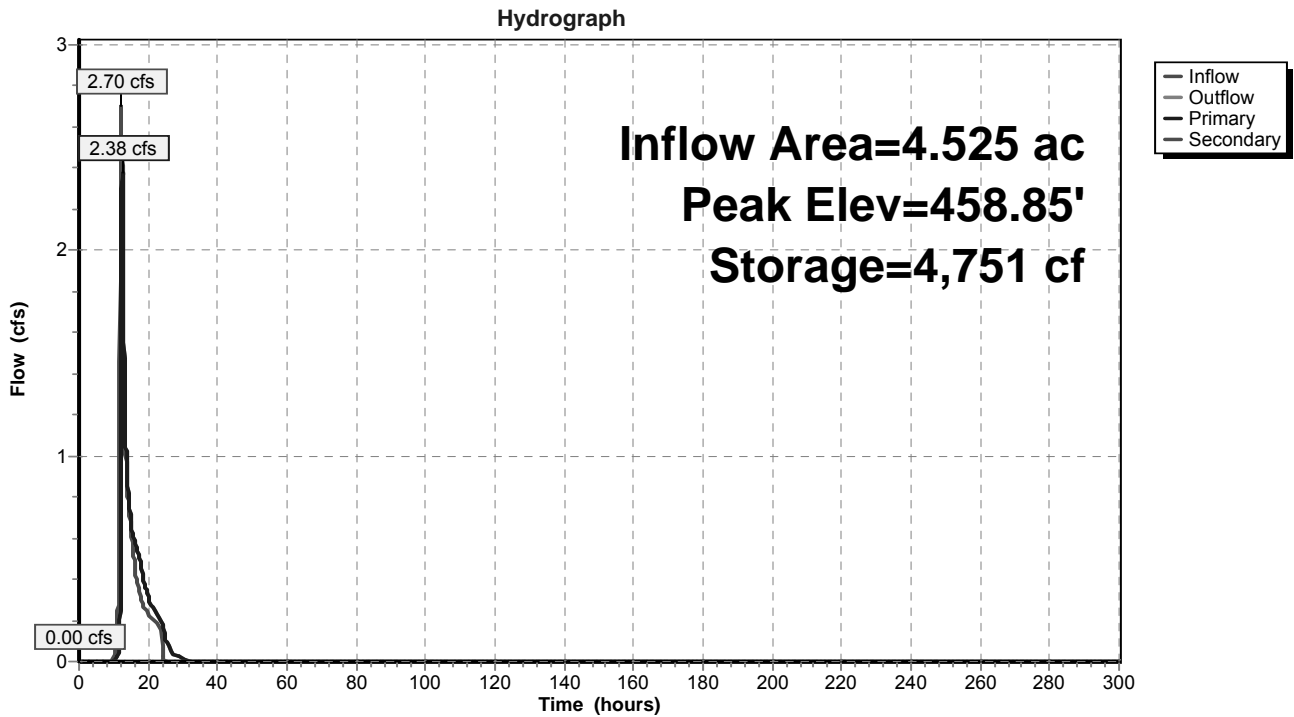
Primary OutFlow Max=2.37 cfs @ 12.49 hrs HW=458.85' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.37 cfs of 5.80 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.66 cfs @ 6.70 fps)
- ↑ 3=Top of Standpipe (Weir Controls 1.72 cfs @ 1.80 fps)

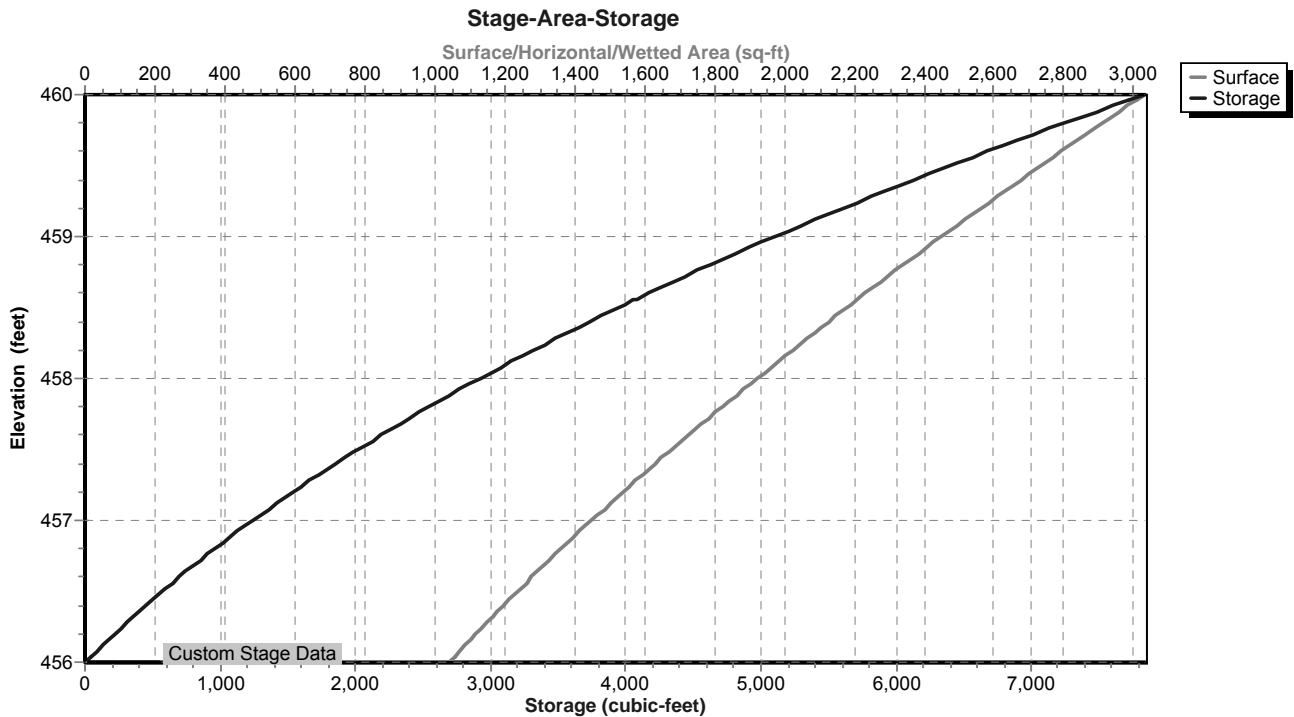
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-B2: Sand Filter Forebay - B2



Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=2.41"
Flow Length=917' Tc=9.6 min CN=58 Runoff=9.22 cfs 0.785 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=3.20"
Flow Length=602' Tc=10.9 min CN=66 Runoff=14.21 cfs 1.208 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=2.51"
Flow Length=230' Tc=8.5 min CN=59 Runoff=1.57 cfs 0.129 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=424.38' Storage=11,785 cf Inflow=12.83 cfs 1.338 af
Primary=5.17 cfs 1.325 af Secondary=0.00 cfs 0.000 af Outflow=5.17 cfs 1.325 af

Pond DP 2: Design Point 2 Inflow=10.63 cfs 2.110 af
Primary=10.63 cfs 2.110 af

Pond FS B2: Flow Splitter B2 Peak Elev=465.39' Inflow=14.21 cfs 1.208 af
Primary=2.94 cfs 0.852 af Secondary=11.27 cfs 0.356 af Outflow=14.21 cfs 1.208 af

Pond SF-B2: Sand Filter - B2 Peak Elev=437.56' Storage=11,036 cf Inflow=2.79 cfs 0.852 af
Primary=1.41 cfs 0.852 af Secondary=0.00 cfs 0.000 af Outflow=1.41 cfs 0.852 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=458.90' Storage=4,860 cf Inflow=2.94 cfs 0.852 af
Primary=2.79 cfs 0.852 af Secondary=0.00 cfs 0.000 af Outflow=2.79 cfs 0.852 af

Total Runoff Area = 9.054 ac Runoff Volume = 2.123 af Average Runoff Depth = 2.81"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 9.22 cfs @ 12.15 hrs, Volume= 0.785 af, Depth= 2.41"

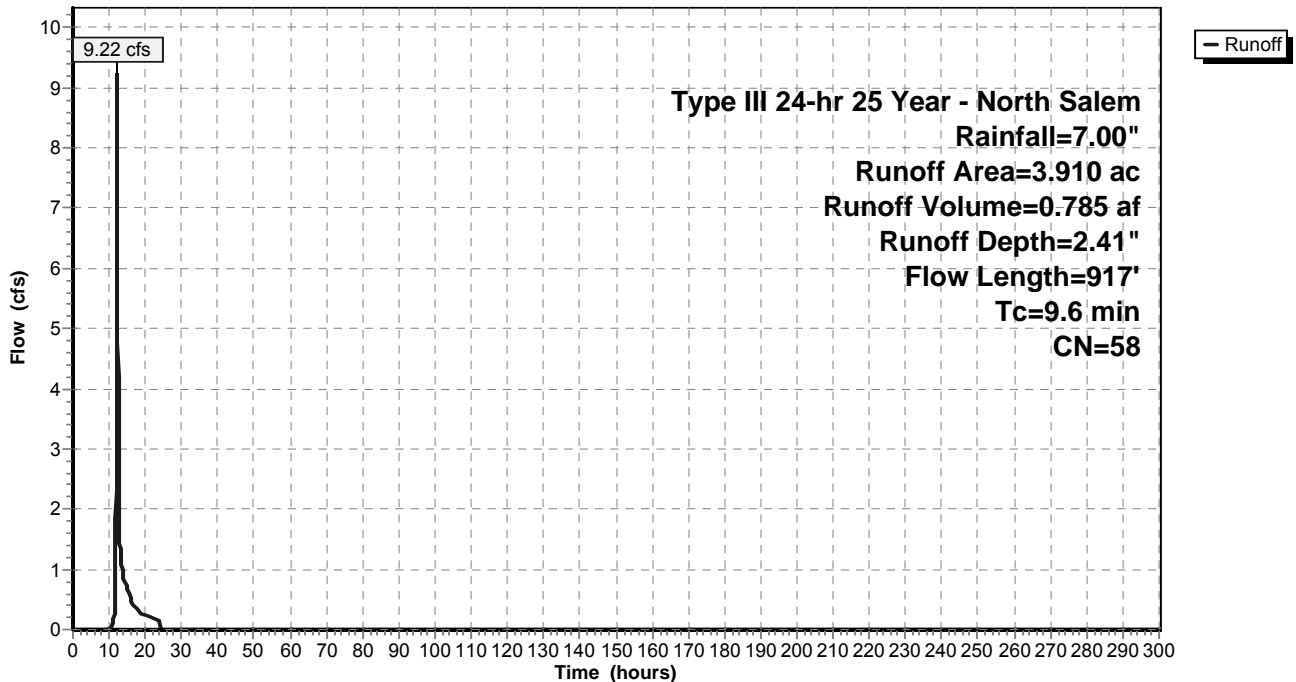
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

Runoff = 14.21 cfs @ 12.16 hrs, Volume= 1.208 af, Depth= 3.20"

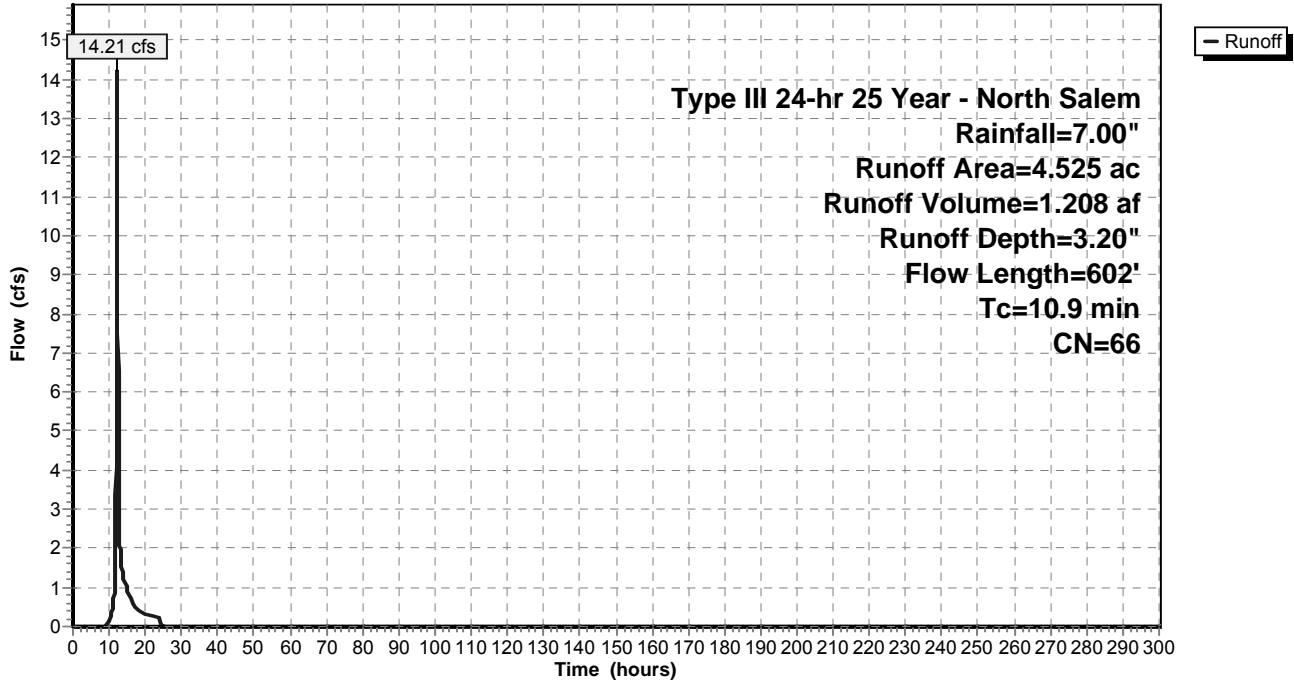
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2

Hydrograph



Summary for Subcatchment B3: Post-Development B3

Runoff = 1.57 cfs @ 12.13 hrs, Volume= 0.129 af, Depth= 2.51"

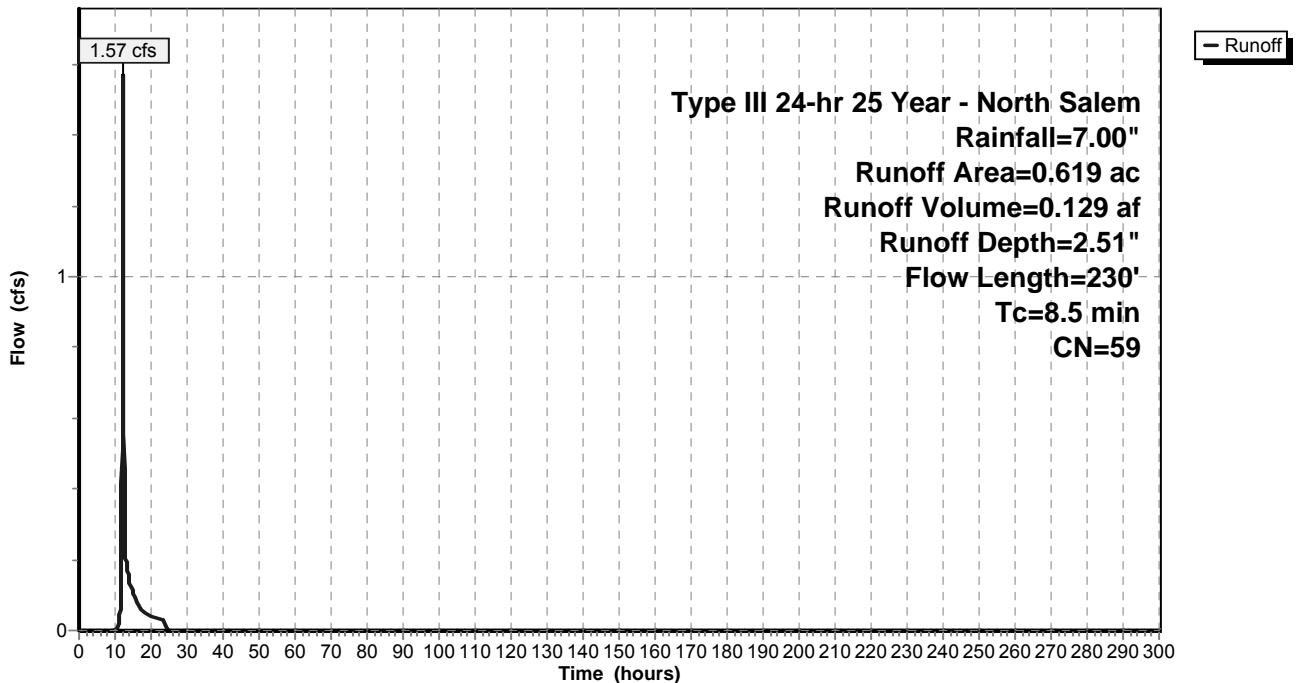
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 3.12" for 25 Year - North Salem event
 Inflow = 12.83 cfs @ 12.16 hrs, Volume= 1.338 af
 Outflow = 5.17 cfs @ 12.43 hrs, Volume= 1.325 af, Atten= 60%, Lag= 16.3 min
 Primary = 5.17 cfs @ 12.43 hrs, Volume= 1.325 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 424.38' @ 12.43 hrs Surf.Area= 4,720 sf Storage= 11,785 cf

Plug-Flow detention time= 139.2 min calculated for 1.325 af (99% of inflow)
 Center-of-Mass det. time= 65.0 min (1,446.1 - 1,381.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

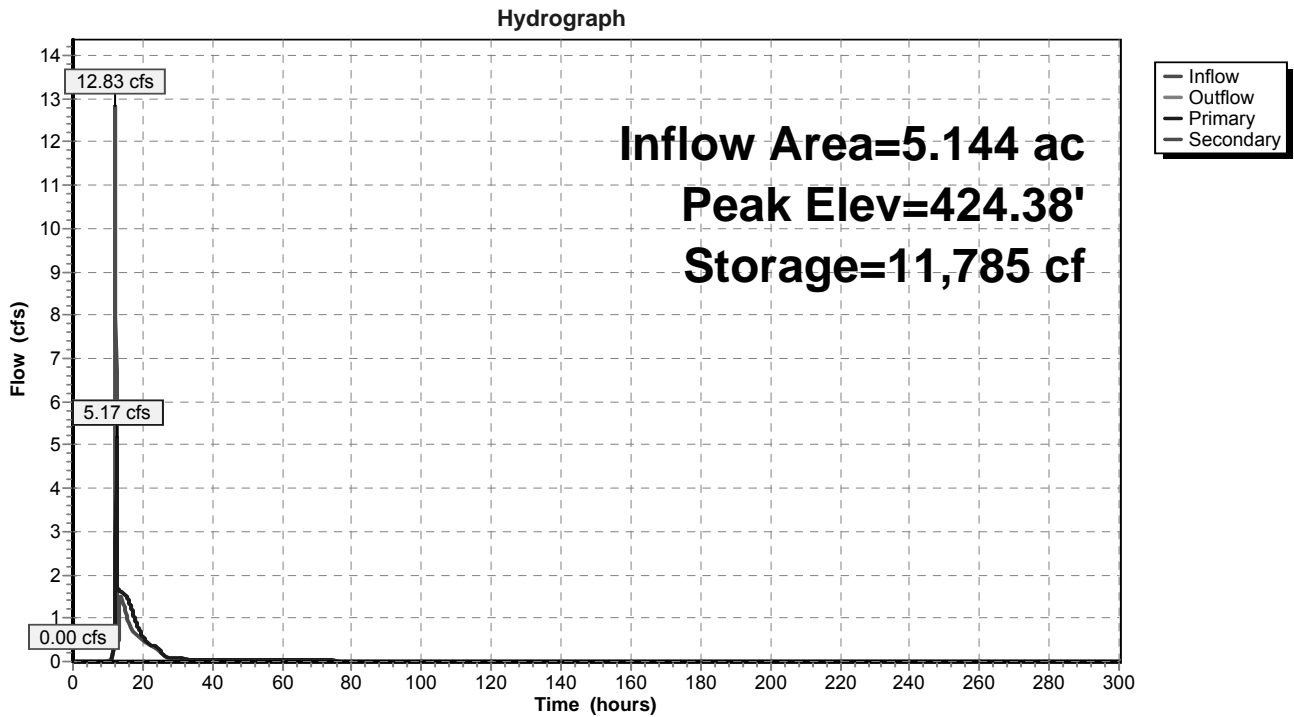
Primary OutFlow Max=5.12 cfs @ 12.43 hrs HW=424.37' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 5.12 cfs of 89.46 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 1.80 cfs @ 9.17 fps)
- ↑ 3=Orifice #2 (Orifice Controls 3.32 cfs @ 1.97 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

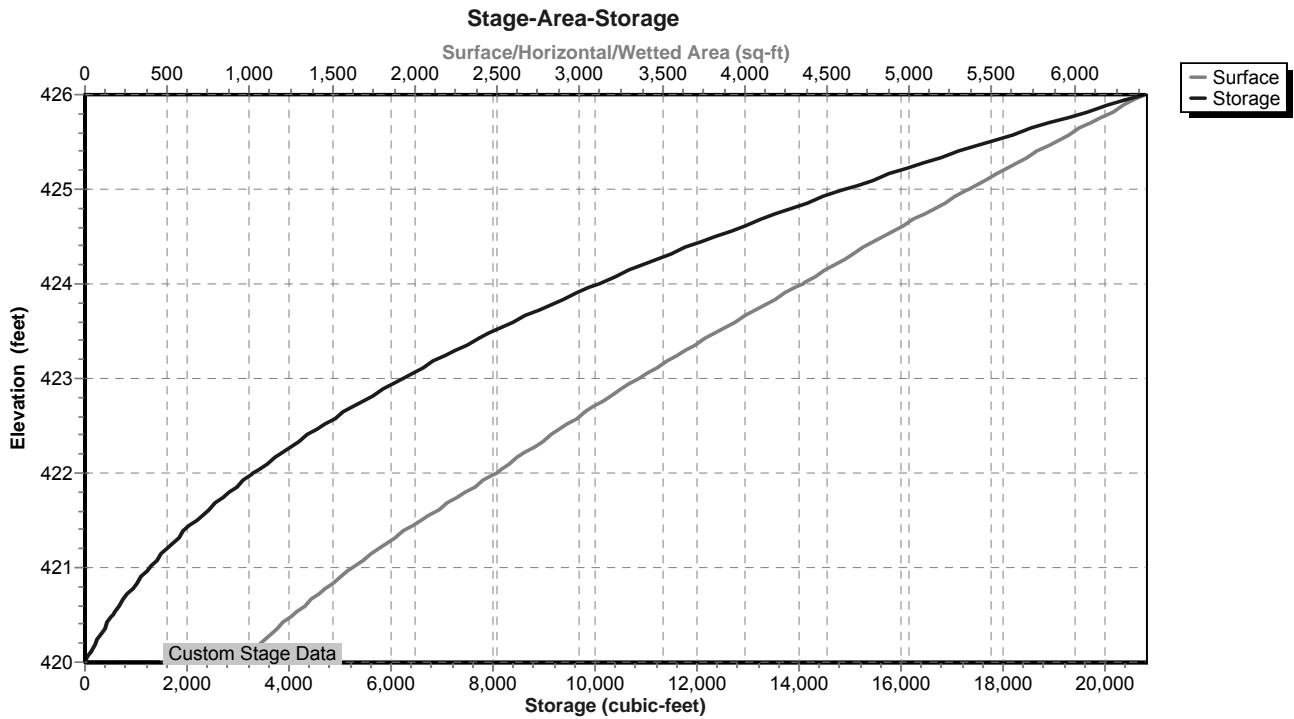
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-B3: Dry Basin (Basin B3)



Pond B-B3: Dry Basin (Basin B3)



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

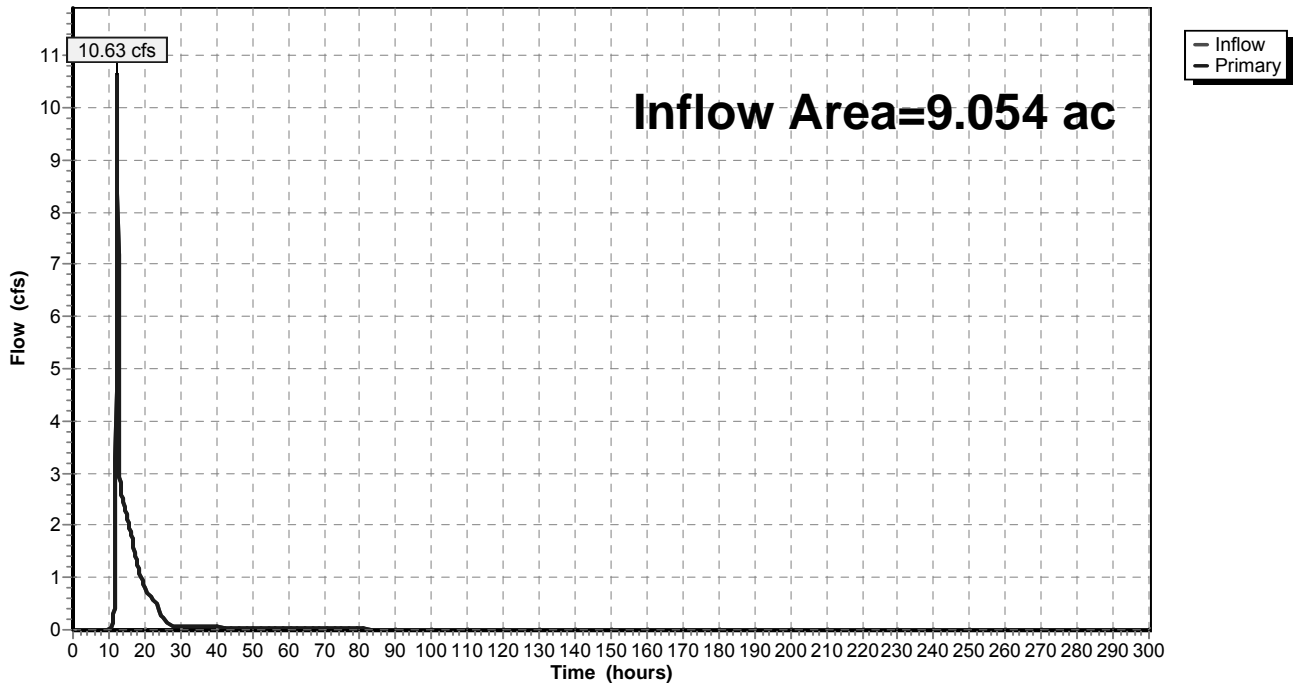
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 2.80" for 25 Year - North Salem event
Inflow = 10.63 cfs @ 12.15 hrs, Volume= 2.110 af
Primary = 10.63 cfs @ 12.15 hrs, Volume= 2.110 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
 Inflow = 14.21 cfs @ 12.16 hrs, Volume= 1.208 af
 Outflow = 14.21 cfs @ 12.16 hrs, Volume= 1.208 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.94 cfs @ 12.16 hrs, Volume= 0.852 af
 Secondary = 11.27 cfs @ 12.16 hrs, Volume= 0.356 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.39' @ 12.16 hrs
 Flood Elev= 468.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.93 cfs @ 12.16 hrs HW=465.37' (Free Discharge)

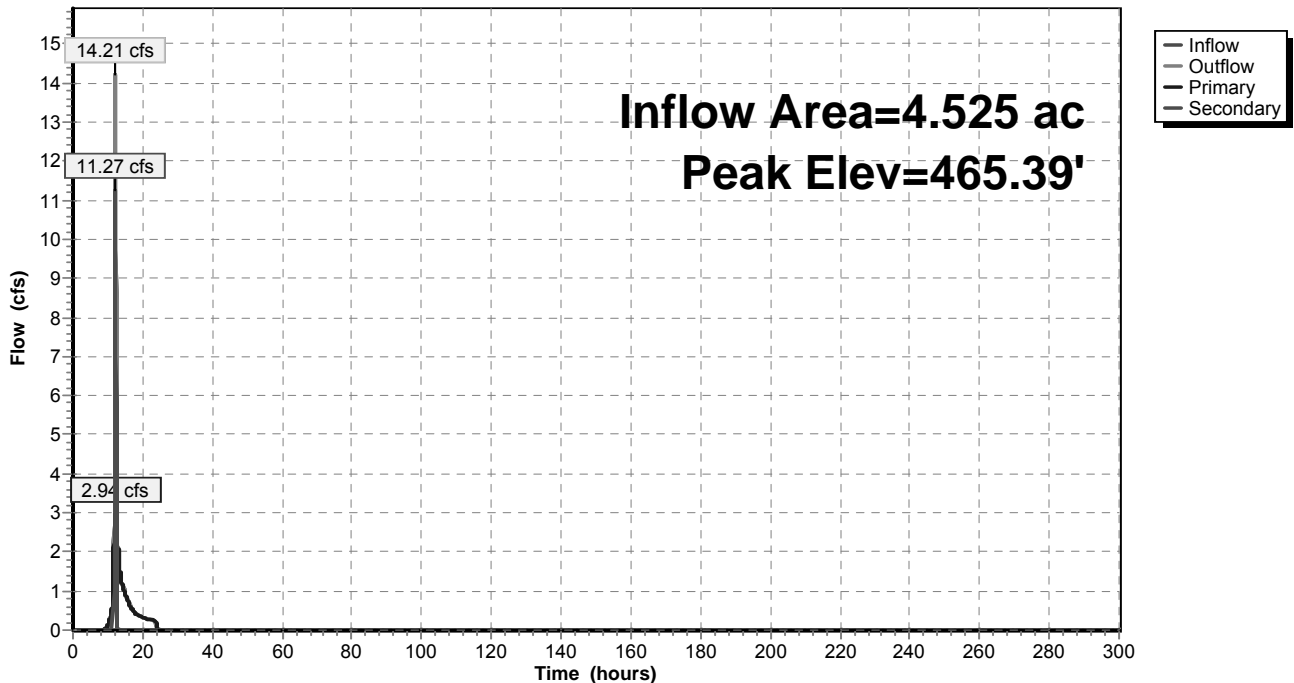
↳ **1=Outlet to Sand Filter** (Inlet Controls 2.93 cfs @ 8.39 fps)

Secondary OutFlow Max=11.09 cfs @ 12.16 hrs HW=465.37' (Free Discharge)

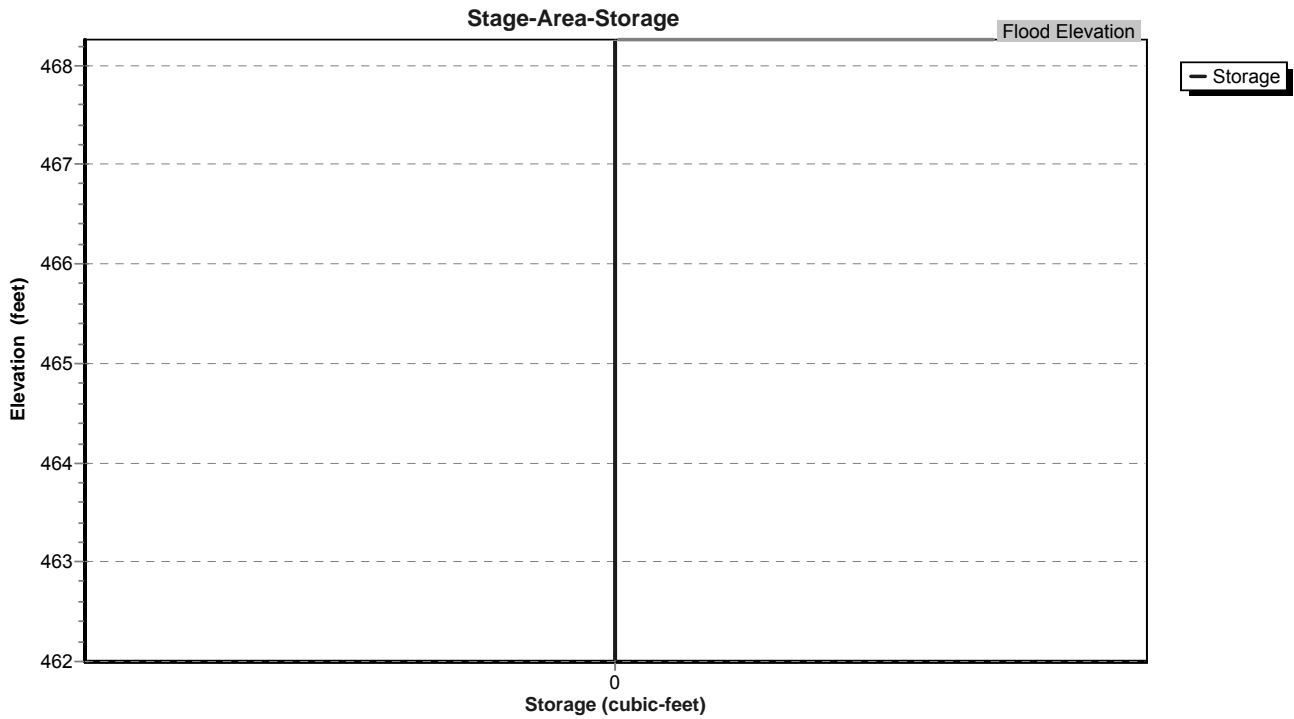
↳ **2=Outlet to Dry Basin** (Inlet Controls 11.09 cfs @ 4.24 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Pond FS B2: Flow Splitter B2



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 2.26" for 25 Year - North Salem event
 Inflow = 2.79 cfs @ 12.27 hrs, Volume= 0.852 af
 Outflow = 1.41 cfs @ 13.72 hrs, Volume= 0.852 af, Atten= 50%, Lag= 87.0 min
 Primary = 1.41 cfs @ 13.72 hrs, Volume= 0.852 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 437.56' @ 13.72 hrs Surf.Area= 4,086 sf Storage= 11,036 cf

Plug-Flow detention time= 763.9 min calculated for 0.852 af (100% of inflow)
 Center-of-Mass det. time= 766.0 min (1,731.1 - 965.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

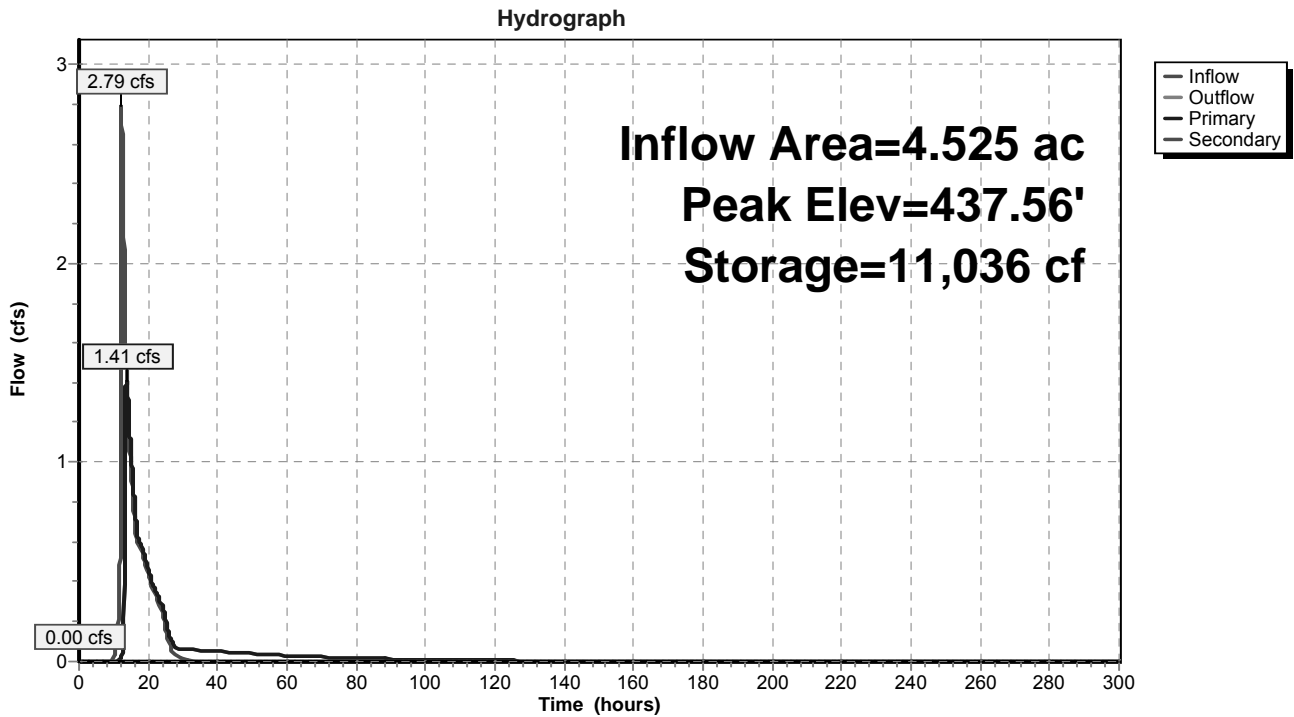
Primary OutFlow Max=1.41 cfs @ 13.72 hrs HW=437.56' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.41 cfs of 7.86 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.08 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 1.33 cfs @ 2.39 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

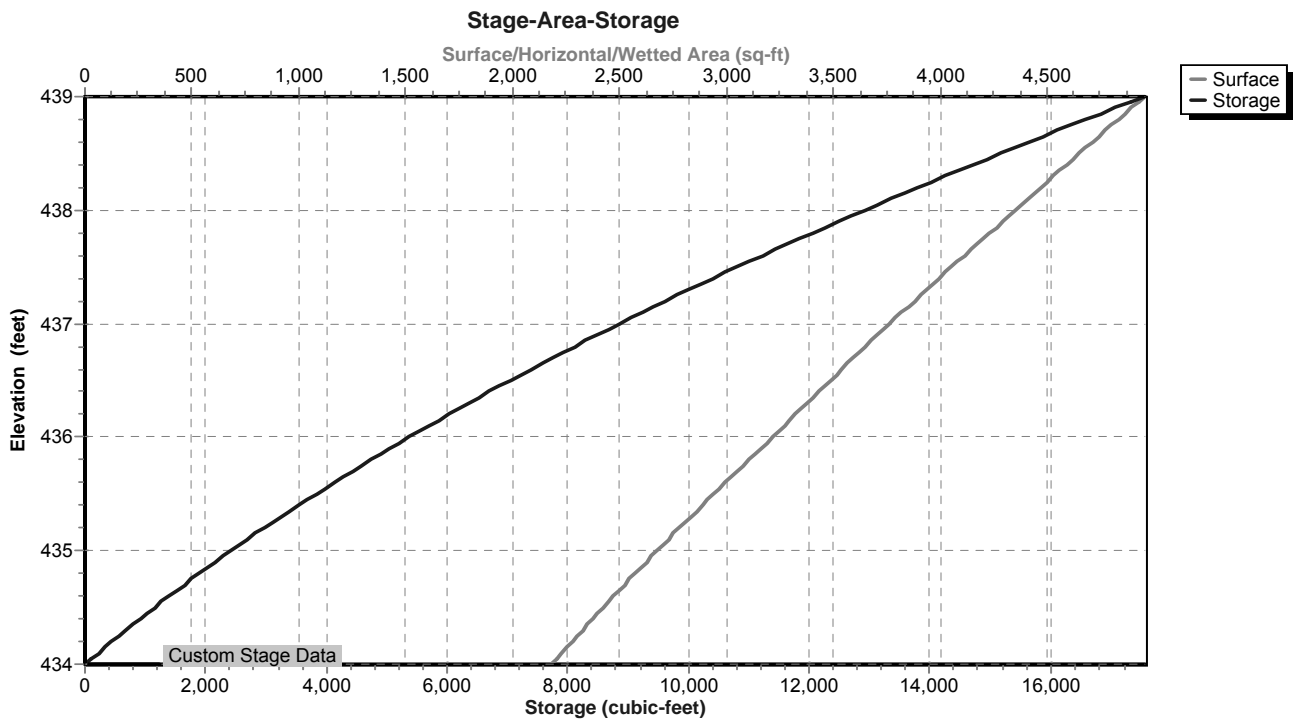
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-B2: Sand Filter - B2



Pond SF-B2: Sand Filter - B2



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 2.26" for 25 Year - North Salem event
 Inflow = 2.94 cfs @ 12.16 hrs, Volume= 0.852 af
 Outflow = 2.79 cfs @ 12.27 hrs, Volume= 0.852 af, Atten= 5%, Lag= 6.9 min
 Primary = 2.79 cfs @ 12.27 hrs, Volume= 0.852 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.90' @ 12.27 hrs Surf.Area= 2,394 sf Storage= 4,860 cf

Plug-Flow detention time= 74.5 min calculated for 0.852 af (100% of inflow)
 Center-of-Mass det. time= 74.6 min (965.1 - 890.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

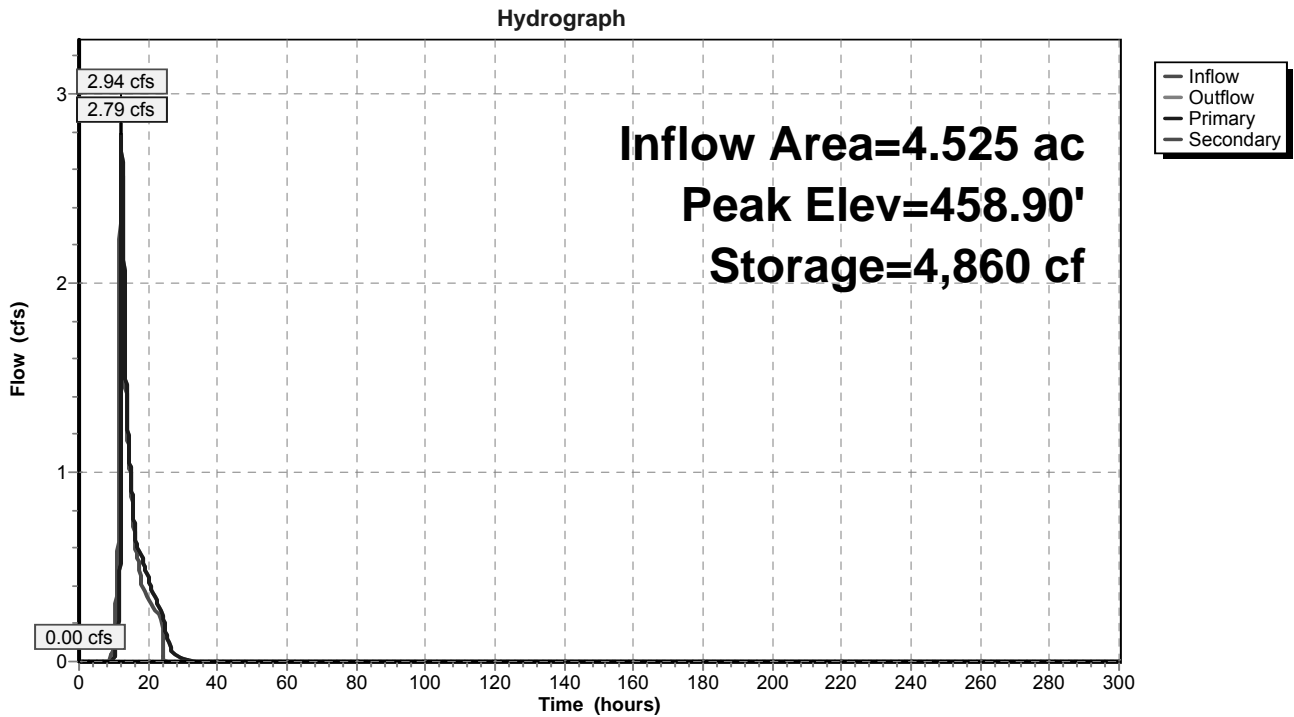
Primary OutFlow Max=2.78 cfs @ 12.27 hrs HW=458.90' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.78 cfs of 5.86 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.67 cfs @ 6.78 fps)
- ↑ 3=Top of Standpipe (Weir Controls 2.11 cfs @ 1.93 fps)

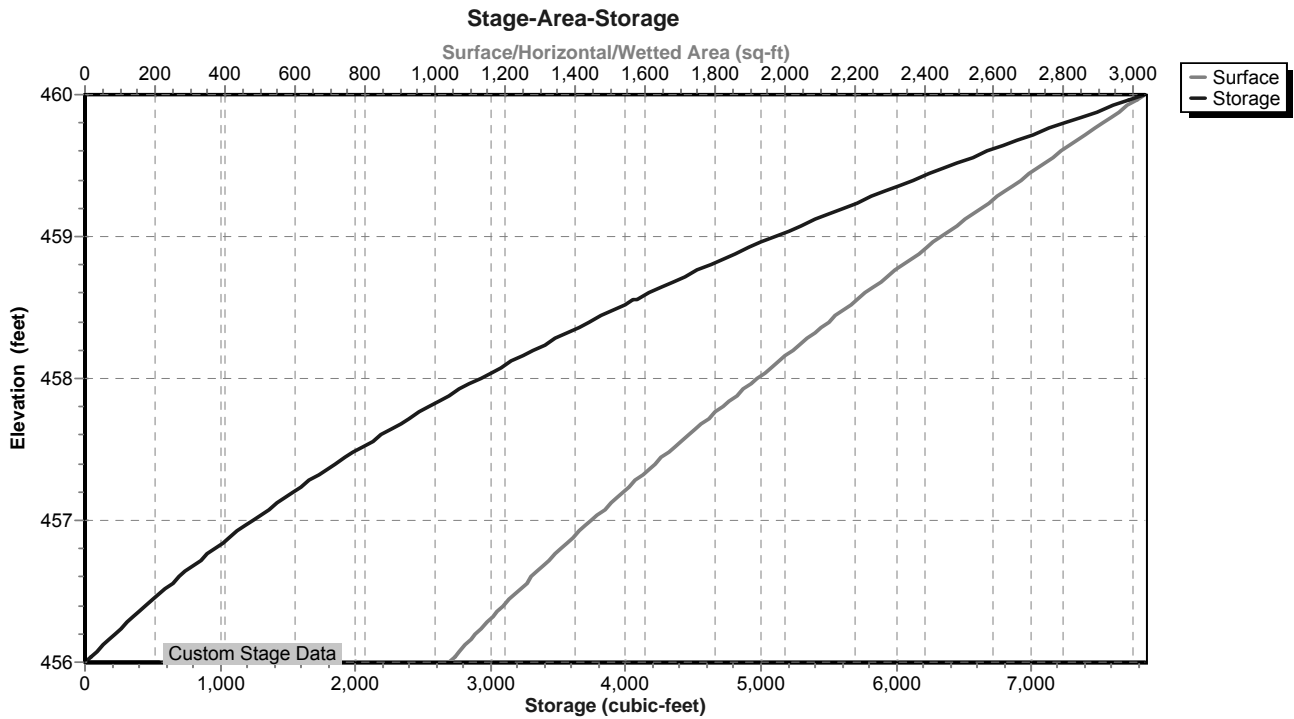
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-B2: Sand Filter Forebay - B2



Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=3.86"
Flow Length=917' Tc=9.6 min CN=58 Runoff=15.21 cfs 1.256 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=4.84"
Flow Length=602' Tc=10.9 min CN=66 Runoff=21.64 cfs 1.825 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=3.98"
Flow Length=230' Tc=8.5 min CN=59 Runoff=2.56 cfs 0.205 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=424.93' Storage=14,555 cf Inflow=20.84 cfs 2.030 af
Primary=14.92 cfs 2.018 af Secondary=0.00 cfs 0.000 af Outflow=14.92 cfs 2.018 af

Pond DP 2: Design Point 2 Inflow=25.82 cfs 3.274 af
Primary=25.82 cfs 3.274 af

Pond FS B2: Flow Splitter B2 Peak Elev=466.28' Inflow=21.64 cfs 1.825 af
Primary=3.34 cfs 1.162 af Secondary=18.30 cfs 0.663 af Outflow=21.64 cfs 1.825 af

Pond SF-B2: Sand Filter - B2 Peak Elev=437.74' Storage=11,816 cf Inflow=3.09 cfs 1.162 af
Primary=2.14 cfs 1.162 af Secondary=0.00 cfs 0.000 af Outflow=2.14 cfs 1.162 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=458.96' Storage=5,001 cf Inflow=3.34 cfs 1.162 af
Primary=3.09 cfs 1.162 af Secondary=0.00 cfs 0.000 af Outflow=3.09 cfs 1.162 af

Total Runoff Area = 9.054 ac Runoff Volume = 3.287 af Average Runoff Depth = 4.36"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 15.21 cfs @ 12.14 hrs, Volume= 1.256 af, Depth= 3.86"

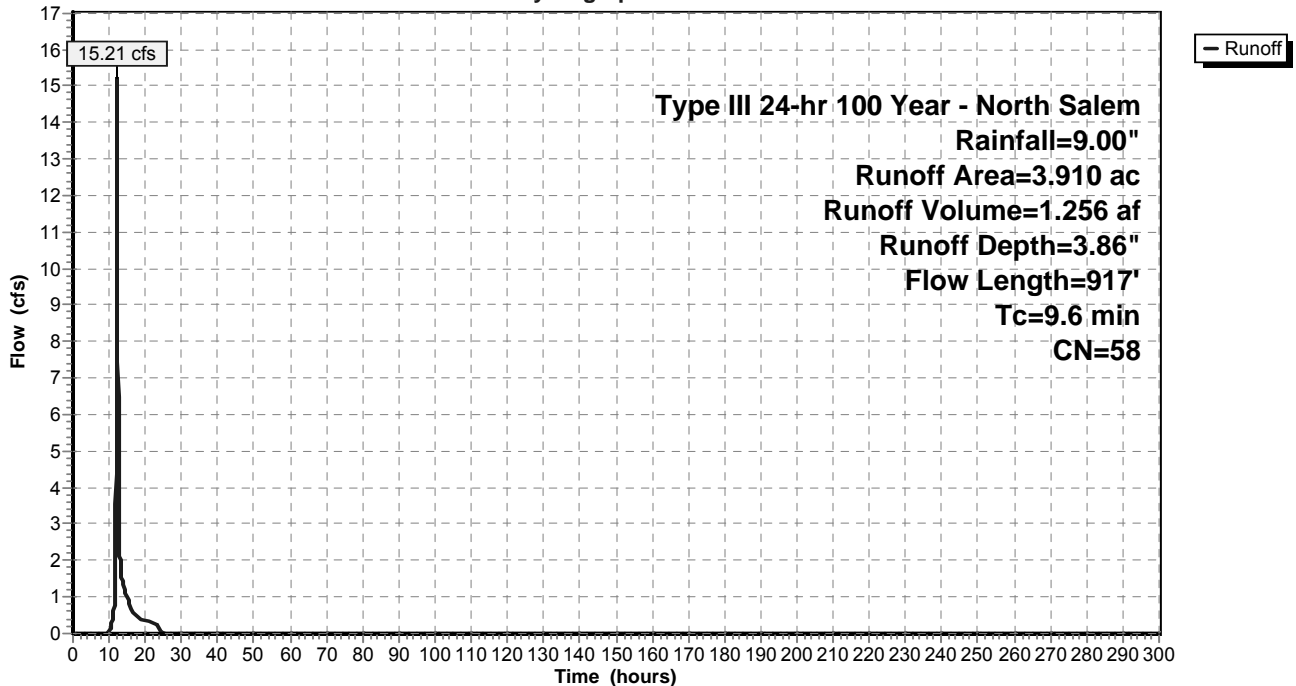
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

Runoff = 21.64 cfs @ 12.16 hrs, Volume= 1.825 af, Depth= 4.84"

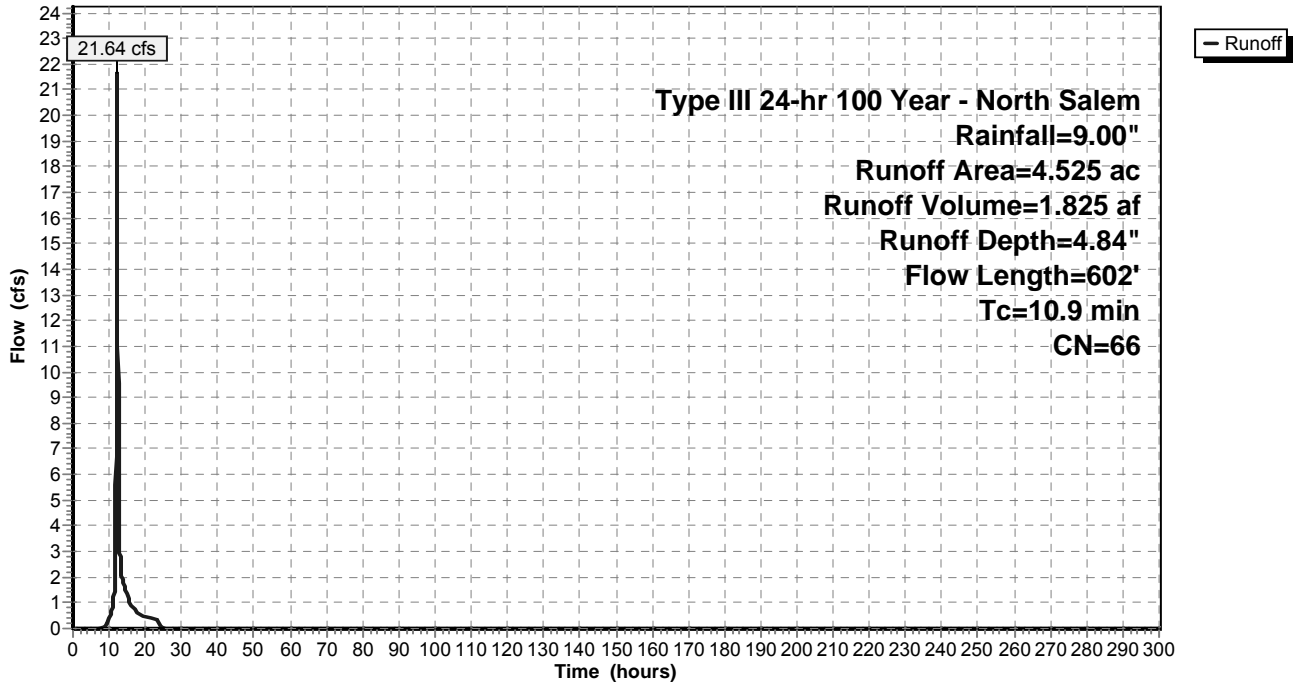
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2

Hydrograph



Summary for Subcatchment B3: Post-Development B3

Runoff = 2.56 cfs @ 12.13 hrs, Volume= 0.205 af, Depth= 3.98"

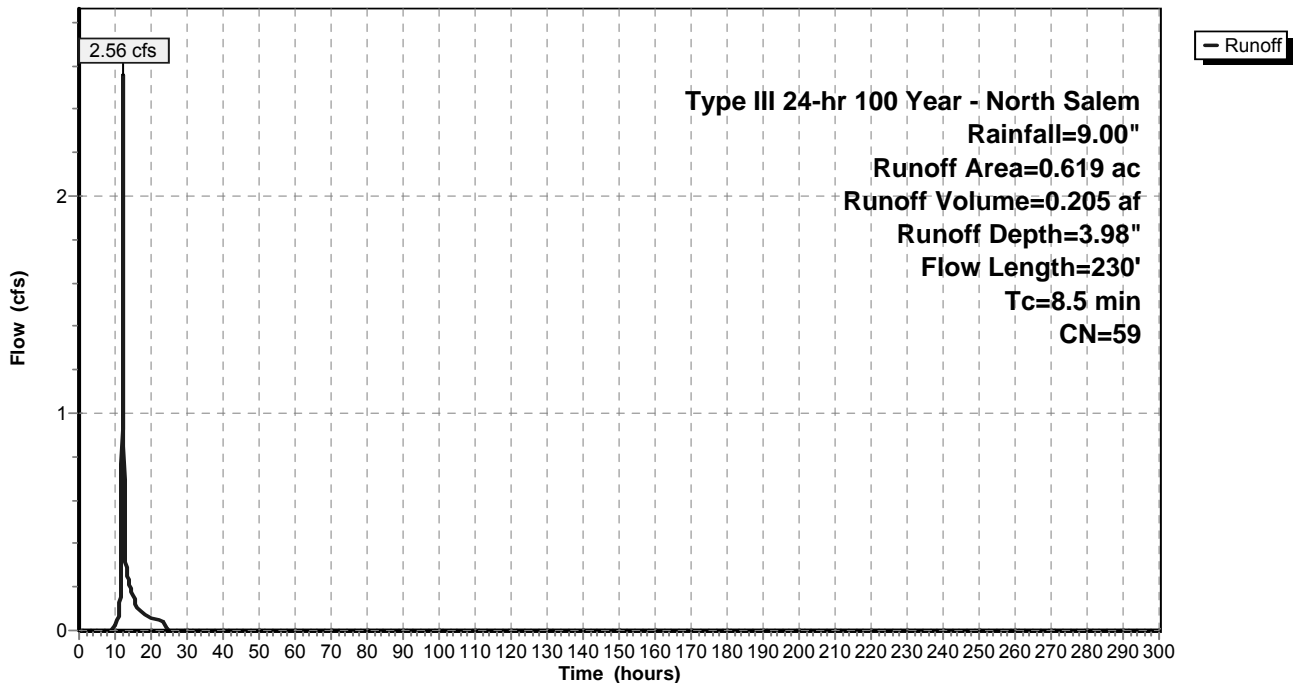
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 4.74" for 100 Year - North Salem event
 Inflow = 20.84 cfs @ 12.15 hrs, Volume= 2.030 af
 Outflow = 14.92 cfs @ 12.27 hrs, Volume= 2.018 af, Atten= 28%, Lag= 7.2 min
 Primary = 14.92 cfs @ 12.27 hrs, Volume= 2.018 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 424.93' @ 12.27 hrs Surf.Area= 5,289 sf Storage= 14,555 cf

Plug-Flow detention time= 105.9 min calculated for 2.018 af (99% of inflow)
 Center-of-Mass det. time= 56.4 min (1,258.9 - 1,202.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=14.54 cfs @ 12.27 hrs HW=424.91' (Free Discharge)

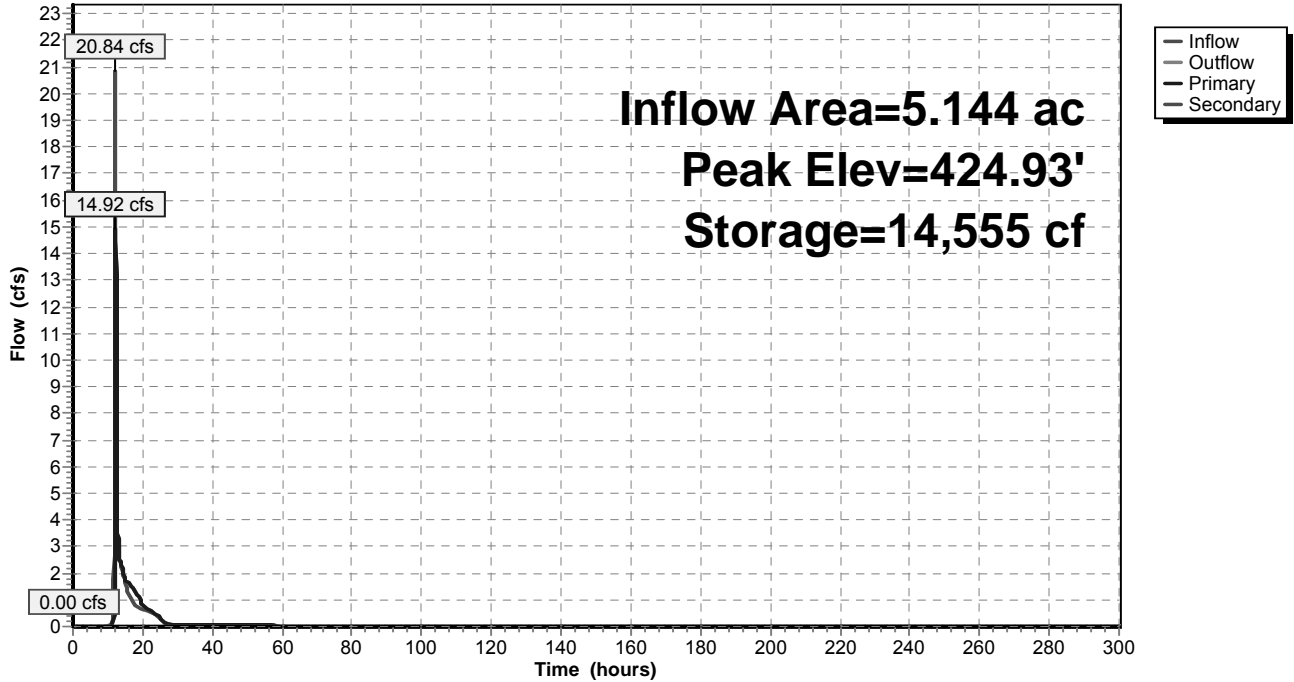
- ↑ 1=Outlet Pipe (Passes 14.54 cfs of 92.14 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 1.93 cfs @ 9.82 fps)
- ↑ 3=Orifice #2 (Orifice Controls 12.61 cfs @ 3.07 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

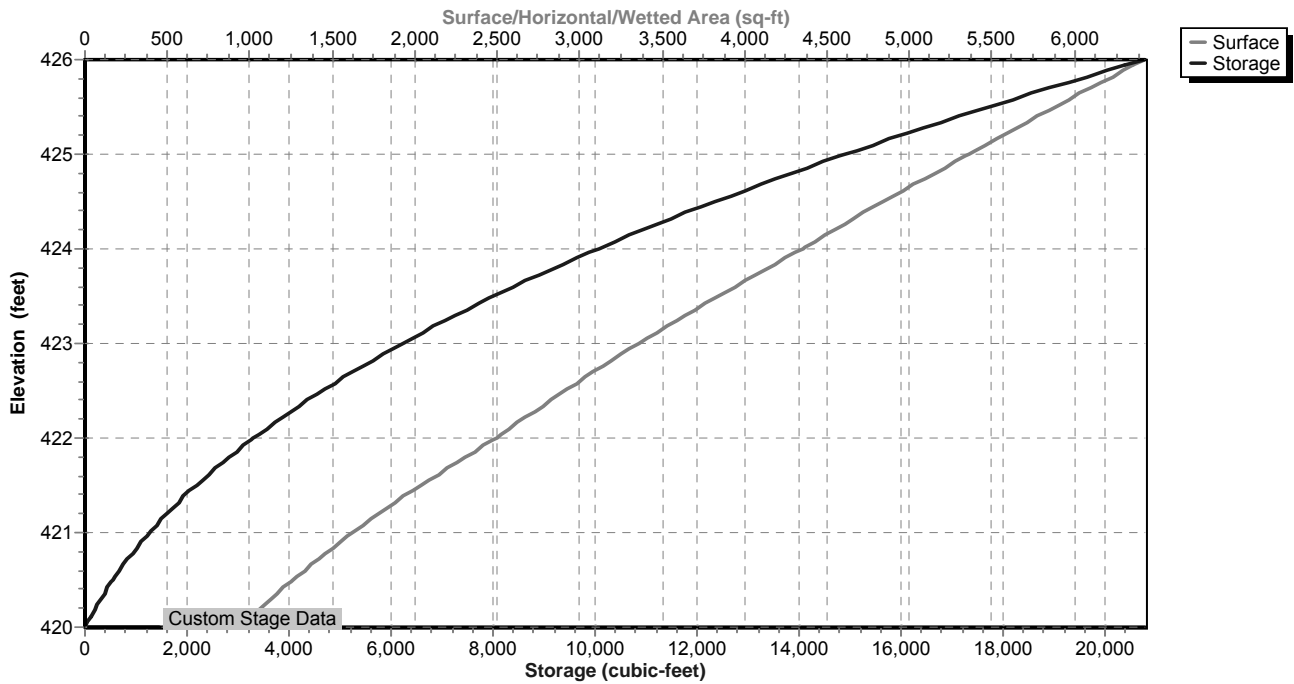
Pond B-B3: Dry Basin (Basin B3)

Hydrograph



Pond B-B3: Dry Basin (Basin B3)

Stage-Area-Storage



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

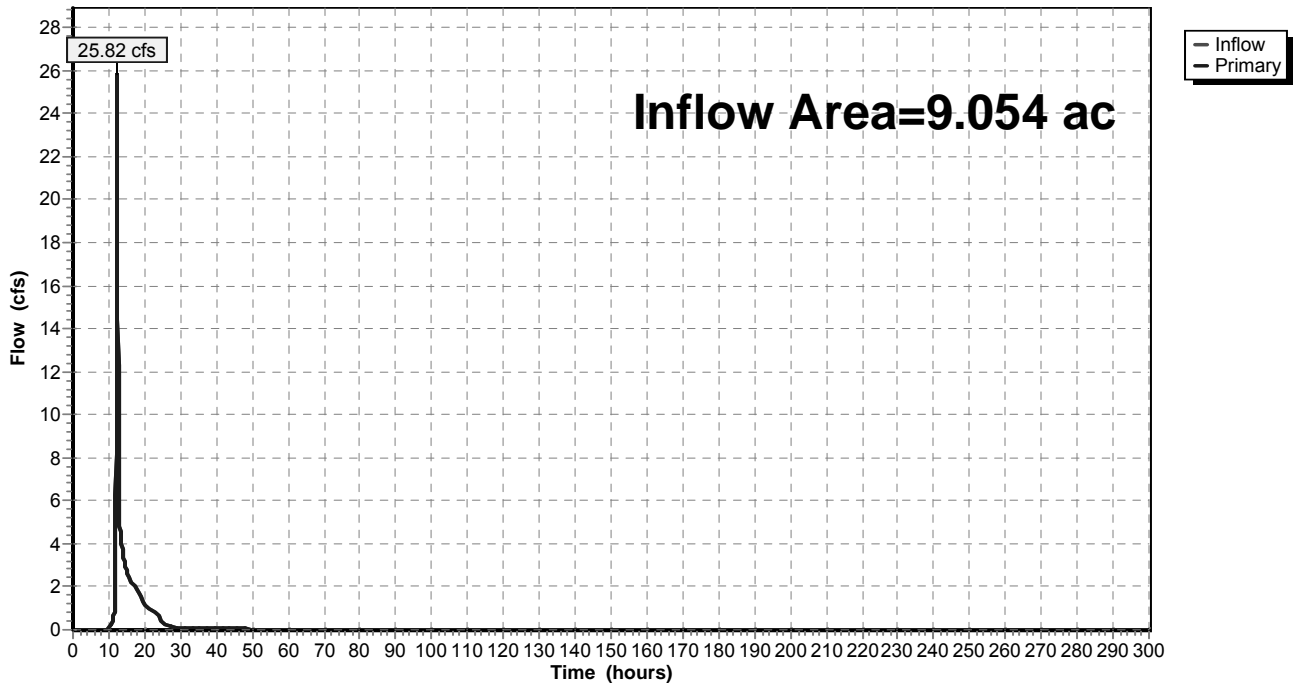
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 4.34" for 100 Year - North Salem event
 Inflow = 25.82 cfs @ 12.24 hrs, Volume= 3.274 af
 Primary = 25.82 cfs @ 12.24 hrs, Volume= 3.274 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 4.84" for 100 Year - North Salem event
 Inflow = 21.64 cfs @ 12.16 hrs, Volume= 1.825 af
 Outflow = 21.64 cfs @ 12.16 hrs, Volume= 1.825 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.34 cfs @ 12.16 hrs, Volume= 1.162 af
 Secondary = 18.30 cfs @ 12.16 hrs, Volume= 0.663 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 466.28' @ 12.16 hrs
 Flood Elev= 468.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=3.33 cfs @ 12.16 hrs HW=466.26' (Free Discharge)

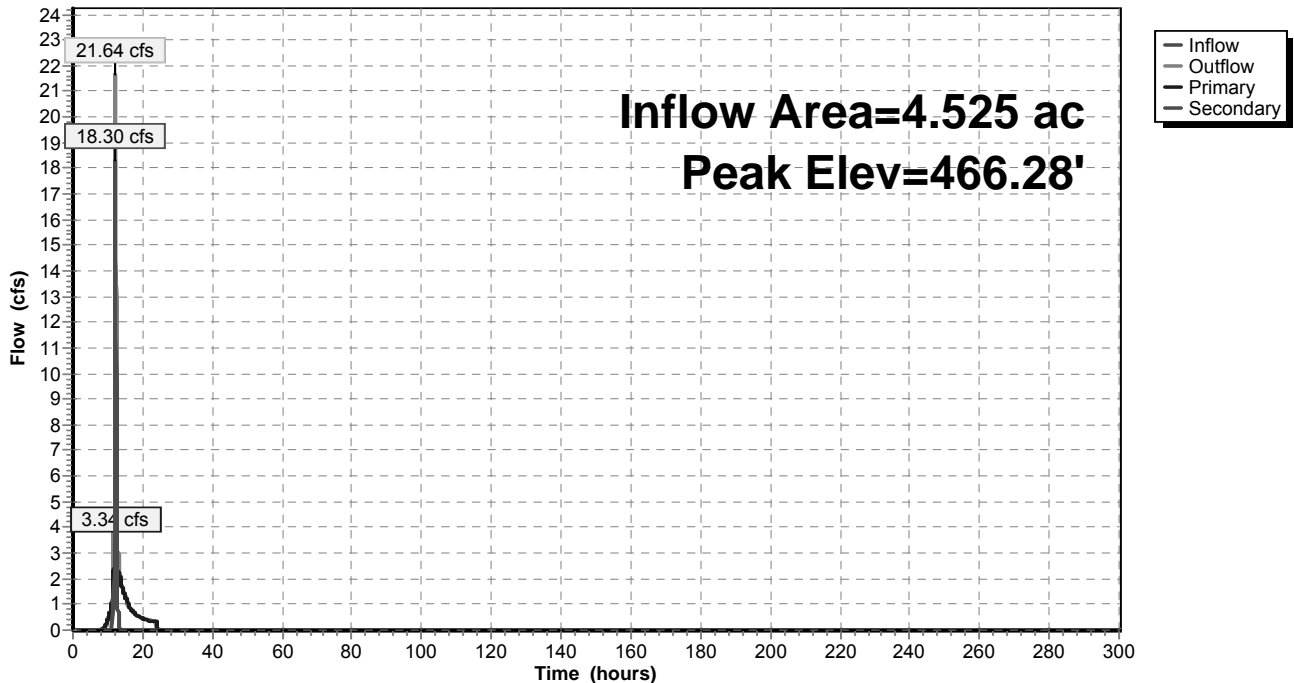
↳ **1=Outlet to Sand Filter** (Inlet Controls 3.33 cfs @ 9.54 fps)

Secondary OutFlow Max=18.12 cfs @ 12.16 hrs HW=466.25' (Free Discharge)

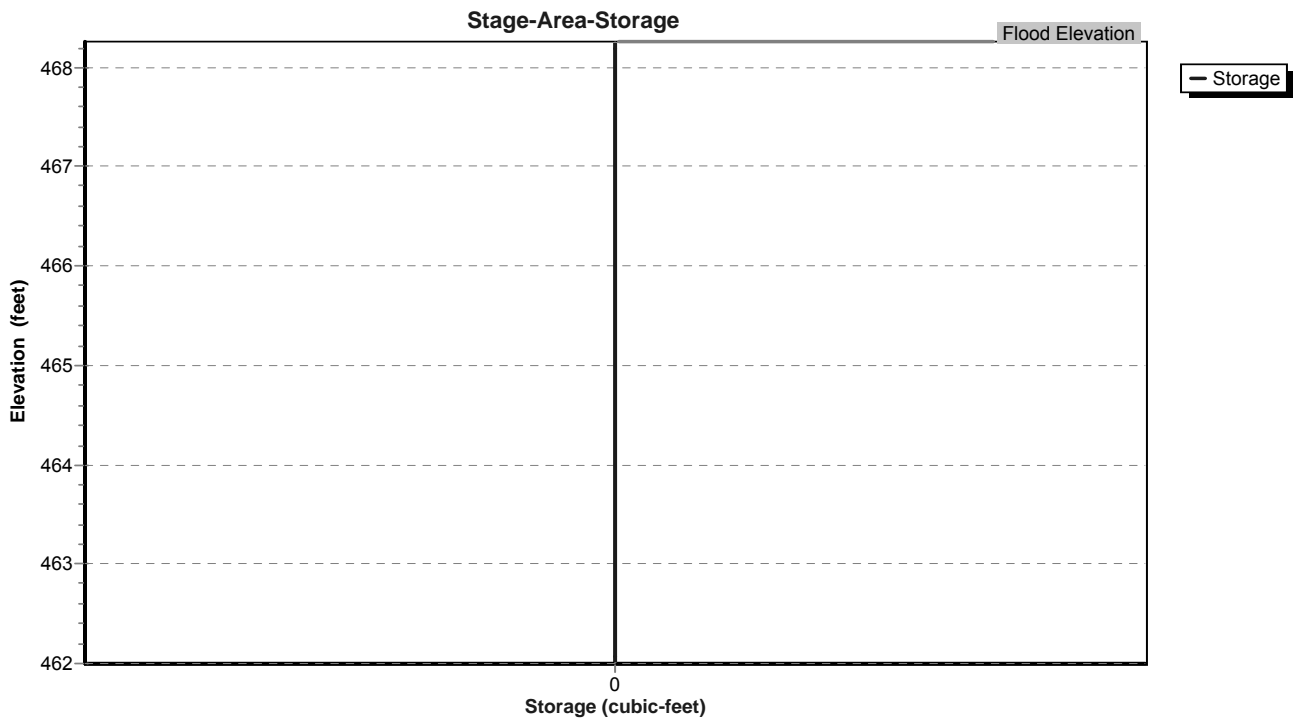
↳ **2=Outlet to Dry Basin** (Inlet Controls 18.12 cfs @ 5.77 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Pond FS B2: Flow Splitter B2



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 3.08" for 100 Year - North Salem event
 Inflow = 3.09 cfs @ 12.25 hrs, Volume= 1.162 af
 Outflow = 2.14 cfs @ 13.37 hrs, Volume= 1.162 af, Atten= 31%, Lag= 67.2 min
 Primary = 2.14 cfs @ 13.37 hrs, Volume= 1.162 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 437.74' @ 13.37 hrs Surf.Area= 4,198 sf Storage= 11,816 cf

Plug-Flow detention time= 578.7 min calculated for 1.162 af (100% of inflow)
 Center-of-Mass det. time= 578.6 min (1,532.9 - 954.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

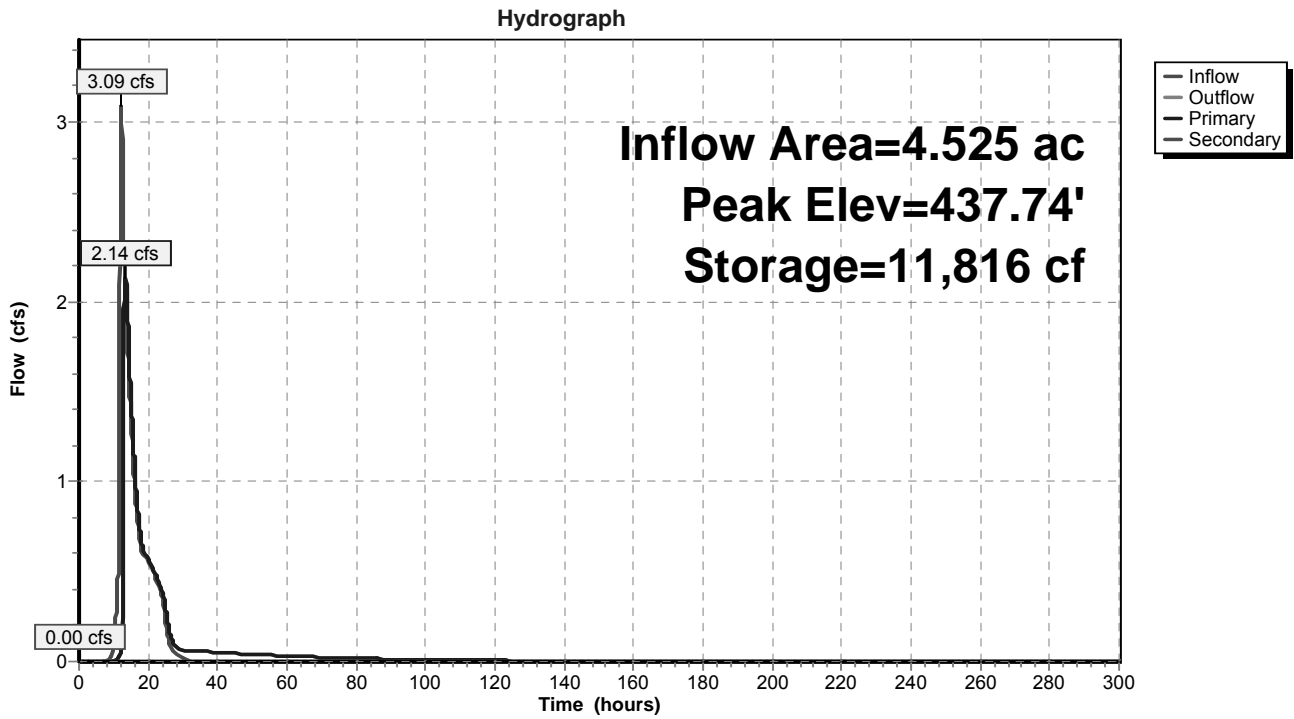
Primary OutFlow Max=2.14 cfs @ 13.37 hrs HW=437.74' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.14 cfs of 8.00 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.08 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 2.06 cfs @ 2.77 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

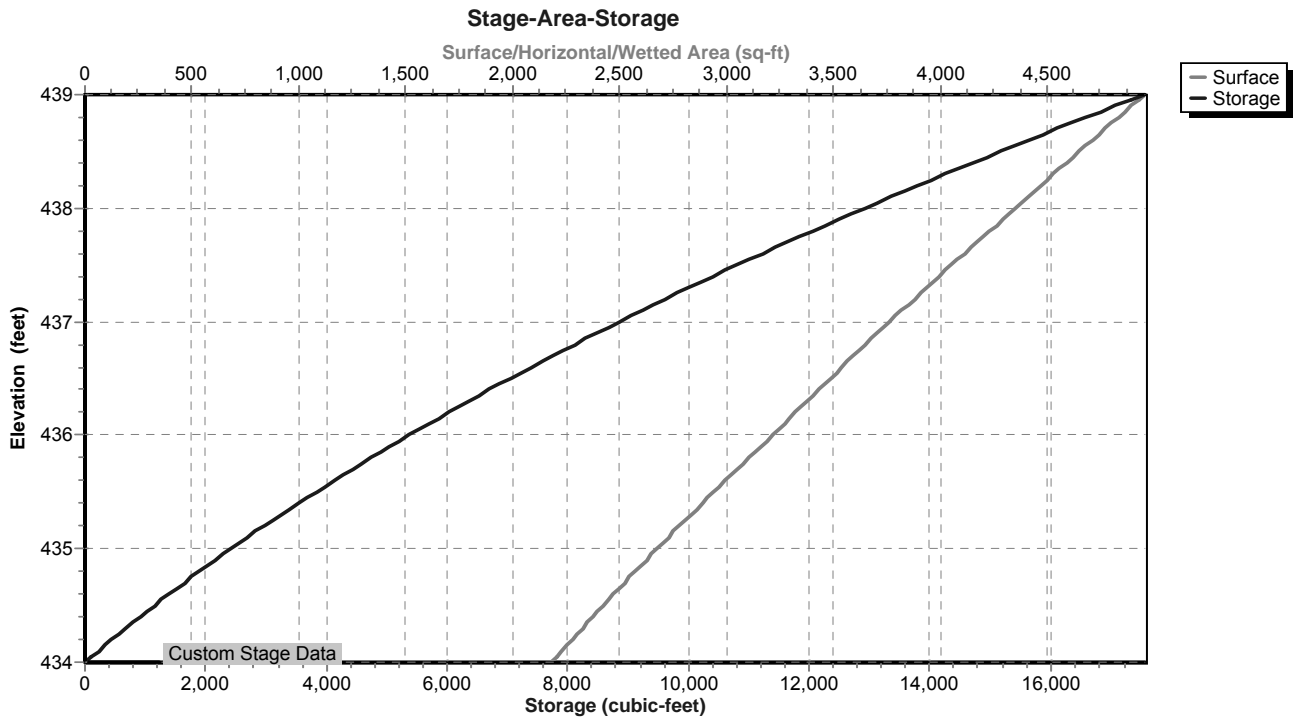
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-B2: Sand Filter - B2



Pond SF-B2: Sand Filter - B2



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 3.08" for 100 Year - North Salem event
 Inflow = 3.34 cfs @ 12.16 hrs, Volume= 1.162 af
 Outflow = 3.09 cfs @ 12.25 hrs, Volume= 1.162 af, Atten= 7%, Lag= 5.6 min
 Primary = 3.09 cfs @ 12.25 hrs, Volume= 1.162 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.96' @ 12.25 hrs Surf.Area= 2,427 sf Storage= 5,001 cf

Plug-Flow detention time= 66.5 min calculated for 1.162 af (100% of inflow)
 Center-of-Mass det. time= 66.2 min (954.4 - 888.1)

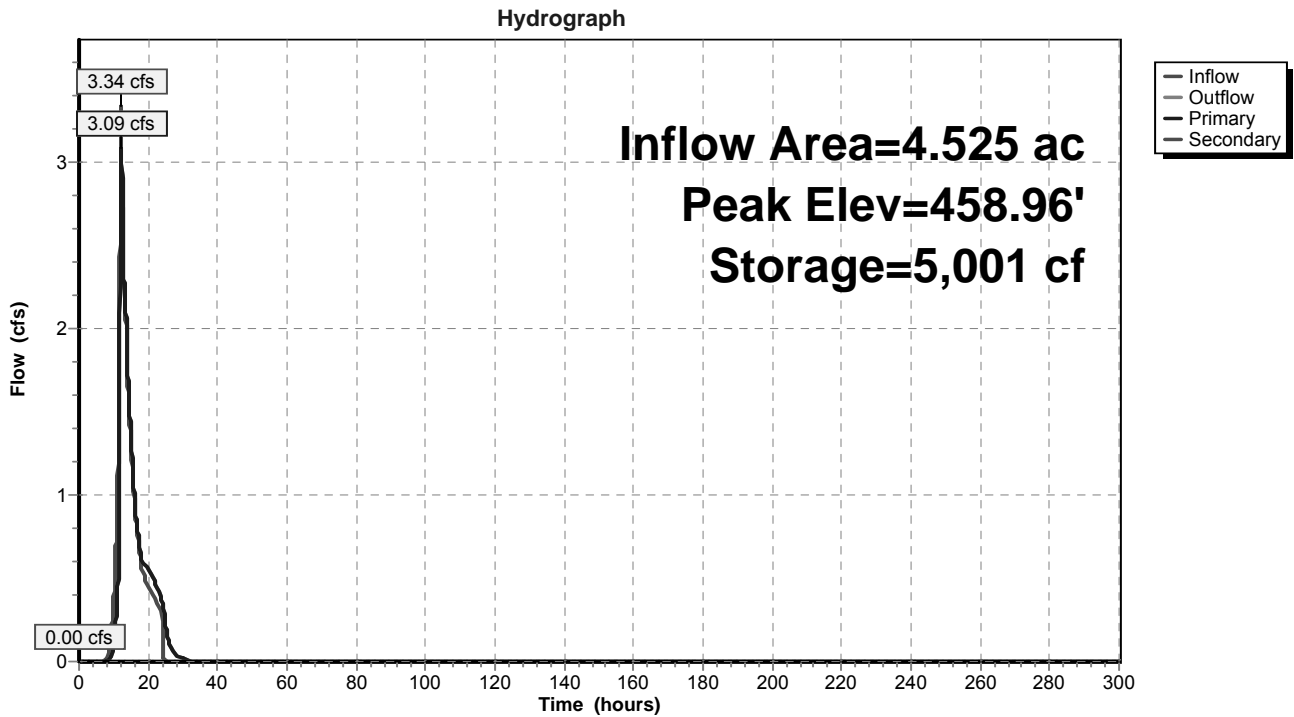
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

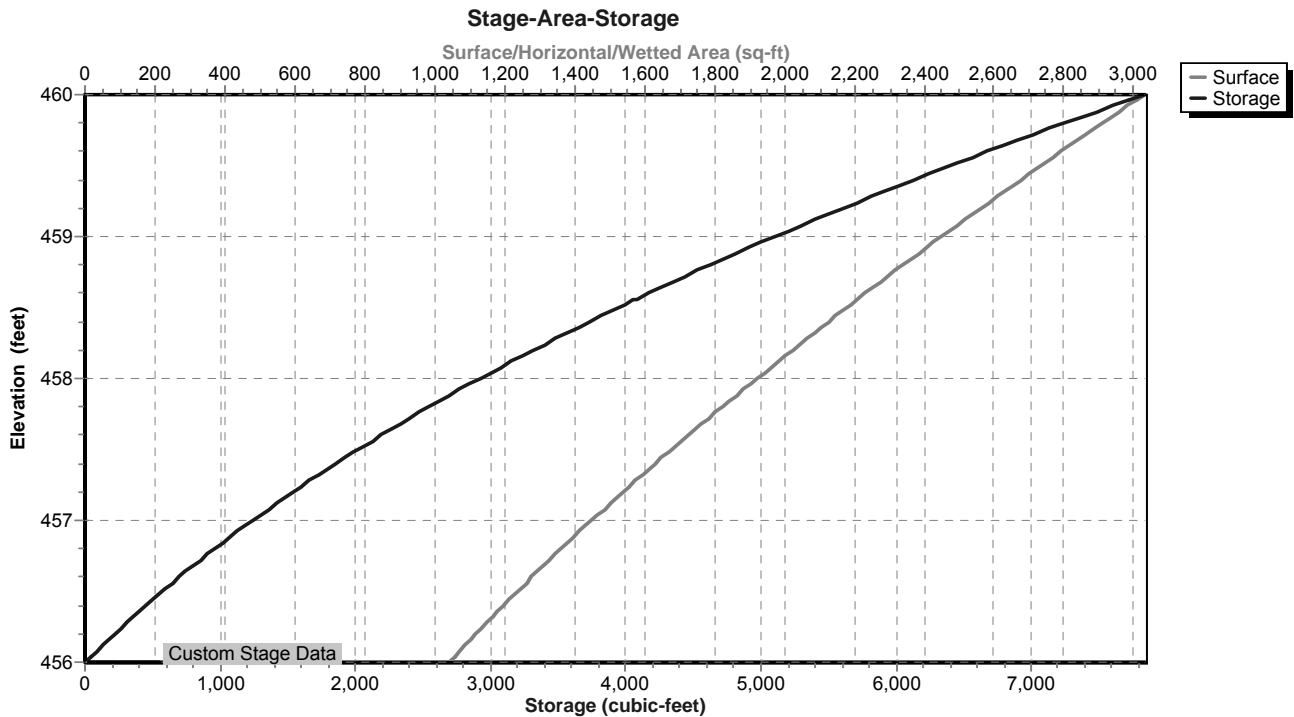
Primary OutFlow Max=3.09 cfs @ 12.25 hrs HW=458.96' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 3.09 cfs of 5.93 cfs potential flow)
 ↑ 2=Standpipe Openings (Orifice Controls 0.68 cfs @ 6.88 fps)
 ↑ 3=Top of Standpipe (Orifice Controls 2.42 cfs @ 3.08 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-B2: Sand Filter Forebay - B2



Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

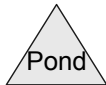
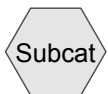
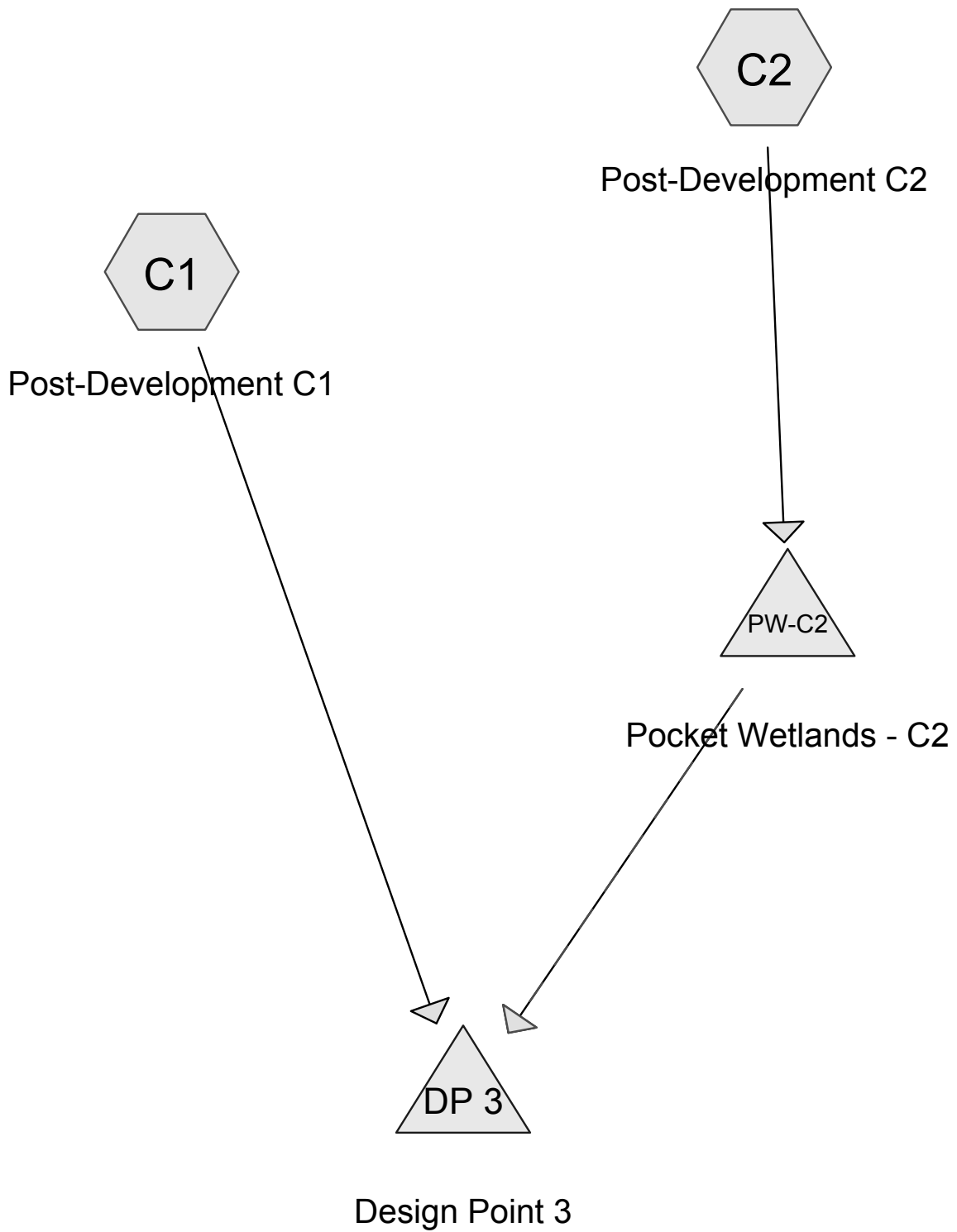
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			



Woodlands Post-Dev DP 3 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.853	55	Woods, Good, HSG B (C1, C2)
1.524	61	>75% Grass cover, Good, HSG B (C1, C2)
0.155	74	>75% Grass cover, Good, HSG C (C1)
0.550	74	>75% Grass cover, Good, HSG C - Lot 2 (C2)
0.025	85	Gravel Road - New (C2)
0.087	85	Gravel roads, HSG B (C2)
0.072	98	Driveway - Lot 2 (C2)
0.064	98	House/Walkway - Lot 2 (C2)
0.125	98	Road (C1)
0.211	98	Road/Driveway (C2)
6.666		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=0.34"
Flow Length=617' Tc=11.9 min CN=59 Runoff=0.43 cfs 0.074 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=0.51"
Flow Length=637' Tc=11.4 min CN=64 Runoff=1.44 cfs 0.172 af

Pond DP 3: Design Point 3 Inflow=0.45 cfs 0.247 af
Primary=0.45 cfs 0.247 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=464.24' Storage=12,635 cf Inflow=1.44 cfs 0.172 af
Primary=0.03 cfs 0.172 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.172 af

Total Runoff Area = 6.666 ac Runoff Volume = 0.247 af Average Runoff Depth = 0.44"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 0.43 cfs @ 12.33 hrs, Volume= 0.074 af, Depth= 0.34"

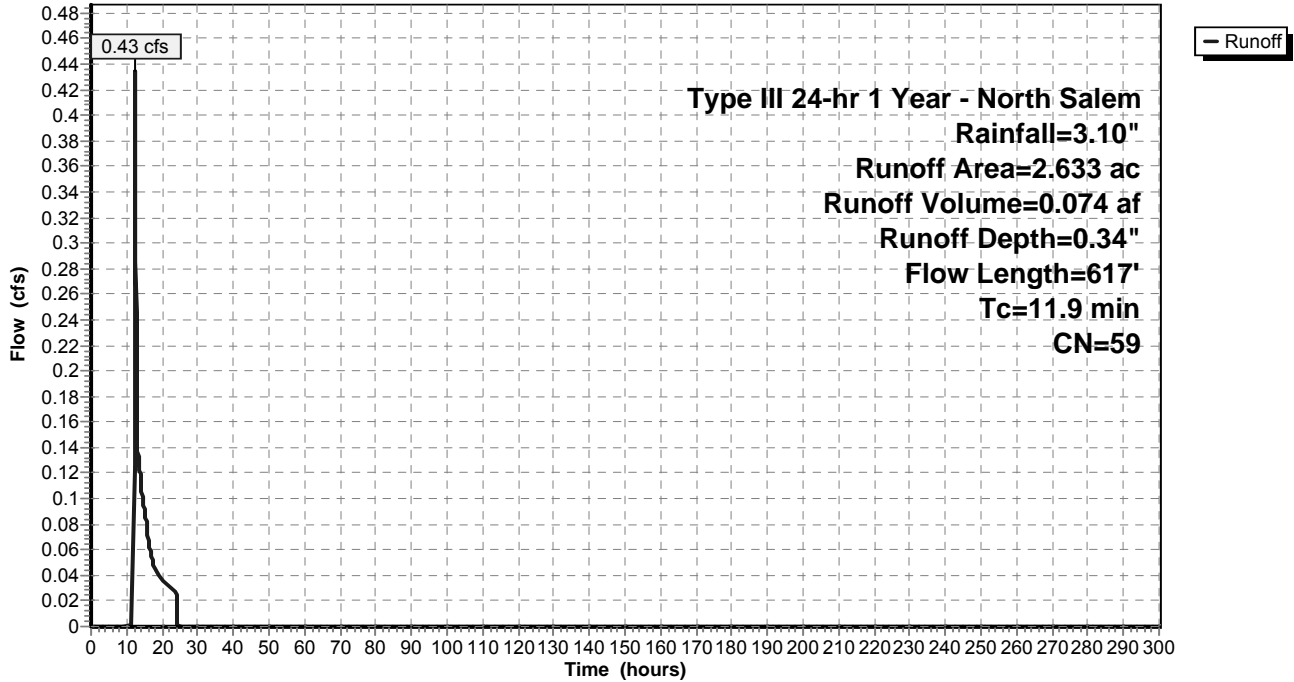
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

Runoff = 1.44 cfs @ 12.21 hrs, Volume= 0.172 af, Depth= 0.51"

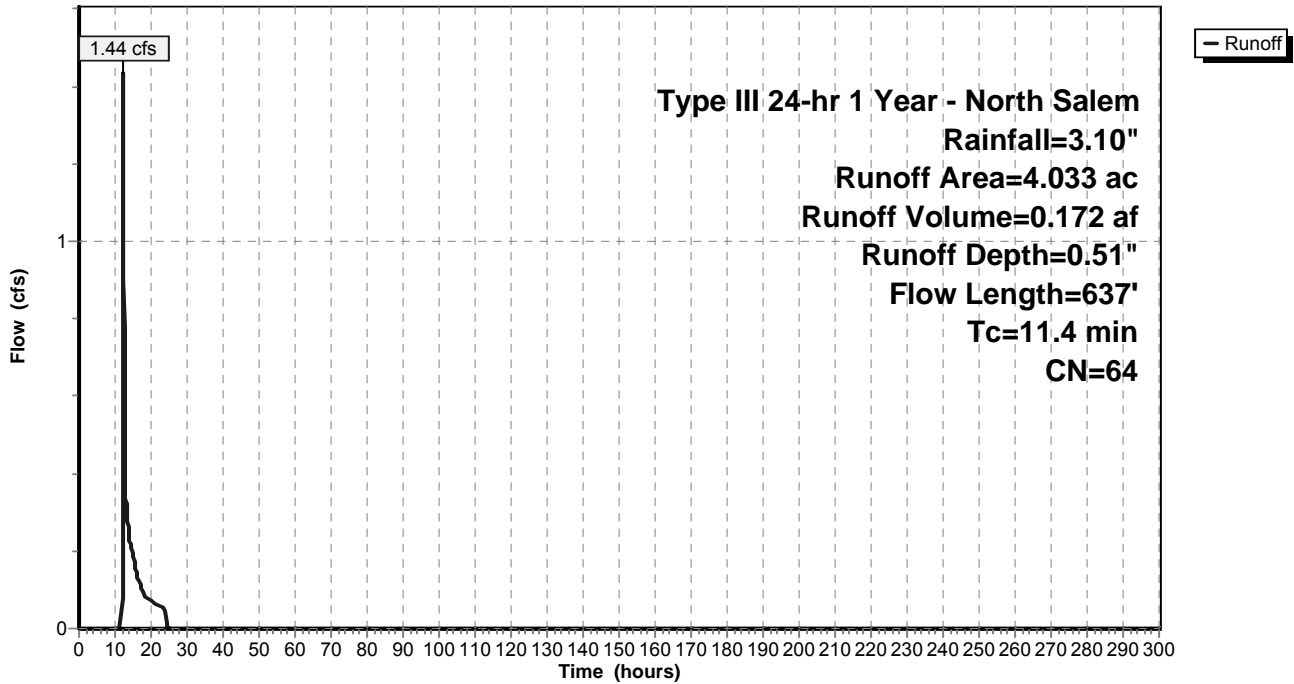
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2

Hydrograph



Summary for Pond DP 3: Design Point 3

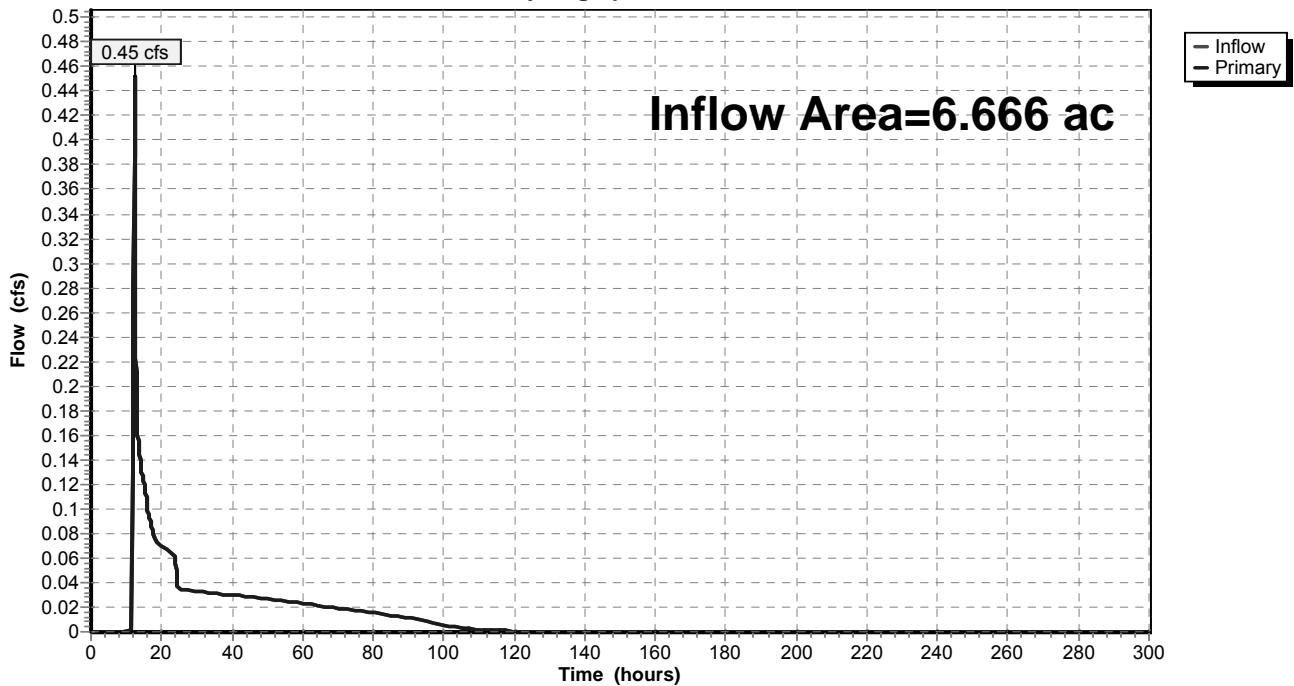
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 0.44" for 1 Year - North Salem event
Inflow = 0.45 cfs @ 12.34 hrs, Volume= 0.247 af
Primary = 0.45 cfs @ 12.34 hrs, Volume= 0.247 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
 Inflow = 1.44 cfs @ 12.21 hrs, Volume= 0.172 af
 Outflow = 0.03 cfs @ 24.12 hrs, Volume= 0.172 af, Atten= 98%, Lag= 714.9 min
 Primary = 0.03 cfs @ 24.12 hrs, Volume= 0.172 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 464.24' @ 24.12 hrs Surf.Area= 5,934 sf Storage= 12,635 cf (6,146 cf above start)

Plug-Flow detention time= 4,996.3 min calculated for 0.023 af (14% of inflow)
 Center-of-Mass det. time= 2,060.3 min (2,968.6 - 908.3)

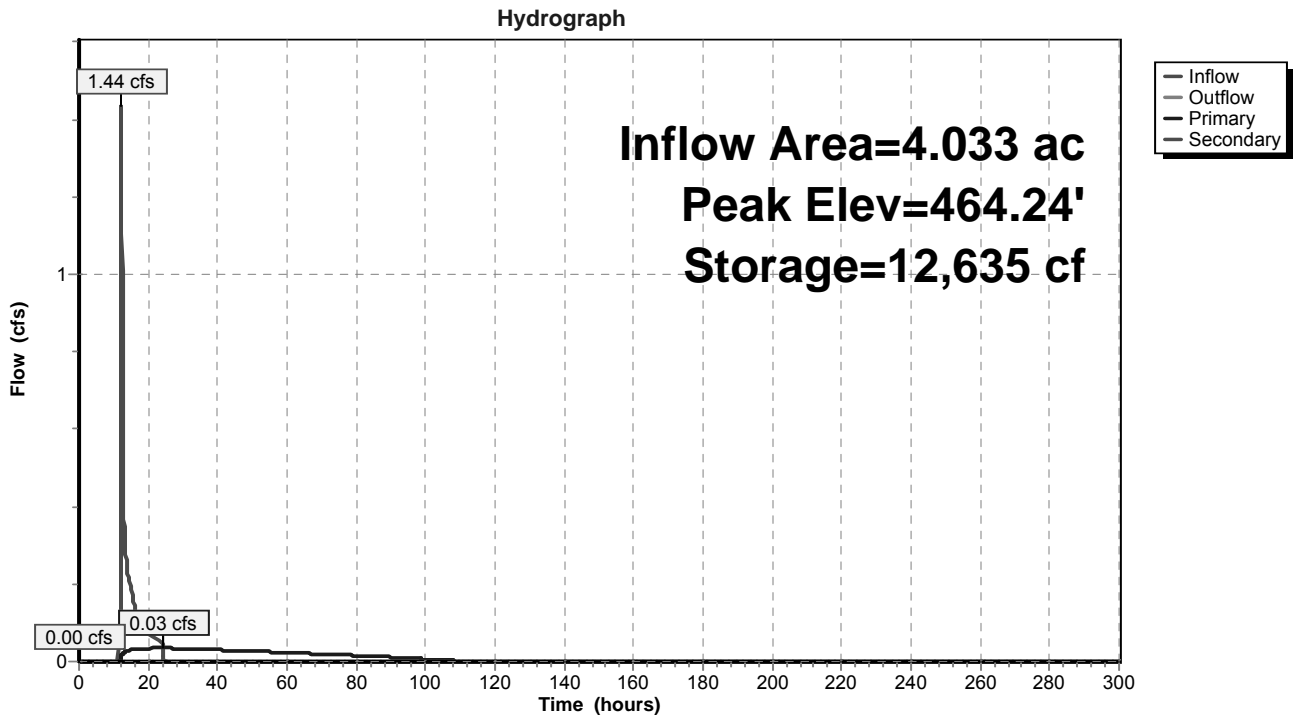
Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

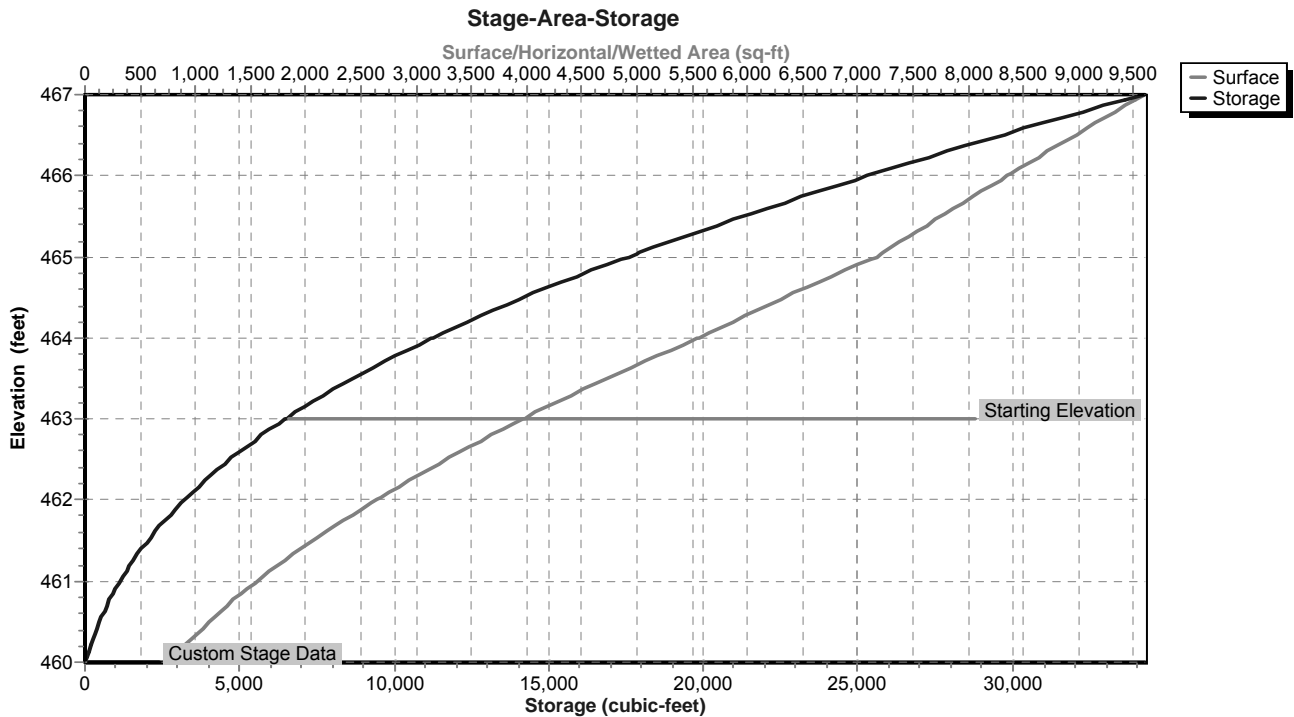
Primary OutFlow Max=0.03 cfs @ 24.12 hrs HW=464.24' (Free Discharge)
 1=Outlet Pipe (Passes 0.03 cfs of 15.91 cfs potential flow)
 2=Reverse Pipe Inlet (Outlet Controls 0.03 cfs @ 2.20 fps)
 3=Orifice #1 (Controls 0.00 cfs)
 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)
 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond PW-C2: Pocket Wetlands - C2



Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=0.58"
Flow Length=617' Tc=11.9 min CN=59 Runoff=1.00 cfs 0.126 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=0.81"
Flow Length=637' Tc=11.4 min CN=64 Runoff=2.62 cfs 0.272 af

Pond DP 3: Design Point 3 Inflow=1.02 cfs 0.398 af
Primary=1.02 cfs 0.398 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=464.87' Storage=16,625 cf Inflow=2.62 cfs 0.272 af
Primary=0.04 cfs 0.272 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.272 af

Total Runoff Area = 6.666 ac Runoff Volume = 0.398 af Average Runoff Depth = 0.72"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 1.00 cfs @ 12.22 hrs, Volume= 0.126 af, Depth= 0.58"

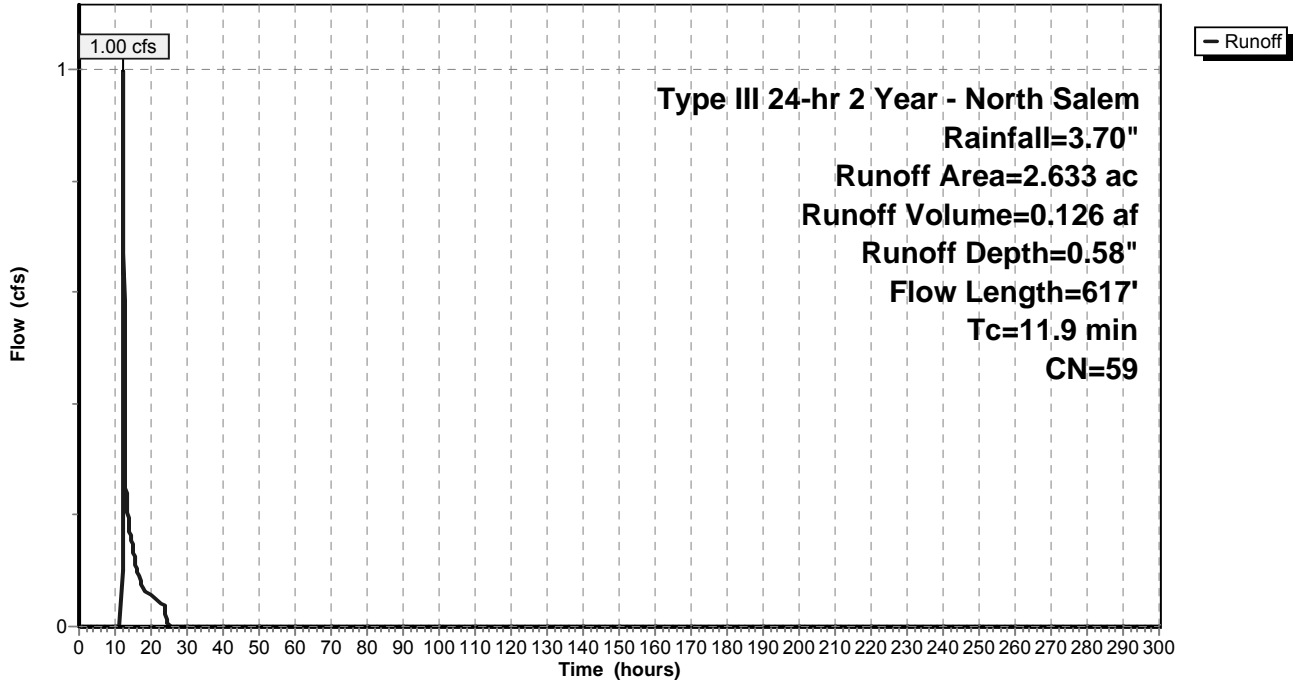
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

Runoff = 2.62 cfs @ 12.19 hrs, Volume= 0.272 af, Depth= 0.81"

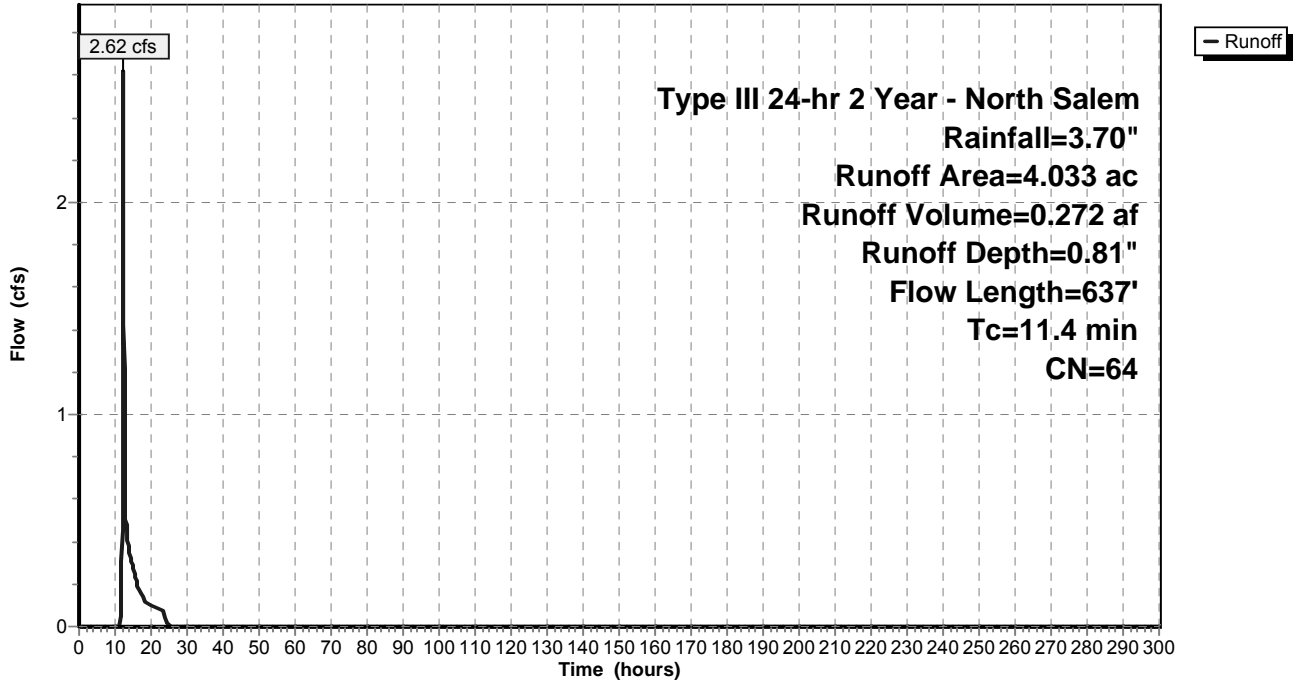
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2

Hydrograph



Summary for Pond DP 3: Design Point 3

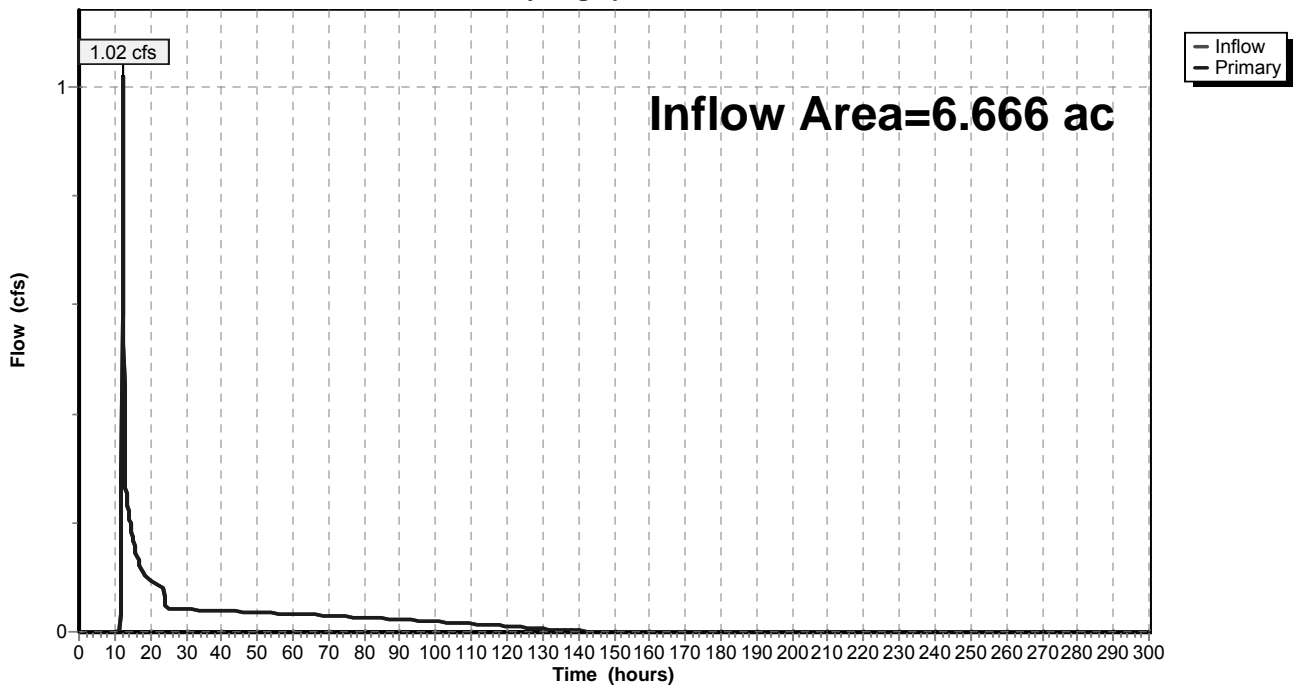
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 0.72" for 2 Year - North Salem event
Inflow = 1.02 cfs @ 12.22 hrs, Volume= 0.398 af
Primary = 1.02 cfs @ 12.22 hrs, Volume= 0.398 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 0.81" for 2 Year - North Salem event
 Inflow = 2.62 cfs @ 12.19 hrs, Volume= 0.272 af
 Outflow = 0.04 cfs @ 24.14 hrs, Volume= 0.272 af, Atten= 98%, Lag= 717.1 min
 Primary = 0.04 cfs @ 24.14 hrs, Volume= 0.272 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 464.87' @ 24.14 hrs Surf.Area= 6,938 sf Storage= 16,625 cf (10,135 cf above start)

Plug-Flow detention time= 4,615.1 min calculated for 0.123 af (45% of inflow)
 Center-of-Mass det. time= 2,685.8 min (3,576.8 - 891.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

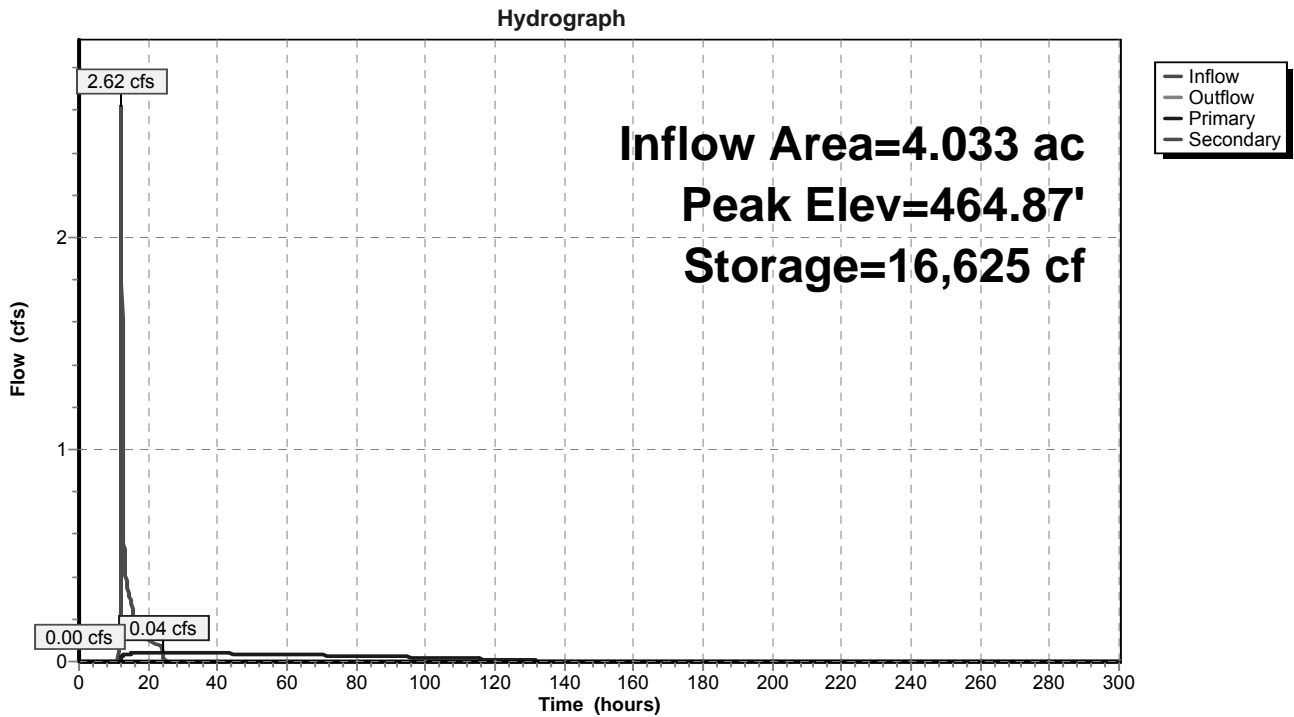
Primary OutFlow Max=0.04 cfs @ 24.14 hrs HW=464.87' (Free Discharge)

- 1=Outlet Pipe (Passes 0.04 cfs of 17.26 cfs potential flow)
- 2=Reverse Pipe Inlet (Outlet Controls 0.04 cfs @ 2.69 fps)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

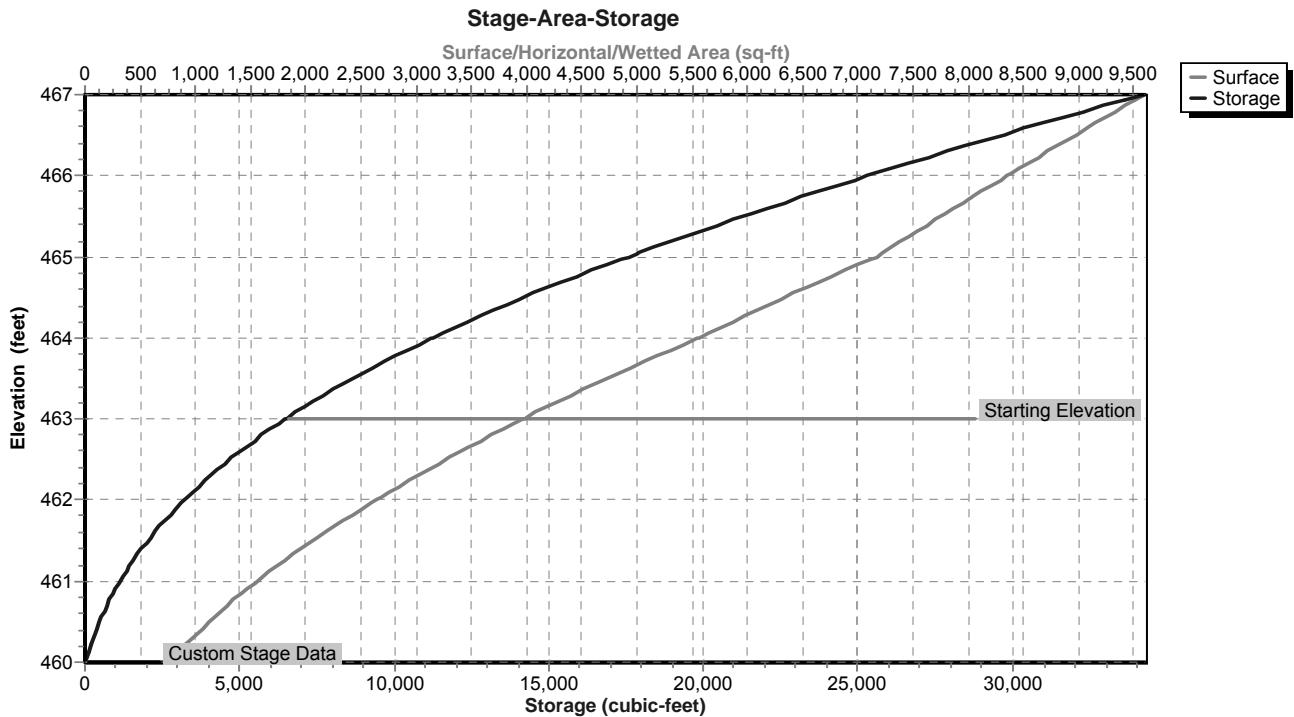
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond PW-C2: Pocket Wetlands - C2



Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=1.53"
Flow Length=617' Tc=11.9 min CN=59 Runoff=3.47 cfs 0.335 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=1.91"
Flow Length=637' Tc=11.4 min CN=64 Runoff=7.18 cfs 0.643 af

Pond DP 3: Design Point 3 Inflow=3.51 cfs 0.978 af
Primary=3.51 cfs 0.978 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=465.24' Storage=19,344 cf Inflow=7.18 cfs 0.643 af
Primary=1.22 cfs 0.643 af Secondary=0.00 cfs 0.000 af Outflow=1.22 cfs 0.643 af

Total Runoff Area = 6.666 ac Runoff Volume = 0.978 af Average Runoff Depth = 1.76"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 3.47 cfs @ 12.19 hrs, Volume= 0.335 af, Depth= 1.53"

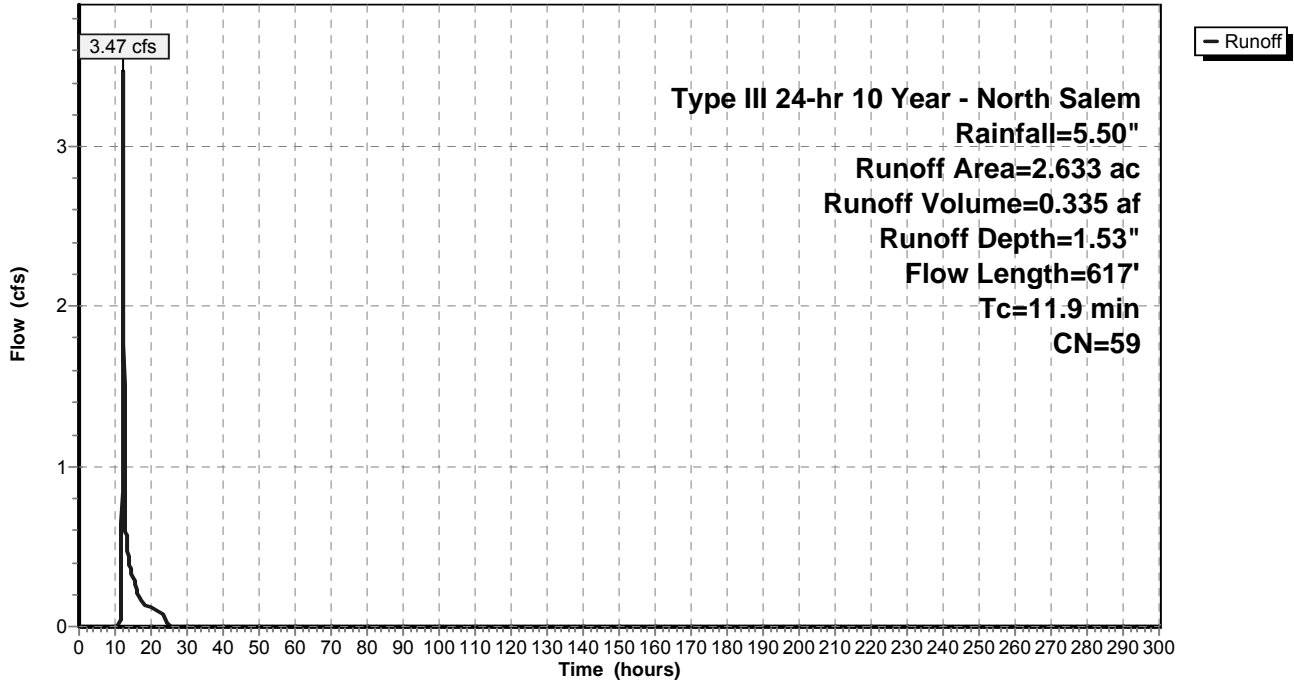
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

Runoff = 7.18 cfs @ 12.17 hrs, Volume= 0.643 af, Depth= 1.91"

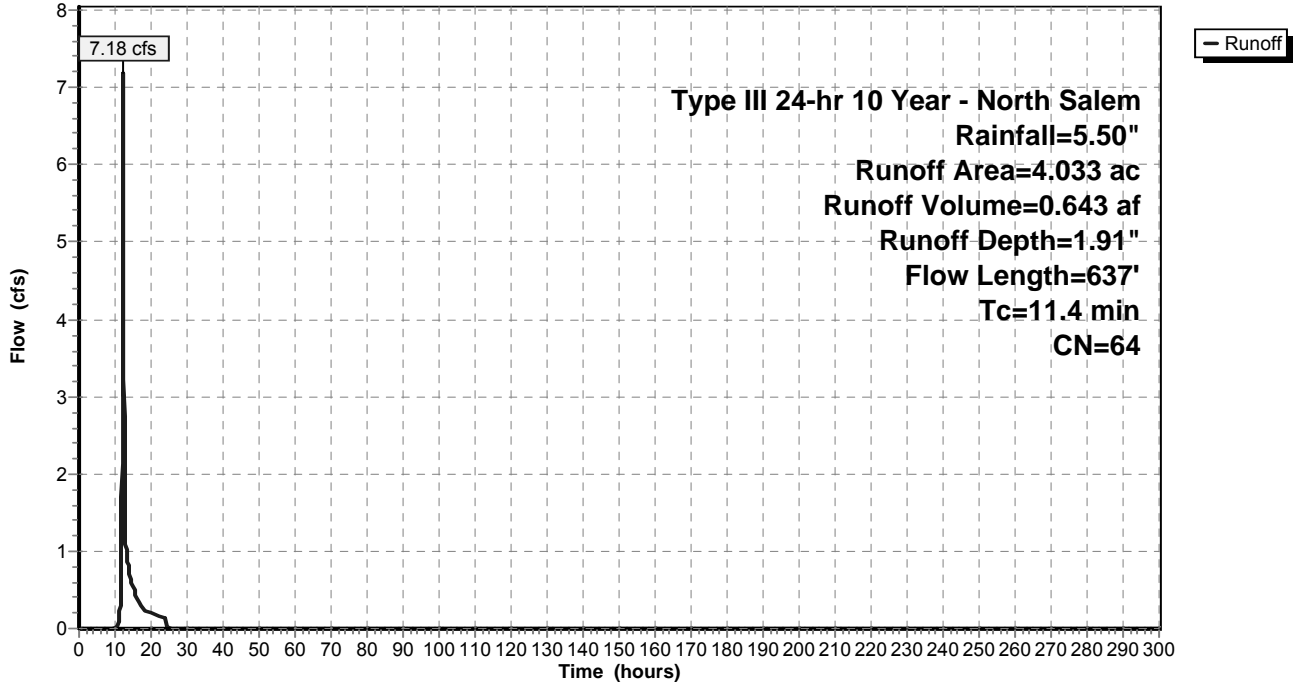
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2

Hydrograph



Summary for Pond DP 3: Design Point 3

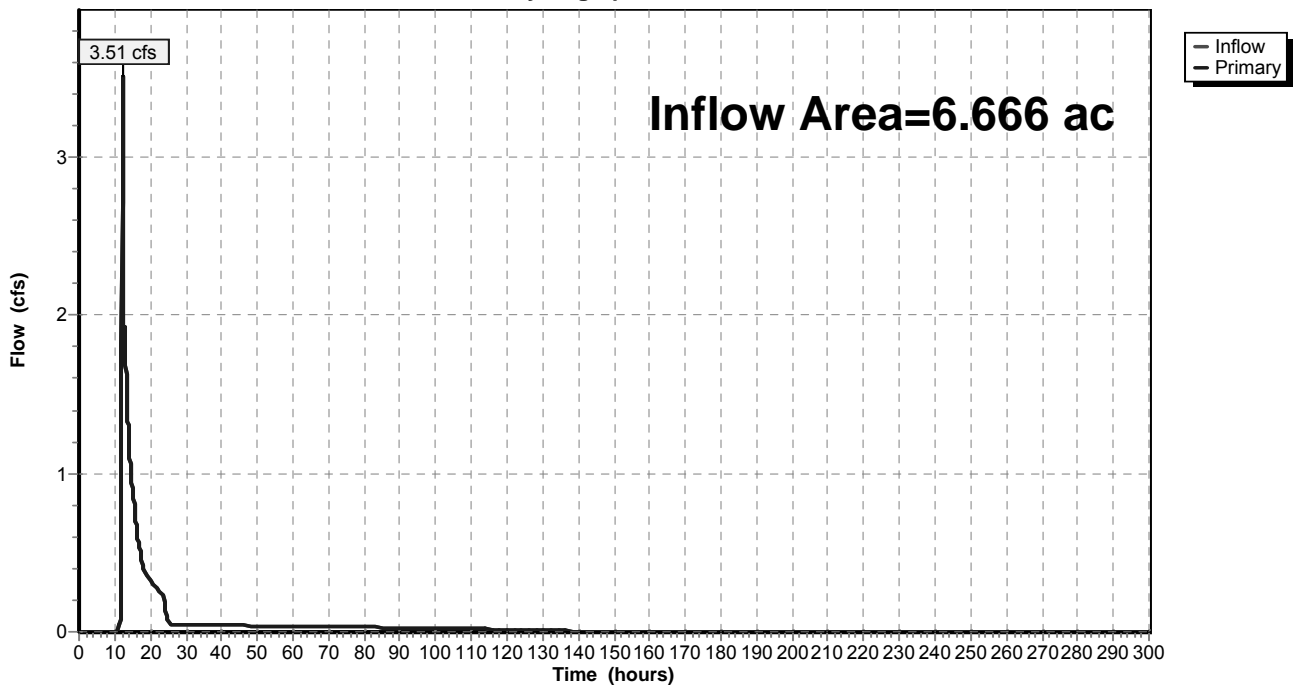
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 1.76" for 10 Year - North Salem event
Inflow = 3.51 cfs @ 12.19 hrs, Volume= 0.978 af
Primary = 3.51 cfs @ 12.19 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 1.91" for 10 Year - North Salem event
 Inflow = 7.18 cfs @ 12.17 hrs, Volume= 0.643 af
 Outflow = 1.22 cfs @ 12.92 hrs, Volume= 0.643 af, Atten= 83%, Lag= 45.2 min
 Primary = 1.22 cfs @ 12.92 hrs, Volume= 0.643 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 465.24' @ 12.92 hrs Surf.Area= 7,447 sf Storage= 19,344 cf (12,854 cf above start)

Plug-Flow detention time= 1,973.6 min calculated for 0.494 af (77% of inflow)
 Center-of-Mass det. time= 1,436.3 min (2,299.0 - 862.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

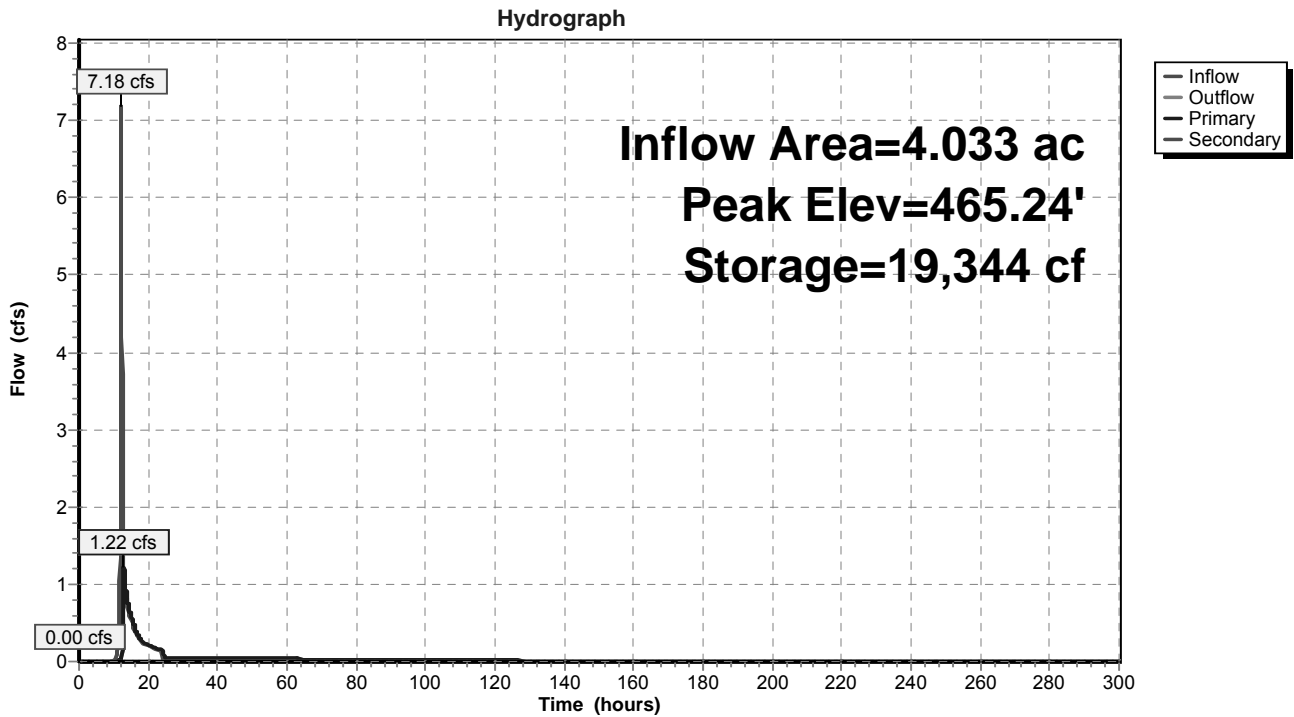
Primary OutFlow Max=1.21 cfs @ 12.92 hrs HW=465.24' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.21 cfs of 18.03 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.05 cfs @ 2.95 fps)
- ↑ 3=Orifice #1 (Orifice Controls 1.17 cfs @ 1.41 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

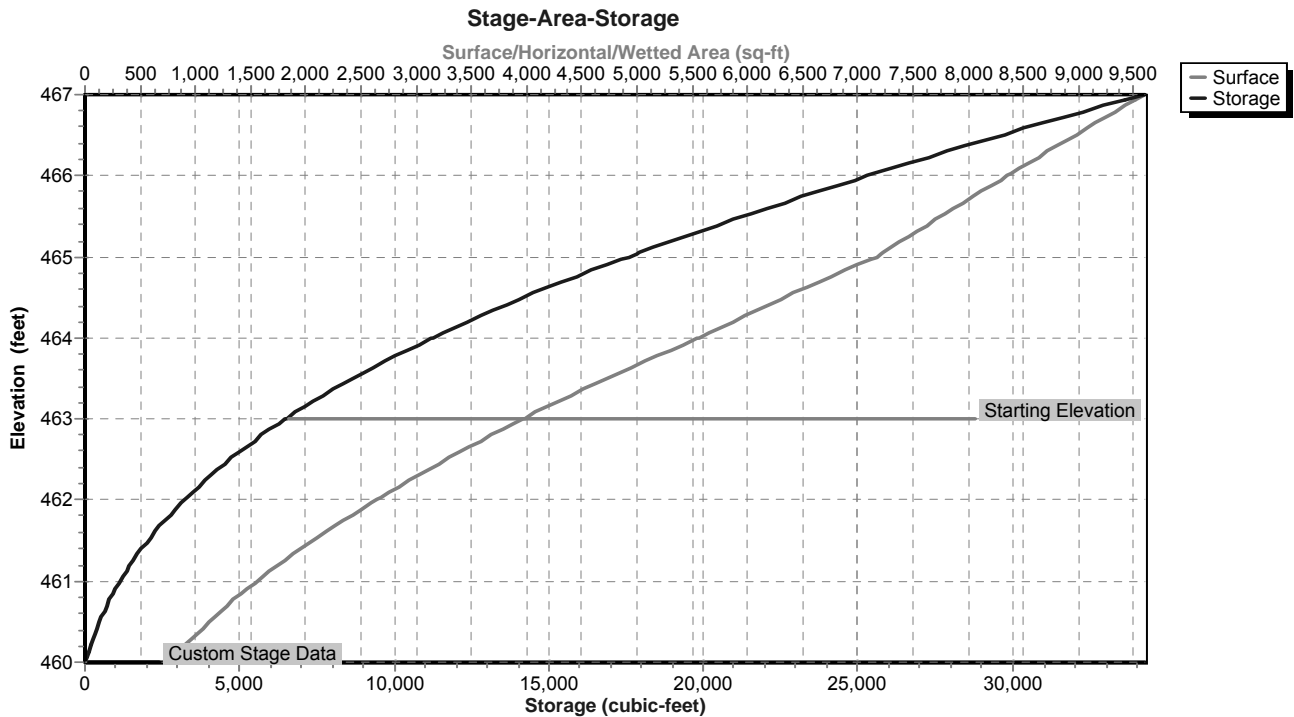
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond PW-C2: Pocket Wetlands - C2



Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=2.51"
Flow Length=617' Tc=11.9 min CN=59 Runoff=6.03 cfs 0.550 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=3.00"
Flow Length=637' Tc=11.4 min CN=64 Runoff=11.61 cfs 1.009 af

Pond DP 3: Design Point 3 Inflow=9.00 cfs 1.558 af
Primary=9.00 cfs 1.558 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=465.59' Storage=22,001 cf Inflow=11.61 cfs 1.009 af
Primary=5.56 cfs 1.009 af Secondary=0.00 cfs 0.000 af Outflow=5.56 cfs 1.009 af

Total Runoff Area = 6.666 ac Runoff Volume = 1.559 af Average Runoff Depth = 2.81"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 6.03 cfs @ 12.18 hrs, Volume= 0.550 af, Depth= 2.51"

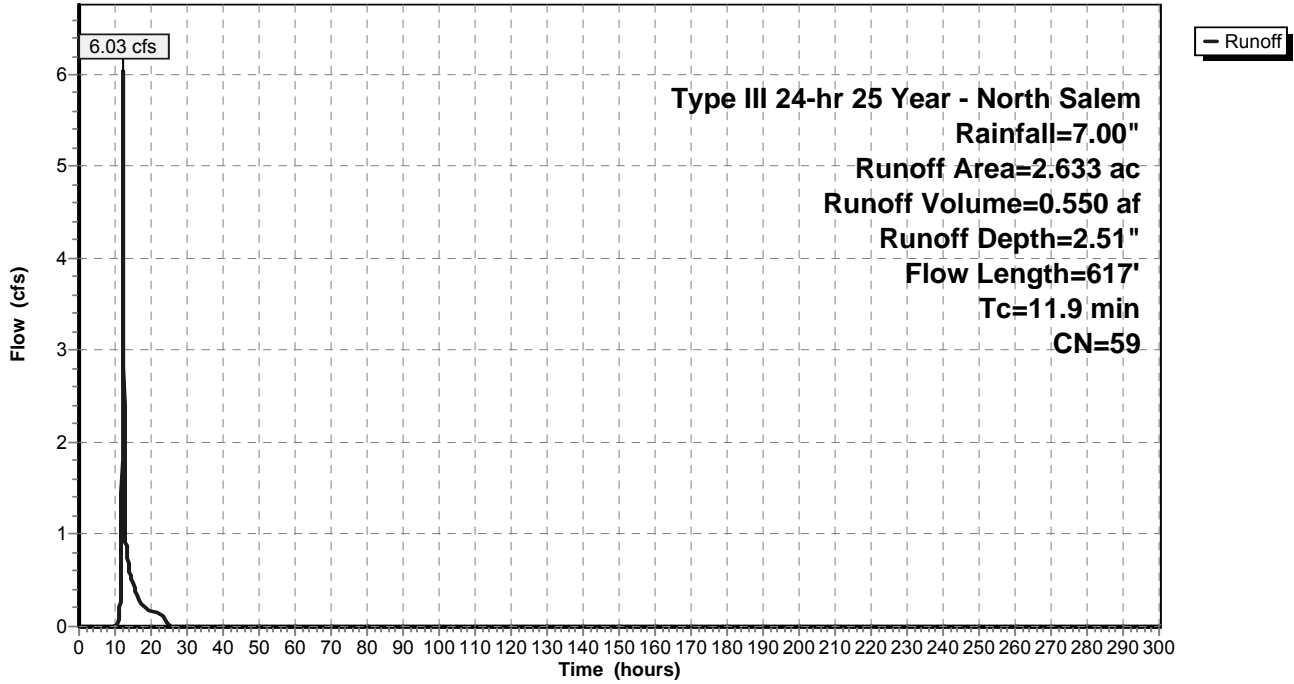
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

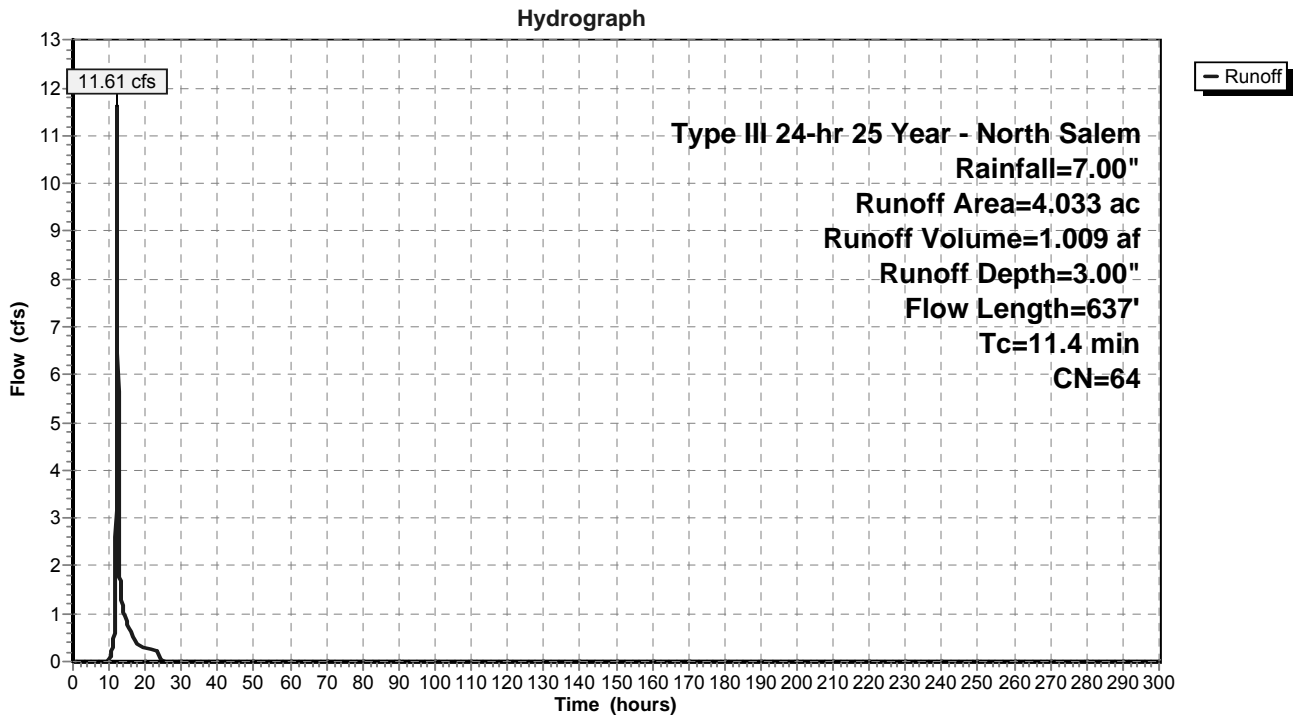
Runoff = 11.61 cfs @ 12.17 hrs, Volume= 1.009 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2



Summary for Pond DP 3: Design Point 3

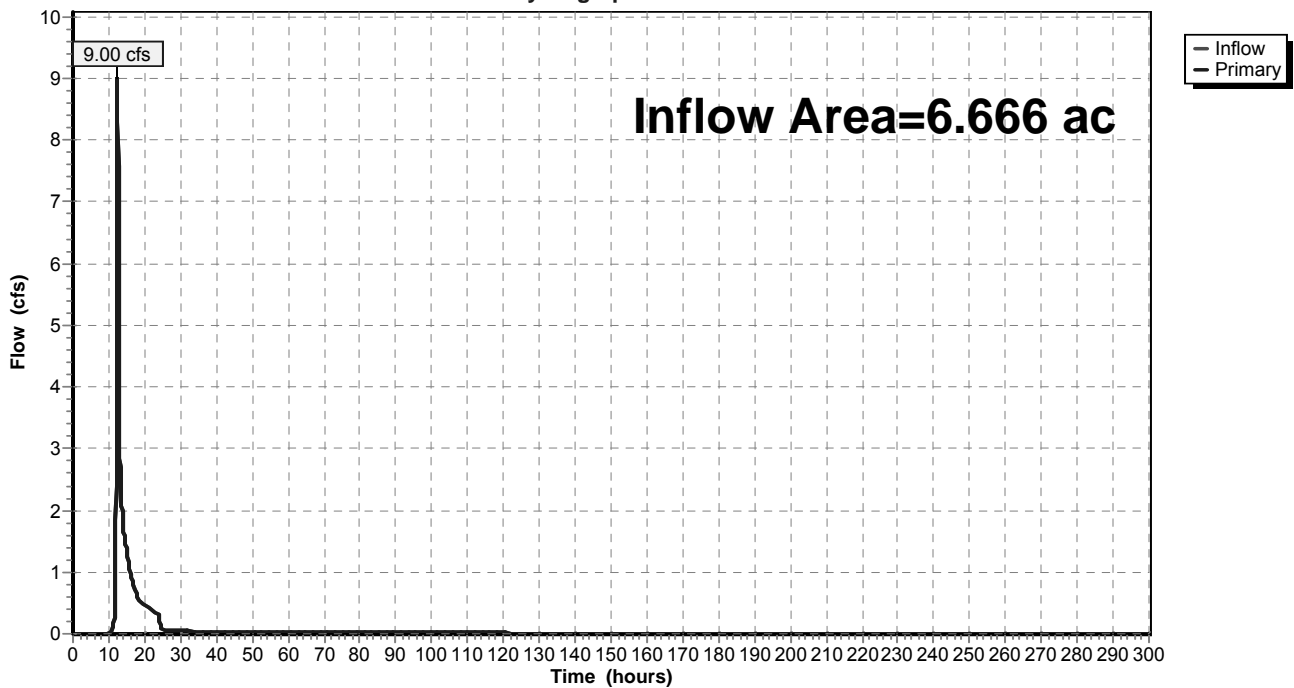
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 2.81" for 25 Year - North Salem event
Inflow = 9.00 cfs @ 12.40 hrs, Volume= 1.558 af
Primary = 9.00 cfs @ 12.40 hrs, Volume= 1.558 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 3.00" for 25 Year - North Salem event
 Inflow = 11.61 cfs @ 12.17 hrs, Volume= 1.009 af
 Outflow = 5.56 cfs @ 12.46 hrs, Volume= 1.009 af, Atten= 52%, Lag= 17.7 min
 Primary = 5.56 cfs @ 12.46 hrs, Volume= 1.009 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 465.59' @ 12.46 hrs Surf.Area= 7,857 sf Storage= 22,001 cf (15,511 cf above start)

Plug-Flow detention time= 1,173.2 min calculated for 0.860 af (85% of inflow)
 Center-of-Mass det. time= 928.8 min (1,778.0 - 849.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

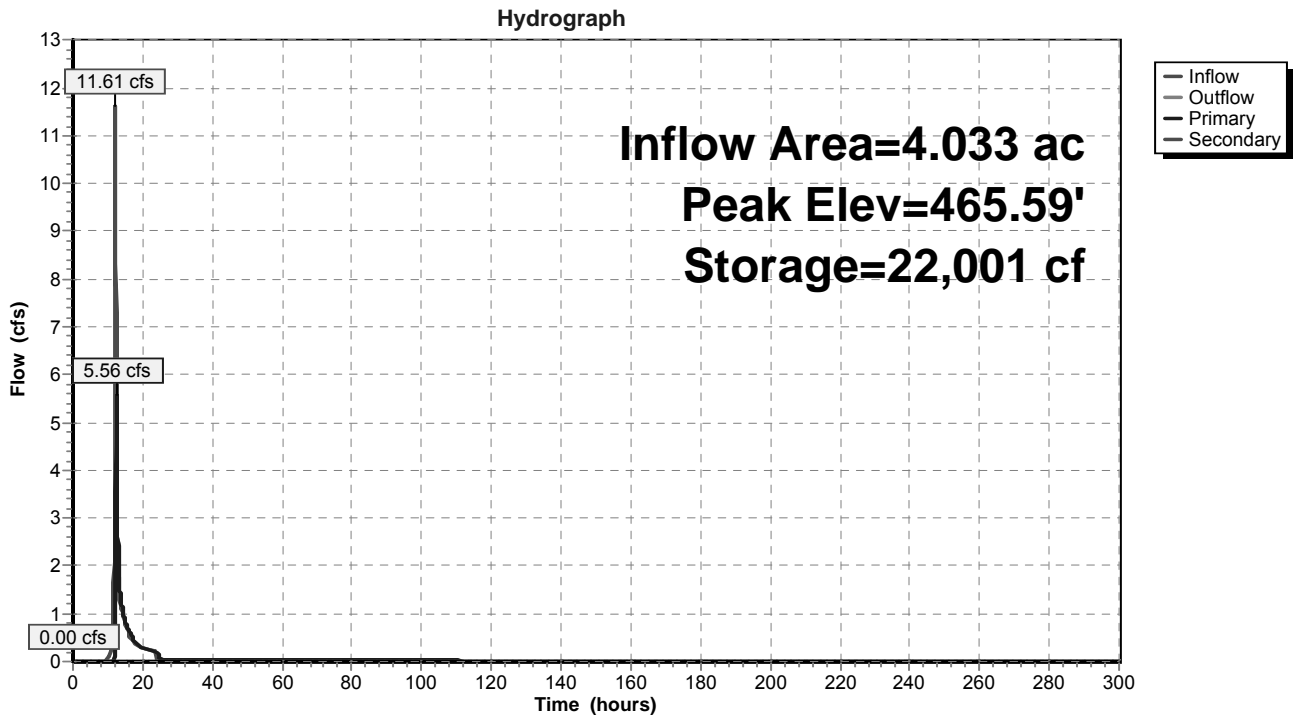
Primary OutFlow Max=5.53 cfs @ 12.46 hrs HW=465.59' (Free Discharge)

- 1=Outlet Pipe (Passes 5.53 cfs of 18.71 cfs potential flow)
- 2=Reverse Pipe Inlet (Outlet Controls 0.05 cfs @ 3.17 fps)
- 3=Orifice #1 (Orifice Controls 5.48 cfs @ 2.35 fps)
- 4=Top of Outlet Box (Controls 0.00 cfs)

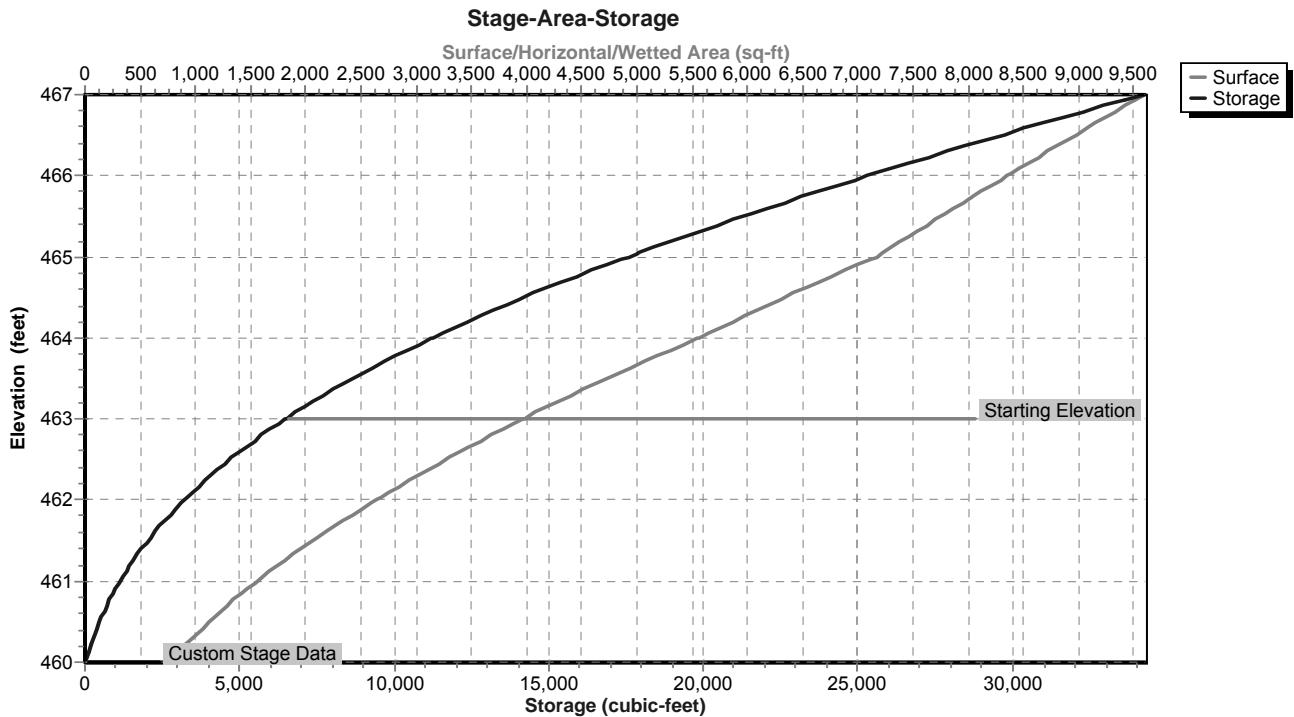
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond PW-C2: Pocket Wetlands - C2



Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=3.98"
Flow Length=617' Tc=11.9 min CN=59 Runoff=9.93 cfs 0.873 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=4.59"
Flow Length=637' Tc=11.4 min CN=64 Runoff=18.01 cfs 1.544 af

Pond DP 3: Design Point 3 Inflow=20.72 cfs 2.417 af
Primary=20.72 cfs 2.417 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=465.99' Storage=25,250 cf Inflow=18.01 cfs 1.544 af
Primary=12.75 cfs 1.544 af Secondary=0.00 cfs 0.000 af Outflow=12.75 cfs 1.544 af

Total Runoff Area = 6.666 ac Runoff Volume = 2.417 af Average Runoff Depth = 4.35"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 9.93 cfs @ 12.17 hrs, Volume= 0.873 af, Depth= 3.98"

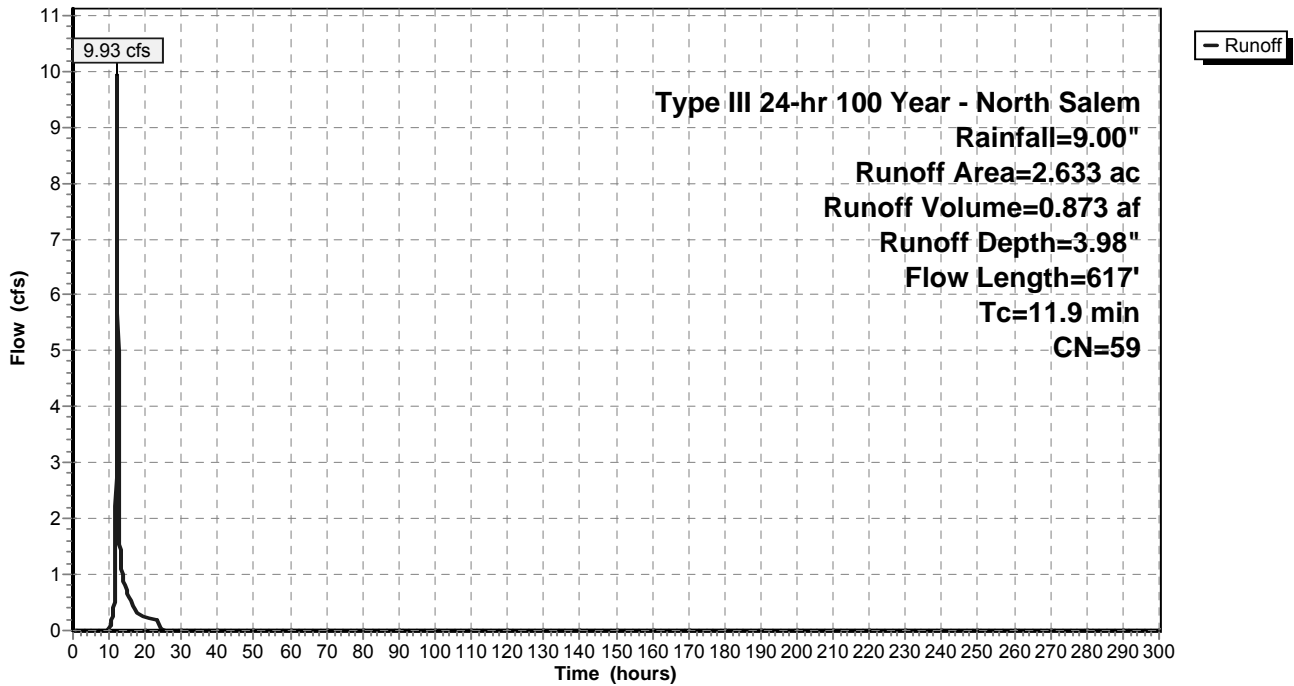
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

Runoff = 18.01 cfs @ 12.16 hrs, Volume= 1.544 af, Depth= 4.59"

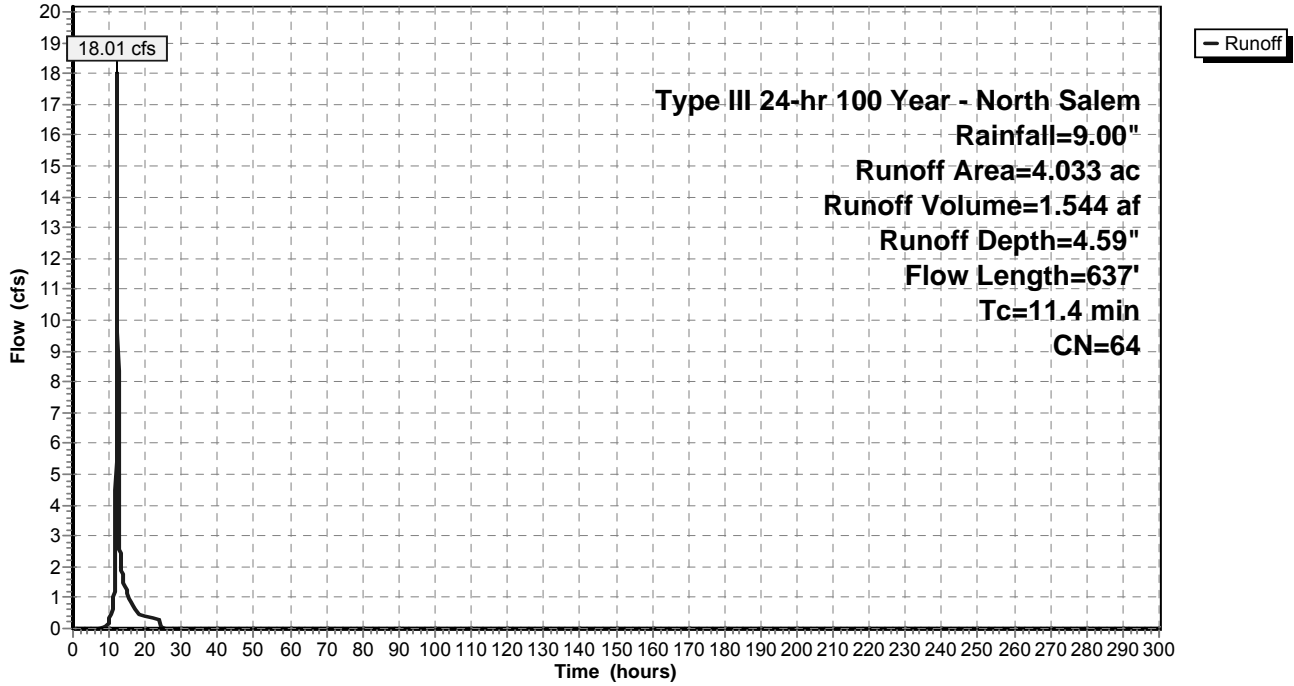
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2

Hydrograph



Summary for Pond DP 3: Design Point 3

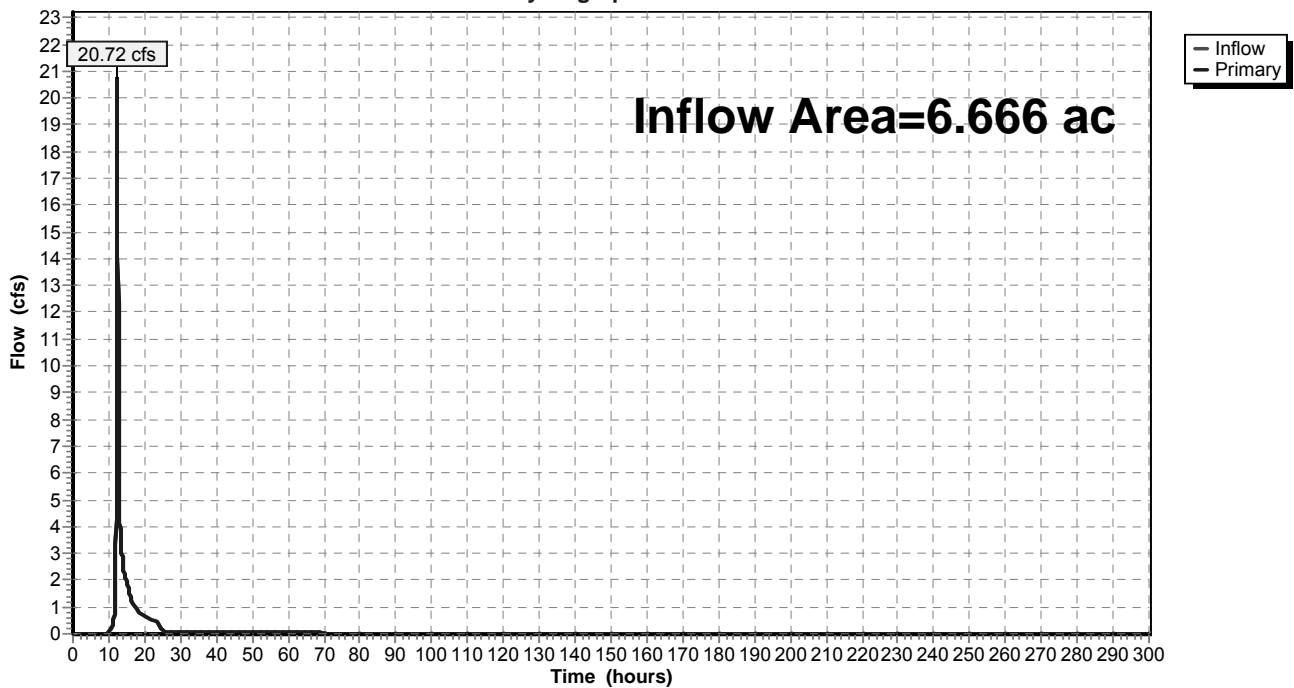
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 4.35" for 100 Year - North Salem event
 Inflow = 20.72 cfs @ 12.25 hrs, Volume= 2.417 af
 Primary = 20.72 cfs @ 12.25 hrs, Volume= 2.417 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 4.59" for 100 Year - North Salem event
 Inflow = 18.01 cfs @ 12.16 hrs, Volume= 1.544 af
 Outflow = 12.75 cfs @ 12.30 hrs, Volume= 1.544 af, Atten= 29%, Lag= 8.5 min
 Primary = 12.75 cfs @ 12.30 hrs, Volume= 1.544 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 465.99' @ 12.30 hrs Surf.Area= 8,345 sf Storage= 25,250 cf (18,761 cf above start)

Plug-Flow detention time= 739.0 min calculated for 1.395 af (90% of inflow)
 Center-of-Mass det. time= 616.5 min (1,453.4 - 836.8)

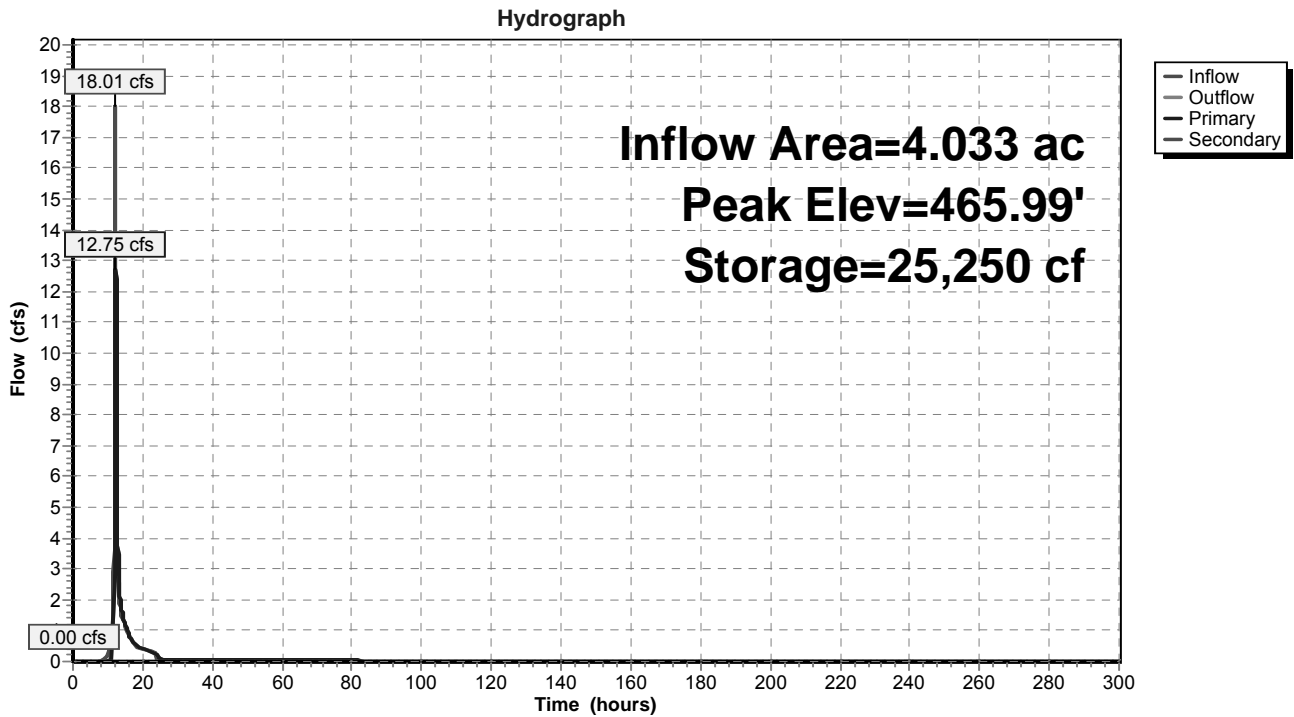
Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

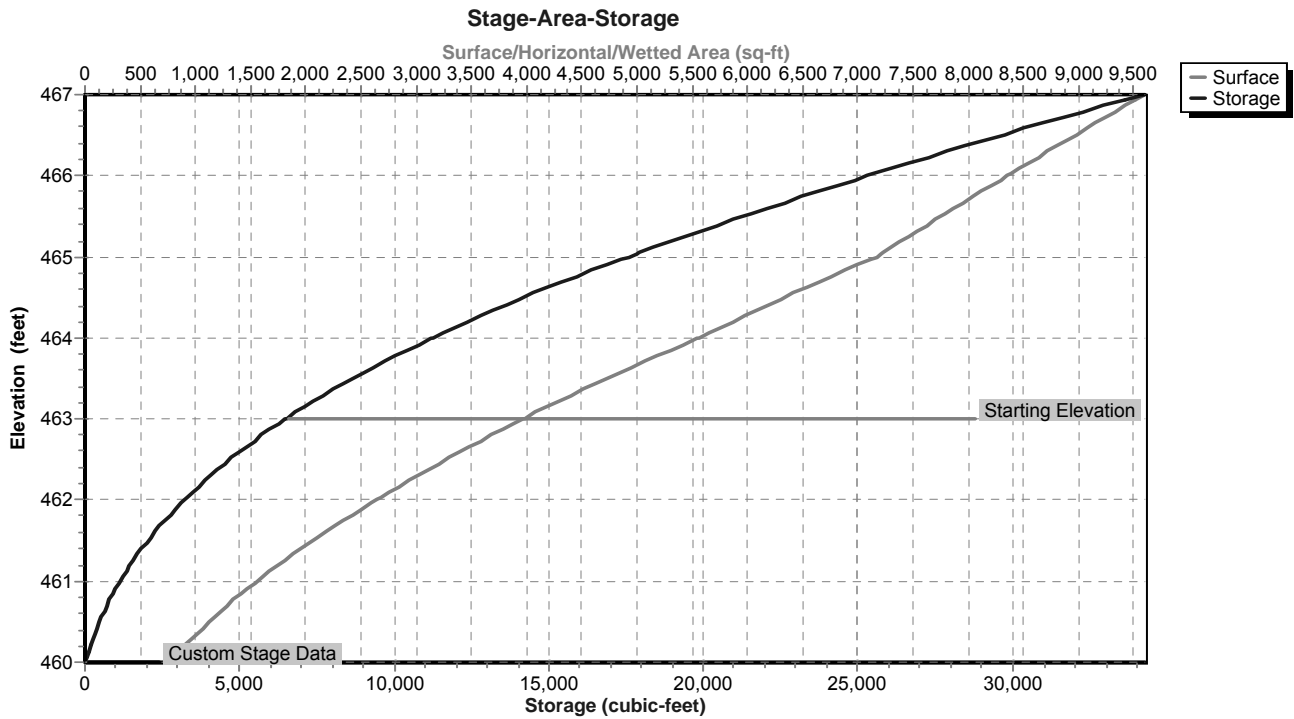
Primary OutFlow Max=12.70 cfs @ 12.30 hrs HW=465.99' (Free Discharge)
 ↗ **1=Outlet Pipe** (Passes 12.70 cfs of 19.48 cfs potential flow)
 ↖ **2=Reverse Pipe Inlet** (Outlet Controls 0.05 cfs @ 3.41 fps)
 ↖ **3=Orifice #1** (Orifice Controls 12.61 cfs @ 3.17 fps)
 ↖ **4=Top of Outlet Box** (Weir Controls 0.04 cfs @ 0.31 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)
 ↖ **5=Emergency Overflow Weir** (Controls 0.00 cfs)

Pond PW-C2: Pocket Wetlands - C2



Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

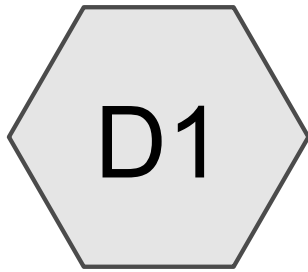
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

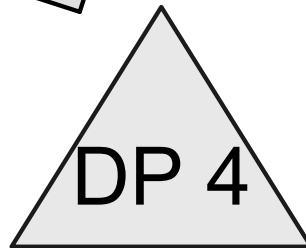
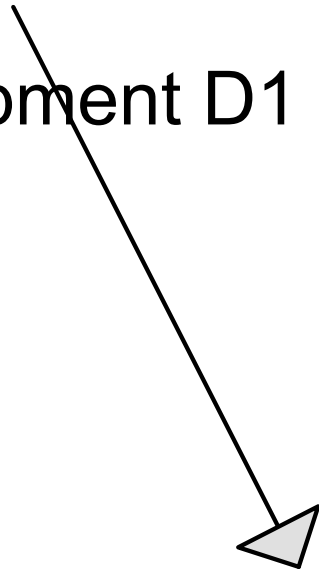
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

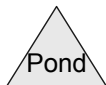
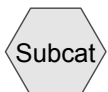
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303



Post-Development D1



Design Point 4



Woodlands Post-Dev DP 4 07-2012

Prepared by KCG Engineers, P.C.

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.593	55	Woods, Good, HSG B (D1)
0.162	61	>75% Grass cover, Good, HSG B (D1)
5.755		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: Post-Development D1

Runoff Area=5.755 ac 0.00% Impervious Runoff Depth=0.22"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=0.47 cfs 0.107 af

Pond DP 4: Design Point 4

Inflow=0.47 cfs 0.107 af
Primary=0.47 cfs 0.107 af

Total Runoff Area = 5.755 ac Runoff Volume = 0.107 af Average Runoff Depth = 0.22"
100.00% Pervious = 5.755 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D1: Post-Development D1

Runoff = 0.47 cfs @ 12.43 hrs, Volume= 0.107 af, Depth= 0.22"

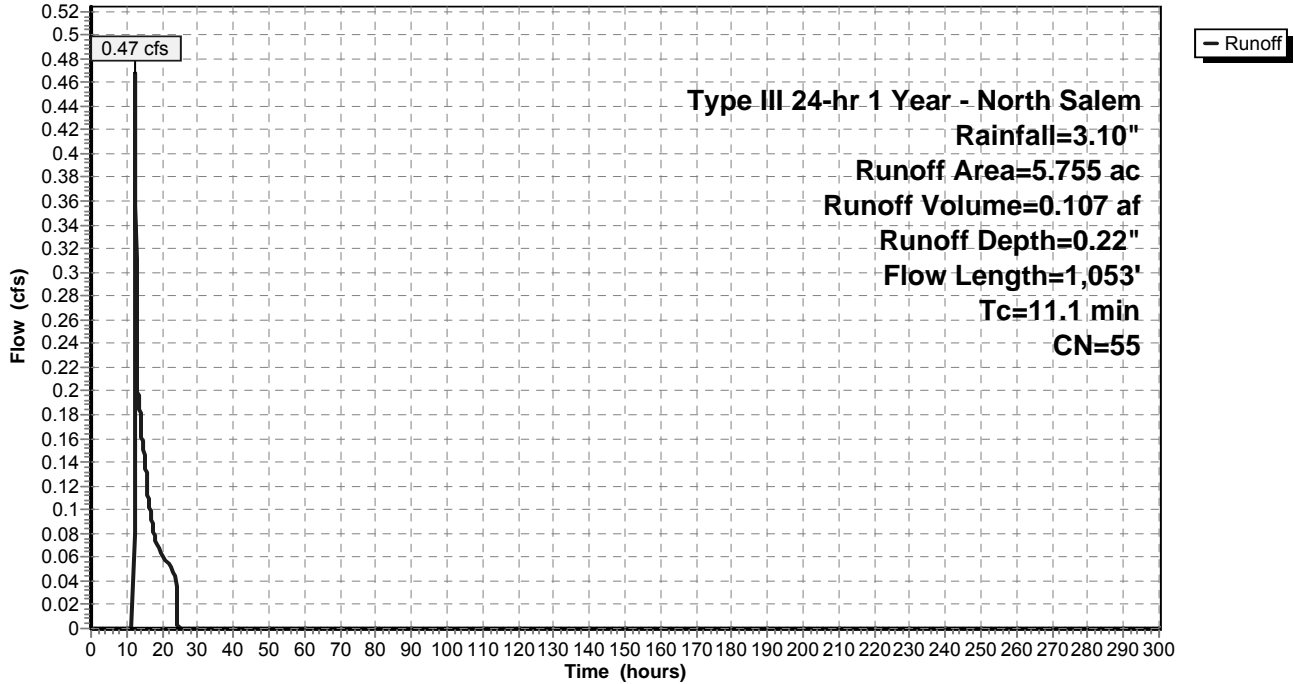
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 5.593	55	Woods, Good, HSG B
* 0.162	61	>75% Grass cover, Good, HSG B
5.755	55	Weighted Average
5.755		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D1: Post-Development D1

Hydrograph



Summary for Pond DP 4: Design Point 4

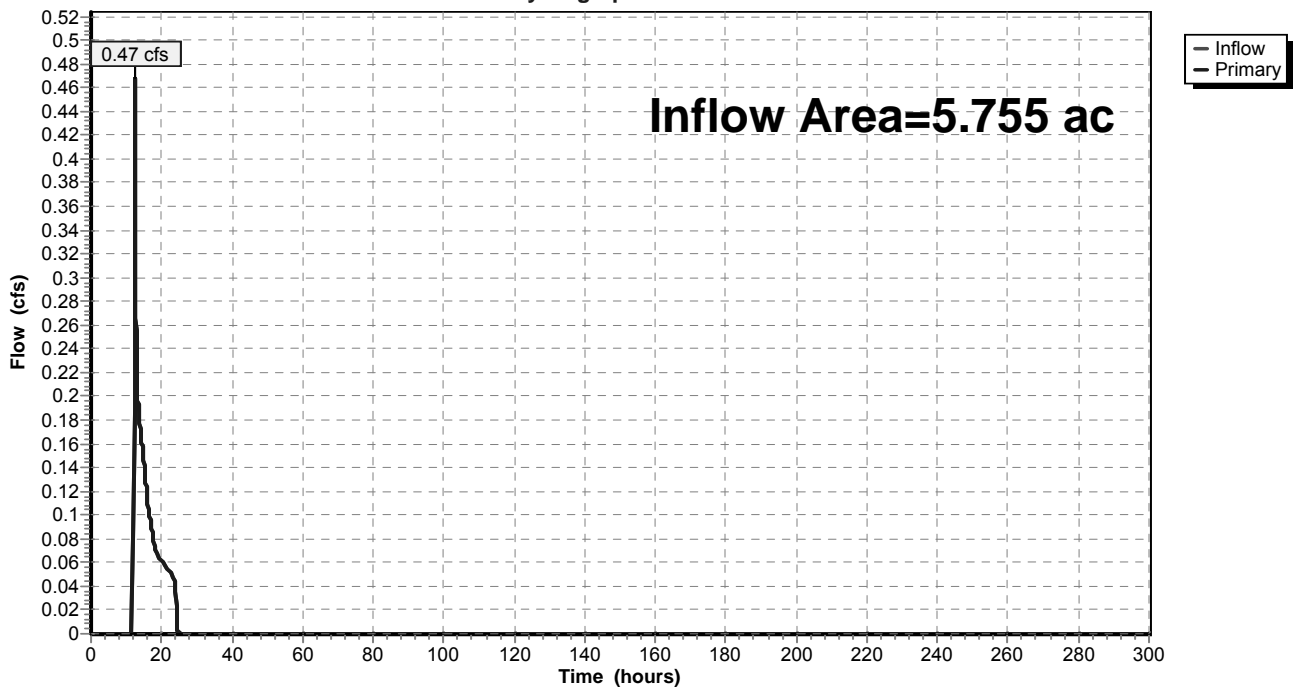
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 5.755 ac, 0.00% Impervious, Inflow Depth = 0.22" for 1 Year - North Salem event
Inflow = 0.47 cfs @ 12.43 hrs, Volume= 0.107 af
Primary = 0.47 cfs @ 12.43 hrs, Volume= 0.107 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: Post-Development D1

Runoff Area=5.755 ac 0.00% Impervious Runoff Depth=0.42"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=1.20 cfs 0.199 af

Pond DP 4: Design Point 4

Inflow=1.20 cfs 0.199 af
Primary=1.20 cfs 0.199 af

Total Runoff Area = 5.755 ac Runoff Volume = 0.199 af Average Runoff Depth = 0.42"
100.00% Pervious = 5.755 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D1: Post-Development D1

Runoff = 1.20 cfs @ 12.30 hrs, Volume= 0.199 af, Depth= 0.42"

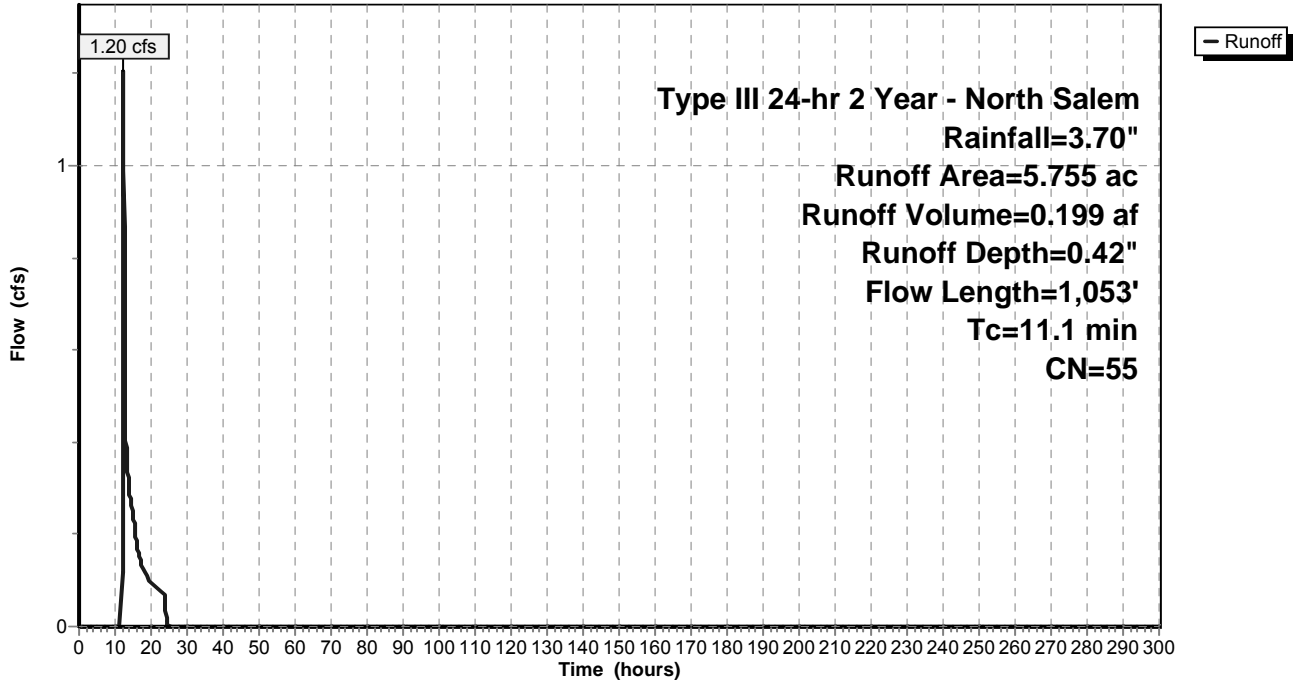
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 5.593	55	Woods, Good, HSG B
* 0.162	61	>75% Grass cover, Good, HSG B
5.755	55	Weighted Average
5.755		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D1: Post-Development D1

Hydrograph



Summary for Pond DP 4: Design Point 4

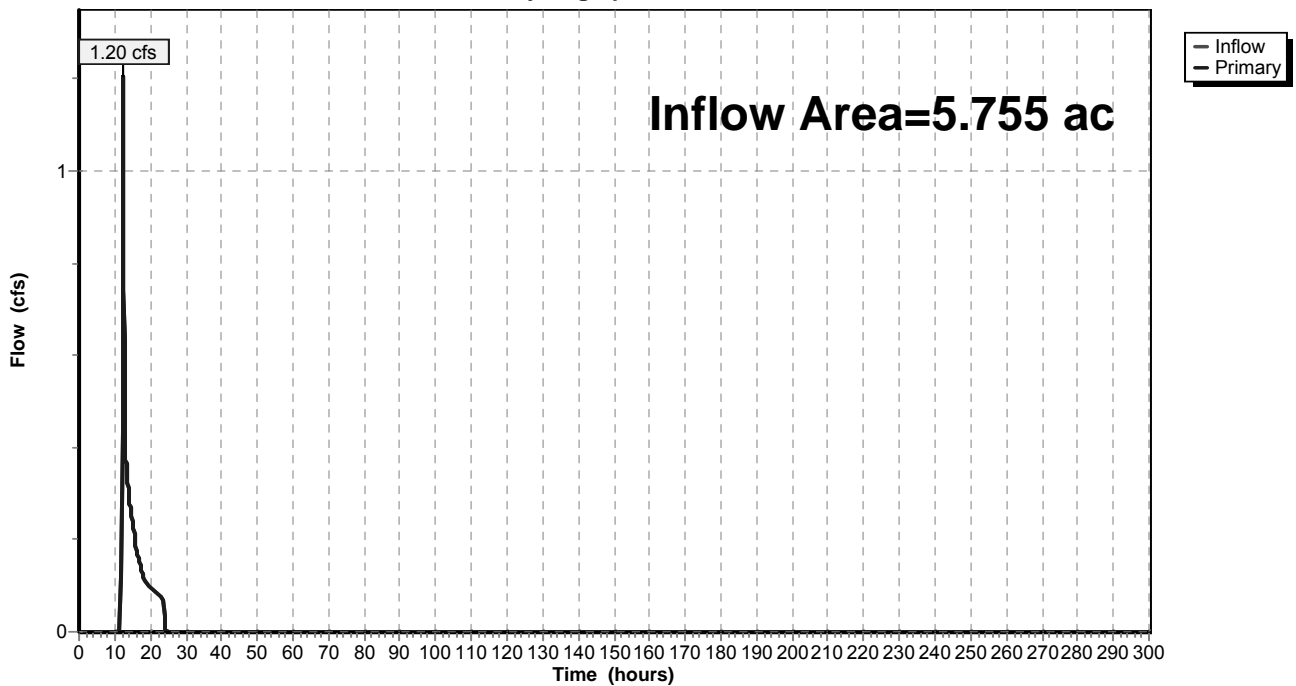
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 5.755 ac, 0.00% Impervious, Inflow Depth = 0.42" for 2 Year - North Salem event
Inflow = 1.20 cfs @ 12.30 hrs, Volume= 0.199 af
Primary = 1.20 cfs @ 12.30 hrs, Volume= 0.199 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: Post-Development D1

Runoff Area=5.755 ac 0.00% Impervious Runoff Depth=1.24"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=5.85 cfs 0.594 af

Pond DP 4: Design Point 4

Inflow=5.85 cfs 0.594 af
Primary=5.85 cfs 0.594 af

Total Runoff Area = 5.755 ac Runoff Volume = 0.594 af Average Runoff Depth = 1.24"
100.00% Pervious = 5.755 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D1: Post-Development D1

Runoff = 5.85 cfs @ 12.18 hrs, Volume= 0.594 af, Depth= 1.24"

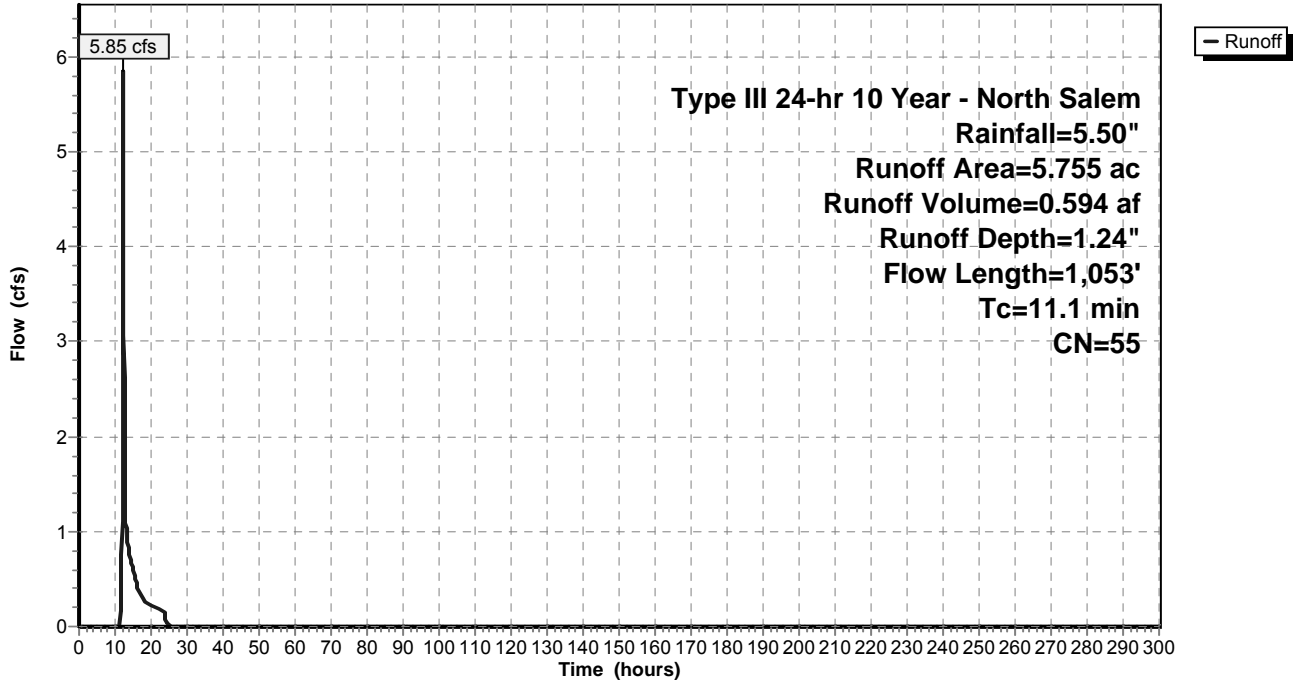
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 5.593	55	Woods, Good, HSG B
* 0.162	61	>75% Grass cover, Good, HSG B
5.755	55	Weighted Average
5.755		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D1: Post-Development D1

Hydrograph



Summary for Pond DP 4: Design Point 4

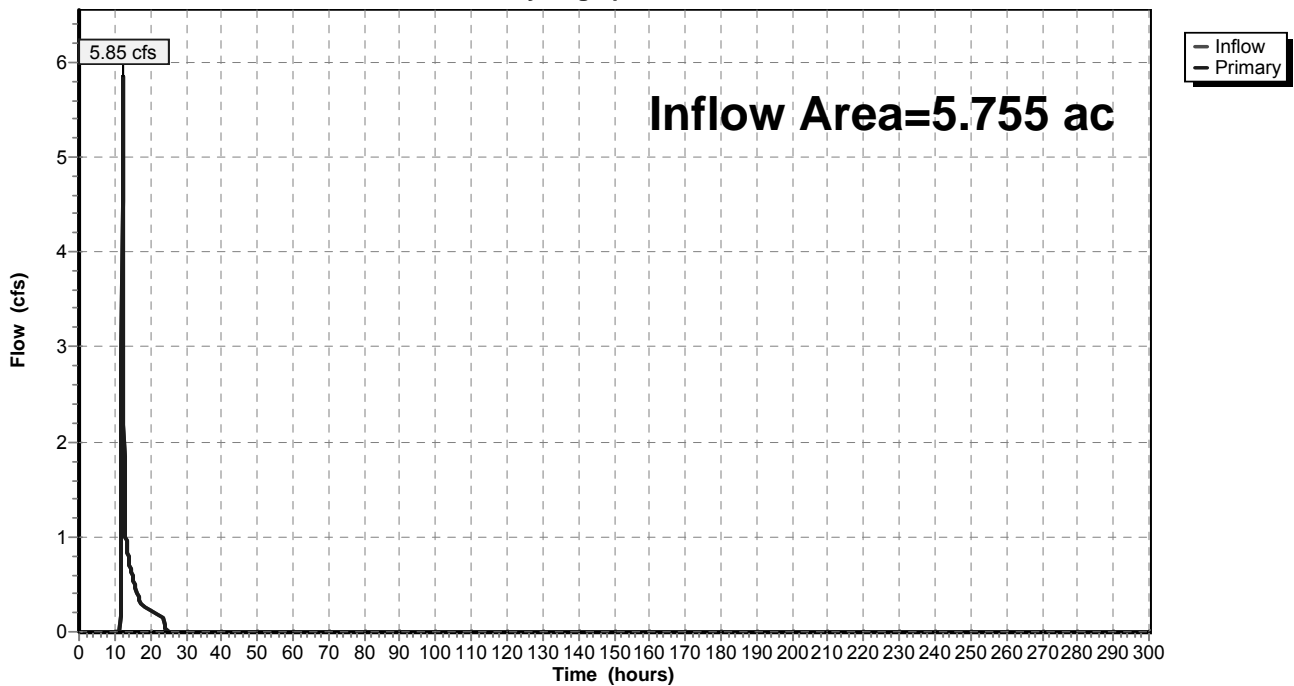
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 5.755 ac, 0.00% Impervious, Inflow Depth = 1.24" for 10 Year - North Salem event
Inflow = 5.85 cfs @ 12.18 hrs, Volume= 0.594 af
Primary = 5.85 cfs @ 12.18 hrs, Volume= 0.594 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: Post-Development D1

Runoff Area=5.755 ac 0.00% Impervious Runoff Depth=2.12"

Flow Length=1,053' Tc=11.1 min CN=55 Runoff=11.15 cfs 1.019 af

Pond DP 4: Design Point 4

Inflow=11.15 cfs 1.019 af

Primary=11.15 cfs 1.019 af

Total Runoff Area = 5.755 ac Runoff Volume = 1.019 af Average Runoff Depth = 2.12"
100.00% Pervious = 5.755 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D1: Post-Development D1

Runoff = 11.15 cfs @ 12.17 hrs, Volume= 1.019 af, Depth= 2.12"

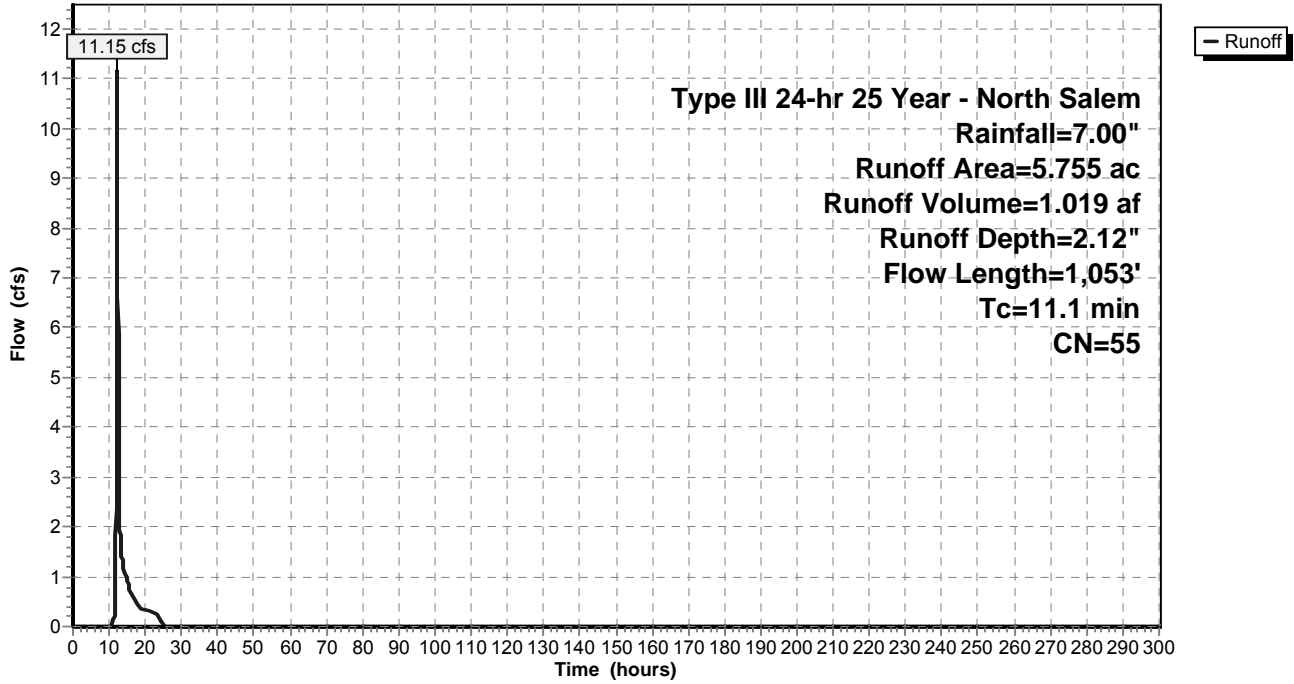
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 5.593	55	Woods, Good, HSG B
* 0.162	61	>75% Grass cover, Good, HSG B
5.755	55	Weighted Average
5.755		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D1: Post-Development D1

Hydrograph



Summary for Pond DP 4: Design Point 4

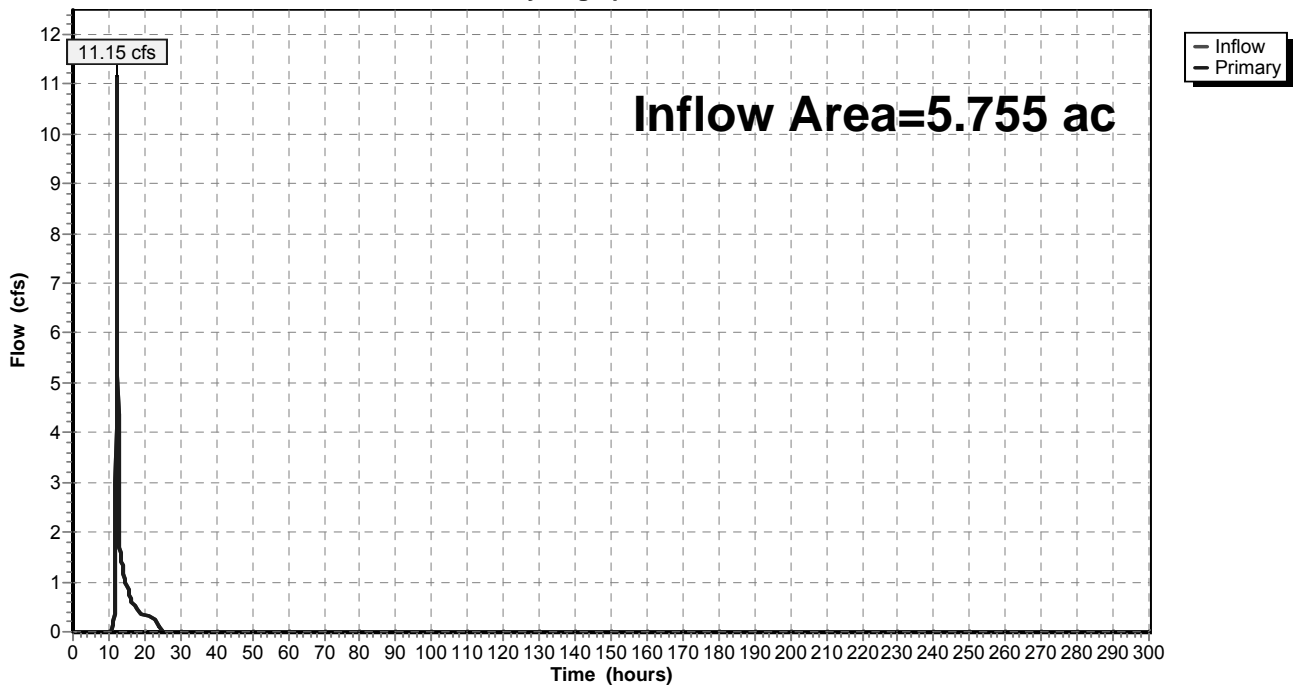
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 5.755 ac, 0.00% Impervious, Inflow Depth = 2.12" for 25 Year - North Salem event
Inflow = 11.15 cfs @ 12.17 hrs, Volume= 1.019 af
Primary = 11.15 cfs @ 12.17 hrs, Volume= 1.019 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 4: Design Point 4

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment D1: Post-Development D1 Runoff Area=5.755 ac 0.00% Impervious Runoff Depth=3.49"
Flow Length=1,053' Tc=11.1 min CN=55 Runoff=19.19 cfs 1.673 af

Pond DP 4: Design Point 4

Inflow=19.19 cfs 1.673 af
Primary=19.19 cfs 1.673 af

Total Runoff Area = 5.755 ac Runoff Volume = 1.673 af Average Runoff Depth = 3.49"
100.00% Pervious = 5.755 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment D1: Post-Development D1

Runoff = 19.19 cfs @ 12.16 hrs, Volume= 1.673 af, Depth= 3.49"

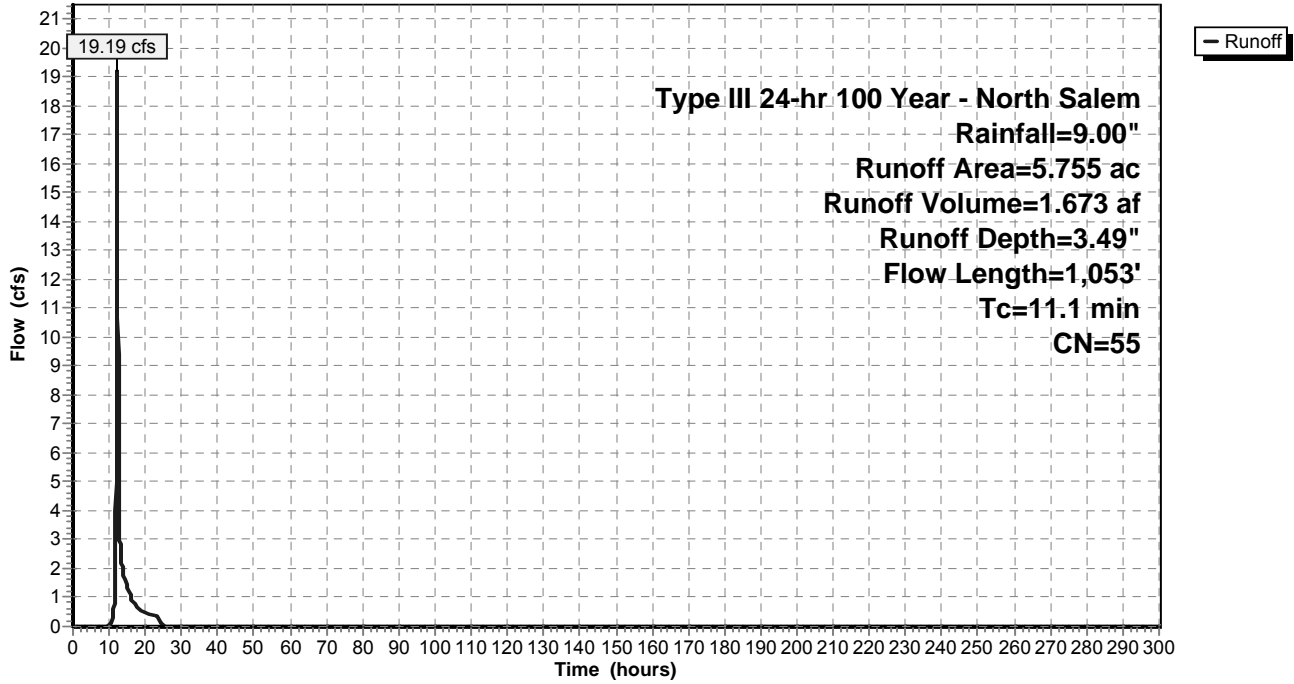
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 5.593	55	Woods, Good, HSG B
* 0.162	61	>75% Grass cover, Good, HSG B
5.755	55	Weighted Average
5.755		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	186	0.3010	8.83		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	124	0.2096	7.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.6	316	0.0443	3.39		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	105	0.1143	5.44		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	222	0.2072	7.33		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.1	1,053	Total			

Subcatchment D1: Post-Development D1

Hydrograph



Summary for Pond DP 4: Design Point 4

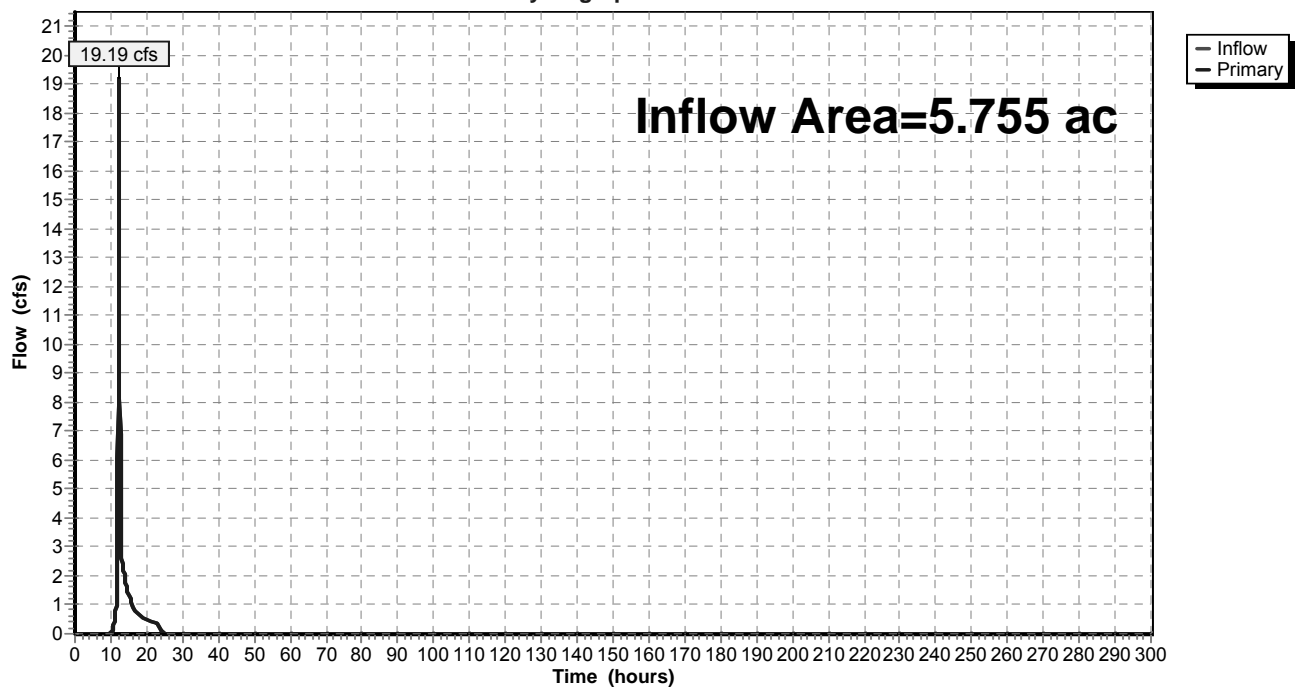
[40] Hint: Not Described (Outflow=Inflow)

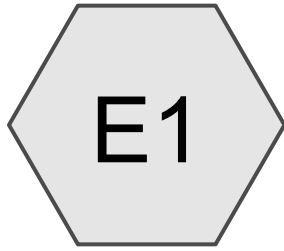
Inflow Area = 5.755 ac, 0.00% Impervious, Inflow Depth = 3.49" for 100 Year - North Salem event
Inflow = 19.19 cfs @ 12.16 hrs, Volume= 1.673 af
Primary = 19.19 cfs @ 12.16 hrs, Volume= 1.673 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

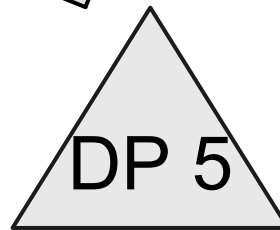
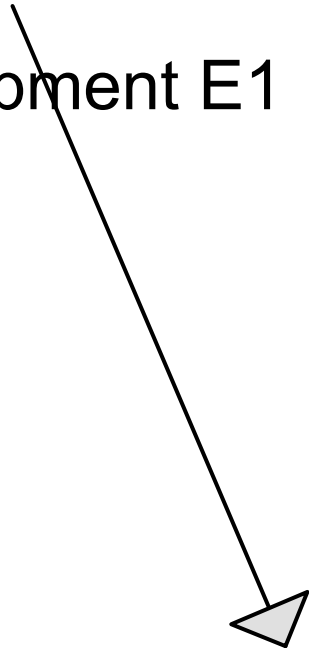
Pond DP 4: Design Point 4

Hydrograph

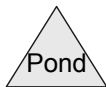
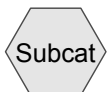




Post-Development E1



Design Point 5



Woodlands Post-Dev DP 5 07-2012

Prepared by KCG Engineers, P.C.

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Page 2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.557	55	Woods, Good, HSG B (E1)
0.502	61	>75% Grass cover, Good, HSG B (E1)
1.059		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: Post-Development E1

Runoff Area=1.059 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=334' Tc=9.6 min CN=58 Runoff=0.15 cfs 0.027 af

Pond DP 5: Design Point 5

Inflow=0.15 cfs 0.027 af
Primary=0.15 cfs 0.027 af

Total Runoff Area = 1.059 ac Runoff Volume = 0.027 af Average Runoff Depth = 0.31"
100.00% Pervious = 1.059 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: Post-Development E1

Runoff = 0.15 cfs @ 12.33 hrs, Volume= 0.027 af, Depth= 0.31"

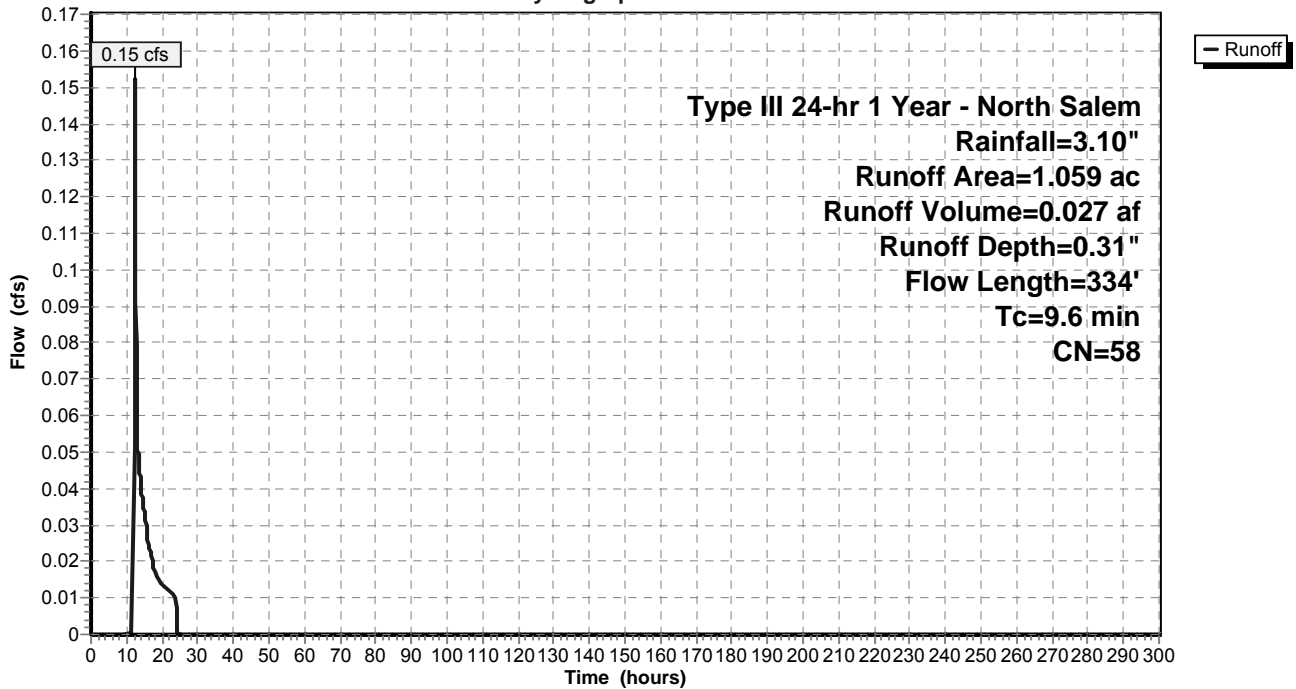
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.502	61	>75% Grass cover, Good, HSG B
0.557	55	Woods, Good, HSG B
1.059	58	Weighted Average
1.059		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	60	0.0667	0.18		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.7	234	0.1111	5.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
9.6	334	Total			

Subcatchment E1: Post-Development E1

Hydrograph



Summary for Pond DP 5: Design Point 5

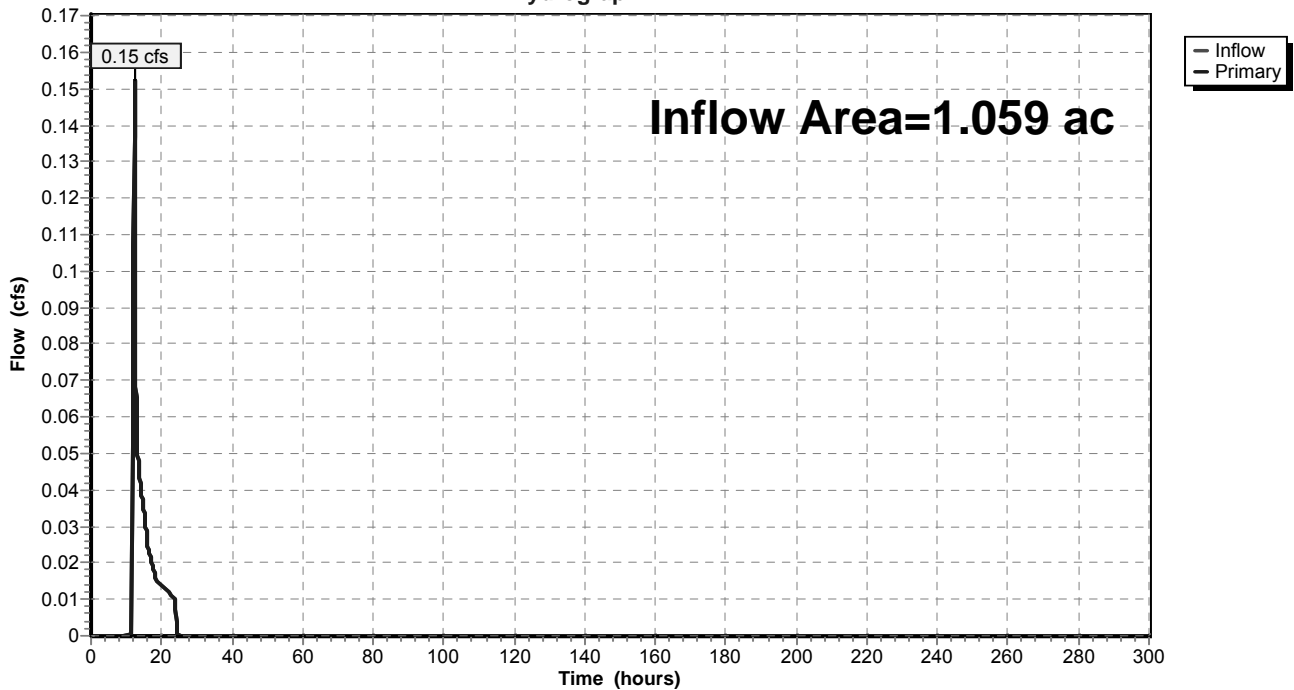
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.059 ac, 0.00% Impervious, Inflow Depth = 0.31" for 1 Year - North Salem event
Inflow = 0.15 cfs @ 12.33 hrs, Volume= 0.027 af
Primary = 0.15 cfs @ 12.33 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: Post-Development E1

Runoff Area=1.059 ac 0.00% Impervious Runoff Depth=0.53"
Flow Length=334' Tc=9.6 min CN=58 Runoff=0.37 cfs 0.047 af

Pond DP 5: Design Point 5

Inflow=0.37 cfs 0.047 af
Primary=0.37 cfs 0.047 af

Total Runoff Area = 1.059 ac Runoff Volume = 0.047 af Average Runoff Depth = 0.53"
100.00% Pervious = 1.059 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: Post-Development E1

Runoff = 0.37 cfs @ 12.19 hrs, Volume= 0.047 af, Depth= 0.53"

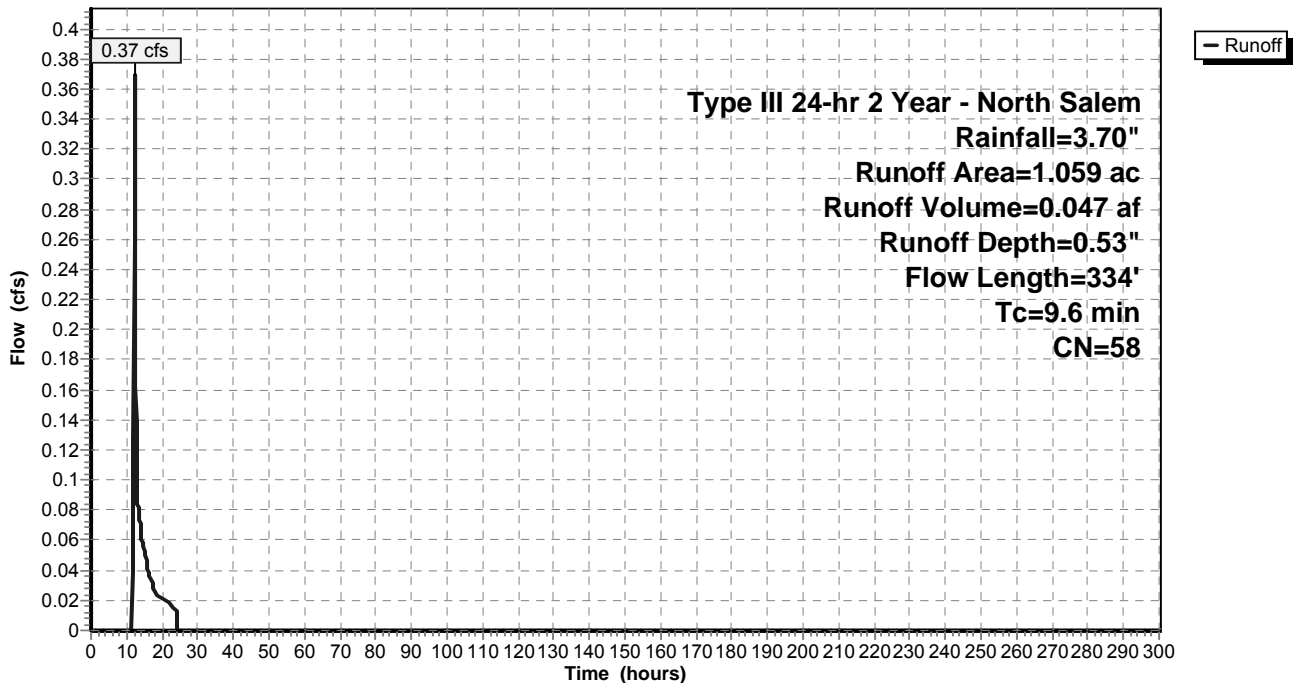
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.502	61	>75% Grass cover, Good, HSG B
0.557	55	Woods, Good, HSG B
1.059	58	Weighted Average
1.059		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	60	0.0667	0.18		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.7	234	0.1111	5.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
9.6	334	Total			

Subcatchment E1: Post-Development E1

Hydrograph



Summary for Pond DP 5: Design Point 5

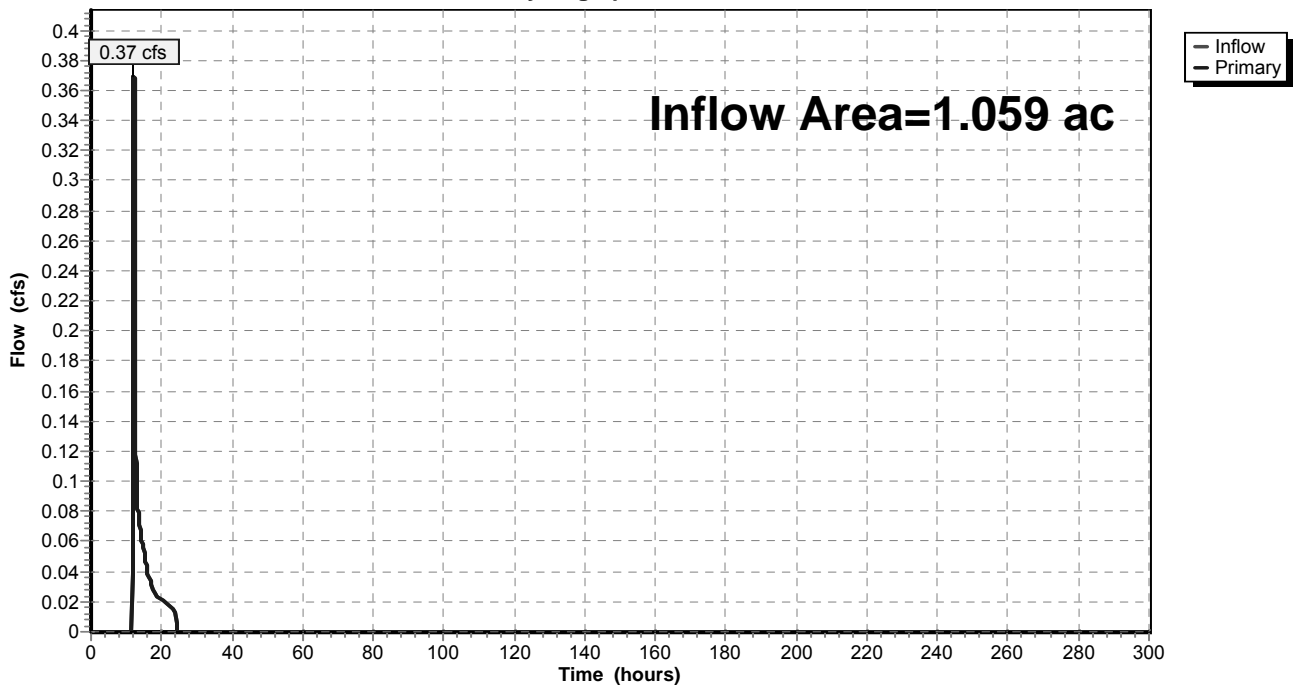
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.059 ac, 0.00% Impervious, Inflow Depth = 0.53" for 2 Year - North Salem event
Inflow = 0.37 cfs @ 12.19 hrs, Volume= 0.047 af
Primary = 0.37 cfs @ 12.19 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: Post-Development E1

Runoff Area=1.059 ac 0.00% Impervious Runoff Depth=1.45"
Flow Length=334' Tc=9.6 min CN=58 Runoff=1.42 cfs 0.128 af

Pond DP 5: Design Point 5

Inflow=1.42 cfs 0.128 af
Primary=1.42 cfs 0.128 af

Total Runoff Area = 1.059 ac Runoff Volume = 0.128 af Average Runoff Depth = 1.45"
100.00% Pervious = 1.059 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: Post-Development E1

Runoff = 1.42 cfs @ 12.15 hrs, Volume= 0.128 af, Depth= 1.45"

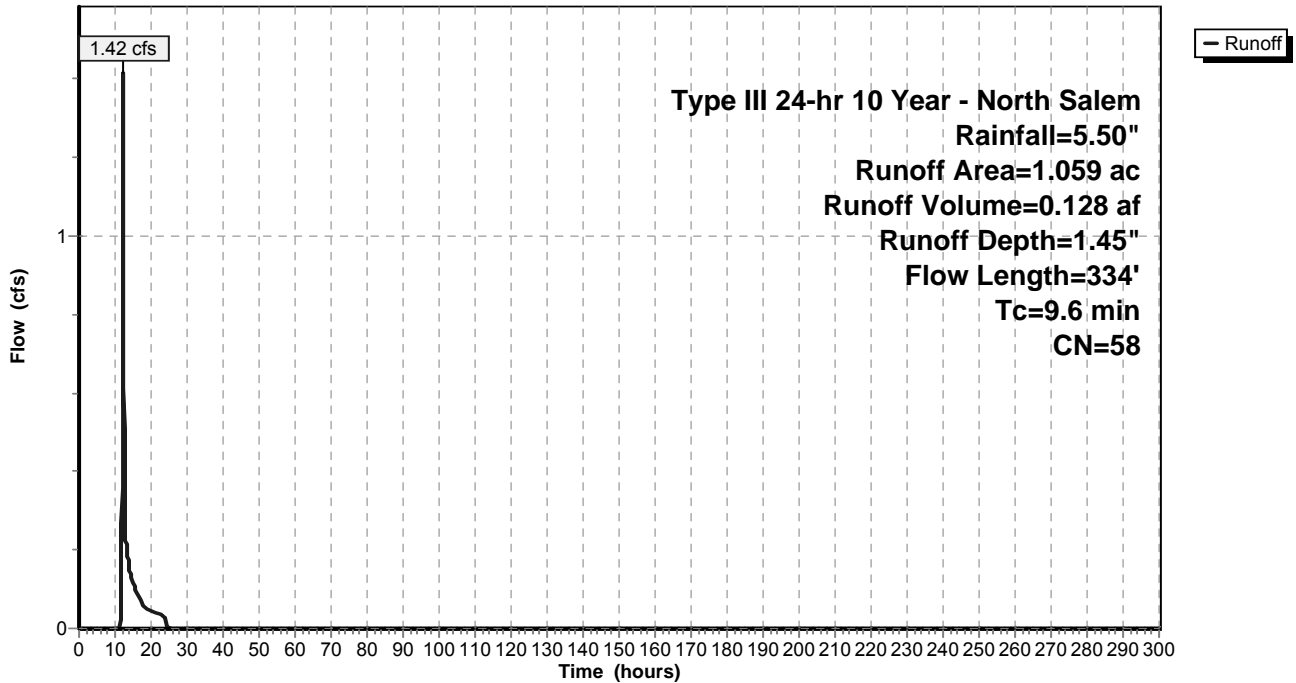
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.502	61	>75% Grass cover, Good, HSG B
0.557	55	Woods, Good, HSG B
1.059	58	Weighted Average
1.059		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	60	0.0667	0.18		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.7	234	0.1111	5.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
9.6	334	Total			

Subcatchment E1: Post-Development E1

Hydrograph



Summary for Pond DP 5: Design Point 5

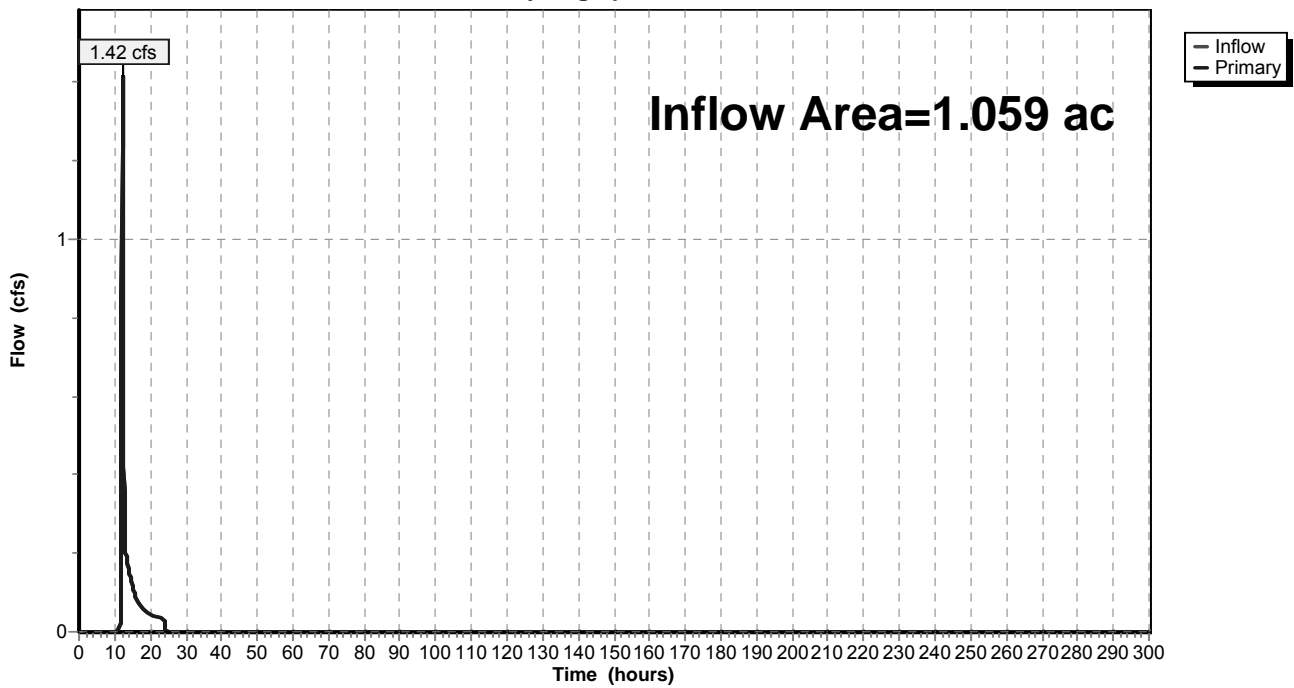
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.059 ac, 0.00% Impervious, Inflow Depth = 1.45" for 10 Year - North Salem event
Inflow = 1.42 cfs @ 12.15 hrs, Volume= 0.128 af
Primary = 1.42 cfs @ 12.15 hrs, Volume= 0.128 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: Post-Development E1

Runoff Area=1.059 ac 0.00% Impervious Runoff Depth=2.41"
Flow Length=334' Tc=9.6 min CN=58 Runoff=2.50 cfs 0.213 af

Pond DP 5: Design Point 5

Inflow=2.50 cfs 0.213 af
Primary=2.50 cfs 0.213 af

Total Runoff Area = 1.059 ac Runoff Volume = 0.213 af Average Runoff Depth = 2.41"
100.00% Pervious = 1.059 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: Post-Development E1

Runoff = 2.50 cfs @ 12.15 hrs, Volume= 0.213 af, Depth= 2.41"

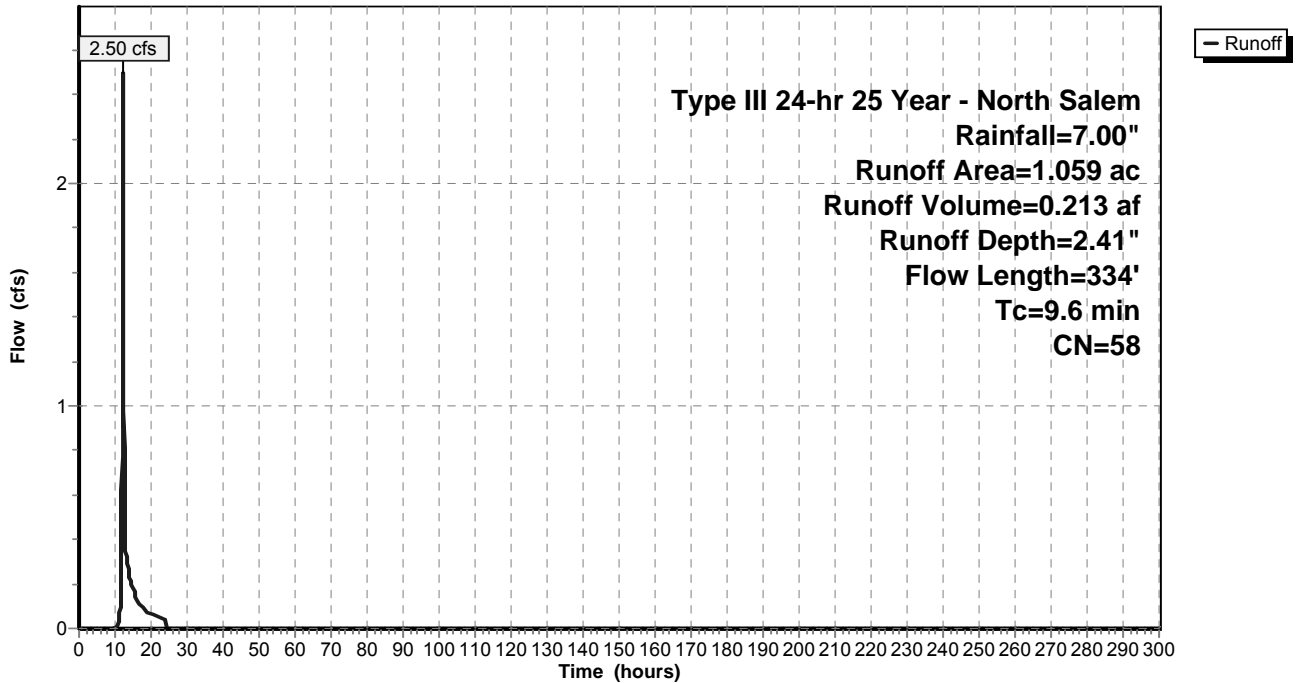
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.502	61	>75% Grass cover, Good, HSG B
0.557	55	Woods, Good, HSG B
1.059	58	Weighted Average
1.059		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	60	0.0667	0.18		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.7	234	0.1111	5.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
9.6	334	Total			

Subcatchment E1: Post-Development E1

Hydrograph



Summary for Pond DP 5: Design Point 5

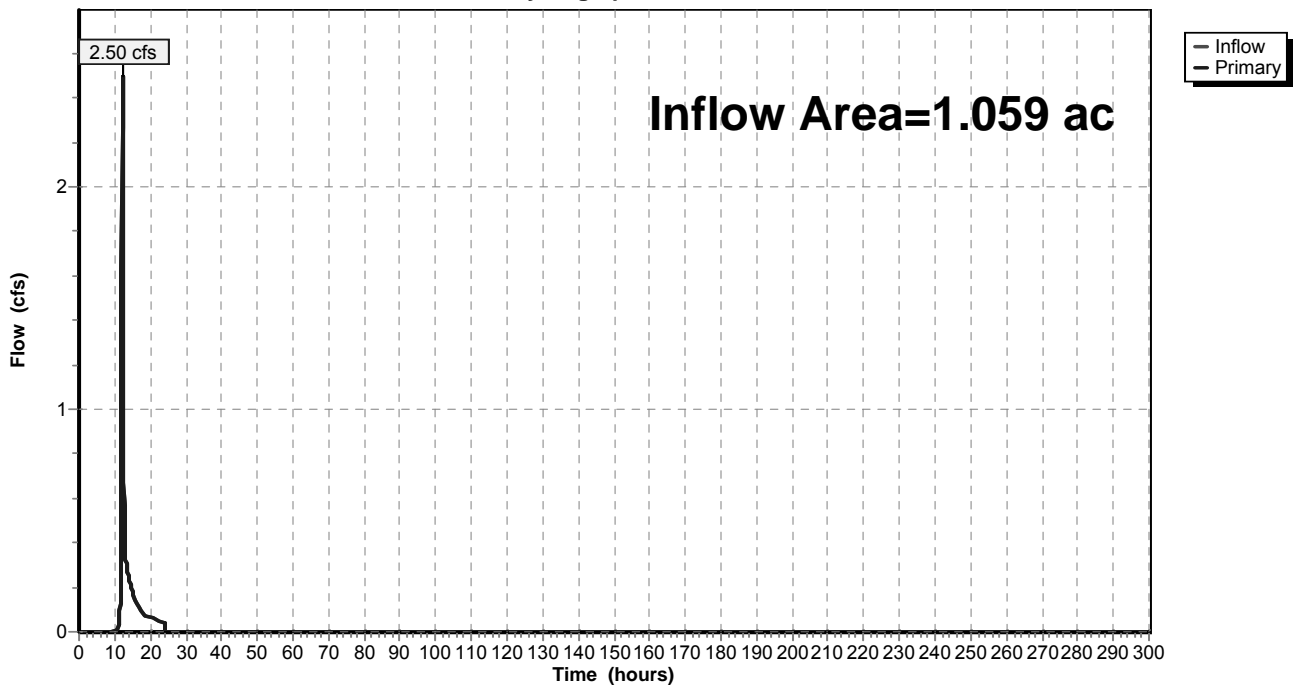
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.059 ac, 0.00% Impervious, Inflow Depth = 2.41" for 25 Year - North Salem event
Inflow = 2.50 cfs @ 12.15 hrs, Volume= 0.213 af
Primary = 2.50 cfs @ 12.15 hrs, Volume= 0.213 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment E1: Post-Development E1 Runoff Area=1.059 ac 0.00% Impervious Runoff Depth=3.86"
Flow Length=334' Tc=9.6 min CN=58 Runoff=4.12 cfs 0.340 af

Pond DP 5: Design Point 5 Inflow=4.12 cfs 0.340 af
Primary=4.12 cfs 0.340 af

Total Runoff Area = 1.059 ac Runoff Volume = 0.340 af Average Runoff Depth = 3.86"
100.00% Pervious = 1.059 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment E1: Post-Development E1

Runoff = 4.12 cfs @ 12.14 hrs, Volume= 0.340 af, Depth= 3.86"

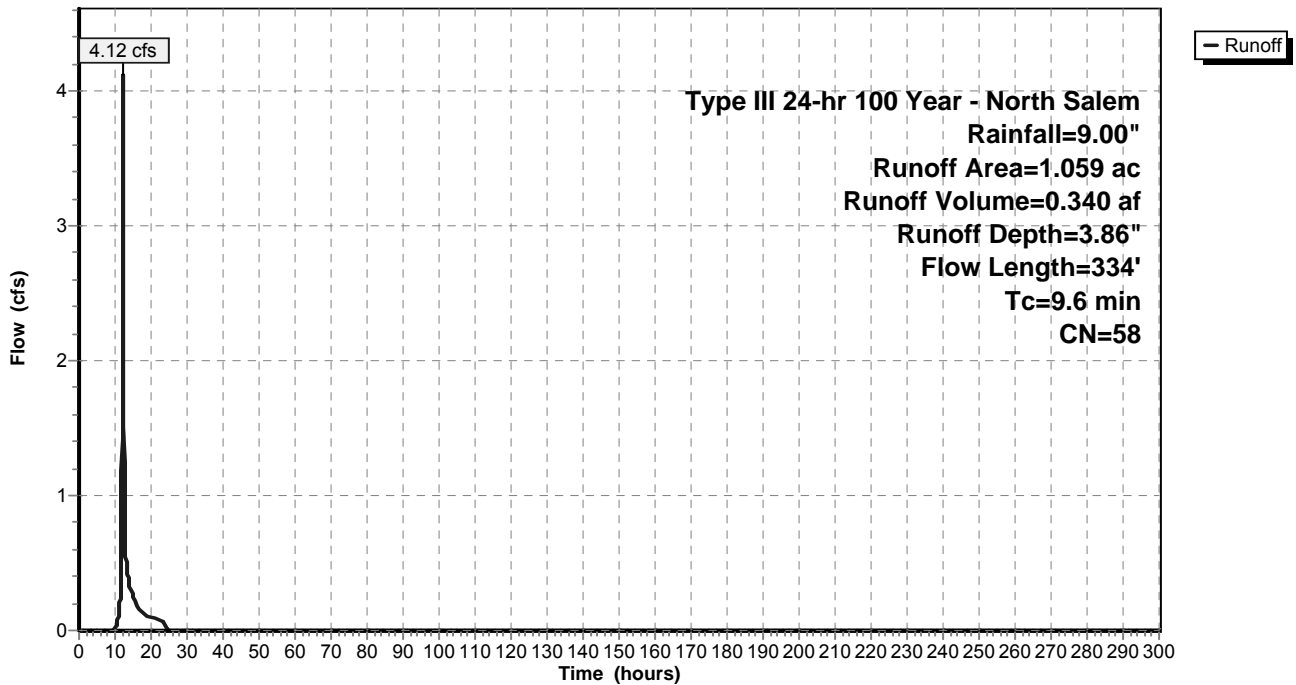
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.502	61	>75% Grass cover, Good, HSG B
0.557	55	Woods, Good, HSG B
1.059	58	Weighted Average
1.059		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	60	0.0667	0.18		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.7	234	0.1111	5.37		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
9.6	334	Total			

Subcatchment E1: Post-Development E1

Hydrograph



Summary for Pond DP 5: Design Point 5

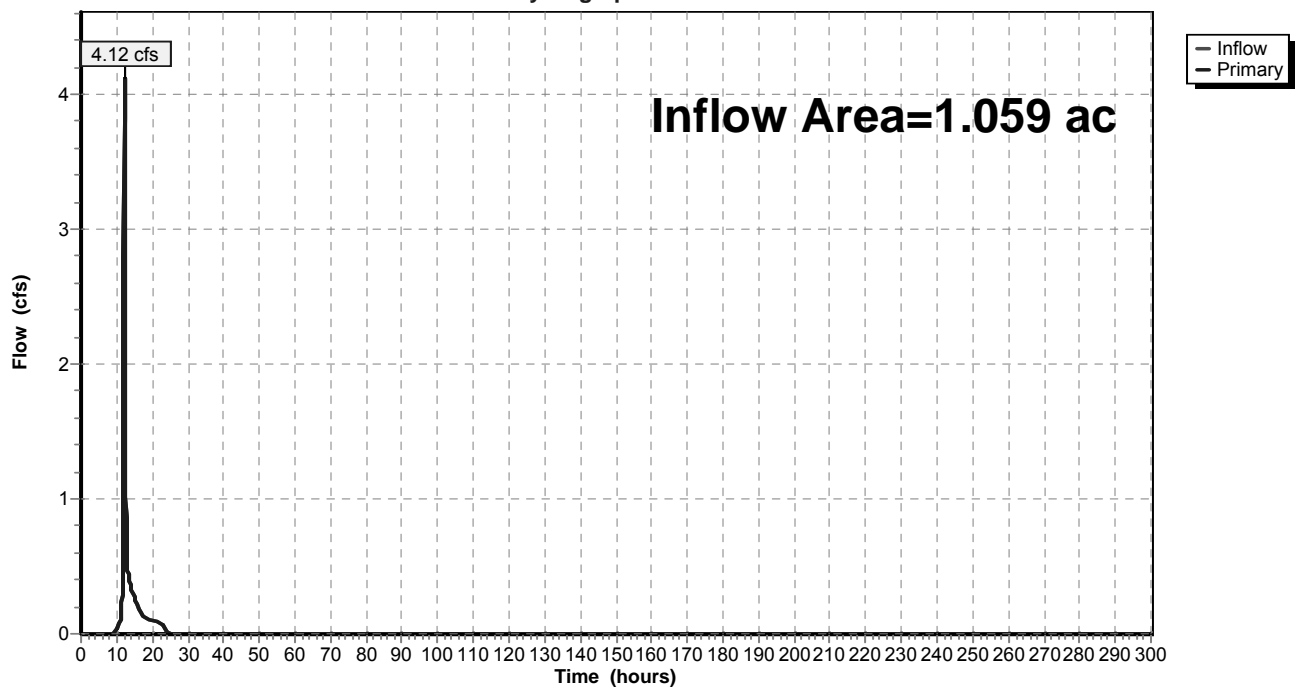
[40] Hint: Not Described (Outflow=Inflow)

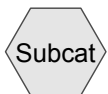
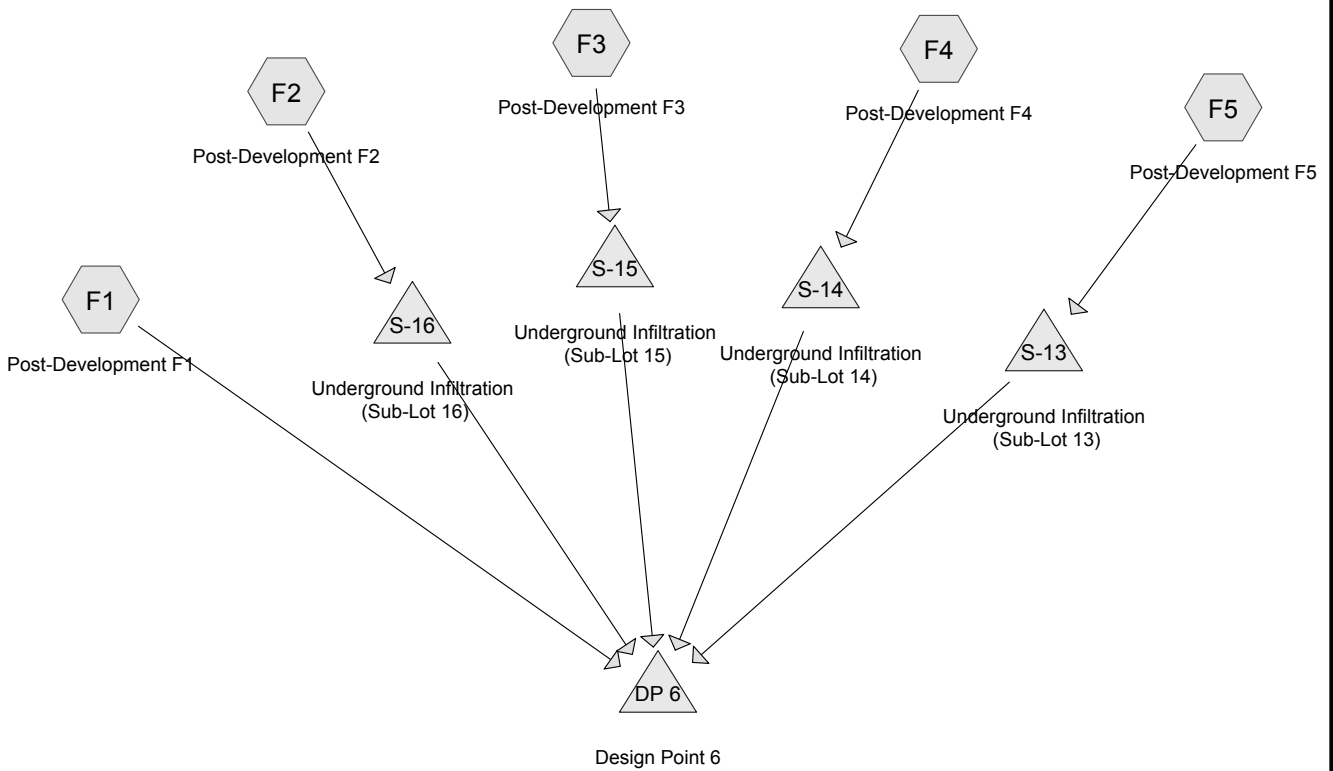
Inflow Area = 1.059 ac, 0.00% Impervious, Inflow Depth = 3.86" for 100 Year - North Salem event
 Inflow = 4.12 cfs @ 12.14 hrs, Volume= 0.340 af
 Primary = 4.12 cfs @ 12.14 hrs, Volume= 0.340 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 5: Design Point 5

Hydrograph

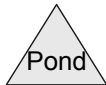




Subcat



Reach



Pond



Link

Drainage Diagram for Woodlands Post-Dev DP 6 07-2012
 Prepared by KCG Engineers, P.C., Printed 7/31/2012
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Woodlands Post-Dev DP 6 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.521	55	Woods, Good, HSG B (F1, F2, F3, F4)
2.434	61	>75% Grass cover, Good, HSG B (F1, F2, F3, F4, F5)
0.285	98	Driveway (F2, F3, F4, F5)
0.256	98	Roof/Walkway (F2, F3, F4, F5)
7.496		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F1: Post-Development F1 Runoff Area=5.369 ac 0.00% Impervious Runoff Depth=0.25"
Flow Length=1,503' Tc=15.7 min CN=56 Runoff=0.50 cfs 0.111 af

Subcatchment F2: Post-Development F2 Runoff Area=0.559 ac 25.04% Impervious Runoff Depth=0.72"
Flow Length=191' Tc=8.4 min CN=69 Runoff=0.37 cfs 0.034 af

Subcatchment F3: Post-Development F3 Runoff Area=0.489 ac 26.58% Impervious Runoff Depth=0.77"
Flow Length=208' Tc=10.3 min CN=70 Runoff=0.33 cfs 0.031 af

Subcatchment F4: Post-Development F4 Runoff Area=0.762 ac 20.34% Impervious Runoff Depth=0.64"
Flow Length=422' Tc=8.9 min CN=67 Runoff=0.41 cfs 0.040 af

Subcatchment F5: Post-Development F5 Runoff Area=0.317 ac 36.59% Impervious Runoff Depth=1.03"
Flow Length=120' Tc=2.6 min CN=75 Runoff=0.40 cfs 0.027 af

Pond DP 6: Design Point 6 Inflow=0.50 cfs 0.111 af
Primary=0.50 cfs 0.111 af

Pond S-13: Underground Infiltration Peak Elev=461.38' Storage=0.003 af Inflow=0.40 cfs 0.027 af
Discarded=0.14 cfs 0.027 af Primary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.027 af

Pond S-14: Underground Infiltration Peak Elev=440.01' Storage=0.000 af Inflow=0.41 cfs 0.040 af
Discarded=0.41 cfs 0.040 af Primary=0.00 cfs 0.000 af Outflow=0.41 cfs 0.040 af

Pond S-15: Underground Infiltration Peak Elev=433.44' Storage=0.000 af Inflow=0.33 cfs 0.031 af
Discarded=0.33 cfs 0.031 af Primary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.031 af

Pond S-16: Underground Infiltration Peak Elev=415.52' Storage=0.000 af Inflow=0.37 cfs 0.034 af
Discarded=0.36 cfs 0.034 af Primary=0.00 cfs 0.000 af Outflow=0.36 cfs 0.034 af

Total Runoff Area = 7.496 ac Runoff Volume = 0.244 af Average Runoff Depth = 0.39"
92.78% Pervious = 6.955 ac 7.22% Impervious = 0.541 ac

Summary for Subcatchment F1: Post-Development F1

Runoff = 0.50 cfs @ 12.48 hrs, Volume= 0.111 af, Depth= 0.25"

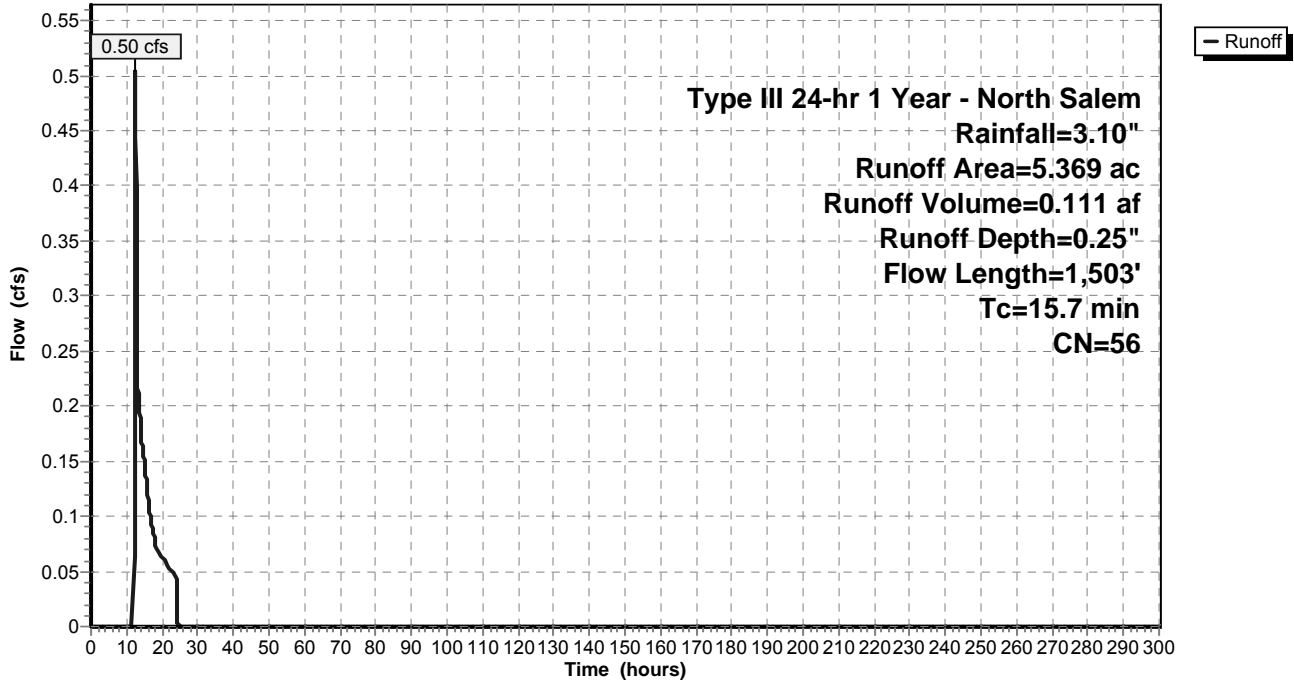
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
1.214	61	>75% Grass cover, Good, HSG B
4.155	55	Woods, Good, HSG B
5.369	56	Weighted Average
5.369		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	64	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	81	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2700	8.37		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
5.6	840	0.0245	2.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.7	262	0.1685	6.61		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
15.7	1,503	Total			

Subcatchment F1: Post-Development F1

Hydrograph



Summary for Subcatchment F2: Post-Development F2

Runoff = 0.37 cfs @ 12.14 hrs, Volume= 0.034 af, Depth= 0.72"

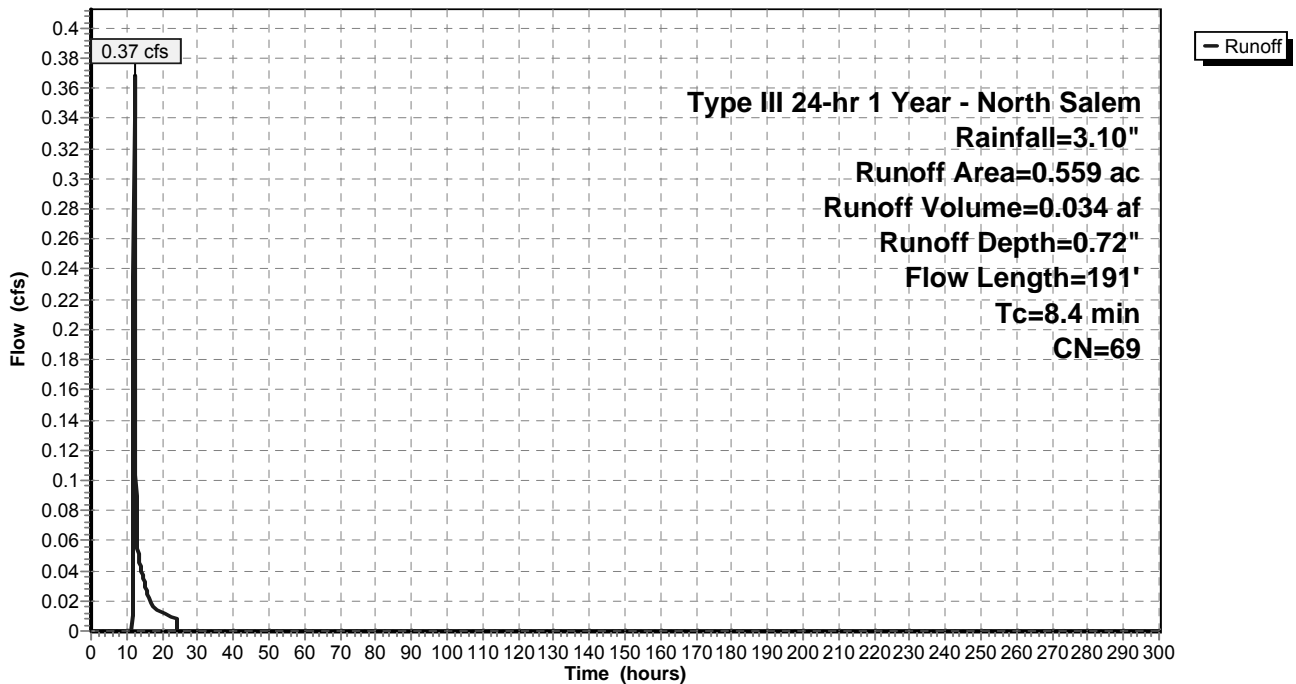
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.076	98	Driveway
0.316	61	>75% Grass cover, Good, HSG B
0.103	55	Woods, Good, HSG B
0.559	69	Weighted Average
0.419		74.96% Pervious Area
0.140		25.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.2800	0.31		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.3	50	0.1400	0.16		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	91	0.0549	3.77		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.4	191	Total			

Subcatchment F2: Post-Development F2

Hydrograph



Summary for Subcatchment F3: Post-Development F3

Runoff = 0.33 cfs @ 12.16 hrs, Volume= 0.031 af, Depth= 0.77"

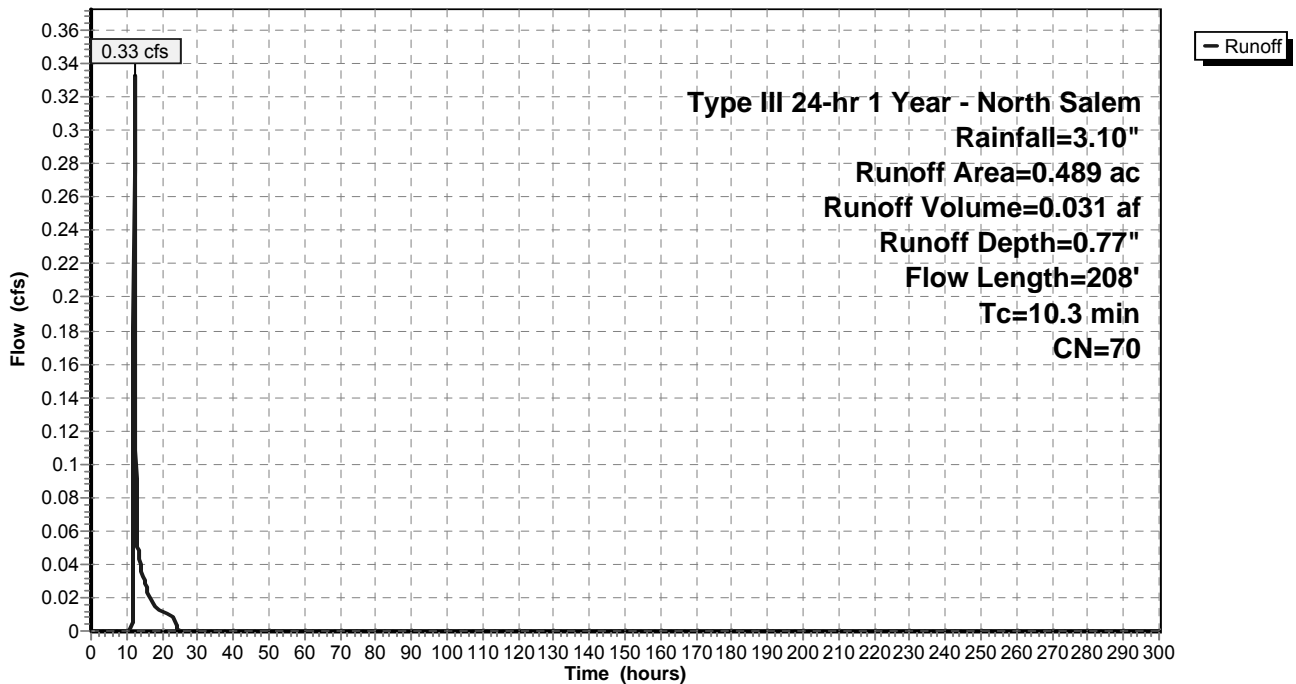
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.066	98	Driveway
0.281	61	>75% Grass cover, Good, HSG B
0.078	55	Woods, Good, HSG B
0.489	70	Weighted Average
0.359		73.42% Pervious Area
0.130		26.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	30	0.2667	0.28		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
7.9	70	0.1000	0.15		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	108	0.0370	3.10		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.3	208	Total			

Subcatchment F3: Post-Development F3

Hydrograph



Summary for Subcatchment F4: Post-Development F4

Runoff = 0.41 cfs @ 12.15 hrs, Volume= 0.040 af, Depth= 0.64"

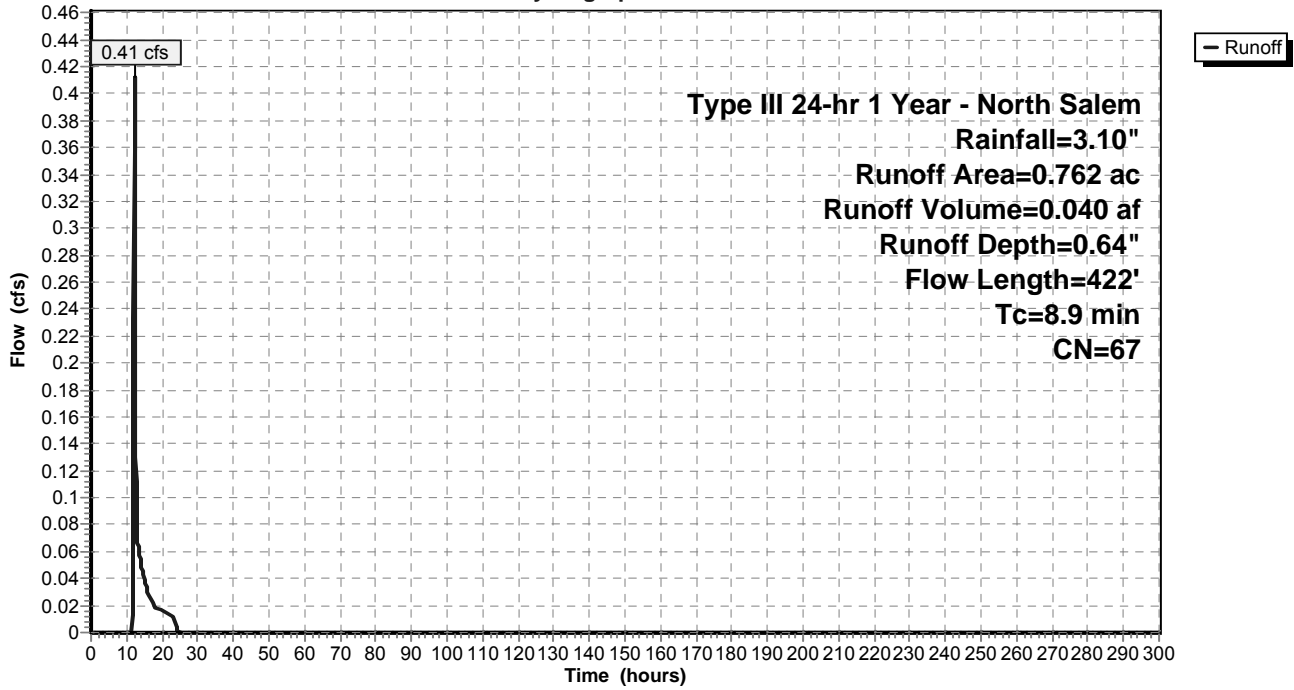
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.091	98	Driveway
0.422	61	>75% Grass cover, Good, HSG B
0.185	55	Woods, Good, HSG B
0.762	67	Weighted Average
0.607		79.66% Pervious Area
0.155		20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	26	0.2307	7.73		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	31	0.0645	4.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	119	0.0336	2.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	146	0.0300	3.90	1.36	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.020 Corrugated PE, corrugated interior
8.9	422	Total			

Subcatchment F4: Post-Development F4

Hydrograph



Summary for Subcatchment F5: Post-Development F5

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.40 cfs @ 12.05 hrs, Volume= 0.027 af, Depth= 1.03"

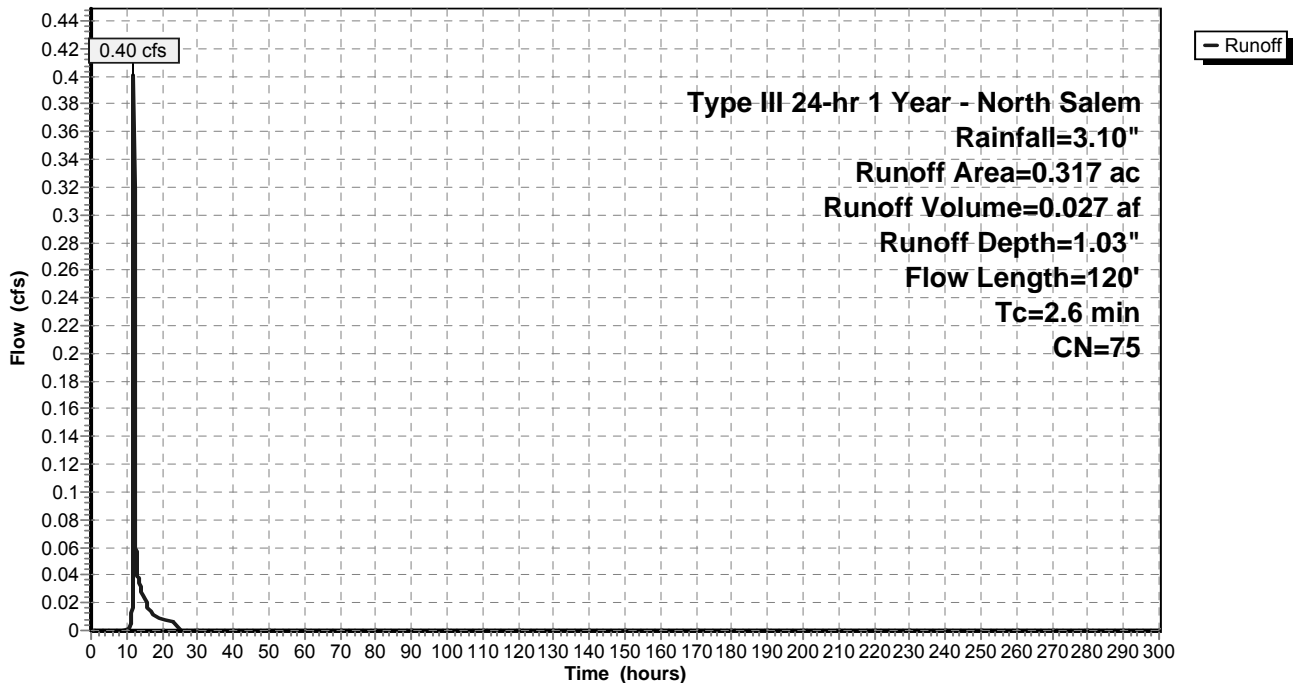
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.052	98	Driveway
0.201	61	>75% Grass cover, Good, HSG B
0.317	75	Weighted Average
0.201		63.41% Pervious Area
0.116		36.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	47	0.4255	0.37		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	73	0.0274	2.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.6	120	Total			

Subcatchment F5: Post-Development F5

Hydrograph



Summary for Pond DP 6: Design Point 6

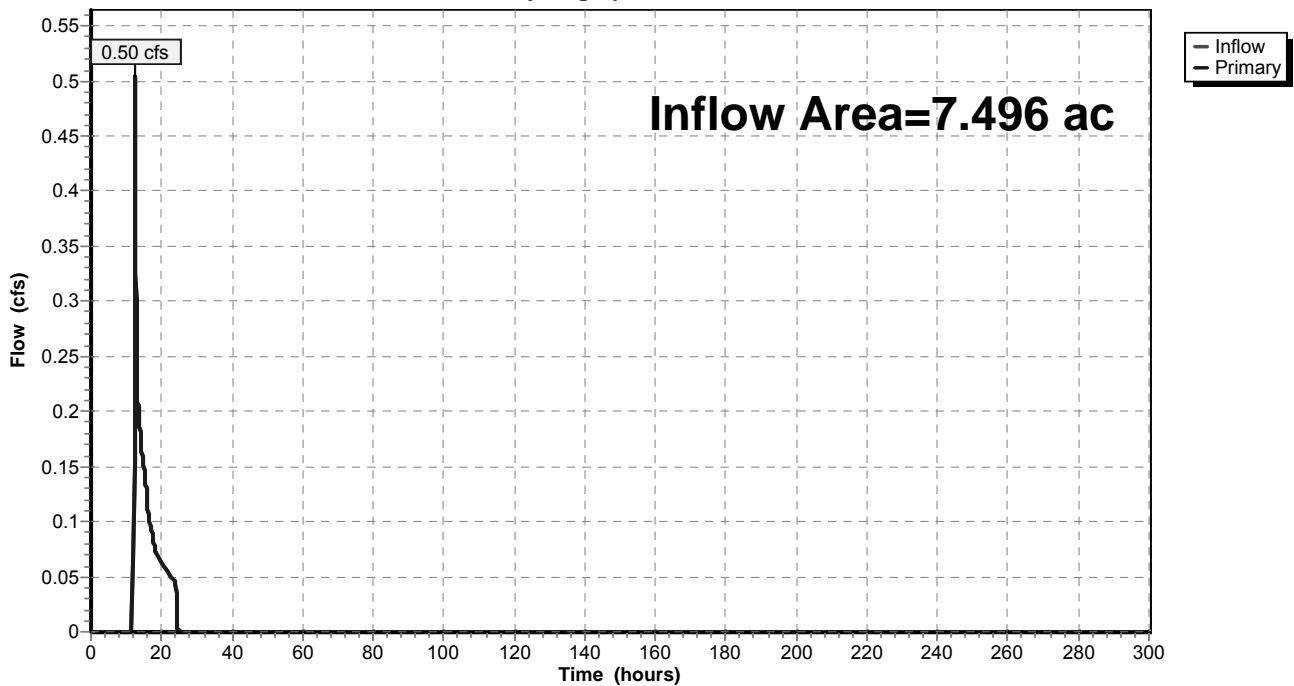
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.496 ac, 7.22% Impervious, Inflow Depth = 0.18" for 1 Year - North Salem event
Inflow = 0.50 cfs @ 12.48 hrs, Volume= 0.111 af
Primary = 0.50 cfs @ 12.48 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Summary for Pond S-13: Underground Infiltration (Sub-Lot 13)

Inflow Area = 0.317 ac, 36.59% Impervious, Inflow Depth = 1.03" for 1 Year - North Salem event
 Inflow = 0.40 cfs @ 12.05 hrs, Volume= 0.027 af
 Outflow = 0.14 cfs @ 11.95 hrs, Volume= 0.027 af, Atten= 64%, Lag= 0.0 min
 Discarded = 0.14 cfs @ 11.95 hrs, Volume= 0.027 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 461.38' @ 12.34 hrs Surf.Area= 0.028 ac Storage= 0.003 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 5.4 min (863.0 - 857.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	461.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	461.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

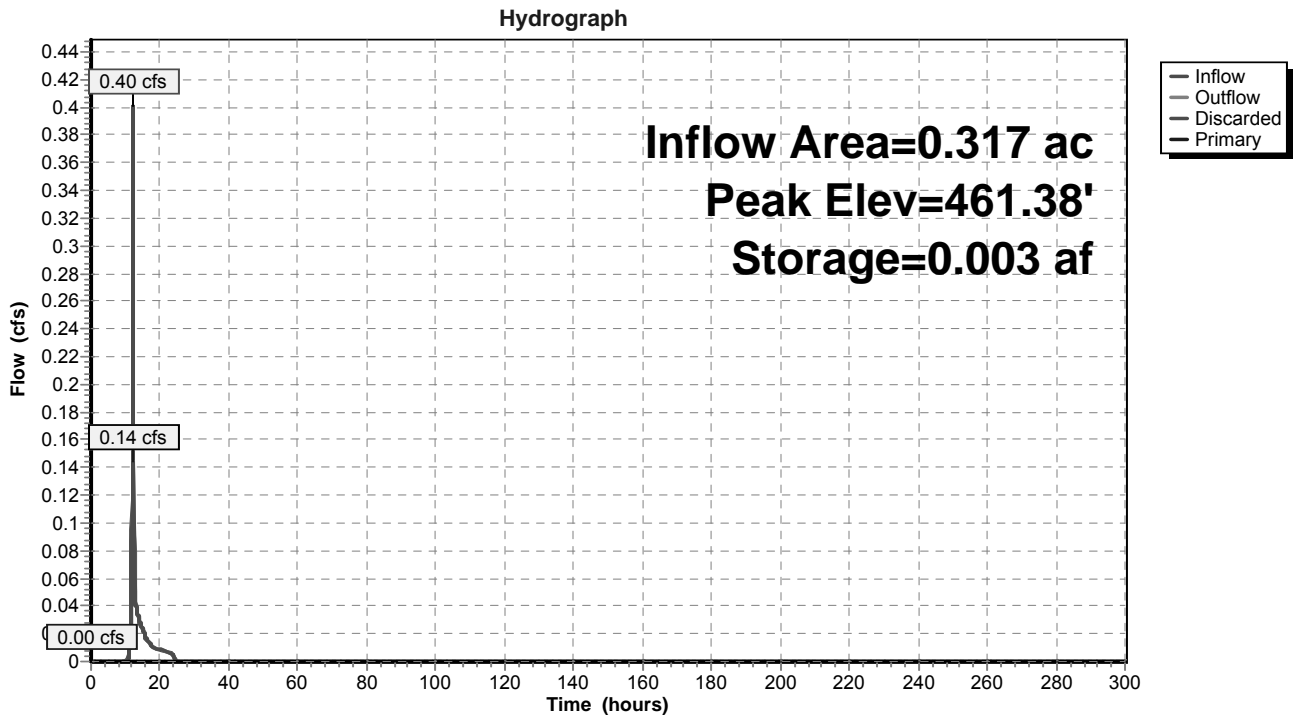
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	461.00'	5.180 in/hr Exfiltration over Surface area
#2	Primary	462.85'	3.0" Vert. Orifice/Grate X 4.00 C= 0.600

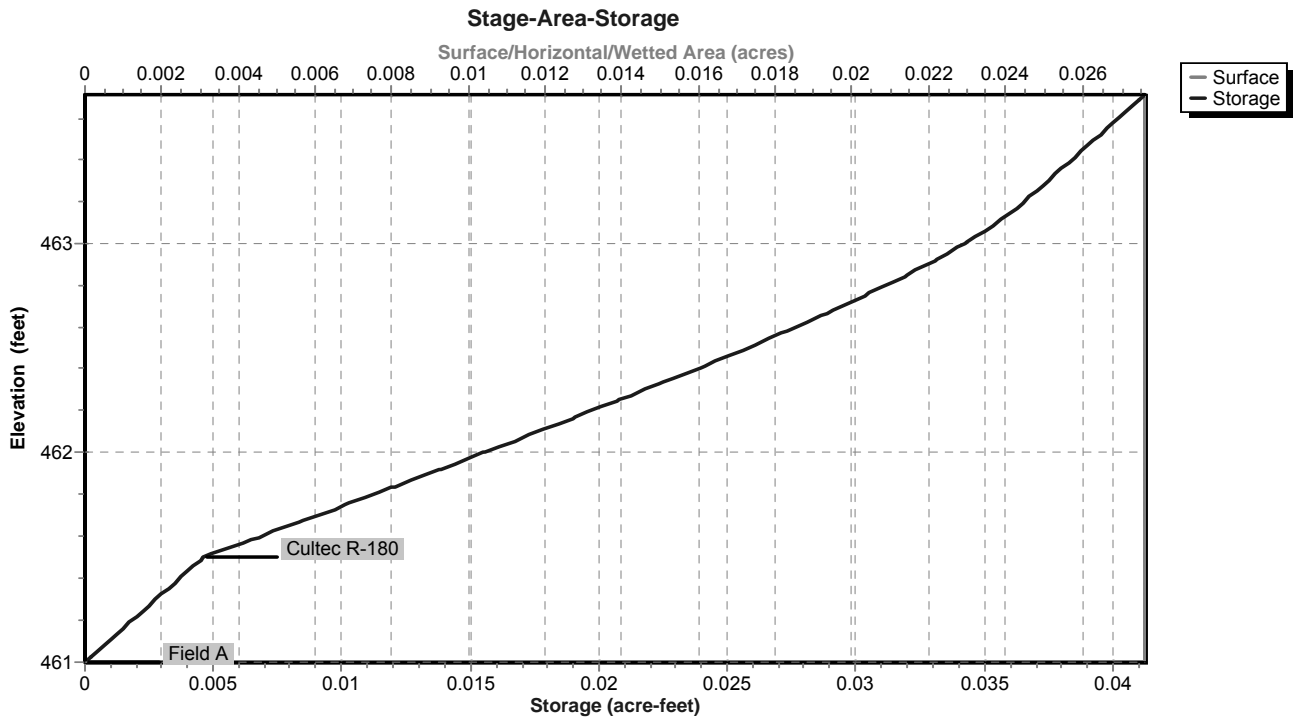
Discarded OutFlow Max=0.14 cfs @ 11.95 hrs HW=461.03' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.14 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-13: Underground Infiltration (Sub-Lot 13)



Pond S-13: Underground Infiltration (Sub-Lot 13)



Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
461.00	0.028	0.000	461.53	0.028	0.005
461.01	0.028	0.000	461.54	0.028	0.005
461.02	0.028	0.000	461.55	0.028	0.006
461.03	0.028	0.000	461.56	0.028	0.006
461.04	0.028	0.000	461.57	0.028	0.006
461.05	0.028	0.000	461.58	0.028	0.006
461.06	0.028	0.001	461.59	0.028	0.007
461.07	0.028	0.001	461.60	0.028	0.007
461.08	0.028	0.001	461.61	0.028	0.007
461.09	0.028	0.001	461.62	0.028	0.007
461.10	0.028	0.001	461.63	0.028	0.007
461.11	0.028	0.001	461.64	0.028	0.008
461.12	0.028	0.001	461.65	0.028	0.008
461.13	0.028	0.001	461.66	0.028	0.008
461.14	0.028	0.001	461.67	0.028	0.008
461.15	0.028	0.001	461.68	0.028	0.009
461.16	0.028	0.001	461.69	0.028	0.009
461.17	0.028	0.002	461.70	0.028	0.009
461.18	0.028	0.002	461.71	0.028	0.009
461.19	0.028	0.002	461.72	0.028	0.009
461.20	0.028	0.002	461.73	0.028	0.010
461.21	0.028	0.002	461.74	0.028	0.010
461.22	0.028	0.002	461.75	0.028	0.010
461.23	0.028	0.002	461.76	0.028	0.010
461.24	0.028	0.002	461.77	0.028	0.011
461.25	0.028	0.002	461.78	0.028	0.011
461.26	0.028	0.002	461.79	0.028	0.011
461.27	0.028	0.002	461.80	0.028	0.011
461.28	0.028	0.003	461.81	0.028	0.011
461.29	0.028	0.003	461.82	0.028	0.012
461.30	0.028	0.003	461.83	0.028	0.012
461.31	0.028	0.003	461.84	0.028	0.012
461.32	0.028	0.003	461.85	0.028	0.012
461.33	0.028	0.003	461.86	0.028	0.013
461.34	0.028	0.003	461.87	0.028	0.013
461.35	0.028	0.003	461.88	0.028	0.013
461.36	0.028	0.003	461.89	0.028	0.013
461.37	0.028	0.003	461.90	0.028	0.013
461.38	0.028	0.003	461.91	0.028	0.014
461.39	0.028	0.004	461.92	0.028	0.014
461.40	0.028	0.004	461.93	0.028	0.014
461.41	0.028	0.004	461.94	0.028	0.014
461.42	0.028	0.004	461.95	0.028	0.014
461.43	0.028	0.004	461.96	0.028	0.015
461.44	0.028	0.004	461.97	0.028	0.015
461.45	0.028	0.004	461.98	0.028	0.015
461.46	0.028	0.004	461.99	0.028	0.015
461.47	0.028	0.004	462.00	0.028	0.016
461.48	0.028	0.004	462.01	0.028	0.016
461.49	0.028	0.005	462.02	0.028	0.016
461.50	0.028	0.005	462.03	0.028	0.016
461.51	0.028	0.005	462.04	0.028	0.016
461.52	0.028	0.005	462.05	0.028	0.017

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
462.06	0.028	0.017	462.59	0.028	0.027
462.07	0.028	0.017	462.60	0.028	0.028
462.08	0.028	0.017	462.61	0.028	0.028
462.09	0.028	0.017	462.62	0.028	0.028
462.10	0.028	0.018	462.63	0.028	0.028
462.11	0.028	0.018	462.64	0.028	0.028
462.12	0.028	0.018	462.65	0.028	0.029
462.13	0.028	0.018	462.66	0.028	0.029
462.14	0.028	0.018	462.67	0.028	0.029
462.15	0.028	0.019	462.68	0.028	0.029
462.16	0.028	0.019	462.69	0.028	0.029
462.17	0.028	0.019	462.70	0.028	0.029
462.18	0.028	0.019	462.71	0.028	0.030
462.19	0.028	0.020	462.72	0.028	0.030
462.20	0.028	0.020	462.73	0.028	0.030
462.21	0.028	0.020	462.74	0.028	0.030
462.22	0.028	0.020	462.75	0.028	0.030
462.23	0.028	0.020	462.76	0.028	0.031
462.24	0.028	0.021	462.77	0.028	0.031
462.25	0.028	0.021	462.78	0.028	0.031
462.26	0.028	0.021	462.79	0.028	0.031
462.27	0.028	0.021	462.80	0.028	0.031
462.28	0.028	0.021	462.81	0.028	0.031
462.29	0.028	0.022	462.82	0.028	0.032
462.30	0.028	0.022	462.83	0.028	0.032
462.31	0.028	0.022	462.84	0.028	0.032
462.32	0.028	0.022	462.85	0.028	0.032
462.33	0.028	0.022	462.86	0.028	0.032
462.34	0.028	0.023	462.87	0.028	0.032
462.35	0.028	0.023	462.88	0.028	0.033
462.36	0.028	0.023	462.89	0.028	0.033
462.37	0.028	0.023	462.90	0.028	0.033
462.38	0.028	0.023	462.91	0.028	0.033
462.39	0.028	0.024	462.92	0.028	0.033
462.40	0.028	0.024	462.93	0.028	0.033
462.41	0.028	0.024	462.94	0.028	0.033
462.42	0.028	0.024	462.95	0.028	0.034
462.43	0.028	0.024	462.96	0.028	0.034
462.44	0.028	0.025	462.97	0.028	0.034
462.45	0.028	0.025	462.98	0.028	0.034
462.46	0.028	0.025	462.99	0.028	0.034
462.47	0.028	0.025	463.00	0.028	0.034
462.48	0.028	0.025	463.01	0.028	0.034
462.49	0.028	0.026	463.02	0.028	0.035
462.50	0.028	0.026	463.03	0.028	0.035
462.51	0.028	0.026	463.04	0.028	0.035
462.52	0.028	0.026	463.05	0.028	0.035
462.53	0.028	0.026	463.06	0.028	0.035
462.54	0.028	0.027	463.07	0.028	0.035
462.55	0.028	0.027	463.08	0.028	0.035
462.56	0.028	0.027	463.09	0.028	0.035
462.57	0.028	0.027	463.10	0.028	0.036
462.58	0.028	0.027	463.11	0.028	0.036

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
463.12	0.028	0.036	463.65	0.028	0.041
463.13	0.028	0.036	463.66	0.028	0.041
463.14	0.028	0.036	463.67	0.028	0.041
463.15	0.028	0.036	463.68	0.028	0.041
463.16	0.028	0.036	463.69	0.028	0.041
463.17	0.028	0.036	463.70	0.028	0.041
463.18	0.028	0.036	463.71	0.028	0.041
463.19	0.028	0.036			
463.20	0.028	0.037			
463.21	0.028	0.037			
463.22	0.028	0.037			
463.23	0.028	0.037			
463.24	0.028	0.037			
463.25	0.028	0.037			
463.26	0.028	0.037			
463.27	0.028	0.037			
463.28	0.028	0.037			
463.29	0.028	0.037			
463.30	0.028	0.038			
463.31	0.028	0.038			
463.32	0.028	0.038			
463.33	0.028	0.038			
463.34	0.028	0.038			
463.35	0.028	0.038			
463.36	0.028	0.038			
463.37	0.028	0.038			
463.38	0.028	0.038			
463.39	0.028	0.038			
463.40	0.028	0.038			
463.41	0.028	0.039			
463.42	0.028	0.039			
463.43	0.028	0.039			
463.44	0.028	0.039			
463.45	0.028	0.039			
463.46	0.028	0.039			
463.47	0.028	0.039			
463.48	0.028	0.039			
463.49	0.028	0.039			
463.50	0.028	0.039			
463.51	0.028	0.039			
463.52	0.028	0.040			
463.53	0.028	0.040			
463.54	0.028	0.040			
463.55	0.028	0.040			
463.56	0.028	0.040			
463.57	0.028	0.040			
463.58	0.028	0.040			
463.59	0.028	0.040			
463.60	0.028	0.040			
463.61	0.028	0.040			
463.62	0.028	0.040			
463.63	0.028	0.041			
463.64	0.028	0.041			

Summary for Pond S-14: Underground Infiltration (Sub-Lot 14)

Inflow Area = 0.762 ac, 20.34% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 0.41 cfs @ 12.15 hrs, Volume= 0.040 af
 Outflow = 0.41 cfs @ 12.16 hrs, Volume= 0.040 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.41 cfs @ 12.16 hrs, Volume= 0.040 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 440.01' @ 12.16 hrs Surf.Area= 0.028 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.040 af (100% of inflow)
 Center-of-Mass det. time= 0.2 min (892.8 - 892.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	440.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	440.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

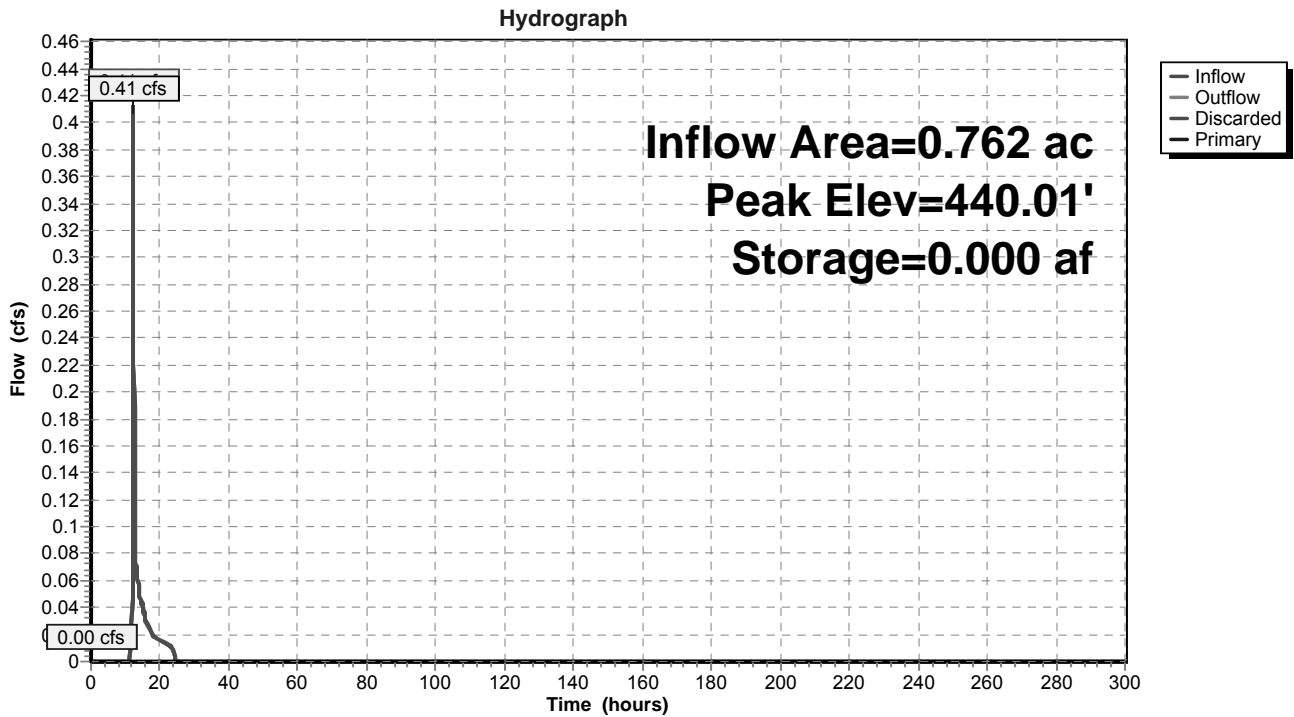
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	440.00'	30.000 in/hr Exfiltration over Surface area
#2	Primary	441.94'	6.0" Vert. Orifice/Grate X 5.00 C= 0.600

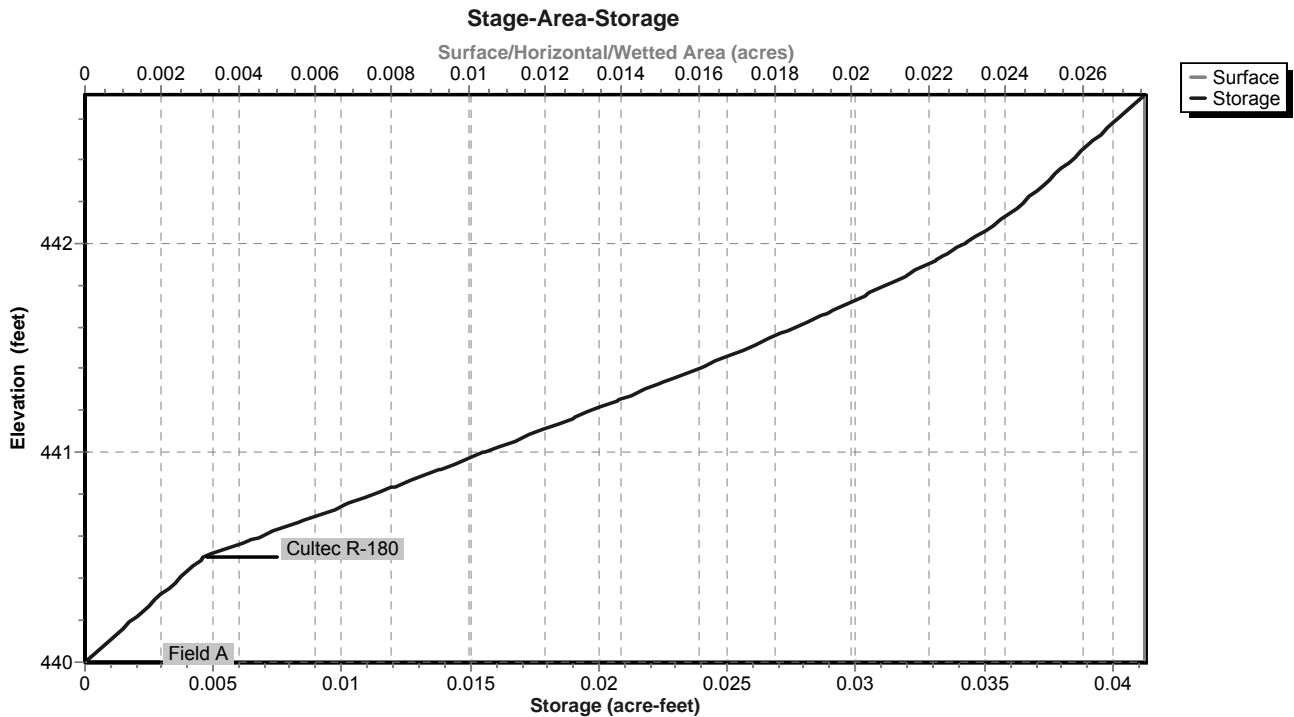
Discarded OutFlow Max=0.84 cfs @ 12.16 hrs HW=440.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.84 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-14: Underground Infiltration (Sub-Lot 14)



Pond S-14: Underground Infiltration (Sub-Lot 14)



Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
440.00	0.028	0.000	440.53	0.028	0.005
440.01	0.028	0.000	440.54	0.028	0.005
440.02	0.028	0.000	440.55	0.028	0.006
440.03	0.028	0.000	440.56	0.028	0.006
440.04	0.028	0.000	440.57	0.028	0.006
440.05	0.028	0.000	440.58	0.028	0.006
440.06	0.028	0.001	440.59	0.028	0.007
440.07	0.028	0.001	440.60	0.028	0.007
440.08	0.028	0.001	440.61	0.028	0.007
440.09	0.028	0.001	440.62	0.028	0.007
440.10	0.028	0.001	440.63	0.028	0.007
440.11	0.028	0.001	440.64	0.028	0.008
440.12	0.028	0.001	440.65	0.028	0.008
440.13	0.028	0.001	440.66	0.028	0.008
440.14	0.028	0.001	440.67	0.028	0.008
440.15	0.028	0.001	440.68	0.028	0.009
440.16	0.028	0.001	440.69	0.028	0.009
440.17	0.028	0.002	440.70	0.028	0.009
440.18	0.028	0.002	440.71	0.028	0.009
440.19	0.028	0.002	440.72	0.028	0.009
440.20	0.028	0.002	440.73	0.028	0.010
440.21	0.028	0.002	440.74	0.028	0.010
440.22	0.028	0.002	440.75	0.028	0.010
440.23	0.028	0.002	440.76	0.028	0.010
440.24	0.028	0.002	440.77	0.028	0.011
440.25	0.028	0.002	440.78	0.028	0.011
440.26	0.028	0.002	440.79	0.028	0.011
440.27	0.028	0.002	440.80	0.028	0.011
440.28	0.028	0.003	440.81	0.028	0.011
440.29	0.028	0.003	440.82	0.028	0.012
440.30	0.028	0.003	440.83	0.028	0.012
440.31	0.028	0.003	440.84	0.028	0.012
440.32	0.028	0.003	440.85	0.028	0.012
440.33	0.028	0.003	440.86	0.028	0.013
440.34	0.028	0.003	440.87	0.028	0.013
440.35	0.028	0.003	440.88	0.028	0.013
440.36	0.028	0.003	440.89	0.028	0.013
440.37	0.028	0.003	440.90	0.028	0.013
440.38	0.028	0.003	440.91	0.028	0.014
440.39	0.028	0.004	440.92	0.028	0.014
440.40	0.028	0.004	440.93	0.028	0.014
440.41	0.028	0.004	440.94	0.028	0.014
440.42	0.028	0.004	440.95	0.028	0.014
440.43	0.028	0.004	440.96	0.028	0.015
440.44	0.028	0.004	440.97	0.028	0.015
440.45	0.028	0.004	440.98	0.028	0.015
440.46	0.028	0.004	440.99	0.028	0.015
440.47	0.028	0.004	441.00	0.028	0.016
440.48	0.028	0.004	441.01	0.028	0.016
440.49	0.028	0.005	441.02	0.028	0.016
440.50	0.028	0.005	441.03	0.028	0.016
440.51	0.028	0.005	441.04	0.028	0.016
440.52	0.028	0.005	441.05	0.028	0.017

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
441.06	0.028	0.017	441.59	0.028	0.027
441.07	0.028	0.017	441.60	0.028	0.028
441.08	0.028	0.017	441.61	0.028	0.028
441.09	0.028	0.017	441.62	0.028	0.028
441.10	0.028	0.018	441.63	0.028	0.028
441.11	0.028	0.018	441.64	0.028	0.028
441.12	0.028	0.018	441.65	0.028	0.029
441.13	0.028	0.018	441.66	0.028	0.029
441.14	0.028	0.018	441.67	0.028	0.029
441.15	0.028	0.019	441.68	0.028	0.029
441.16	0.028	0.019	441.69	0.028	0.029
441.17	0.028	0.019	441.70	0.028	0.029
441.18	0.028	0.019	441.71	0.028	0.030
441.19	0.028	0.020	441.72	0.028	0.030
441.20	0.028	0.020	441.73	0.028	0.030
441.21	0.028	0.020	441.74	0.028	0.030
441.22	0.028	0.020	441.75	0.028	0.030
441.23	0.028	0.020	441.76	0.028	0.031
441.24	0.028	0.021	441.77	0.028	0.031
441.25	0.028	0.021	441.78	0.028	0.031
441.26	0.028	0.021	441.79	0.028	0.031
441.27	0.028	0.021	441.80	0.028	0.031
441.28	0.028	0.021	441.81	0.028	0.031
441.29	0.028	0.022	441.82	0.028	0.032
441.30	0.028	0.022	441.83	0.028	0.032
441.31	0.028	0.022	441.84	0.028	0.032
441.32	0.028	0.022	441.85	0.028	0.032
441.33	0.028	0.022	441.86	0.028	0.032
441.34	0.028	0.023	441.87	0.028	0.032
441.35	0.028	0.023	441.88	0.028	0.033
441.36	0.028	0.023	441.89	0.028	0.033
441.37	0.028	0.023	441.90	0.028	0.033
441.38	0.028	0.023	441.91	0.028	0.033
441.39	0.028	0.024	441.92	0.028	0.033
441.40	0.028	0.024	441.93	0.028	0.033
441.41	0.028	0.024	441.94	0.028	0.033
441.42	0.028	0.024	441.95	0.028	0.034
441.43	0.028	0.024	441.96	0.028	0.034
441.44	0.028	0.025	441.97	0.028	0.034
441.45	0.028	0.025	441.98	0.028	0.034
441.46	0.028	0.025	441.99	0.028	0.034
441.47	0.028	0.025	442.00	0.028	0.034
441.48	0.028	0.025	442.01	0.028	0.034
441.49	0.028	0.026	442.02	0.028	0.035
441.50	0.028	0.026	442.03	0.028	0.035
441.51	0.028	0.026	442.04	0.028	0.035
441.52	0.028	0.026	442.05	0.028	0.035
441.53	0.028	0.026	442.06	0.028	0.035
441.54	0.028	0.027	442.07	0.028	0.035
441.55	0.028	0.027	442.08	0.028	0.035
441.56	0.028	0.027	442.09	0.028	0.035
441.57	0.028	0.027	442.10	0.028	0.036
441.58	0.028	0.027	442.11	0.028	0.036

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
442.12	0.028	0.036	442.65	0.028	0.041
442.13	0.028	0.036	442.66	0.028	0.041
442.14	0.028	0.036	442.67	0.028	0.041
442.15	0.028	0.036	442.68	0.028	0.041
442.16	0.028	0.036	442.69	0.028	0.041
442.17	0.028	0.036	442.70	0.028	0.041
442.18	0.028	0.036	442.71	0.028	0.041
442.19	0.028	0.036			
442.20	0.028	0.037			
442.21	0.028	0.037			
442.22	0.028	0.037			
442.23	0.028	0.037			
442.24	0.028	0.037			
442.25	0.028	0.037			
442.26	0.028	0.037			
442.27	0.028	0.037			
442.28	0.028	0.037			
442.29	0.028	0.037			
442.30	0.028	0.038			
442.31	0.028	0.038			
442.32	0.028	0.038			
442.33	0.028	0.038			
442.34	0.028	0.038			
442.35	0.028	0.038			
442.36	0.028	0.038			
442.37	0.028	0.038			
442.38	0.028	0.038			
442.39	0.028	0.038			
442.40	0.028	0.038			
442.41	0.028	0.039			
442.42	0.028	0.039			
442.43	0.028	0.039			
442.44	0.028	0.039			
442.45	0.028	0.039			
442.46	0.028	0.039			
442.47	0.028	0.039			
442.48	0.028	0.039			
442.49	0.028	0.039			
442.50	0.028	0.039			
442.51	0.028	0.039			
442.52	0.028	0.040			
442.53	0.028	0.040			
442.54	0.028	0.040			
442.55	0.028	0.040			
442.56	0.028	0.040			
442.57	0.028	0.040			
442.58	0.028	0.040			
442.59	0.028	0.040			
442.60	0.028	0.040			
442.61	0.028	0.040			
442.62	0.028	0.040			
442.63	0.028	0.041			
442.64	0.028	0.041			

Summary for Pond S-15: Underground Infiltration (Sub-Lot 15)

Inflow Area = 0.489 ac, 26.58% Impervious, Inflow Depth = 0.77" for 1 Year - North Salem event
 Inflow = 0.33 cfs @ 12.16 hrs, Volume= 0.031 af
 Outflow = 0.33 cfs @ 12.17 hrs, Volume= 0.031 af, Atten= 2%, Lag= 0.6 min
 Discarded = 0.33 cfs @ 12.17 hrs, Volume= 0.031 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.44' @ 12.17 hrs Surf.Area= 0.037 ac Storage= 0.000 af

Plug-Flow detention time= 0.6 min calculated for 0.031 af (100% of inflow)
 Center-of-Mass det. time= 0.6 min (882.7 - 882.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.42'	0.022 af	34.00'W x 47.00'L x 2.54'H Field A 0.093 af Overall - 0.027 af Embedded = 0.066 af x 33.3% Voids
#2A	433.92'	0.027 af	Cultec R-150 x 60 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.049 af	Total Available Storage

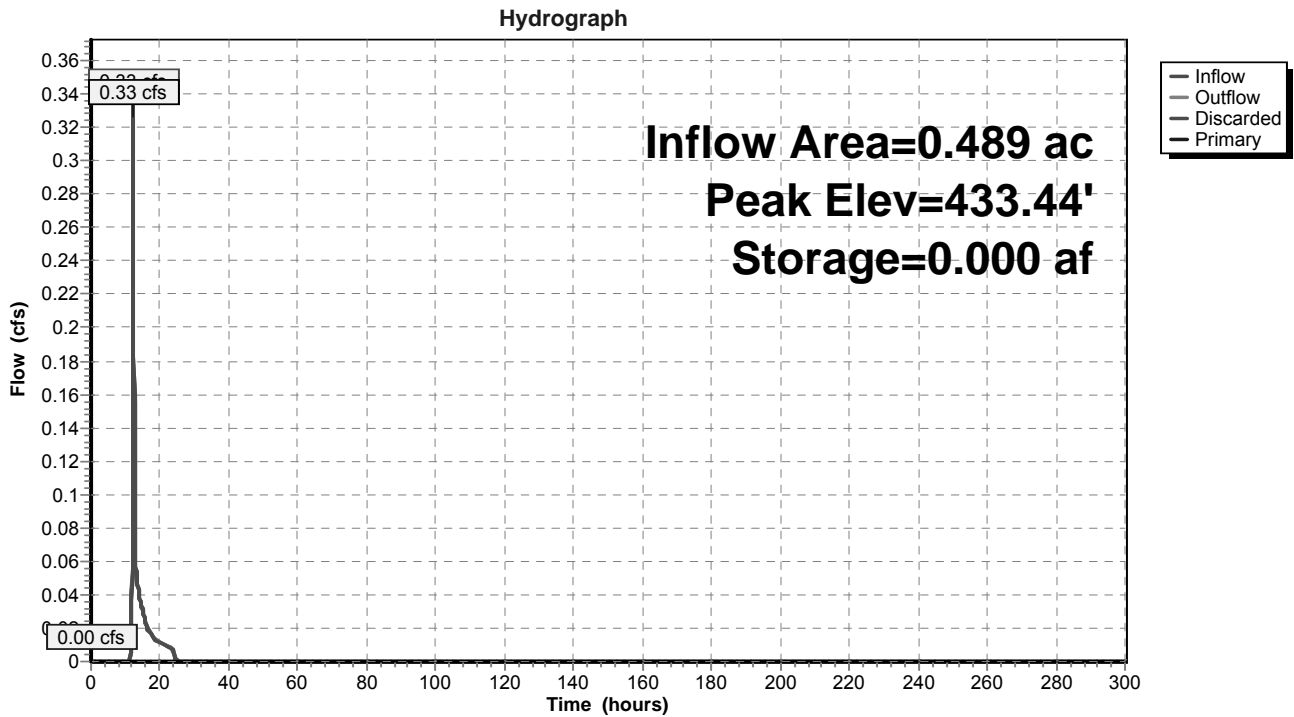
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.42'	10.200 in/hr Exfiltration over Surface area
#2	Primary	435.45'	4.0" Vert. Orifice/Grate X 7.00 C= 0.600

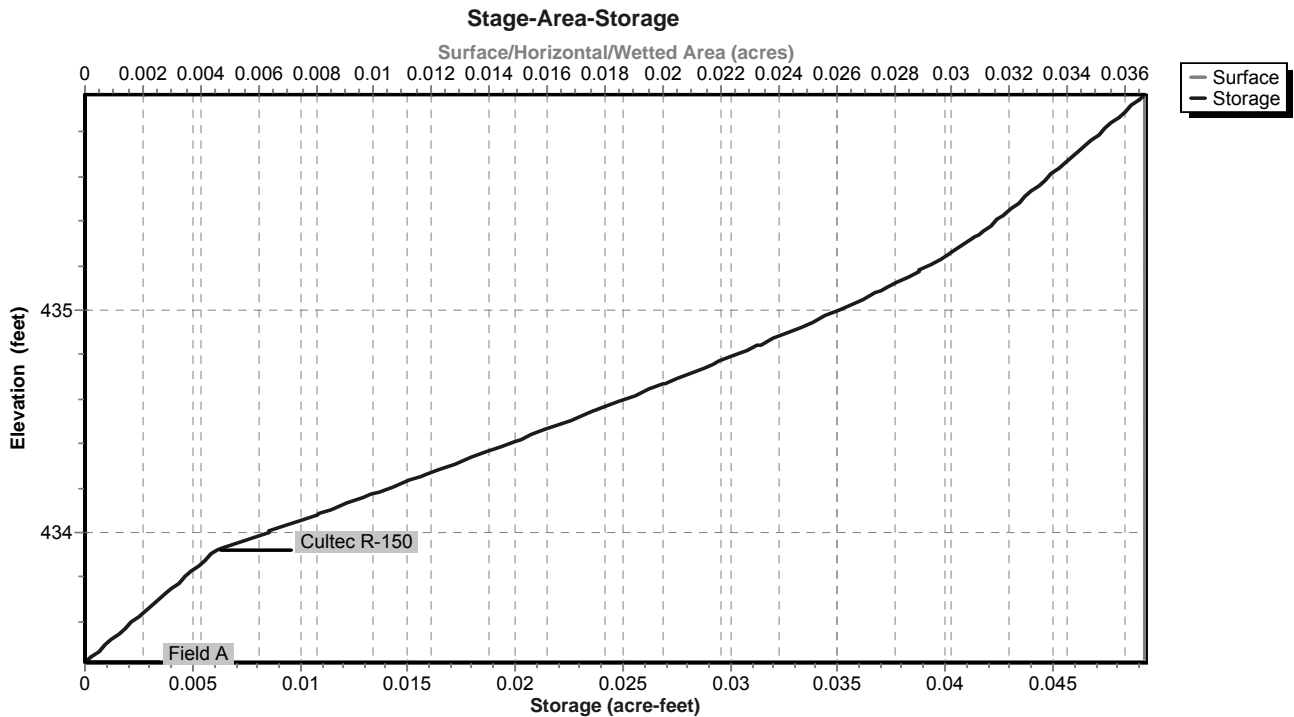
Discarded OutFlow Max=0.38 cfs @ 12.17 hrs HW=433.44' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.38 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.42' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-15: Underground Infiltration (Sub-Lot 15)



Pond S-15: Underground Infiltration (Sub-Lot 15)



Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.42	0.037	0.000	433.95	0.037	0.007
433.43	0.037	0.000	433.96	0.037	0.007
433.44	0.037	0.000	433.97	0.037	0.008
433.45	0.037	0.000	433.98	0.037	0.008
433.46	0.037	0.000	433.99	0.037	0.008
433.47	0.037	0.001	434.00	0.037	0.008
433.48	0.037	0.001	434.01	0.037	0.009
433.49	0.037	0.001	434.02	0.037	0.009
433.50	0.037	0.001	434.03	0.037	0.009
433.51	0.037	0.001	434.04	0.037	0.010
433.52	0.037	0.001	434.05	0.037	0.010
433.53	0.037	0.001	434.06	0.037	0.010
433.54	0.037	0.001	434.07	0.037	0.010
433.55	0.037	0.002	434.08	0.037	0.011
433.56	0.037	0.002	434.09	0.037	0.011
433.57	0.037	0.002	434.10	0.037	0.011
433.58	0.037	0.002	434.11	0.037	0.012
433.59	0.037	0.002	434.12	0.037	0.012
433.60	0.037	0.002	434.13	0.037	0.012
433.61	0.037	0.002	434.14	0.037	0.012
433.62	0.037	0.002	434.15	0.037	0.013
433.63	0.037	0.003	434.16	0.037	0.013
433.64	0.037	0.003	434.17	0.037	0.013
433.65	0.037	0.003	434.18	0.037	0.014
433.66	0.037	0.003	434.19	0.037	0.014
433.67	0.037	0.003	434.20	0.037	0.014
433.68	0.037	0.003	434.21	0.037	0.014
433.69	0.037	0.003	434.22	0.037	0.015
433.70	0.037	0.003	434.23	0.037	0.015
433.71	0.037	0.004	434.24	0.037	0.015
433.72	0.037	0.004	434.25	0.037	0.016
433.73	0.037	0.004	434.26	0.037	0.016
433.74	0.037	0.004	434.27	0.037	0.016
433.75	0.037	0.004	434.28	0.037	0.016
433.76	0.037	0.004	434.29	0.037	0.017
433.77	0.037	0.004	434.30	0.037	0.017
433.78	0.037	0.004	434.31	0.037	0.017
433.79	0.037	0.005	434.32	0.037	0.018
433.80	0.037	0.005	434.33	0.037	0.018
433.81	0.037	0.005	434.34	0.037	0.018
433.82	0.037	0.005	434.35	0.037	0.018
433.83	0.037	0.005	434.36	0.037	0.019
433.84	0.037	0.005	434.37	0.037	0.019
433.85	0.037	0.005	434.38	0.037	0.019
433.86	0.037	0.005	434.39	0.037	0.019
433.87	0.037	0.005	434.40	0.037	0.020
433.88	0.037	0.006	434.41	0.037	0.020
433.89	0.037	0.006	434.42	0.037	0.020
433.90	0.037	0.006	434.43	0.037	0.021
433.91	0.037	0.006	434.44	0.037	0.021
433.92	0.037	0.006	434.45	0.037	0.021
433.93	0.037	0.006	434.46	0.037	0.021
433.94	0.037	0.007	434.47	0.037	0.022

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.48	0.037	0.022	435.01	0.037	0.035
434.49	0.037	0.022	435.02	0.037	0.036
434.50	0.037	0.022	435.03	0.037	0.036
434.51	0.037	0.023	435.04	0.037	0.036
434.52	0.037	0.023	435.05	0.037	0.036
434.53	0.037	0.023	435.06	0.037	0.036
434.54	0.037	0.024	435.07	0.037	0.037
434.55	0.037	0.024	435.08	0.037	0.037
434.56	0.037	0.024	435.09	0.037	0.037
434.57	0.037	0.024	435.10	0.037	0.037
434.58	0.037	0.025	435.11	0.037	0.038
434.59	0.037	0.025	435.12	0.037	0.038
434.60	0.037	0.025	435.13	0.037	0.038
434.61	0.037	0.025	435.14	0.037	0.038
434.62	0.037	0.026	435.15	0.037	0.038
434.63	0.037	0.026	435.16	0.037	0.039
434.64	0.037	0.026	435.17	0.037	0.039
434.65	0.037	0.026	435.18	0.037	0.039
434.66	0.037	0.027	435.19	0.037	0.039
434.67	0.037	0.027	435.20	0.037	0.039
434.68	0.037	0.027	435.21	0.037	0.040
434.69	0.037	0.028	435.22	0.037	0.040
434.70	0.037	0.028	435.23	0.037	0.040
434.71	0.037	0.028	435.24	0.037	0.040
434.72	0.037	0.028	435.25	0.037	0.040
434.73	0.037	0.029	435.26	0.037	0.040
434.74	0.037	0.029	435.27	0.037	0.041
434.75	0.037	0.029	435.28	0.037	0.041
434.76	0.037	0.029	435.29	0.037	0.041
434.77	0.037	0.030	435.30	0.037	0.041
434.78	0.037	0.030	435.31	0.037	0.041
434.79	0.037	0.030	435.32	0.037	0.041
434.80	0.037	0.030	435.33	0.037	0.041
434.81	0.037	0.031	435.34	0.037	0.042
434.82	0.037	0.031	435.35	0.037	0.042
434.83	0.037	0.031	435.36	0.037	0.042
434.84	0.037	0.031	435.37	0.037	0.042
434.85	0.037	0.032	435.38	0.037	0.042
434.86	0.037	0.032	435.39	0.037	0.042
434.87	0.037	0.032	435.40	0.037	0.042
434.88	0.037	0.032	435.41	0.037	0.043
434.89	0.037	0.033	435.42	0.037	0.043
434.90	0.037	0.033	435.43	0.037	0.043
434.91	0.037	0.033	435.44	0.037	0.043
434.92	0.037	0.033	435.45	0.037	0.043
434.93	0.037	0.034	435.46	0.037	0.043
434.94	0.037	0.034	435.47	0.037	0.043
434.95	0.037	0.034	435.48	0.037	0.043
434.96	0.037	0.034	435.49	0.037	0.044
434.97	0.037	0.034	435.50	0.037	0.044
434.98	0.037	0.035	435.51	0.037	0.044
434.99	0.037	0.035	435.52	0.037	0.044
435.00	0.037	0.035	435.53	0.037	0.044

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.54	0.037	0.044
435.55	0.037	0.044
435.56	0.037	0.044
435.57	0.037	0.045
435.58	0.037	0.045
435.59	0.037	0.045
435.60	0.037	0.045
435.61	0.037	0.045
435.62	0.037	0.045
435.63	0.037	0.045
435.64	0.037	0.045
435.65	0.037	0.045
435.66	0.037	0.046
435.67	0.037	0.046
435.68	0.037	0.046
435.69	0.037	0.046
435.70	0.037	0.046
435.71	0.037	0.046
435.72	0.037	0.046
435.73	0.037	0.046
435.74	0.037	0.047
435.75	0.037	0.047
435.76	0.037	0.047
435.77	0.037	0.047
435.78	0.037	0.047
435.79	0.037	0.047
435.80	0.037	0.047
435.81	0.037	0.047
435.82	0.037	0.048
435.83	0.037	0.048
435.84	0.037	0.048
435.85	0.037	0.048
435.86	0.037	0.048
435.87	0.037	0.048
435.88	0.037	0.048
435.89	0.037	0.048
435.90	0.037	0.049
435.91	0.037	0.049
435.92	0.037	0.049
435.93	0.037	0.049
435.94	0.037	0.049
435.95	0.037	0.049
435.96	0.037	0.049

Summary for Pond S-16: Underground Infiltration (Sub-Lot 16)

Inflow Area = 0.559 ac, 25.04% Impervious, Inflow Depth = 0.72" for 1 Year - North Salem event
 Inflow = 0.37 cfs @ 12.14 hrs, Volume= 0.034 af
 Outflow = 0.36 cfs @ 12.16 hrs, Volume= 0.034 af, Atten= 2%, Lag= 0.9 min
 Discarded = 0.36 cfs @ 12.16 hrs, Volume= 0.034 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 415.52' @ 12.16 hrs Surf.Area= 0.054 ac Storage= 0.000 af

Plug-Flow detention time= 0.8 min calculated for 0.034 af (100% of inflow)
 Center-of-Mass det. time= 0.8 min (885.0 - 884.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	415.50'	0.032 af	60.00'W x 39.50'L x 2.54'H Field A 0.138 af Overall - 0.041 af Embedded = 0.097 af x 33.3% Voids
#2A	416.00'	0.041 af	Cultec R-150 x 90 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.073 af	Total Available Storage

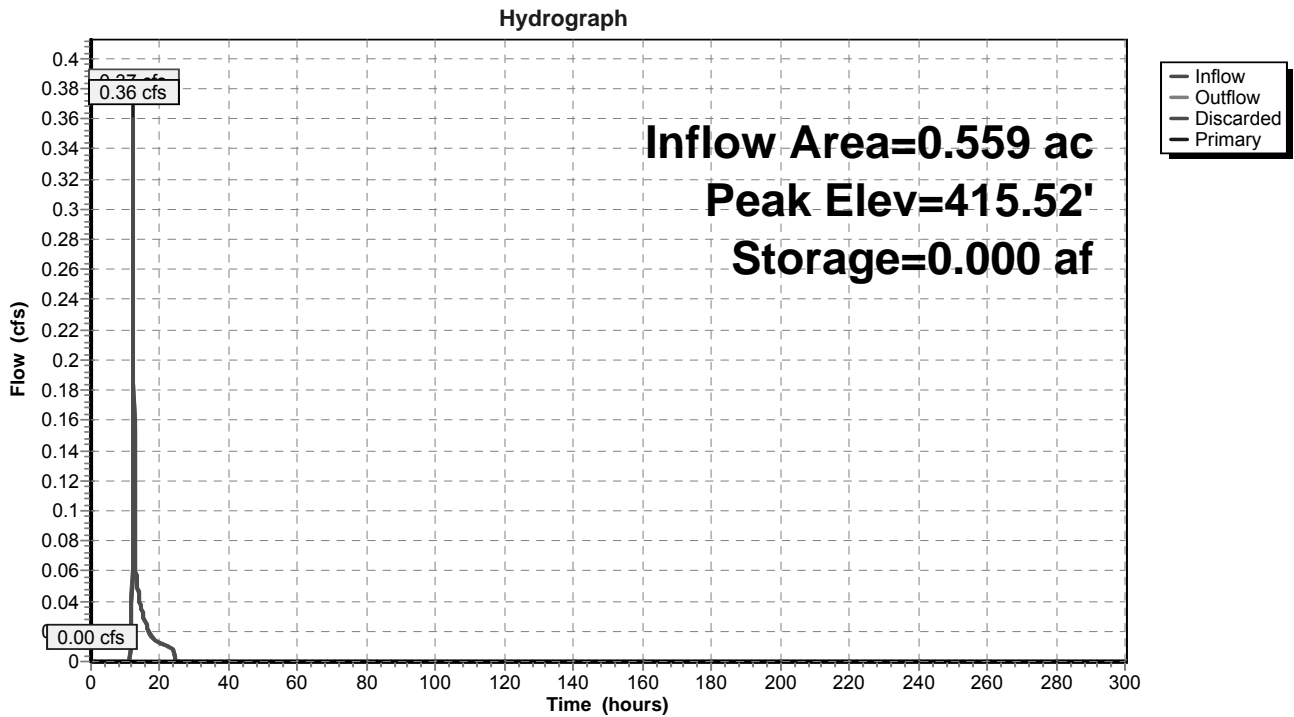
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	415.50'	7.800 in/hr Exfiltration over Surface area
#2	Primary	417.75'	6.0" Vert. Orifice/Grate X 2.00 C= 0.600

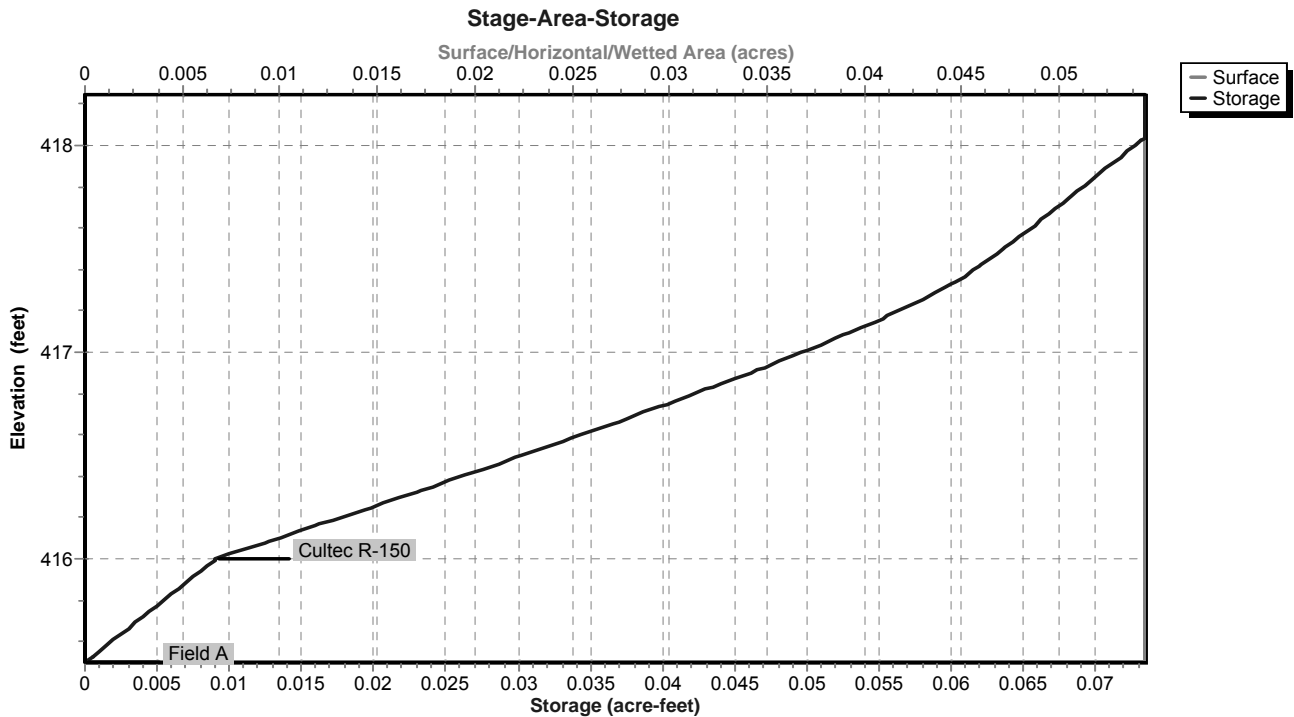
Discarded OutFlow Max=0.43 cfs @ 12.16 hrs HW=415.52' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.43 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=415.50' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-16: Underground Infiltration (Sub-Lot 16)



Pond S-16: Underground Infiltration (Sub-Lot 16)



Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
415.50	0.054	0.000	416.03	0.054	0.010
415.51	0.054	0.000	416.04	0.054	0.011
415.52	0.054	0.000	416.05	0.054	0.011
415.53	0.054	0.001	416.06	0.054	0.012
415.54	0.054	0.001	416.07	0.054	0.012
415.55	0.054	0.001	416.08	0.054	0.013
415.56	0.054	0.001	416.09	0.054	0.013
415.57	0.054	0.001	416.10	0.054	0.013
415.58	0.054	0.001	416.11	0.054	0.014
415.59	0.054	0.002	416.12	0.054	0.014
415.60	0.054	0.002	416.13	0.054	0.015
415.61	0.054	0.002	416.14	0.054	0.015
415.62	0.054	0.002	416.15	0.054	0.016
415.63	0.054	0.002	416.16	0.054	0.016
415.64	0.054	0.003	416.17	0.054	0.016
415.65	0.054	0.003	416.18	0.054	0.017
415.66	0.054	0.003	416.19	0.054	0.017
415.67	0.054	0.003	416.20	0.054	0.018
415.68	0.054	0.003	416.21	0.054	0.018
415.69	0.054	0.003	416.22	0.054	0.019
415.70	0.054	0.004	416.23	0.054	0.019
415.71	0.054	0.004	416.24	0.054	0.019
415.72	0.054	0.004	416.25	0.054	0.020
415.73	0.054	0.004	416.26	0.054	0.020
415.74	0.054	0.004	416.27	0.054	0.021
415.75	0.054	0.005	416.28	0.054	0.021
415.76	0.054	0.005	416.29	0.054	0.021
415.77	0.054	0.005	416.30	0.054	0.022
415.78	0.054	0.005	416.31	0.054	0.022
415.79	0.054	0.005	416.32	0.054	0.023
415.80	0.054	0.005	416.33	0.054	0.023
415.81	0.054	0.006	416.34	0.054	0.024
415.82	0.054	0.006	416.35	0.054	0.024
415.83	0.054	0.006	416.36	0.054	0.024
415.84	0.054	0.006	416.37	0.054	0.025
415.85	0.054	0.006	416.38	0.054	0.025
415.86	0.054	0.007	416.39	0.054	0.026
415.87	0.054	0.007	416.40	0.054	0.026
415.88	0.054	0.007	416.41	0.054	0.026
415.89	0.054	0.007	416.42	0.054	0.027
415.90	0.054	0.007	416.43	0.054	0.027
415.91	0.054	0.007	416.44	0.054	0.028
415.92	0.054	0.008	416.45	0.054	0.028
415.93	0.054	0.008	416.46	0.054	0.029
415.94	0.054	0.008	416.47	0.054	0.029
415.95	0.054	0.008	416.48	0.054	0.029
415.96	0.054	0.008	416.49	0.054	0.030
415.97	0.054	0.009	416.50	0.054	0.030
415.98	0.054	0.009	416.51	0.054	0.031
415.99	0.054	0.009	416.52	0.054	0.031
416.00	0.054	0.009	416.53	0.054	0.031
416.01	0.054	0.009	416.54	0.054	0.032
416.02	0.054	0.010	416.55	0.054	0.032

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
416.56	0.054	0.033	417.09	0.054	0.053
416.57	0.054	0.033	417.10	0.054	0.053
416.58	0.054	0.033	417.11	0.054	0.053
416.59	0.054	0.034	417.12	0.054	0.054
416.60	0.054	0.034	417.13	0.054	0.054
416.61	0.054	0.035	417.14	0.054	0.054
416.62	0.054	0.035	417.15	0.054	0.055
416.63	0.054	0.036	417.16	0.054	0.055
416.64	0.054	0.036	417.17	0.054	0.055
416.65	0.054	0.036	417.18	0.054	0.056
416.66	0.054	0.037	417.19	0.054	0.056
416.67	0.054	0.037	417.20	0.054	0.056
416.68	0.054	0.038	417.21	0.054	0.057
416.69	0.054	0.038	417.22	0.054	0.057
416.70	0.054	0.038	417.23	0.054	0.057
416.71	0.054	0.039	417.24	0.054	0.057
416.72	0.054	0.039	417.25	0.054	0.058
416.73	0.054	0.039	417.26	0.054	0.058
416.74	0.054	0.040	417.27	0.054	0.058
416.75	0.054	0.040	417.28	0.054	0.059
416.76	0.054	0.041	417.29	0.054	0.059
416.77	0.054	0.041	417.30	0.054	0.059
416.78	0.054	0.041	417.31	0.054	0.059
416.79	0.054	0.042	417.32	0.054	0.060
416.80	0.054	0.042	417.33	0.054	0.060
416.81	0.054	0.043	417.34	0.054	0.060
416.82	0.054	0.043	417.35	0.054	0.060
416.83	0.054	0.043	417.36	0.054	0.061
416.84	0.054	0.044	417.37	0.054	0.061
416.85	0.054	0.044	417.38	0.054	0.061
416.86	0.054	0.044	417.39	0.054	0.061
416.87	0.054	0.045	417.40	0.054	0.062
416.88	0.054	0.045	417.41	0.054	0.062
416.89	0.054	0.046	417.42	0.054	0.062
416.90	0.054	0.046	417.43	0.054	0.062
416.91	0.054	0.046	417.44	0.054	0.062
416.92	0.054	0.047	417.45	0.054	0.063
416.93	0.054	0.047	417.46	0.054	0.063
416.94	0.054	0.047	417.47	0.054	0.063
416.95	0.054	0.048	417.48	0.054	0.063
416.96	0.054	0.048	417.49	0.054	0.063
416.97	0.054	0.049	417.50	0.054	0.064
416.98	0.054	0.049	417.51	0.054	0.064
416.99	0.054	0.049	417.52	0.054	0.064
417.00	0.054	0.050	417.53	0.054	0.064
417.01	0.054	0.050	417.54	0.054	0.064
417.02	0.054	0.050	417.55	0.054	0.065
417.03	0.054	0.051	417.56	0.054	0.065
417.04	0.054	0.051	417.57	0.054	0.065
417.05	0.054	0.051	417.58	0.054	0.065
417.06	0.054	0.052	417.59	0.054	0.065
417.07	0.054	0.052	417.60	0.054	0.065
417.08	0.054	0.052	417.61	0.054	0.066

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
417.62	0.054	0.066	418.15	0.054	0.073
417.63	0.054	0.066	418.16	0.054	0.073
417.64	0.054	0.066	418.17	0.054	0.073
417.65	0.054	0.066	418.18	0.054	0.073
417.66	0.054	0.067	418.19	0.054	0.073
417.67	0.054	0.067	418.20	0.054	0.073
417.68	0.054	0.067	418.21	0.054	0.073
417.69	0.054	0.067	418.22	0.054	0.073
417.70	0.054	0.067	418.23	0.054	0.073
417.71	0.054	0.067	418.24	0.054	0.073
417.72	0.054	0.068	418.25	0.054	0.073
417.73	0.054	0.068			
417.74	0.054	0.068			
417.75	0.054	0.068			
417.76	0.054	0.068			
417.77	0.054	0.069			
417.78	0.054	0.069			
417.79	0.054	0.069			
417.80	0.054	0.069			
417.81	0.054	0.069			
417.82	0.054	0.069			
417.83	0.054	0.070			
417.84	0.054	0.070			
417.85	0.054	0.070			
417.86	0.054	0.070			
417.87	0.054	0.070			
417.88	0.054	0.070			
417.89	0.054	0.071			
417.90	0.054	0.071			
417.91	0.054	0.071			
417.92	0.054	0.071			
417.93	0.054	0.071			
417.94	0.054	0.072			
417.95	0.054	0.072			
417.96	0.054	0.072			
417.97	0.054	0.072			
417.98	0.054	0.072			
417.99	0.054	0.072			
418.00	0.054	0.073			
418.01	0.054	0.073			
418.02	0.054	0.073			
418.03	0.054	0.073			
418.04	0.054	0.073			
418.05	0.054	0.073			
418.06	0.054	0.073			
418.07	0.054	0.073			
418.08	0.054	0.073			
418.09	0.054	0.073			
418.10	0.054	0.073			
418.11	0.054	0.073			
418.12	0.054	0.073			
418.13	0.054	0.073			
418.14	0.054	0.073			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F1: Post-Development F1 Runoff Area=5.369 ac 0.00% Impervious Runoff Depth=0.45"
Flow Length=1,503' Tc=15.7 min CN=56 Runoff=1.23 cfs 0.203 af

Subcatchment F2: Post-Development F2 Runoff Area=0.559 ac 25.04% Impervious Runoff Depth=1.08"
Flow Length=191' Tc=8.4 min CN=69 Runoff=0.59 cfs 0.050 af

Subcatchment F3: Post-Development F3 Runoff Area=0.489 ac 26.58% Impervious Runoff Depth=1.13"
Flow Length=208' Tc=10.3 min CN=70 Runoff=0.52 cfs 0.046 af

Subcatchment F4: Post-Development F4 Runoff Area=0.762 ac 20.34% Impervious Runoff Depth=0.96"
Flow Length=422' Tc=8.9 min CN=67 Runoff=0.69 cfs 0.061 af

Subcatchment F5: Post-Development F5 Runoff Area=0.317 ac 36.59% Impervious Runoff Depth=1.45"
Flow Length=120' Tc=2.6 min CN=75 Runoff=0.58 cfs 0.038 af

Pond DP 6: Design Point 6 Inflow=1.23 cfs 0.203 af
Primary=1.23 cfs 0.203 af

Pond S-13: Underground Infiltration Peak Elev=461.63' Storage=0.007 af Inflow=0.58 cfs 0.038 af
Discarded=0.14 cfs 0.038 af Primary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.038 af

Pond S-14: Underground Infiltration Peak Elev=440.02' Storage=0.000 af Inflow=0.69 cfs 0.061 af
Discarded=0.68 cfs 0.061 af Primary=0.00 cfs 0.000 af Outflow=0.68 cfs 0.061 af

Pond S-15: Underground Infiltration Peak Elev=433.56' Storage=0.002 af Inflow=0.52 cfs 0.046 af
Discarded=0.38 cfs 0.046 af Primary=0.00 cfs 0.000 af Outflow=0.38 cfs 0.046 af

Pond S-16: Underground Infiltration Peak Elev=415.60' Storage=0.002 af Inflow=0.59 cfs 0.050 af
Discarded=0.43 cfs 0.050 af Primary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.050 af

Total Runoff Area = 7.496 ac Runoff Volume = 0.399 af Average Runoff Depth = 0.64"
92.78% Pervious = 6.955 ac 7.22% Impervious = 0.541 ac

Summary for Subcatchment F1: Post-Development F1

Runoff = 1.23 cfs @ 12.36 hrs, Volume= 0.203 af, Depth= 0.45"

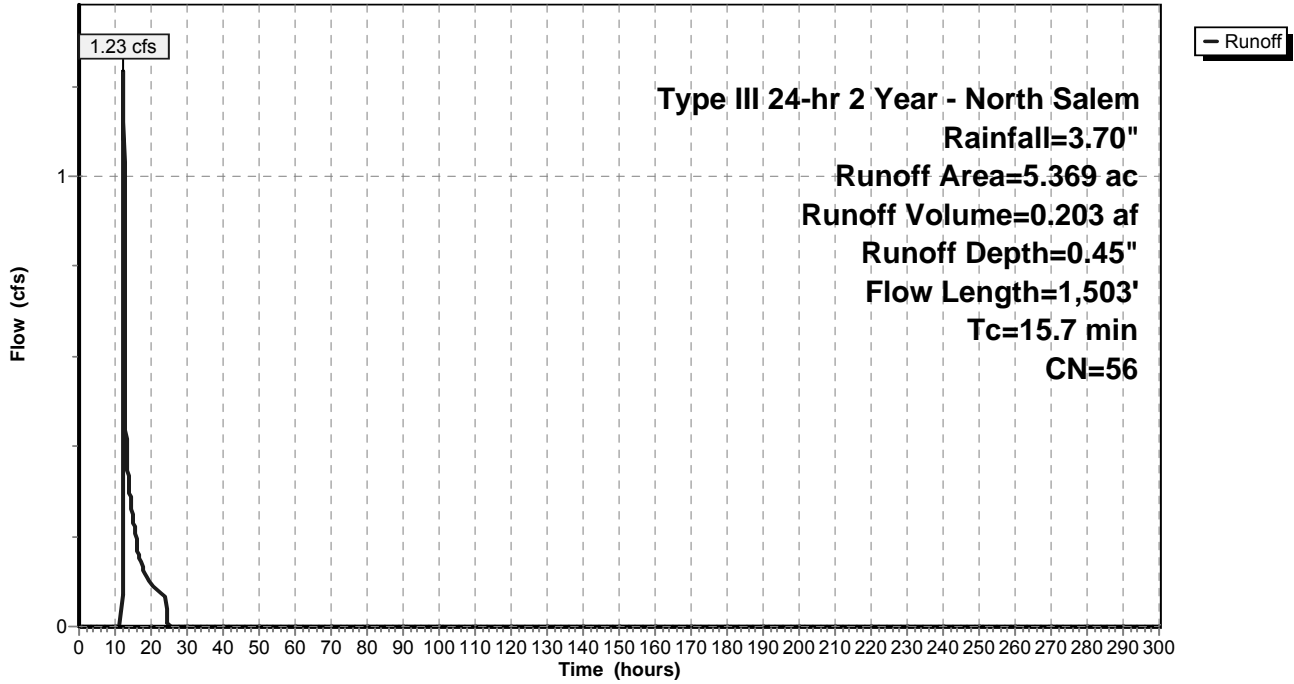
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
1.214	61	>75% Grass cover, Good, HSG B
4.155	55	Woods, Good, HSG B
5.369	56	Weighted Average
5.369		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	64	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	81	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2700	8.37		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
5.6	840	0.0245	2.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.7	262	0.1685	6.61		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
15.7	1,503	Total			

Subcatchment F1: Post-Development F1

Hydrograph



Summary for Subcatchment F2: Post-Development F2

Runoff = 0.59 cfs @ 12.14 hrs, Volume= 0.050 af, Depth= 1.08"

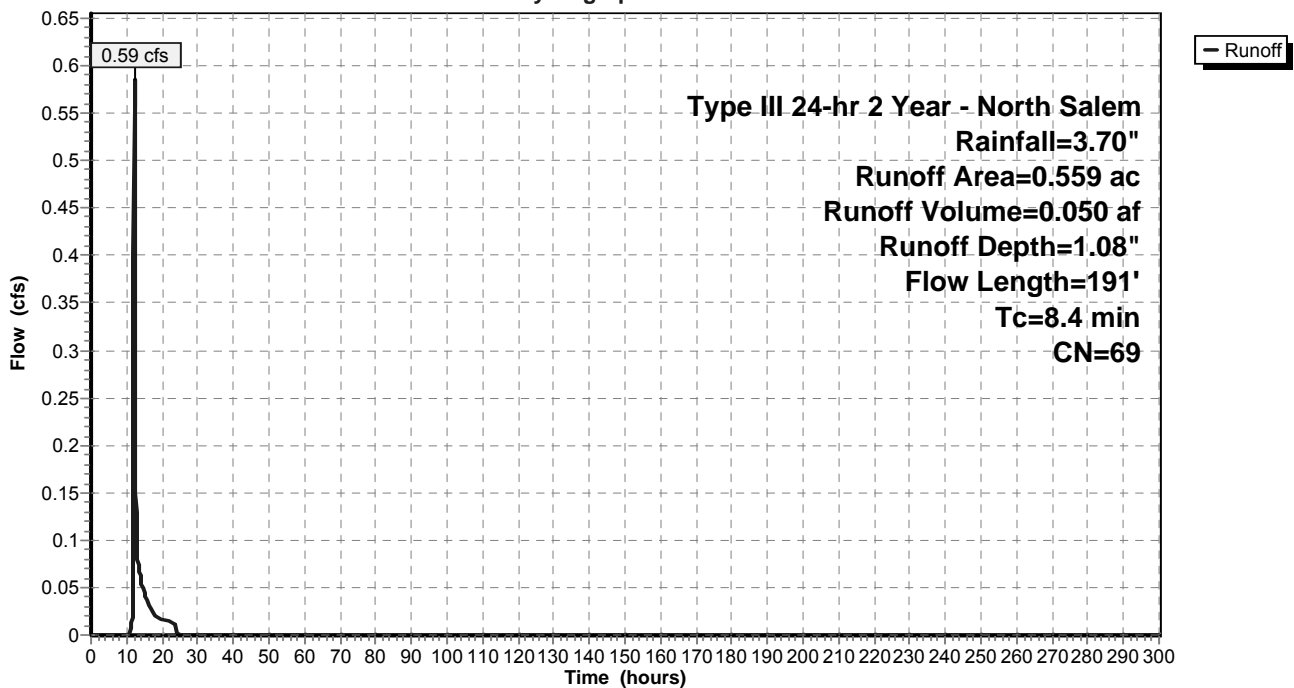
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.076	98	Driveway
0.316	61	>75% Grass cover, Good, HSG B
0.103	55	Woods, Good, HSG B
0.559	69	Weighted Average
0.419		74.96% Pervious Area
0.140		25.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.2800	0.31		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.3	50	0.1400	0.16		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	91	0.0549	3.77		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.4	191	Total			

Subcatchment F2: Post-Development F2

Hydrograph



Summary for Subcatchment F3: Post-Development F3

Runoff = 0.52 cfs @ 12.16 hrs, Volume= 0.046 af, Depth= 1.13"

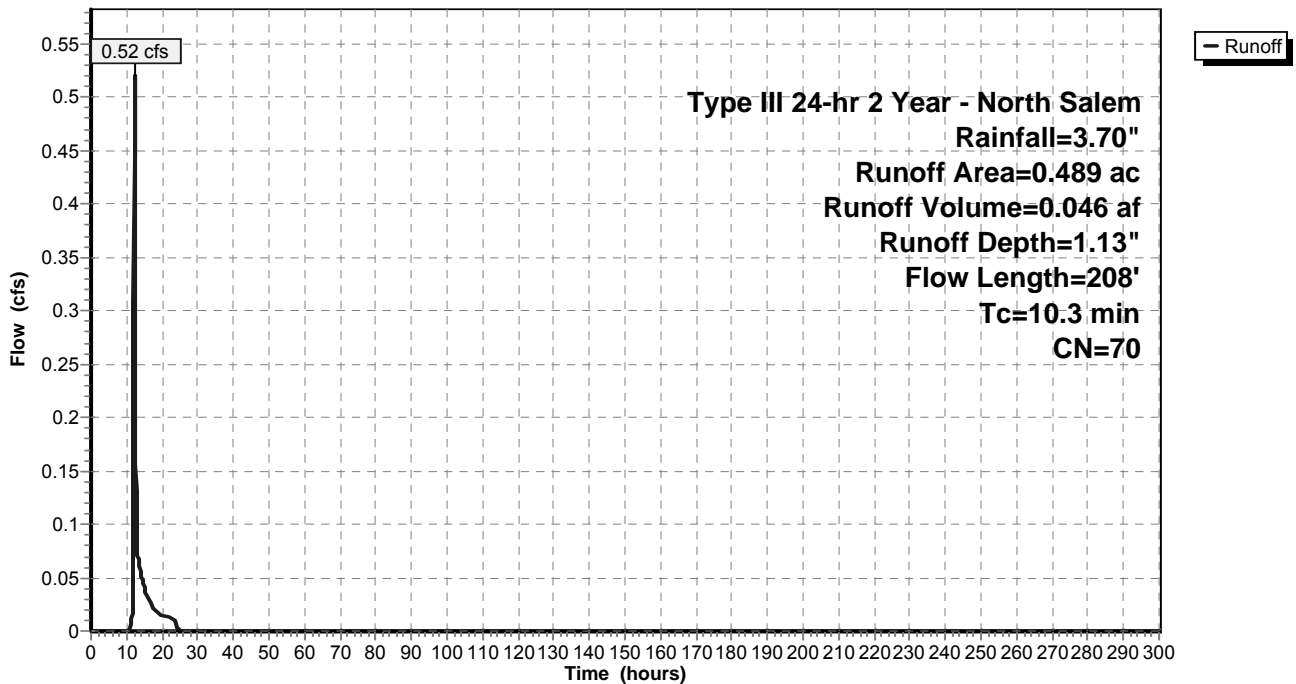
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.066	98	Driveway
0.281	61	>75% Grass cover, Good, HSG B
0.078	55	Woods, Good, HSG B
0.489	70	Weighted Average
0.359		73.42% Pervious Area
0.130		26.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	30	0.2667	0.28		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
7.9	70	0.1000	0.15		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	108	0.0370	3.10		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.3	208	Total			

Subcatchment F3: Post-Development F3

Hydrograph



Summary for Subcatchment F4: Post-Development F4

Runoff = 0.69 cfs @ 12.15 hrs, Volume= 0.061 af, Depth= 0.96"

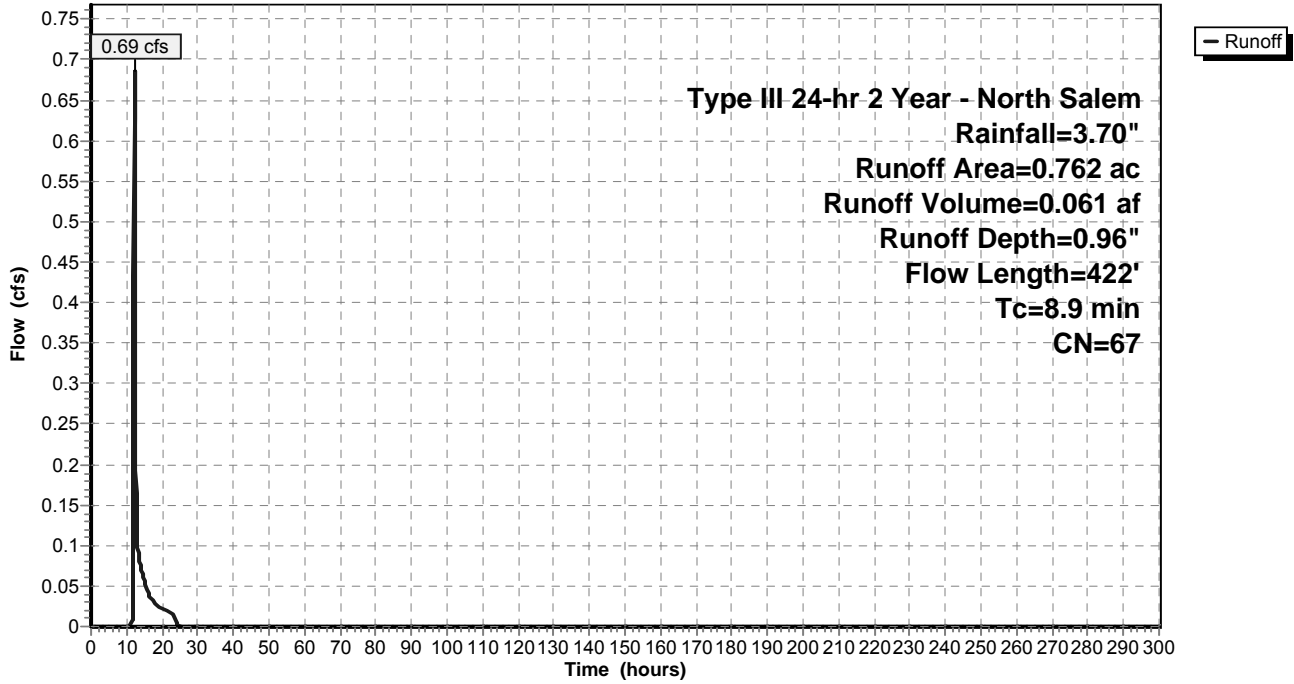
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.091	98	Driveway
0.422	61	>75% Grass cover, Good, HSG B
0.185	55	Woods, Good, HSG B
0.762	67	Weighted Average
0.607		79.66% Pervious Area
0.155		20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	26	0.2307	7.73		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	31	0.0645	4.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	119	0.0336	2.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	146	0.0300	3.90	1.36	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.020 Corrugated PE, corrugated interior
8.9	422	Total			

Subcatchment F4: Post-Development F4

Hydrograph



Summary for Subcatchment F5: Post-Development F5

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.58 cfs @ 12.05 hrs, Volume= 0.038 af, Depth= 1.45"

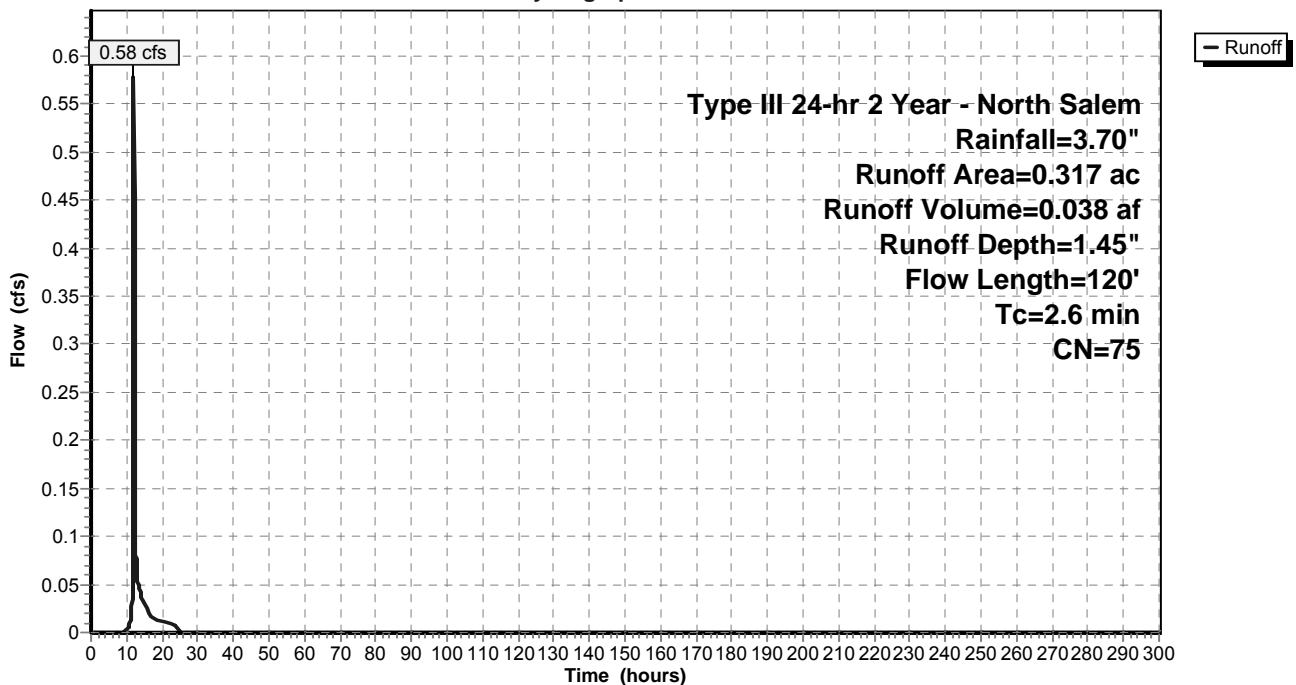
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.052	98	Driveway
0.201	61	>75% Grass cover, Good, HSG B
0.317	75	Weighted Average
0.201		63.41% Pervious Area
0.116		36.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	47	0.4255	0.37		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	73	0.0274	2.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.6	120	Total			

Subcatchment F5: Post-Development F5

Hydrograph



Summary for Pond DP 6: Design Point 6

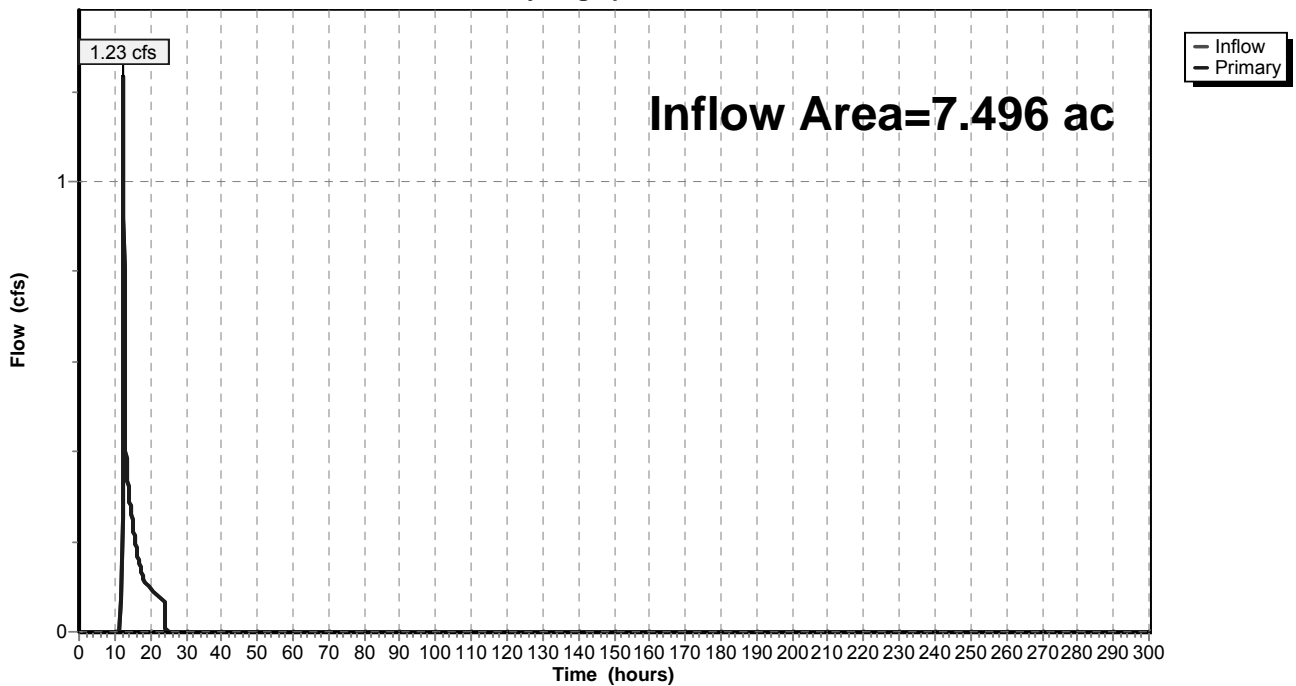
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.496 ac, 7.22% Impervious, Inflow Depth = 0.32" for 2 Year - North Salem event
Inflow = 1.23 cfs @ 12.36 hrs, Volume= 0.203 af
Primary = 1.23 cfs @ 12.36 hrs, Volume= 0.203 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Summary for Pond S-13: Underground Infiltration (Sub-Lot 13)

Inflow Area = 0.317 ac, 36.59% Impervious, Inflow Depth = 1.45" for 2 Year - North Salem event
 Inflow = 0.58 cfs @ 12.05 hrs, Volume= 0.038 af
 Outflow = 0.14 cfs @ 11.90 hrs, Volume= 0.038 af, Atten= 75%, Lag= 0.0 min
 Discarded = 0.14 cfs @ 11.90 hrs, Volume= 0.038 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 461.63' @ 12.44 hrs Surf.Area= 0.028 ac Storage= 0.007 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 12.2 min (859.4 - 847.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	461.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	461.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

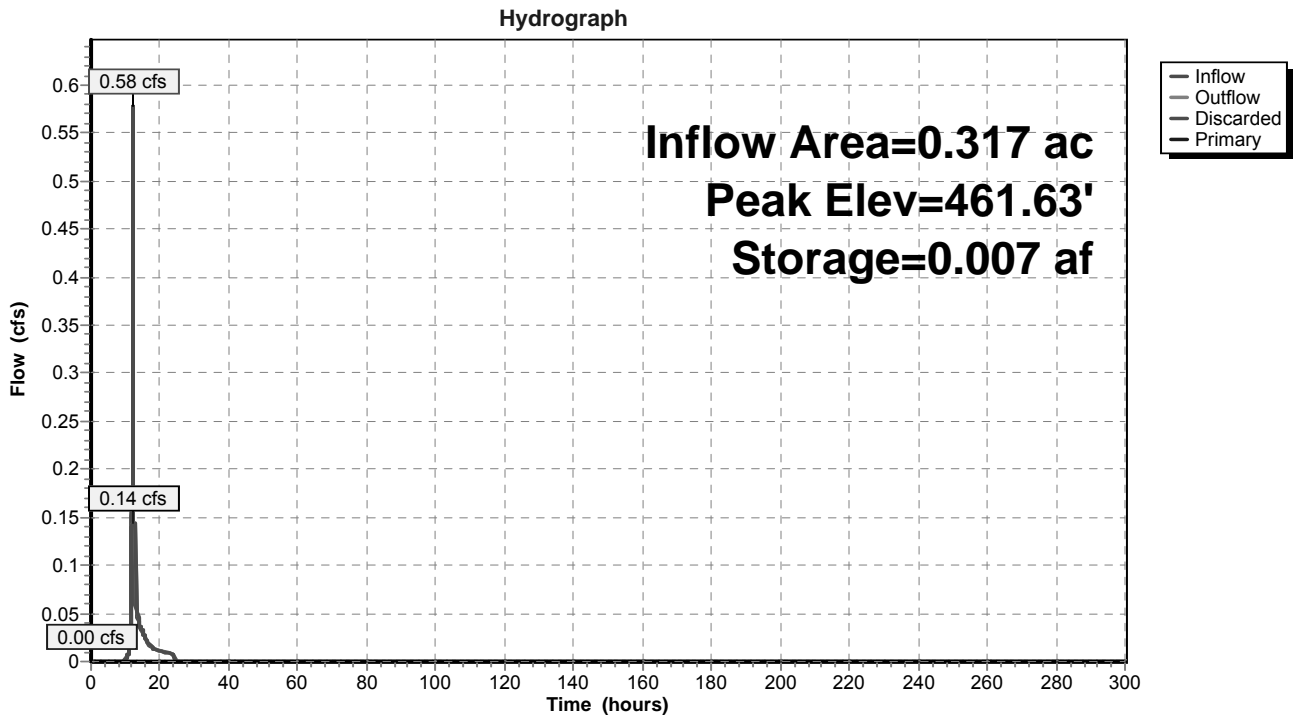
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	461.00'	5.180 in/hr Exfiltration over Surface area
#2	Primary	462.85'	3.0" Vert. Orifice/Grate X 4.00 C= 0.600

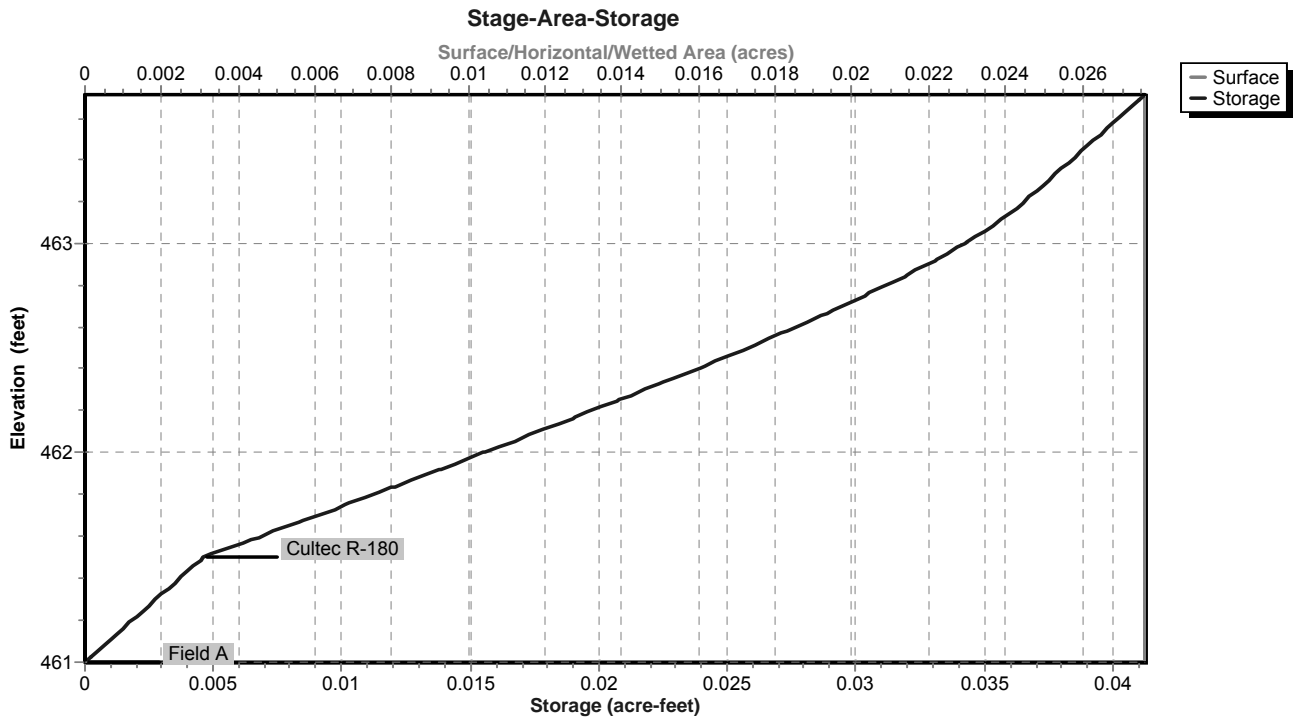
Discarded OutFlow Max=0.14 cfs @ 11.90 hrs HW=461.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.14 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-13: Underground Infiltration (Sub-Lot 13)



Pond S-13: Underground Infiltration (Sub-Lot 13)



Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
461.00	0.028	0.000	461.53	0.028	0.005
461.01	0.028	0.000	461.54	0.028	0.005
461.02	0.028	0.000	461.55	0.028	0.006
461.03	0.028	0.000	461.56	0.028	0.006
461.04	0.028	0.000	461.57	0.028	0.006
461.05	0.028	0.000	461.58	0.028	0.006
461.06	0.028	0.001	461.59	0.028	0.007
461.07	0.028	0.001	461.60	0.028	0.007
461.08	0.028	0.001	461.61	0.028	0.007
461.09	0.028	0.001	461.62	0.028	0.007
461.10	0.028	0.001	461.63	0.028	0.007
461.11	0.028	0.001	461.64	0.028	0.008
461.12	0.028	0.001	461.65	0.028	0.008
461.13	0.028	0.001	461.66	0.028	0.008
461.14	0.028	0.001	461.67	0.028	0.008
461.15	0.028	0.001	461.68	0.028	0.009
461.16	0.028	0.001	461.69	0.028	0.009
461.17	0.028	0.002	461.70	0.028	0.009
461.18	0.028	0.002	461.71	0.028	0.009
461.19	0.028	0.002	461.72	0.028	0.009
461.20	0.028	0.002	461.73	0.028	0.010
461.21	0.028	0.002	461.74	0.028	0.010
461.22	0.028	0.002	461.75	0.028	0.010
461.23	0.028	0.002	461.76	0.028	0.010
461.24	0.028	0.002	461.77	0.028	0.011
461.25	0.028	0.002	461.78	0.028	0.011
461.26	0.028	0.002	461.79	0.028	0.011
461.27	0.028	0.002	461.80	0.028	0.011
461.28	0.028	0.003	461.81	0.028	0.011
461.29	0.028	0.003	461.82	0.028	0.012
461.30	0.028	0.003	461.83	0.028	0.012
461.31	0.028	0.003	461.84	0.028	0.012
461.32	0.028	0.003	461.85	0.028	0.012
461.33	0.028	0.003	461.86	0.028	0.013
461.34	0.028	0.003	461.87	0.028	0.013
461.35	0.028	0.003	461.88	0.028	0.013
461.36	0.028	0.003	461.89	0.028	0.013
461.37	0.028	0.003	461.90	0.028	0.013
461.38	0.028	0.003	461.91	0.028	0.014
461.39	0.028	0.004	461.92	0.028	0.014
461.40	0.028	0.004	461.93	0.028	0.014
461.41	0.028	0.004	461.94	0.028	0.014
461.42	0.028	0.004	461.95	0.028	0.014
461.43	0.028	0.004	461.96	0.028	0.015
461.44	0.028	0.004	461.97	0.028	0.015
461.45	0.028	0.004	461.98	0.028	0.015
461.46	0.028	0.004	461.99	0.028	0.015
461.47	0.028	0.004	462.00	0.028	0.016
461.48	0.028	0.004	462.01	0.028	0.016
461.49	0.028	0.005	462.02	0.028	0.016
461.50	0.028	0.005	462.03	0.028	0.016
461.51	0.028	0.005	462.04	0.028	0.016
461.52	0.028	0.005	462.05	0.028	0.017

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
462.06	0.028	0.017	462.59	0.028	0.027
462.07	0.028	0.017	462.60	0.028	0.028
462.08	0.028	0.017	462.61	0.028	0.028
462.09	0.028	0.017	462.62	0.028	0.028
462.10	0.028	0.018	462.63	0.028	0.028
462.11	0.028	0.018	462.64	0.028	0.028
462.12	0.028	0.018	462.65	0.028	0.029
462.13	0.028	0.018	462.66	0.028	0.029
462.14	0.028	0.018	462.67	0.028	0.029
462.15	0.028	0.019	462.68	0.028	0.029
462.16	0.028	0.019	462.69	0.028	0.029
462.17	0.028	0.019	462.70	0.028	0.029
462.18	0.028	0.019	462.71	0.028	0.030
462.19	0.028	0.020	462.72	0.028	0.030
462.20	0.028	0.020	462.73	0.028	0.030
462.21	0.028	0.020	462.74	0.028	0.030
462.22	0.028	0.020	462.75	0.028	0.030
462.23	0.028	0.020	462.76	0.028	0.031
462.24	0.028	0.021	462.77	0.028	0.031
462.25	0.028	0.021	462.78	0.028	0.031
462.26	0.028	0.021	462.79	0.028	0.031
462.27	0.028	0.021	462.80	0.028	0.031
462.28	0.028	0.021	462.81	0.028	0.031
462.29	0.028	0.022	462.82	0.028	0.032
462.30	0.028	0.022	462.83	0.028	0.032
462.31	0.028	0.022	462.84	0.028	0.032
462.32	0.028	0.022	462.85	0.028	0.032
462.33	0.028	0.022	462.86	0.028	0.032
462.34	0.028	0.023	462.87	0.028	0.032
462.35	0.028	0.023	462.88	0.028	0.033
462.36	0.028	0.023	462.89	0.028	0.033
462.37	0.028	0.023	462.90	0.028	0.033
462.38	0.028	0.023	462.91	0.028	0.033
462.39	0.028	0.024	462.92	0.028	0.033
462.40	0.028	0.024	462.93	0.028	0.033
462.41	0.028	0.024	462.94	0.028	0.033
462.42	0.028	0.024	462.95	0.028	0.034
462.43	0.028	0.024	462.96	0.028	0.034
462.44	0.028	0.025	462.97	0.028	0.034
462.45	0.028	0.025	462.98	0.028	0.034
462.46	0.028	0.025	462.99	0.028	0.034
462.47	0.028	0.025	463.00	0.028	0.034
462.48	0.028	0.025	463.01	0.028	0.034
462.49	0.028	0.026	463.02	0.028	0.035
462.50	0.028	0.026	463.03	0.028	0.035
462.51	0.028	0.026	463.04	0.028	0.035
462.52	0.028	0.026	463.05	0.028	0.035
462.53	0.028	0.026	463.06	0.028	0.035
462.54	0.028	0.027	463.07	0.028	0.035
462.55	0.028	0.027	463.08	0.028	0.035
462.56	0.028	0.027	463.09	0.028	0.035
462.57	0.028	0.027	463.10	0.028	0.036
462.58	0.028	0.027	463.11	0.028	0.036

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
463.12	0.028	0.036	463.65	0.028	0.041
463.13	0.028	0.036	463.66	0.028	0.041
463.14	0.028	0.036	463.67	0.028	0.041
463.15	0.028	0.036	463.68	0.028	0.041
463.16	0.028	0.036	463.69	0.028	0.041
463.17	0.028	0.036	463.70	0.028	0.041
463.18	0.028	0.036	463.71	0.028	0.041
463.19	0.028	0.036			
463.20	0.028	0.037			
463.21	0.028	0.037			
463.22	0.028	0.037			
463.23	0.028	0.037			
463.24	0.028	0.037			
463.25	0.028	0.037			
463.26	0.028	0.037			
463.27	0.028	0.037			
463.28	0.028	0.037			
463.29	0.028	0.037			
463.30	0.028	0.038			
463.31	0.028	0.038			
463.32	0.028	0.038			
463.33	0.028	0.038			
463.34	0.028	0.038			
463.35	0.028	0.038			
463.36	0.028	0.038			
463.37	0.028	0.038			
463.38	0.028	0.038			
463.39	0.028	0.038			
463.40	0.028	0.038			
463.41	0.028	0.039			
463.42	0.028	0.039			
463.43	0.028	0.039			
463.44	0.028	0.039			
463.45	0.028	0.039			
463.46	0.028	0.039			
463.47	0.028	0.039			
463.48	0.028	0.039			
463.49	0.028	0.039			
463.50	0.028	0.039			
463.51	0.028	0.039			
463.52	0.028	0.040			
463.53	0.028	0.040			
463.54	0.028	0.040			
463.55	0.028	0.040			
463.56	0.028	0.040			
463.57	0.028	0.040			
463.58	0.028	0.040			
463.59	0.028	0.040			
463.60	0.028	0.040			
463.61	0.028	0.040			
463.62	0.028	0.040			
463.63	0.028	0.041			
463.64	0.028	0.041			

Summary for Pond S-14: Underground Infiltration (Sub-Lot 14)

Inflow Area = 0.762 ac, 20.34% Impervious, Inflow Depth = 0.96" for 2 Year - North Salem event
 Inflow = 0.69 cfs @ 12.15 hrs, Volume= 0.061 af
 Outflow = 0.68 cfs @ 12.15 hrs, Volume= 0.061 af, Atten= 1%, Lag= 0.2 min
 Discarded = 0.68 cfs @ 12.15 hrs, Volume= 0.061 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 440.02' @ 12.15 hrs Surf.Area= 0.028 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.061 af (100% of inflow)
 Center-of-Mass det. time= 0.2 min (878.2 - 878.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	440.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	440.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

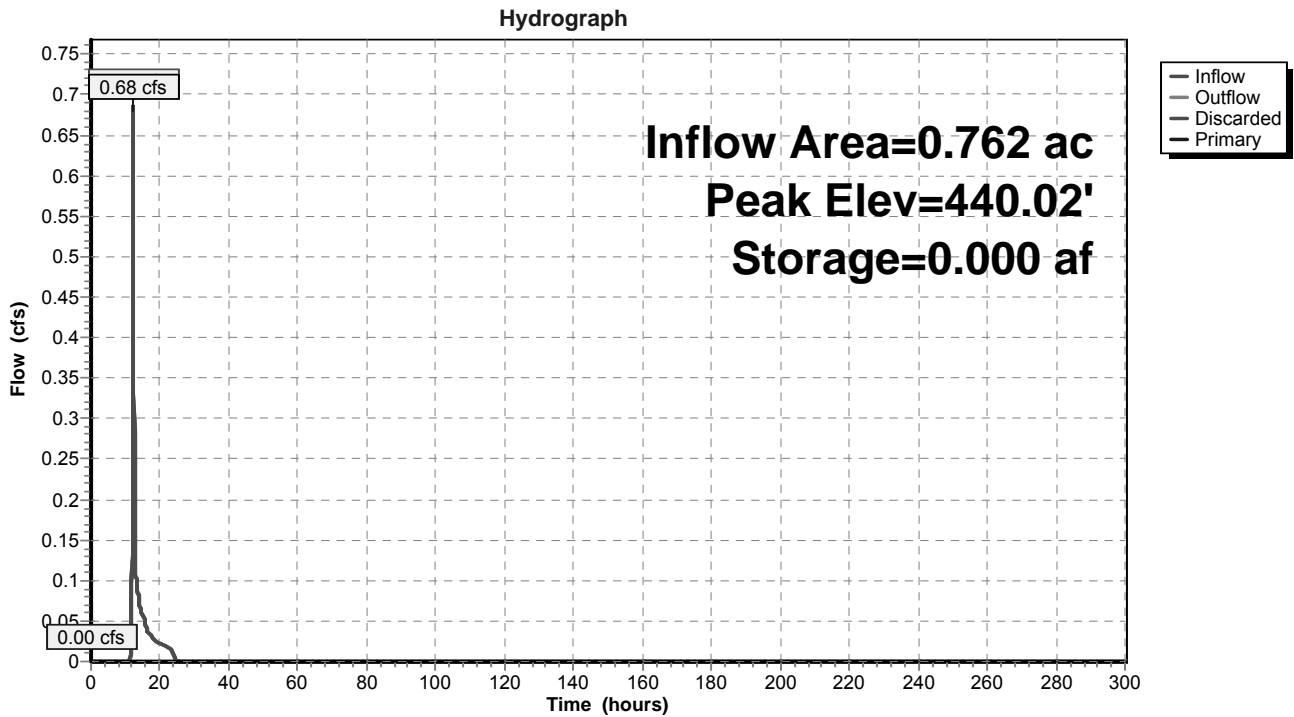
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	440.00'	30.000 in/hr Exfiltration over Surface area
#2	Primary	441.94'	6.0" Vert. Orifice/Grate X 5.00 C= 0.600

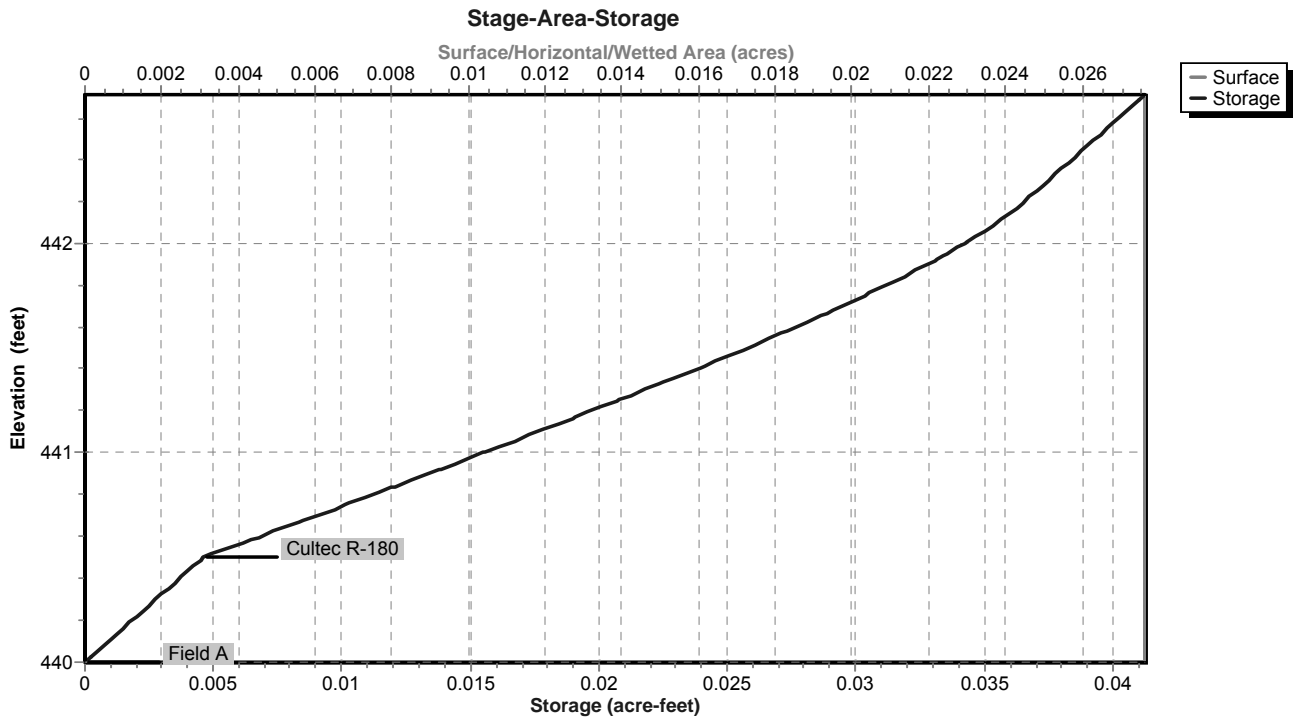
Discarded OutFlow Max=0.84 cfs @ 12.15 hrs HW=440.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.84 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-14: Underground Infiltration (Sub-Lot 14)



Pond S-14: Underground Infiltration (Sub-Lot 14)



Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
440.00	0.028	0.000	440.53	0.028	0.005
440.01	0.028	0.000	440.54	0.028	0.005
440.02	0.028	0.000	440.55	0.028	0.006
440.03	0.028	0.000	440.56	0.028	0.006
440.04	0.028	0.000	440.57	0.028	0.006
440.05	0.028	0.000	440.58	0.028	0.006
440.06	0.028	0.001	440.59	0.028	0.007
440.07	0.028	0.001	440.60	0.028	0.007
440.08	0.028	0.001	440.61	0.028	0.007
440.09	0.028	0.001	440.62	0.028	0.007
440.10	0.028	0.001	440.63	0.028	0.007
440.11	0.028	0.001	440.64	0.028	0.008
440.12	0.028	0.001	440.65	0.028	0.008
440.13	0.028	0.001	440.66	0.028	0.008
440.14	0.028	0.001	440.67	0.028	0.008
440.15	0.028	0.001	440.68	0.028	0.009
440.16	0.028	0.001	440.69	0.028	0.009
440.17	0.028	0.002	440.70	0.028	0.009
440.18	0.028	0.002	440.71	0.028	0.009
440.19	0.028	0.002	440.72	0.028	0.009
440.20	0.028	0.002	440.73	0.028	0.010
440.21	0.028	0.002	440.74	0.028	0.010
440.22	0.028	0.002	440.75	0.028	0.010
440.23	0.028	0.002	440.76	0.028	0.010
440.24	0.028	0.002	440.77	0.028	0.011
440.25	0.028	0.002	440.78	0.028	0.011
440.26	0.028	0.002	440.79	0.028	0.011
440.27	0.028	0.002	440.80	0.028	0.011
440.28	0.028	0.003	440.81	0.028	0.011
440.29	0.028	0.003	440.82	0.028	0.012
440.30	0.028	0.003	440.83	0.028	0.012
440.31	0.028	0.003	440.84	0.028	0.012
440.32	0.028	0.003	440.85	0.028	0.012
440.33	0.028	0.003	440.86	0.028	0.013
440.34	0.028	0.003	440.87	0.028	0.013
440.35	0.028	0.003	440.88	0.028	0.013
440.36	0.028	0.003	440.89	0.028	0.013
440.37	0.028	0.003	440.90	0.028	0.013
440.38	0.028	0.003	440.91	0.028	0.014
440.39	0.028	0.004	440.92	0.028	0.014
440.40	0.028	0.004	440.93	0.028	0.014
440.41	0.028	0.004	440.94	0.028	0.014
440.42	0.028	0.004	440.95	0.028	0.014
440.43	0.028	0.004	440.96	0.028	0.015
440.44	0.028	0.004	440.97	0.028	0.015
440.45	0.028	0.004	440.98	0.028	0.015
440.46	0.028	0.004	440.99	0.028	0.015
440.47	0.028	0.004	441.00	0.028	0.016
440.48	0.028	0.004	441.01	0.028	0.016
440.49	0.028	0.005	441.02	0.028	0.016
440.50	0.028	0.005	441.03	0.028	0.016
440.51	0.028	0.005	441.04	0.028	0.016
440.52	0.028	0.005	441.05	0.028	0.017

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
441.06	0.028	0.017	441.59	0.028	0.027
441.07	0.028	0.017	441.60	0.028	0.028
441.08	0.028	0.017	441.61	0.028	0.028
441.09	0.028	0.017	441.62	0.028	0.028
441.10	0.028	0.018	441.63	0.028	0.028
441.11	0.028	0.018	441.64	0.028	0.028
441.12	0.028	0.018	441.65	0.028	0.029
441.13	0.028	0.018	441.66	0.028	0.029
441.14	0.028	0.018	441.67	0.028	0.029
441.15	0.028	0.019	441.68	0.028	0.029
441.16	0.028	0.019	441.69	0.028	0.029
441.17	0.028	0.019	441.70	0.028	0.029
441.18	0.028	0.019	441.71	0.028	0.030
441.19	0.028	0.020	441.72	0.028	0.030
441.20	0.028	0.020	441.73	0.028	0.030
441.21	0.028	0.020	441.74	0.028	0.030
441.22	0.028	0.020	441.75	0.028	0.030
441.23	0.028	0.020	441.76	0.028	0.031
441.24	0.028	0.021	441.77	0.028	0.031
441.25	0.028	0.021	441.78	0.028	0.031
441.26	0.028	0.021	441.79	0.028	0.031
441.27	0.028	0.021	441.80	0.028	0.031
441.28	0.028	0.021	441.81	0.028	0.031
441.29	0.028	0.022	441.82	0.028	0.032
441.30	0.028	0.022	441.83	0.028	0.032
441.31	0.028	0.022	441.84	0.028	0.032
441.32	0.028	0.022	441.85	0.028	0.032
441.33	0.028	0.022	441.86	0.028	0.032
441.34	0.028	0.023	441.87	0.028	0.032
441.35	0.028	0.023	441.88	0.028	0.033
441.36	0.028	0.023	441.89	0.028	0.033
441.37	0.028	0.023	441.90	0.028	0.033
441.38	0.028	0.023	441.91	0.028	0.033
441.39	0.028	0.024	441.92	0.028	0.033
441.40	0.028	0.024	441.93	0.028	0.033
441.41	0.028	0.024	441.94	0.028	0.033
441.42	0.028	0.024	441.95	0.028	0.034
441.43	0.028	0.024	441.96	0.028	0.034
441.44	0.028	0.025	441.97	0.028	0.034
441.45	0.028	0.025	441.98	0.028	0.034
441.46	0.028	0.025	441.99	0.028	0.034
441.47	0.028	0.025	442.00	0.028	0.034
441.48	0.028	0.025	442.01	0.028	0.034
441.49	0.028	0.026	442.02	0.028	0.035
441.50	0.028	0.026	442.03	0.028	0.035
441.51	0.028	0.026	442.04	0.028	0.035
441.52	0.028	0.026	442.05	0.028	0.035
441.53	0.028	0.026	442.06	0.028	0.035
441.54	0.028	0.027	442.07	0.028	0.035
441.55	0.028	0.027	442.08	0.028	0.035
441.56	0.028	0.027	442.09	0.028	0.035
441.57	0.028	0.027	442.10	0.028	0.036
441.58	0.028	0.027	442.11	0.028	0.036

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
442.12	0.028	0.036	442.65	0.028	0.041
442.13	0.028	0.036	442.66	0.028	0.041
442.14	0.028	0.036	442.67	0.028	0.041
442.15	0.028	0.036	442.68	0.028	0.041
442.16	0.028	0.036	442.69	0.028	0.041
442.17	0.028	0.036	442.70	0.028	0.041
442.18	0.028	0.036	442.71	0.028	0.041
442.19	0.028	0.036			
442.20	0.028	0.037			
442.21	0.028	0.037			
442.22	0.028	0.037			
442.23	0.028	0.037			
442.24	0.028	0.037			
442.25	0.028	0.037			
442.26	0.028	0.037			
442.27	0.028	0.037			
442.28	0.028	0.037			
442.29	0.028	0.037			
442.30	0.028	0.038			
442.31	0.028	0.038			
442.32	0.028	0.038			
442.33	0.028	0.038			
442.34	0.028	0.038			
442.35	0.028	0.038			
442.36	0.028	0.038			
442.37	0.028	0.038			
442.38	0.028	0.038			
442.39	0.028	0.038			
442.40	0.028	0.038			
442.41	0.028	0.039			
442.42	0.028	0.039			
442.43	0.028	0.039			
442.44	0.028	0.039			
442.45	0.028	0.039			
442.46	0.028	0.039			
442.47	0.028	0.039			
442.48	0.028	0.039			
442.49	0.028	0.039			
442.50	0.028	0.039			
442.51	0.028	0.039			
442.52	0.028	0.040			
442.53	0.028	0.040			
442.54	0.028	0.040			
442.55	0.028	0.040			
442.56	0.028	0.040			
442.57	0.028	0.040			
442.58	0.028	0.040			
442.59	0.028	0.040			
442.60	0.028	0.040			
442.61	0.028	0.040			
442.62	0.028	0.040			
442.63	0.028	0.041			
442.64	0.028	0.041			

Summary for Pond S-15: Underground Infiltration (Sub-Lot 15)

Inflow Area = 0.489 ac, 26.58% Impervious, Inflow Depth = 1.13" for 2 Year - North Salem event
 Inflow = 0.52 cfs @ 12.16 hrs, Volume= 0.046 af
 Outflow = 0.38 cfs @ 12.10 hrs, Volume= 0.046 af, Atten= 27%, Lag= 0.0 min
 Discarded = 0.38 cfs @ 12.10 hrs, Volume= 0.046 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.56' @ 12.29 hrs Surf.Area= 0.037 ac Storage= 0.002 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.6 min (870.1 - 869.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.42'	0.022 af	34.00'W x 47.00'L x 2.54'H Field A 0.093 af Overall - 0.027 af Embedded = 0.066 af x 33.3% Voids
#2A	433.92'	0.027 af	Cultec R-150 x 60 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.049 af	Total Available Storage

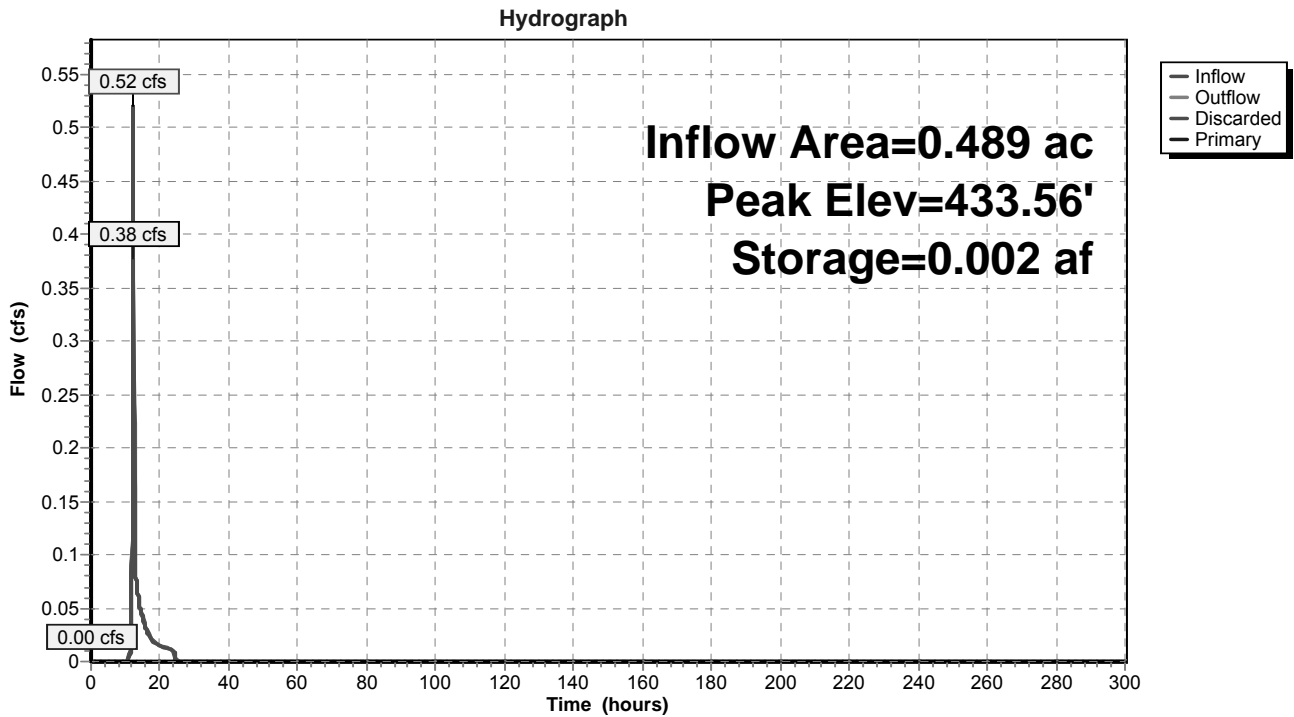
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.42'	10.200 in/hr Exfiltration over Surface area
#2	Primary	435.45'	4.0" Vert. Orifice/Grate X 7.00 C= 0.600

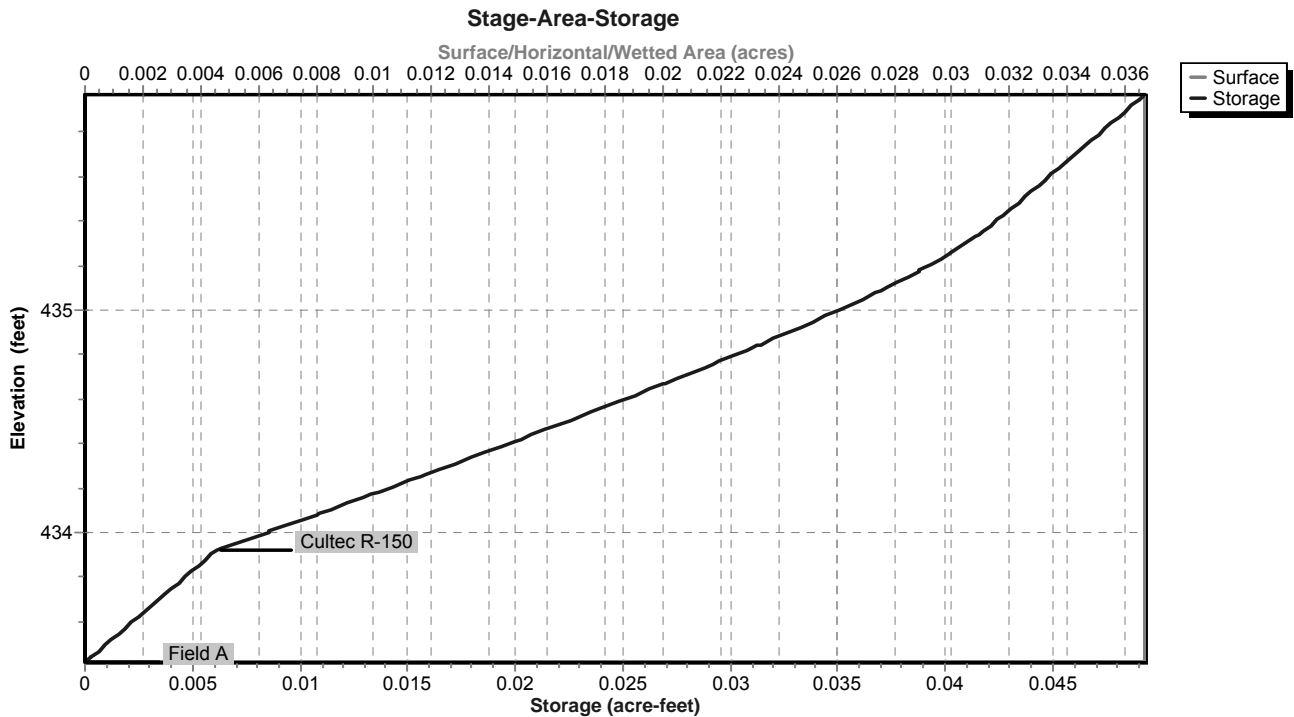
Discarded OutFlow Max=0.38 cfs @ 12.10 hrs HW=433.45' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.38 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.42' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-15: Underground Infiltration (Sub-Lot 15)



Pond S-15: Underground Infiltration (Sub-Lot 15)



Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.42	0.037	0.000	433.95	0.037	0.007
433.43	0.037	0.000	433.96	0.037	0.007
433.44	0.037	0.000	433.97	0.037	0.008
433.45	0.037	0.000	433.98	0.037	0.008
433.46	0.037	0.000	433.99	0.037	0.008
433.47	0.037	0.001	434.00	0.037	0.008
433.48	0.037	0.001	434.01	0.037	0.009
433.49	0.037	0.001	434.02	0.037	0.009
433.50	0.037	0.001	434.03	0.037	0.009
433.51	0.037	0.001	434.04	0.037	0.010
433.52	0.037	0.001	434.05	0.037	0.010
433.53	0.037	0.001	434.06	0.037	0.010
433.54	0.037	0.001	434.07	0.037	0.010
433.55	0.037	0.002	434.08	0.037	0.011
433.56	0.037	0.002	434.09	0.037	0.011
433.57	0.037	0.002	434.10	0.037	0.011
433.58	0.037	0.002	434.11	0.037	0.012
433.59	0.037	0.002	434.12	0.037	0.012
433.60	0.037	0.002	434.13	0.037	0.012
433.61	0.037	0.002	434.14	0.037	0.012
433.62	0.037	0.002	434.15	0.037	0.013
433.63	0.037	0.003	434.16	0.037	0.013
433.64	0.037	0.003	434.17	0.037	0.013
433.65	0.037	0.003	434.18	0.037	0.014
433.66	0.037	0.003	434.19	0.037	0.014
433.67	0.037	0.003	434.20	0.037	0.014
433.68	0.037	0.003	434.21	0.037	0.014
433.69	0.037	0.003	434.22	0.037	0.015
433.70	0.037	0.003	434.23	0.037	0.015
433.71	0.037	0.004	434.24	0.037	0.015
433.72	0.037	0.004	434.25	0.037	0.016
433.73	0.037	0.004	434.26	0.037	0.016
433.74	0.037	0.004	434.27	0.037	0.016
433.75	0.037	0.004	434.28	0.037	0.016
433.76	0.037	0.004	434.29	0.037	0.017
433.77	0.037	0.004	434.30	0.037	0.017
433.78	0.037	0.004	434.31	0.037	0.017
433.79	0.037	0.005	434.32	0.037	0.018
433.80	0.037	0.005	434.33	0.037	0.018
433.81	0.037	0.005	434.34	0.037	0.018
433.82	0.037	0.005	434.35	0.037	0.018
433.83	0.037	0.005	434.36	0.037	0.019
433.84	0.037	0.005	434.37	0.037	0.019
433.85	0.037	0.005	434.38	0.037	0.019
433.86	0.037	0.005	434.39	0.037	0.019
433.87	0.037	0.005	434.40	0.037	0.020
433.88	0.037	0.006	434.41	0.037	0.020
433.89	0.037	0.006	434.42	0.037	0.020
433.90	0.037	0.006	434.43	0.037	0.021
433.91	0.037	0.006	434.44	0.037	0.021
433.92	0.037	0.006	434.45	0.037	0.021
433.93	0.037	0.006	434.46	0.037	0.021
433.94	0.037	0.007	434.47	0.037	0.022

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.48	0.037	0.022	435.01	0.037	0.035
434.49	0.037	0.022	435.02	0.037	0.036
434.50	0.037	0.022	435.03	0.037	0.036
434.51	0.037	0.023	435.04	0.037	0.036
434.52	0.037	0.023	435.05	0.037	0.036
434.53	0.037	0.023	435.06	0.037	0.036
434.54	0.037	0.024	435.07	0.037	0.037
434.55	0.037	0.024	435.08	0.037	0.037
434.56	0.037	0.024	435.09	0.037	0.037
434.57	0.037	0.024	435.10	0.037	0.037
434.58	0.037	0.025	435.11	0.037	0.038
434.59	0.037	0.025	435.12	0.037	0.038
434.60	0.037	0.025	435.13	0.037	0.038
434.61	0.037	0.025	435.14	0.037	0.038
434.62	0.037	0.026	435.15	0.037	0.038
434.63	0.037	0.026	435.16	0.037	0.039
434.64	0.037	0.026	435.17	0.037	0.039
434.65	0.037	0.026	435.18	0.037	0.039
434.66	0.037	0.027	435.19	0.037	0.039
434.67	0.037	0.027	435.20	0.037	0.039
434.68	0.037	0.027	435.21	0.037	0.040
434.69	0.037	0.028	435.22	0.037	0.040
434.70	0.037	0.028	435.23	0.037	0.040
434.71	0.037	0.028	435.24	0.037	0.040
434.72	0.037	0.028	435.25	0.037	0.040
434.73	0.037	0.029	435.26	0.037	0.040
434.74	0.037	0.029	435.27	0.037	0.041
434.75	0.037	0.029	435.28	0.037	0.041
434.76	0.037	0.029	435.29	0.037	0.041
434.77	0.037	0.030	435.30	0.037	0.041
434.78	0.037	0.030	435.31	0.037	0.041
434.79	0.037	0.030	435.32	0.037	0.041
434.80	0.037	0.030	435.33	0.037	0.041
434.81	0.037	0.031	435.34	0.037	0.042
434.82	0.037	0.031	435.35	0.037	0.042
434.83	0.037	0.031	435.36	0.037	0.042
434.84	0.037	0.031	435.37	0.037	0.042
434.85	0.037	0.032	435.38	0.037	0.042
434.86	0.037	0.032	435.39	0.037	0.042
434.87	0.037	0.032	435.40	0.037	0.042
434.88	0.037	0.032	435.41	0.037	0.043
434.89	0.037	0.033	435.42	0.037	0.043
434.90	0.037	0.033	435.43	0.037	0.043
434.91	0.037	0.033	435.44	0.037	0.043
434.92	0.037	0.033	435.45	0.037	0.043
434.93	0.037	0.034	435.46	0.037	0.043
434.94	0.037	0.034	435.47	0.037	0.043
434.95	0.037	0.034	435.48	0.037	0.043
434.96	0.037	0.034	435.49	0.037	0.044
434.97	0.037	0.034	435.50	0.037	0.044
434.98	0.037	0.035	435.51	0.037	0.044
434.99	0.037	0.035	435.52	0.037	0.044
435.00	0.037	0.035	435.53	0.037	0.044

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.54	0.037	0.044
435.55	0.037	0.044
435.56	0.037	0.044
435.57	0.037	0.045
435.58	0.037	0.045
435.59	0.037	0.045
435.60	0.037	0.045
435.61	0.037	0.045
435.62	0.037	0.045
435.63	0.037	0.045
435.64	0.037	0.045
435.65	0.037	0.045
435.66	0.037	0.046
435.67	0.037	0.046
435.68	0.037	0.046
435.69	0.037	0.046
435.70	0.037	0.046
435.71	0.037	0.046
435.72	0.037	0.046
435.73	0.037	0.046
435.74	0.037	0.047
435.75	0.037	0.047
435.76	0.037	0.047
435.77	0.037	0.047
435.78	0.037	0.047
435.79	0.037	0.047
435.80	0.037	0.047
435.81	0.037	0.047
435.82	0.037	0.048
435.83	0.037	0.048
435.84	0.037	0.048
435.85	0.037	0.048
435.86	0.037	0.048
435.87	0.037	0.048
435.88	0.037	0.048
435.89	0.037	0.048
435.90	0.037	0.049
435.91	0.037	0.049
435.92	0.037	0.049
435.93	0.037	0.049
435.94	0.037	0.049
435.95	0.037	0.049
435.96	0.037	0.049

Summary for Pond S-16: Underground Infiltration (Sub-Lot 16)

Inflow Area = 0.559 ac, 25.04% Impervious, Inflow Depth = 1.08" for 2 Year - North Salem event
 Inflow = 0.59 cfs @ 12.14 hrs, Volume= 0.050 af
 Outflow = 0.43 cfs @ 12.10 hrs, Volume= 0.050 af, Atten= 27%, Lag= 0.0 min
 Discarded = 0.43 cfs @ 12.10 hrs, Volume= 0.050 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 415.60' @ 12.25 hrs Surf.Area= 0.054 ac Storage= 0.002 af

Plug-Flow detention time= 1.8 min calculated for 0.050 af (100% of inflow)
 Center-of-Mass det. time= 1.3 min (872.3 - 870.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	415.50'	0.032 af	60.00'W x 39.50'L x 2.54'H Field A 0.138 af Overall - 0.041 af Embedded = 0.097 af x 33.3% Voids
#2A	416.00'	0.041 af	Cultec R-150 x 90 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.073 af	Total Available Storage

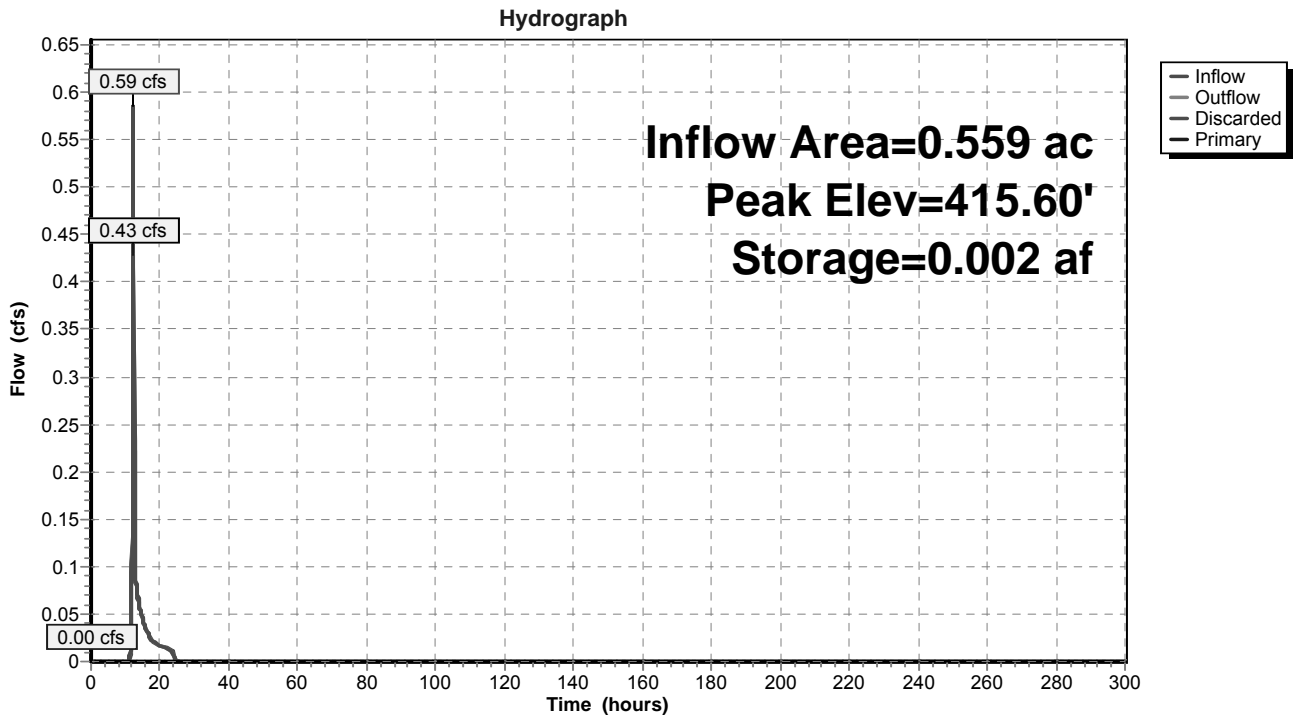
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	415.50'	7.800 in/hr Exfiltration over Surface area
#2	Primary	417.75'	6.0" Vert. Orifice/Grate X 2.00 C= 0.600

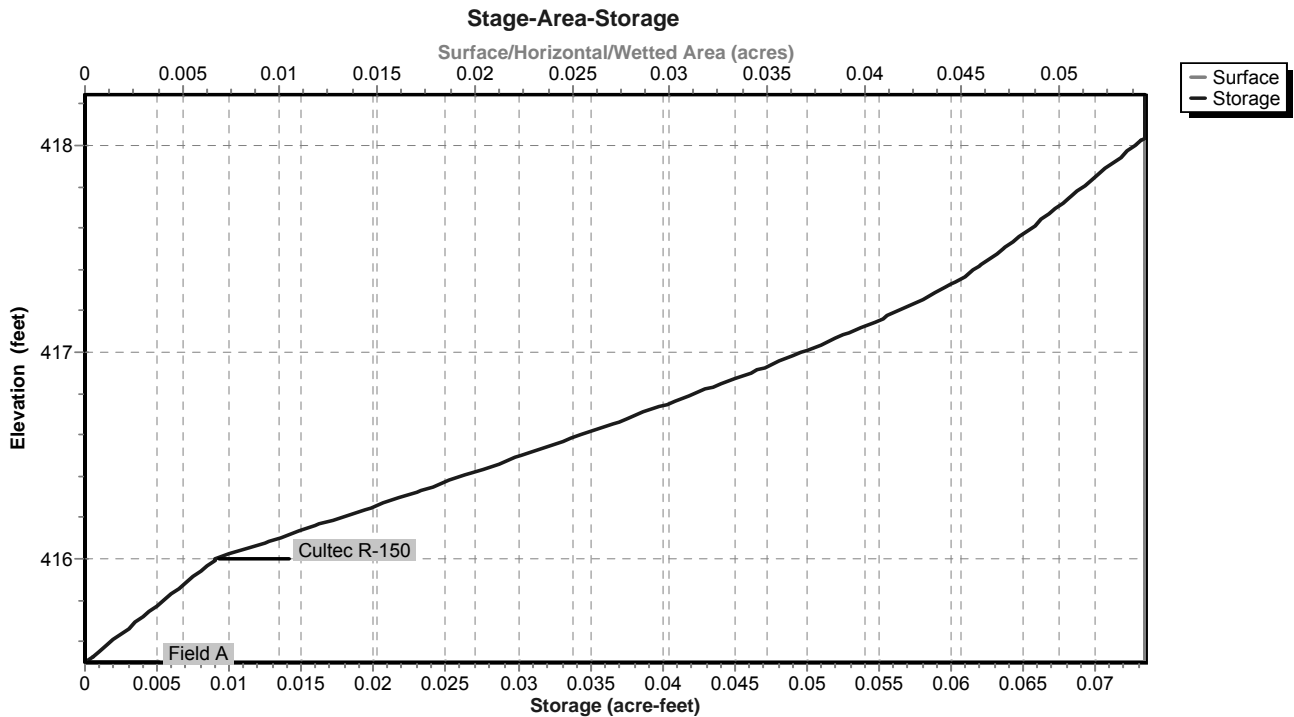
Discarded OutFlow Max=0.43 cfs @ 12.10 hrs HW=415.54' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.43 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=415.50' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-16: Underground Infiltration (Sub-Lot 16)



Pond S-16: Underground Infiltration (Sub-Lot 16)



Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
415.50	0.054	0.000	416.03	0.054	0.010
415.51	0.054	0.000	416.04	0.054	0.011
415.52	0.054	0.000	416.05	0.054	0.011
415.53	0.054	0.001	416.06	0.054	0.012
415.54	0.054	0.001	416.07	0.054	0.012
415.55	0.054	0.001	416.08	0.054	0.013
415.56	0.054	0.001	416.09	0.054	0.013
415.57	0.054	0.001	416.10	0.054	0.013
415.58	0.054	0.001	416.11	0.054	0.014
415.59	0.054	0.002	416.12	0.054	0.014
415.60	0.054	0.002	416.13	0.054	0.015
415.61	0.054	0.002	416.14	0.054	0.015
415.62	0.054	0.002	416.15	0.054	0.016
415.63	0.054	0.002	416.16	0.054	0.016
415.64	0.054	0.003	416.17	0.054	0.016
415.65	0.054	0.003	416.18	0.054	0.017
415.66	0.054	0.003	416.19	0.054	0.017
415.67	0.054	0.003	416.20	0.054	0.018
415.68	0.054	0.003	416.21	0.054	0.018
415.69	0.054	0.003	416.22	0.054	0.019
415.70	0.054	0.004	416.23	0.054	0.019
415.71	0.054	0.004	416.24	0.054	0.019
415.72	0.054	0.004	416.25	0.054	0.020
415.73	0.054	0.004	416.26	0.054	0.020
415.74	0.054	0.004	416.27	0.054	0.021
415.75	0.054	0.005	416.28	0.054	0.021
415.76	0.054	0.005	416.29	0.054	0.021
415.77	0.054	0.005	416.30	0.054	0.022
415.78	0.054	0.005	416.31	0.054	0.022
415.79	0.054	0.005	416.32	0.054	0.023
415.80	0.054	0.005	416.33	0.054	0.023
415.81	0.054	0.006	416.34	0.054	0.024
415.82	0.054	0.006	416.35	0.054	0.024
415.83	0.054	0.006	416.36	0.054	0.024
415.84	0.054	0.006	416.37	0.054	0.025
415.85	0.054	0.006	416.38	0.054	0.025
415.86	0.054	0.007	416.39	0.054	0.026
415.87	0.054	0.007	416.40	0.054	0.026
415.88	0.054	0.007	416.41	0.054	0.026
415.89	0.054	0.007	416.42	0.054	0.027
415.90	0.054	0.007	416.43	0.054	0.027
415.91	0.054	0.007	416.44	0.054	0.028
415.92	0.054	0.008	416.45	0.054	0.028
415.93	0.054	0.008	416.46	0.054	0.029
415.94	0.054	0.008	416.47	0.054	0.029
415.95	0.054	0.008	416.48	0.054	0.029
415.96	0.054	0.008	416.49	0.054	0.030
415.97	0.054	0.009	416.50	0.054	0.030
415.98	0.054	0.009	416.51	0.054	0.031
415.99	0.054	0.009	416.52	0.054	0.031
416.00	0.054	0.009	416.53	0.054	0.031
416.01	0.054	0.009	416.54	0.054	0.032
416.02	0.054	0.010	416.55	0.054	0.032

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
416.56	0.054	0.033	417.09	0.054	0.053
416.57	0.054	0.033	417.10	0.054	0.053
416.58	0.054	0.033	417.11	0.054	0.053
416.59	0.054	0.034	417.12	0.054	0.054
416.60	0.054	0.034	417.13	0.054	0.054
416.61	0.054	0.035	417.14	0.054	0.054
416.62	0.054	0.035	417.15	0.054	0.055
416.63	0.054	0.036	417.16	0.054	0.055
416.64	0.054	0.036	417.17	0.054	0.055
416.65	0.054	0.036	417.18	0.054	0.056
416.66	0.054	0.037	417.19	0.054	0.056
416.67	0.054	0.037	417.20	0.054	0.056
416.68	0.054	0.038	417.21	0.054	0.057
416.69	0.054	0.038	417.22	0.054	0.057
416.70	0.054	0.038	417.23	0.054	0.057
416.71	0.054	0.039	417.24	0.054	0.057
416.72	0.054	0.039	417.25	0.054	0.058
416.73	0.054	0.039	417.26	0.054	0.058
416.74	0.054	0.040	417.27	0.054	0.058
416.75	0.054	0.040	417.28	0.054	0.059
416.76	0.054	0.041	417.29	0.054	0.059
416.77	0.054	0.041	417.30	0.054	0.059
416.78	0.054	0.041	417.31	0.054	0.059
416.79	0.054	0.042	417.32	0.054	0.060
416.80	0.054	0.042	417.33	0.054	0.060
416.81	0.054	0.043	417.34	0.054	0.060
416.82	0.054	0.043	417.35	0.054	0.060
416.83	0.054	0.043	417.36	0.054	0.061
416.84	0.054	0.044	417.37	0.054	0.061
416.85	0.054	0.044	417.38	0.054	0.061
416.86	0.054	0.044	417.39	0.054	0.061
416.87	0.054	0.045	417.40	0.054	0.062
416.88	0.054	0.045	417.41	0.054	0.062
416.89	0.054	0.046	417.42	0.054	0.062
416.90	0.054	0.046	417.43	0.054	0.062
416.91	0.054	0.046	417.44	0.054	0.062
416.92	0.054	0.047	417.45	0.054	0.063
416.93	0.054	0.047	417.46	0.054	0.063
416.94	0.054	0.047	417.47	0.054	0.063
416.95	0.054	0.048	417.48	0.054	0.063
416.96	0.054	0.048	417.49	0.054	0.063
416.97	0.054	0.049	417.50	0.054	0.064
416.98	0.054	0.049	417.51	0.054	0.064
416.99	0.054	0.049	417.52	0.054	0.064
417.00	0.054	0.050	417.53	0.054	0.064
417.01	0.054	0.050	417.54	0.054	0.064
417.02	0.054	0.050	417.55	0.054	0.065
417.03	0.054	0.051	417.56	0.054	0.065
417.04	0.054	0.051	417.57	0.054	0.065
417.05	0.054	0.051	417.58	0.054	0.065
417.06	0.054	0.052	417.59	0.054	0.065
417.07	0.054	0.052	417.60	0.054	0.065
417.08	0.054	0.052	417.61	0.054	0.066

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
417.62	0.054	0.066	418.15	0.054	0.073
417.63	0.054	0.066	418.16	0.054	0.073
417.64	0.054	0.066	418.17	0.054	0.073
417.65	0.054	0.066	418.18	0.054	0.073
417.66	0.054	0.067	418.19	0.054	0.073
417.67	0.054	0.067	418.20	0.054	0.073
417.68	0.054	0.067	418.21	0.054	0.073
417.69	0.054	0.067	418.22	0.054	0.073
417.70	0.054	0.067	418.23	0.054	0.073
417.71	0.054	0.067	418.24	0.054	0.073
417.72	0.054	0.068	418.25	0.054	0.073
417.73	0.054	0.068			
417.74	0.054	0.068			
417.75	0.054	0.068			
417.76	0.054	0.068			
417.77	0.054	0.069			
417.78	0.054	0.069			
417.79	0.054	0.069			
417.80	0.054	0.069			
417.81	0.054	0.069			
417.82	0.054	0.069			
417.83	0.054	0.070			
417.84	0.054	0.070			
417.85	0.054	0.070			
417.86	0.054	0.070			
417.87	0.054	0.070			
417.88	0.054	0.070			
417.89	0.054	0.071			
417.90	0.054	0.071			
417.91	0.054	0.071			
417.92	0.054	0.071			
417.93	0.054	0.071			
417.94	0.054	0.072			
417.95	0.054	0.072			
417.96	0.054	0.072			
417.97	0.054	0.072			
417.98	0.054	0.072			
417.99	0.054	0.072			
418.00	0.054	0.073			
418.01	0.054	0.073			
418.02	0.054	0.073			
418.03	0.054	0.073			
418.04	0.054	0.073			
418.05	0.054	0.073			
418.06	0.054	0.073			
418.07	0.054	0.073			
418.08	0.054	0.073			
418.09	0.054	0.073			
418.10	0.054	0.073			
418.11	0.054	0.073			
418.12	0.054	0.073			
418.13	0.054	0.073			
418.14	0.054	0.073			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F1: Post-Development F1 Runoff Area=5.369 ac 0.00% Impervious Runoff Depth=1.31"
Flow Length=1,503' Tc=15.7 min CN=56 Runoff=5.24 cfs 0.586 af

Subcatchment F2: Post-Development F2 Runoff Area=0.559 ac 25.04% Impervious Runoff Depth=2.33"
Flow Length=191' Tc=8.4 min CN=69 Runoff=1.35 cfs 0.108 af

Subcatchment F3: Post-Development F3 Runoff Area=0.489 ac 26.58% Impervious Runoff Depth=2.41"
Flow Length=208' Tc=10.3 min CN=70 Runoff=1.17 cfs 0.098 af

Subcatchment F4: Post-Development F4 Runoff Area=0.762 ac 20.34% Impervious Runoff Depth=2.16"
Flow Length=422' Tc=8.9 min CN=67 Runoff=1.67 cfs 0.137 af

Subcatchment F5: Post-Development F5 Runoff Area=0.317 ac 36.59% Impervious Runoff Depth=2.86"
Flow Length=120' Tc=2.6 min CN=75 Runoff=1.16 cfs 0.076 af

Pond DP 6: Design Point 6 Inflow=5.24 cfs 0.586 af
Primary=5.24 cfs 0.586 af

Pond S-13: Underground Infiltration Peak Elev=462.41' Storage=0.024 af Inflow=1.16 cfs 0.076 af
Discarded=0.14 cfs 0.076 af Primary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.076 af

Pond S-14: Underground Infiltration Peak Elev=440.88' Storage=0.013 af Inflow=1.67 cfs 0.137 af
Discarded=0.84 cfs 0.139 af Primary=0.00 cfs 0.000 af Outflow=0.84 cfs 0.139 af

Pond S-15: Underground Infiltration Peak Elev=434.35' Storage=0.018 af Inflow=1.17 cfs 0.098 af
Discarded=0.38 cfs 0.099 af Primary=0.00 cfs 0.000 af Outflow=0.38 cfs 0.099 af

Pond S-16: Underground Infiltration Peak Elev=416.25' Storage=0.020 af Inflow=1.35 cfs 0.108 af
Discarded=0.43 cfs 0.108 af Primary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.108 af

Total Runoff Area = 7.496 ac Runoff Volume = 1.005 af Average Runoff Depth = 1.61"
92.78% Pervious = 6.955 ac 7.22% Impervious = 0.541 ac

Summary for Subcatchment F1: Post-Development F1

Runoff = 5.24 cfs @ 12.25 hrs, Volume= 0.586 af, Depth= 1.31"

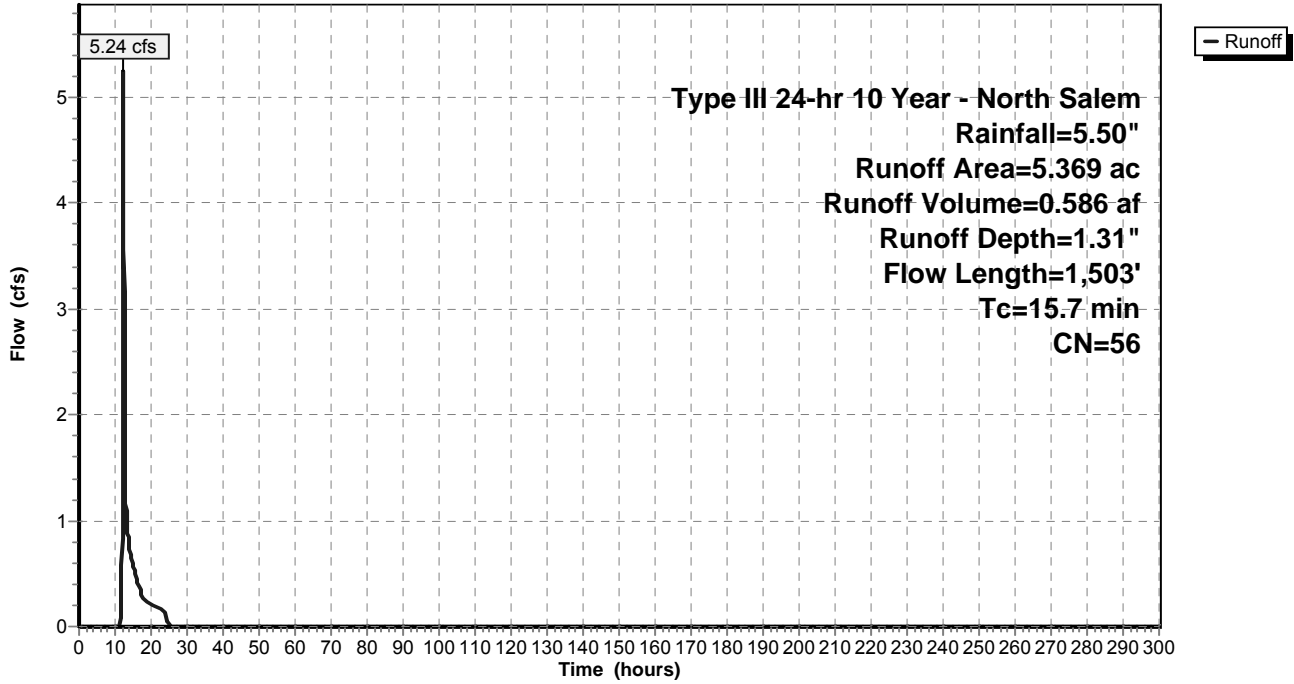
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
1.214	61	>75% Grass cover, Good, HSG B
4.155	55	Woods, Good, HSG B
5.369	56	Weighted Average
5.369		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	64	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	81	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2700	8.37		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
5.6	840	0.0245	2.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.7	262	0.1685	6.61		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
15.7	1,503	Total			

Subcatchment F1: Post-Development F1

Hydrograph



Summary for Subcatchment F2: Post-Development F2

Runoff = 1.35 cfs @ 12.13 hrs, Volume= 0.108 af, Depth= 2.33"

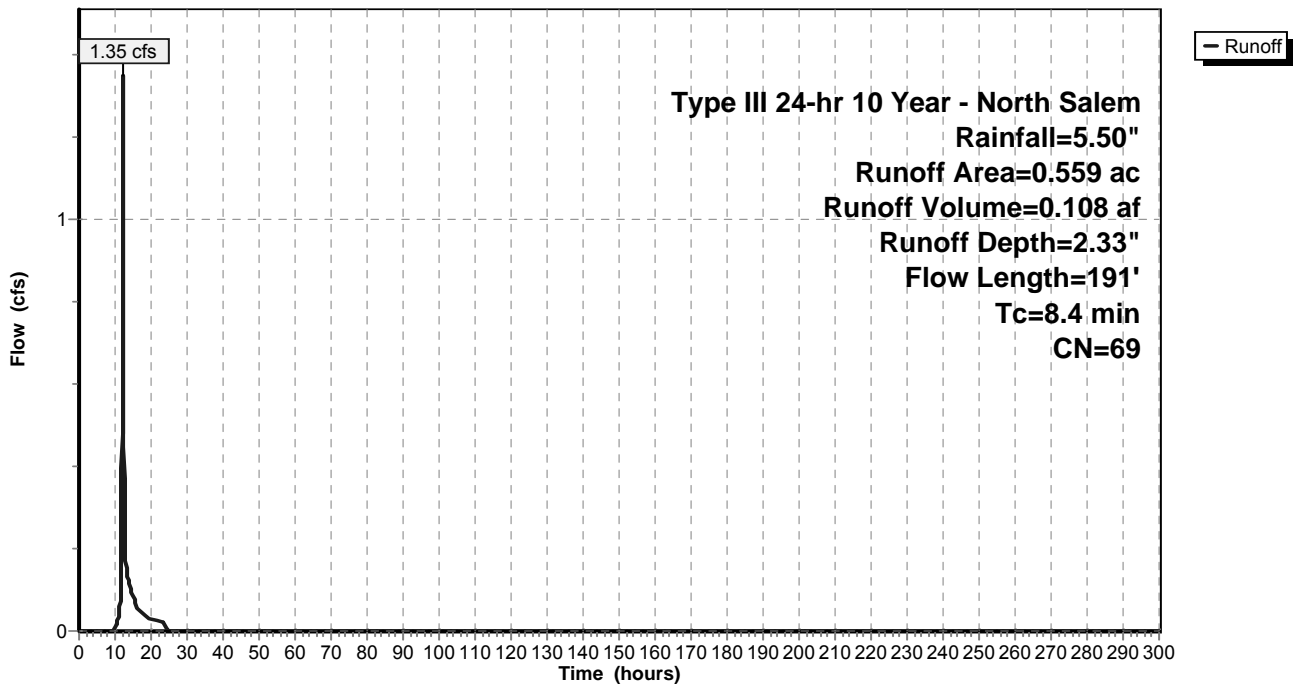
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.076	98	Driveway
0.316	61	>75% Grass cover, Good, HSG B
0.103	55	Woods, Good, HSG B
0.559	69	Weighted Average
0.419		74.96% Pervious Area
0.140		25.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.2800	0.31		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.3	50	0.1400	0.16		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	91	0.0549	3.77		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.4	191	Total			

Subcatchment F2: Post-Development F2

Hydrograph



Summary for Subcatchment F3: Post-Development F3

Runoff = 1.17 cfs @ 12.15 hrs, Volume= 0.098 af, Depth= 2.41"

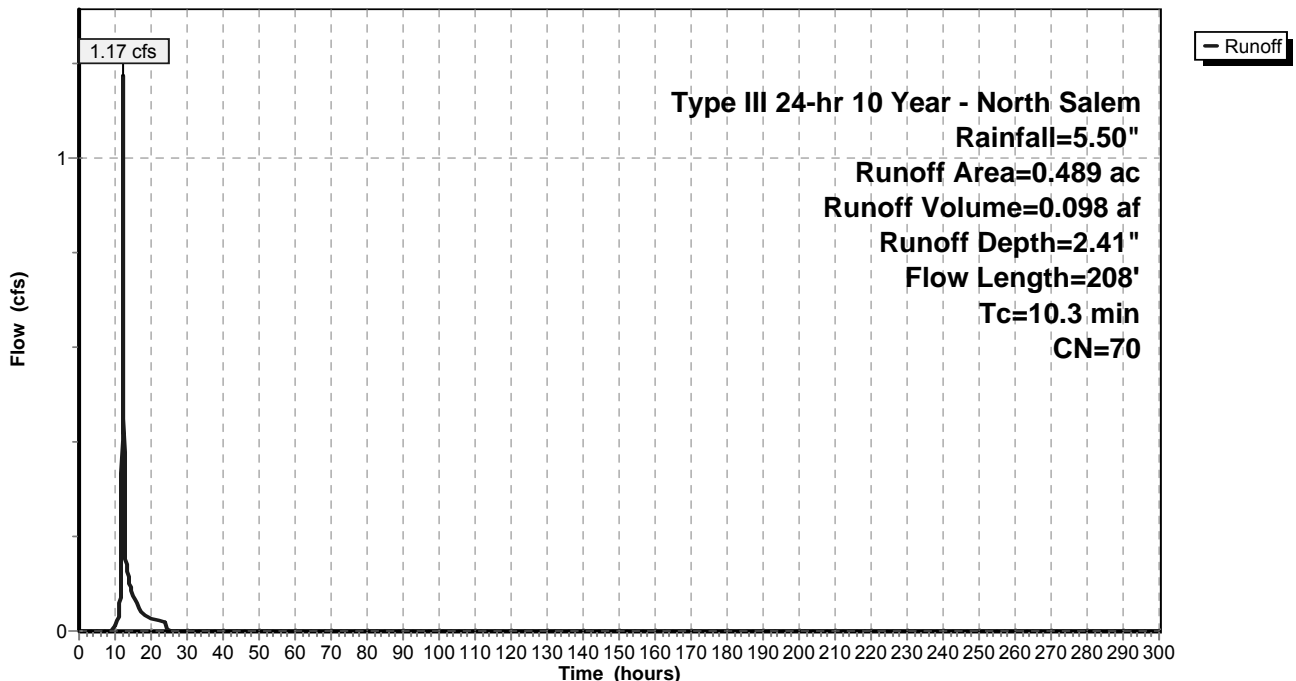
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.066	98	Driveway
0.281	61	>75% Grass cover, Good, HSG B
0.078	55	Woods, Good, HSG B
0.489	70	Weighted Average
0.359		73.42% Pervious Area
0.130		26.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	30	0.2667	0.28		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
7.9	70	0.1000	0.15		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	108	0.0370	3.10		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.3	208	Total			

Subcatchment F3: Post-Development F3

Hydrograph



Summary for Subcatchment F4: Post-Development F4

Runoff = 1.67 cfs @ 12.14 hrs, Volume= 0.137 af, Depth= 2.16"

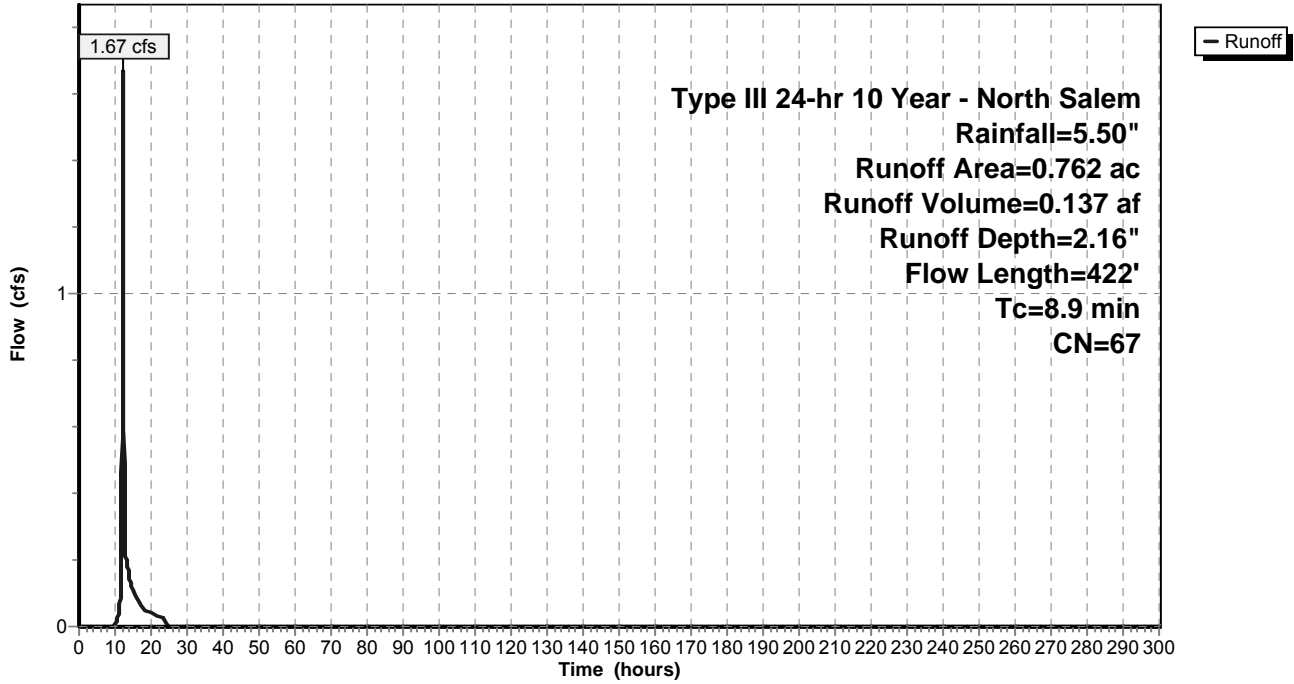
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.091	98	Driveway
0.422	61	>75% Grass cover, Good, HSG B
0.185	55	Woods, Good, HSG B
0.762	67	Weighted Average
0.607		79.66% Pervious Area
0.155		20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	26	0.2307	7.73		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	31	0.0645	4.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	119	0.0336	2.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	146	0.0300	3.90	1.36	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.020 Corrugated PE, corrugated interior
8.9	422	Total			

Subcatchment F4: Post-Development F4

Hydrograph



Summary for Subcatchment F5: Post-Development F5

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.16 cfs @ 12.05 hrs, Volume= 0.076 af, Depth= 2.86"

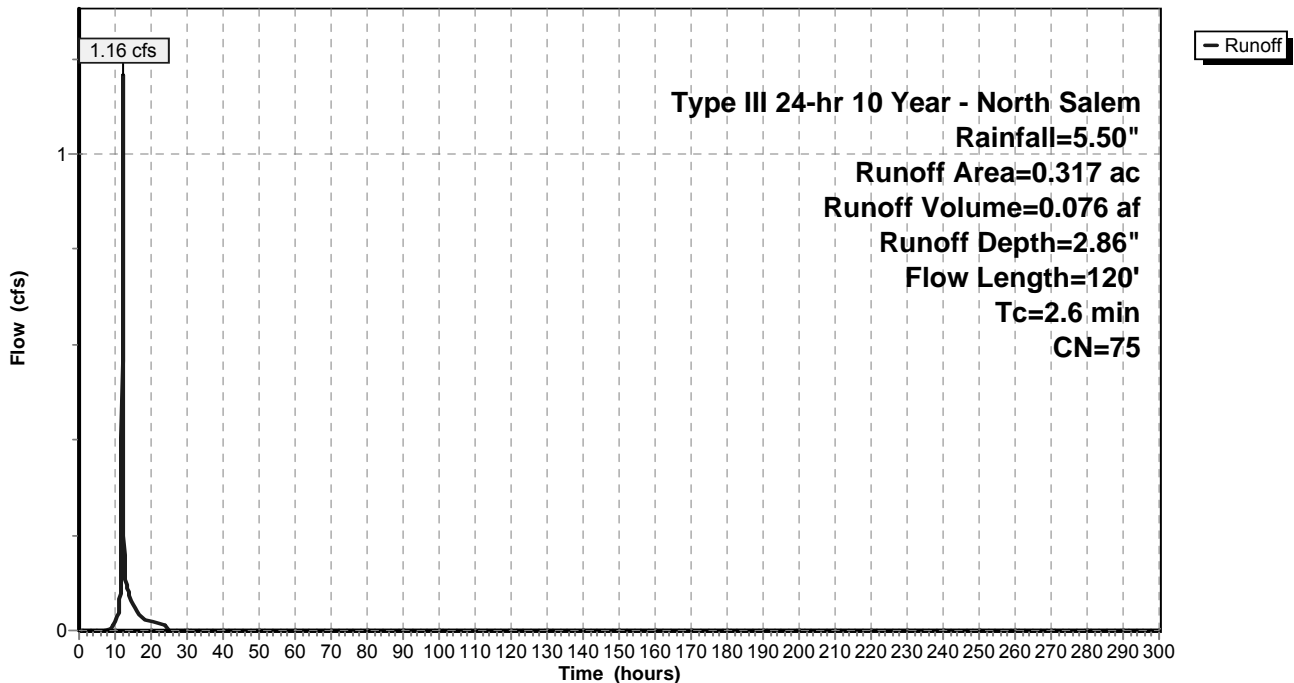
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.052	98	Driveway
0.201	61	>75% Grass cover, Good, HSG B
0.317	75	Weighted Average
0.201		63.41% Pervious Area
0.116		36.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	47	0.4255	0.37		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	73	0.0274	2.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.6	120	Total			

Subcatchment F5: Post-Development F5

Hydrograph



Summary for Pond DP 6: Design Point 6

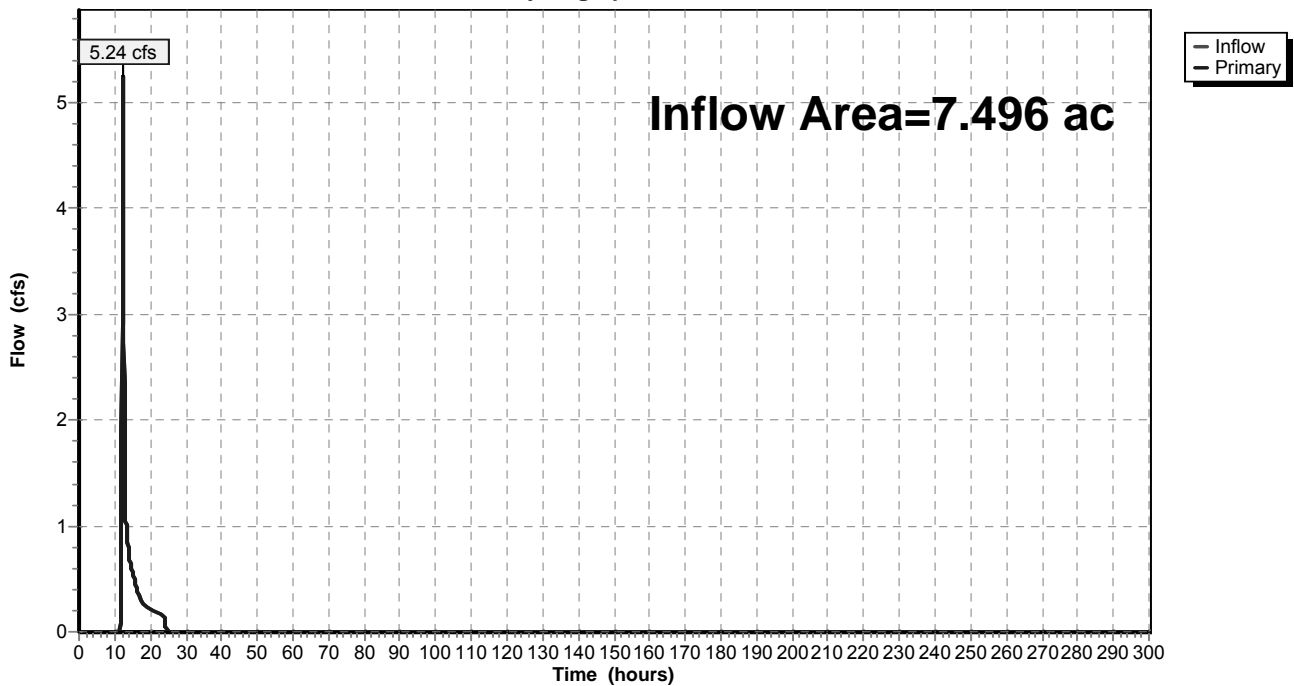
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.496 ac, 7.22% Impervious, Inflow Depth = 0.94" for 10 Year - North Salem event
Inflow = 5.24 cfs @ 12.25 hrs, Volume= 0.586 af
Primary = 5.24 cfs @ 12.25 hrs, Volume= 0.586 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Summary for Pond S-13: Underground Infiltration (Sub-Lot 13)

Inflow Area = 0.317 ac, 36.59% Impervious, Inflow Depth = 2.86" for 10 Year - North Salem event
 Inflow = 1.16 cfs @ 12.05 hrs, Volume= 0.076 af
 Outflow = 0.14 cfs @ 11.65 hrs, Volume= 0.076 af, Atten= 88%, Lag= 0.0 min
 Discarded = 0.14 cfs @ 11.65 hrs, Volume= 0.076 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 462.41' @ 12.63 hrs Surf.Area= 0.028 ac Storage= 0.024 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 52.9 min (880.1 - 827.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	461.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	461.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

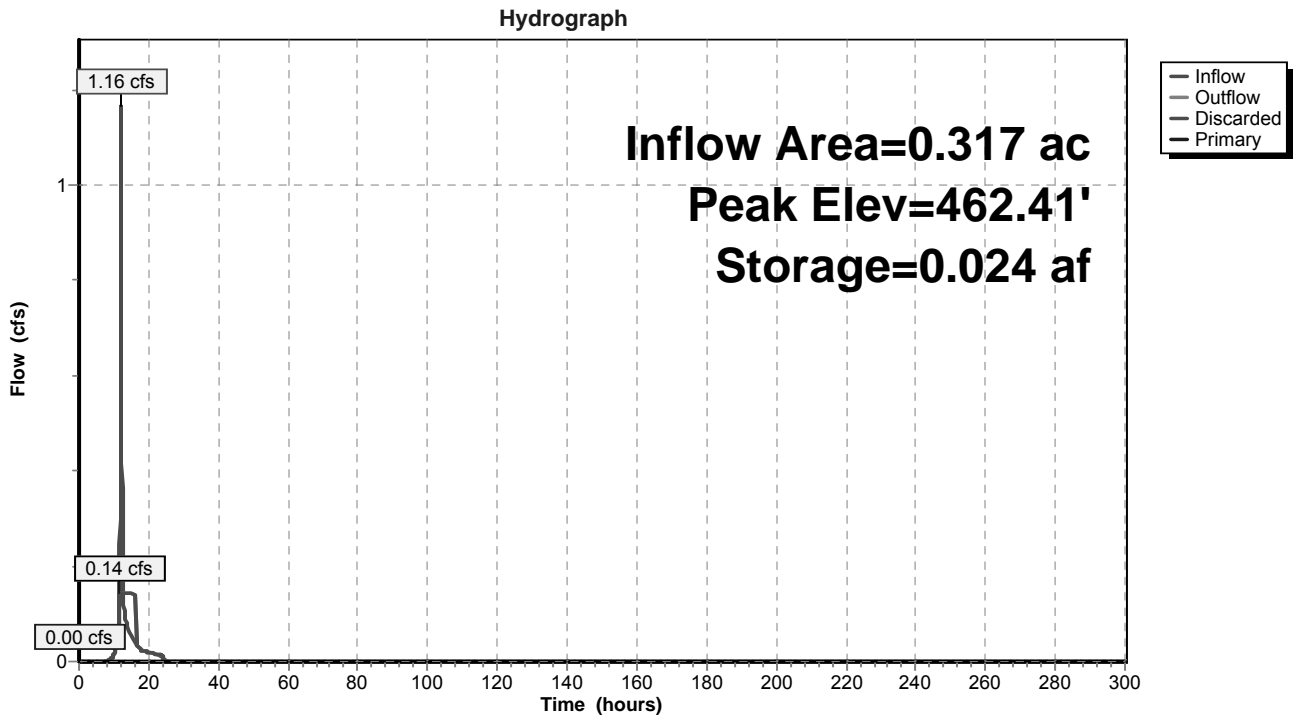
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	461.00'	5.180 in/hr Exfiltration over Surface area
#2	Primary	462.85'	3.0" Vert. Orifice/Grate X 4.00 C= 0.600

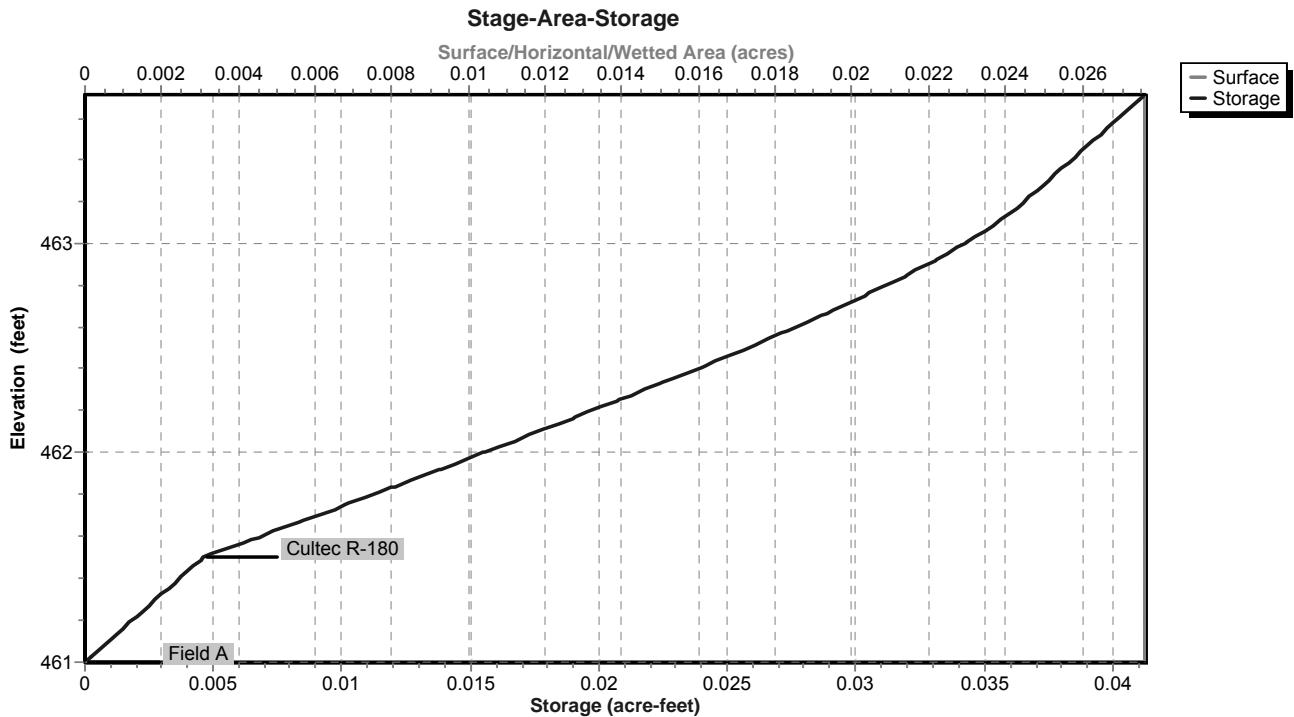
Discarded OutFlow Max=0.14 cfs @ 11.65 hrs HW=461.03' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.14 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-13: Underground Infiltration (Sub-Lot 13)



Pond S-13: Underground Infiltration (Sub-Lot 13)



Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
461.00	0.028	0.000	461.53	0.028	0.005
461.01	0.028	0.000	461.54	0.028	0.005
461.02	0.028	0.000	461.55	0.028	0.006
461.03	0.028	0.000	461.56	0.028	0.006
461.04	0.028	0.000	461.57	0.028	0.006
461.05	0.028	0.000	461.58	0.028	0.006
461.06	0.028	0.001	461.59	0.028	0.007
461.07	0.028	0.001	461.60	0.028	0.007
461.08	0.028	0.001	461.61	0.028	0.007
461.09	0.028	0.001	461.62	0.028	0.007
461.10	0.028	0.001	461.63	0.028	0.007
461.11	0.028	0.001	461.64	0.028	0.008
461.12	0.028	0.001	461.65	0.028	0.008
461.13	0.028	0.001	461.66	0.028	0.008
461.14	0.028	0.001	461.67	0.028	0.008
461.15	0.028	0.001	461.68	0.028	0.009
461.16	0.028	0.001	461.69	0.028	0.009
461.17	0.028	0.002	461.70	0.028	0.009
461.18	0.028	0.002	461.71	0.028	0.009
461.19	0.028	0.002	461.72	0.028	0.009
461.20	0.028	0.002	461.73	0.028	0.010
461.21	0.028	0.002	461.74	0.028	0.010
461.22	0.028	0.002	461.75	0.028	0.010
461.23	0.028	0.002	461.76	0.028	0.010
461.24	0.028	0.002	461.77	0.028	0.011
461.25	0.028	0.002	461.78	0.028	0.011
461.26	0.028	0.002	461.79	0.028	0.011
461.27	0.028	0.002	461.80	0.028	0.011
461.28	0.028	0.003	461.81	0.028	0.011
461.29	0.028	0.003	461.82	0.028	0.012
461.30	0.028	0.003	461.83	0.028	0.012
461.31	0.028	0.003	461.84	0.028	0.012
461.32	0.028	0.003	461.85	0.028	0.012
461.33	0.028	0.003	461.86	0.028	0.013
461.34	0.028	0.003	461.87	0.028	0.013
461.35	0.028	0.003	461.88	0.028	0.013
461.36	0.028	0.003	461.89	0.028	0.013
461.37	0.028	0.003	461.90	0.028	0.013
461.38	0.028	0.003	461.91	0.028	0.014
461.39	0.028	0.004	461.92	0.028	0.014
461.40	0.028	0.004	461.93	0.028	0.014
461.41	0.028	0.004	461.94	0.028	0.014
461.42	0.028	0.004	461.95	0.028	0.014
461.43	0.028	0.004	461.96	0.028	0.015
461.44	0.028	0.004	461.97	0.028	0.015
461.45	0.028	0.004	461.98	0.028	0.015
461.46	0.028	0.004	461.99	0.028	0.015
461.47	0.028	0.004	462.00	0.028	0.016
461.48	0.028	0.004	462.01	0.028	0.016
461.49	0.028	0.005	462.02	0.028	0.016
461.50	0.028	0.005	462.03	0.028	0.016
461.51	0.028	0.005	462.04	0.028	0.016
461.52	0.028	0.005	462.05	0.028	0.017

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
462.06	0.028	0.017	462.59	0.028	0.027
462.07	0.028	0.017	462.60	0.028	0.028
462.08	0.028	0.017	462.61	0.028	0.028
462.09	0.028	0.017	462.62	0.028	0.028
462.10	0.028	0.018	462.63	0.028	0.028
462.11	0.028	0.018	462.64	0.028	0.028
462.12	0.028	0.018	462.65	0.028	0.029
462.13	0.028	0.018	462.66	0.028	0.029
462.14	0.028	0.018	462.67	0.028	0.029
462.15	0.028	0.019	462.68	0.028	0.029
462.16	0.028	0.019	462.69	0.028	0.029
462.17	0.028	0.019	462.70	0.028	0.029
462.18	0.028	0.019	462.71	0.028	0.030
462.19	0.028	0.020	462.72	0.028	0.030
462.20	0.028	0.020	462.73	0.028	0.030
462.21	0.028	0.020	462.74	0.028	0.030
462.22	0.028	0.020	462.75	0.028	0.030
462.23	0.028	0.020	462.76	0.028	0.031
462.24	0.028	0.021	462.77	0.028	0.031
462.25	0.028	0.021	462.78	0.028	0.031
462.26	0.028	0.021	462.79	0.028	0.031
462.27	0.028	0.021	462.80	0.028	0.031
462.28	0.028	0.021	462.81	0.028	0.031
462.29	0.028	0.022	462.82	0.028	0.032
462.30	0.028	0.022	462.83	0.028	0.032
462.31	0.028	0.022	462.84	0.028	0.032
462.32	0.028	0.022	462.85	0.028	0.032
462.33	0.028	0.022	462.86	0.028	0.032
462.34	0.028	0.023	462.87	0.028	0.032
462.35	0.028	0.023	462.88	0.028	0.033
462.36	0.028	0.023	462.89	0.028	0.033
462.37	0.028	0.023	462.90	0.028	0.033
462.38	0.028	0.023	462.91	0.028	0.033
462.39	0.028	0.024	462.92	0.028	0.033
462.40	0.028	0.024	462.93	0.028	0.033
462.41	0.028	0.024	462.94	0.028	0.033
462.42	0.028	0.024	462.95	0.028	0.034
462.43	0.028	0.024	462.96	0.028	0.034
462.44	0.028	0.025	462.97	0.028	0.034
462.45	0.028	0.025	462.98	0.028	0.034
462.46	0.028	0.025	462.99	0.028	0.034
462.47	0.028	0.025	463.00	0.028	0.034
462.48	0.028	0.025	463.01	0.028	0.034
462.49	0.028	0.026	463.02	0.028	0.035
462.50	0.028	0.026	463.03	0.028	0.035
462.51	0.028	0.026	463.04	0.028	0.035
462.52	0.028	0.026	463.05	0.028	0.035
462.53	0.028	0.026	463.06	0.028	0.035
462.54	0.028	0.027	463.07	0.028	0.035
462.55	0.028	0.027	463.08	0.028	0.035
462.56	0.028	0.027	463.09	0.028	0.035
462.57	0.028	0.027	463.10	0.028	0.036
462.58	0.028	0.027	463.11	0.028	0.036

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
463.12	0.028	0.036	463.65	0.028	0.041
463.13	0.028	0.036	463.66	0.028	0.041
463.14	0.028	0.036	463.67	0.028	0.041
463.15	0.028	0.036	463.68	0.028	0.041
463.16	0.028	0.036	463.69	0.028	0.041
463.17	0.028	0.036	463.70	0.028	0.041
463.18	0.028	0.036	463.71	0.028	0.041
463.19	0.028	0.036			
463.20	0.028	0.037			
463.21	0.028	0.037			
463.22	0.028	0.037			
463.23	0.028	0.037			
463.24	0.028	0.037			
463.25	0.028	0.037			
463.26	0.028	0.037			
463.27	0.028	0.037			
463.28	0.028	0.037			
463.29	0.028	0.037			
463.30	0.028	0.038			
463.31	0.028	0.038			
463.32	0.028	0.038			
463.33	0.028	0.038			
463.34	0.028	0.038			
463.35	0.028	0.038			
463.36	0.028	0.038			
463.37	0.028	0.038			
463.38	0.028	0.038			
463.39	0.028	0.038			
463.40	0.028	0.038			
463.41	0.028	0.039			
463.42	0.028	0.039			
463.43	0.028	0.039			
463.44	0.028	0.039			
463.45	0.028	0.039			
463.46	0.028	0.039			
463.47	0.028	0.039			
463.48	0.028	0.039			
463.49	0.028	0.039			
463.50	0.028	0.039			
463.51	0.028	0.039			
463.52	0.028	0.040			
463.53	0.028	0.040			
463.54	0.028	0.040			
463.55	0.028	0.040			
463.56	0.028	0.040			
463.57	0.028	0.040			
463.58	0.028	0.040			
463.59	0.028	0.040			
463.60	0.028	0.040			
463.61	0.028	0.040			
463.62	0.028	0.040			
463.63	0.028	0.041			
463.64	0.028	0.041			

Summary for Pond S-14: Underground Infiltration (Sub-Lot 14)

Inflow Area = 0.762 ac, 20.34% Impervious, Inflow Depth = 2.16" for 10 Year - North Salem event
 Inflow = 1.67 cfs @ 12.14 hrs, Volume= 0.137 af
 Outflow = 0.84 cfs @ 12.05 hrs, Volume= 0.139 af, Atten= 50%, Lag= 0.0 min
 Discarded = 0.84 cfs @ 12.05 hrs, Volume= 0.139 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 440.88' @ 12.38 hrs Surf.Area= 0.028 ac Storage= 0.013 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 1.9 min (854.6 - 852.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	440.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	440.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

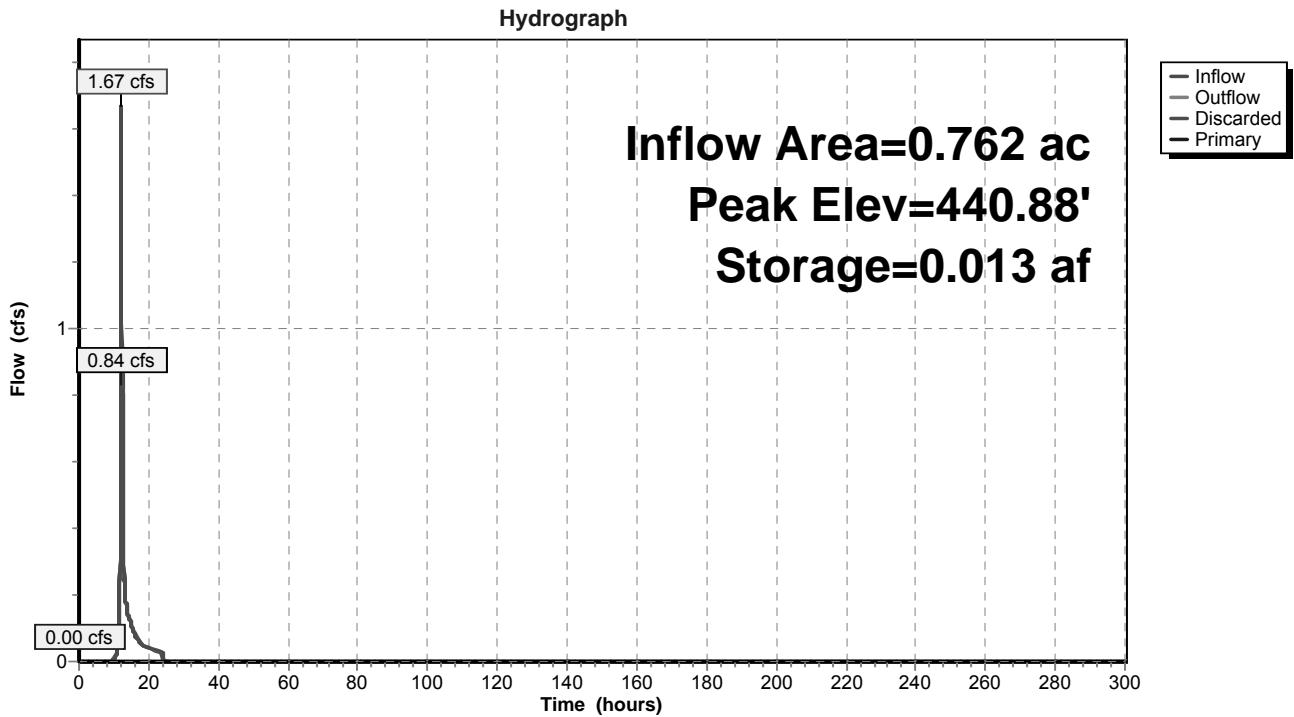
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	440.00'	30.000 in/hr Exfiltration over Surface area
#2	Primary	441.94'	6.0" Vert. Orifice/Grate X 5.00 C= 0.600

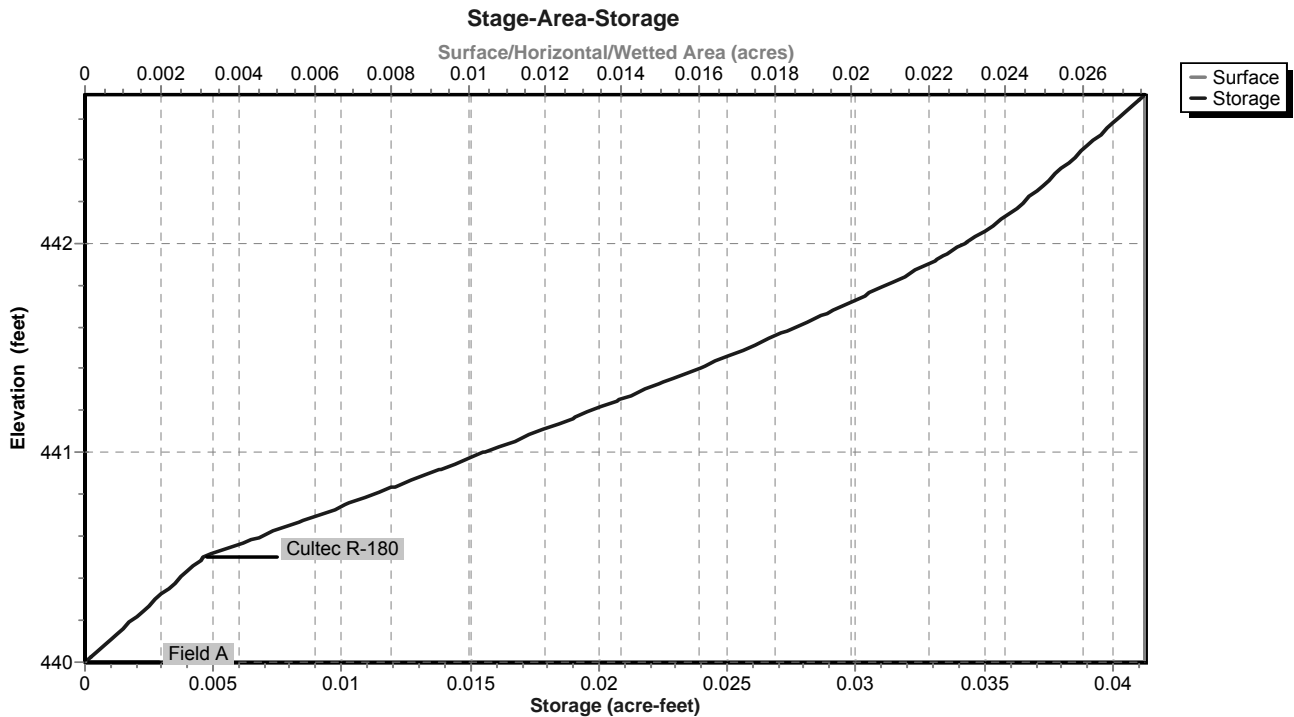
Discarded OutFlow Max=0.84 cfs @ 12.05 hrs HW=440.09' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.84 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-14: Underground Infiltration (Sub-Lot 14)



Pond S-14: Underground Infiltration (Sub-Lot 14)



Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
440.00	0.028	0.000	440.53	0.028	0.005
440.01	0.028	0.000	440.54	0.028	0.005
440.02	0.028	0.000	440.55	0.028	0.006
440.03	0.028	0.000	440.56	0.028	0.006
440.04	0.028	0.000	440.57	0.028	0.006
440.05	0.028	0.000	440.58	0.028	0.006
440.06	0.028	0.001	440.59	0.028	0.007
440.07	0.028	0.001	440.60	0.028	0.007
440.08	0.028	0.001	440.61	0.028	0.007
440.09	0.028	0.001	440.62	0.028	0.007
440.10	0.028	0.001	440.63	0.028	0.007
440.11	0.028	0.001	440.64	0.028	0.008
440.12	0.028	0.001	440.65	0.028	0.008
440.13	0.028	0.001	440.66	0.028	0.008
440.14	0.028	0.001	440.67	0.028	0.008
440.15	0.028	0.001	440.68	0.028	0.009
440.16	0.028	0.001	440.69	0.028	0.009
440.17	0.028	0.002	440.70	0.028	0.009
440.18	0.028	0.002	440.71	0.028	0.009
440.19	0.028	0.002	440.72	0.028	0.009
440.20	0.028	0.002	440.73	0.028	0.010
440.21	0.028	0.002	440.74	0.028	0.010
440.22	0.028	0.002	440.75	0.028	0.010
440.23	0.028	0.002	440.76	0.028	0.010
440.24	0.028	0.002	440.77	0.028	0.011
440.25	0.028	0.002	440.78	0.028	0.011
440.26	0.028	0.002	440.79	0.028	0.011
440.27	0.028	0.002	440.80	0.028	0.011
440.28	0.028	0.003	440.81	0.028	0.011
440.29	0.028	0.003	440.82	0.028	0.012
440.30	0.028	0.003	440.83	0.028	0.012
440.31	0.028	0.003	440.84	0.028	0.012
440.32	0.028	0.003	440.85	0.028	0.012
440.33	0.028	0.003	440.86	0.028	0.013
440.34	0.028	0.003	440.87	0.028	0.013
440.35	0.028	0.003	440.88	0.028	0.013
440.36	0.028	0.003	440.89	0.028	0.013
440.37	0.028	0.003	440.90	0.028	0.013
440.38	0.028	0.003	440.91	0.028	0.014
440.39	0.028	0.004	440.92	0.028	0.014
440.40	0.028	0.004	440.93	0.028	0.014
440.41	0.028	0.004	440.94	0.028	0.014
440.42	0.028	0.004	440.95	0.028	0.014
440.43	0.028	0.004	440.96	0.028	0.015
440.44	0.028	0.004	440.97	0.028	0.015
440.45	0.028	0.004	440.98	0.028	0.015
440.46	0.028	0.004	440.99	0.028	0.015
440.47	0.028	0.004	441.00	0.028	0.016
440.48	0.028	0.004	441.01	0.028	0.016
440.49	0.028	0.005	441.02	0.028	0.016
440.50	0.028	0.005	441.03	0.028	0.016
440.51	0.028	0.005	441.04	0.028	0.016
440.52	0.028	0.005	441.05	0.028	0.017

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
441.06	0.028	0.017	441.59	0.028	0.027
441.07	0.028	0.017	441.60	0.028	0.028
441.08	0.028	0.017	441.61	0.028	0.028
441.09	0.028	0.017	441.62	0.028	0.028
441.10	0.028	0.018	441.63	0.028	0.028
441.11	0.028	0.018	441.64	0.028	0.028
441.12	0.028	0.018	441.65	0.028	0.029
441.13	0.028	0.018	441.66	0.028	0.029
441.14	0.028	0.018	441.67	0.028	0.029
441.15	0.028	0.019	441.68	0.028	0.029
441.16	0.028	0.019	441.69	0.028	0.029
441.17	0.028	0.019	441.70	0.028	0.029
441.18	0.028	0.019	441.71	0.028	0.030
441.19	0.028	0.020	441.72	0.028	0.030
441.20	0.028	0.020	441.73	0.028	0.030
441.21	0.028	0.020	441.74	0.028	0.030
441.22	0.028	0.020	441.75	0.028	0.030
441.23	0.028	0.020	441.76	0.028	0.031
441.24	0.028	0.021	441.77	0.028	0.031
441.25	0.028	0.021	441.78	0.028	0.031
441.26	0.028	0.021	441.79	0.028	0.031
441.27	0.028	0.021	441.80	0.028	0.031
441.28	0.028	0.021	441.81	0.028	0.031
441.29	0.028	0.022	441.82	0.028	0.032
441.30	0.028	0.022	441.83	0.028	0.032
441.31	0.028	0.022	441.84	0.028	0.032
441.32	0.028	0.022	441.85	0.028	0.032
441.33	0.028	0.022	441.86	0.028	0.032
441.34	0.028	0.023	441.87	0.028	0.032
441.35	0.028	0.023	441.88	0.028	0.033
441.36	0.028	0.023	441.89	0.028	0.033
441.37	0.028	0.023	441.90	0.028	0.033
441.38	0.028	0.023	441.91	0.028	0.033
441.39	0.028	0.024	441.92	0.028	0.033
441.40	0.028	0.024	441.93	0.028	0.033
441.41	0.028	0.024	441.94	0.028	0.033
441.42	0.028	0.024	441.95	0.028	0.034
441.43	0.028	0.024	441.96	0.028	0.034
441.44	0.028	0.025	441.97	0.028	0.034
441.45	0.028	0.025	441.98	0.028	0.034
441.46	0.028	0.025	441.99	0.028	0.034
441.47	0.028	0.025	442.00	0.028	0.034
441.48	0.028	0.025	442.01	0.028	0.034
441.49	0.028	0.026	442.02	0.028	0.035
441.50	0.028	0.026	442.03	0.028	0.035
441.51	0.028	0.026	442.04	0.028	0.035
441.52	0.028	0.026	442.05	0.028	0.035
441.53	0.028	0.026	442.06	0.028	0.035
441.54	0.028	0.027	442.07	0.028	0.035
441.55	0.028	0.027	442.08	0.028	0.035
441.56	0.028	0.027	442.09	0.028	0.035
441.57	0.028	0.027	442.10	0.028	0.036
441.58	0.028	0.027	442.11	0.028	0.036

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
442.12	0.028	0.036	442.65	0.028	0.041
442.13	0.028	0.036	442.66	0.028	0.041
442.14	0.028	0.036	442.67	0.028	0.041
442.15	0.028	0.036	442.68	0.028	0.041
442.16	0.028	0.036	442.69	0.028	0.041
442.17	0.028	0.036	442.70	0.028	0.041
442.18	0.028	0.036	442.71	0.028	0.041
442.19	0.028	0.036			
442.20	0.028	0.037			
442.21	0.028	0.037			
442.22	0.028	0.037			
442.23	0.028	0.037			
442.24	0.028	0.037			
442.25	0.028	0.037			
442.26	0.028	0.037			
442.27	0.028	0.037			
442.28	0.028	0.037			
442.29	0.028	0.037			
442.30	0.028	0.038			
442.31	0.028	0.038			
442.32	0.028	0.038			
442.33	0.028	0.038			
442.34	0.028	0.038			
442.35	0.028	0.038			
442.36	0.028	0.038			
442.37	0.028	0.038			
442.38	0.028	0.038			
442.39	0.028	0.038			
442.40	0.028	0.038			
442.41	0.028	0.039			
442.42	0.028	0.039			
442.43	0.028	0.039			
442.44	0.028	0.039			
442.45	0.028	0.039			
442.46	0.028	0.039			
442.47	0.028	0.039			
442.48	0.028	0.039			
442.49	0.028	0.039			
442.50	0.028	0.039			
442.51	0.028	0.039			
442.52	0.028	0.040			
442.53	0.028	0.040			
442.54	0.028	0.040			
442.55	0.028	0.040			
442.56	0.028	0.040			
442.57	0.028	0.040			
442.58	0.028	0.040			
442.59	0.028	0.040			
442.60	0.028	0.040			
442.61	0.028	0.040			
442.62	0.028	0.040			
442.63	0.028	0.041			
442.64	0.028	0.041			

Summary for Pond S-15: Underground Infiltration (Sub-Lot 15)

Inflow Area = 0.489 ac, 26.58% Impervious, Inflow Depth = 2.41" for 10 Year - North Salem event
 Inflow = 1.17 cfs @ 12.15 hrs, Volume= 0.098 af
 Outflow = 0.38 cfs @ 11.95 hrs, Volume= 0.099 af, Atten= 68%, Lag= 0.0 min
 Discarded = 0.38 cfs @ 11.95 hrs, Volume= 0.099 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 434.35' @ 12.55 hrs Surf.Area= 0.037 ac Storage= 0.018 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 10.9 min (857.5 - 846.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.42'	0.022 af	34.00'W x 47.00'L x 2.54'H Field A 0.093 af Overall - 0.027 af Embedded = 0.066 af x 33.3% Voids
#2A	433.92'	0.027 af	Cultec R-150 x 60 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.049 af	Total Available Storage

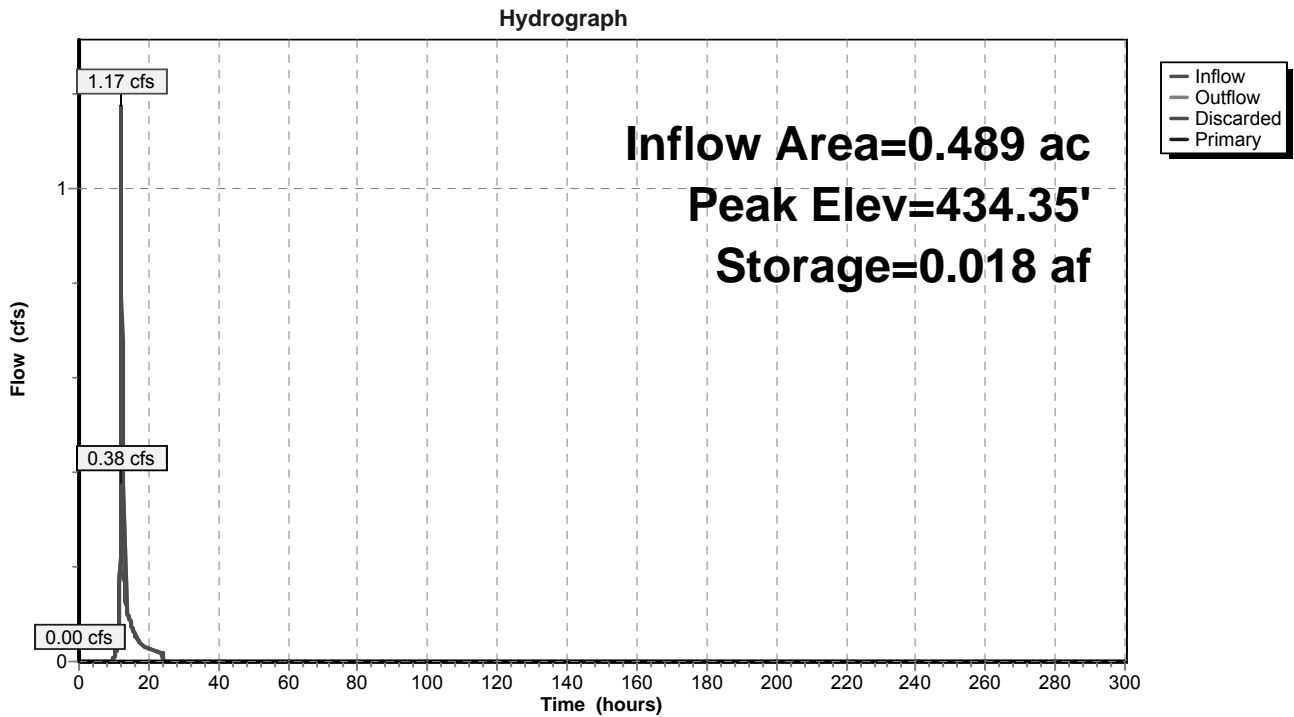
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.42'	10.200 in/hr Exfiltration over Surface area
#2	Primary	435.45'	4.0" Vert. Orifice/Grate X 7.00 C= 0.600

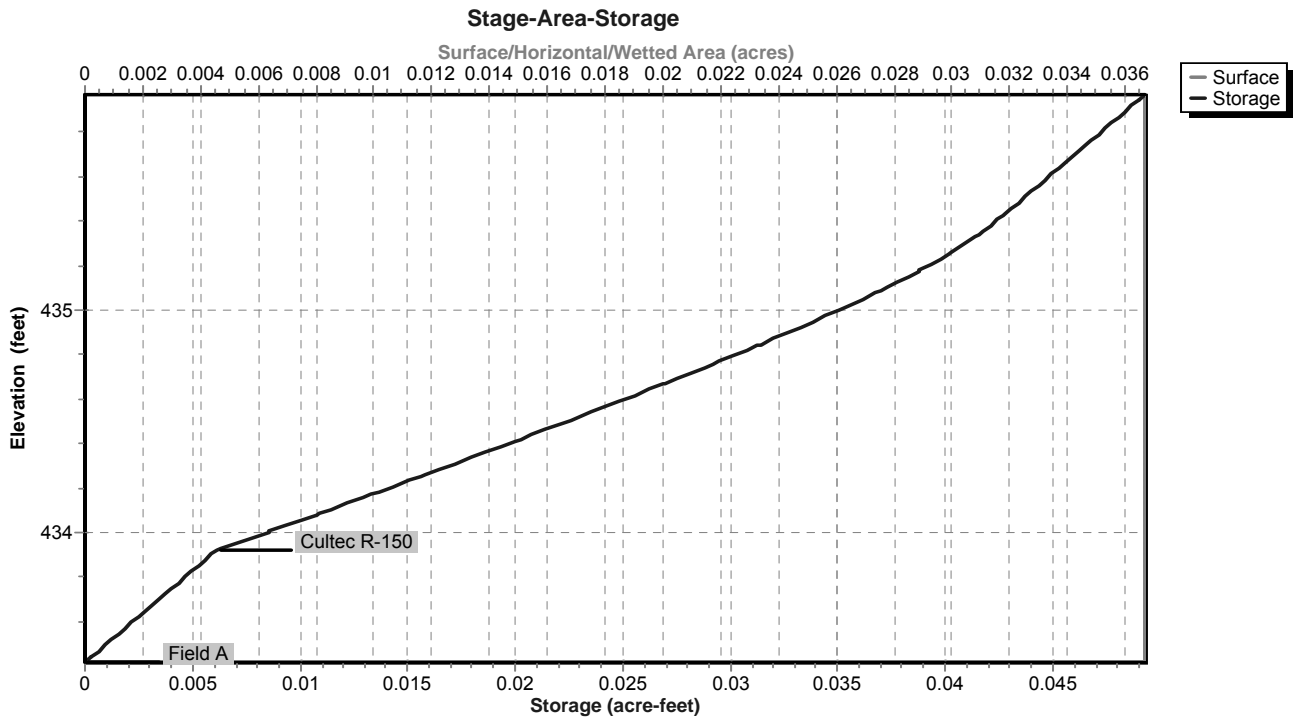
Discarded OutFlow Max=0.38 cfs @ 11.95 hrs HW=433.45' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.38 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.42' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-15: Underground Infiltration (Sub-Lot 15)



Pond S-15: Underground Infiltration (Sub-Lot 15)



Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.42	0.037	0.000	433.95	0.037	0.007
433.43	0.037	0.000	433.96	0.037	0.007
433.44	0.037	0.000	433.97	0.037	0.008
433.45	0.037	0.000	433.98	0.037	0.008
433.46	0.037	0.000	433.99	0.037	0.008
433.47	0.037	0.001	434.00	0.037	0.008
433.48	0.037	0.001	434.01	0.037	0.009
433.49	0.037	0.001	434.02	0.037	0.009
433.50	0.037	0.001	434.03	0.037	0.009
433.51	0.037	0.001	434.04	0.037	0.010
433.52	0.037	0.001	434.05	0.037	0.010
433.53	0.037	0.001	434.06	0.037	0.010
433.54	0.037	0.001	434.07	0.037	0.010
433.55	0.037	0.002	434.08	0.037	0.011
433.56	0.037	0.002	434.09	0.037	0.011
433.57	0.037	0.002	434.10	0.037	0.011
433.58	0.037	0.002	434.11	0.037	0.012
433.59	0.037	0.002	434.12	0.037	0.012
433.60	0.037	0.002	434.13	0.037	0.012
433.61	0.037	0.002	434.14	0.037	0.012
433.62	0.037	0.002	434.15	0.037	0.013
433.63	0.037	0.003	434.16	0.037	0.013
433.64	0.037	0.003	434.17	0.037	0.013
433.65	0.037	0.003	434.18	0.037	0.014
433.66	0.037	0.003	434.19	0.037	0.014
433.67	0.037	0.003	434.20	0.037	0.014
433.68	0.037	0.003	434.21	0.037	0.014
433.69	0.037	0.003	434.22	0.037	0.015
433.70	0.037	0.003	434.23	0.037	0.015
433.71	0.037	0.004	434.24	0.037	0.015
433.72	0.037	0.004	434.25	0.037	0.016
433.73	0.037	0.004	434.26	0.037	0.016
433.74	0.037	0.004	434.27	0.037	0.016
433.75	0.037	0.004	434.28	0.037	0.016
433.76	0.037	0.004	434.29	0.037	0.017
433.77	0.037	0.004	434.30	0.037	0.017
433.78	0.037	0.004	434.31	0.037	0.017
433.79	0.037	0.005	434.32	0.037	0.018
433.80	0.037	0.005	434.33	0.037	0.018
433.81	0.037	0.005	434.34	0.037	0.018
433.82	0.037	0.005	434.35	0.037	0.018
433.83	0.037	0.005	434.36	0.037	0.019
433.84	0.037	0.005	434.37	0.037	0.019
433.85	0.037	0.005	434.38	0.037	0.019
433.86	0.037	0.005	434.39	0.037	0.019
433.87	0.037	0.005	434.40	0.037	0.020
433.88	0.037	0.006	434.41	0.037	0.020
433.89	0.037	0.006	434.42	0.037	0.020
433.90	0.037	0.006	434.43	0.037	0.021
433.91	0.037	0.006	434.44	0.037	0.021
433.92	0.037	0.006	434.45	0.037	0.021
433.93	0.037	0.006	434.46	0.037	0.021
433.94	0.037	0.007	434.47	0.037	0.022

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.48	0.037	0.022	435.01	0.037	0.035
434.49	0.037	0.022	435.02	0.037	0.036
434.50	0.037	0.022	435.03	0.037	0.036
434.51	0.037	0.023	435.04	0.037	0.036
434.52	0.037	0.023	435.05	0.037	0.036
434.53	0.037	0.023	435.06	0.037	0.036
434.54	0.037	0.024	435.07	0.037	0.037
434.55	0.037	0.024	435.08	0.037	0.037
434.56	0.037	0.024	435.09	0.037	0.037
434.57	0.037	0.024	435.10	0.037	0.037
434.58	0.037	0.025	435.11	0.037	0.038
434.59	0.037	0.025	435.12	0.037	0.038
434.60	0.037	0.025	435.13	0.037	0.038
434.61	0.037	0.025	435.14	0.037	0.038
434.62	0.037	0.026	435.15	0.037	0.038
434.63	0.037	0.026	435.16	0.037	0.039
434.64	0.037	0.026	435.17	0.037	0.039
434.65	0.037	0.026	435.18	0.037	0.039
434.66	0.037	0.027	435.19	0.037	0.039
434.67	0.037	0.027	435.20	0.037	0.039
434.68	0.037	0.027	435.21	0.037	0.040
434.69	0.037	0.028	435.22	0.037	0.040
434.70	0.037	0.028	435.23	0.037	0.040
434.71	0.037	0.028	435.24	0.037	0.040
434.72	0.037	0.028	435.25	0.037	0.040
434.73	0.037	0.029	435.26	0.037	0.040
434.74	0.037	0.029	435.27	0.037	0.041
434.75	0.037	0.029	435.28	0.037	0.041
434.76	0.037	0.029	435.29	0.037	0.041
434.77	0.037	0.030	435.30	0.037	0.041
434.78	0.037	0.030	435.31	0.037	0.041
434.79	0.037	0.030	435.32	0.037	0.041
434.80	0.037	0.030	435.33	0.037	0.041
434.81	0.037	0.031	435.34	0.037	0.042
434.82	0.037	0.031	435.35	0.037	0.042
434.83	0.037	0.031	435.36	0.037	0.042
434.84	0.037	0.031	435.37	0.037	0.042
434.85	0.037	0.032	435.38	0.037	0.042
434.86	0.037	0.032	435.39	0.037	0.042
434.87	0.037	0.032	435.40	0.037	0.042
434.88	0.037	0.032	435.41	0.037	0.043
434.89	0.037	0.033	435.42	0.037	0.043
434.90	0.037	0.033	435.43	0.037	0.043
434.91	0.037	0.033	435.44	0.037	0.043
434.92	0.037	0.033	435.45	0.037	0.043
434.93	0.037	0.034	435.46	0.037	0.043
434.94	0.037	0.034	435.47	0.037	0.043
434.95	0.037	0.034	435.48	0.037	0.043
434.96	0.037	0.034	435.49	0.037	0.044
434.97	0.037	0.034	435.50	0.037	0.044
434.98	0.037	0.035	435.51	0.037	0.044
434.99	0.037	0.035	435.52	0.037	0.044
435.00	0.037	0.035	435.53	0.037	0.044

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.54	0.037	0.044
435.55	0.037	0.044
435.56	0.037	0.044
435.57	0.037	0.045
435.58	0.037	0.045
435.59	0.037	0.045
435.60	0.037	0.045
435.61	0.037	0.045
435.62	0.037	0.045
435.63	0.037	0.045
435.64	0.037	0.045
435.65	0.037	0.045
435.66	0.037	0.046
435.67	0.037	0.046
435.68	0.037	0.046
435.69	0.037	0.046
435.70	0.037	0.046
435.71	0.037	0.046
435.72	0.037	0.046
435.73	0.037	0.046
435.74	0.037	0.047
435.75	0.037	0.047
435.76	0.037	0.047
435.77	0.037	0.047
435.78	0.037	0.047
435.79	0.037	0.047
435.80	0.037	0.047
435.81	0.037	0.047
435.82	0.037	0.048
435.83	0.037	0.048
435.84	0.037	0.048
435.85	0.037	0.048
435.86	0.037	0.048
435.87	0.037	0.048
435.88	0.037	0.048
435.89	0.037	0.048
435.90	0.037	0.049
435.91	0.037	0.049
435.92	0.037	0.049
435.93	0.037	0.049
435.94	0.037	0.049
435.95	0.037	0.049
435.96	0.037	0.049

Summary for Pond S-16: Underground Infiltration (Sub-Lot 16)

Inflow Area = 0.559 ac, 25.04% Impervious, Inflow Depth = 2.33" for 10 Year - North Salem event
 Inflow = 1.35 cfs @ 12.13 hrs, Volume= 0.108 af
 Outflow = 0.43 cfs @ 11.95 hrs, Volume= 0.108 af, Atten= 68%, Lag= 0.0 min
 Discarded = 0.43 cfs @ 11.95 hrs, Volume= 0.108 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 416.25' @ 12.51 hrs Surf.Area= 0.054 ac Storage= 0.020 af

Plug-Flow detention time= 10.9 min calculated for 0.108 af (100% of inflow)
 Center-of-Mass det. time= 10.6 min (857.9 - 847.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	415.50'	0.032 af	60.00'W x 39.50'L x 2.54'H Field A 0.138 af Overall - 0.041 af Embedded = 0.097 af x 33.3% Voids
#2A	416.00'	0.041 af	Cultec R-150 x 90 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.073 af	Total Available Storage

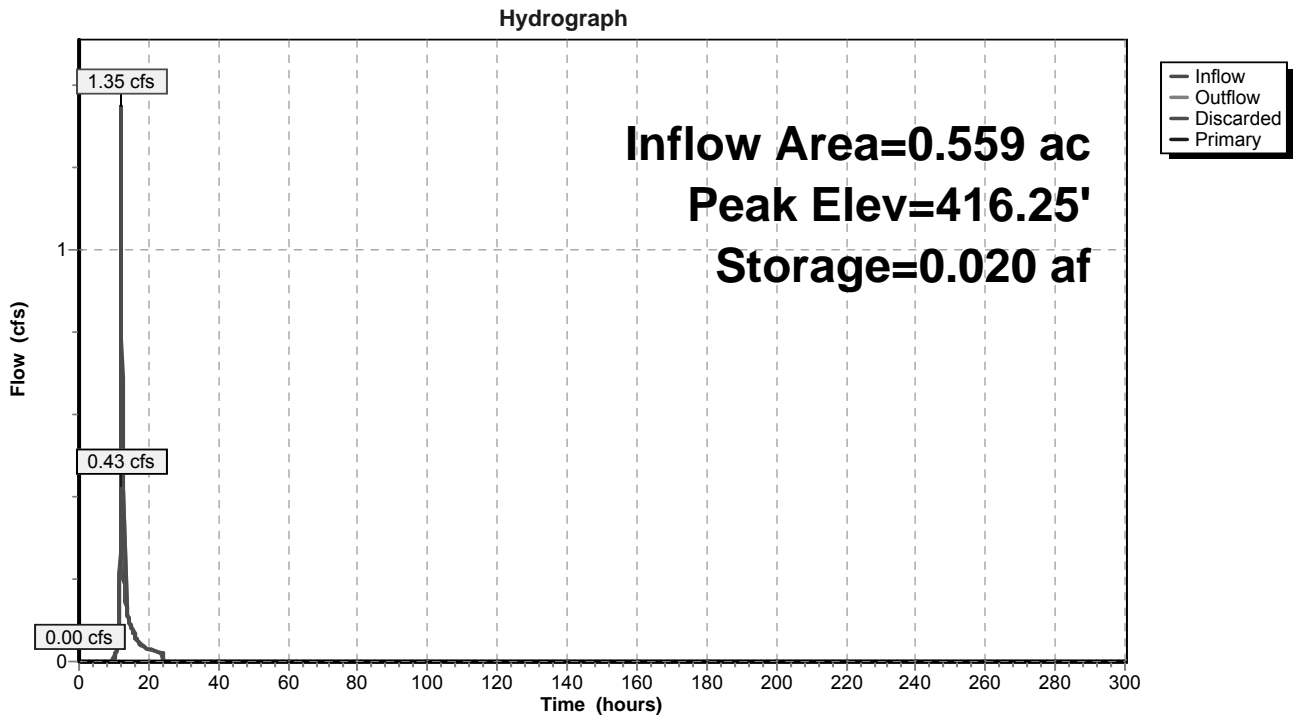
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	415.50'	7.800 in/hr Exfiltration over Surface area
#2	Primary	417.75'	6.0" Vert. Orifice/Grate X 2.00 C= 0.600

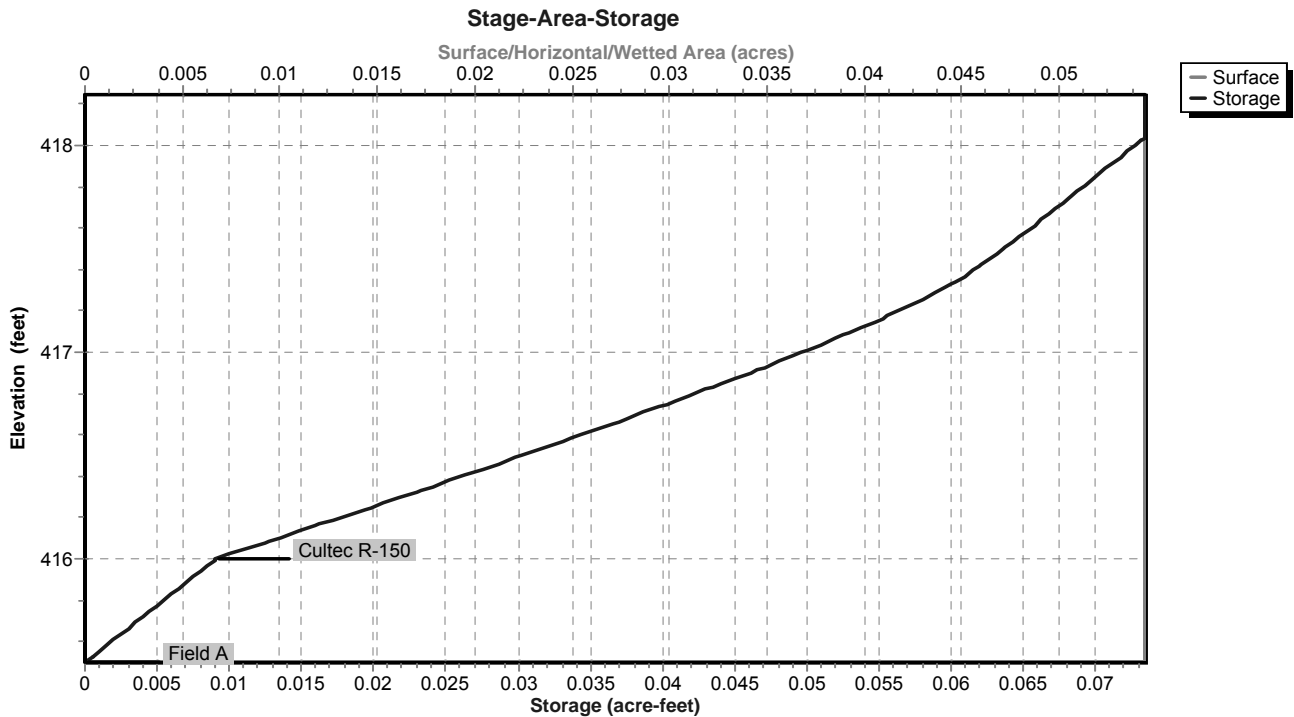
Discarded OutFlow Max=0.43 cfs @ 11.95 hrs HW=415.53' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.43 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=415.50' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-16: Underground Infiltration (Sub-Lot 16)



Pond S-16: Underground Infiltration (Sub-Lot 16)



Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
415.50	0.054	0.000	416.03	0.054	0.010
415.51	0.054	0.000	416.04	0.054	0.011
415.52	0.054	0.000	416.05	0.054	0.011
415.53	0.054	0.001	416.06	0.054	0.012
415.54	0.054	0.001	416.07	0.054	0.012
415.55	0.054	0.001	416.08	0.054	0.013
415.56	0.054	0.001	416.09	0.054	0.013
415.57	0.054	0.001	416.10	0.054	0.013
415.58	0.054	0.001	416.11	0.054	0.014
415.59	0.054	0.002	416.12	0.054	0.014
415.60	0.054	0.002	416.13	0.054	0.015
415.61	0.054	0.002	416.14	0.054	0.015
415.62	0.054	0.002	416.15	0.054	0.016
415.63	0.054	0.002	416.16	0.054	0.016
415.64	0.054	0.003	416.17	0.054	0.016
415.65	0.054	0.003	416.18	0.054	0.017
415.66	0.054	0.003	416.19	0.054	0.017
415.67	0.054	0.003	416.20	0.054	0.018
415.68	0.054	0.003	416.21	0.054	0.018
415.69	0.054	0.003	416.22	0.054	0.019
415.70	0.054	0.004	416.23	0.054	0.019
415.71	0.054	0.004	416.24	0.054	0.019
415.72	0.054	0.004	416.25	0.054	0.020
415.73	0.054	0.004	416.26	0.054	0.020
415.74	0.054	0.004	416.27	0.054	0.021
415.75	0.054	0.005	416.28	0.054	0.021
415.76	0.054	0.005	416.29	0.054	0.021
415.77	0.054	0.005	416.30	0.054	0.022
415.78	0.054	0.005	416.31	0.054	0.022
415.79	0.054	0.005	416.32	0.054	0.023
415.80	0.054	0.005	416.33	0.054	0.023
415.81	0.054	0.006	416.34	0.054	0.024
415.82	0.054	0.006	416.35	0.054	0.024
415.83	0.054	0.006	416.36	0.054	0.024
415.84	0.054	0.006	416.37	0.054	0.025
415.85	0.054	0.006	416.38	0.054	0.025
415.86	0.054	0.007	416.39	0.054	0.026
415.87	0.054	0.007	416.40	0.054	0.026
415.88	0.054	0.007	416.41	0.054	0.026
415.89	0.054	0.007	416.42	0.054	0.027
415.90	0.054	0.007	416.43	0.054	0.027
415.91	0.054	0.007	416.44	0.054	0.028
415.92	0.054	0.008	416.45	0.054	0.028
415.93	0.054	0.008	416.46	0.054	0.029
415.94	0.054	0.008	416.47	0.054	0.029
415.95	0.054	0.008	416.48	0.054	0.029
415.96	0.054	0.008	416.49	0.054	0.030
415.97	0.054	0.009	416.50	0.054	0.030
415.98	0.054	0.009	416.51	0.054	0.031
415.99	0.054	0.009	416.52	0.054	0.031
416.00	0.054	0.009	416.53	0.054	0.031
416.01	0.054	0.009	416.54	0.054	0.032
416.02	0.054	0.010	416.55	0.054	0.032

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
416.56	0.054	0.033	417.09	0.054	0.053
416.57	0.054	0.033	417.10	0.054	0.053
416.58	0.054	0.033	417.11	0.054	0.053
416.59	0.054	0.034	417.12	0.054	0.054
416.60	0.054	0.034	417.13	0.054	0.054
416.61	0.054	0.035	417.14	0.054	0.054
416.62	0.054	0.035	417.15	0.054	0.055
416.63	0.054	0.036	417.16	0.054	0.055
416.64	0.054	0.036	417.17	0.054	0.055
416.65	0.054	0.036	417.18	0.054	0.056
416.66	0.054	0.037	417.19	0.054	0.056
416.67	0.054	0.037	417.20	0.054	0.056
416.68	0.054	0.038	417.21	0.054	0.057
416.69	0.054	0.038	417.22	0.054	0.057
416.70	0.054	0.038	417.23	0.054	0.057
416.71	0.054	0.039	417.24	0.054	0.057
416.72	0.054	0.039	417.25	0.054	0.058
416.73	0.054	0.039	417.26	0.054	0.058
416.74	0.054	0.040	417.27	0.054	0.058
416.75	0.054	0.040	417.28	0.054	0.059
416.76	0.054	0.041	417.29	0.054	0.059
416.77	0.054	0.041	417.30	0.054	0.059
416.78	0.054	0.041	417.31	0.054	0.059
416.79	0.054	0.042	417.32	0.054	0.060
416.80	0.054	0.042	417.33	0.054	0.060
416.81	0.054	0.043	417.34	0.054	0.060
416.82	0.054	0.043	417.35	0.054	0.060
416.83	0.054	0.043	417.36	0.054	0.061
416.84	0.054	0.044	417.37	0.054	0.061
416.85	0.054	0.044	417.38	0.054	0.061
416.86	0.054	0.044	417.39	0.054	0.061
416.87	0.054	0.045	417.40	0.054	0.062
416.88	0.054	0.045	417.41	0.054	0.062
416.89	0.054	0.046	417.42	0.054	0.062
416.90	0.054	0.046	417.43	0.054	0.062
416.91	0.054	0.046	417.44	0.054	0.062
416.92	0.054	0.047	417.45	0.054	0.063
416.93	0.054	0.047	417.46	0.054	0.063
416.94	0.054	0.047	417.47	0.054	0.063
416.95	0.054	0.048	417.48	0.054	0.063
416.96	0.054	0.048	417.49	0.054	0.063
416.97	0.054	0.049	417.50	0.054	0.064
416.98	0.054	0.049	417.51	0.054	0.064
416.99	0.054	0.049	417.52	0.054	0.064
417.00	0.054	0.050	417.53	0.054	0.064
417.01	0.054	0.050	417.54	0.054	0.064
417.02	0.054	0.050	417.55	0.054	0.065
417.03	0.054	0.051	417.56	0.054	0.065
417.04	0.054	0.051	417.57	0.054	0.065
417.05	0.054	0.051	417.58	0.054	0.065
417.06	0.054	0.052	417.59	0.054	0.065
417.07	0.054	0.052	417.60	0.054	0.065
417.08	0.054	0.052	417.61	0.054	0.066

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
417.62	0.054	0.066	418.15	0.054	0.073
417.63	0.054	0.066	418.16	0.054	0.073
417.64	0.054	0.066	418.17	0.054	0.073
417.65	0.054	0.066	418.18	0.054	0.073
417.66	0.054	0.067	418.19	0.054	0.073
417.67	0.054	0.067	418.20	0.054	0.073
417.68	0.054	0.067	418.21	0.054	0.073
417.69	0.054	0.067	418.22	0.054	0.073
417.70	0.054	0.067	418.23	0.054	0.073
417.71	0.054	0.067	418.24	0.054	0.073
417.72	0.054	0.068	418.25	0.054	0.073
417.73	0.054	0.068			
417.74	0.054	0.068			
417.75	0.054	0.068			
417.76	0.054	0.068			
417.77	0.054	0.069			
417.78	0.054	0.069			
417.79	0.054	0.069			
417.80	0.054	0.069			
417.81	0.054	0.069			
417.82	0.054	0.069			
417.83	0.054	0.070			
417.84	0.054	0.070			
417.85	0.054	0.070			
417.86	0.054	0.070			
417.87	0.054	0.070			
417.88	0.054	0.070			
417.89	0.054	0.071			
417.90	0.054	0.071			
417.91	0.054	0.071			
417.92	0.054	0.071			
417.93	0.054	0.071			
417.94	0.054	0.072			
417.95	0.054	0.072			
417.96	0.054	0.072			
417.97	0.054	0.072			
417.98	0.054	0.072			
417.99	0.054	0.072			
418.00	0.054	0.073			
418.01	0.054	0.073			
418.02	0.054	0.073			
418.03	0.054	0.073			
418.04	0.054	0.073			
418.05	0.054	0.073			
418.06	0.054	0.073			
418.07	0.054	0.073			
418.08	0.054	0.073			
418.09	0.054	0.073			
418.10	0.054	0.073			
418.11	0.054	0.073			
418.12	0.054	0.073			
418.13	0.054	0.073			
418.14	0.054	0.073			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F1: Post-Development F1 Runoff Area=5.369 ac 0.00% Impervious Runoff Depth=2.22"
Flow Length=1,503' Tc=15.7 min CN=56 Runoff=9.64 cfs 0.992 af

Subcatchment F2: Post-Development F2 Runoff Area=0.559 ac 25.04% Impervious Runoff Depth=3.51"
Flow Length=191' Tc=8.4 min CN=69 Runoff=2.09 cfs 0.164 af

Subcatchment F3: Post-Development F3 Runoff Area=0.489 ac 26.58% Impervious Runoff Depth=3.62"
Flow Length=208' Tc=10.3 min CN=70 Runoff=1.78 cfs 0.147 af

Subcatchment F4: Post-Development F4 Runoff Area=0.762 ac 20.34% Impervious Runoff Depth=3.31"
Flow Length=422' Tc=8.9 min CN=67 Runoff=2.61 cfs 0.210 af

Subcatchment F5: Post-Development F5 Runoff Area=0.317 ac 36.59% Impervious Runoff Depth=4.15"
Flow Length=120' Tc=2.6 min CN=75 Runoff=1.69 cfs 0.110 af

Pond DP 6: Design Point 6 Inflow=9.64 cfs 1.005 af
Primary=9.64 cfs 1.005 af

Pond S-13: Underground Infiltration Peak Elev=463.07' Storage=0.035 af Inflow=1.69 cfs 0.110 af
Discarded=0.14 cfs 0.101 af Primary=0.30 cfs 0.009 af Outflow=0.44 cfs 0.110 af

Pond S-14: Underground Infiltration Peak Elev=442.09' Storage=0.035 af Inflow=2.61 cfs 0.210 af
Discarded=0.84 cfs 0.206 af Primary=0.31 cfs 0.003 af Outflow=1.15 cfs 0.209 af

Pond S-15: Underground Infiltration Peak Elev=435.18' Storage=0.039 af Inflow=1.78 cfs 0.147 af
Discarded=0.38 cfs 0.148 af Primary=0.00 cfs 0.000 af Outflow=0.38 cfs 0.148 af

Pond S-16: Underground Infiltration Peak Elev=416.82' Storage=0.043 af Inflow=2.09 cfs 0.164 af
Discarded=0.43 cfs 0.164 af Primary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.164 af

Total Runoff Area = 7.496 ac Runoff Volume = 1.623 af Average Runoff Depth = 2.60"
92.78% Pervious = 6.955 ac 7.22% Impervious = 0.541 ac

Summary for Subcatchment F1: Post-Development F1

Runoff = 9.64 cfs @ 12.24 hrs, Volume= 0.992 af, Depth= 2.22"

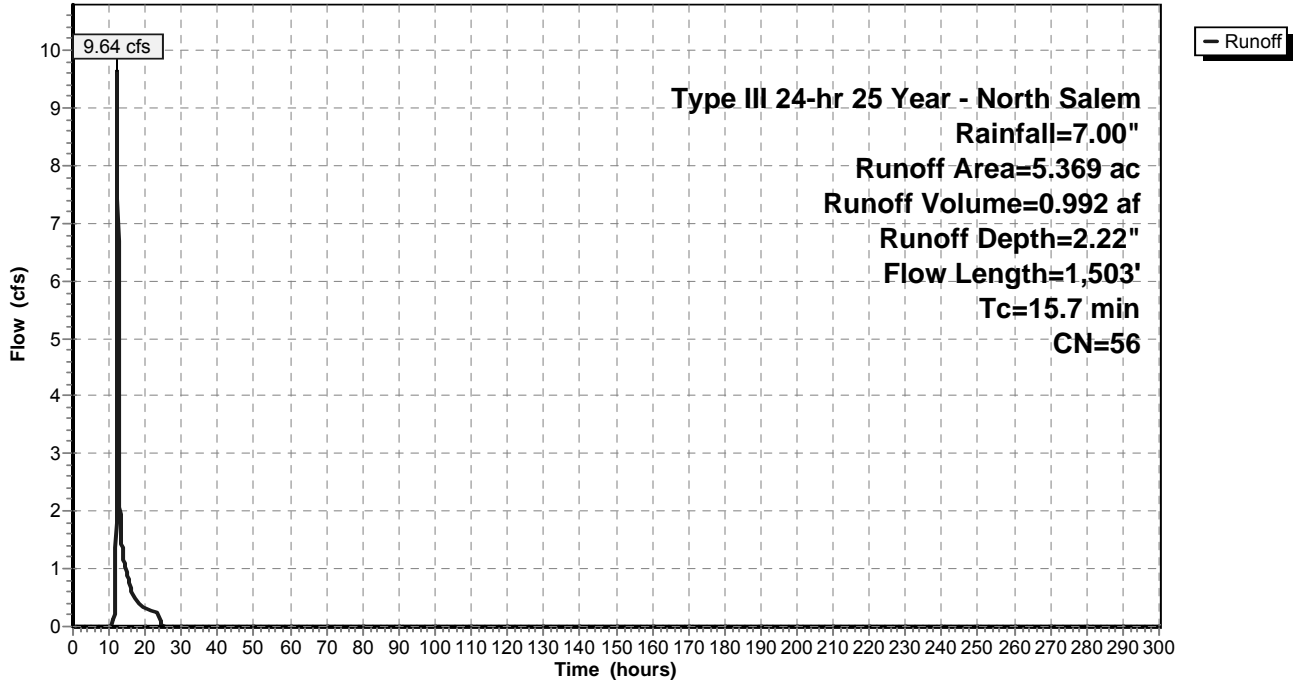
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
1.214	61	>75% Grass cover, Good, HSG B
4.155	55	Woods, Good, HSG B
5.369	56	Weighted Average
5.369		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	64	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	81	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2700	8.37		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
5.6	840	0.0245	2.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.7	262	0.1685	6.61		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
15.7	1,503	Total			

Subcatchment F1: Post-Development F1

Hydrograph



Summary for Subcatchment F2: Post-Development F2

Runoff = 2.09 cfs @ 12.12 hrs, Volume= 0.164 af, Depth= 3.51"

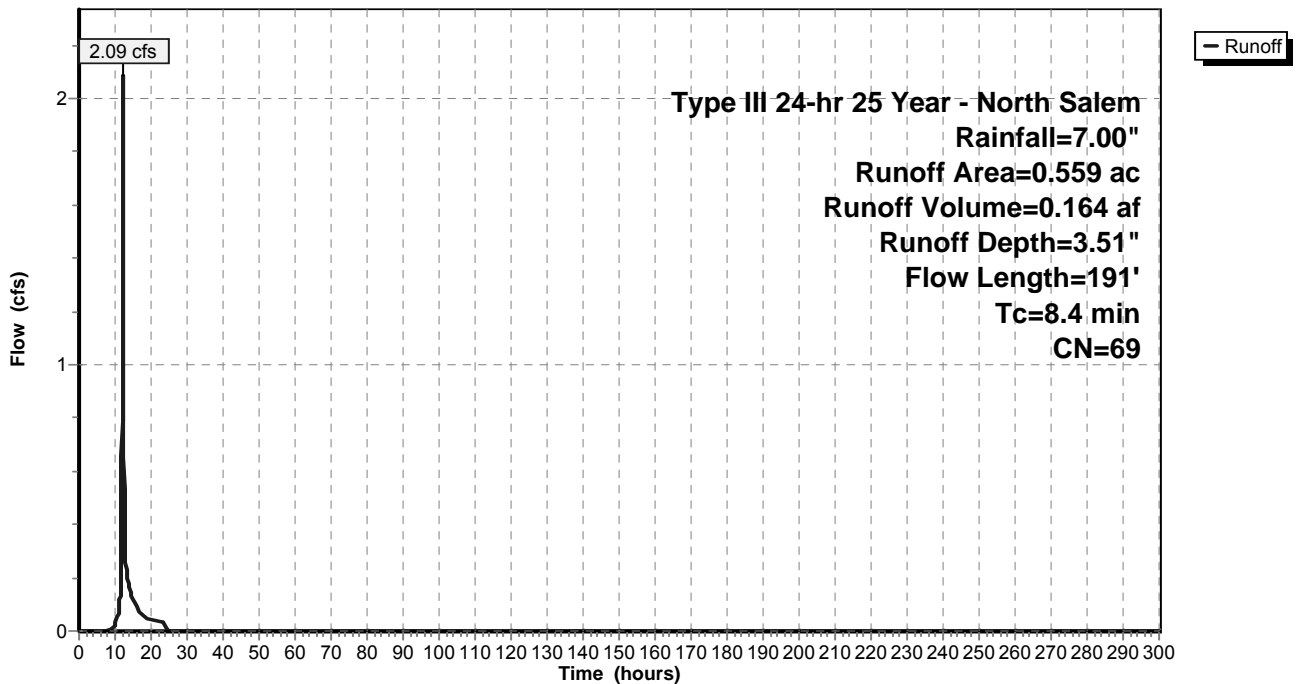
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.076	98	Driveway
0.316	61	>75% Grass cover, Good, HSG B
0.103	55	Woods, Good, HSG B
0.559	69	Weighted Average
0.419		74.96% Pervious Area
0.140		25.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.2800	0.31		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.3	50	0.1400	0.16		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	91	0.0549	3.77		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.4	191	Total			

Subcatchment F2: Post-Development F2

Hydrograph



Summary for Subcatchment F3: Post-Development F3

Runoff = 1.78 cfs @ 12.15 hrs, Volume= 0.147 af, Depth= 3.62"

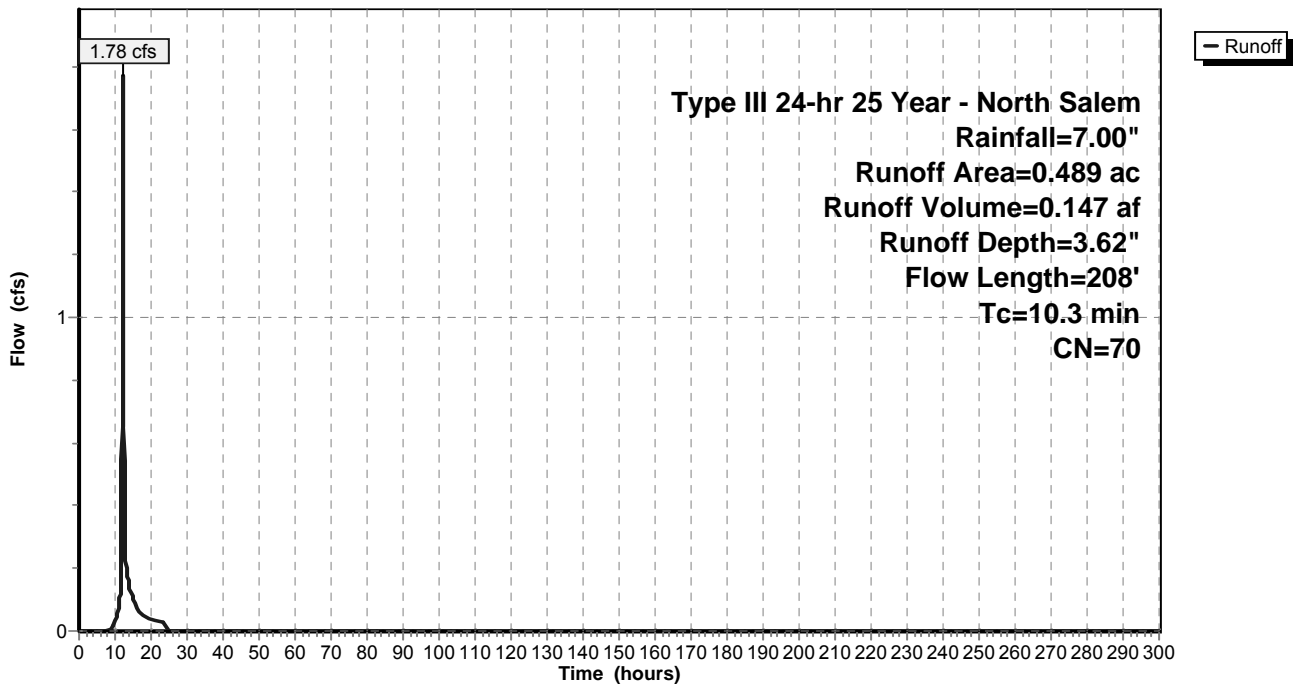
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.066	98	Driveway
0.281	61	>75% Grass cover, Good, HSG B
0.078	55	Woods, Good, HSG B
0.489	70	Weighted Average
0.359		73.42% Pervious Area
0.130		26.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	30	0.2667	0.28		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
7.9	70	0.1000	0.15		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	108	0.0370	3.10		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.3	208	Total			

Subcatchment F3: Post-Development F3

Hydrograph



Summary for Subcatchment F4: Post-Development F4

Runoff = 2.61 cfs @ 12.13 hrs, Volume= 0.210 af, Depth= 3.31"

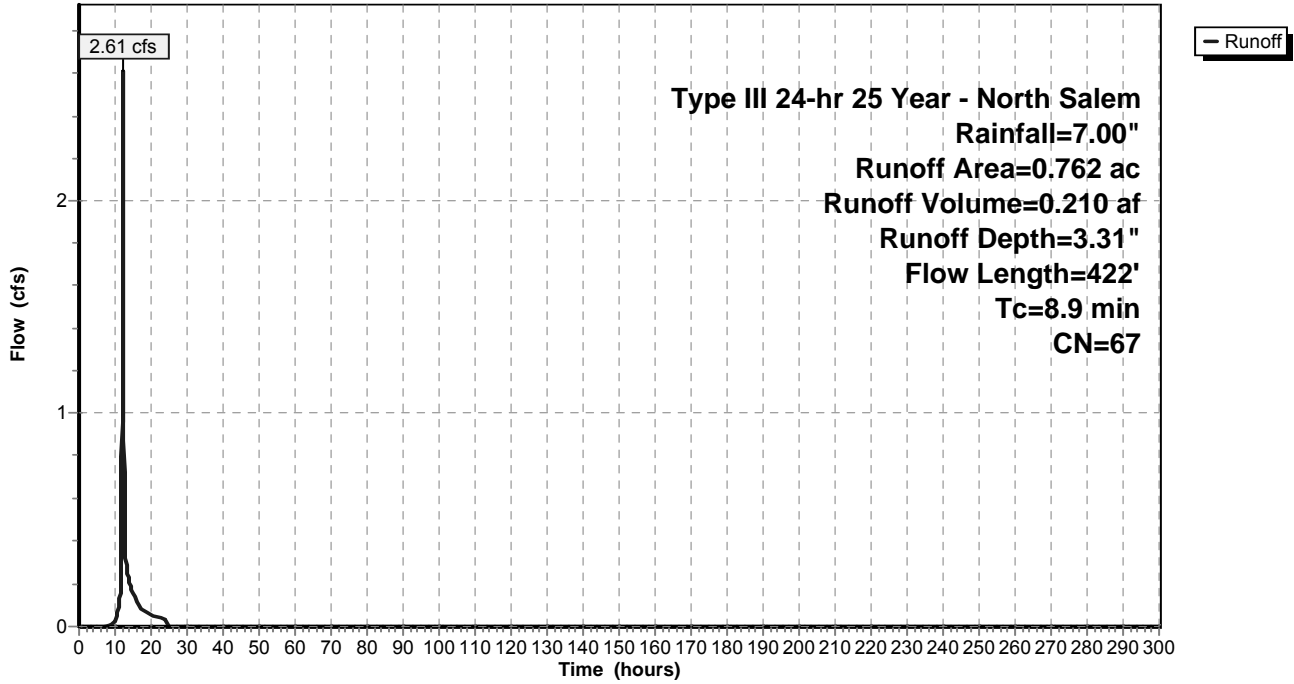
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.091	98	Driveway
0.422	61	>75% Grass cover, Good, HSG B
0.185	55	Woods, Good, HSG B
0.762	67	Weighted Average
0.607		79.66% Pervious Area
0.155		20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	26	0.2307	7.73		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	31	0.0645	4.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	119	0.0336	2.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	146	0.0300	3.90	1.36	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.020 Corrugated PE, corrugated interior
8.9	422	Total			

Subcatchment F4: Post-Development F4

Hydrograph



Summary for Subcatchment F5: Post-Development F5

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.69 cfs @ 12.05 hrs, Volume= 0.110 af, Depth= 4.15"

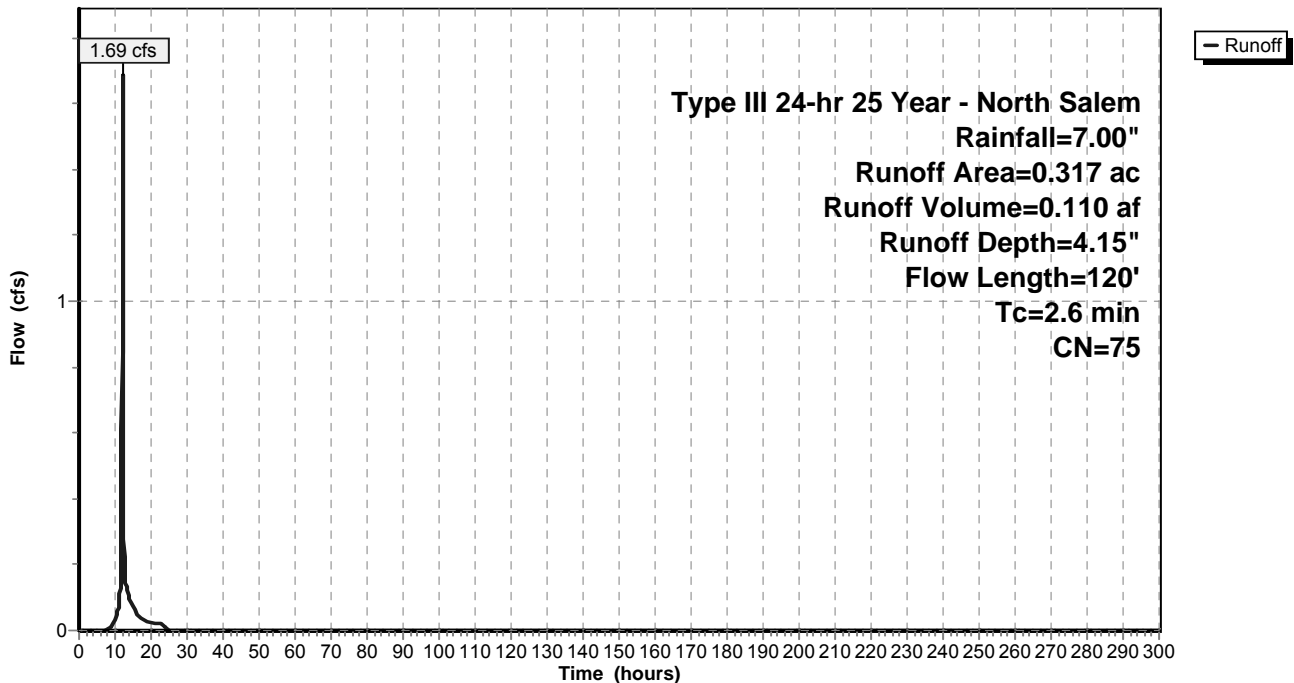
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.052	98	Driveway
0.201	61	>75% Grass cover, Good, HSG B
0.317	75	Weighted Average
0.201		63.41% Pervious Area
0.116		36.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	47	0.4255	0.37		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	73	0.0274	2.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.6	120	Total			

Subcatchment F5: Post-Development F5

Hydrograph



Summary for Pond DP 6: Design Point 6

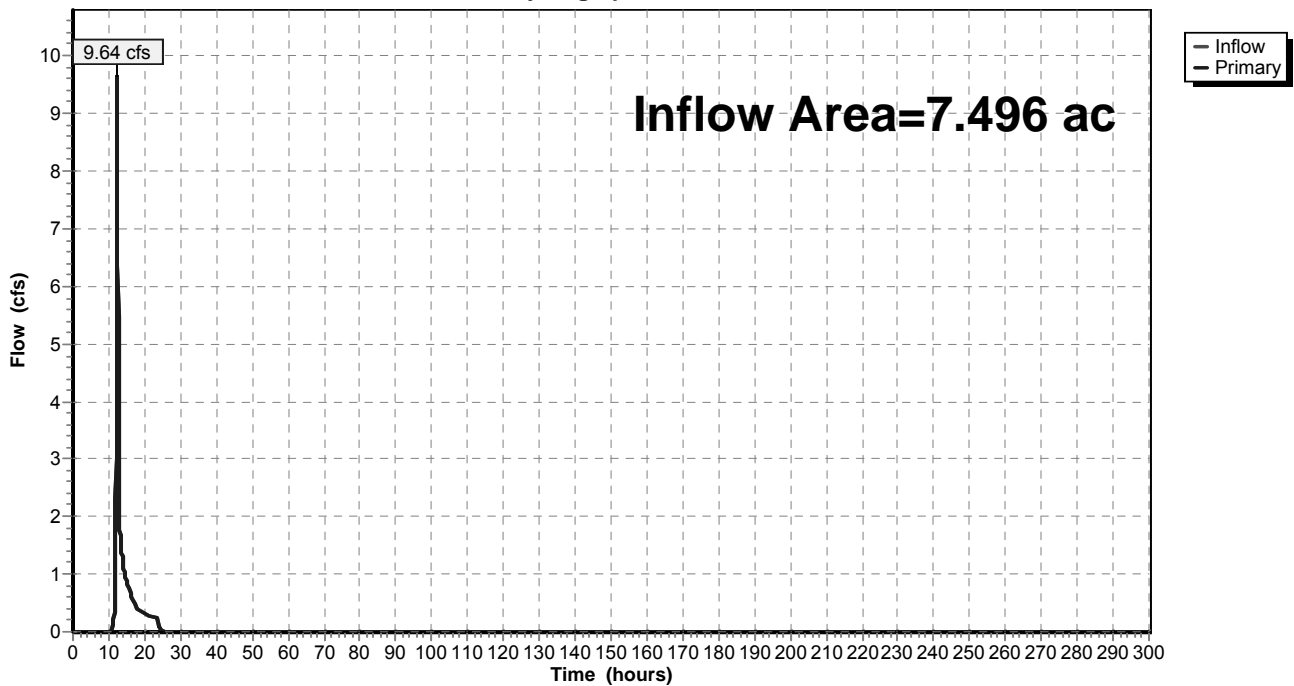
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.496 ac, 7.22% Impervious, Inflow Depth = 1.61" for 25 Year - North Salem event
Inflow = 9.64 cfs @ 12.24 hrs, Volume= 1.005 af
Primary = 9.64 cfs @ 12.24 hrs, Volume= 1.005 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Summary for Pond S-13: Underground Infiltration (Sub-Lot 13)

Inflow Area = 0.317 ac, 36.59% Impervious, Inflow Depth = 4.15" for 25 Year - North Salem event
 Inflow = 1.69 cfs @ 12.05 hrs, Volume= 0.110 af
 Outflow = 0.44 cfs @ 12.40 hrs, Volume= 0.110 af, Atten= 74%, Lag= 21.2 min
 Discarded = 0.14 cfs @ 11.60 hrs, Volume= 0.101 af
 Primary = 0.30 cfs @ 12.40 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 463.07' @ 12.40 hrs Surf.Area= 0.028 ac Storage= 0.035 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 74.2 min (890.7 - 816.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	461.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	461.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

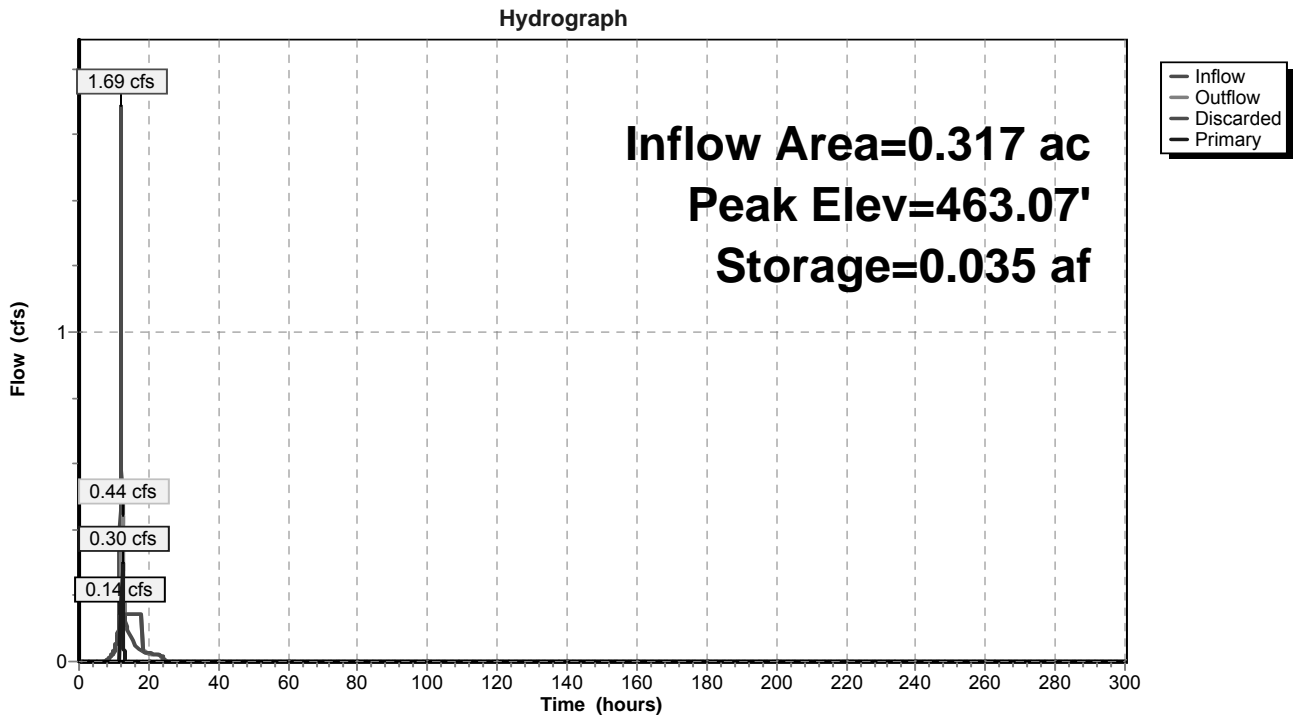
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	461.00'	5.180 in/hr Exfiltration over Surface area
#2	Primary	462.85'	3.0" Vert. Orifice/Grate X 4.00 C= 0.600

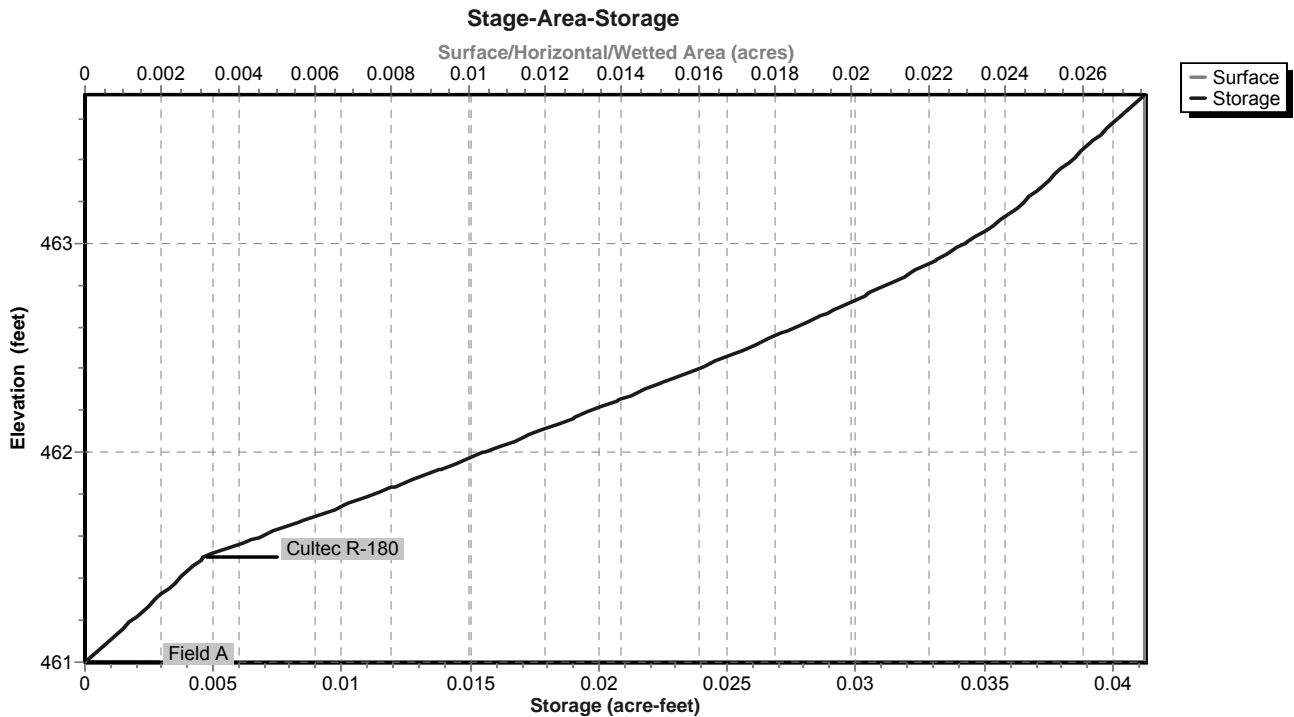
Discarded OutFlow Max=0.14 cfs @ 11.60 hrs HW=461.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.14 cfs)

Primary OutFlow Max=0.30 cfs @ 12.40 hrs HW=463.07' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 0.30 cfs @ 1.61 fps)

Pond S-13: Underground Infiltration (Sub-Lot 13)



Pond S-13: Underground Infiltration (Sub-Lot 13)



Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
461.00	0.028	0.000	461.53	0.028	0.005
461.01	0.028	0.000	461.54	0.028	0.005
461.02	0.028	0.000	461.55	0.028	0.006
461.03	0.028	0.000	461.56	0.028	0.006
461.04	0.028	0.000	461.57	0.028	0.006
461.05	0.028	0.000	461.58	0.028	0.006
461.06	0.028	0.001	461.59	0.028	0.007
461.07	0.028	0.001	461.60	0.028	0.007
461.08	0.028	0.001	461.61	0.028	0.007
461.09	0.028	0.001	461.62	0.028	0.007
461.10	0.028	0.001	461.63	0.028	0.007
461.11	0.028	0.001	461.64	0.028	0.008
461.12	0.028	0.001	461.65	0.028	0.008
461.13	0.028	0.001	461.66	0.028	0.008
461.14	0.028	0.001	461.67	0.028	0.008
461.15	0.028	0.001	461.68	0.028	0.009
461.16	0.028	0.001	461.69	0.028	0.009
461.17	0.028	0.002	461.70	0.028	0.009
461.18	0.028	0.002	461.71	0.028	0.009
461.19	0.028	0.002	461.72	0.028	0.009
461.20	0.028	0.002	461.73	0.028	0.010
461.21	0.028	0.002	461.74	0.028	0.010
461.22	0.028	0.002	461.75	0.028	0.010
461.23	0.028	0.002	461.76	0.028	0.010
461.24	0.028	0.002	461.77	0.028	0.011
461.25	0.028	0.002	461.78	0.028	0.011
461.26	0.028	0.002	461.79	0.028	0.011
461.27	0.028	0.002	461.80	0.028	0.011
461.28	0.028	0.003	461.81	0.028	0.011
461.29	0.028	0.003	461.82	0.028	0.012
461.30	0.028	0.003	461.83	0.028	0.012
461.31	0.028	0.003	461.84	0.028	0.012
461.32	0.028	0.003	461.85	0.028	0.012
461.33	0.028	0.003	461.86	0.028	0.013
461.34	0.028	0.003	461.87	0.028	0.013
461.35	0.028	0.003	461.88	0.028	0.013
461.36	0.028	0.003	461.89	0.028	0.013
461.37	0.028	0.003	461.90	0.028	0.013
461.38	0.028	0.003	461.91	0.028	0.014
461.39	0.028	0.004	461.92	0.028	0.014
461.40	0.028	0.004	461.93	0.028	0.014
461.41	0.028	0.004	461.94	0.028	0.014
461.42	0.028	0.004	461.95	0.028	0.014
461.43	0.028	0.004	461.96	0.028	0.015
461.44	0.028	0.004	461.97	0.028	0.015
461.45	0.028	0.004	461.98	0.028	0.015
461.46	0.028	0.004	461.99	0.028	0.015
461.47	0.028	0.004	462.00	0.028	0.016
461.48	0.028	0.004	462.01	0.028	0.016
461.49	0.028	0.005	462.02	0.028	0.016
461.50	0.028	0.005	462.03	0.028	0.016
461.51	0.028	0.005	462.04	0.028	0.016
461.52	0.028	0.005	462.05	0.028	0.017

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
462.06	0.028	0.017	462.59	0.028	0.027
462.07	0.028	0.017	462.60	0.028	0.028
462.08	0.028	0.017	462.61	0.028	0.028
462.09	0.028	0.017	462.62	0.028	0.028
462.10	0.028	0.018	462.63	0.028	0.028
462.11	0.028	0.018	462.64	0.028	0.028
462.12	0.028	0.018	462.65	0.028	0.029
462.13	0.028	0.018	462.66	0.028	0.029
462.14	0.028	0.018	462.67	0.028	0.029
462.15	0.028	0.019	462.68	0.028	0.029
462.16	0.028	0.019	462.69	0.028	0.029
462.17	0.028	0.019	462.70	0.028	0.029
462.18	0.028	0.019	462.71	0.028	0.030
462.19	0.028	0.020	462.72	0.028	0.030
462.20	0.028	0.020	462.73	0.028	0.030
462.21	0.028	0.020	462.74	0.028	0.030
462.22	0.028	0.020	462.75	0.028	0.030
462.23	0.028	0.020	462.76	0.028	0.031
462.24	0.028	0.021	462.77	0.028	0.031
462.25	0.028	0.021	462.78	0.028	0.031
462.26	0.028	0.021	462.79	0.028	0.031
462.27	0.028	0.021	462.80	0.028	0.031
462.28	0.028	0.021	462.81	0.028	0.031
462.29	0.028	0.022	462.82	0.028	0.032
462.30	0.028	0.022	462.83	0.028	0.032
462.31	0.028	0.022	462.84	0.028	0.032
462.32	0.028	0.022	462.85	0.028	0.032
462.33	0.028	0.022	462.86	0.028	0.032
462.34	0.028	0.023	462.87	0.028	0.032
462.35	0.028	0.023	462.88	0.028	0.033
462.36	0.028	0.023	462.89	0.028	0.033
462.37	0.028	0.023	462.90	0.028	0.033
462.38	0.028	0.023	462.91	0.028	0.033
462.39	0.028	0.024	462.92	0.028	0.033
462.40	0.028	0.024	462.93	0.028	0.033
462.41	0.028	0.024	462.94	0.028	0.033
462.42	0.028	0.024	462.95	0.028	0.034
462.43	0.028	0.024	462.96	0.028	0.034
462.44	0.028	0.025	462.97	0.028	0.034
462.45	0.028	0.025	462.98	0.028	0.034
462.46	0.028	0.025	462.99	0.028	0.034
462.47	0.028	0.025	463.00	0.028	0.034
462.48	0.028	0.025	463.01	0.028	0.034
462.49	0.028	0.026	463.02	0.028	0.035
462.50	0.028	0.026	463.03	0.028	0.035
462.51	0.028	0.026	463.04	0.028	0.035
462.52	0.028	0.026	463.05	0.028	0.035
462.53	0.028	0.026	463.06	0.028	0.035
462.54	0.028	0.027	463.07	0.028	0.035
462.55	0.028	0.027	463.08	0.028	0.035
462.56	0.028	0.027	463.09	0.028	0.035
462.57	0.028	0.027	463.10	0.028	0.036
462.58	0.028	0.027	463.11	0.028	0.036

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
463.12	0.028	0.036	463.65	0.028	0.041
463.13	0.028	0.036	463.66	0.028	0.041
463.14	0.028	0.036	463.67	0.028	0.041
463.15	0.028	0.036	463.68	0.028	0.041
463.16	0.028	0.036	463.69	0.028	0.041
463.17	0.028	0.036	463.70	0.028	0.041
463.18	0.028	0.036	463.71	0.028	0.041
463.19	0.028	0.036			
463.20	0.028	0.037			
463.21	0.028	0.037			
463.22	0.028	0.037			
463.23	0.028	0.037			
463.24	0.028	0.037			
463.25	0.028	0.037			
463.26	0.028	0.037			
463.27	0.028	0.037			
463.28	0.028	0.037			
463.29	0.028	0.037			
463.30	0.028	0.038			
463.31	0.028	0.038			
463.32	0.028	0.038			
463.33	0.028	0.038			
463.34	0.028	0.038			
463.35	0.028	0.038			
463.36	0.028	0.038			
463.37	0.028	0.038			
463.38	0.028	0.038			
463.39	0.028	0.038			
463.40	0.028	0.038			
463.41	0.028	0.039			
463.42	0.028	0.039			
463.43	0.028	0.039			
463.44	0.028	0.039			
463.45	0.028	0.039			
463.46	0.028	0.039			
463.47	0.028	0.039			
463.48	0.028	0.039			
463.49	0.028	0.039			
463.50	0.028	0.039			
463.51	0.028	0.039			
463.52	0.028	0.040			
463.53	0.028	0.040			
463.54	0.028	0.040			
463.55	0.028	0.040			
463.56	0.028	0.040			
463.57	0.028	0.040			
463.58	0.028	0.040			
463.59	0.028	0.040			
463.60	0.028	0.040			
463.61	0.028	0.040			
463.62	0.028	0.040			
463.63	0.028	0.041			
463.64	0.028	0.041			

Summary for Pond S-14: Underground Infiltration (Sub-Lot 14)

Inflow Area = 0.762 ac, 20.34% Impervious, Inflow Depth = 3.31" for 25 Year - North Salem event
 Inflow = 2.61 cfs @ 12.13 hrs, Volume= 0.210 af
 Outflow = 1.15 cfs @ 12.42 hrs, Volume= 0.209 af, Atten= 56%, Lag= 17.3 min
 Discarded = 0.84 cfs @ 11.95 hrs, Volume= 0.206 af
 Primary = 0.31 cfs @ 12.42 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 442.09' @ 12.42 hrs Surf.Area= 0.028 ac Storage= 0.035 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 8.9 min (849.1 - 840.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	440.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	440.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

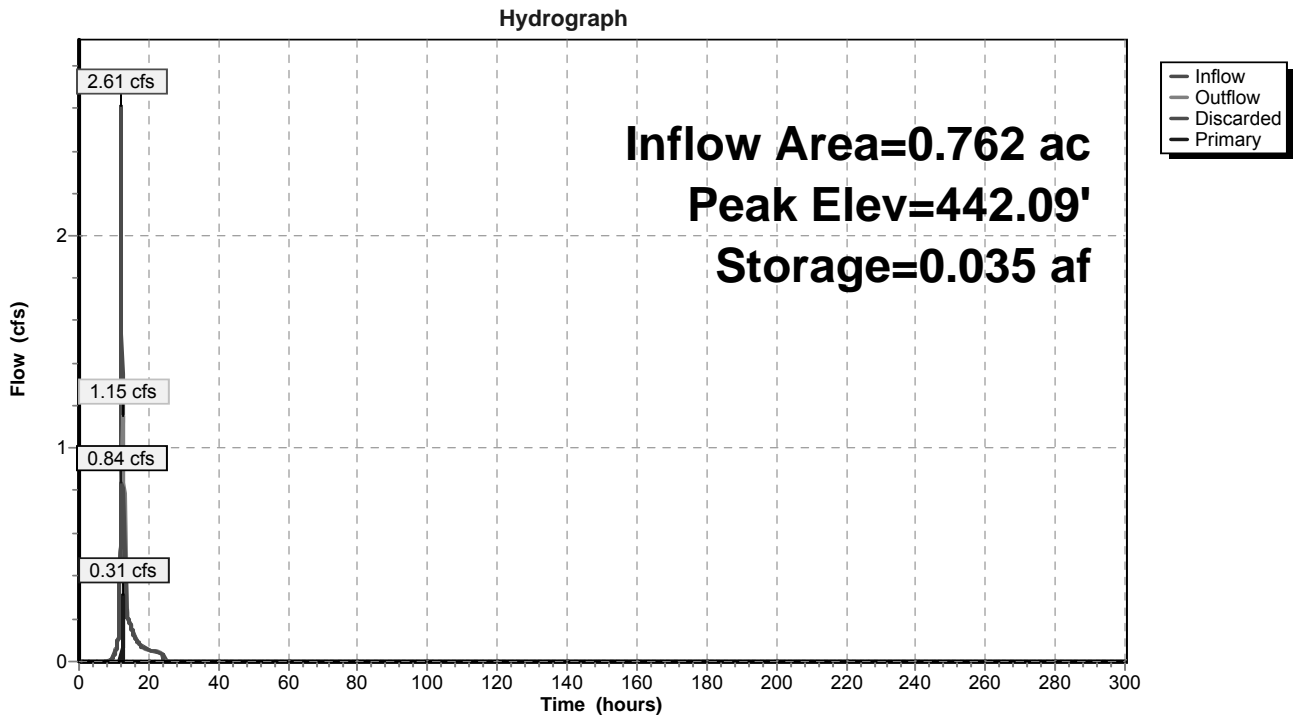
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	440.00'	30.000 in/hr Exfiltration over Surface area
#2	Primary	441.94'	6.0" Vert. Orifice/Grate X 5.00 C= 0.600

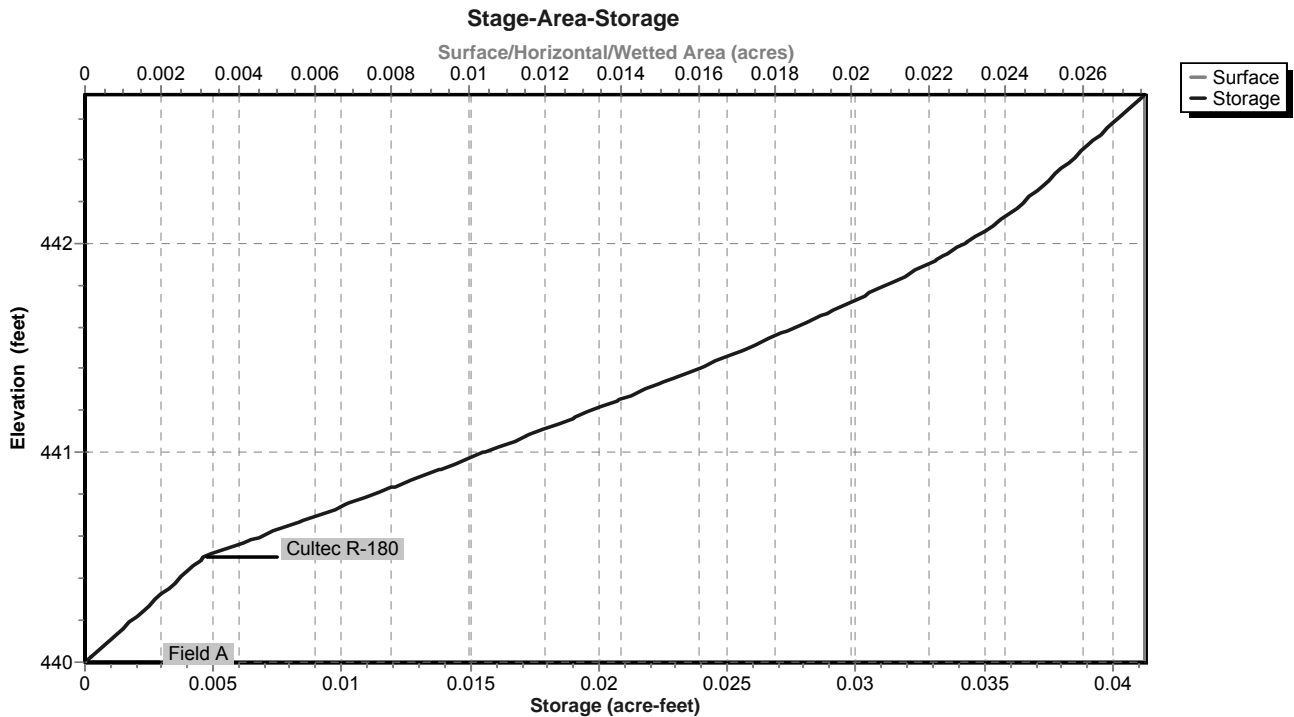
Discarded OutFlow Max=0.84 cfs @ 11.95 hrs HW=440.05' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.84 cfs)

Primary OutFlow Max=0.28 cfs @ 12.42 hrs HW=442.08' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 0.28 cfs @ 1.27 fps)

Pond S-14: Underground Infiltration (Sub-Lot 14)



Pond S-14: Underground Infiltration (Sub-Lot 14)



Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
440.00	0.028	0.000	440.53	0.028	0.005
440.01	0.028	0.000	440.54	0.028	0.005
440.02	0.028	0.000	440.55	0.028	0.006
440.03	0.028	0.000	440.56	0.028	0.006
440.04	0.028	0.000	440.57	0.028	0.006
440.05	0.028	0.000	440.58	0.028	0.006
440.06	0.028	0.001	440.59	0.028	0.007
440.07	0.028	0.001	440.60	0.028	0.007
440.08	0.028	0.001	440.61	0.028	0.007
440.09	0.028	0.001	440.62	0.028	0.007
440.10	0.028	0.001	440.63	0.028	0.007
440.11	0.028	0.001	440.64	0.028	0.008
440.12	0.028	0.001	440.65	0.028	0.008
440.13	0.028	0.001	440.66	0.028	0.008
440.14	0.028	0.001	440.67	0.028	0.008
440.15	0.028	0.001	440.68	0.028	0.009
440.16	0.028	0.001	440.69	0.028	0.009
440.17	0.028	0.002	440.70	0.028	0.009
440.18	0.028	0.002	440.71	0.028	0.009
440.19	0.028	0.002	440.72	0.028	0.009
440.20	0.028	0.002	440.73	0.028	0.010
440.21	0.028	0.002	440.74	0.028	0.010
440.22	0.028	0.002	440.75	0.028	0.010
440.23	0.028	0.002	440.76	0.028	0.010
440.24	0.028	0.002	440.77	0.028	0.011
440.25	0.028	0.002	440.78	0.028	0.011
440.26	0.028	0.002	440.79	0.028	0.011
440.27	0.028	0.002	440.80	0.028	0.011
440.28	0.028	0.003	440.81	0.028	0.011
440.29	0.028	0.003	440.82	0.028	0.012
440.30	0.028	0.003	440.83	0.028	0.012
440.31	0.028	0.003	440.84	0.028	0.012
440.32	0.028	0.003	440.85	0.028	0.012
440.33	0.028	0.003	440.86	0.028	0.013
440.34	0.028	0.003	440.87	0.028	0.013
440.35	0.028	0.003	440.88	0.028	0.013
440.36	0.028	0.003	440.89	0.028	0.013
440.37	0.028	0.003	440.90	0.028	0.013
440.38	0.028	0.003	440.91	0.028	0.014
440.39	0.028	0.004	440.92	0.028	0.014
440.40	0.028	0.004	440.93	0.028	0.014
440.41	0.028	0.004	440.94	0.028	0.014
440.42	0.028	0.004	440.95	0.028	0.014
440.43	0.028	0.004	440.96	0.028	0.015
440.44	0.028	0.004	440.97	0.028	0.015
440.45	0.028	0.004	440.98	0.028	0.015
440.46	0.028	0.004	440.99	0.028	0.015
440.47	0.028	0.004	441.00	0.028	0.016
440.48	0.028	0.004	441.01	0.028	0.016
440.49	0.028	0.005	441.02	0.028	0.016
440.50	0.028	0.005	441.03	0.028	0.016
440.51	0.028	0.005	441.04	0.028	0.016
440.52	0.028	0.005	441.05	0.028	0.017

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
441.06	0.028	0.017	441.59	0.028	0.027
441.07	0.028	0.017	441.60	0.028	0.028
441.08	0.028	0.017	441.61	0.028	0.028
441.09	0.028	0.017	441.62	0.028	0.028
441.10	0.028	0.018	441.63	0.028	0.028
441.11	0.028	0.018	441.64	0.028	0.028
441.12	0.028	0.018	441.65	0.028	0.029
441.13	0.028	0.018	441.66	0.028	0.029
441.14	0.028	0.018	441.67	0.028	0.029
441.15	0.028	0.019	441.68	0.028	0.029
441.16	0.028	0.019	441.69	0.028	0.029
441.17	0.028	0.019	441.70	0.028	0.029
441.18	0.028	0.019	441.71	0.028	0.030
441.19	0.028	0.020	441.72	0.028	0.030
441.20	0.028	0.020	441.73	0.028	0.030
441.21	0.028	0.020	441.74	0.028	0.030
441.22	0.028	0.020	441.75	0.028	0.030
441.23	0.028	0.020	441.76	0.028	0.031
441.24	0.028	0.021	441.77	0.028	0.031
441.25	0.028	0.021	441.78	0.028	0.031
441.26	0.028	0.021	441.79	0.028	0.031
441.27	0.028	0.021	441.80	0.028	0.031
441.28	0.028	0.021	441.81	0.028	0.031
441.29	0.028	0.022	441.82	0.028	0.032
441.30	0.028	0.022	441.83	0.028	0.032
441.31	0.028	0.022	441.84	0.028	0.032
441.32	0.028	0.022	441.85	0.028	0.032
441.33	0.028	0.022	441.86	0.028	0.032
441.34	0.028	0.023	441.87	0.028	0.032
441.35	0.028	0.023	441.88	0.028	0.033
441.36	0.028	0.023	441.89	0.028	0.033
441.37	0.028	0.023	441.90	0.028	0.033
441.38	0.028	0.023	441.91	0.028	0.033
441.39	0.028	0.024	441.92	0.028	0.033
441.40	0.028	0.024	441.93	0.028	0.033
441.41	0.028	0.024	441.94	0.028	0.033
441.42	0.028	0.024	441.95	0.028	0.034
441.43	0.028	0.024	441.96	0.028	0.034
441.44	0.028	0.025	441.97	0.028	0.034
441.45	0.028	0.025	441.98	0.028	0.034
441.46	0.028	0.025	441.99	0.028	0.034
441.47	0.028	0.025	442.00	0.028	0.034
441.48	0.028	0.025	442.01	0.028	0.034
441.49	0.028	0.026	442.02	0.028	0.035
441.50	0.028	0.026	442.03	0.028	0.035
441.51	0.028	0.026	442.04	0.028	0.035
441.52	0.028	0.026	442.05	0.028	0.035
441.53	0.028	0.026	442.06	0.028	0.035
441.54	0.028	0.027	442.07	0.028	0.035
441.55	0.028	0.027	442.08	0.028	0.035
441.56	0.028	0.027	442.09	0.028	0.035
441.57	0.028	0.027	442.10	0.028	0.036
441.58	0.028	0.027	442.11	0.028	0.036

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
442.12	0.028	0.036	442.65	0.028	0.041
442.13	0.028	0.036	442.66	0.028	0.041
442.14	0.028	0.036	442.67	0.028	0.041
442.15	0.028	0.036	442.68	0.028	0.041
442.16	0.028	0.036	442.69	0.028	0.041
442.17	0.028	0.036	442.70	0.028	0.041
442.18	0.028	0.036	442.71	0.028	0.041
442.19	0.028	0.036			
442.20	0.028	0.037			
442.21	0.028	0.037			
442.22	0.028	0.037			
442.23	0.028	0.037			
442.24	0.028	0.037			
442.25	0.028	0.037			
442.26	0.028	0.037			
442.27	0.028	0.037			
442.28	0.028	0.037			
442.29	0.028	0.037			
442.30	0.028	0.038			
442.31	0.028	0.038			
442.32	0.028	0.038			
442.33	0.028	0.038			
442.34	0.028	0.038			
442.35	0.028	0.038			
442.36	0.028	0.038			
442.37	0.028	0.038			
442.38	0.028	0.038			
442.39	0.028	0.038			
442.40	0.028	0.038			
442.41	0.028	0.039			
442.42	0.028	0.039			
442.43	0.028	0.039			
442.44	0.028	0.039			
442.45	0.028	0.039			
442.46	0.028	0.039			
442.47	0.028	0.039			
442.48	0.028	0.039			
442.49	0.028	0.039			
442.50	0.028	0.039			
442.51	0.028	0.039			
442.52	0.028	0.040			
442.53	0.028	0.040			
442.54	0.028	0.040			
442.55	0.028	0.040			
442.56	0.028	0.040			
442.57	0.028	0.040			
442.58	0.028	0.040			
442.59	0.028	0.040			
442.60	0.028	0.040			
442.61	0.028	0.040			
442.62	0.028	0.040			
442.63	0.028	0.041			
442.64	0.028	0.041			

Summary for Pond S-15: Underground Infiltration (Sub-Lot 15)

Inflow Area = 0.489 ac, 26.58% Impervious, Inflow Depth = 3.62" for 25 Year - North Salem event
 Inflow = 1.78 cfs @ 12.15 hrs, Volume= 0.147 af
 Outflow = 0.38 cfs @ 11.85 hrs, Volume= 0.148 af, Atten= 79%, Lag= 0.0 min
 Discarded = 0.38 cfs @ 11.85 hrs, Volume= 0.148 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 435.18' @ 12.65 hrs Surf.Area= 0.037 ac Storage= 0.039 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 27.9 min (862.8 - 834.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.42'	0.022 af	34.00'W x 47.00'L x 2.54'H Field A 0.093 af Overall - 0.027 af Embedded = 0.066 af x 33.3% Voids
#2A	433.92'	0.027 af	Cultec R-150 x 60 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.049 af	Total Available Storage

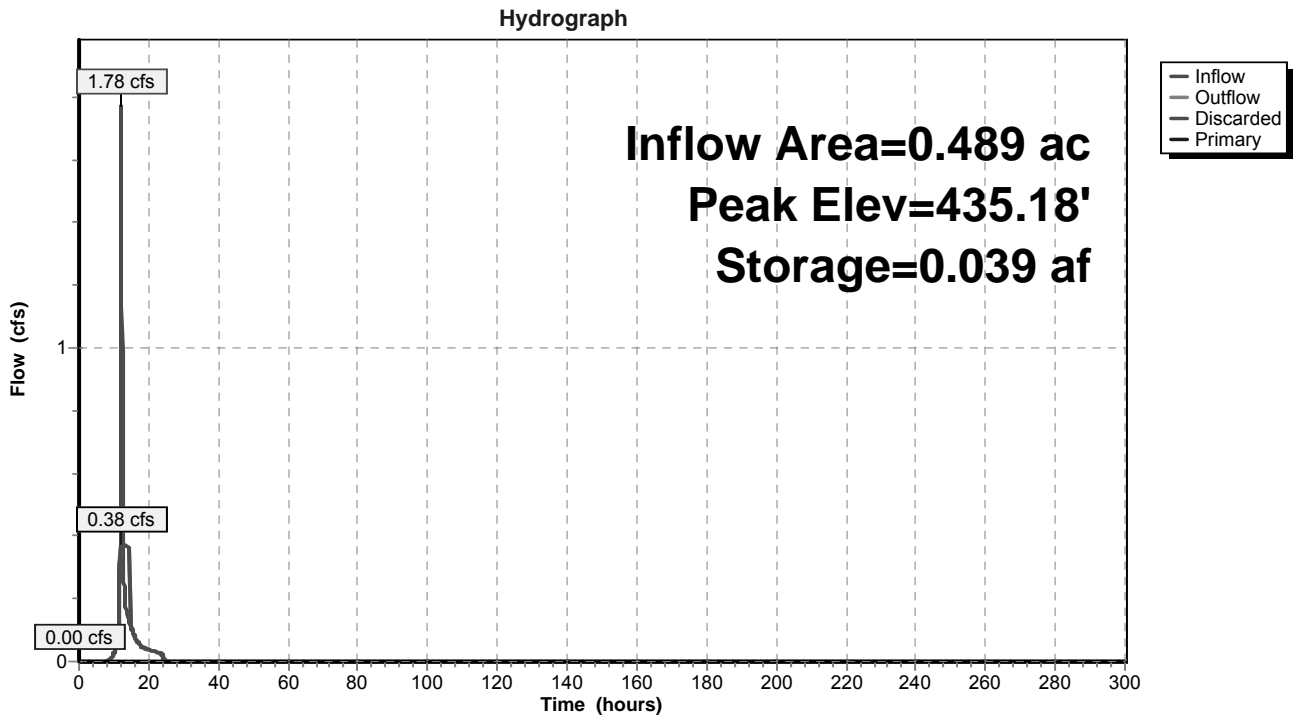
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.42'	10.200 in/hr Exfiltration over Surface area
#2	Primary	435.45'	4.0" Vert. Orifice/Grate X 7.00 C= 0.600

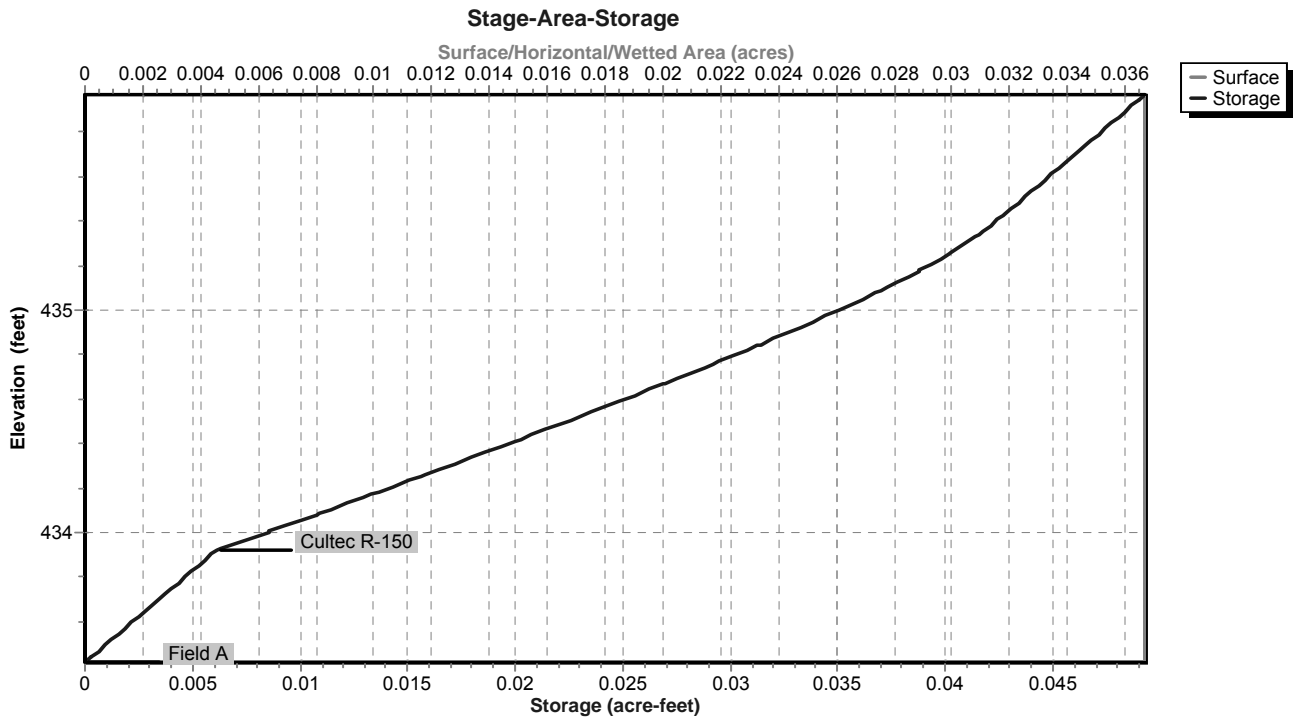
Discarded OutFlow Max=0.38 cfs @ 11.85 hrs HW=433.46' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.38 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.42' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-15: Underground Infiltration (Sub-Lot 15)



Pond S-15: Underground Infiltration (Sub-Lot 15)



Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.42	0.037	0.000	433.95	0.037	0.007
433.43	0.037	0.000	433.96	0.037	0.007
433.44	0.037	0.000	433.97	0.037	0.008
433.45	0.037	0.000	433.98	0.037	0.008
433.46	0.037	0.000	433.99	0.037	0.008
433.47	0.037	0.001	434.00	0.037	0.008
433.48	0.037	0.001	434.01	0.037	0.009
433.49	0.037	0.001	434.02	0.037	0.009
433.50	0.037	0.001	434.03	0.037	0.009
433.51	0.037	0.001	434.04	0.037	0.010
433.52	0.037	0.001	434.05	0.037	0.010
433.53	0.037	0.001	434.06	0.037	0.010
433.54	0.037	0.001	434.07	0.037	0.010
433.55	0.037	0.002	434.08	0.037	0.011
433.56	0.037	0.002	434.09	0.037	0.011
433.57	0.037	0.002	434.10	0.037	0.011
433.58	0.037	0.002	434.11	0.037	0.012
433.59	0.037	0.002	434.12	0.037	0.012
433.60	0.037	0.002	434.13	0.037	0.012
433.61	0.037	0.002	434.14	0.037	0.012
433.62	0.037	0.002	434.15	0.037	0.013
433.63	0.037	0.003	434.16	0.037	0.013
433.64	0.037	0.003	434.17	0.037	0.013
433.65	0.037	0.003	434.18	0.037	0.014
433.66	0.037	0.003	434.19	0.037	0.014
433.67	0.037	0.003	434.20	0.037	0.014
433.68	0.037	0.003	434.21	0.037	0.014
433.69	0.037	0.003	434.22	0.037	0.015
433.70	0.037	0.003	434.23	0.037	0.015
433.71	0.037	0.004	434.24	0.037	0.015
433.72	0.037	0.004	434.25	0.037	0.016
433.73	0.037	0.004	434.26	0.037	0.016
433.74	0.037	0.004	434.27	0.037	0.016
433.75	0.037	0.004	434.28	0.037	0.016
433.76	0.037	0.004	434.29	0.037	0.017
433.77	0.037	0.004	434.30	0.037	0.017
433.78	0.037	0.004	434.31	0.037	0.017
433.79	0.037	0.005	434.32	0.037	0.018
433.80	0.037	0.005	434.33	0.037	0.018
433.81	0.037	0.005	434.34	0.037	0.018
433.82	0.037	0.005	434.35	0.037	0.018
433.83	0.037	0.005	434.36	0.037	0.019
433.84	0.037	0.005	434.37	0.037	0.019
433.85	0.037	0.005	434.38	0.037	0.019
433.86	0.037	0.005	434.39	0.037	0.019
433.87	0.037	0.005	434.40	0.037	0.020
433.88	0.037	0.006	434.41	0.037	0.020
433.89	0.037	0.006	434.42	0.037	0.020
433.90	0.037	0.006	434.43	0.037	0.021
433.91	0.037	0.006	434.44	0.037	0.021
433.92	0.037	0.006	434.45	0.037	0.021
433.93	0.037	0.006	434.46	0.037	0.021
433.94	0.037	0.007	434.47	0.037	0.022

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.48	0.037	0.022	435.01	0.037	0.035
434.49	0.037	0.022	435.02	0.037	0.036
434.50	0.037	0.022	435.03	0.037	0.036
434.51	0.037	0.023	435.04	0.037	0.036
434.52	0.037	0.023	435.05	0.037	0.036
434.53	0.037	0.023	435.06	0.037	0.036
434.54	0.037	0.024	435.07	0.037	0.037
434.55	0.037	0.024	435.08	0.037	0.037
434.56	0.037	0.024	435.09	0.037	0.037
434.57	0.037	0.024	435.10	0.037	0.037
434.58	0.037	0.025	435.11	0.037	0.038
434.59	0.037	0.025	435.12	0.037	0.038
434.60	0.037	0.025	435.13	0.037	0.038
434.61	0.037	0.025	435.14	0.037	0.038
434.62	0.037	0.026	435.15	0.037	0.038
434.63	0.037	0.026	435.16	0.037	0.039
434.64	0.037	0.026	435.17	0.037	0.039
434.65	0.037	0.026	435.18	0.037	0.039
434.66	0.037	0.027	435.19	0.037	0.039
434.67	0.037	0.027	435.20	0.037	0.039
434.68	0.037	0.027	435.21	0.037	0.040
434.69	0.037	0.028	435.22	0.037	0.040
434.70	0.037	0.028	435.23	0.037	0.040
434.71	0.037	0.028	435.24	0.037	0.040
434.72	0.037	0.028	435.25	0.037	0.040
434.73	0.037	0.029	435.26	0.037	0.040
434.74	0.037	0.029	435.27	0.037	0.041
434.75	0.037	0.029	435.28	0.037	0.041
434.76	0.037	0.029	435.29	0.037	0.041
434.77	0.037	0.030	435.30	0.037	0.041
434.78	0.037	0.030	435.31	0.037	0.041
434.79	0.037	0.030	435.32	0.037	0.041
434.80	0.037	0.030	435.33	0.037	0.041
434.81	0.037	0.031	435.34	0.037	0.042
434.82	0.037	0.031	435.35	0.037	0.042
434.83	0.037	0.031	435.36	0.037	0.042
434.84	0.037	0.031	435.37	0.037	0.042
434.85	0.037	0.032	435.38	0.037	0.042
434.86	0.037	0.032	435.39	0.037	0.042
434.87	0.037	0.032	435.40	0.037	0.042
434.88	0.037	0.032	435.41	0.037	0.043
434.89	0.037	0.033	435.42	0.037	0.043
434.90	0.037	0.033	435.43	0.037	0.043
434.91	0.037	0.033	435.44	0.037	0.043
434.92	0.037	0.033	435.45	0.037	0.043
434.93	0.037	0.034	435.46	0.037	0.043
434.94	0.037	0.034	435.47	0.037	0.043
434.95	0.037	0.034	435.48	0.037	0.043
434.96	0.037	0.034	435.49	0.037	0.044
434.97	0.037	0.034	435.50	0.037	0.044
434.98	0.037	0.035	435.51	0.037	0.044
434.99	0.037	0.035	435.52	0.037	0.044
435.00	0.037	0.035	435.53	0.037	0.044

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.54	0.037	0.044
435.55	0.037	0.044
435.56	0.037	0.044
435.57	0.037	0.045
435.58	0.037	0.045
435.59	0.037	0.045
435.60	0.037	0.045
435.61	0.037	0.045
435.62	0.037	0.045
435.63	0.037	0.045
435.64	0.037	0.045
435.65	0.037	0.045
435.66	0.037	0.046
435.67	0.037	0.046
435.68	0.037	0.046
435.69	0.037	0.046
435.70	0.037	0.046
435.71	0.037	0.046
435.72	0.037	0.046
435.73	0.037	0.046
435.74	0.037	0.047
435.75	0.037	0.047
435.76	0.037	0.047
435.77	0.037	0.047
435.78	0.037	0.047
435.79	0.037	0.047
435.80	0.037	0.047
435.81	0.037	0.047
435.82	0.037	0.048
435.83	0.037	0.048
435.84	0.037	0.048
435.85	0.037	0.048
435.86	0.037	0.048
435.87	0.037	0.048
435.88	0.037	0.048
435.89	0.037	0.048
435.90	0.037	0.049
435.91	0.037	0.049
435.92	0.037	0.049
435.93	0.037	0.049
435.94	0.037	0.049
435.95	0.037	0.049
435.96	0.037	0.049

Summary for Pond S-16: Underground Infiltration (Sub-Lot 16)

Inflow Area = 0.559 ac, 25.04% Impervious, Inflow Depth = 3.51" for 25 Year - North Salem event
 Inflow = 2.09 cfs @ 12.12 hrs, Volume= 0.164 af
 Outflow = 0.43 cfs @ 11.80 hrs, Volume= 0.164 af, Atten= 79%, Lag= 0.0 min
 Discarded = 0.43 cfs @ 11.80 hrs, Volume= 0.164 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 416.82' @ 12.61 hrs Surf.Area= 0.054 ac Storage= 0.043 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 27.1 min (862.4 - 835.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	415.50'	0.032 af	60.00'W x 39.50'L x 2.54'H Field A 0.138 af Overall - 0.041 af Embedded = 0.097 af x 33.3% Voids
#2A	416.00'	0.041 af	Cultec R-150 x 90 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.073 af	Total Available Storage

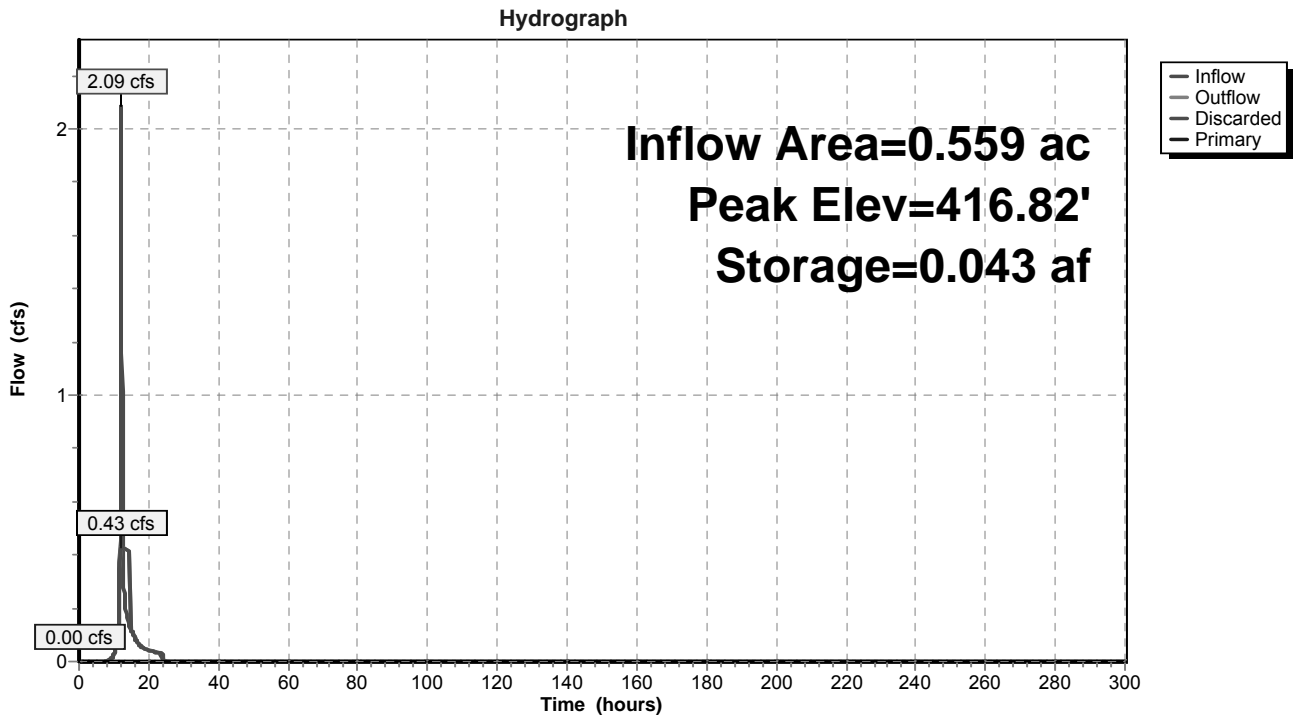
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	415.50'	7.800 in/hr Exfiltration over Surface area
#2	Primary	417.75'	6.0" Vert. Orifice/Grate X 2.00 C= 0.600

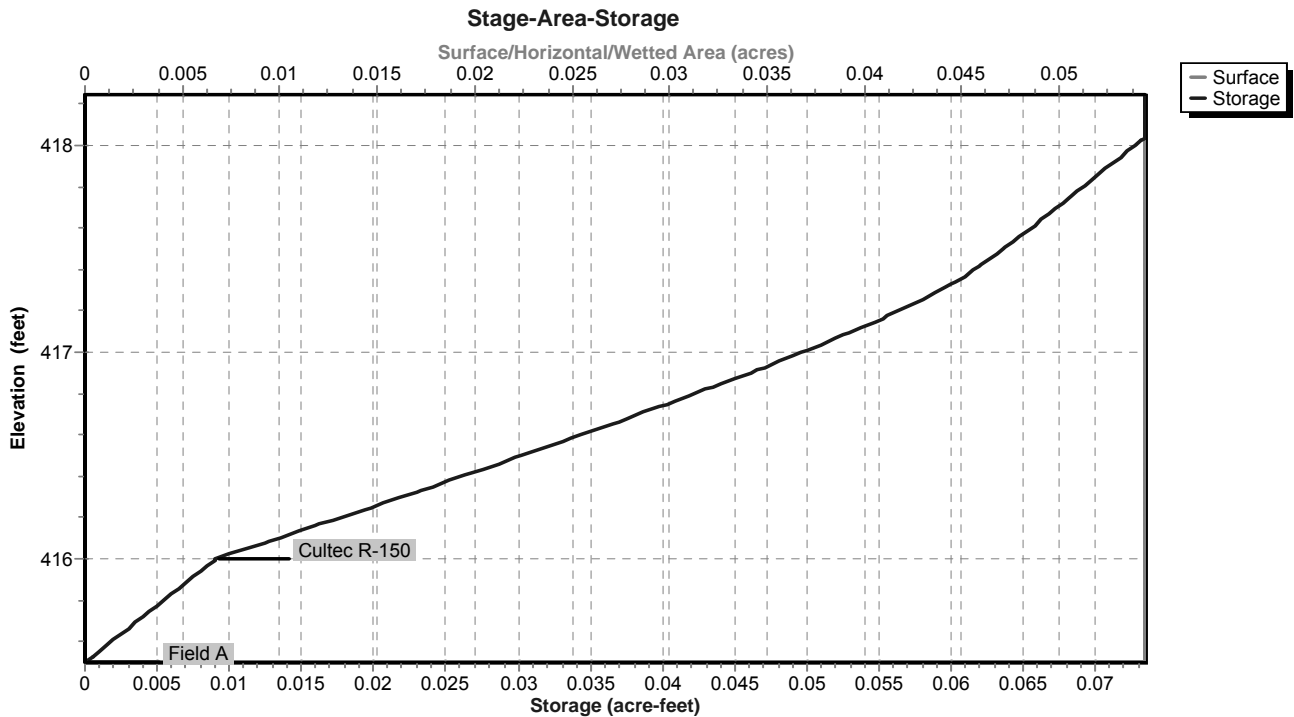
Discarded OutFlow Max=0.43 cfs @ 11.80 hrs HW=415.53' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.43 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=415.50' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-16: Underground Infiltration (Sub-Lot 16)



Pond S-16: Underground Infiltration (Sub-Lot 16)



Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
415.50	0.054	0.000	416.03	0.054	0.010
415.51	0.054	0.000	416.04	0.054	0.011
415.52	0.054	0.000	416.05	0.054	0.011
415.53	0.054	0.001	416.06	0.054	0.012
415.54	0.054	0.001	416.07	0.054	0.012
415.55	0.054	0.001	416.08	0.054	0.013
415.56	0.054	0.001	416.09	0.054	0.013
415.57	0.054	0.001	416.10	0.054	0.013
415.58	0.054	0.001	416.11	0.054	0.014
415.59	0.054	0.002	416.12	0.054	0.014
415.60	0.054	0.002	416.13	0.054	0.015
415.61	0.054	0.002	416.14	0.054	0.015
415.62	0.054	0.002	416.15	0.054	0.016
415.63	0.054	0.002	416.16	0.054	0.016
415.64	0.054	0.003	416.17	0.054	0.016
415.65	0.054	0.003	416.18	0.054	0.017
415.66	0.054	0.003	416.19	0.054	0.017
415.67	0.054	0.003	416.20	0.054	0.018
415.68	0.054	0.003	416.21	0.054	0.018
415.69	0.054	0.003	416.22	0.054	0.019
415.70	0.054	0.004	416.23	0.054	0.019
415.71	0.054	0.004	416.24	0.054	0.019
415.72	0.054	0.004	416.25	0.054	0.020
415.73	0.054	0.004	416.26	0.054	0.020
415.74	0.054	0.004	416.27	0.054	0.021
415.75	0.054	0.005	416.28	0.054	0.021
415.76	0.054	0.005	416.29	0.054	0.021
415.77	0.054	0.005	416.30	0.054	0.022
415.78	0.054	0.005	416.31	0.054	0.022
415.79	0.054	0.005	416.32	0.054	0.023
415.80	0.054	0.005	416.33	0.054	0.023
415.81	0.054	0.006	416.34	0.054	0.024
415.82	0.054	0.006	416.35	0.054	0.024
415.83	0.054	0.006	416.36	0.054	0.024
415.84	0.054	0.006	416.37	0.054	0.025
415.85	0.054	0.006	416.38	0.054	0.025
415.86	0.054	0.007	416.39	0.054	0.026
415.87	0.054	0.007	416.40	0.054	0.026
415.88	0.054	0.007	416.41	0.054	0.026
415.89	0.054	0.007	416.42	0.054	0.027
415.90	0.054	0.007	416.43	0.054	0.027
415.91	0.054	0.007	416.44	0.054	0.028
415.92	0.054	0.008	416.45	0.054	0.028
415.93	0.054	0.008	416.46	0.054	0.029
415.94	0.054	0.008	416.47	0.054	0.029
415.95	0.054	0.008	416.48	0.054	0.029
415.96	0.054	0.008	416.49	0.054	0.030
415.97	0.054	0.009	416.50	0.054	0.030
415.98	0.054	0.009	416.51	0.054	0.031
415.99	0.054	0.009	416.52	0.054	0.031
416.00	0.054	0.009	416.53	0.054	0.031
416.01	0.054	0.009	416.54	0.054	0.032
416.02	0.054	0.010	416.55	0.054	0.032

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
416.56	0.054	0.033	417.09	0.054	0.053
416.57	0.054	0.033	417.10	0.054	0.053
416.58	0.054	0.033	417.11	0.054	0.053
416.59	0.054	0.034	417.12	0.054	0.054
416.60	0.054	0.034	417.13	0.054	0.054
416.61	0.054	0.035	417.14	0.054	0.054
416.62	0.054	0.035	417.15	0.054	0.055
416.63	0.054	0.036	417.16	0.054	0.055
416.64	0.054	0.036	417.17	0.054	0.055
416.65	0.054	0.036	417.18	0.054	0.056
416.66	0.054	0.037	417.19	0.054	0.056
416.67	0.054	0.037	417.20	0.054	0.056
416.68	0.054	0.038	417.21	0.054	0.057
416.69	0.054	0.038	417.22	0.054	0.057
416.70	0.054	0.038	417.23	0.054	0.057
416.71	0.054	0.039	417.24	0.054	0.057
416.72	0.054	0.039	417.25	0.054	0.058
416.73	0.054	0.039	417.26	0.054	0.058
416.74	0.054	0.040	417.27	0.054	0.058
416.75	0.054	0.040	417.28	0.054	0.059
416.76	0.054	0.041	417.29	0.054	0.059
416.77	0.054	0.041	417.30	0.054	0.059
416.78	0.054	0.041	417.31	0.054	0.059
416.79	0.054	0.042	417.32	0.054	0.060
416.80	0.054	0.042	417.33	0.054	0.060
416.81	0.054	0.043	417.34	0.054	0.060
416.82	0.054	0.043	417.35	0.054	0.060
416.83	0.054	0.043	417.36	0.054	0.061
416.84	0.054	0.044	417.37	0.054	0.061
416.85	0.054	0.044	417.38	0.054	0.061
416.86	0.054	0.044	417.39	0.054	0.061
416.87	0.054	0.045	417.40	0.054	0.062
416.88	0.054	0.045	417.41	0.054	0.062
416.89	0.054	0.046	417.42	0.054	0.062
416.90	0.054	0.046	417.43	0.054	0.062
416.91	0.054	0.046	417.44	0.054	0.062
416.92	0.054	0.047	417.45	0.054	0.063
416.93	0.054	0.047	417.46	0.054	0.063
416.94	0.054	0.047	417.47	0.054	0.063
416.95	0.054	0.048	417.48	0.054	0.063
416.96	0.054	0.048	417.49	0.054	0.063
416.97	0.054	0.049	417.50	0.054	0.064
416.98	0.054	0.049	417.51	0.054	0.064
416.99	0.054	0.049	417.52	0.054	0.064
417.00	0.054	0.050	417.53	0.054	0.064
417.01	0.054	0.050	417.54	0.054	0.064
417.02	0.054	0.050	417.55	0.054	0.065
417.03	0.054	0.051	417.56	0.054	0.065
417.04	0.054	0.051	417.57	0.054	0.065
417.05	0.054	0.051	417.58	0.054	0.065
417.06	0.054	0.052	417.59	0.054	0.065
417.07	0.054	0.052	417.60	0.054	0.065
417.08	0.054	0.052	417.61	0.054	0.066

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
417.62	0.054	0.066	418.15	0.054	0.073
417.63	0.054	0.066	418.16	0.054	0.073
417.64	0.054	0.066	418.17	0.054	0.073
417.65	0.054	0.066	418.18	0.054	0.073
417.66	0.054	0.067	418.19	0.054	0.073
417.67	0.054	0.067	418.20	0.054	0.073
417.68	0.054	0.067	418.21	0.054	0.073
417.69	0.054	0.067	418.22	0.054	0.073
417.70	0.054	0.067	418.23	0.054	0.073
417.71	0.054	0.067	418.24	0.054	0.073
417.72	0.054	0.068	418.25	0.054	0.073
417.73	0.054	0.068			
417.74	0.054	0.068			
417.75	0.054	0.068			
417.76	0.054	0.068			
417.77	0.054	0.069			
417.78	0.054	0.069			
417.79	0.054	0.069			
417.80	0.054	0.069			
417.81	0.054	0.069			
417.82	0.054	0.069			
417.83	0.054	0.070			
417.84	0.054	0.070			
417.85	0.054	0.070			
417.86	0.054	0.070			
417.87	0.054	0.070			
417.88	0.054	0.070			
417.89	0.054	0.071			
417.90	0.054	0.071			
417.91	0.054	0.071			
417.92	0.054	0.071			
417.93	0.054	0.071			
417.94	0.054	0.072			
417.95	0.054	0.072			
417.96	0.054	0.072			
417.97	0.054	0.072			
417.98	0.054	0.072			
417.99	0.054	0.072			
418.00	0.054	0.073			
418.01	0.054	0.073			
418.02	0.054	0.073			
418.03	0.054	0.073			
418.04	0.054	0.073			
418.05	0.054	0.073			
418.06	0.054	0.073			
418.07	0.054	0.073			
418.08	0.054	0.073			
418.09	0.054	0.073			
418.10	0.054	0.073			
418.11	0.054	0.073			
418.12	0.054	0.073			
418.13	0.054	0.073			
418.14	0.054	0.073			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
 Runoff by SCS TR-20 method, UH=SCS
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment F1: Post-Development F1 Runoff Area=5.369 ac 0.00% Impervious Runoff Depth=3.61"
 Flow Length=1,503' Tc=15.7 min CN=56 Runoff=16.34 cfs 1.615 af

Subcatchment F2: Post-Development F2 Runoff Area=0.559 ac 25.04% Impervious Runoff Depth=5.21"
 Flow Length=191' Tc=8.4 min CN=69 Runoff=3.10 cfs 0.243 af

Subcatchment F3: Post-Development F3 Runoff Area=0.489 ac 26.58% Impervious Runoff Depth=5.33"
 Flow Length=208' Tc=10.3 min CN=70 Runoff=2.62 cfs 0.217 af

Subcatchment F4: Post-Development F4 Runoff Area=0.762 ac 20.34% Impervious Runoff Depth=4.96"
 Flow Length=422' Tc=8.9 min CN=67 Runoff=3.93 cfs 0.315 af

Subcatchment F5: Post-Development F5 Runoff Area=0.317 ac 36.59% Impervious Runoff Depth=5.95"
 Flow Length=120' Tc=2.6 min CN=75 Runoff=2.40 cfs 0.157 af

Pond DP 6: Design Point 6 Inflow=19.81 cfs 1.736 af
 Primary=19.81 cfs 1.736 af

Pond S-13: Underground Infiltration Peak Elev=463.71' Storage=0.041 af Inflow=2.40 cfs 0.157 af
 Discarded=0.14 cfs 0.122 af Primary=0.81 cfs 0.035 af Outflow=0.96 cfs 0.157 af

Pond S-14: Underground Infiltration Peak Elev=442.49' Storage=0.039 af Inflow=3.93 cfs 0.315 af
 Discarded=0.84 cfs 0.268 af Primary=2.60 cfs 0.047 af Outflow=3.44 cfs 0.315 af

Pond S-15: Underground Infiltration Peak Elev=435.80' Storage=0.047 af Inflow=2.62 cfs 0.217 af
 Discarded=0.38 cfs 0.189 af Primary=1.28 cfs 0.028 af Outflow=1.66 cfs 0.218 af

Pond S-16: Underground Infiltration Peak Elev=418.04' Storage=0.073 af Inflow=3.10 cfs 0.243 af
 Discarded=0.43 cfs 0.233 af Primary=0.44 cfs 0.010 af Outflow=0.87 cfs 0.243 af

Total Runoff Area = 7.496 ac Runoff Volume = 2.548 af Average Runoff Depth = 4.08"
92.78% Pervious = 6.955 ac 7.22% Impervious = 0.541 ac

Summary for Subcatchment F1: Post-Development F1

Runoff = 16.34 cfs @ 12.23 hrs, Volume= 1.615 af, Depth= 3.61"

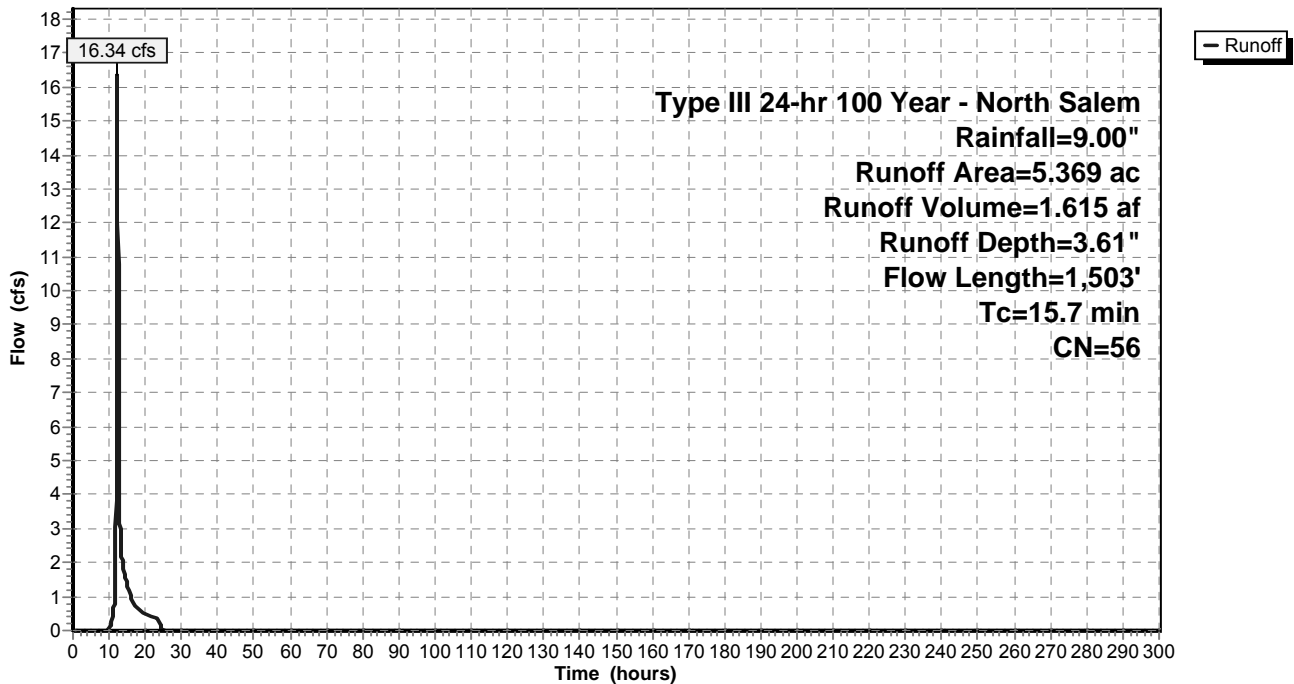
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
1.214	61	>75% Grass cover, Good, HSG B
4.155	55	Woods, Good, HSG B
5.369	56	Weighted Average
5.369		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	64	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	81	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2700	8.37		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
5.6	840	0.0245	2.52		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.7	262	0.1685	6.61		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
15.7	1,503	Total			

Subcatchment F1: Post-Development F1

Hydrograph



Summary for Subcatchment F2: Post-Development F2

Runoff = 3.10 cfs @ 12.12 hrs, Volume= 0.243 af, Depth= 5.21"

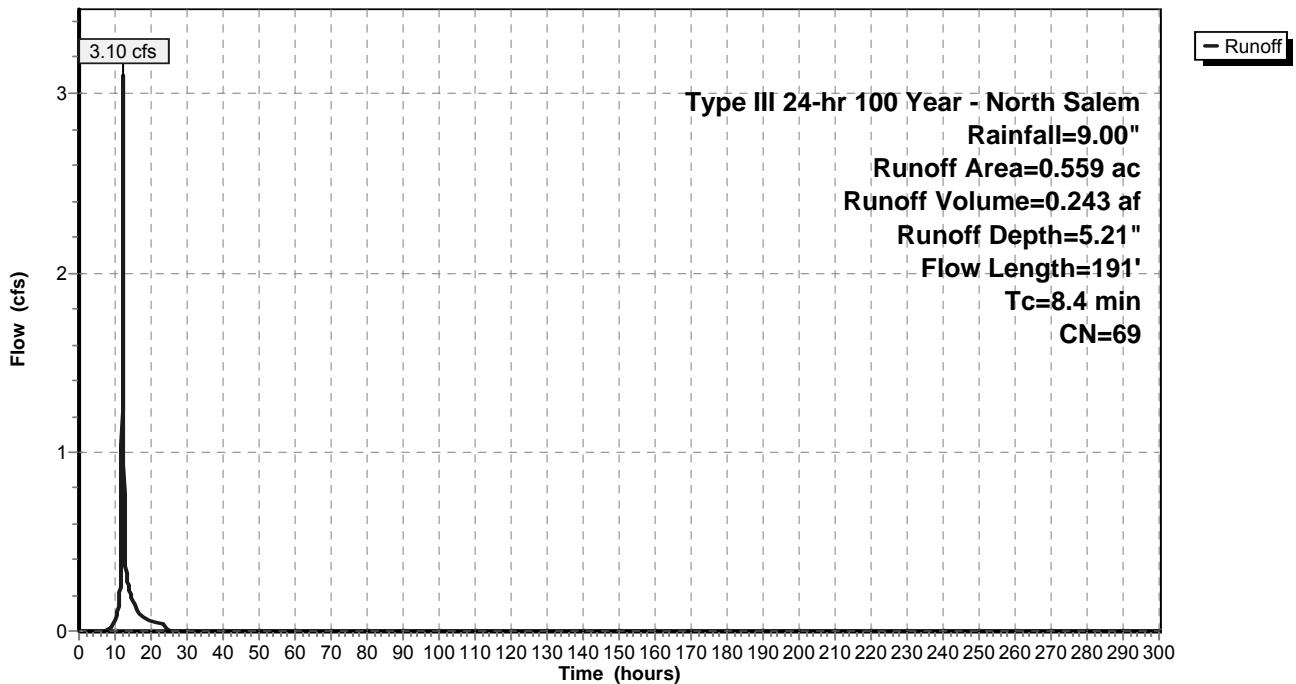
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.076	98	Driveway
0.316	61	>75% Grass cover, Good, HSG B
0.103	55	Woods, Good, HSG B
0.559	69	Weighted Average
0.419		74.96% Pervious Area
0.140		25.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.7	50	0.2800	0.31		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.3	50	0.1400	0.16		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	91	0.0549	3.77		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
8.4	191	Total			

Subcatchment F2: Post-Development F2

Hydrograph



Summary for Subcatchment F3: Post-Development F3

Runoff = 2.62 cfs @ 12.15 hrs, Volume= 0.217 af, Depth= 5.33"

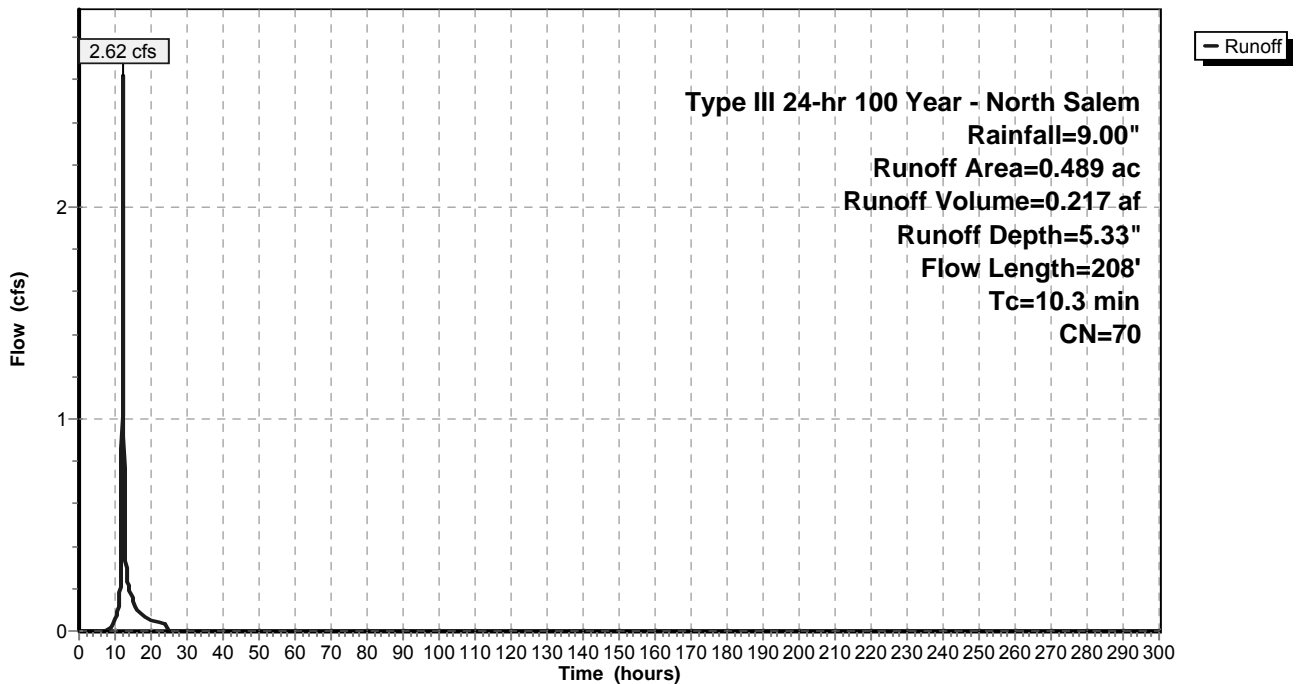
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.066	98	Driveway
0.281	61	>75% Grass cover, Good, HSG B
0.078	55	Woods, Good, HSG B
0.489	70	Weighted Average
0.359		73.42% Pervious Area
0.130		26.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	30	0.2667	0.28		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
7.9	70	0.1000	0.15		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	108	0.0370	3.10		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.3	208	Total			

Subcatchment F3: Post-Development F3

Hydrograph



Summary for Subcatchment F4: Post-Development F4

Runoff = 3.93 cfs @ 12.13 hrs, Volume= 0.315 af, Depth= 4.96"

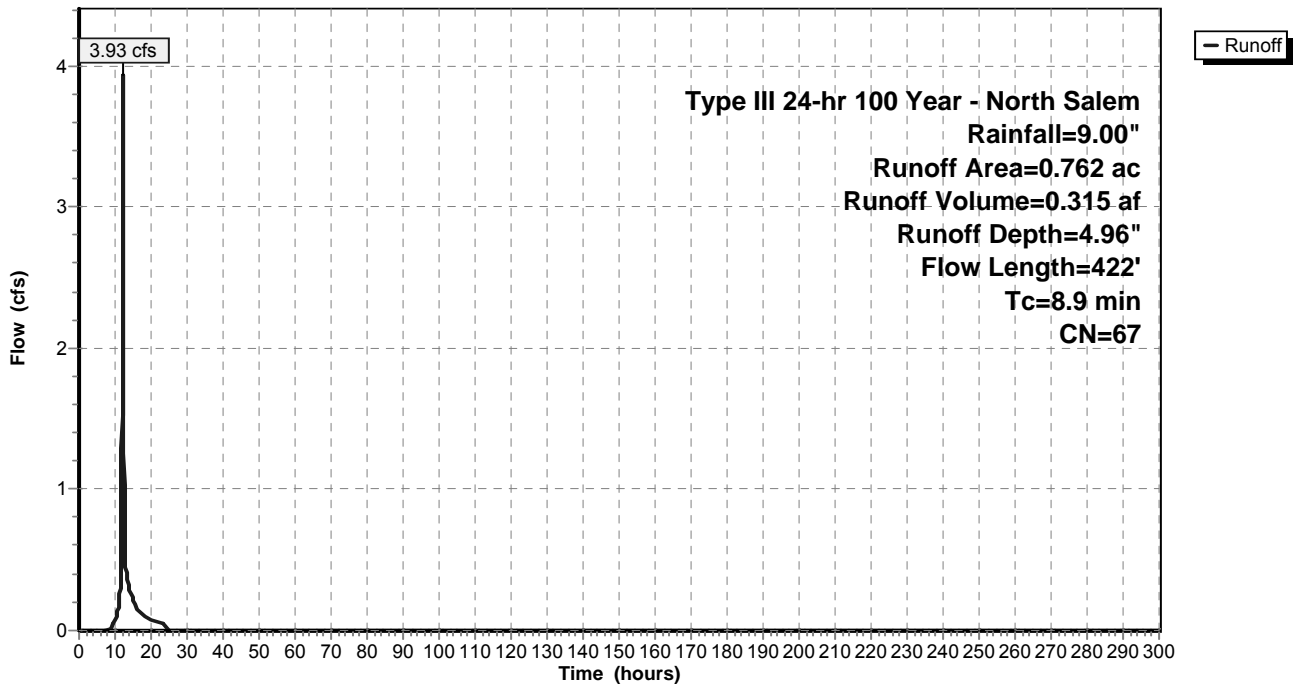
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.091	98	Driveway
0.422	61	>75% Grass cover, Good, HSG B
0.185	55	Woods, Good, HSG B
0.762	67	Weighted Average
0.607		79.66% Pervious Area
0.155		20.34% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	26	0.2307	7.73		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	31	0.0645	4.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	119	0.0336	2.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	146	0.0300	3.90	1.36	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.020 Corrugated PE, corrugated interior
8.9	422	Total			

Subcatchment F4: Post-Development F4

Hydrograph



Summary for Subcatchment F5: Post-Development F5

[49] Hint: Tc<2dt may require smaller dt

Runoff = 2.40 cfs @ 12.04 hrs, Volume= 0.157 af, Depth= 5.95"

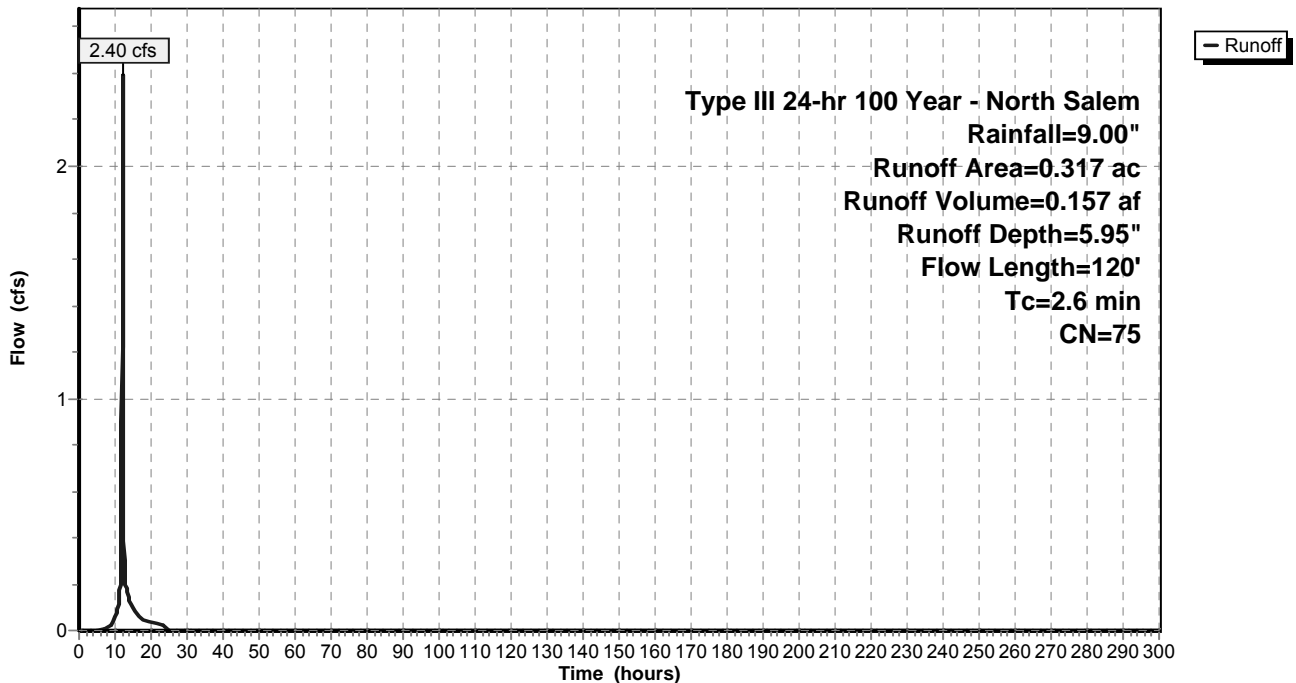
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.052	98	Driveway
0.201	61	>75% Grass cover, Good, HSG B
0.317	75	Weighted Average
0.201		63.41% Pervious Area
0.116		36.59% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.1	47	0.4255	0.37		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	73	0.0274	2.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.6	120	Total			

Subcatchment F5: Post-Development F5

Hydrograph



Summary for Pond DP 6: Design Point 6

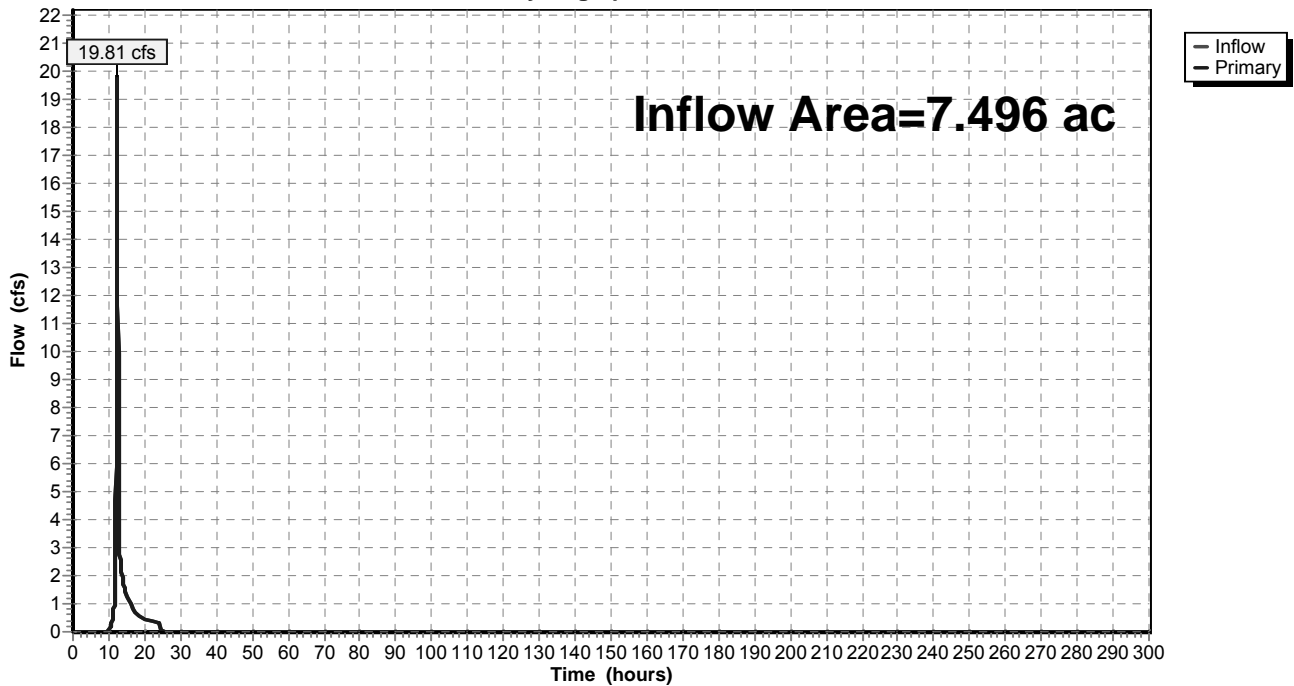
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.496 ac, 7.22% Impervious, Inflow Depth = 2.78" for 100 Year - North Salem event
Inflow = 19.81 cfs @ 12.23 hrs, Volume= 1.736 af
Primary = 19.81 cfs @ 12.23 hrs, Volume= 1.736 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 6: Design Point 6

Hydrograph



Summary for Pond S-13: Underground Infiltration (Sub-Lot 13)

Inflow Area = 0.317 ac, 36.59% Impervious, Inflow Depth = 5.95" for 100 Year - North Salem event
 Inflow = 2.40 cfs @ 12.04 hrs, Volume= 0.157 af
 Outflow = 0.96 cfs @ 12.22 hrs, Volume= 0.157 af, Atten= 60%, Lag= 10.6 min
 Discarded = 0.14 cfs @ 11.25 hrs, Volume= 0.122 af
 Primary = 0.81 cfs @ 12.22 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 463.71' @ 12.22 hrs Surf.Area= 0.028 ac Storage= 0.041 af

Plug-Flow detention time= 66.5 min calculated for 0.157 af (100% of inflow)
 Center-of-Mass det. time= 66.0 min (872.3 - 806.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	461.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	461.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

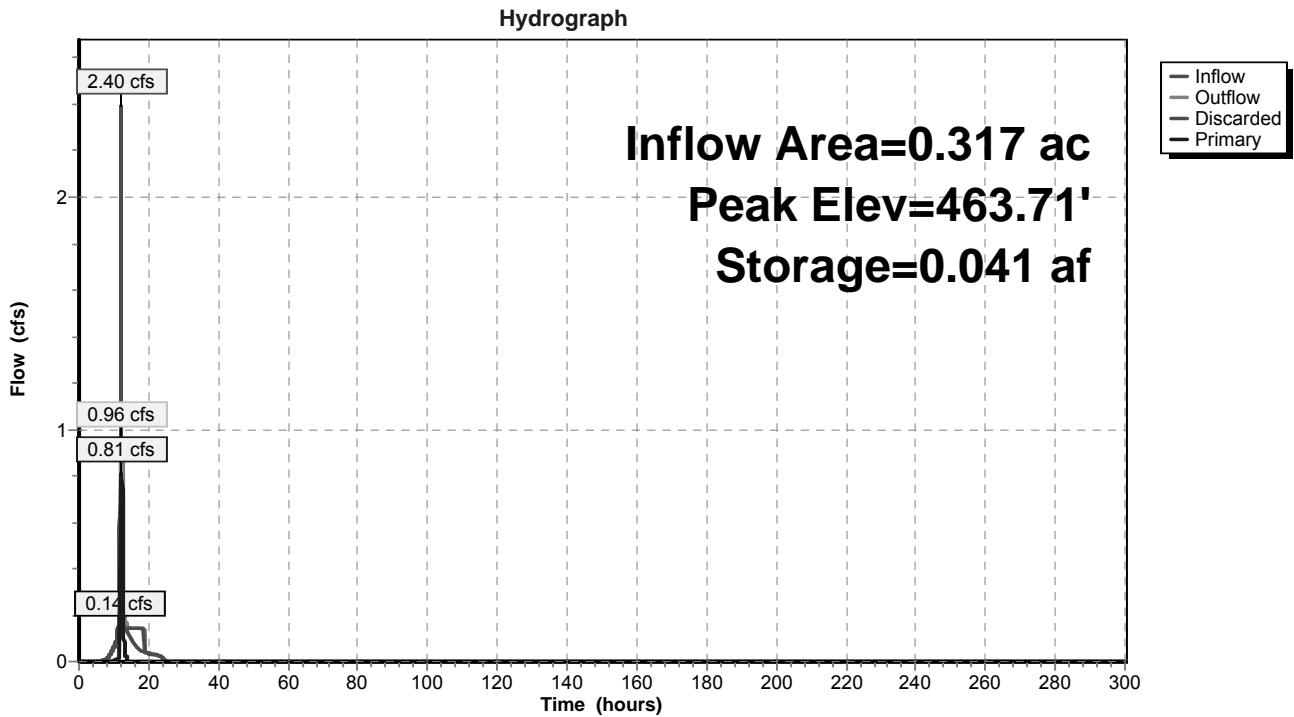
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	461.00'	5.180 in/hr Exfiltration over Surface area
#2	Primary	462.85'	3.0" Vert. Orifice/Grate X 4.00 C= 0.600

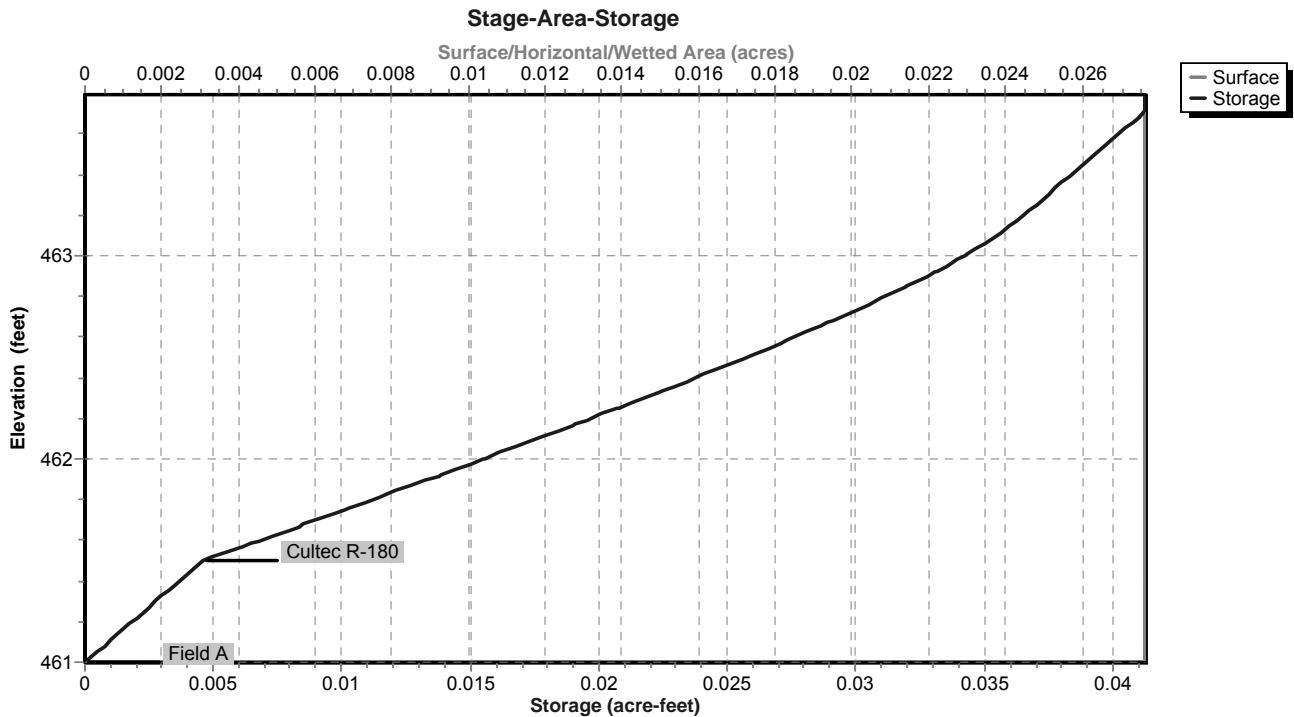
Discarded OutFlow Max=0.14 cfs @ 11.25 hrs HW=461.03' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.14 cfs)

Primary OutFlow Max=0.81 cfs @ 12.22 hrs HW=463.70' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 0.81 cfs @ 4.11 fps)

Pond S-13: Underground Infiltration (Sub-Lot 13)



Pond S-13: Underground Infiltration (Sub-Lot 13)



Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
461.00	0.028	0.000	461.53	0.028	0.005
461.01	0.028	0.000	461.54	0.028	0.005
461.02	0.028	0.000	461.55	0.028	0.006
461.03	0.028	0.000	461.56	0.028	0.006
461.04	0.028	0.000	461.57	0.028	0.006
461.05	0.028	0.000	461.58	0.028	0.006
461.06	0.028	0.001	461.59	0.028	0.007
461.07	0.028	0.001	461.60	0.028	0.007
461.08	0.028	0.001	461.61	0.028	0.007
461.09	0.028	0.001	461.62	0.028	0.007
461.10	0.028	0.001	461.63	0.028	0.007
461.11	0.028	0.001	461.64	0.028	0.008
461.12	0.028	0.001	461.65	0.028	0.008
461.13	0.028	0.001	461.66	0.028	0.008
461.14	0.028	0.001	461.67	0.028	0.008
461.15	0.028	0.001	461.68	0.028	0.009
461.16	0.028	0.001	461.69	0.028	0.009
461.17	0.028	0.002	461.70	0.028	0.009
461.18	0.028	0.002	461.71	0.028	0.009
461.19	0.028	0.002	461.72	0.028	0.009
461.20	0.028	0.002	461.73	0.028	0.010
461.21	0.028	0.002	461.74	0.028	0.010
461.22	0.028	0.002	461.75	0.028	0.010
461.23	0.028	0.002	461.76	0.028	0.010
461.24	0.028	0.002	461.77	0.028	0.011
461.25	0.028	0.002	461.78	0.028	0.011
461.26	0.028	0.002	461.79	0.028	0.011
461.27	0.028	0.002	461.80	0.028	0.011
461.28	0.028	0.003	461.81	0.028	0.011
461.29	0.028	0.003	461.82	0.028	0.012
461.30	0.028	0.003	461.83	0.028	0.012
461.31	0.028	0.003	461.84	0.028	0.012
461.32	0.028	0.003	461.85	0.028	0.012
461.33	0.028	0.003	461.86	0.028	0.013
461.34	0.028	0.003	461.87	0.028	0.013
461.35	0.028	0.003	461.88	0.028	0.013
461.36	0.028	0.003	461.89	0.028	0.013
461.37	0.028	0.003	461.90	0.028	0.013
461.38	0.028	0.003	461.91	0.028	0.014
461.39	0.028	0.004	461.92	0.028	0.014
461.40	0.028	0.004	461.93	0.028	0.014
461.41	0.028	0.004	461.94	0.028	0.014
461.42	0.028	0.004	461.95	0.028	0.014
461.43	0.028	0.004	461.96	0.028	0.015
461.44	0.028	0.004	461.97	0.028	0.015
461.45	0.028	0.004	461.98	0.028	0.015
461.46	0.028	0.004	461.99	0.028	0.015
461.47	0.028	0.004	462.00	0.028	0.016
461.48	0.028	0.004	462.01	0.028	0.016
461.49	0.028	0.005	462.02	0.028	0.016
461.50	0.028	0.005	462.03	0.028	0.016
461.51	0.028	0.005	462.04	0.028	0.016
461.52	0.028	0.005	462.05	0.028	0.017

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
462.06	0.028	0.017	462.59	0.028	0.027
462.07	0.028	0.017	462.60	0.028	0.028
462.08	0.028	0.017	462.61	0.028	0.028
462.09	0.028	0.017	462.62	0.028	0.028
462.10	0.028	0.018	462.63	0.028	0.028
462.11	0.028	0.018	462.64	0.028	0.028
462.12	0.028	0.018	462.65	0.028	0.029
462.13	0.028	0.018	462.66	0.028	0.029
462.14	0.028	0.018	462.67	0.028	0.029
462.15	0.028	0.019	462.68	0.028	0.029
462.16	0.028	0.019	462.69	0.028	0.029
462.17	0.028	0.019	462.70	0.028	0.029
462.18	0.028	0.019	462.71	0.028	0.030
462.19	0.028	0.020	462.72	0.028	0.030
462.20	0.028	0.020	462.73	0.028	0.030
462.21	0.028	0.020	462.74	0.028	0.030
462.22	0.028	0.020	462.75	0.028	0.030
462.23	0.028	0.020	462.76	0.028	0.031
462.24	0.028	0.021	462.77	0.028	0.031
462.25	0.028	0.021	462.78	0.028	0.031
462.26	0.028	0.021	462.79	0.028	0.031
462.27	0.028	0.021	462.80	0.028	0.031
462.28	0.028	0.021	462.81	0.028	0.031
462.29	0.028	0.022	462.82	0.028	0.032
462.30	0.028	0.022	462.83	0.028	0.032
462.31	0.028	0.022	462.84	0.028	0.032
462.32	0.028	0.022	462.85	0.028	0.032
462.33	0.028	0.022	462.86	0.028	0.032
462.34	0.028	0.023	462.87	0.028	0.032
462.35	0.028	0.023	462.88	0.028	0.033
462.36	0.028	0.023	462.89	0.028	0.033
462.37	0.028	0.023	462.90	0.028	0.033
462.38	0.028	0.023	462.91	0.028	0.033
462.39	0.028	0.024	462.92	0.028	0.033
462.40	0.028	0.024	462.93	0.028	0.033
462.41	0.028	0.024	462.94	0.028	0.033
462.42	0.028	0.024	462.95	0.028	0.034
462.43	0.028	0.024	462.96	0.028	0.034
462.44	0.028	0.025	462.97	0.028	0.034
462.45	0.028	0.025	462.98	0.028	0.034
462.46	0.028	0.025	462.99	0.028	0.034
462.47	0.028	0.025	463.00	0.028	0.034
462.48	0.028	0.025	463.01	0.028	0.034
462.49	0.028	0.026	463.02	0.028	0.035
462.50	0.028	0.026	463.03	0.028	0.035
462.51	0.028	0.026	463.04	0.028	0.035
462.52	0.028	0.026	463.05	0.028	0.035
462.53	0.028	0.026	463.06	0.028	0.035
462.54	0.028	0.027	463.07	0.028	0.035
462.55	0.028	0.027	463.08	0.028	0.035
462.56	0.028	0.027	463.09	0.028	0.035
462.57	0.028	0.027	463.10	0.028	0.036
462.58	0.028	0.027	463.11	0.028	0.036

Stage-Area-Storage for Pond S-13: Underground Infiltration (Sub-Lot 13) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
463.12	0.028	0.036	463.65	0.028	0.041
463.13	0.028	0.036	463.66	0.028	0.041
463.14	0.028	0.036	463.67	0.028	0.041
463.15	0.028	0.036	463.68	0.028	0.041
463.16	0.028	0.036	463.69	0.028	0.041
463.17	0.028	0.036	463.70	0.028	0.041
463.18	0.028	0.036	463.71	0.028	0.041
463.19	0.028	0.036	463.72	0.028	0.041
463.20	0.028	0.037	463.73	0.028	0.041
463.21	0.028	0.037	463.74	0.028	0.041
463.22	0.028	0.037	463.75	0.028	0.041
463.23	0.028	0.037	463.76	0.028	0.041
463.24	0.028	0.037	463.77	0.028	0.041
463.25	0.028	0.037	463.78	0.028	0.041
463.26	0.028	0.037	463.79	0.028	0.041
463.27	0.028	0.037			
463.28	0.028	0.037			
463.29	0.028	0.037			
463.30	0.028	0.038			
463.31	0.028	0.038			
463.32	0.028	0.038			
463.33	0.028	0.038			
463.34	0.028	0.038			
463.35	0.028	0.038			
463.36	0.028	0.038			
463.37	0.028	0.038			
463.38	0.028	0.038			
463.39	0.028	0.038			
463.40	0.028	0.038			
463.41	0.028	0.039			
463.42	0.028	0.039			
463.43	0.028	0.039			
463.44	0.028	0.039			
463.45	0.028	0.039			
463.46	0.028	0.039			
463.47	0.028	0.039			
463.48	0.028	0.039			
463.49	0.028	0.039			
463.50	0.028	0.039			
463.51	0.028	0.039			
463.52	0.028	0.040			
463.53	0.028	0.040			
463.54	0.028	0.040			
463.55	0.028	0.040			
463.56	0.028	0.040			
463.57	0.028	0.040			
463.58	0.028	0.040			
463.59	0.028	0.040			
463.60	0.028	0.040			
463.61	0.028	0.040			
463.62	0.028	0.040			
463.63	0.028	0.041			
463.64	0.028	0.041			

Summary for Pond S-14: Underground Infiltration (Sub-Lot 14)

Inflow Area = 0.762 ac, 20.34% Impervious, Inflow Depth = 4.96" for 100 Year - North Salem event
 Inflow = 3.93 cfs @ 12.13 hrs, Volume= 0.315 af
 Outflow = 3.44 cfs @ 12.21 hrs, Volume= 0.315 af, Atten= 13%, Lag= 5.0 min
 Discarded = 0.84 cfs @ 11.80 hrs, Volume= 0.268 af
 Primary = 2.60 cfs @ 12.21 hrs, Volume= 0.047 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 442.49' @ 12.21 hrs Surf.Area= 0.028 ac Storage= 0.039 af

Plug-Flow detention time= 8.7 min calculated for 0.315 af (100% of inflow)
 Center-of-Mass det. time= 8.2 min (836.6 - 828.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	440.00'	0.017 af	26.00'W x 46.31'L x 2.71'H Field A 0.075 af Overall - 0.024 af Embedded = 0.050 af x 33.3% Voids
#2A	440.50'	0.024 af	Cultec R-180 x 49 Inside #1 Effective Size= 33.6"W x 20.0"H => 3.44 sf x 6.33'L = 21.8 cf Overall Size= 36.0"W x 20.5"H x 7.33'L with 1.00' Overlap
		0.041 af	Total Available Storage

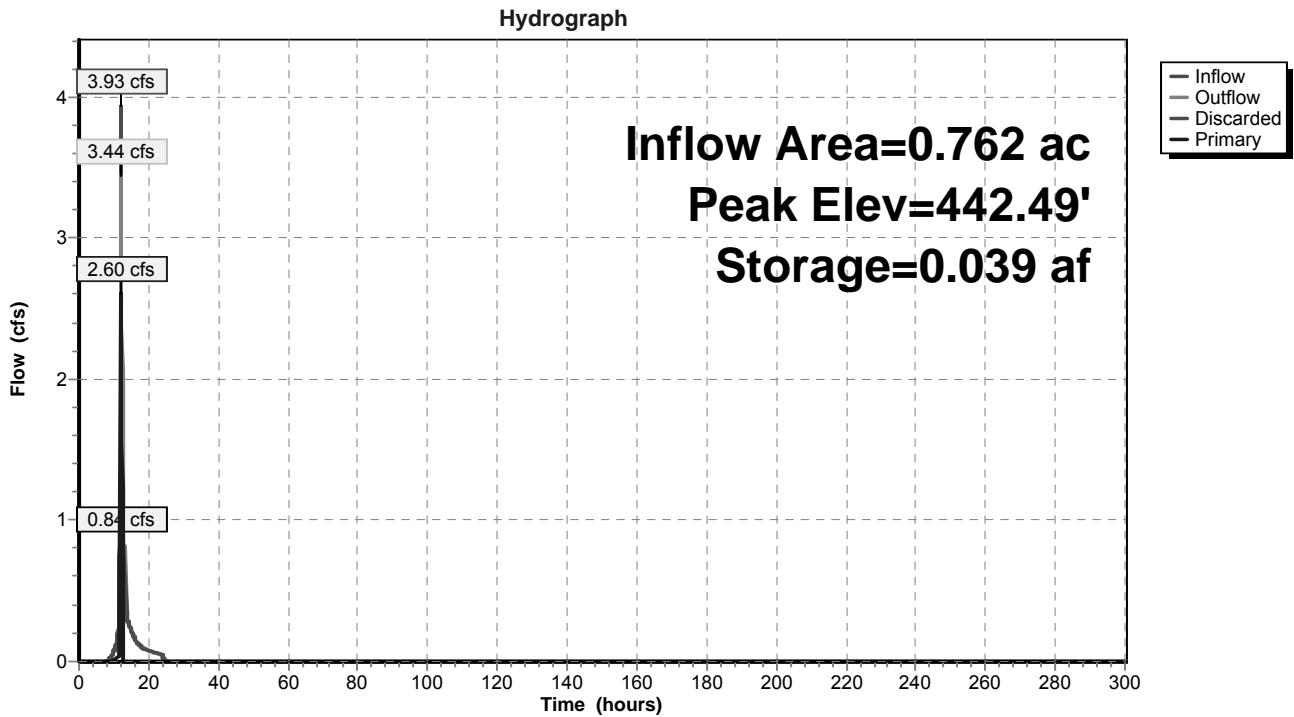
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	440.00'	30.000 in/hr Exfiltration over Surface area
#2	Primary	441.94'	6.0" Vert. Orifice/Grate X 5.00 C= 0.600

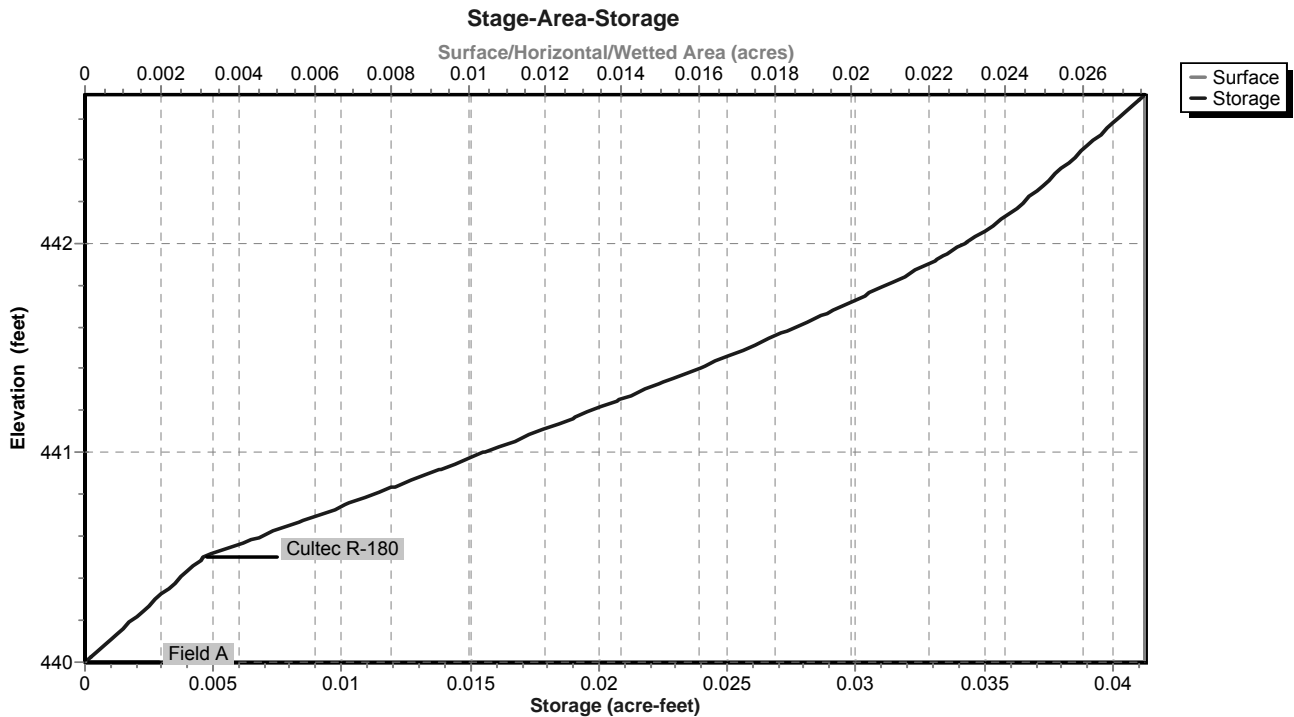
Discarded OutFlow Max=0.84 cfs @ 11.80 hrs HW=440.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.84 cfs)

Primary OutFlow Max=2.45 cfs @ 12.21 hrs HW=442.46' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 2.45 cfs @ 2.49 fps)

Pond S-14: Underground Infiltration (Sub-Lot 14)



Pond S-14: Underground Infiltration (Sub-Lot 14)



Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
440.00	0.028	0.000	440.53	0.028	0.005
440.01	0.028	0.000	440.54	0.028	0.005
440.02	0.028	0.000	440.55	0.028	0.006
440.03	0.028	0.000	440.56	0.028	0.006
440.04	0.028	0.000	440.57	0.028	0.006
440.05	0.028	0.000	440.58	0.028	0.006
440.06	0.028	0.001	440.59	0.028	0.007
440.07	0.028	0.001	440.60	0.028	0.007
440.08	0.028	0.001	440.61	0.028	0.007
440.09	0.028	0.001	440.62	0.028	0.007
440.10	0.028	0.001	440.63	0.028	0.007
440.11	0.028	0.001	440.64	0.028	0.008
440.12	0.028	0.001	440.65	0.028	0.008
440.13	0.028	0.001	440.66	0.028	0.008
440.14	0.028	0.001	440.67	0.028	0.008
440.15	0.028	0.001	440.68	0.028	0.009
440.16	0.028	0.001	440.69	0.028	0.009
440.17	0.028	0.002	440.70	0.028	0.009
440.18	0.028	0.002	440.71	0.028	0.009
440.19	0.028	0.002	440.72	0.028	0.009
440.20	0.028	0.002	440.73	0.028	0.010
440.21	0.028	0.002	440.74	0.028	0.010
440.22	0.028	0.002	440.75	0.028	0.010
440.23	0.028	0.002	440.76	0.028	0.010
440.24	0.028	0.002	440.77	0.028	0.011
440.25	0.028	0.002	440.78	0.028	0.011
440.26	0.028	0.002	440.79	0.028	0.011
440.27	0.028	0.002	440.80	0.028	0.011
440.28	0.028	0.003	440.81	0.028	0.011
440.29	0.028	0.003	440.82	0.028	0.012
440.30	0.028	0.003	440.83	0.028	0.012
440.31	0.028	0.003	440.84	0.028	0.012
440.32	0.028	0.003	440.85	0.028	0.012
440.33	0.028	0.003	440.86	0.028	0.013
440.34	0.028	0.003	440.87	0.028	0.013
440.35	0.028	0.003	440.88	0.028	0.013
440.36	0.028	0.003	440.89	0.028	0.013
440.37	0.028	0.003	440.90	0.028	0.013
440.38	0.028	0.003	440.91	0.028	0.014
440.39	0.028	0.004	440.92	0.028	0.014
440.40	0.028	0.004	440.93	0.028	0.014
440.41	0.028	0.004	440.94	0.028	0.014
440.42	0.028	0.004	440.95	0.028	0.014
440.43	0.028	0.004	440.96	0.028	0.015
440.44	0.028	0.004	440.97	0.028	0.015
440.45	0.028	0.004	440.98	0.028	0.015
440.46	0.028	0.004	440.99	0.028	0.015
440.47	0.028	0.004	441.00	0.028	0.016
440.48	0.028	0.004	441.01	0.028	0.016
440.49	0.028	0.005	441.02	0.028	0.016
440.50	0.028	0.005	441.03	0.028	0.016
440.51	0.028	0.005	441.04	0.028	0.016
440.52	0.028	0.005	441.05	0.028	0.017

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
441.06	0.028	0.017	441.59	0.028	0.027
441.07	0.028	0.017	441.60	0.028	0.028
441.08	0.028	0.017	441.61	0.028	0.028
441.09	0.028	0.017	441.62	0.028	0.028
441.10	0.028	0.018	441.63	0.028	0.028
441.11	0.028	0.018	441.64	0.028	0.028
441.12	0.028	0.018	441.65	0.028	0.029
441.13	0.028	0.018	441.66	0.028	0.029
441.14	0.028	0.018	441.67	0.028	0.029
441.15	0.028	0.019	441.68	0.028	0.029
441.16	0.028	0.019	441.69	0.028	0.029
441.17	0.028	0.019	441.70	0.028	0.029
441.18	0.028	0.019	441.71	0.028	0.030
441.19	0.028	0.020	441.72	0.028	0.030
441.20	0.028	0.020	441.73	0.028	0.030
441.21	0.028	0.020	441.74	0.028	0.030
441.22	0.028	0.020	441.75	0.028	0.030
441.23	0.028	0.020	441.76	0.028	0.031
441.24	0.028	0.021	441.77	0.028	0.031
441.25	0.028	0.021	441.78	0.028	0.031
441.26	0.028	0.021	441.79	0.028	0.031
441.27	0.028	0.021	441.80	0.028	0.031
441.28	0.028	0.021	441.81	0.028	0.031
441.29	0.028	0.022	441.82	0.028	0.032
441.30	0.028	0.022	441.83	0.028	0.032
441.31	0.028	0.022	441.84	0.028	0.032
441.32	0.028	0.022	441.85	0.028	0.032
441.33	0.028	0.022	441.86	0.028	0.032
441.34	0.028	0.023	441.87	0.028	0.032
441.35	0.028	0.023	441.88	0.028	0.033
441.36	0.028	0.023	441.89	0.028	0.033
441.37	0.028	0.023	441.90	0.028	0.033
441.38	0.028	0.023	441.91	0.028	0.033
441.39	0.028	0.024	441.92	0.028	0.033
441.40	0.028	0.024	441.93	0.028	0.033
441.41	0.028	0.024	441.94	0.028	0.033
441.42	0.028	0.024	441.95	0.028	0.034
441.43	0.028	0.024	441.96	0.028	0.034
441.44	0.028	0.025	441.97	0.028	0.034
441.45	0.028	0.025	441.98	0.028	0.034
441.46	0.028	0.025	441.99	0.028	0.034
441.47	0.028	0.025	442.00	0.028	0.034
441.48	0.028	0.025	442.01	0.028	0.034
441.49	0.028	0.026	442.02	0.028	0.035
441.50	0.028	0.026	442.03	0.028	0.035
441.51	0.028	0.026	442.04	0.028	0.035
441.52	0.028	0.026	442.05	0.028	0.035
441.53	0.028	0.026	442.06	0.028	0.035
441.54	0.028	0.027	442.07	0.028	0.035
441.55	0.028	0.027	442.08	0.028	0.035
441.56	0.028	0.027	442.09	0.028	0.035
441.57	0.028	0.027	442.10	0.028	0.036
441.58	0.028	0.027	442.11	0.028	0.036

Stage-Area-Storage for Pond S-14: Underground Infiltration (Sub-Lot 14) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
442.12	0.028	0.036	442.65	0.028	0.041
442.13	0.028	0.036	442.66	0.028	0.041
442.14	0.028	0.036	442.67	0.028	0.041
442.15	0.028	0.036	442.68	0.028	0.041
442.16	0.028	0.036	442.69	0.028	0.041
442.17	0.028	0.036	442.70	0.028	0.041
442.18	0.028	0.036	442.71	0.028	0.041
442.19	0.028	0.036			
442.20	0.028	0.037			
442.21	0.028	0.037			
442.22	0.028	0.037			
442.23	0.028	0.037			
442.24	0.028	0.037			
442.25	0.028	0.037			
442.26	0.028	0.037			
442.27	0.028	0.037			
442.28	0.028	0.037			
442.29	0.028	0.037			
442.30	0.028	0.038			
442.31	0.028	0.038			
442.32	0.028	0.038			
442.33	0.028	0.038			
442.34	0.028	0.038			
442.35	0.028	0.038			
442.36	0.028	0.038			
442.37	0.028	0.038			
442.38	0.028	0.038			
442.39	0.028	0.038			
442.40	0.028	0.038			
442.41	0.028	0.039			
442.42	0.028	0.039			
442.43	0.028	0.039			
442.44	0.028	0.039			
442.45	0.028	0.039			
442.46	0.028	0.039			
442.47	0.028	0.039			
442.48	0.028	0.039			
442.49	0.028	0.039			
442.50	0.028	0.039			
442.51	0.028	0.039			
442.52	0.028	0.040			
442.53	0.028	0.040			
442.54	0.028	0.040			
442.55	0.028	0.040			
442.56	0.028	0.040			
442.57	0.028	0.040			
442.58	0.028	0.040			
442.59	0.028	0.040			
442.60	0.028	0.040			
442.61	0.028	0.040			
442.62	0.028	0.040			
442.63	0.028	0.041			
442.64	0.028	0.041			

Summary for Pond S-15: Underground Infiltration (Sub-Lot 15)

Inflow Area = 0.489 ac, 26.58% Impervious, Inflow Depth = 5.33" for 100 Year - North Salem event
 Inflow = 2.62 cfs @ 12.15 hrs, Volume= 0.217 af
 Outflow = 1.66 cfs @ 12.32 hrs, Volume= 0.218 af, Atten= 37%, Lag= 10.4 min
 Discarded = 0.38 cfs @ 11.75 hrs, Volume= 0.189 af
 Primary = 1.28 cfs @ 12.32 hrs, Volume= 0.028 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 435.80' @ 12.32 hrs Surf.Area= 0.037 ac Storage= 0.047 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 30.0 min (853.6 - 823.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.42'	0.022 af	34.00'W x 47.00'L x 2.54'H Field A 0.093 af Overall - 0.027 af Embedded = 0.066 af x 33.3% Voids
#2A	433.92'	0.027 af	Cultec R-150 x 60 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.049 af	Total Available Storage

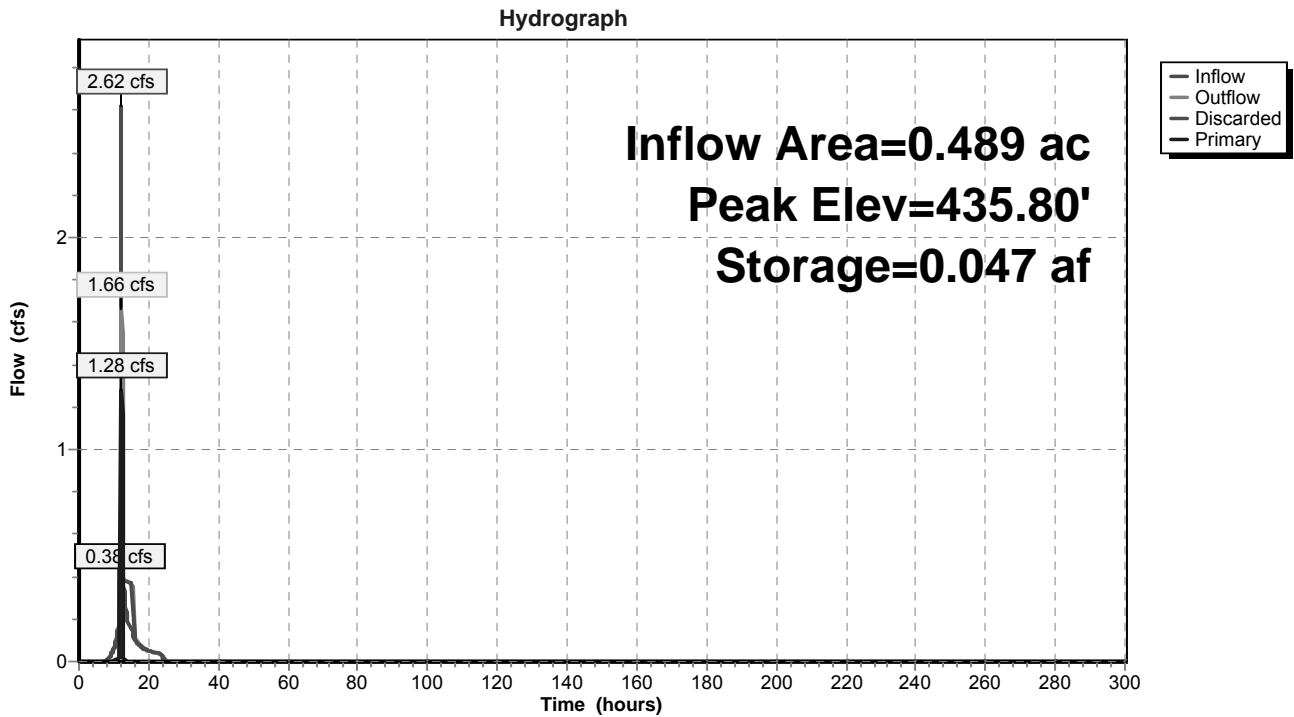
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.42'	10.200 in/hr Exfiltration over Surface area
#2	Primary	435.45'	4.0" Vert. Orifice/Grate X 7.00 C= 0.600

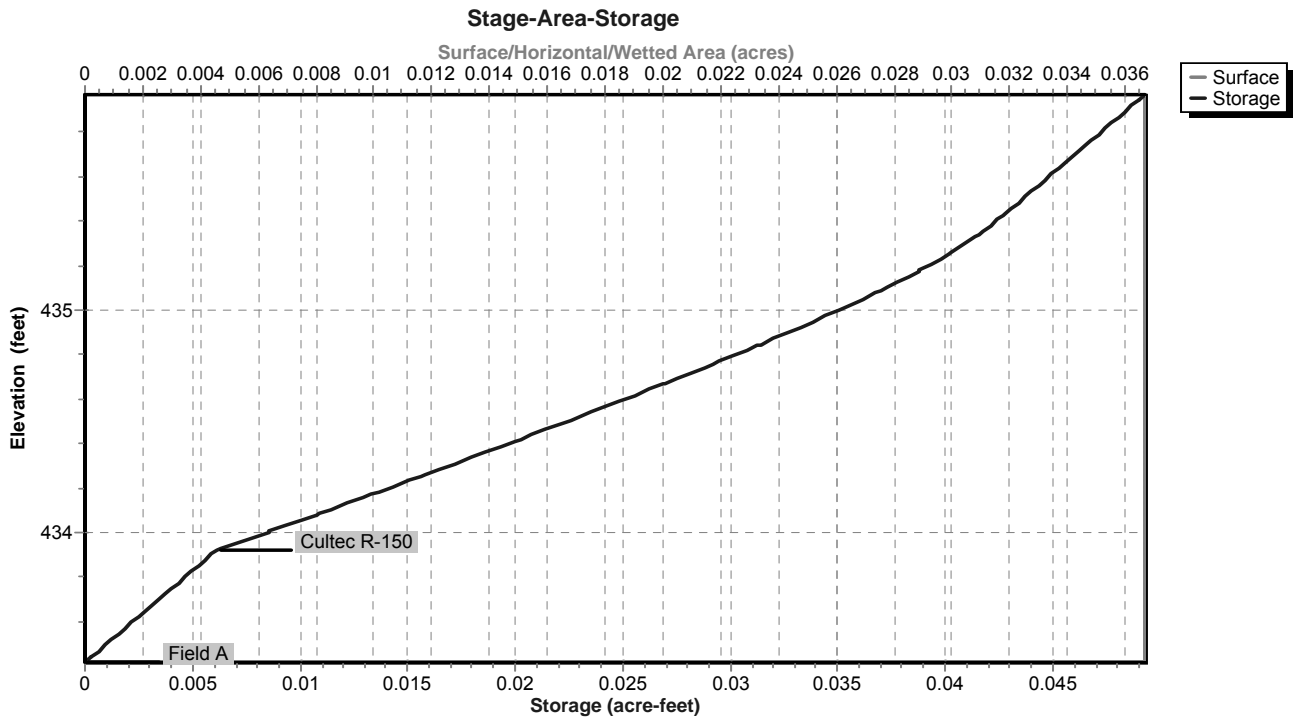
Discarded OutFlow Max=0.38 cfs @ 11.75 hrs HW=433.47' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.38 cfs)

Primary OutFlow Max=1.20 cfs @ 12.32 hrs HW=435.78' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 1.20 cfs @ 1.97 fps)

Pond S-15: Underground Infiltration (Sub-Lot 15)



Pond S-15: Underground Infiltration (Sub-Lot 15)



Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.42	0.037	0.000	433.95	0.037	0.007
433.43	0.037	0.000	433.96	0.037	0.007
433.44	0.037	0.000	433.97	0.037	0.008
433.45	0.037	0.000	433.98	0.037	0.008
433.46	0.037	0.000	433.99	0.037	0.008
433.47	0.037	0.001	434.00	0.037	0.008
433.48	0.037	0.001	434.01	0.037	0.009
433.49	0.037	0.001	434.02	0.037	0.009
433.50	0.037	0.001	434.03	0.037	0.009
433.51	0.037	0.001	434.04	0.037	0.010
433.52	0.037	0.001	434.05	0.037	0.010
433.53	0.037	0.001	434.06	0.037	0.010
433.54	0.037	0.001	434.07	0.037	0.010
433.55	0.037	0.002	434.08	0.037	0.011
433.56	0.037	0.002	434.09	0.037	0.011
433.57	0.037	0.002	434.10	0.037	0.011
433.58	0.037	0.002	434.11	0.037	0.012
433.59	0.037	0.002	434.12	0.037	0.012
433.60	0.037	0.002	434.13	0.037	0.012
433.61	0.037	0.002	434.14	0.037	0.012
433.62	0.037	0.002	434.15	0.037	0.013
433.63	0.037	0.003	434.16	0.037	0.013
433.64	0.037	0.003	434.17	0.037	0.013
433.65	0.037	0.003	434.18	0.037	0.014
433.66	0.037	0.003	434.19	0.037	0.014
433.67	0.037	0.003	434.20	0.037	0.014
433.68	0.037	0.003	434.21	0.037	0.014
433.69	0.037	0.003	434.22	0.037	0.015
433.70	0.037	0.003	434.23	0.037	0.015
433.71	0.037	0.004	434.24	0.037	0.015
433.72	0.037	0.004	434.25	0.037	0.016
433.73	0.037	0.004	434.26	0.037	0.016
433.74	0.037	0.004	434.27	0.037	0.016
433.75	0.037	0.004	434.28	0.037	0.016
433.76	0.037	0.004	434.29	0.037	0.017
433.77	0.037	0.004	434.30	0.037	0.017
433.78	0.037	0.004	434.31	0.037	0.017
433.79	0.037	0.005	434.32	0.037	0.018
433.80	0.037	0.005	434.33	0.037	0.018
433.81	0.037	0.005	434.34	0.037	0.018
433.82	0.037	0.005	434.35	0.037	0.018
433.83	0.037	0.005	434.36	0.037	0.019
433.84	0.037	0.005	434.37	0.037	0.019
433.85	0.037	0.005	434.38	0.037	0.019
433.86	0.037	0.005	434.39	0.037	0.019
433.87	0.037	0.005	434.40	0.037	0.020
433.88	0.037	0.006	434.41	0.037	0.020
433.89	0.037	0.006	434.42	0.037	0.020
433.90	0.037	0.006	434.43	0.037	0.021
433.91	0.037	0.006	434.44	0.037	0.021
433.92	0.037	0.006	434.45	0.037	0.021
433.93	0.037	0.006	434.46	0.037	0.021
433.94	0.037	0.007	434.47	0.037	0.022

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.48	0.037	0.022	435.01	0.037	0.035
434.49	0.037	0.022	435.02	0.037	0.036
434.50	0.037	0.022	435.03	0.037	0.036
434.51	0.037	0.023	435.04	0.037	0.036
434.52	0.037	0.023	435.05	0.037	0.036
434.53	0.037	0.023	435.06	0.037	0.036
434.54	0.037	0.024	435.07	0.037	0.037
434.55	0.037	0.024	435.08	0.037	0.037
434.56	0.037	0.024	435.09	0.037	0.037
434.57	0.037	0.024	435.10	0.037	0.037
434.58	0.037	0.025	435.11	0.037	0.038
434.59	0.037	0.025	435.12	0.037	0.038
434.60	0.037	0.025	435.13	0.037	0.038
434.61	0.037	0.025	435.14	0.037	0.038
434.62	0.037	0.026	435.15	0.037	0.038
434.63	0.037	0.026	435.16	0.037	0.039
434.64	0.037	0.026	435.17	0.037	0.039
434.65	0.037	0.026	435.18	0.037	0.039
434.66	0.037	0.027	435.19	0.037	0.039
434.67	0.037	0.027	435.20	0.037	0.039
434.68	0.037	0.027	435.21	0.037	0.040
434.69	0.037	0.028	435.22	0.037	0.040
434.70	0.037	0.028	435.23	0.037	0.040
434.71	0.037	0.028	435.24	0.037	0.040
434.72	0.037	0.028	435.25	0.037	0.040
434.73	0.037	0.029	435.26	0.037	0.040
434.74	0.037	0.029	435.27	0.037	0.041
434.75	0.037	0.029	435.28	0.037	0.041
434.76	0.037	0.029	435.29	0.037	0.041
434.77	0.037	0.030	435.30	0.037	0.041
434.78	0.037	0.030	435.31	0.037	0.041
434.79	0.037	0.030	435.32	0.037	0.041
434.80	0.037	0.030	435.33	0.037	0.041
434.81	0.037	0.031	435.34	0.037	0.042
434.82	0.037	0.031	435.35	0.037	0.042
434.83	0.037	0.031	435.36	0.037	0.042
434.84	0.037	0.031	435.37	0.037	0.042
434.85	0.037	0.032	435.38	0.037	0.042
434.86	0.037	0.032	435.39	0.037	0.042
434.87	0.037	0.032	435.40	0.037	0.042
434.88	0.037	0.032	435.41	0.037	0.043
434.89	0.037	0.033	435.42	0.037	0.043
434.90	0.037	0.033	435.43	0.037	0.043
434.91	0.037	0.033	435.44	0.037	0.043
434.92	0.037	0.033	435.45	0.037	0.043
434.93	0.037	0.034	435.46	0.037	0.043
434.94	0.037	0.034	435.47	0.037	0.043
434.95	0.037	0.034	435.48	0.037	0.043
434.96	0.037	0.034	435.49	0.037	0.044
434.97	0.037	0.034	435.50	0.037	0.044
434.98	0.037	0.035	435.51	0.037	0.044
434.99	0.037	0.035	435.52	0.037	0.044
435.00	0.037	0.035	435.53	0.037	0.044

Stage-Area-Storage for Pond S-15: Underground Infiltration (Sub-Lot 15) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.54	0.037	0.044
435.55	0.037	0.044
435.56	0.037	0.044
435.57	0.037	0.045
435.58	0.037	0.045
435.59	0.037	0.045
435.60	0.037	0.045
435.61	0.037	0.045
435.62	0.037	0.045
435.63	0.037	0.045
435.64	0.037	0.045
435.65	0.037	0.045
435.66	0.037	0.046
435.67	0.037	0.046
435.68	0.037	0.046
435.69	0.037	0.046
435.70	0.037	0.046
435.71	0.037	0.046
435.72	0.037	0.046
435.73	0.037	0.046
435.74	0.037	0.047
435.75	0.037	0.047
435.76	0.037	0.047
435.77	0.037	0.047
435.78	0.037	0.047
435.79	0.037	0.047
435.80	0.037	0.047
435.81	0.037	0.047
435.82	0.037	0.048
435.83	0.037	0.048
435.84	0.037	0.048
435.85	0.037	0.048
435.86	0.037	0.048
435.87	0.037	0.048
435.88	0.037	0.048
435.89	0.037	0.048
435.90	0.037	0.049
435.91	0.037	0.049
435.92	0.037	0.049
435.93	0.037	0.049
435.94	0.037	0.049
435.95	0.037	0.049
435.96	0.037	0.049

Summary for Pond S-16: Underground Infiltration (Sub-Lot 16)

Inflow Area = 0.559 ac, 25.04% Impervious, Inflow Depth = 5.21" for 100 Year - North Salem event
 Inflow = 3.10 cfs @ 12.12 hrs, Volume= 0.243 af
 Outflow = 0.87 cfs @ 12.52 hrs, Volume= 0.243 af, Atten= 72%, Lag= 24.0 min
 Discarded = 0.43 cfs @ 11.70 hrs, Volume= 0.233 af
 Primary = 0.44 cfs @ 12.52 hrs, Volume= 0.010 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 418.04' @ 12.52 hrs Surf.Area= 0.054 ac Storage= 0.073 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 49.5 min (873.5 - 823.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	415.50'	0.032 af	60.00'W x 39.50'L x 2.54'H Field A 0.138 af Overall - 0.041 af Embedded = 0.097 af x 33.3% Voids
#2A	416.00'	0.041 af	Cultec R-150 x 90 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.073 af	Total Available Storage

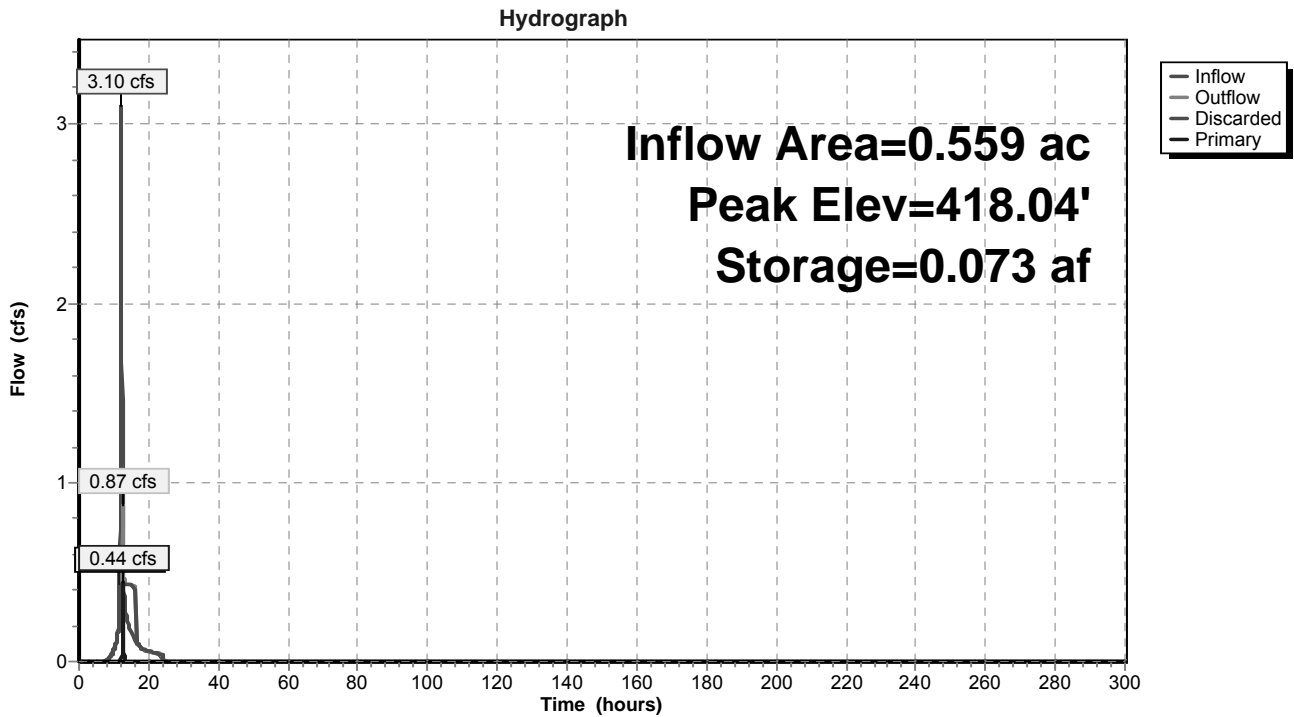
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	415.50'	7.800 in/hr Exfiltration over Surface area
#2	Primary	417.75'	6.0" Vert. Orifice/Grate X 2.00 C= 0.600

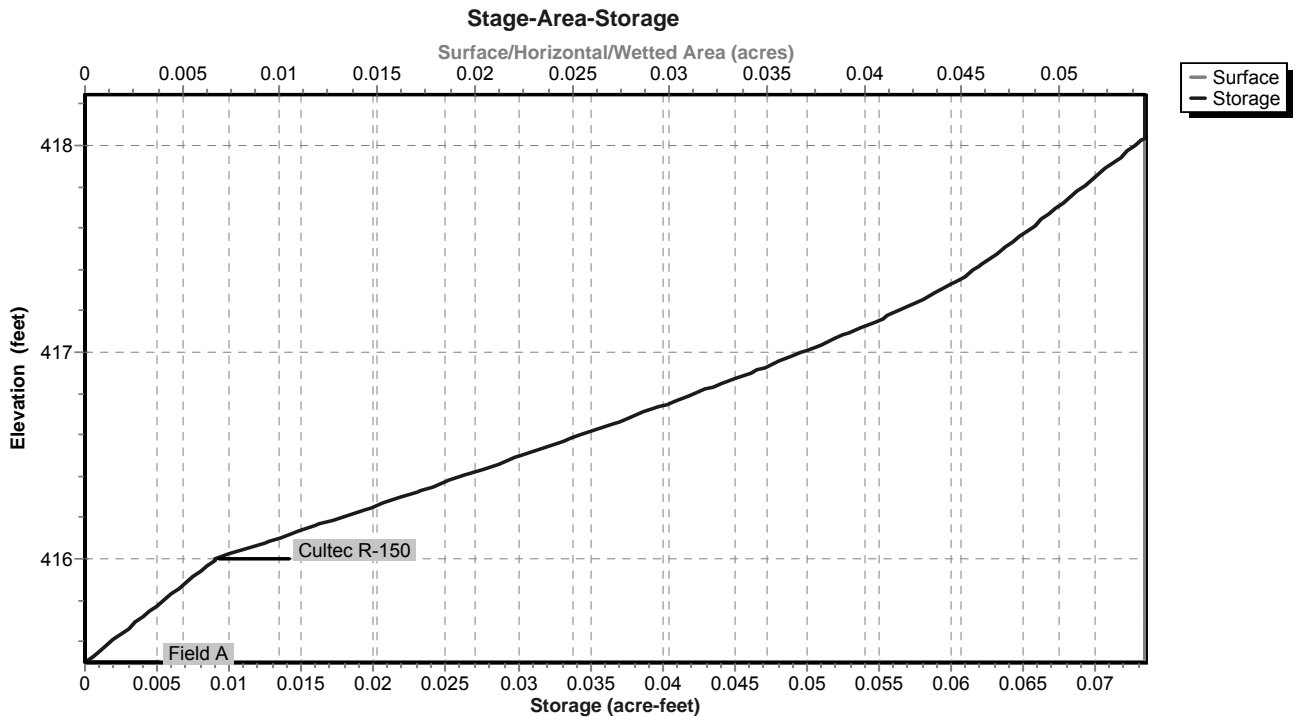
Discarded OutFlow Max=0.43 cfs @ 11.70 hrs HW=415.53' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.43 cfs)

Primary OutFlow Max=0.43 cfs @ 12.52 hrs HW=418.04' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 0.43 cfs @ 1.83 fps)

Pond S-16: Underground Infiltration (Sub-Lot 16)



Pond S-16: Underground Infiltration (Sub-Lot 16)



Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16)

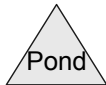
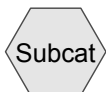
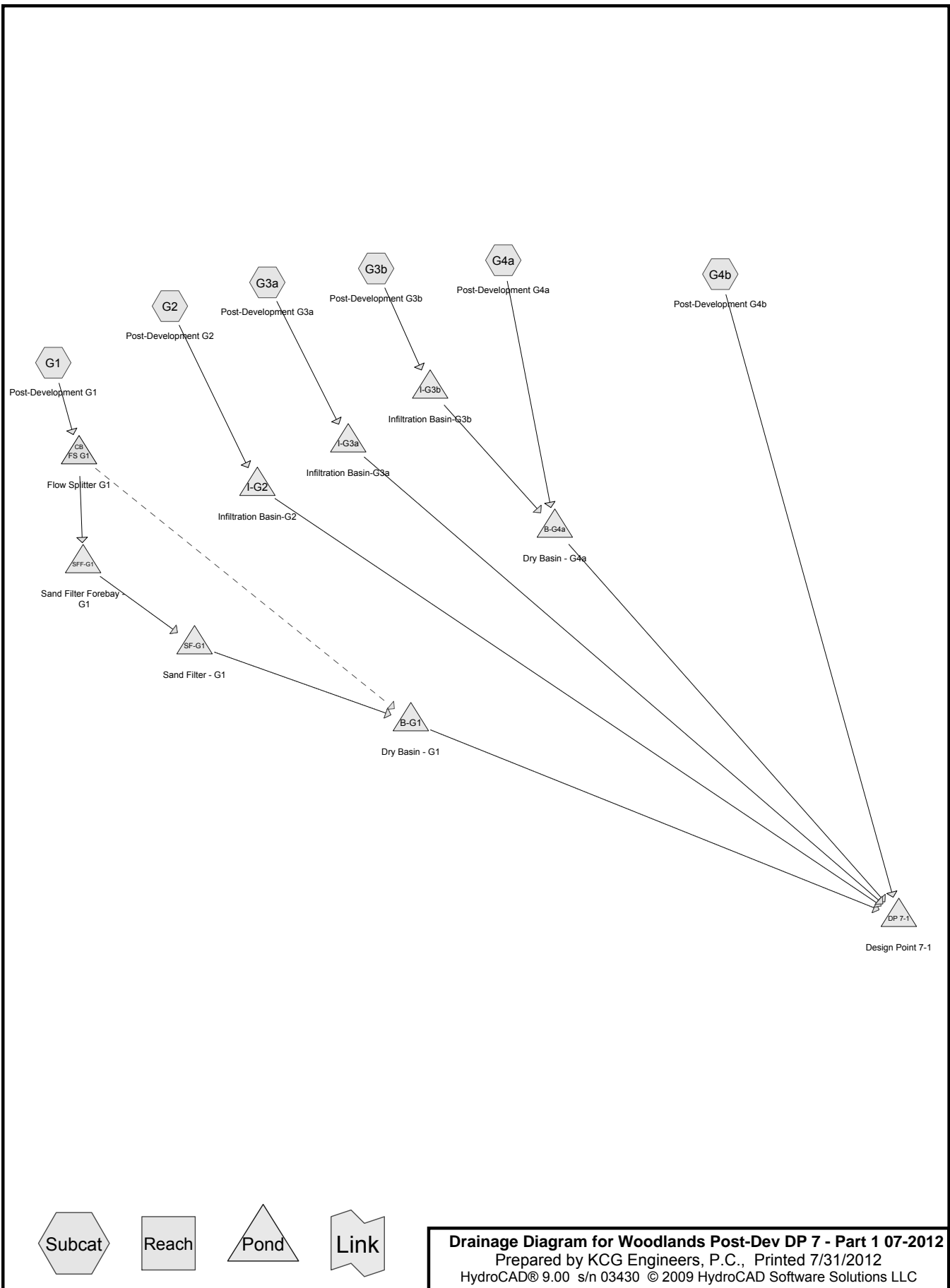
Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
415.50	0.054	0.000	416.03	0.054	0.010
415.51	0.054	0.000	416.04	0.054	0.011
415.52	0.054	0.000	416.05	0.054	0.011
415.53	0.054	0.001	416.06	0.054	0.012
415.54	0.054	0.001	416.07	0.054	0.012
415.55	0.054	0.001	416.08	0.054	0.013
415.56	0.054	0.001	416.09	0.054	0.013
415.57	0.054	0.001	416.10	0.054	0.013
415.58	0.054	0.001	416.11	0.054	0.014
415.59	0.054	0.002	416.12	0.054	0.014
415.60	0.054	0.002	416.13	0.054	0.015
415.61	0.054	0.002	416.14	0.054	0.015
415.62	0.054	0.002	416.15	0.054	0.016
415.63	0.054	0.002	416.16	0.054	0.016
415.64	0.054	0.003	416.17	0.054	0.016
415.65	0.054	0.003	416.18	0.054	0.017
415.66	0.054	0.003	416.19	0.054	0.017
415.67	0.054	0.003	416.20	0.054	0.018
415.68	0.054	0.003	416.21	0.054	0.018
415.69	0.054	0.003	416.22	0.054	0.019
415.70	0.054	0.004	416.23	0.054	0.019
415.71	0.054	0.004	416.24	0.054	0.019
415.72	0.054	0.004	416.25	0.054	0.020
415.73	0.054	0.004	416.26	0.054	0.020
415.74	0.054	0.004	416.27	0.054	0.021
415.75	0.054	0.005	416.28	0.054	0.021
415.76	0.054	0.005	416.29	0.054	0.021
415.77	0.054	0.005	416.30	0.054	0.022
415.78	0.054	0.005	416.31	0.054	0.022
415.79	0.054	0.005	416.32	0.054	0.023
415.80	0.054	0.005	416.33	0.054	0.023
415.81	0.054	0.006	416.34	0.054	0.024
415.82	0.054	0.006	416.35	0.054	0.024
415.83	0.054	0.006	416.36	0.054	0.024
415.84	0.054	0.006	416.37	0.054	0.025
415.85	0.054	0.006	416.38	0.054	0.025
415.86	0.054	0.007	416.39	0.054	0.026
415.87	0.054	0.007	416.40	0.054	0.026
415.88	0.054	0.007	416.41	0.054	0.026
415.89	0.054	0.007	416.42	0.054	0.027
415.90	0.054	0.007	416.43	0.054	0.027
415.91	0.054	0.007	416.44	0.054	0.028
415.92	0.054	0.008	416.45	0.054	0.028
415.93	0.054	0.008	416.46	0.054	0.029
415.94	0.054	0.008	416.47	0.054	0.029
415.95	0.054	0.008	416.48	0.054	0.029
415.96	0.054	0.008	416.49	0.054	0.030
415.97	0.054	0.009	416.50	0.054	0.030
415.98	0.054	0.009	416.51	0.054	0.031
415.99	0.054	0.009	416.52	0.054	0.031
416.00	0.054	0.009	416.53	0.054	0.031
416.01	0.054	0.009	416.54	0.054	0.032
416.02	0.054	0.010	416.55	0.054	0.032

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
416.56	0.054	0.033	417.09	0.054	0.053
416.57	0.054	0.033	417.10	0.054	0.053
416.58	0.054	0.033	417.11	0.054	0.053
416.59	0.054	0.034	417.12	0.054	0.054
416.60	0.054	0.034	417.13	0.054	0.054
416.61	0.054	0.035	417.14	0.054	0.054
416.62	0.054	0.035	417.15	0.054	0.055
416.63	0.054	0.036	417.16	0.054	0.055
416.64	0.054	0.036	417.17	0.054	0.055
416.65	0.054	0.036	417.18	0.054	0.056
416.66	0.054	0.037	417.19	0.054	0.056
416.67	0.054	0.037	417.20	0.054	0.056
416.68	0.054	0.038	417.21	0.054	0.057
416.69	0.054	0.038	417.22	0.054	0.057
416.70	0.054	0.038	417.23	0.054	0.057
416.71	0.054	0.039	417.24	0.054	0.057
416.72	0.054	0.039	417.25	0.054	0.058
416.73	0.054	0.039	417.26	0.054	0.058
416.74	0.054	0.040	417.27	0.054	0.058
416.75	0.054	0.040	417.28	0.054	0.059
416.76	0.054	0.041	417.29	0.054	0.059
416.77	0.054	0.041	417.30	0.054	0.059
416.78	0.054	0.041	417.31	0.054	0.059
416.79	0.054	0.042	417.32	0.054	0.060
416.80	0.054	0.042	417.33	0.054	0.060
416.81	0.054	0.043	417.34	0.054	0.060
416.82	0.054	0.043	417.35	0.054	0.060
416.83	0.054	0.043	417.36	0.054	0.061
416.84	0.054	0.044	417.37	0.054	0.061
416.85	0.054	0.044	417.38	0.054	0.061
416.86	0.054	0.044	417.39	0.054	0.061
416.87	0.054	0.045	417.40	0.054	0.062
416.88	0.054	0.045	417.41	0.054	0.062
416.89	0.054	0.046	417.42	0.054	0.062
416.90	0.054	0.046	417.43	0.054	0.062
416.91	0.054	0.046	417.44	0.054	0.062
416.92	0.054	0.047	417.45	0.054	0.063
416.93	0.054	0.047	417.46	0.054	0.063
416.94	0.054	0.047	417.47	0.054	0.063
416.95	0.054	0.048	417.48	0.054	0.063
416.96	0.054	0.048	417.49	0.054	0.063
416.97	0.054	0.049	417.50	0.054	0.064
416.98	0.054	0.049	417.51	0.054	0.064
416.99	0.054	0.049	417.52	0.054	0.064
417.00	0.054	0.050	417.53	0.054	0.064
417.01	0.054	0.050	417.54	0.054	0.064
417.02	0.054	0.050	417.55	0.054	0.065
417.03	0.054	0.051	417.56	0.054	0.065
417.04	0.054	0.051	417.57	0.054	0.065
417.05	0.054	0.051	417.58	0.054	0.065
417.06	0.054	0.052	417.59	0.054	0.065
417.07	0.054	0.052	417.60	0.054	0.065
417.08	0.054	0.052	417.61	0.054	0.066

Stage-Area-Storage for Pond S-16: Underground Infiltration (Sub-Lot 16) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
417.62	0.054	0.066	418.15	0.054	0.073
417.63	0.054	0.066	418.16	0.054	0.073
417.64	0.054	0.066	418.17	0.054	0.073
417.65	0.054	0.066	418.18	0.054	0.073
417.66	0.054	0.067	418.19	0.054	0.073
417.67	0.054	0.067	418.20	0.054	0.073
417.68	0.054	0.067	418.21	0.054	0.073
417.69	0.054	0.067	418.22	0.054	0.073
417.70	0.054	0.067	418.23	0.054	0.073
417.71	0.054	0.067	418.24	0.054	0.073
417.72	0.054	0.068	418.25	0.054	0.073
417.73	0.054	0.068			
417.74	0.054	0.068			
417.75	0.054	0.068			
417.76	0.054	0.068			
417.77	0.054	0.069			
417.78	0.054	0.069			
417.79	0.054	0.069			
417.80	0.054	0.069			
417.81	0.054	0.069			
417.82	0.054	0.069			
417.83	0.054	0.070			
417.84	0.054	0.070			
417.85	0.054	0.070			
417.86	0.054	0.070			
417.87	0.054	0.070			
417.88	0.054	0.070			
417.89	0.054	0.071			
417.90	0.054	0.071			
417.91	0.054	0.071			
417.92	0.054	0.071			
417.93	0.054	0.071			
417.94	0.054	0.072			
417.95	0.054	0.072			
417.96	0.054	0.072			
417.97	0.054	0.072			
417.98	0.054	0.072			
417.99	0.054	0.072			
418.00	0.054	0.073			
418.01	0.054	0.073			
418.02	0.054	0.073			
418.03	0.054	0.073			
418.04	0.054	0.073			
418.05	0.054	0.073			
418.06	0.054	0.073			
418.07	0.054	0.073			
418.08	0.054	0.073			
418.09	0.054	0.073			
418.10	0.054	0.073			
418.11	0.054	0.073			
418.12	0.054	0.073			
418.13	0.054	0.073			
418.14	0.054	0.073			



Drainage Diagram for Woodlands Post-Dev DP 7 - Part 1 07-2012
 Prepared by KCG Engineers, P.C., Printed 7/31/2012
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Woodlands Post-Dev DP 7 - Part 1 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.381	55	Woods, Good, HSG B (G1, G2, G3b, G4a, G4b)
4.924	58	Woods/grass comb, Good, HSG B (G4b)
7.472	61	>75% Grass cover, Good, HSG B (G1, G2, G3a, G3b, G4a, G4b)
0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property) (G4b)
1.174	61	Basin, HSG B (G1, G2, G3a, G3b)
1.226	70	Woods, Good, HSG C (G1, G2, G4b)
2.288	72	Woods/grass comb., Good, HSG C (G4b)
3.807	74	>75% Grass cover, Good, HSG C (G1, G2, G3a, G4b)
0.192	74	Basin, C (G1)
1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands) (G4b)
0.160	98	Asphalt Driveway (Capucci/Bryson Property) (G4b)
1.107	98	Driveway (G1, G2, G3a, G3b)
0.206	98	Recreation Center (G3a)
1.619	98	Road (G1, G2, G3a, G3b)
0.894	98	Roof/Walkway (G1, G2, G3a, G3b)
0.235	98	Sidewalk (G1, G2, G3a, G3b)
31.048		TOTAL AREA

Woodlands Post-Dev DP 7 - Part 1 07-2011 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=0.82"
Flow Length=184' Tc=10.2 min CN=71 Runoff=1.75 cfs 0.161 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=0.92"
Flow Length=619' Tc=10.1 min CN=73 Runoff=5.74 cfs 0.511 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=1.20"
Flow Length=770' Tc=15.1 min CN=78 Runoff=3.43 cfs 0.334 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=0.64"
Flow Length=983' Tc=12.1 min CN=67 Runoff=1.82 cfs 0.197 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=0.28"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=0.23 cfs 0.046 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=0.59"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=4.26 cfs 0.641 af

Pond B-G1: Dry Basin - G1 Peak Elev=512.73' Storage=949 cf Inflow=0.12 cfs 0.161 af
Primary=0.11 cfs 0.161 af Secondary=0.00 cfs 0.000 af Outflow=0.11 cfs 0.161 af

Pond B-G4a: Dry Basin - G4a Peak Elev=421.14' Storage=1,003 cf Inflow=0.23 cfs 0.046 af
Primary=0.03 cfs 0.046 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.046 af

Pond DP 7-1: Design Point 7-1 Inflow=4.27 cfs 0.848 af
Primary=4.27 cfs 0.848 af

Pond FS G1: Flow Splitter G1 Peak Elev=524.53' Inflow=1.75 cfs 0.161 af
Primary=1.75 cfs 0.161 af Secondary=0.00 cfs 0.000 af Outflow=1.75 cfs 0.161 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=448.20' Storage=1,376 cf Inflow=5.74 cfs 0.511 af
Discarded=3.80 cfs 0.511 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=3.80 cfs 0.511 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=400.50' Storage=3,104 cf Inflow=3.43 cfs 0.334 af
Discarded=1.14 cfs 0.334 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.14 cfs 0.334 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=440.15' Storage=700 cf Inflow=1.82 cfs 0.197 af
Discarded=1.12 cfs 0.197 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.12 cfs 0.197 af

Pond SF-G1: Sand Filter - G1 Peak Elev=519.59' Storage=4,527 cf Inflow=0.66 cfs 0.161 af
Primary=0.12 cfs 0.161 af Secondary=0.00 cfs 0.000 af Outflow=0.12 cfs 0.161 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=522.04' Storage=1,743 cf Inflow=1.75 cfs 0.161 af
Primary=0.66 cfs 0.161 af Secondary=0.00 cfs 0.000 af Outflow=0.66 cfs 0.161 af

Total Runoff Area = 31.048 ac Runoff Volume = 1.890 af Average Runoff Depth = 0.73"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af, Depth= 0.82"

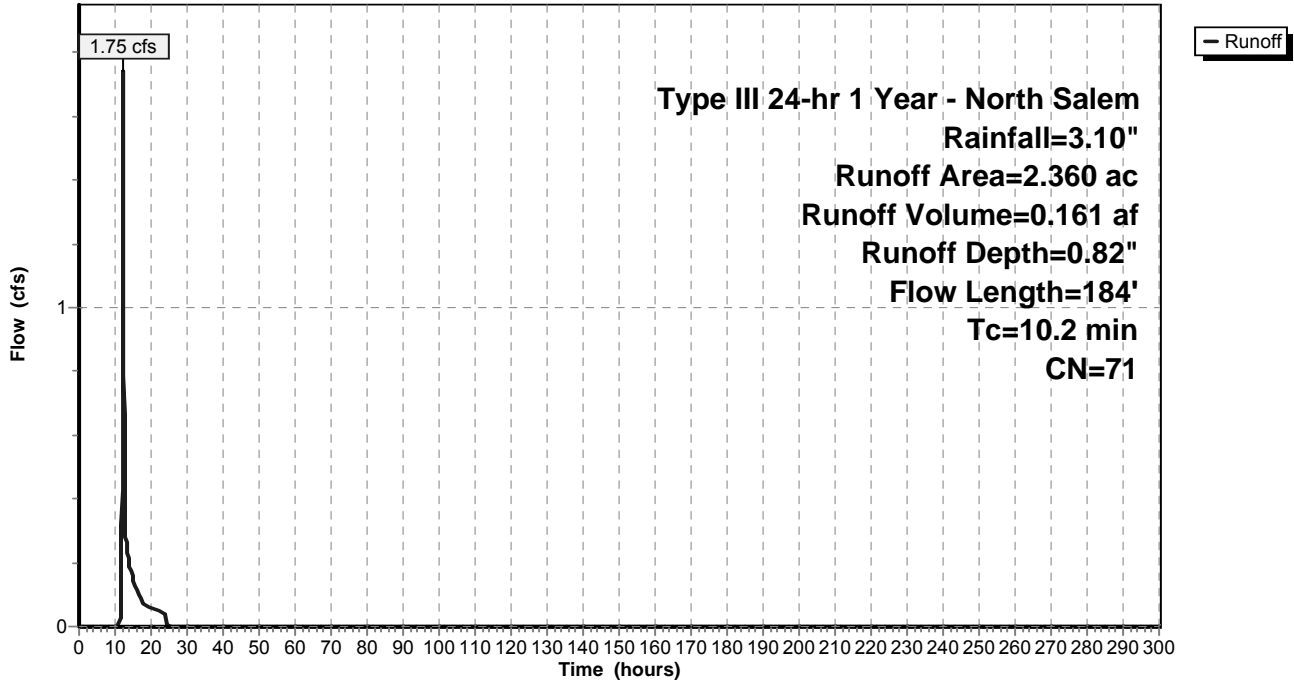
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 5.74 cfs @ 12.16 hrs, Volume= 0.511 af, Depth= 0.92"

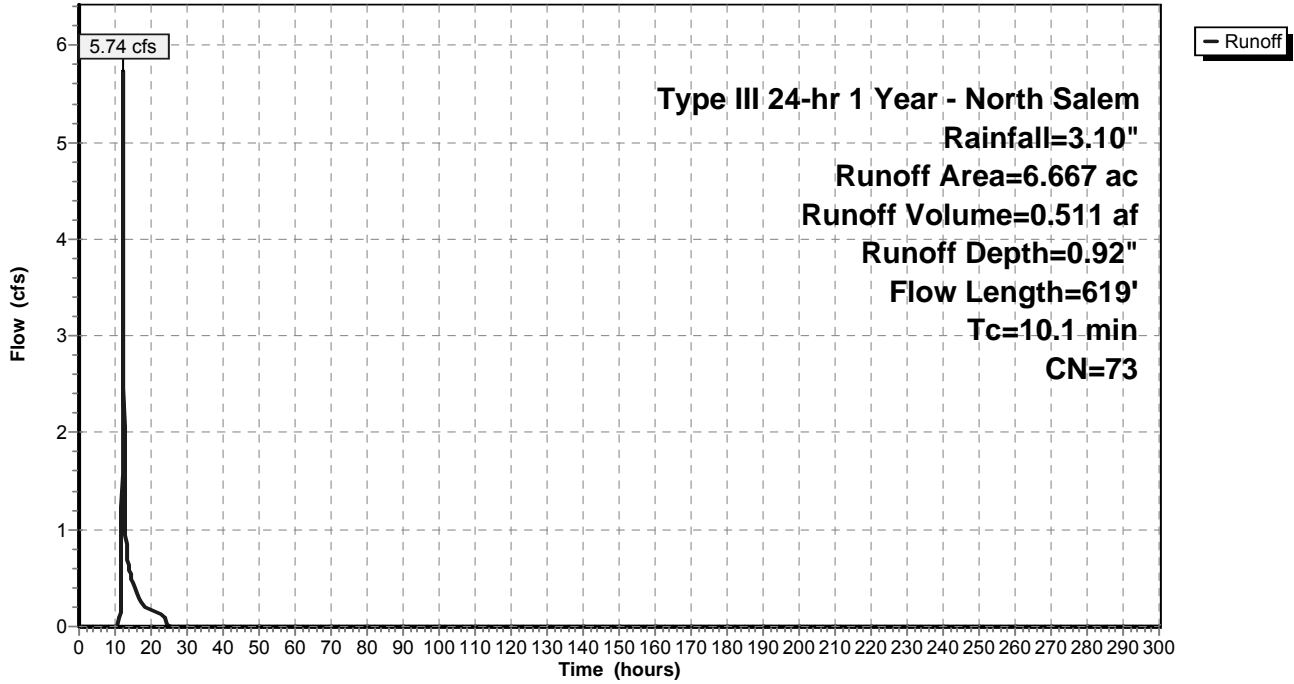
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

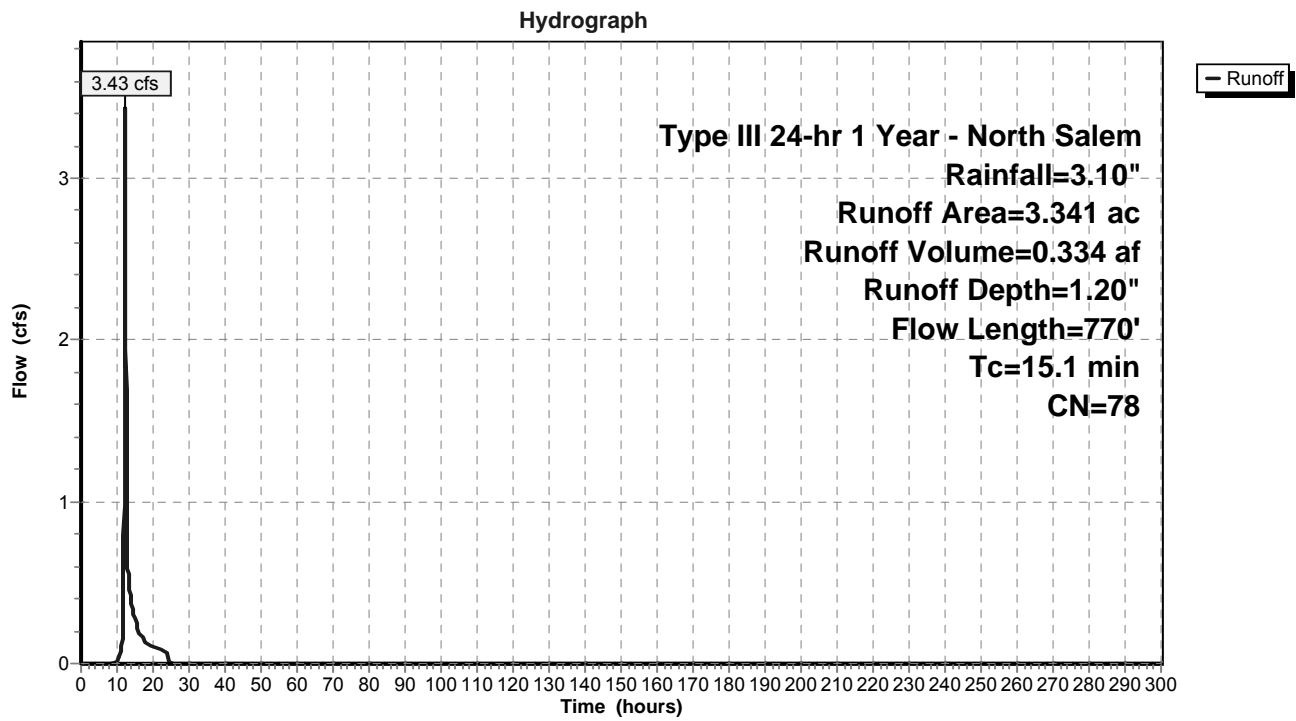
Runoff = 3.43 cfs @ 12.22 hrs, Volume= 0.334 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a



Summary for Subcatchment G3b: Post-Development G3b

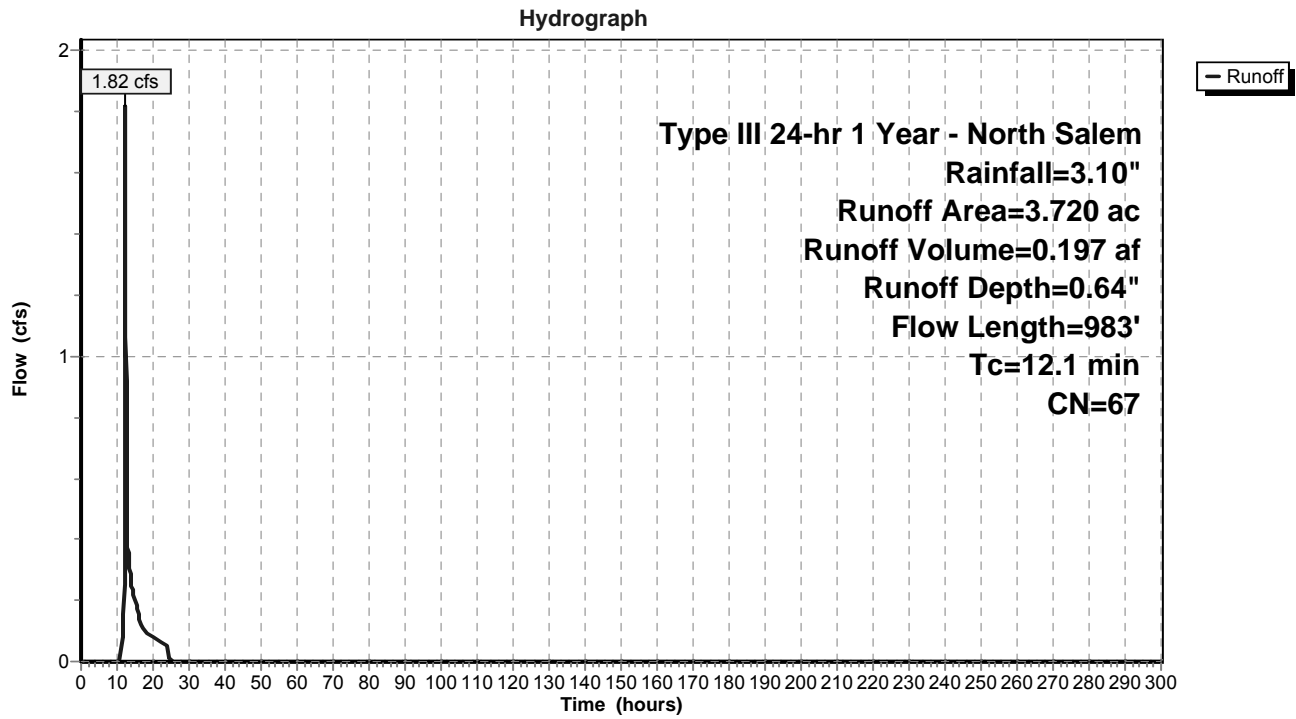
Runoff = 1.82 cfs @ 12.20 hrs, Volume= 0.197 af, Depth= 0.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 0.23 cfs @ 12.41 hrs, Volume= 0.046 af, Depth= 0.28"

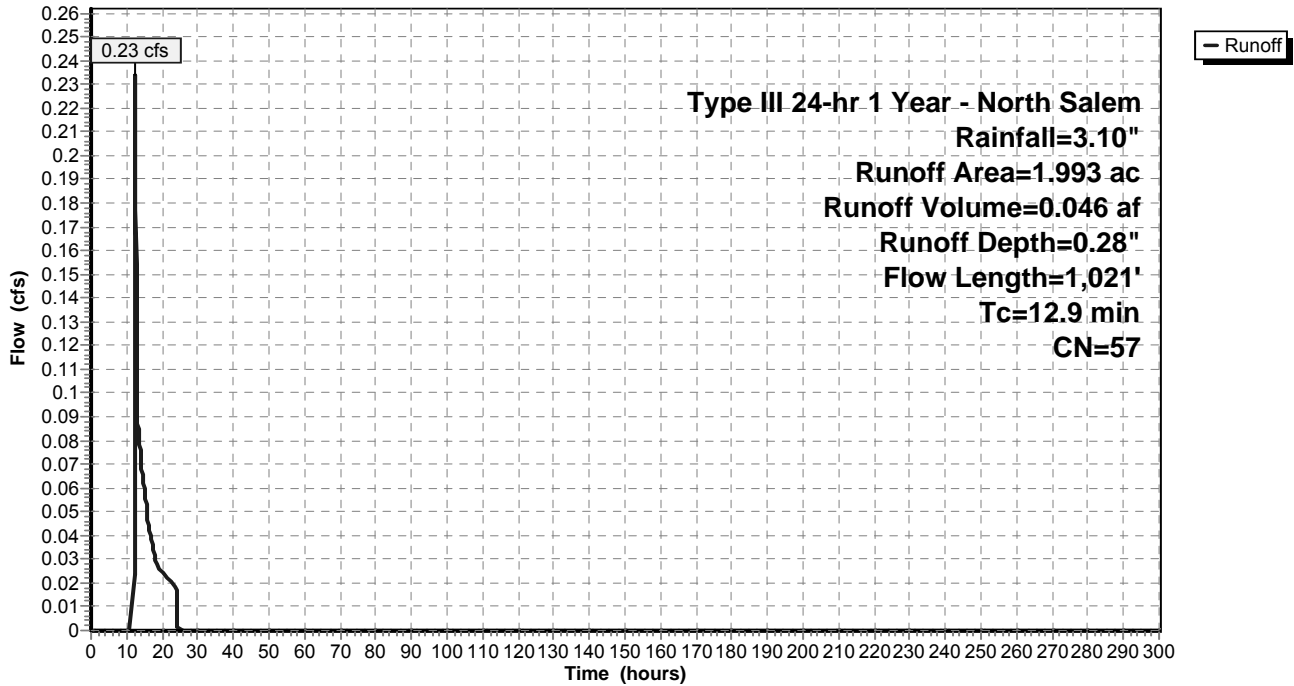
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 4.26 cfs @ 12.47 hrs, Volume= 0.641 af, Depth= 0.59"

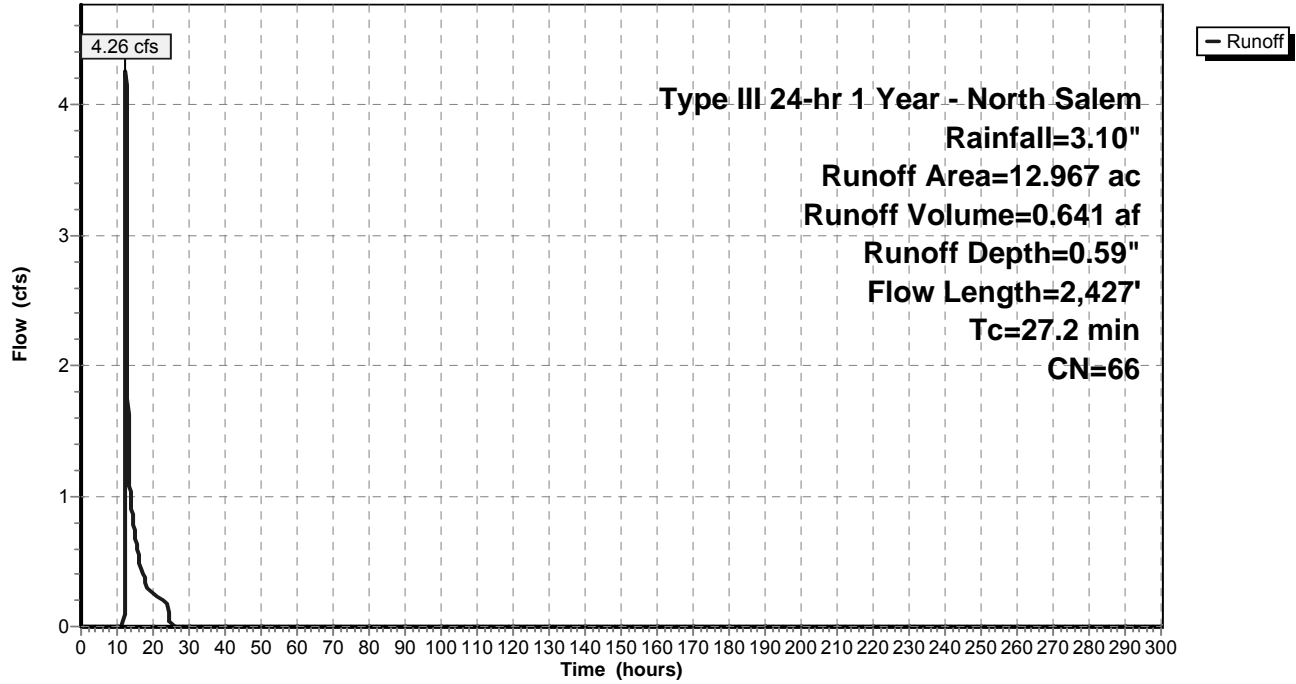
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth > 0.82" for 1 Year - North Salem event
 Inflow = 0.12 cfs @ 16.90 hrs, Volume= 0.161 af
 Outflow = 0.11 cfs @ 17.67 hrs, Volume= 0.161 af, Atten= 7%, Lag= 46.0 min
 Primary = 0.11 cfs @ 17.67 hrs, Volume= 0.161 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 512.73' @ 17.67 hrs Surf.Area= 1,475 sf Storage= 949 cf (331 cf above start)

Plug-Flow detention time= 922.4 min calculated for 0.147 af (91% of inflow)
 Center-of-Mass det. time= 108.8 min (3,152.3 - 3,043.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

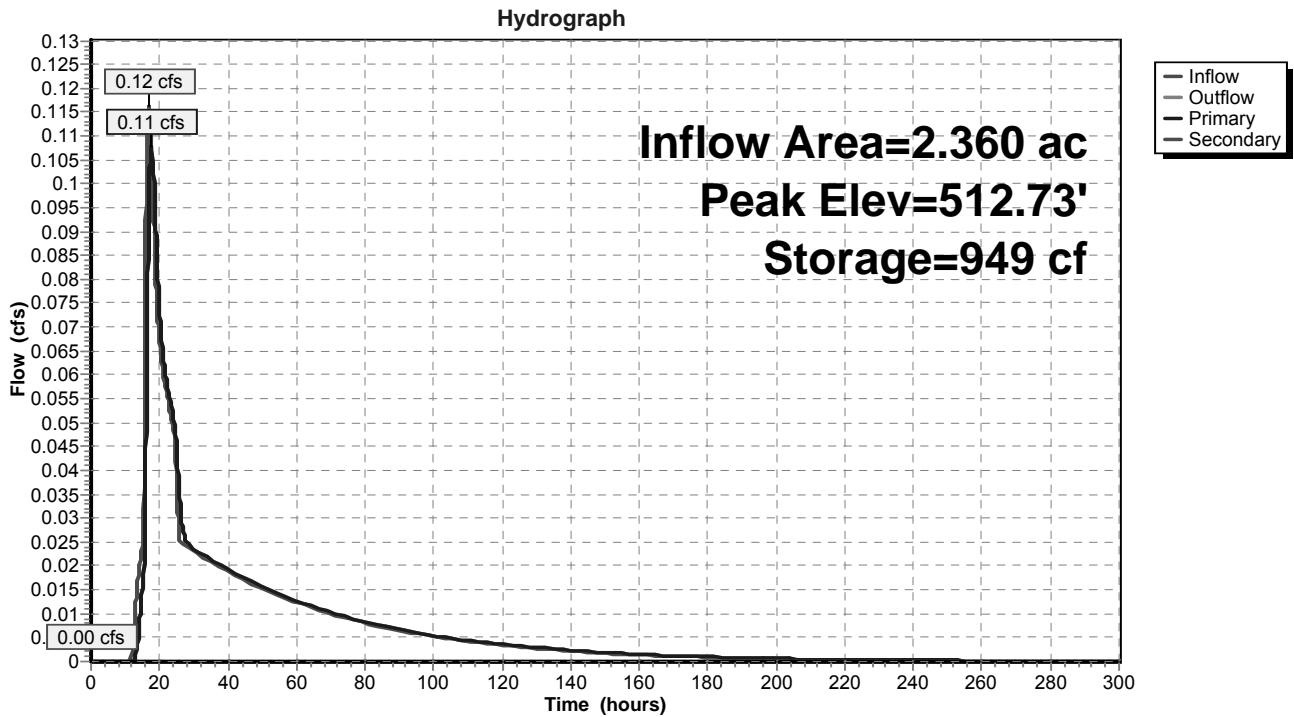
Primary OutFlow Max=0.11 cfs @ 17.67 hrs HW=512.73' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.11 cfs of 8.44 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.11 cfs @ 1.65 fps)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

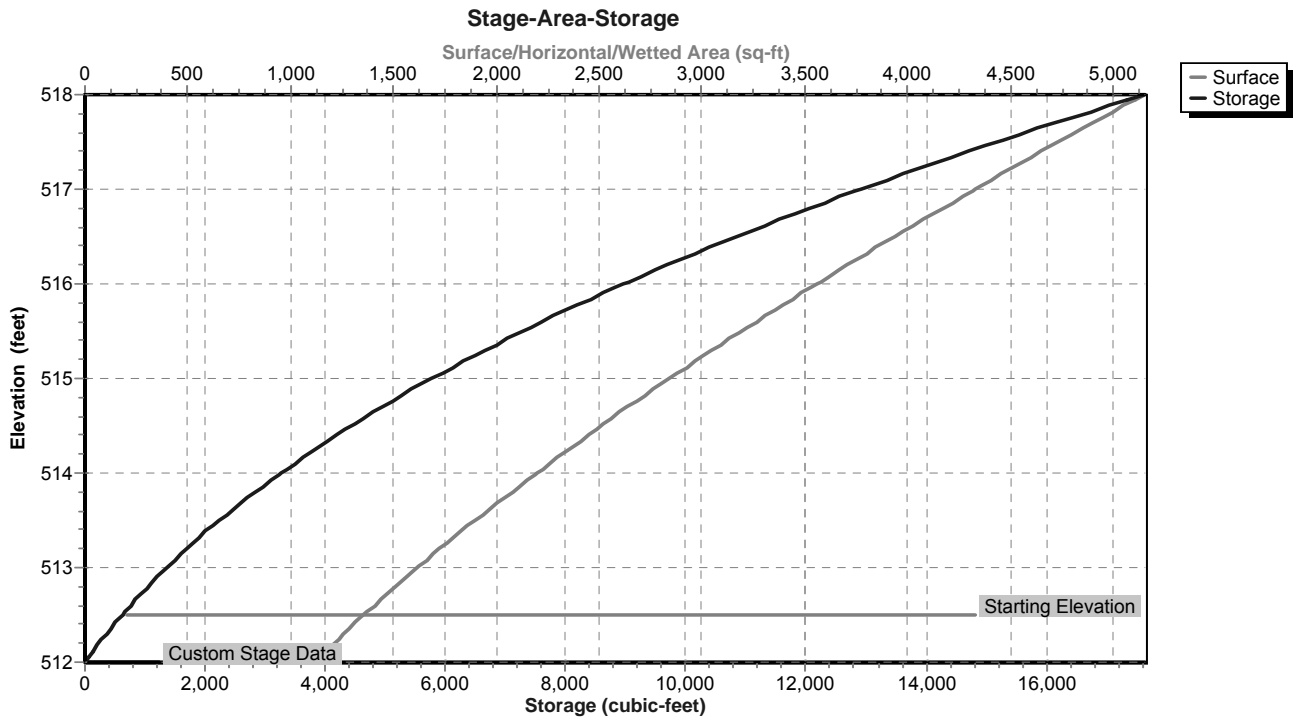
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 0.10" for 1 Year - North Salem event
 Inflow = 0.23 cfs @ 12.41 hrs, Volume= 0.046 af
 Outflow = 0.03 cfs @ 18.61 hrs, Volume= 0.046 af, Atten= 88%, Lag= 372.1 min
 Primary = 0.03 cfs @ 18.61 hrs, Volume= 0.046 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 421.14' @ 18.61 hrs Surf.Area= 1,117 sf Storage= 1,003 cf

Plug-Flow detention time= 482.9 min calculated for 0.046 af (100% of inflow)
 Center-of-Mass det. time= 483.1 min (1,435.1 - 951.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

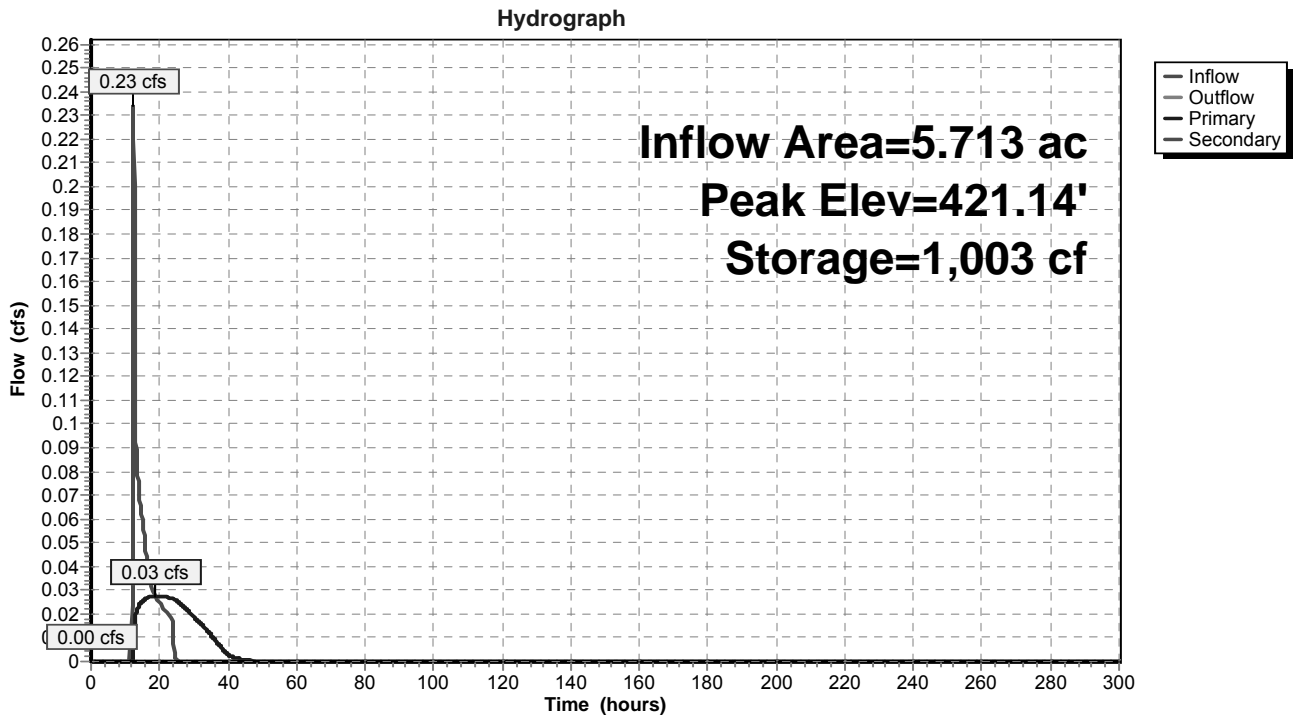
Primary OutFlow Max=0.03 cfs @ 18.61 hrs HW=421.14' (Free Discharge)

- ↑ 1=Culvert (Passes 0.03 cfs of 55.75 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.03 cfs @ 5.04 fps)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

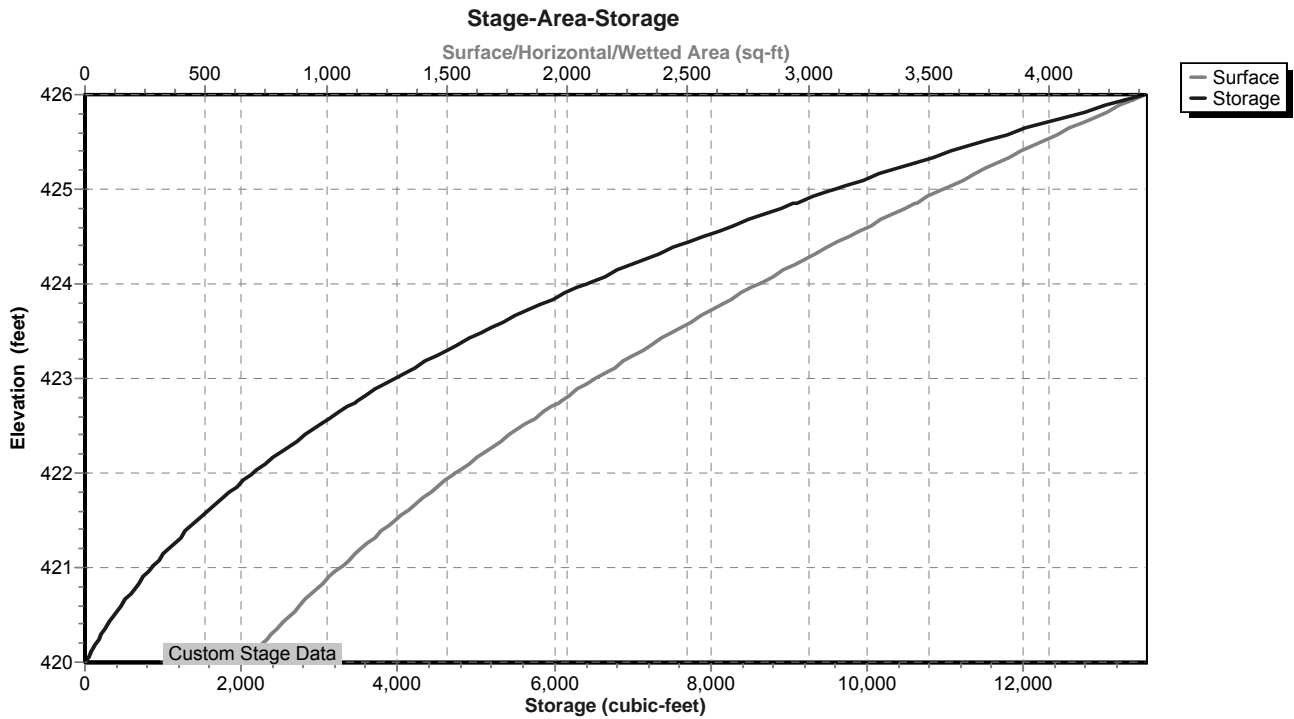
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond B-G4a: Dry Basin - G4a



Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

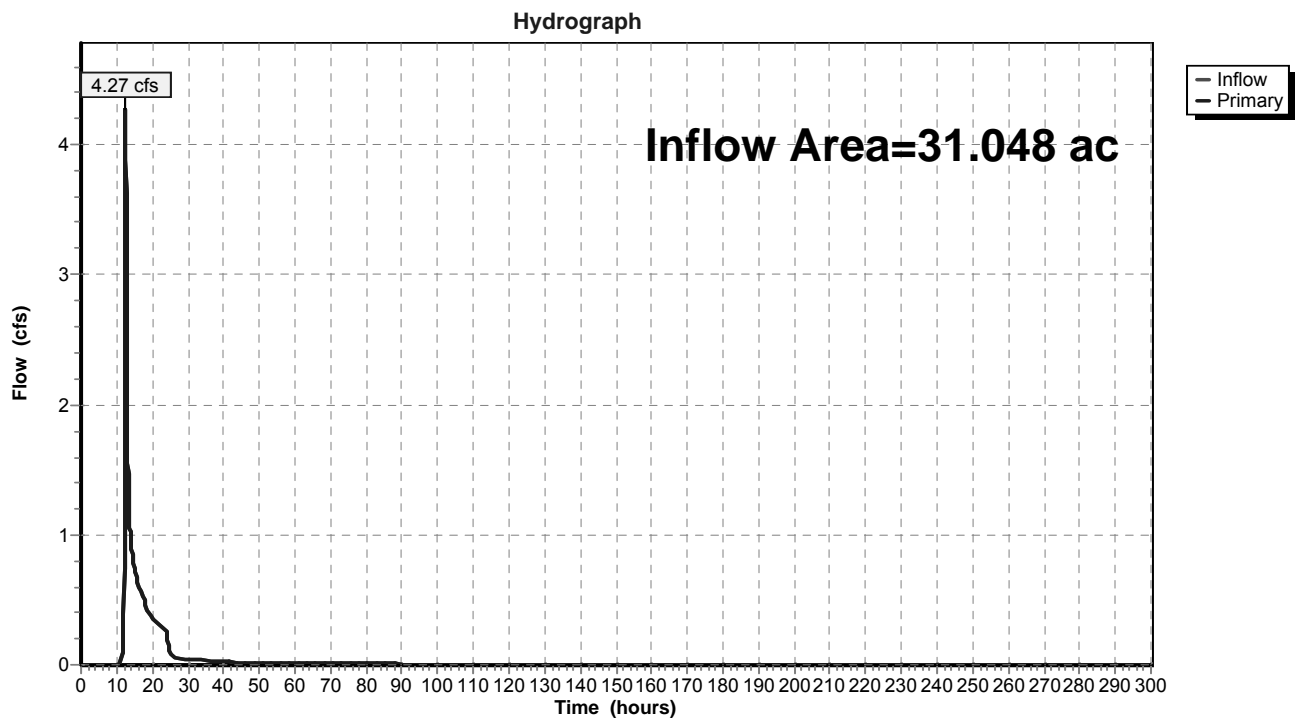
Summary for Pond DP 7-1: Design Point 7-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 0.33" for 1 Year - North Salem event
Inflow = 4.27 cfs @ 12.47 hrs, Volume= 0.848 af
Primary = 4.27 cfs @ 12.47 hrs, Volume= 0.848 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.82" for 1 Year - North Salem event
 Inflow = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af
 Outflow = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 524.53' @ 12.16 hrs
 Flood Elev= 527.50'

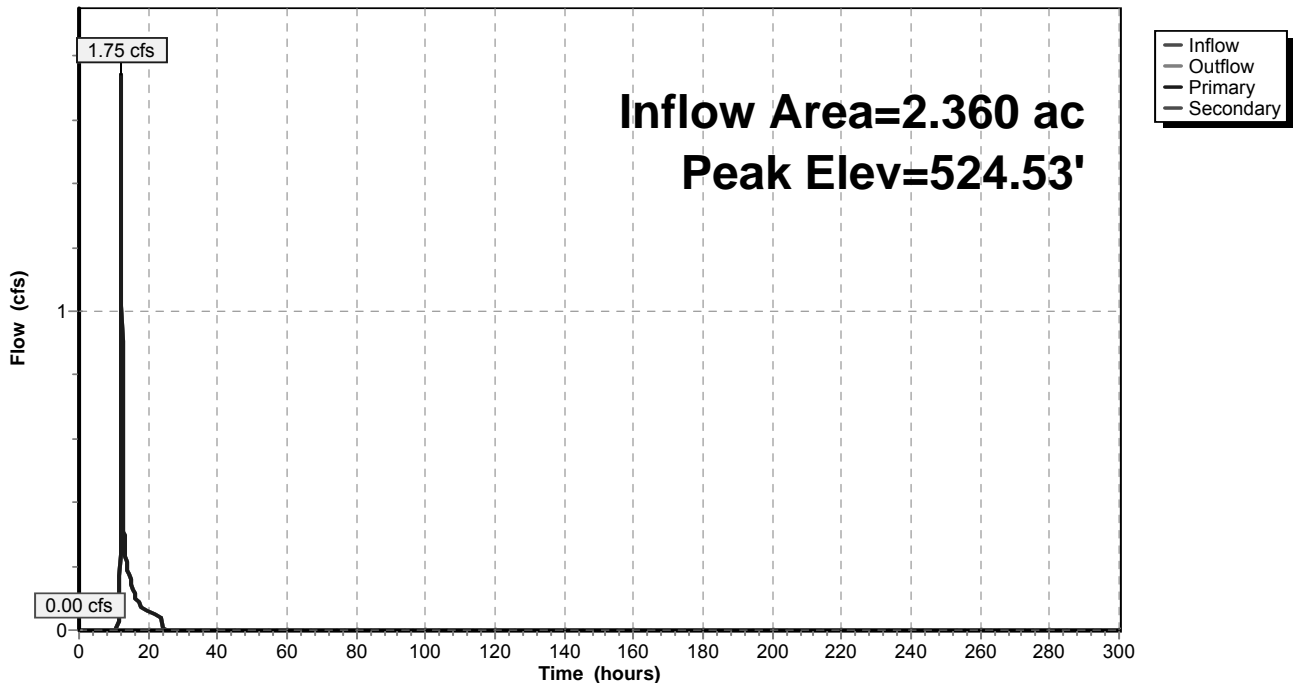
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 ' /' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 ' /' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.71 cfs @ 12.16 hrs HW=524.49' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.71 cfs @ 4.91 fps)

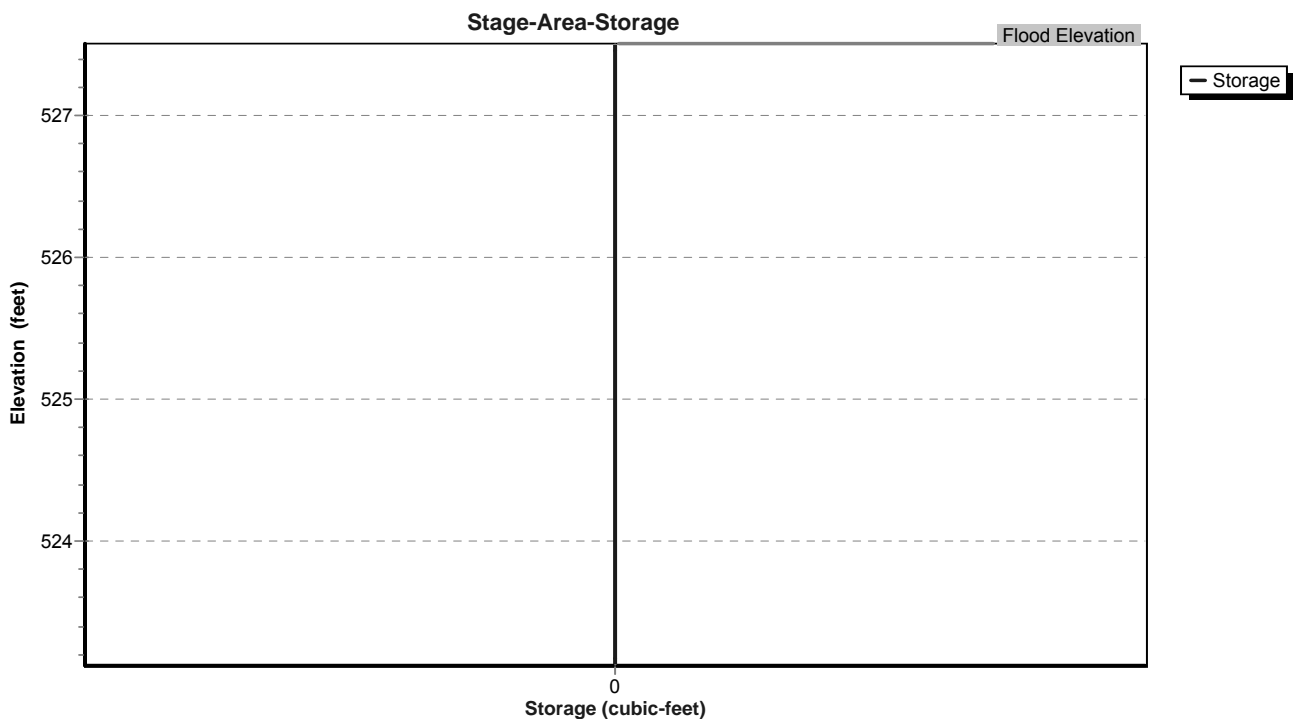
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=523.12' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G1: Flow Splitter G1

Hydrograph



Pond FS G1: Flow Splitter G1



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 0.92" for 1 Year - North Salem event
 Inflow = 5.74 cfs @ 12.16 hrs, Volume= 0.511 af
 Outflow = 3.80 cfs @ 12.33 hrs, Volume= 0.511 af, Atten= 34%, Lag= 10.1 min
 Discarded = 3.80 cfs @ 12.33 hrs, Volume= 0.511 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 448.20' @ 12.33 hrs Surf.Area= 6,839 sf Storage= 1,376 cf

Plug-Flow detention time= 2.6 min calculated for 0.511 af (100% of inflow)
 Center-of-Mass det. time= 2.6 min (874.0 - 871.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

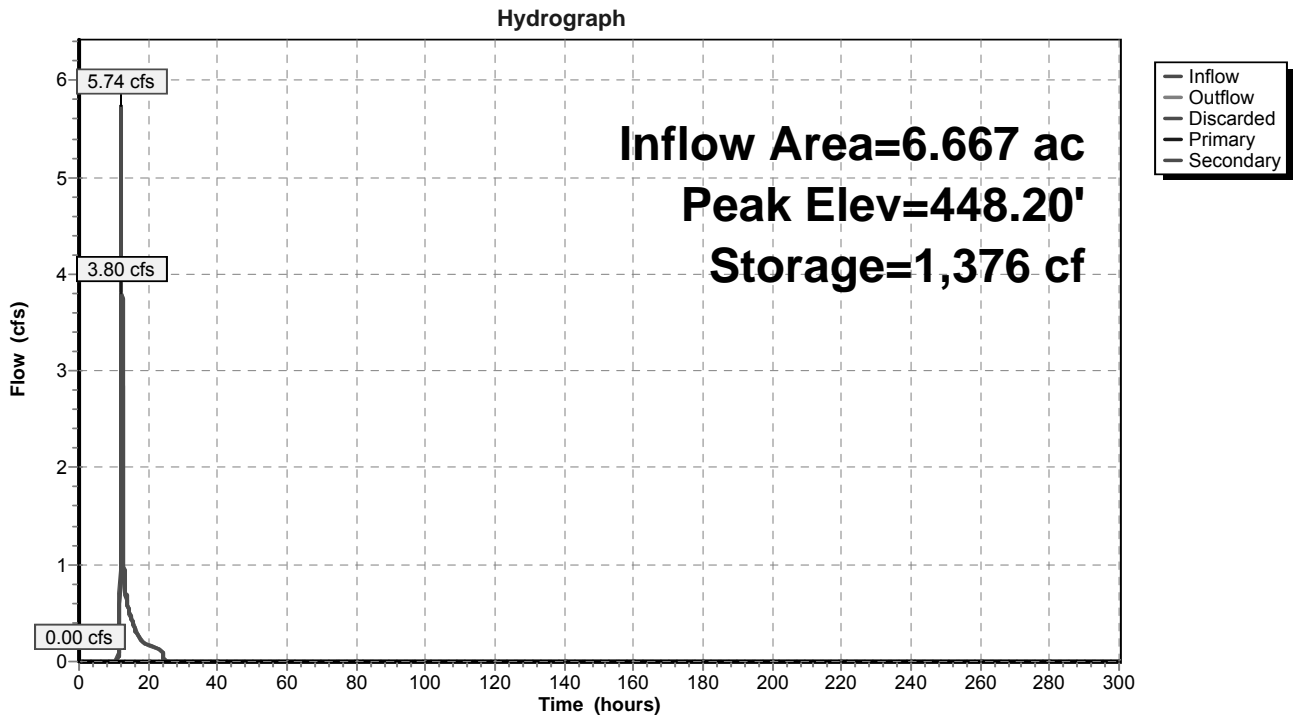
Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=3.80 cfs @ 12.33 hrs HW=448.20' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 3.80 cfs)

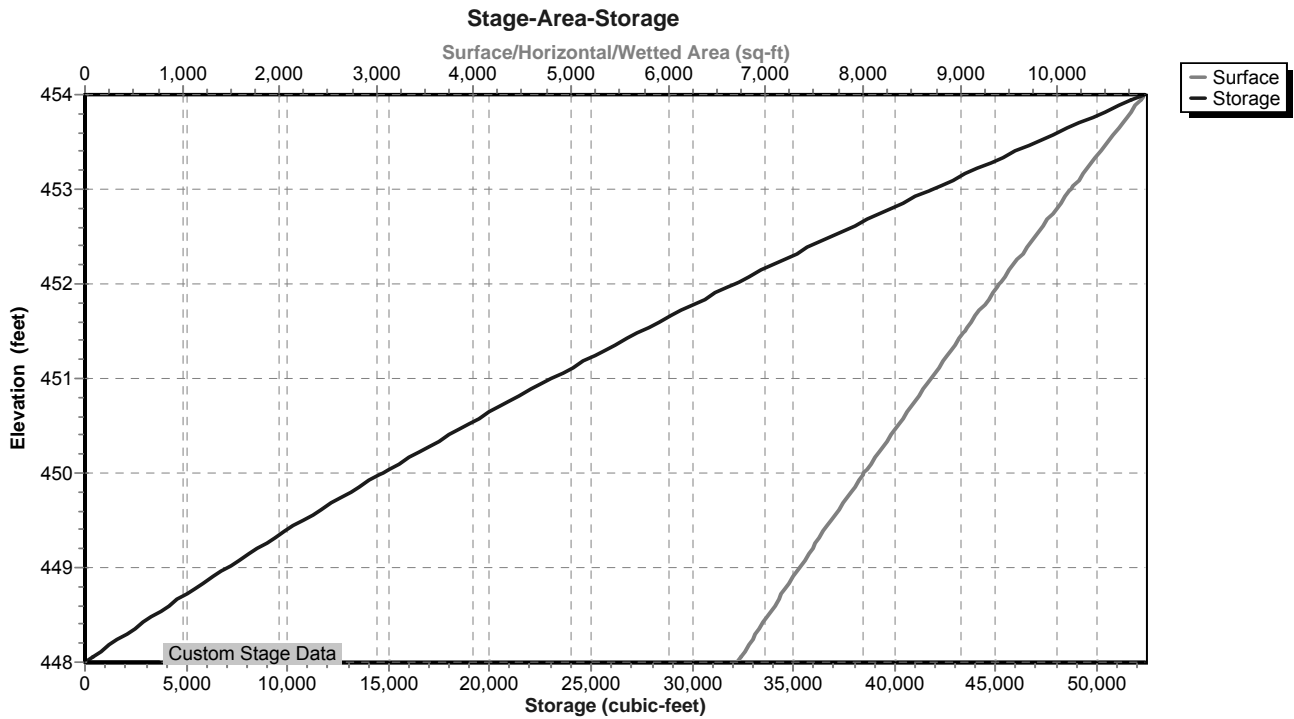
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 3.58 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2



Pond I-G2: Infiltration Basin-G2



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 3.43 cfs @ 12.22 hrs, Volume= 0.334 af
 Outflow = 1.14 cfs @ 12.67 hrs, Volume= 0.334 af, Atten= 67%, Lag= 27.1 min
 Discarded = 1.14 cfs @ 12.67 hrs, Volume= 0.334 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 400.50' @ 12.67 hrs Surf.Area= 6,329 sf Storage= 3,104 cf

Plug-Flow detention time= 17.3 min calculated for 0.334 af (100% of inflow)
 Center-of-Mass det. time= 17.3 min (876.7 - 859.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

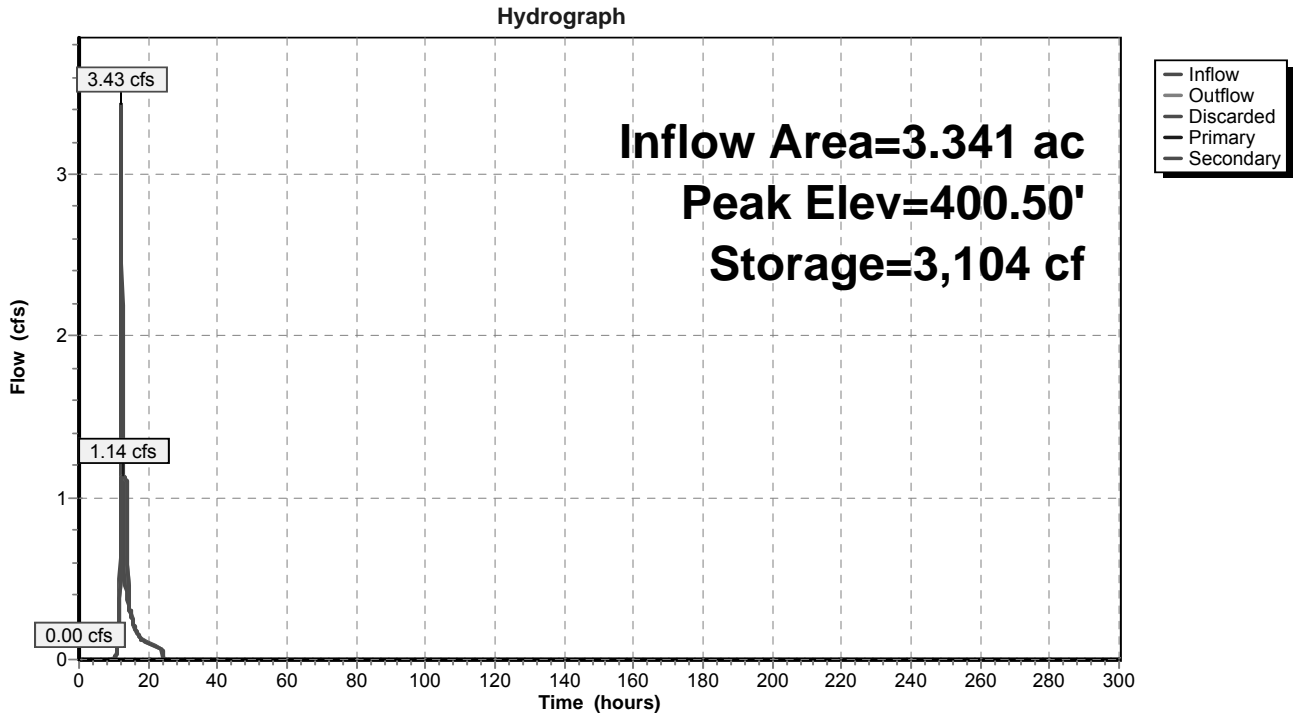
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.14 cfs @ 12.67 hrs HW=400.50' (Free Discharge)
 ↳ **4=Exfiltration** (Exfiltration Controls 1.14 cfs)

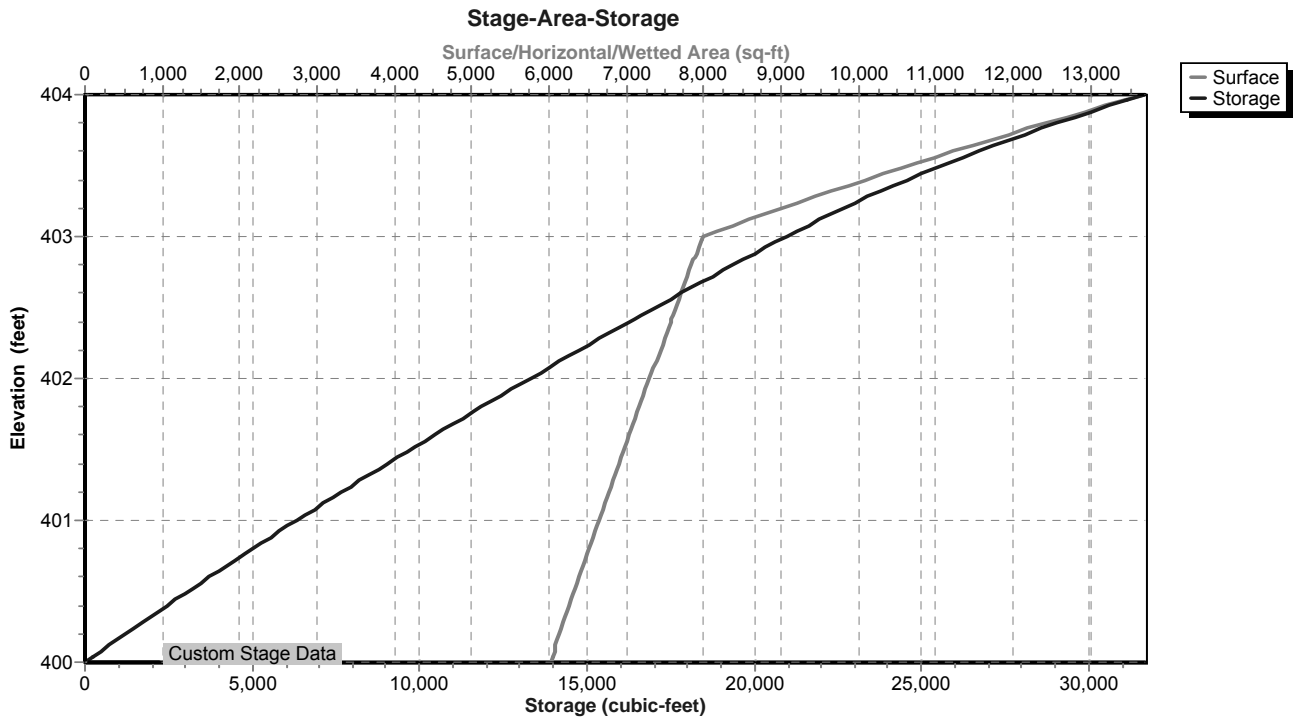
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳ **1=Outlet Pipe** (Passes 0.00 cfs of 4.26 cfs potential flow)
 ↳ **2=Orifice #1** (Controls 0.00 cfs)
 ↳ **3=Top of Outlet Box** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳ **5=Emergency Overflow** (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 1.82 cfs @ 12.20 hrs, Volume= 0.197 af
 Outflow = 1.12 cfs @ 12.48 hrs, Volume= 0.197 af, Atten= 38%, Lag= 16.4 min
 Discarded = 1.12 cfs @ 12.48 hrs, Volume= 0.197 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 440.15' @ 12.48 hrs Surf.Area= 4,766 sf Storage= 700 cf

Plug-Flow detention time= 4.4 min calculated for 0.197 af (100% of inflow)
 Center-of-Mass det. time= 4.4 min (900.0 - 895.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
440.00	4,681	292.0	0	0	4,681
442.00	5,898	317.0	10,556	10,556	6,037
443.00	6,543	330.0	6,218	16,773	6,780
444.00	7,214	342.0	6,876	23,649	7,505

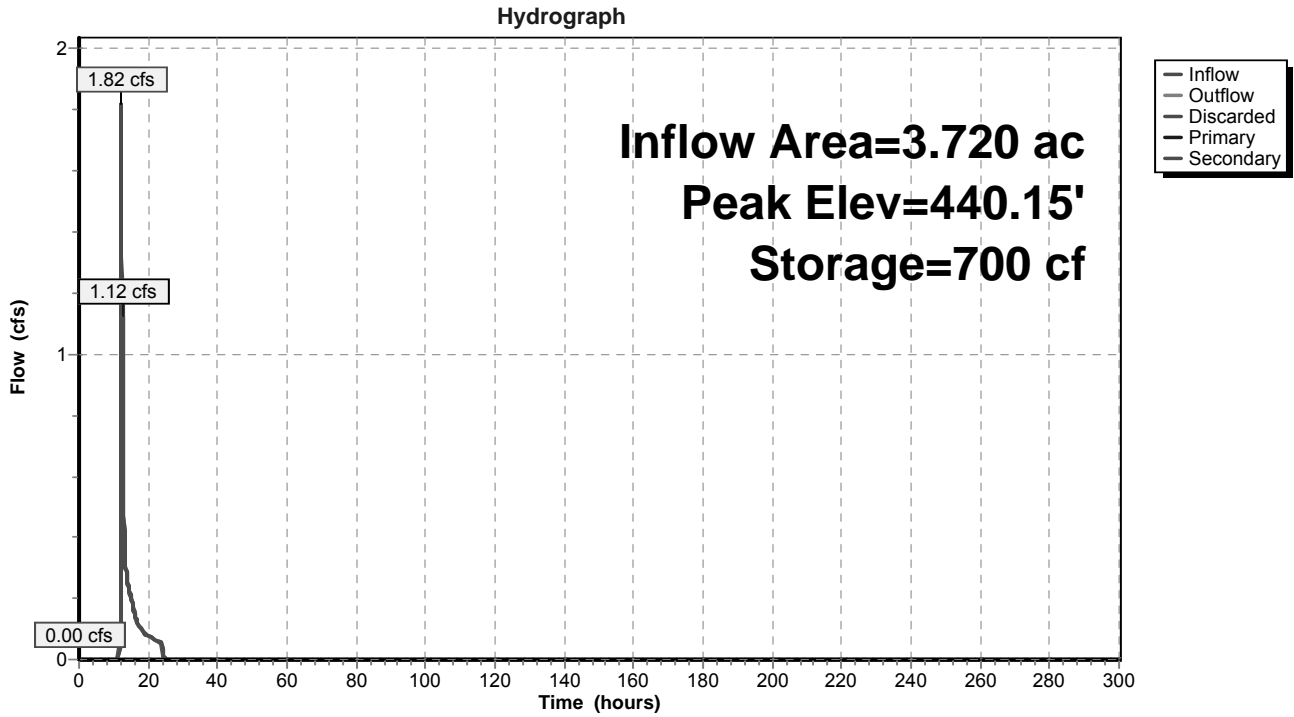
Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.12 cfs @ 12.48 hrs HW=440.15' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.12 cfs)

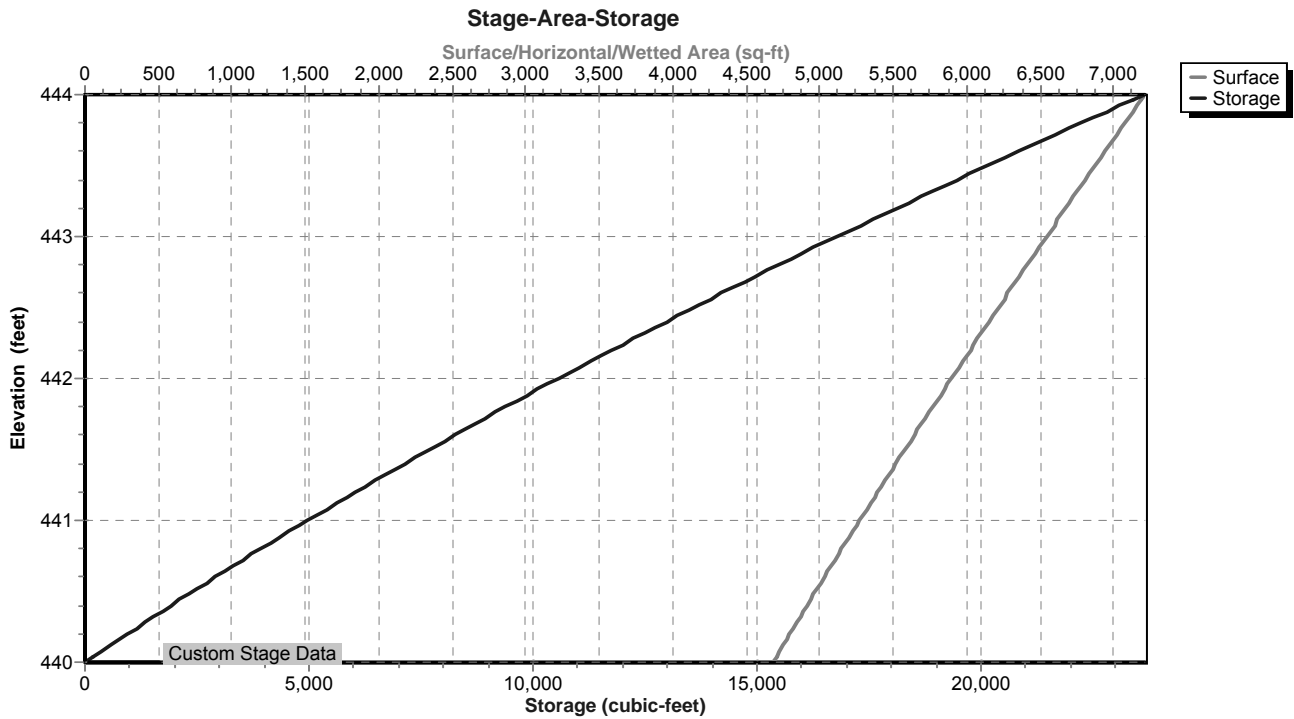
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 3.58 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 OUTLET by 0.09'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.82" for 1 Year - North Salem event
 Inflow = 0.66 cfs @ 12.55 hrs, Volume= 0.161 af
 Outflow = 0.12 cfs @ 16.90 hrs, Volume= 0.161 af, Atten= 82%, Lag= 260.6 min
 Primary = 0.12 cfs @ 16.90 hrs, Volume= 0.161 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 519.59' @ 16.90 hrs Surf.Area= 3,191 sf Storage= 4,527 cf

Plug-Flow detention time= 2,113.6 min calculated for 0.161 af (100% of inflow)
 Center-of-Mass det. time= 2,115.0 min (3,043.5 - 928.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

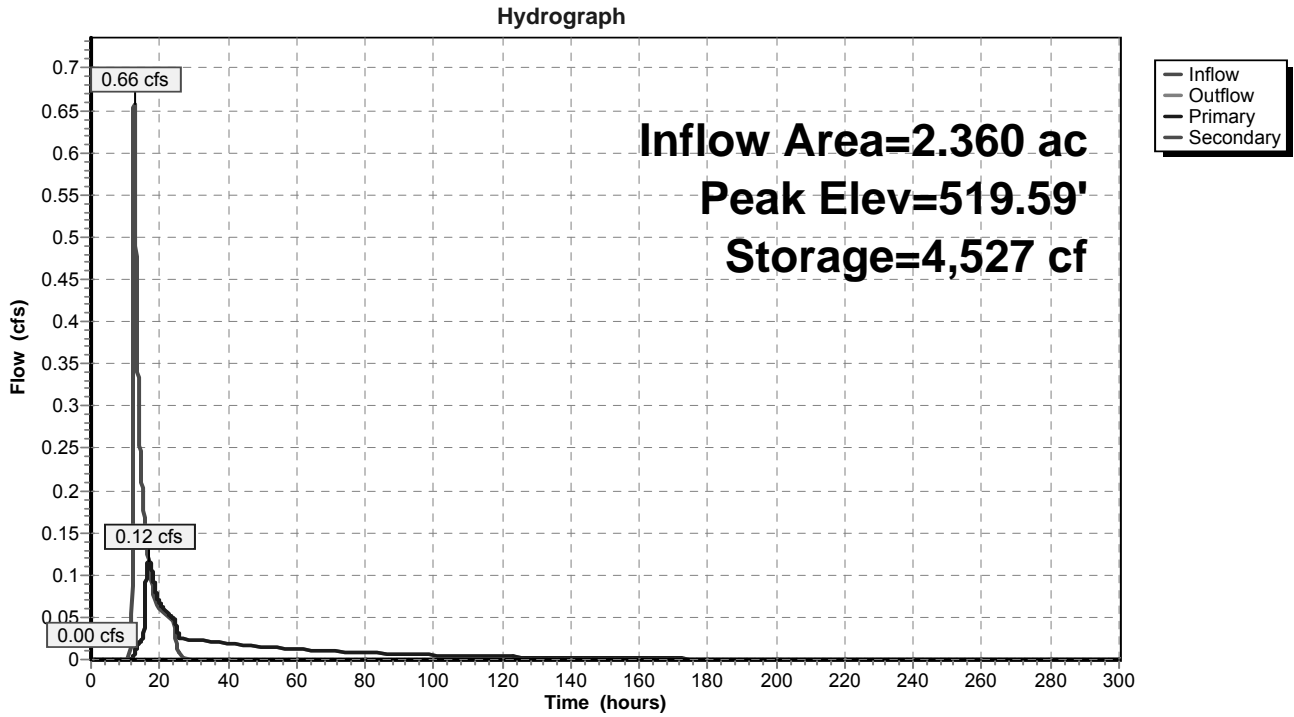
Primary OutFlow Max=0.12 cfs @ 16.90 hrs HW=519.59' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.12 cfs of 6.32 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.09 cfs @ 0.97 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

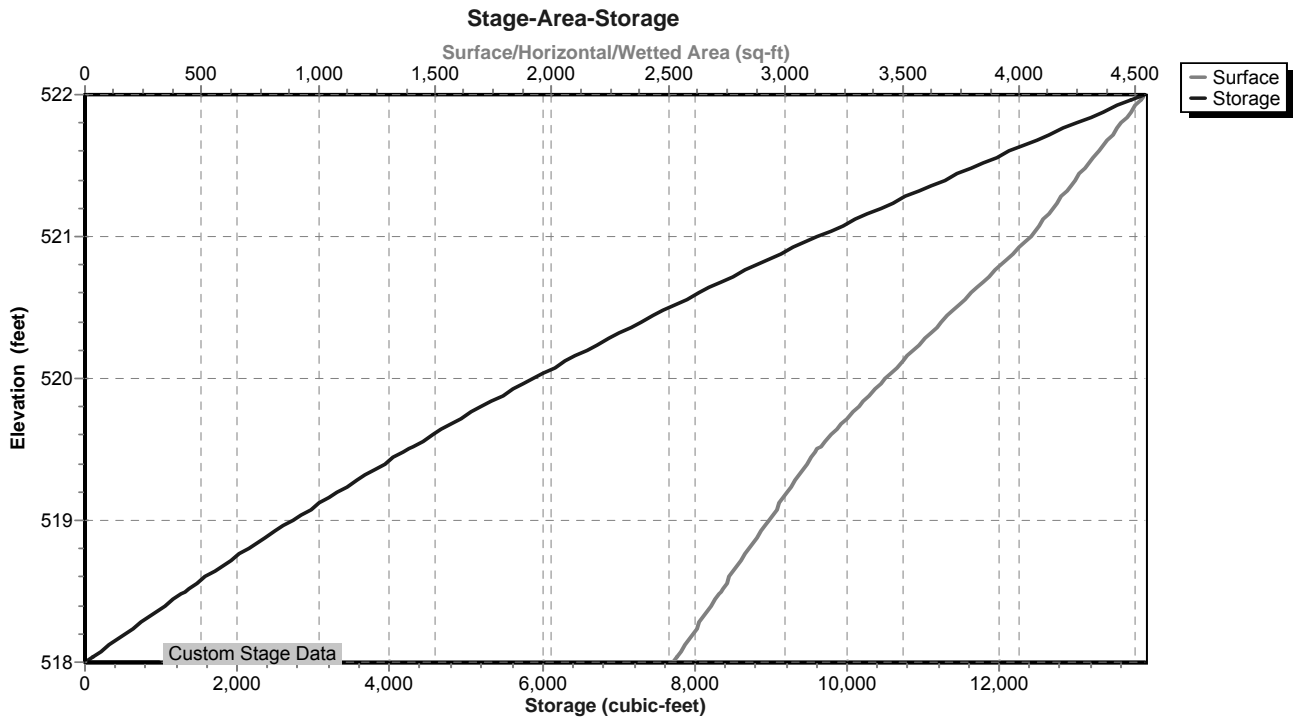
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G1: Sand Filter - G1



Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.82" for 1 Year - North Salem event
 Inflow = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af
 Outflow = 0.66 cfs @ 12.55 hrs, Volume= 0.161 af, Atten= 62%, Lag= 23.6 min
 Primary = 0.66 cfs @ 12.55 hrs, Volume= 0.161 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 522.04' @ 12.55 hrs Surf.Area= 1,098 sf Storage= 1,743 cf

Plug-Flow detention time= 50.2 min calculated for 0.161 af (100% of inflow)
 Center-of-Mass det. time= 50.1 min (928.5 - 878.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
520.00	630	102.0	0	0	630
522.00	1,087	128.0	1,696	1,696	1,159
523.00	1,353	140.0	1,218	2,914	1,447
524.00	1,645	153.0	1,497	4,411	1,784

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

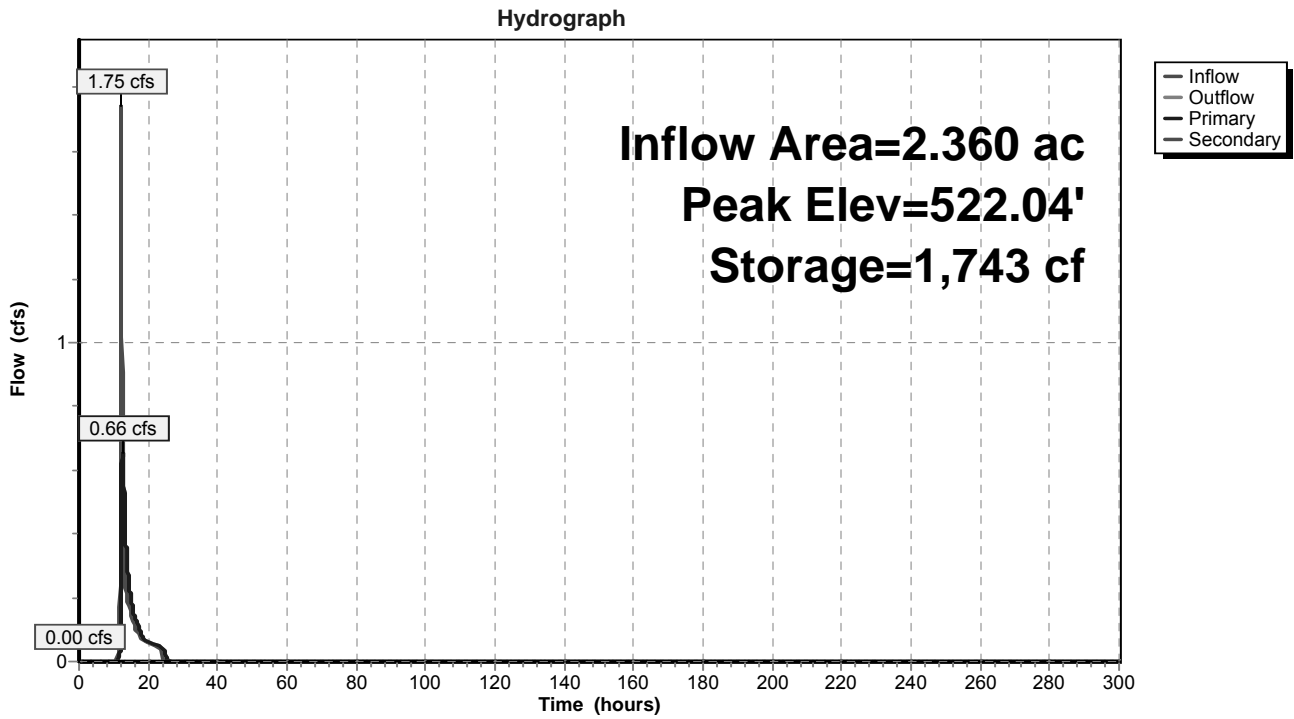
Primary OutFlow Max=0.66 cfs @ 12.55 hrs HW=522.04' (Free Discharge)

- 1=Outlet Pipe (Passes 0.66 cfs of 4.70 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.66 cfs @ 5.02 fps)
- 3=Top of Standpipe (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

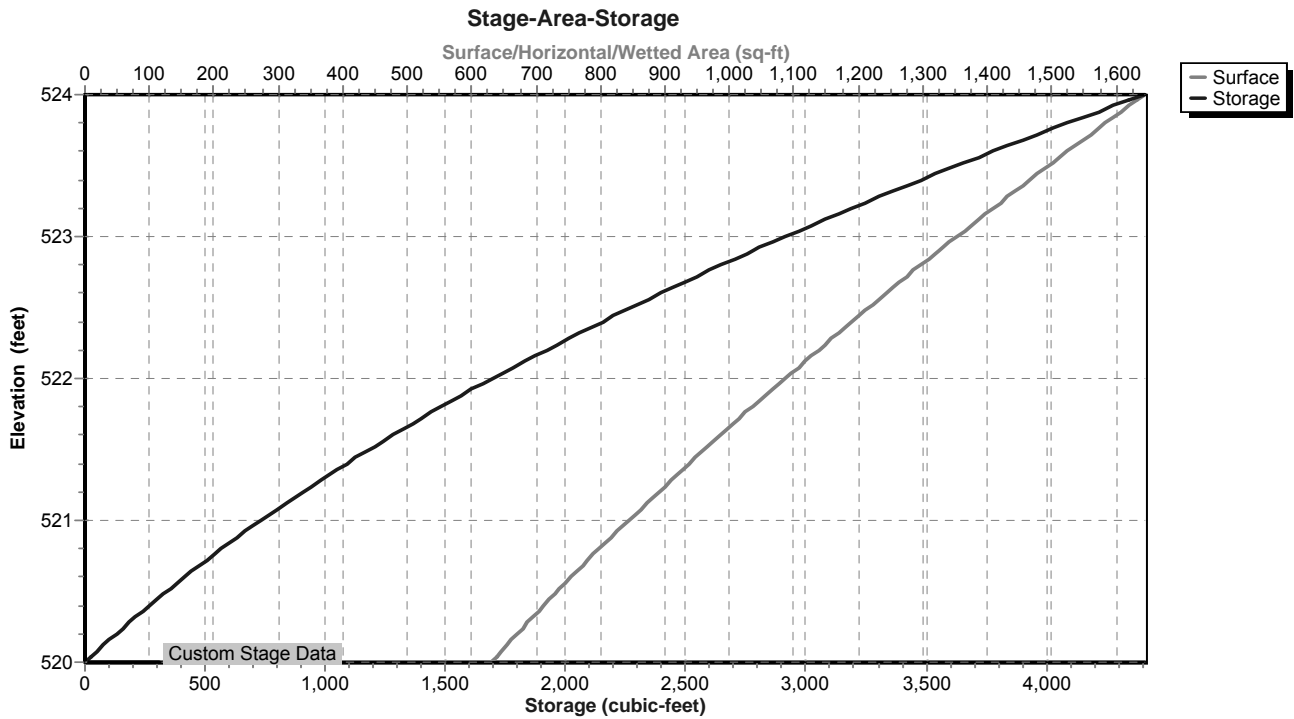
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-G1: Sand Filter Forebay - G1



Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=1.19"
Flow Length=184' Tc=10.2 min CN=71 Runoff=2.68 cfs 0.235 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=1.32"
Flow Length=619' Tc=10.1 min CN=73 Runoff=8.52 cfs 0.731 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=1.65"
Flow Length=770' Tc=15.1 min CN=78 Runoff=4.80 cfs 0.460 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=0.96"
Flow Length=983' Tc=12.1 min CN=67 Runoff=3.03 cfs 0.299 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=0.49"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=0.56 cfs 0.082 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=0.91"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=7.19 cfs 0.985 af

Pond B-G1: Dry Basin - G1 Peak Elev=513.01' Storage=1,379 cf Inflow=0.67 cfs 0.234 af
Primary=0.25 cfs 0.234 af Secondary=0.00 cfs 0.000 af Outflow=0.25 cfs 0.234 af

Pond B-G4a: Dry Basin - G4a Peak Elev=422.00' Storage=2,140 cf Inflow=0.56 cfs 0.082 af
Primary=0.04 cfs 0.082 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.082 af

Pond DP 7-1: Design Point 7-1 Inflow=7.28 cfs 1.301 af
Primary=7.28 cfs 1.301 af

Pond FS G1: Flow Splitter G1 Peak Elev=524.89' Inflow=2.68 cfs 0.235 af
Primary=2.01 cfs 0.227 af Secondary=0.66 cfs 0.008 af Outflow=2.68 cfs 0.235 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=448.59' Storage=4,043 cf Inflow=8.52 cfs 0.731 af
Discarded=3.93 cfs 0.731 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=3.93 cfs 0.731 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=400.86' Storage=5,412 cf Inflow=4.80 cfs 0.460 af
Discarded=1.18 cfs 0.460 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.18 cfs 0.460 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=440.46' Storage=2,205 cf Inflow=3.03 cfs 0.299 af
Discarded=1.16 cfs 0.299 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.16 cfs 0.299 af

Pond SF-G1: Sand Filter - G1 Peak Elev=519.70' Storage=4,873 cf Inflow=0.85 cfs 0.227 af
Primary=0.31 cfs 0.227 af Secondary=0.00 cfs 0.000 af Outflow=0.31 cfs 0.227 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=522.74' Storage=2,565 cf Inflow=2.01 cfs 0.227 af
Primary=0.85 cfs 0.227 af Secondary=0.00 cfs 0.000 af Outflow=0.85 cfs 0.227 af

Total Runoff Area = 31.048 ac Runoff Volume = 2.791 af Average Runoff Depth = 1.08"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

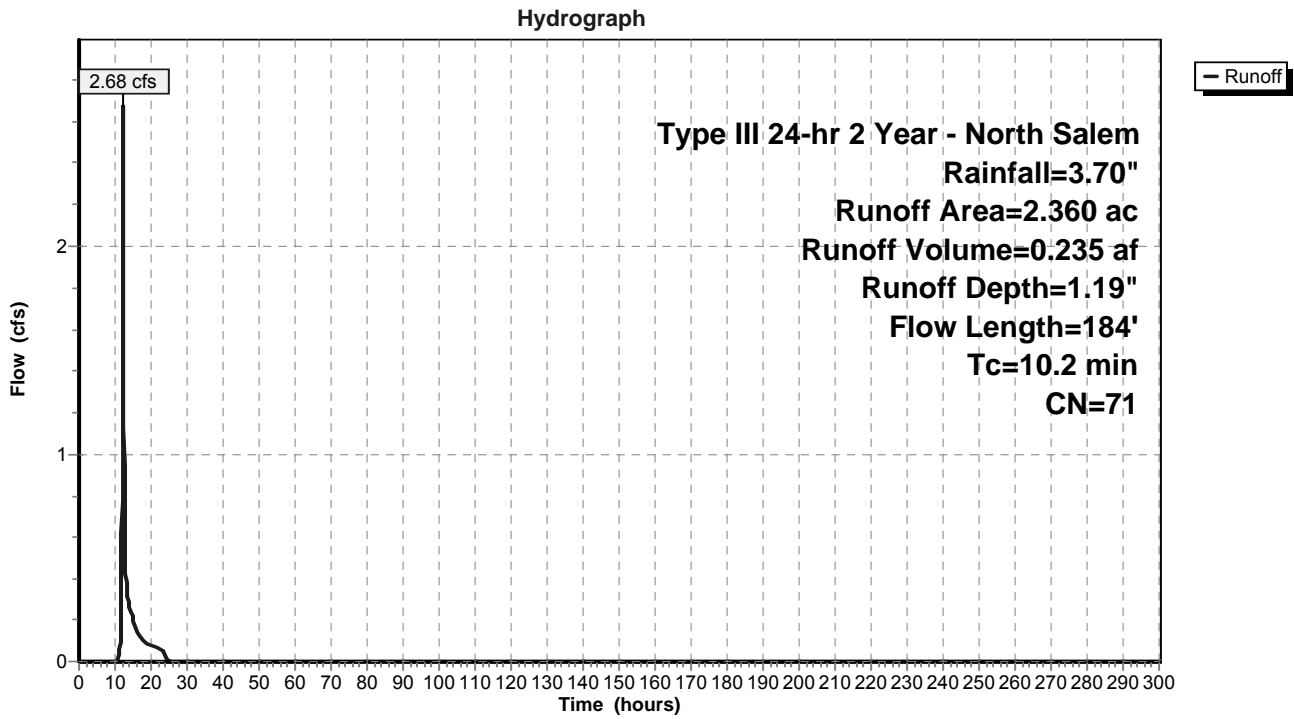
Runoff = 2.68 cfs @ 12.16 hrs, Volume= 0.235 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1



Summary for Subcatchment G2: Post-Development G2

Runoff = 8.52 cfs @ 12.15 hrs, Volume= 0.731 af, Depth= 1.32"

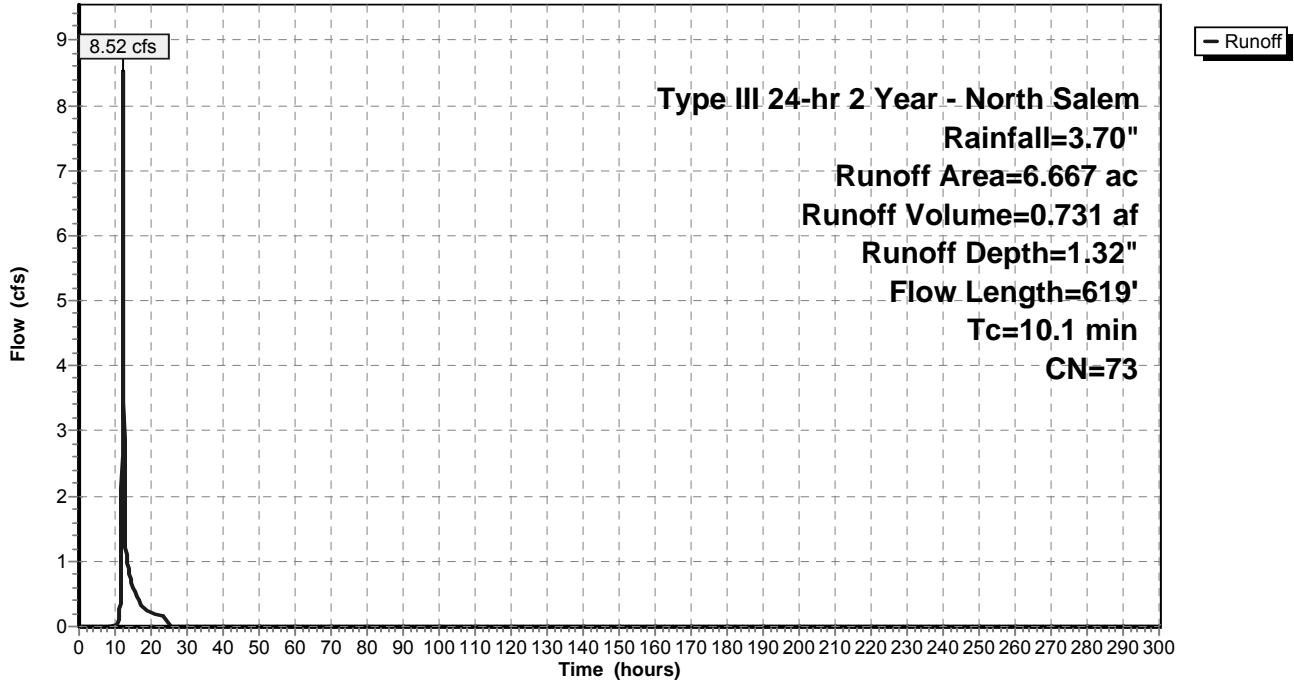
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 4.80 cfs @ 12.22 hrs, Volume= 0.460 af, Depth= 1.65"

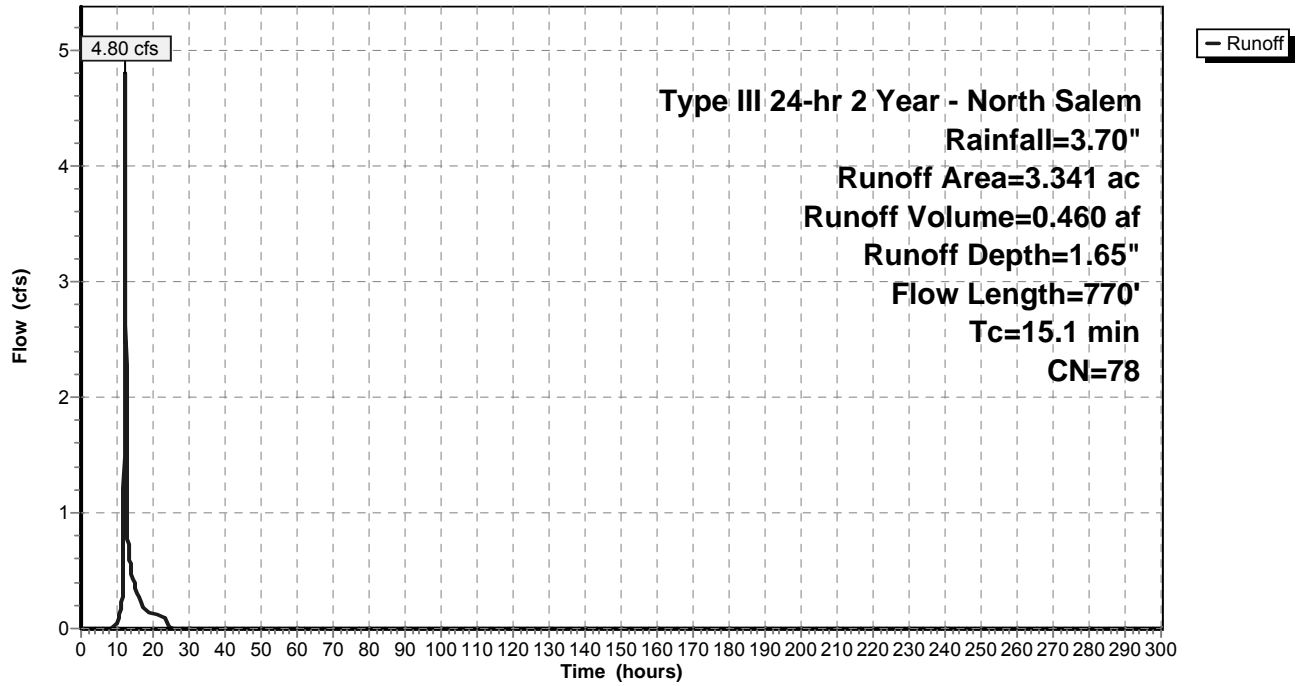
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

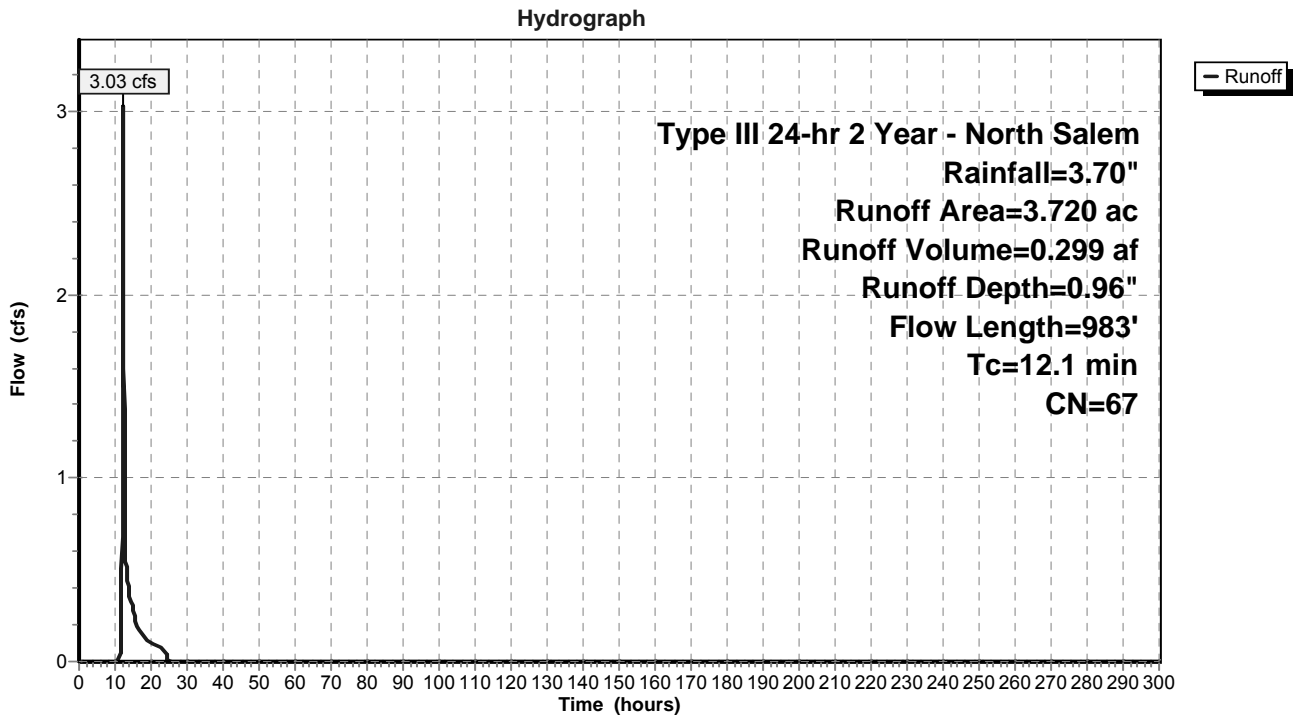
Runoff = 3.03 cfs @ 12.19 hrs, Volume= 0.299 af, Depth= 0.96"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 0.56 cfs @ 12.27 hrs, Volume= 0.082 af, Depth= 0.49"

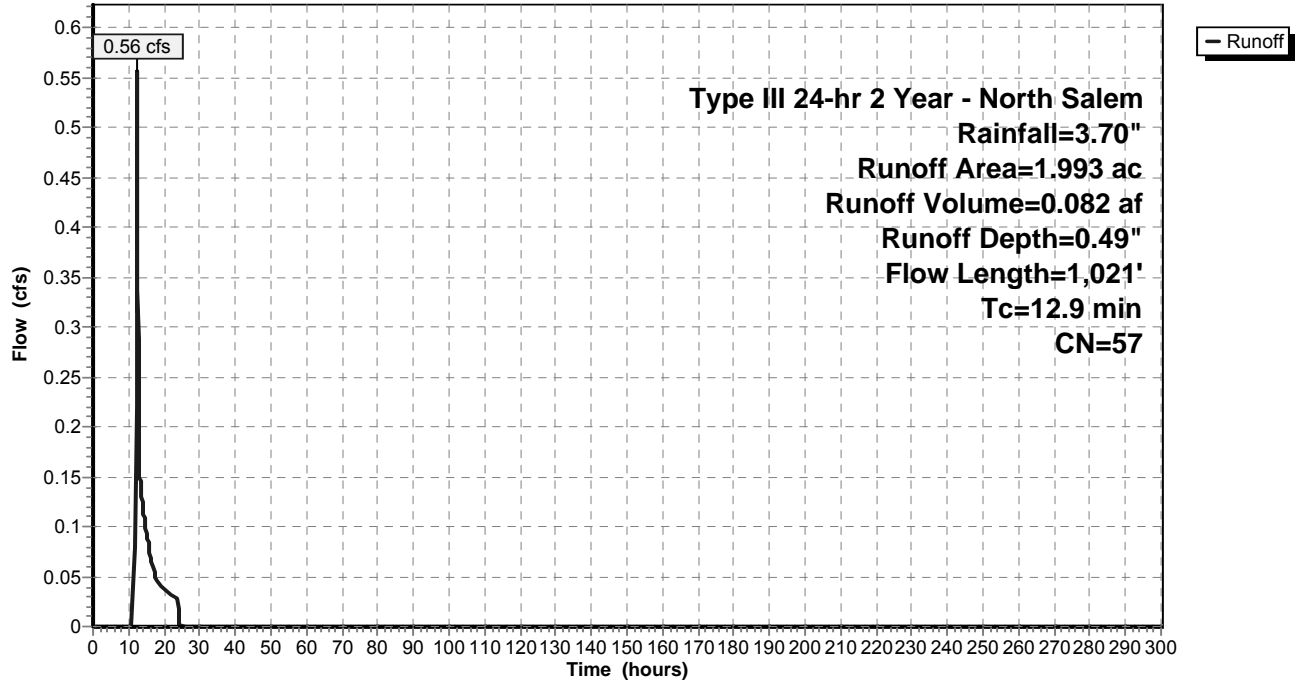
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

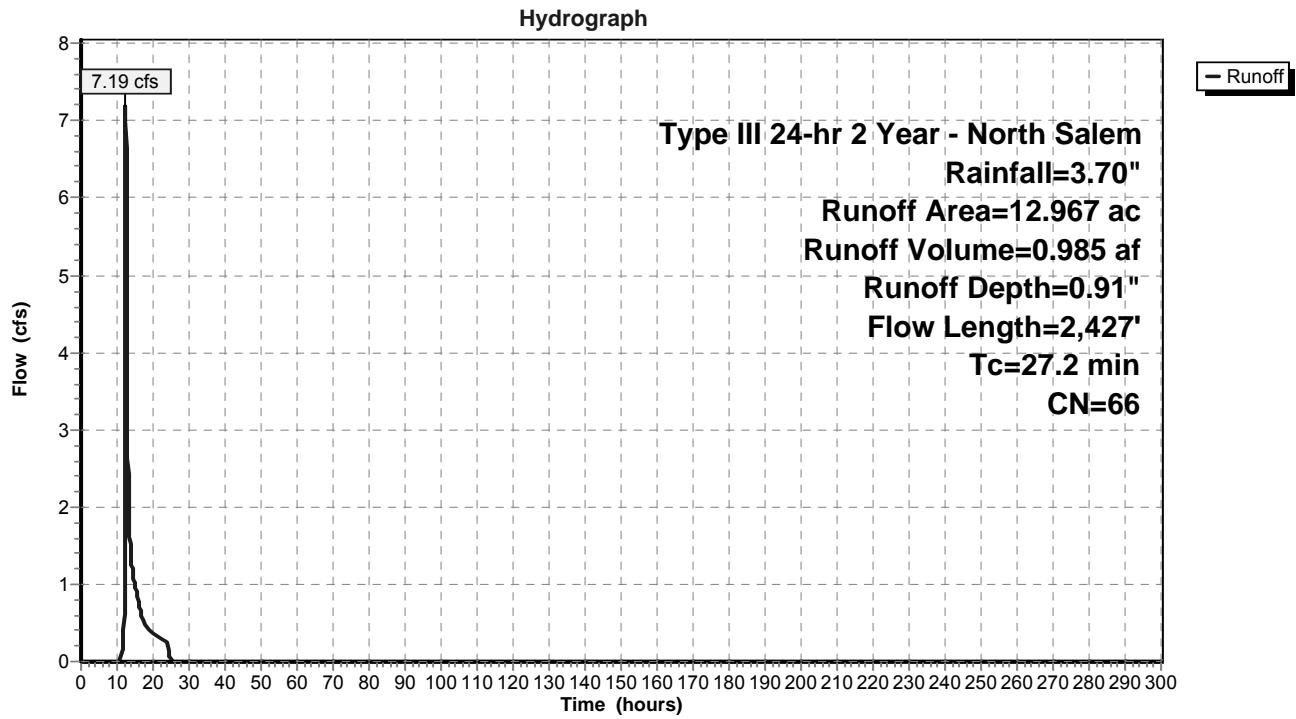
Runoff = 7.19 cfs @ 12.44 hrs, Volume= 0.985 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b



Summary for Pond B-G1: Dry Basin - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.19" for 2 Year - North Salem event
 Inflow = 0.67 cfs @ 12.16 hrs, Volume= 0.234 af
 Outflow = 0.25 cfs @ 15.72 hrs, Volume= 0.234 af, Atten= 63%, Lag= 214.0 min
 Primary = 0.25 cfs @ 15.72 hrs, Volume= 0.234 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 513.01' @ 15.72 hrs Surf.Area= 1,622 sf Storage= 1,379 cf (761 cf above start)

Plug-Flow detention time= 641.3 min calculated for 0.220 af (94% of inflow)
 Center-of-Mass det. time= 88.9 min (2,488.6 - 2,399.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

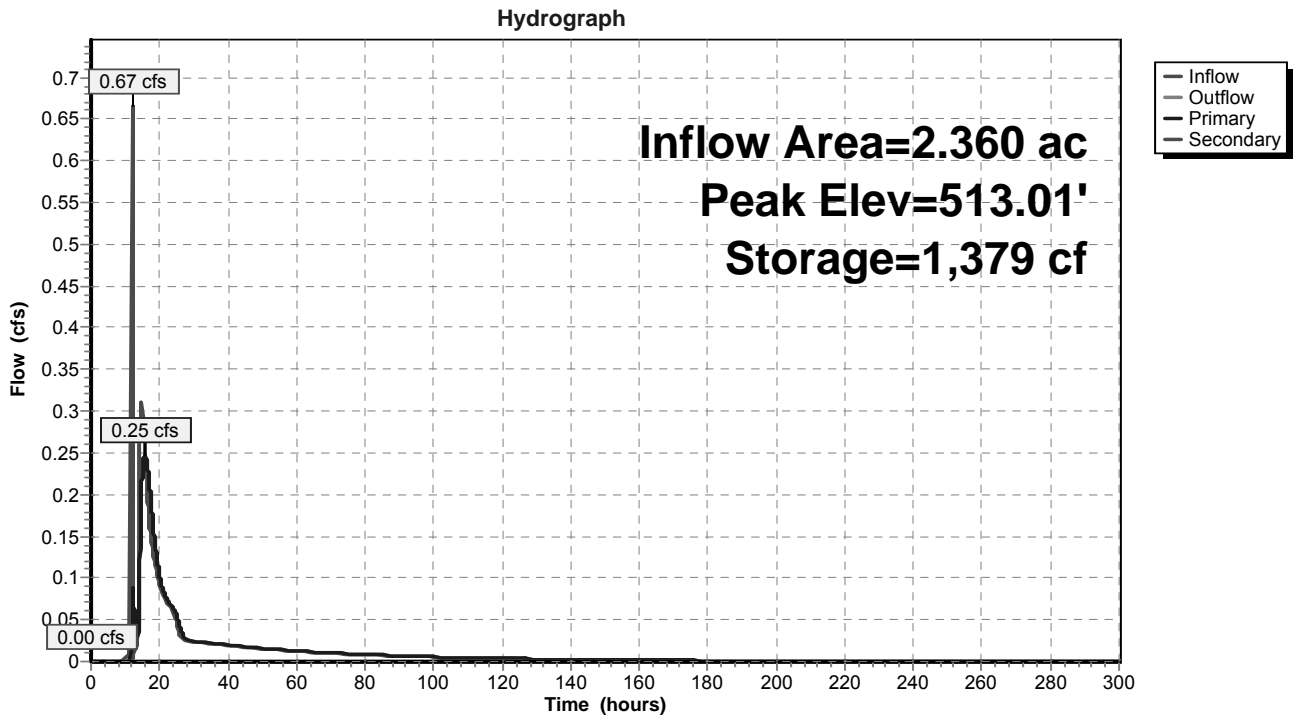
Primary OutFlow Max=0.25 cfs @ 15.72 hrs HW=513.01' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.25 cfs of 9.56 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.25 cfs @ 2.83 fps)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

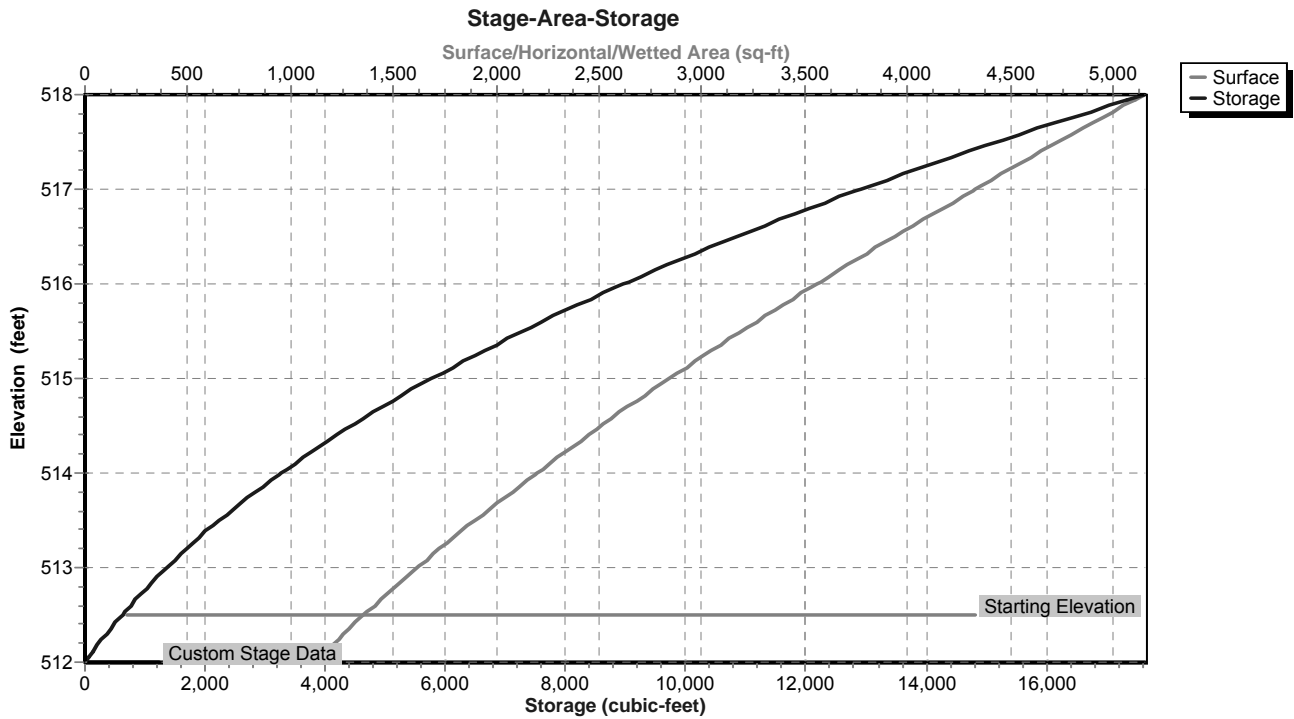
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 0.17" for 2 Year - North Salem event
 Inflow = 0.56 cfs @ 12.27 hrs, Volume= 0.082 af
 Outflow = 0.04 cfs @ 20.20 hrs, Volume= 0.082 af, Atten= 93%, Lag= 475.6 min
 Primary = 0.04 cfs @ 20.20 hrs, Volume= 0.082 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 422.00' @ 20.20 hrs Surf.Area= 1,535 sf Storage= 2,140 cf

Plug-Flow detention time= 727.9 min calculated for 0.082 af (100% of inflow)
 Center-of-Mass det. time= 727.6 min (1,651.4 - 923.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

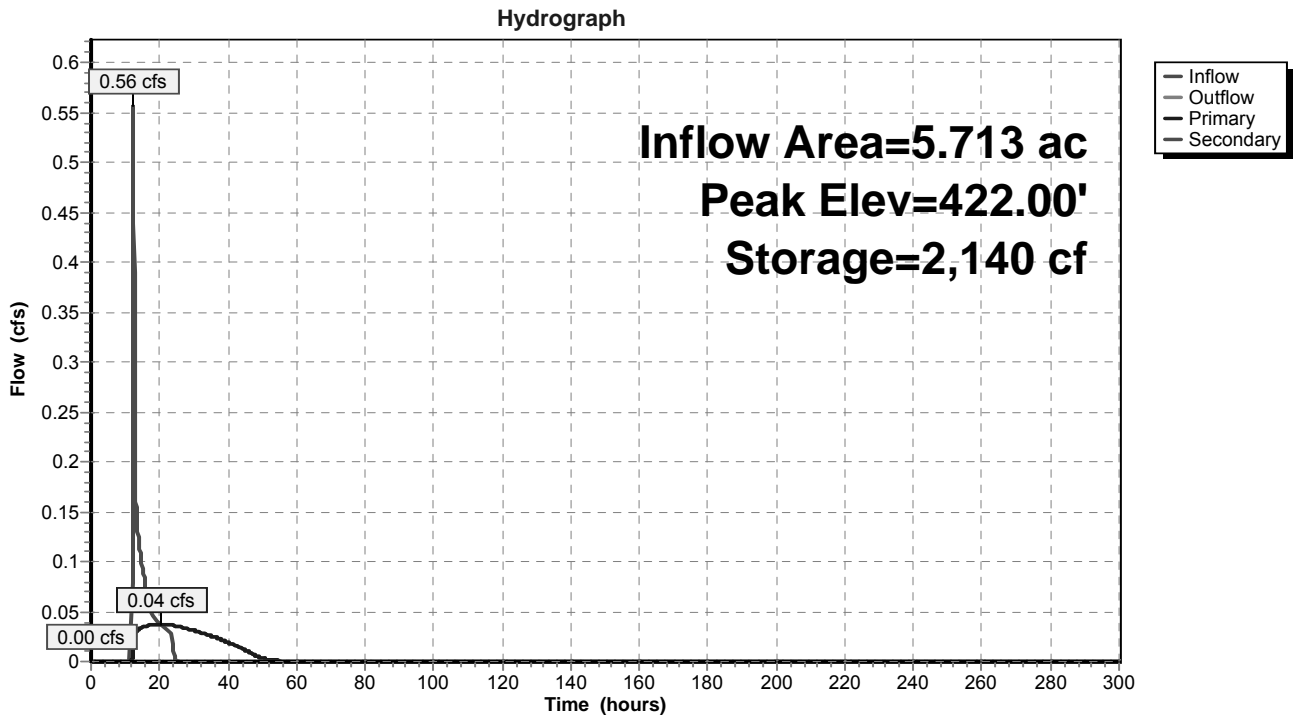
Primary OutFlow Max=0.04 cfs @ 20.20 hrs HW=422.00' (Free Discharge)

- ↑ 1=Culvert (Passes 0.04 cfs of 66.37 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.04 cfs @ 6.73 fps)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

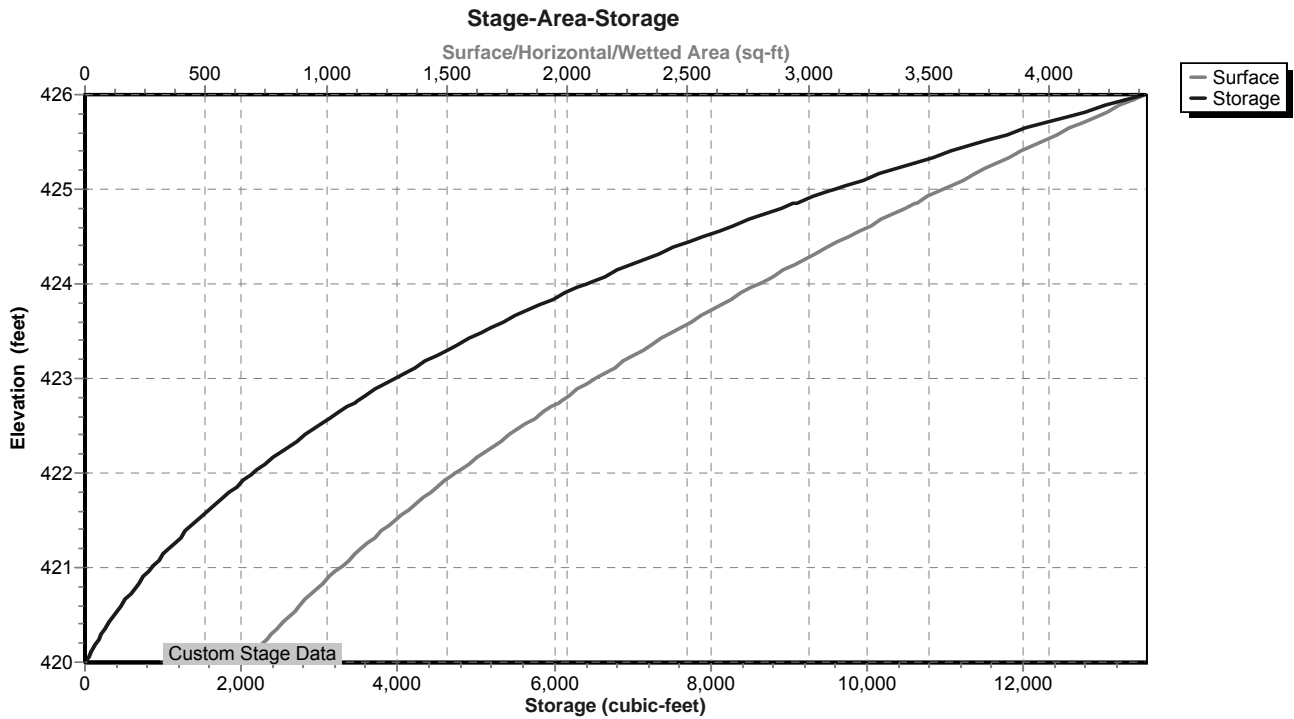
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond B-G4a: Dry Basin - G4a



Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

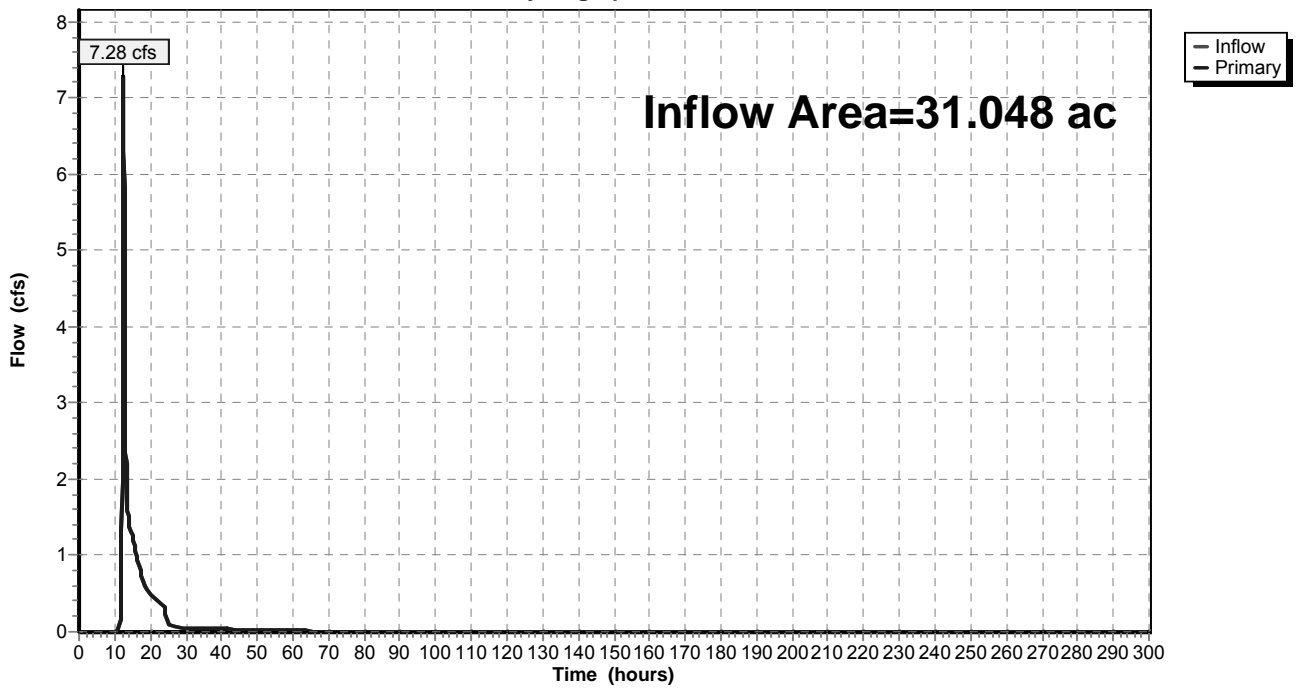
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 0.50" for 2 Year - North Salem event
Inflow = 7.28 cfs @ 12.44 hrs, Volume= 1.301 af
Primary = 7.28 cfs @ 12.44 hrs, Volume= 1.301 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.19" for 2 Year - North Salem event
 Inflow = 2.68 cfs @ 12.16 hrs, Volume= 0.235 af
 Outflow = 2.68 cfs @ 12.16 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.01 cfs @ 12.16 hrs, Volume= 0.227 af
 Secondary = 0.66 cfs @ 12.16 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 524.89' @ 12.16 hrs
 Flood Elev= 527.50'

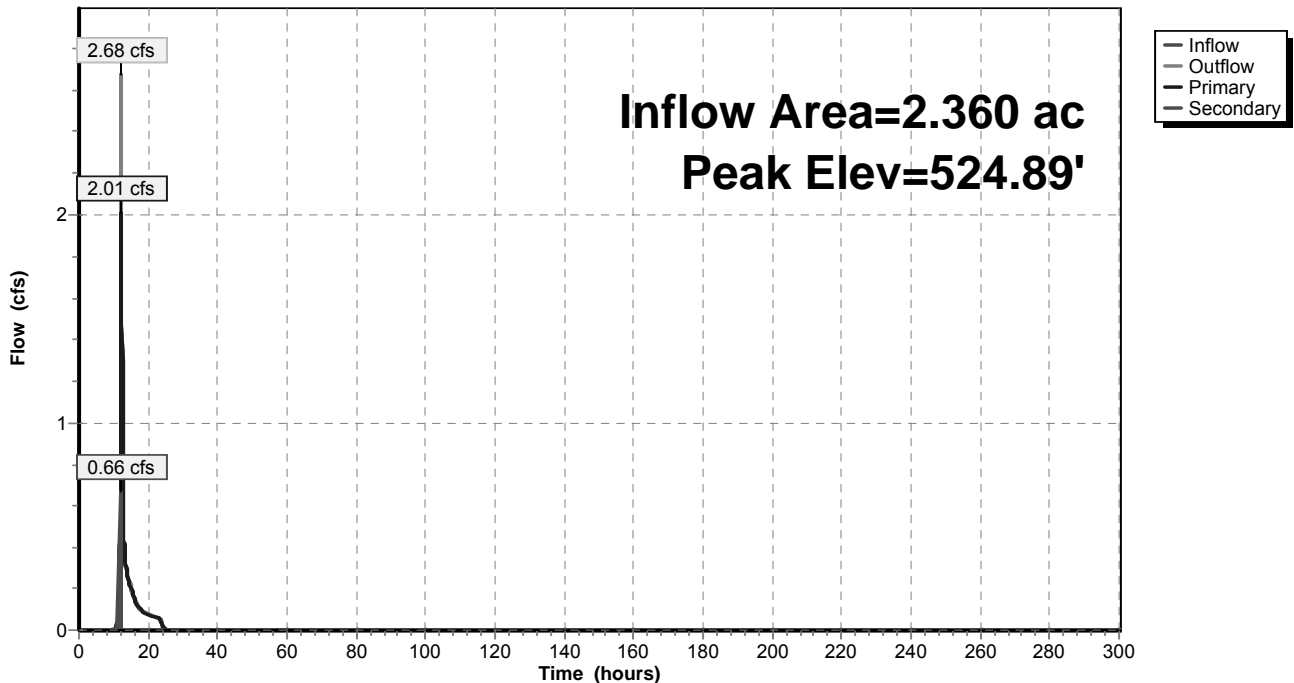
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 ' S= 0.1233 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.01 cfs @ 12.16 hrs HW=524.88' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.01 cfs @ 5.75 fps)

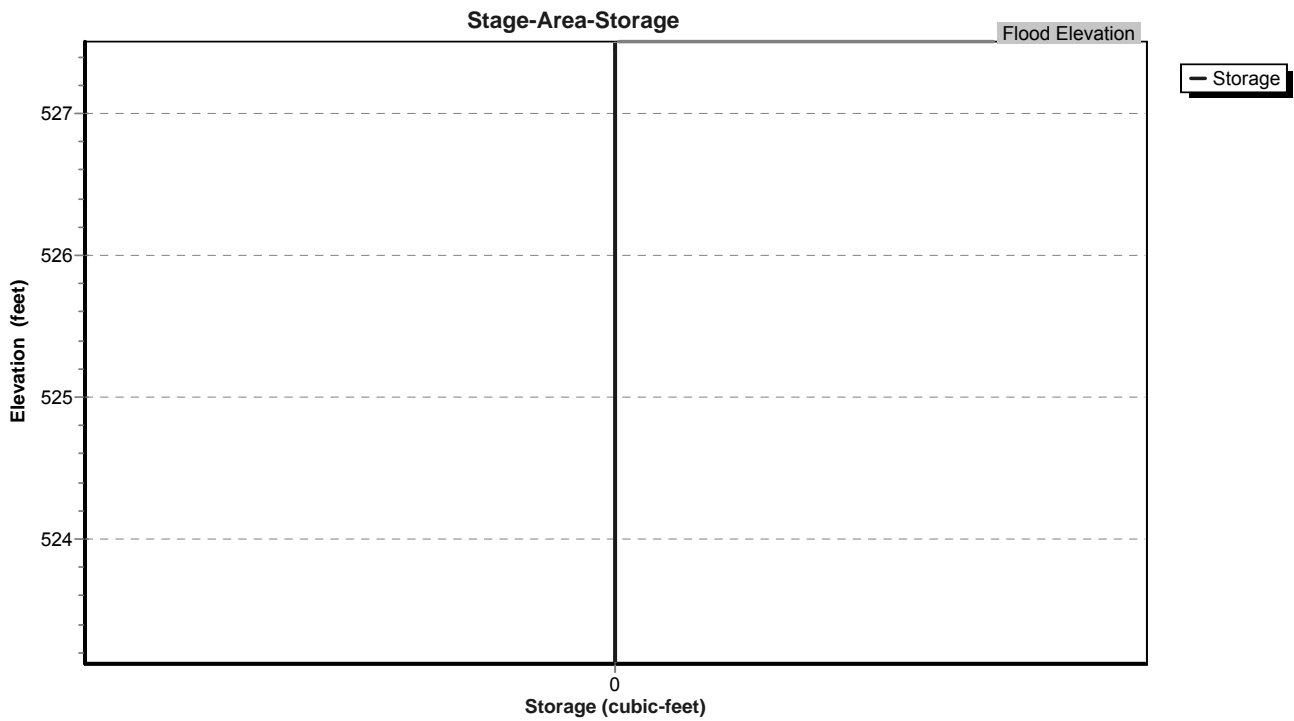
Secondary OutFlow Max=0.63 cfs @ 12.16 hrs HW=524.88' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.63 cfs @ 2.02 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Pond FS G1: Flow Splitter G1



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 1.32" for 2 Year - North Salem event
 Inflow = 8.52 cfs @ 12.15 hrs, Volume= 0.731 af
 Outflow = 3.93 cfs @ 12.45 hrs, Volume= 0.731 af, Atten= 54%, Lag= 18.0 min
 Discarded = 3.93 cfs @ 12.45 hrs, Volume= 0.731 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 448.59' @ 12.45 hrs Surf.Area= 7,081 sf Storage= 4,043 cf

Plug-Flow detention time= 5.8 min calculated for 0.731 af (100% of inflow)
 Center-of-Mass det. time= 5.8 min (866.0 - 860.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

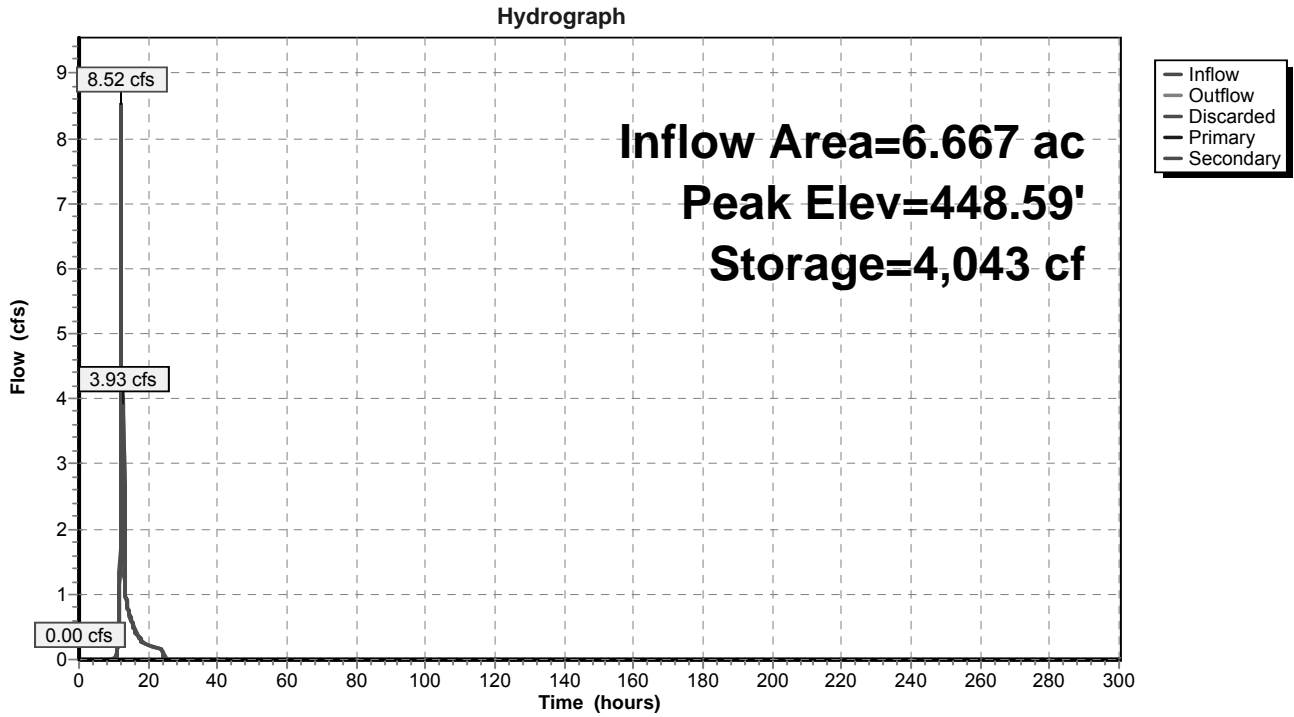
Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=3.93 cfs @ 12.45 hrs HW=448.59' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 3.93 cfs)

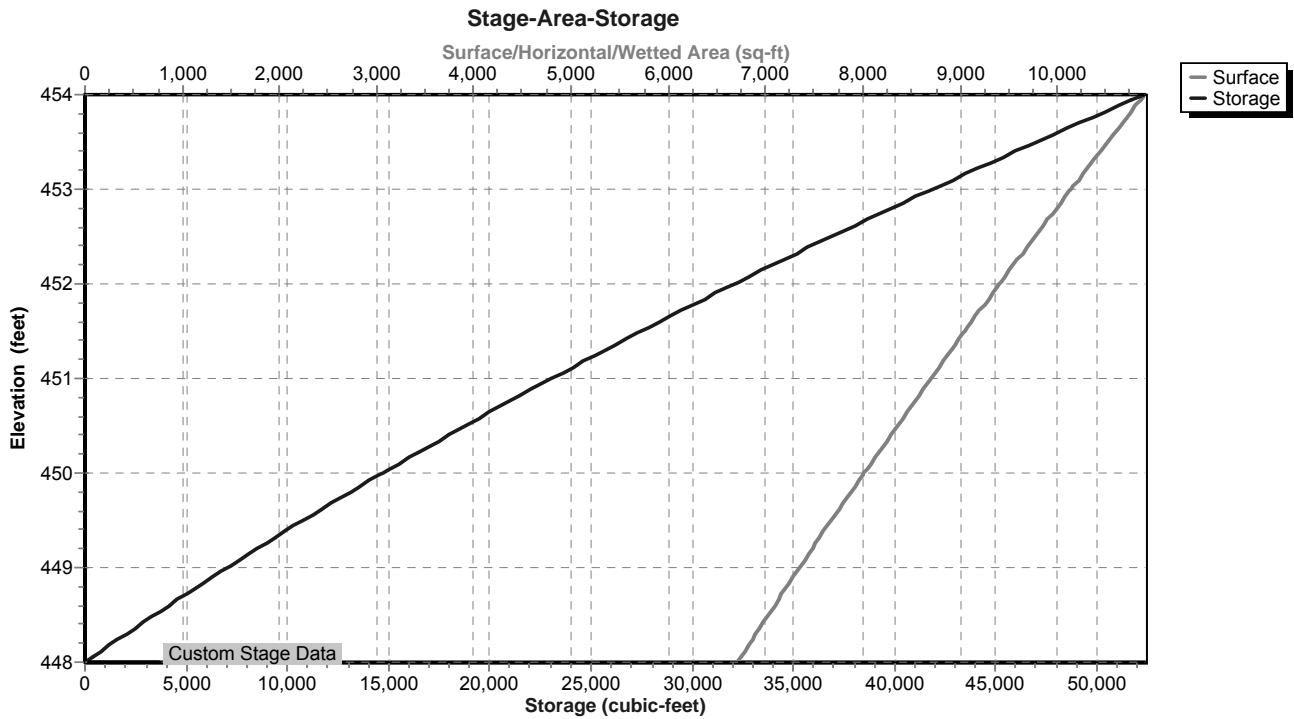
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 3.58 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2



Pond I-G2: Infiltration Basin-G2



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 1.65" for 2 Year - North Salem event
 Inflow = 4.80 cfs @ 12.22 hrs, Volume= 0.460 af
 Outflow = 1.18 cfs @ 12.76 hrs, Volume= 0.460 af, Atten= 75%, Lag= 32.7 min
 Discarded = 1.18 cfs @ 12.76 hrs, Volume= 0.460 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 400.86' @ 12.76 hrs Surf.Area= 6,557 sf Storage= 5,412 cf

Plug-Flow detention time= 31.8 min calculated for 0.460 af (100% of inflow)
 Center-of-Mass det. time= 31.8 min (881.8 - 849.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

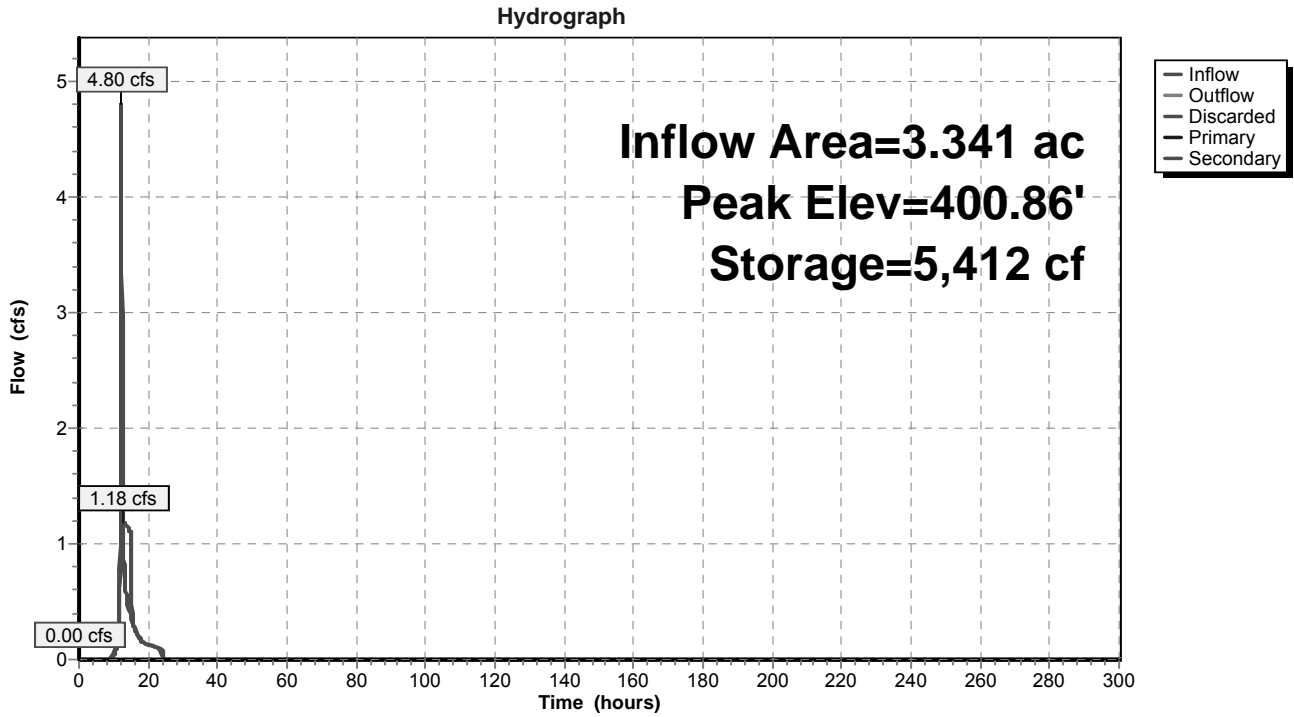
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.18 cfs @ 12.76 hrs HW=400.86' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.18 cfs)

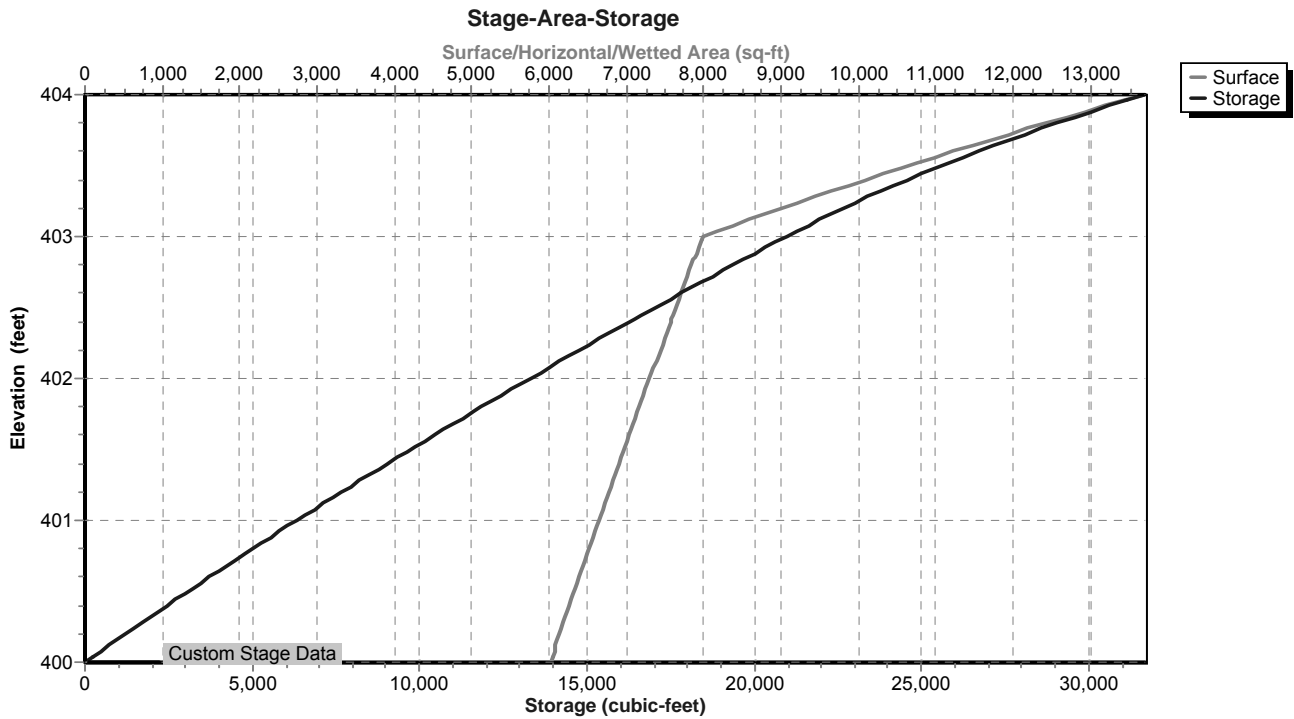
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 4.26 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 0.96" for 2 Year - North Salem event
 Inflow = 3.03 cfs @ 12.19 hrs, Volume= 0.299 af
 Outflow = 1.16 cfs @ 12.60 hrs, Volume= 0.299 af, Atten= 62%, Lag= 24.4 min
 Discarded = 1.16 cfs @ 12.60 hrs, Volume= 0.299 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 440.46' @ 12.60 hrs Surf.Area= 4,947 sf Storage= 2,205 cf

Plug-Flow detention time= 11.2 min calculated for 0.299 af (100% of inflow)
 Center-of-Mass det. time= 11.2 min (892.2 - 880.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
440.00	4,681	292.0	0	0	4,681
442.00	5,898	317.0	10,556	10,556	6,037
443.00	6,543	330.0	6,218	16,773	6,780
444.00	7,214	342.0	6,876	23,649	7,505

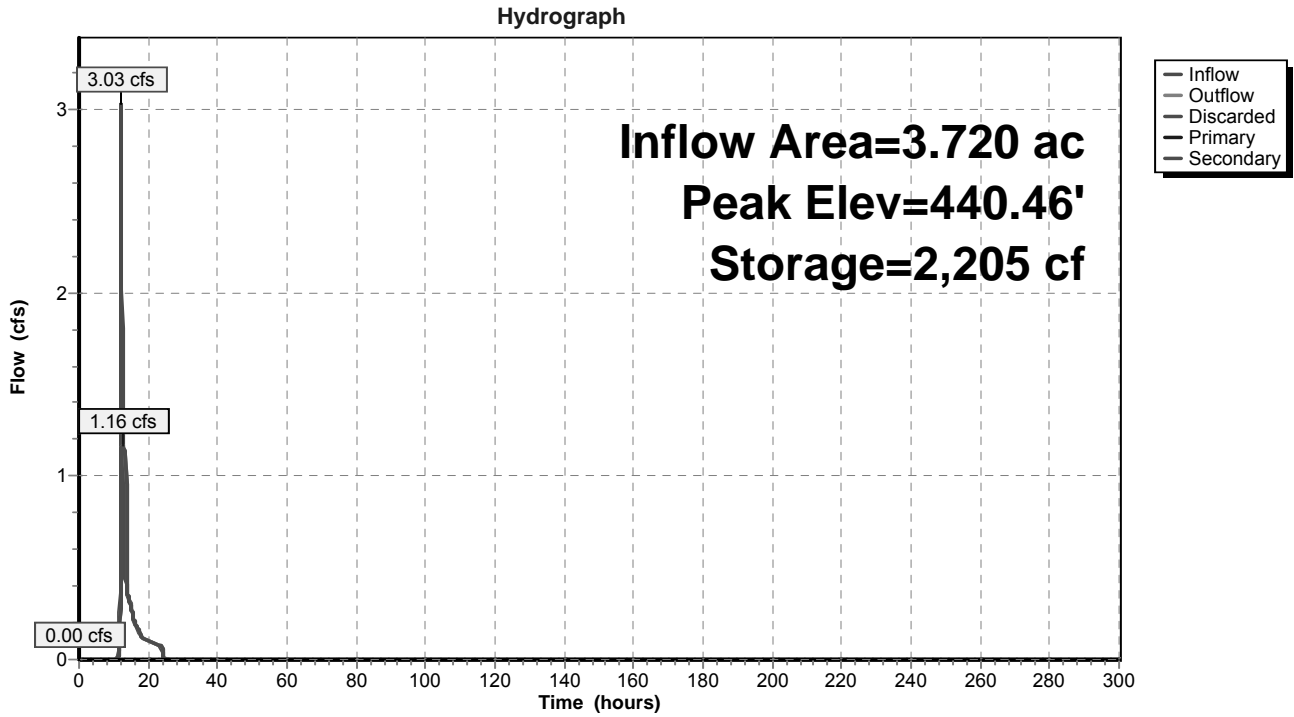
Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.16 cfs @ 12.60 hrs HW=440.46' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.16 cfs)

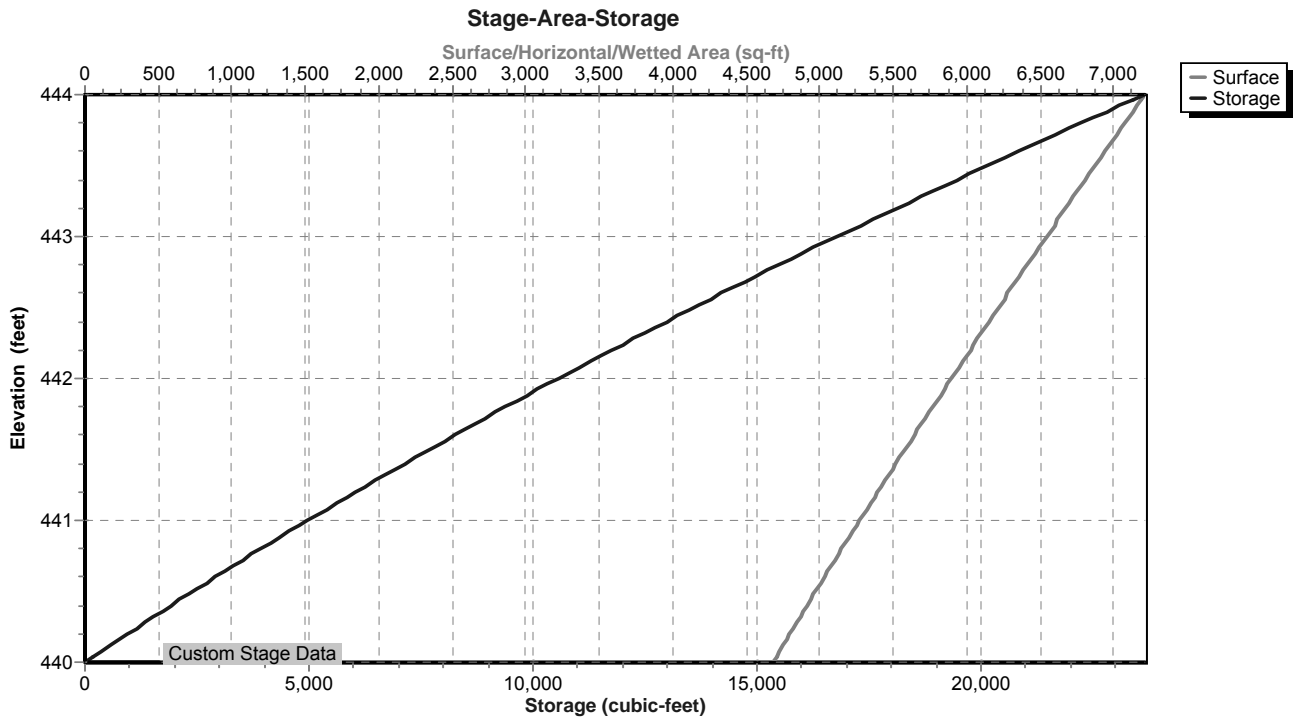
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 3.58 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 OUTLET by 0.20'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.15" for 2 Year - North Salem event
 Inflow = 0.85 cfs @ 12.58 hrs, Volume= 0.227 af
 Outflow = 0.31 cfs @ 14.67 hrs, Volume= 0.227 af, Atten= 63%, Lag= 125.4 min
 Primary = 0.31 cfs @ 14.67 hrs, Volume= 0.227 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 519.70' @ 14.67 hrs Surf.Area= 3,253 sf Storage= 4,873 cf

Plug-Flow detention time= 1,532.6 min calculated for 0.227 af (100% of inflow)
 Center-of-Mass det. time= 1,534.3 min (2,454.9 - 920.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

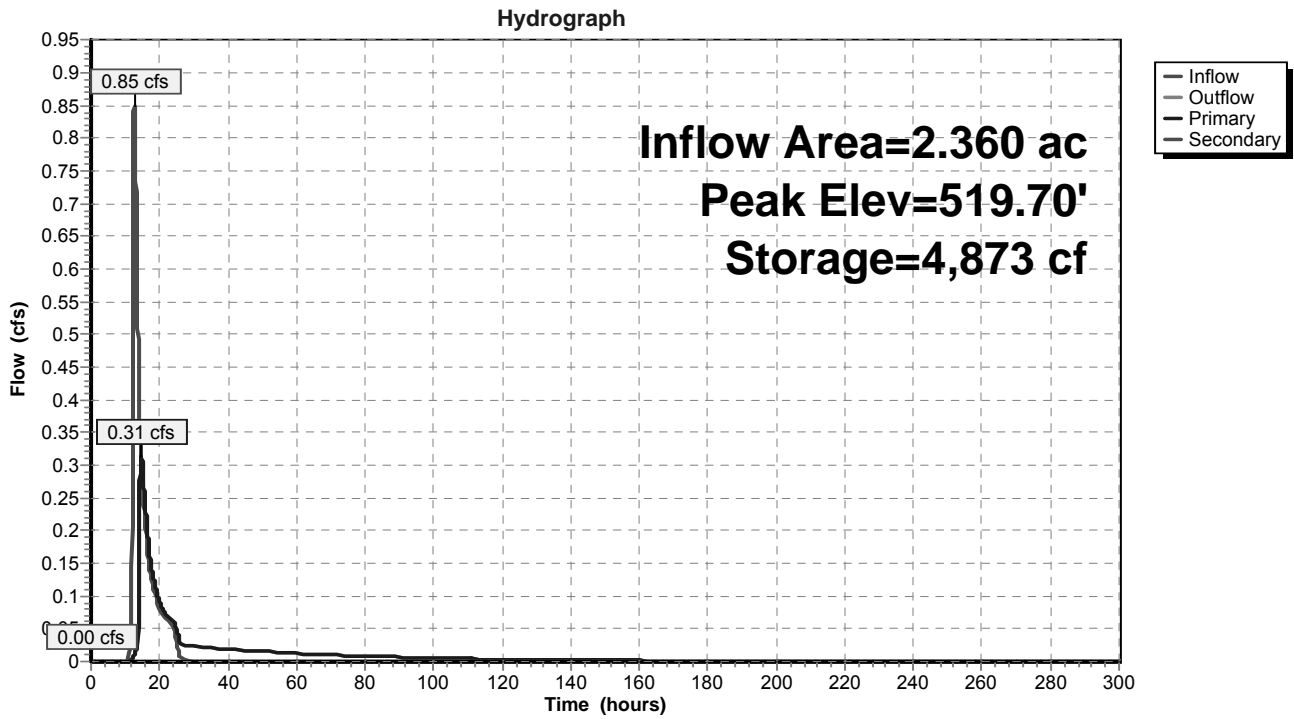
Primary OutFlow Max=0.31 cfs @ 14.67 hrs HW=519.70' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.31 cfs of 6.42 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.28 cfs @ 1.43 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

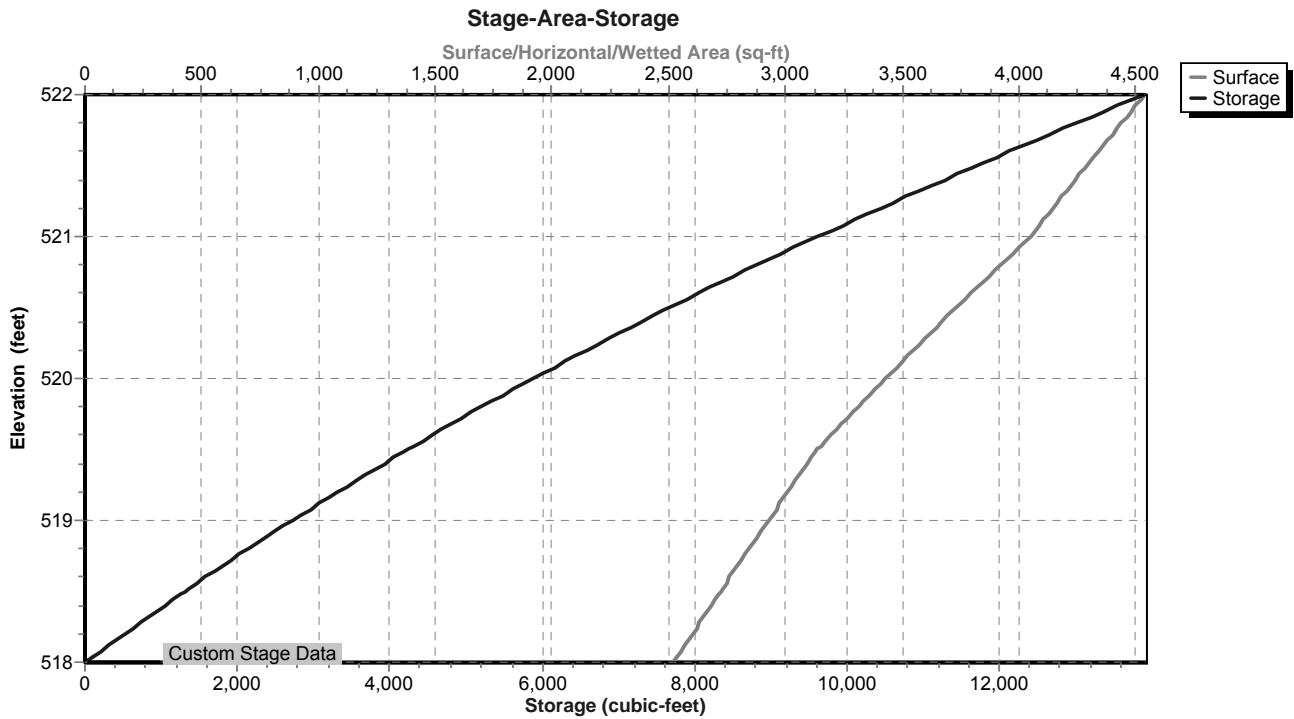
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G1: Sand Filter - G1



Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.15" for 2 Year - North Salem event
 Inflow = 2.01 cfs @ 12.16 hrs, Volume= 0.227 af
 Outflow = 0.85 cfs @ 12.58 hrs, Volume= 0.227 af, Atten= 58%, Lag= 25.3 min
 Primary = 0.85 cfs @ 12.58 hrs, Volume= 0.227 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 522.74' @ 12.58 hrs Surf.Area= 1,280 sf Storage= 2,565 cf

Plug-Flow detention time= 49.7 min calculated for 0.227 af (100% of inflow)
 Center-of-Mass det. time= 49.8 min (920.6 - 870.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

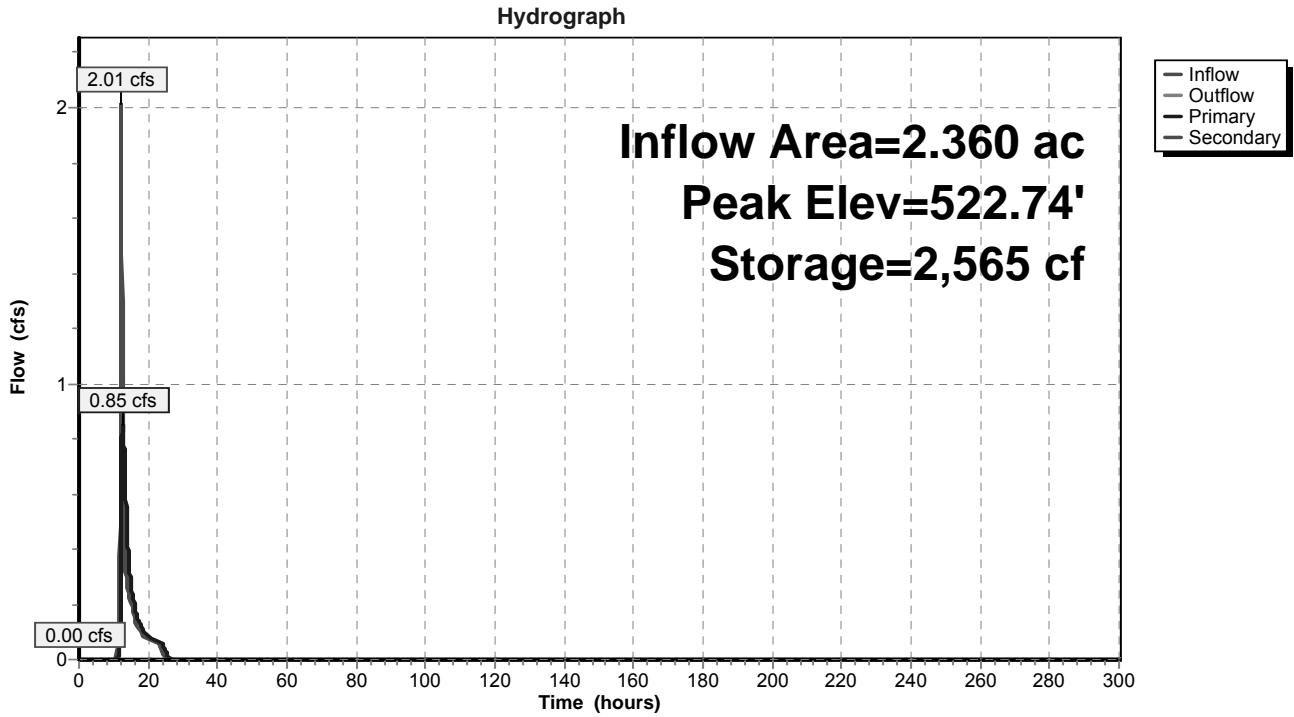
Primary OutFlow Max=0.85 cfs @ 12.58 hrs HW=522.73' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.85 cfs of 5.65 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.85 cfs @ 6.48 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

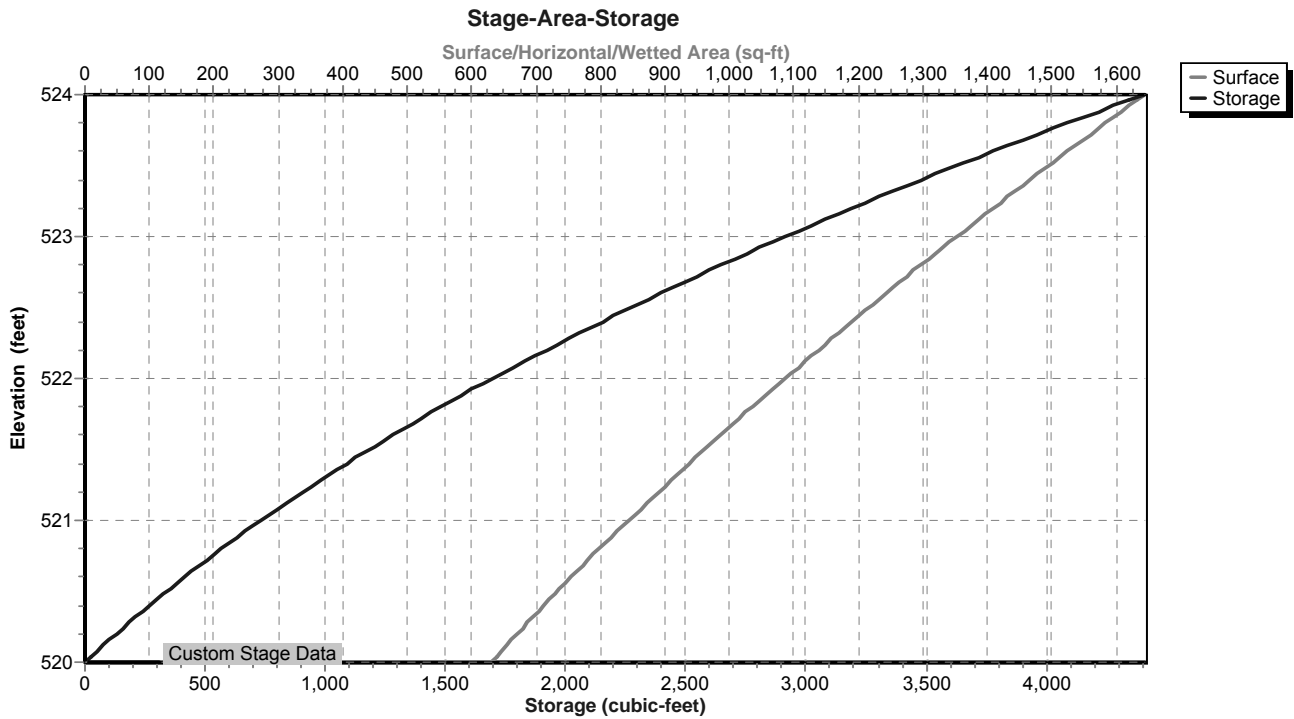
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-G1: Sand Filter Forebay - G1



Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=2.50"
Flow Length=184' Tc=10.2 min CN=71 Runoff=5.90 cfs 0.492 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=2.68"
Flow Length=619' Tc=10.1 min CN=73 Runoff=17.97 cfs 1.488 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=3.14"
Flow Length=770' Tc=15.1 min CN=78 Runoff=9.25 cfs 0.875 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=2.16"
Flow Length=983' Tc=12.1 min CN=67 Runoff=7.41 cfs 0.669 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=1.38"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=2.25 cfs 0.229 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=2.08"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=18.04 cfs 2.244 af

Pond B-G1: Dry Basin - G1 Peak Elev=514.11' Storage=3,516 cf Inflow=3.55 cfs 0.492 af
Primary=0.80 cfs 0.492 af Secondary=0.00 cfs 0.000 af Outflow=0.80 cfs 0.492 af

Pond B-G4a: Dry Basin - G4a Peak Elev=423.15' Storage=4,285 cf Inflow=2.25 cfs 0.229 af
Primary=0.33 cfs 0.229 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.229 af

Pond DP 7-1: Design Point 7-1 Inflow=18.63 cfs 2.965 af
Primary=18.63 cfs 2.965 af

Pond FS G1: Flow Splitter G1 Peak Elev=525.42' Inflow=5.90 cfs 0.492 af
Primary=2.36 cfs 0.413 af Secondary=3.54 cfs 0.079 af Outflow=5.90 cfs 0.492 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=450.20' Storage=16,304 cf Inflow=17.97 cfs 1.488 af
Discarded=4.52 cfs 1.488 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=4.52 cfs 1.488 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=402.09' Storage=13,989 cf Inflow=9.25 cfs 0.875 af
Discarded=1.33 cfs 0.875 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.33 cfs 0.875 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=441.75' Storage=9,122 cf Inflow=7.41 cfs 0.669 af
Discarded=1.35 cfs 0.669 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.35 cfs 0.669 af

Pond SF-G1: Sand Filter - G1 Peak Elev=519.89' Storage=5,505 cf Inflow=2.56 cfs 0.413 af
Primary=0.81 cfs 0.413 af Secondary=0.00 cfs 0.000 af Outflow=0.81 cfs 0.413 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=522.99' Storage=2,895 cf Inflow=2.36 cfs 0.413 af
Primary=2.56 cfs 0.413 af Secondary=0.00 cfs 0.000 af Outflow=2.56 cfs 0.413 af

Total Runoff Area = 31.048 ac Runoff Volume = 5.997 af Average Runoff Depth = 2.32"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 5.90 cfs @ 12.15 hrs, Volume= 0.492 af, Depth= 2.50"

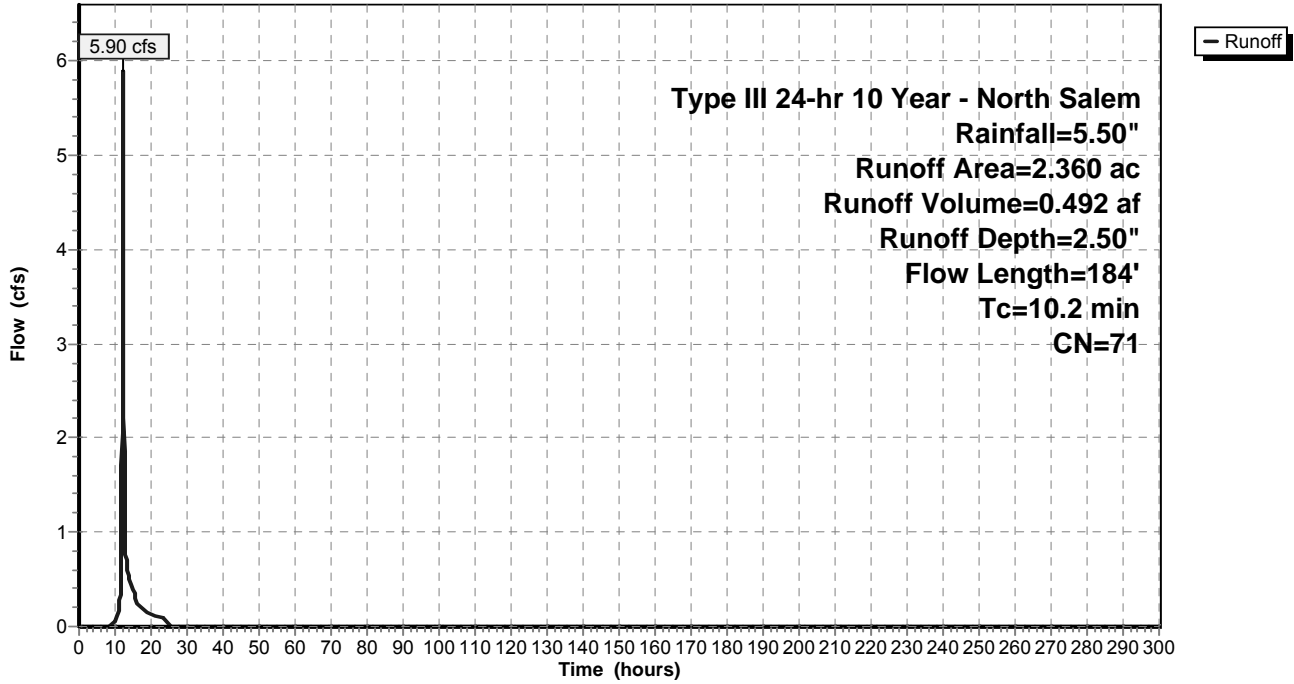
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 17.97 cfs @ 12.15 hrs, Volume= 1.488 af, Depth= 2.68"

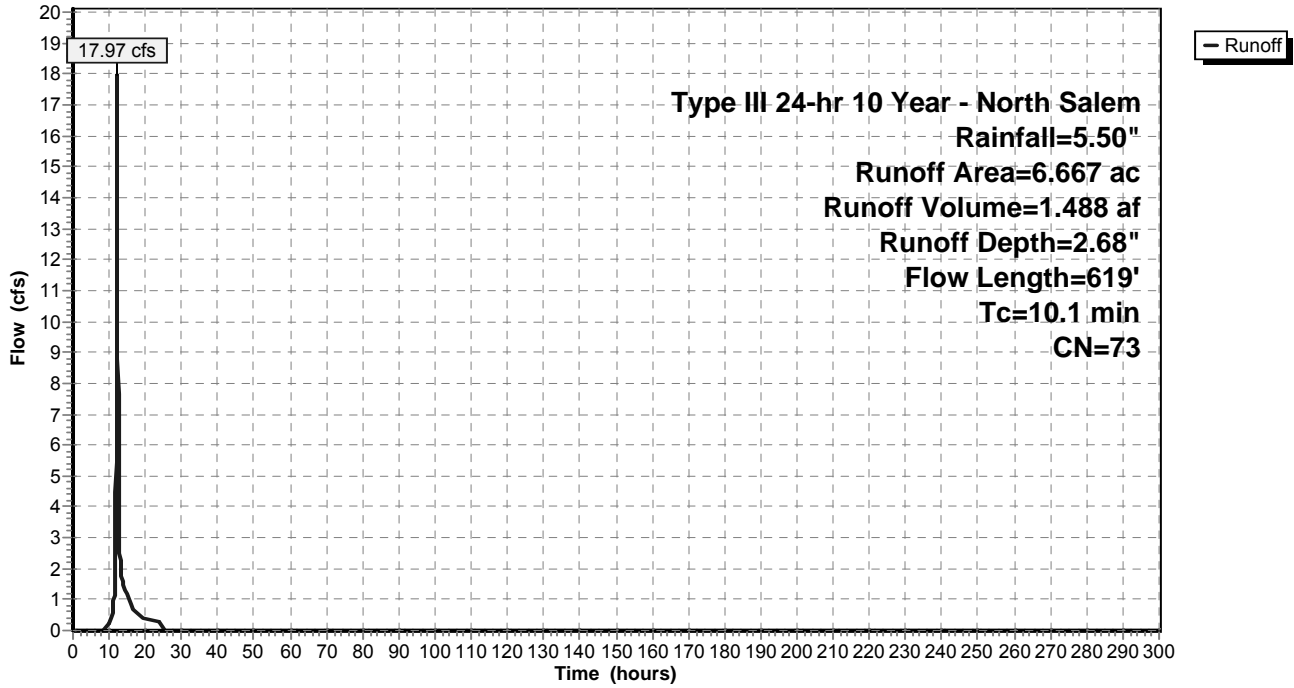
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 9.25 cfs @ 12.21 hrs, Volume= 0.875 af, Depth= 3.14"

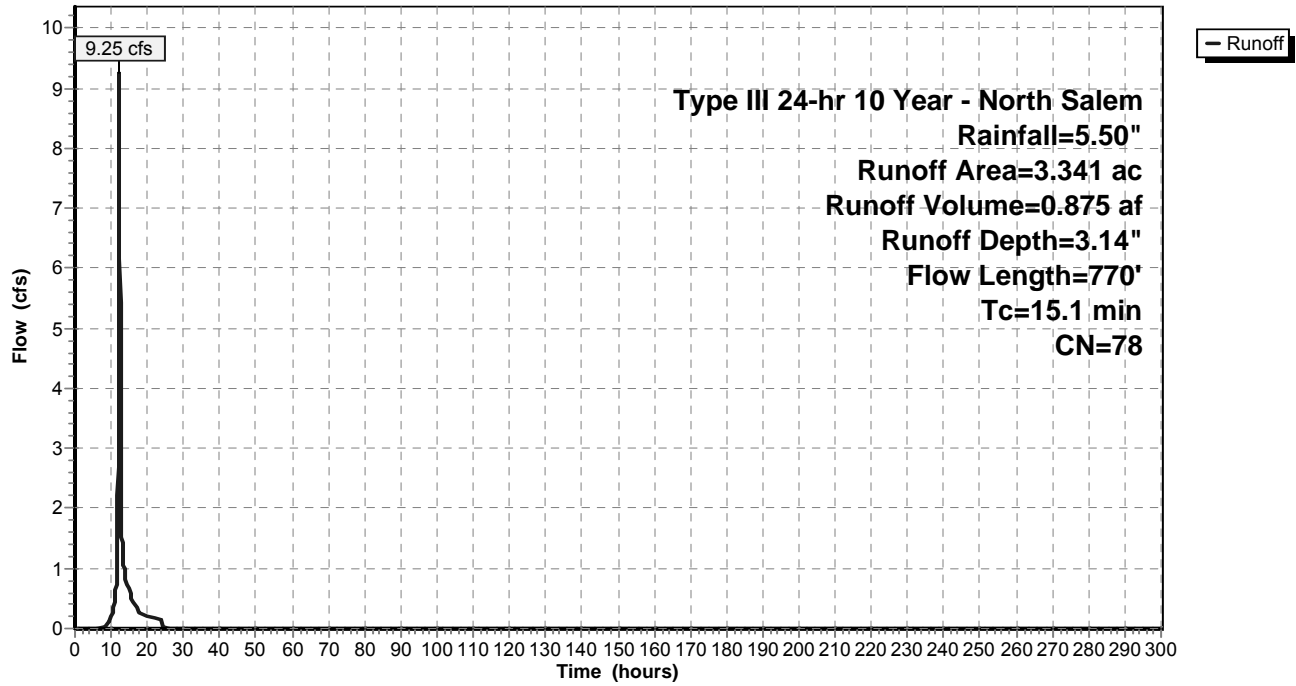
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

Runoff = 7.41 cfs @ 12.18 hrs, Volume= 0.669 af, Depth= 2.16"

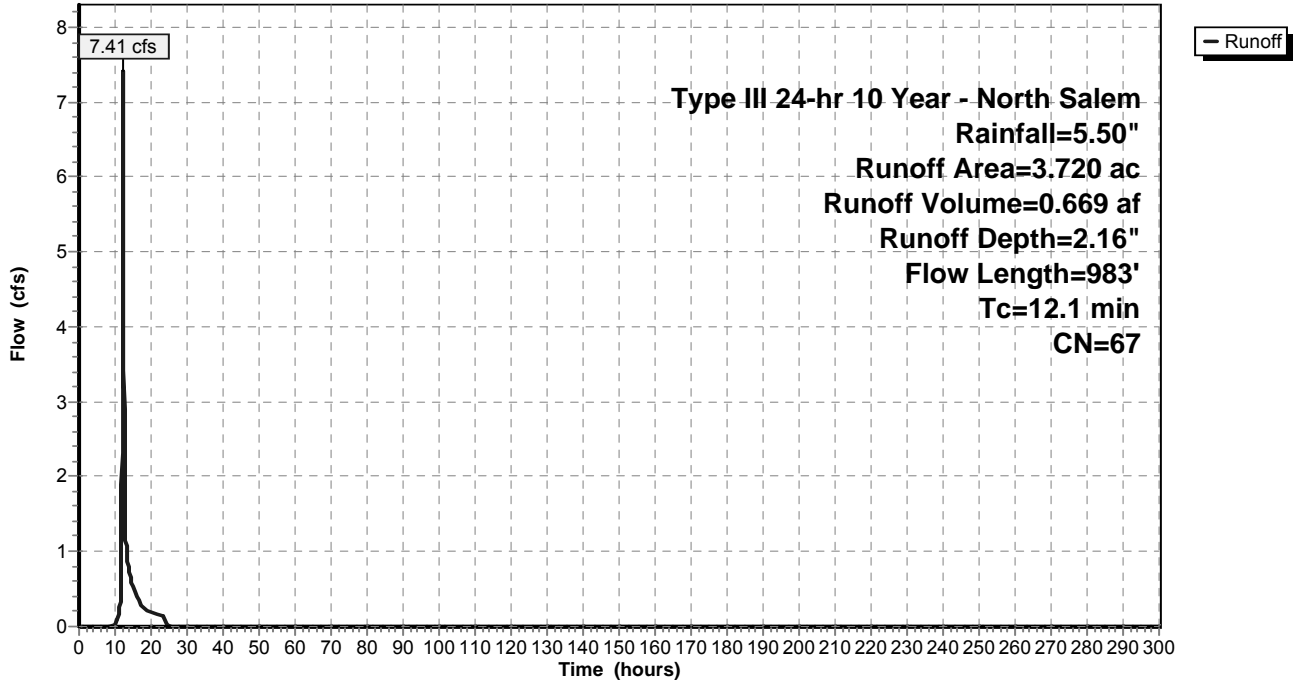
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b

Hydrograph



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 2.25 cfs @ 12.21 hrs, Volume= 0.229 af, Depth= 1.38"

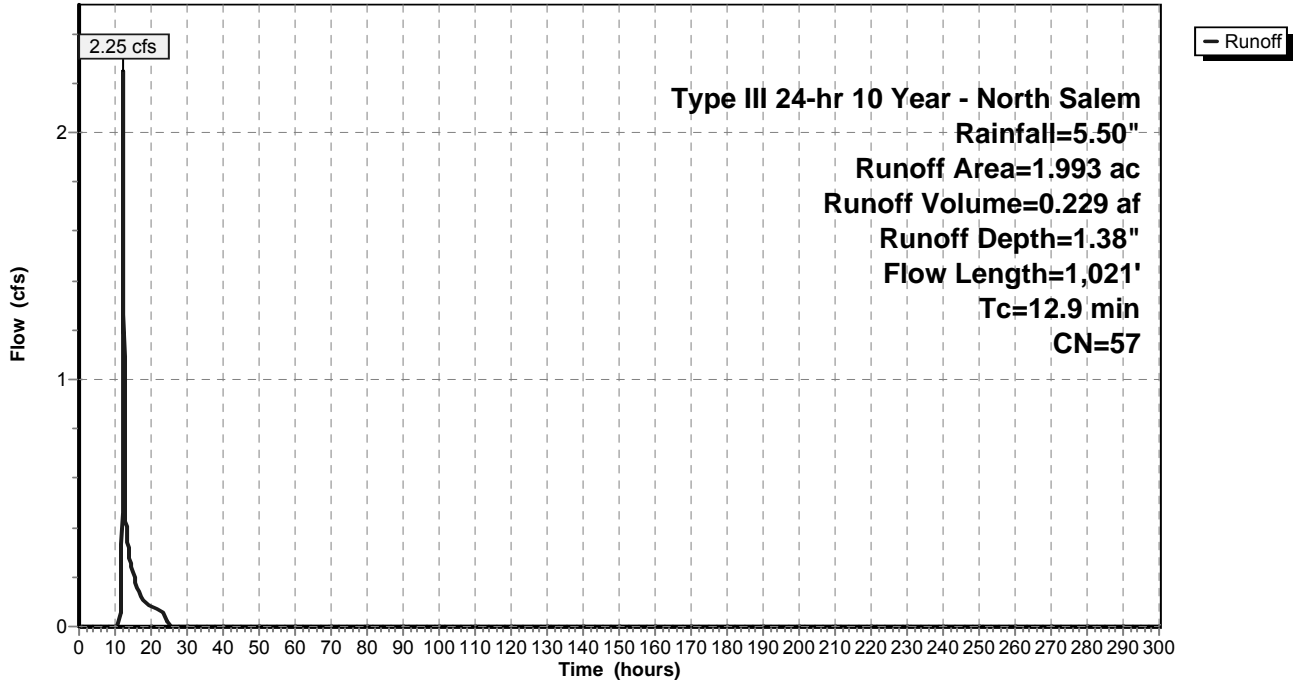
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 18.04 cfs @ 12.40 hrs, Volume= 2.244 af, Depth= 2.08"

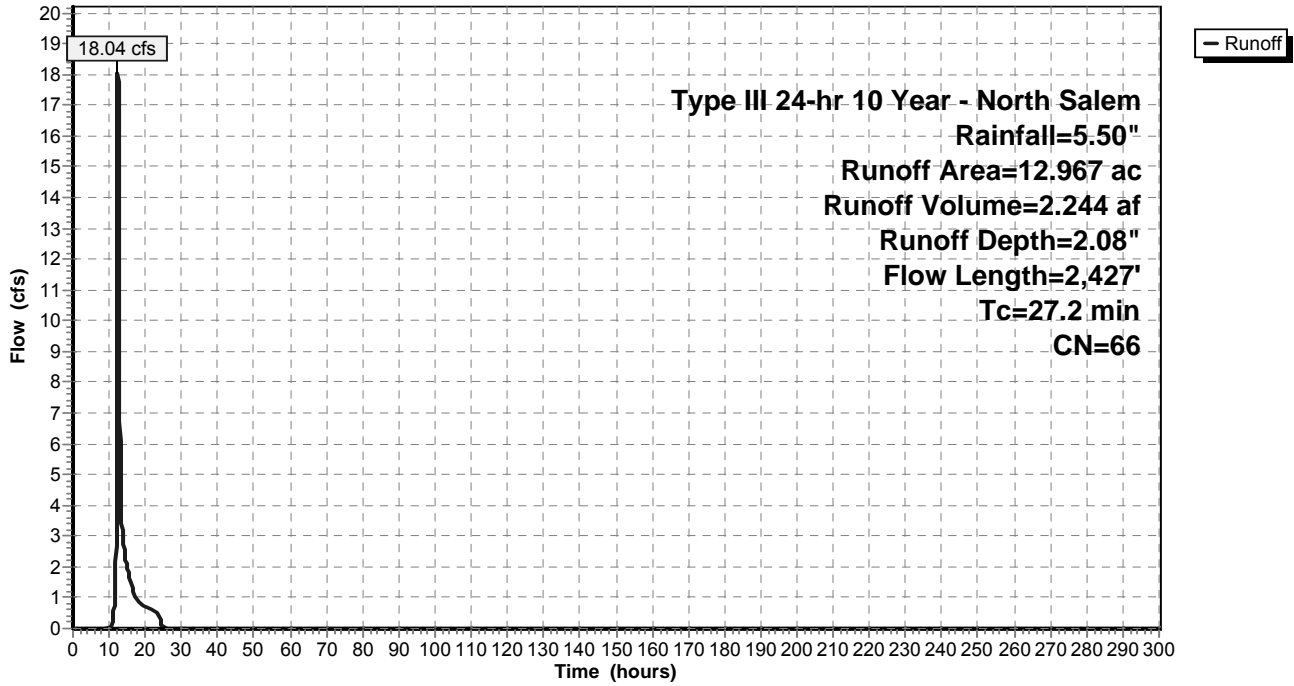
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.50" for 10 Year - North Salem event
 Inflow = 3.55 cfs @ 12.15 hrs, Volume= 0.492 af
 Outflow = 0.80 cfs @ 13.79 hrs, Volume= 0.492 af, Atten= 77%, Lag= 98.7 min
 Primary = 0.80 cfs @ 13.79 hrs, Volume= 0.492 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 514.11' @ 13.79 hrs Surf.Area= 2,270 sf Storage= 3,516 cf (2,898 cf above start)

Plug-Flow detention time= 339.9 min calculated for 0.477 af (97% of inflow)
 Center-of-Mass det. time= 83.0 min (1,696.4 - 1,613.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

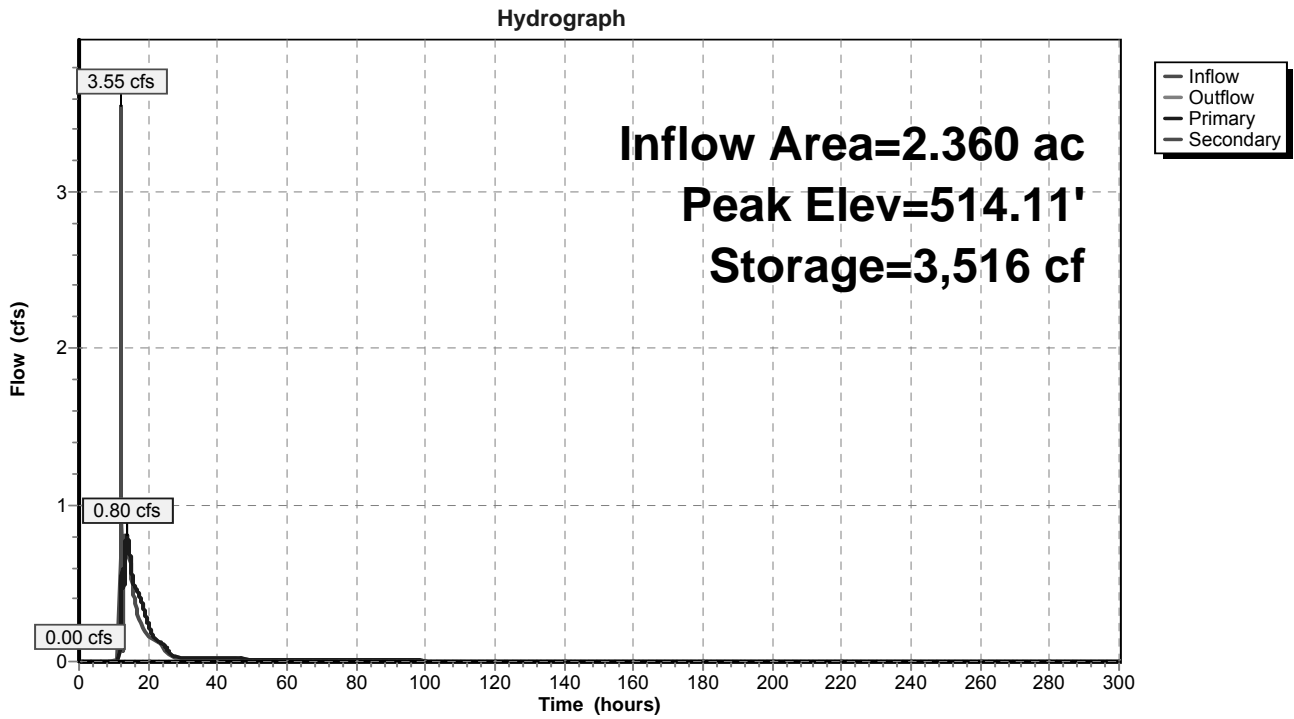
Primary OutFlow Max=0.79 cfs @ 13.79 hrs HW=514.11' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.79 cfs of 13.08 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.51 cfs @ 5.79 fps)
- ↑ 3=Orifice #2 (Orifice Controls 0.29 cfs @ 1.09 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

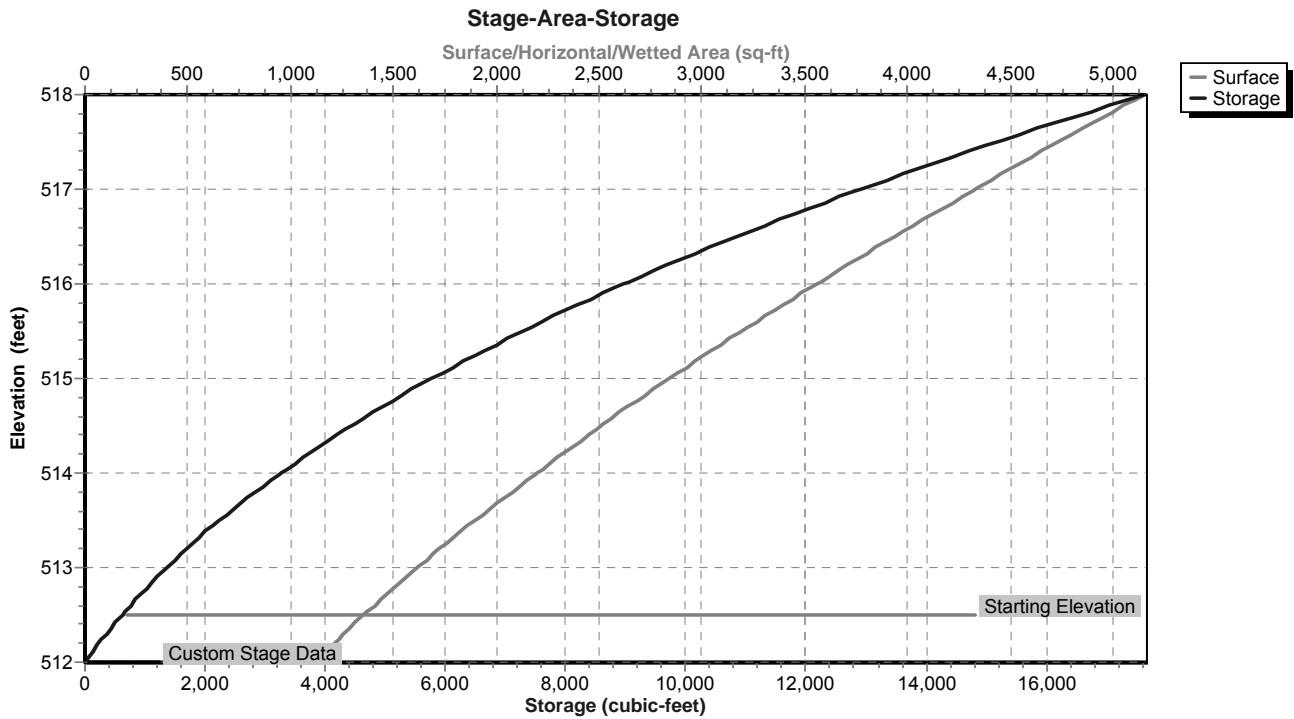
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 0.48" for 10 Year - North Salem event
 Inflow = 2.25 cfs @ 12.21 hrs, Volume= 0.229 af
 Outflow = 0.33 cfs @ 13.53 hrs, Volume= 0.229 af, Atten= 85%, Lag= 79.7 min
 Primary = 0.33 cfs @ 13.53 hrs, Volume= 0.229 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 423.15' @ 13.53 hrs Surf.Area= 2,213 sf Storage= 4,285 cf

Plug-Flow detention time= 576.5 min calculated for 0.229 af (100% of inflow)
 Center-of-Mass det. time= 576.9 min (1,460.8 - 884.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

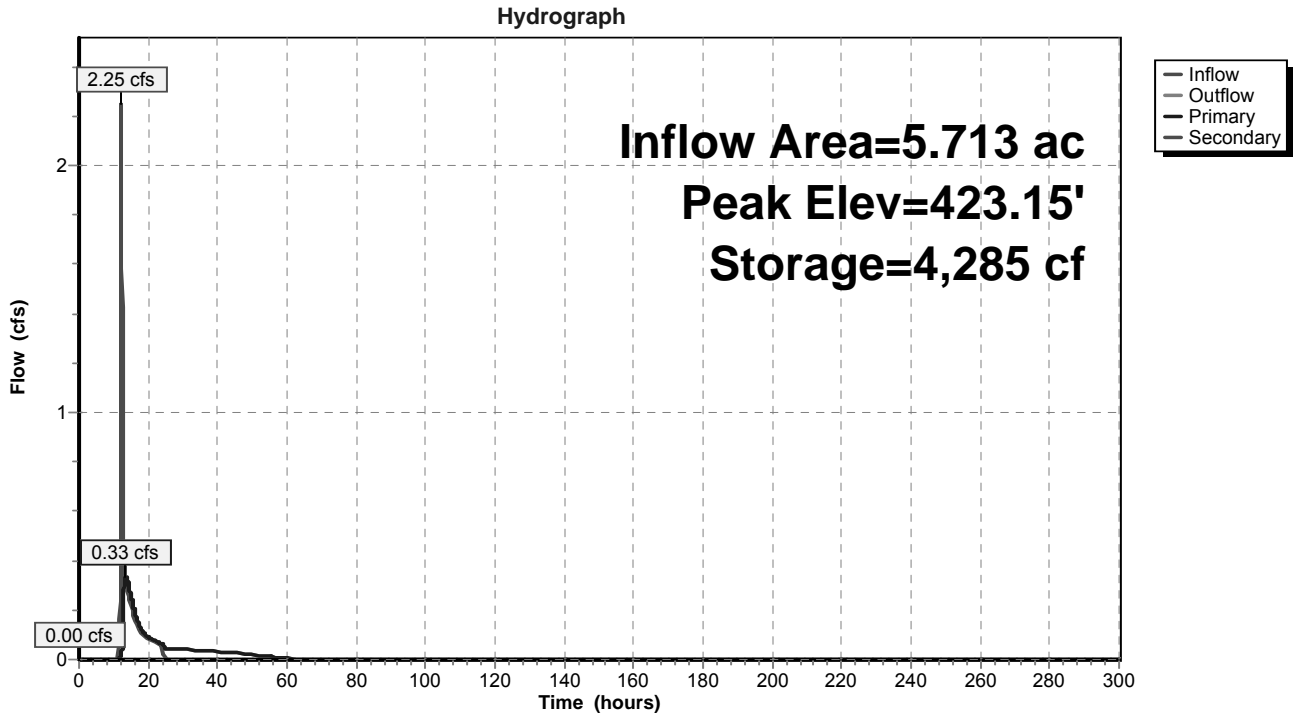
Primary OutFlow Max=0.33 cfs @ 13.53 hrs HW=423.15' (Free Discharge)

- ↑ 1=Culvert (Passes 0.33 cfs of 78.26 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.05 cfs @ 8.49 fps)
- ↑ 3=Orifice #2 (Orifice Controls 0.29 cfs @ 2.15 fps)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

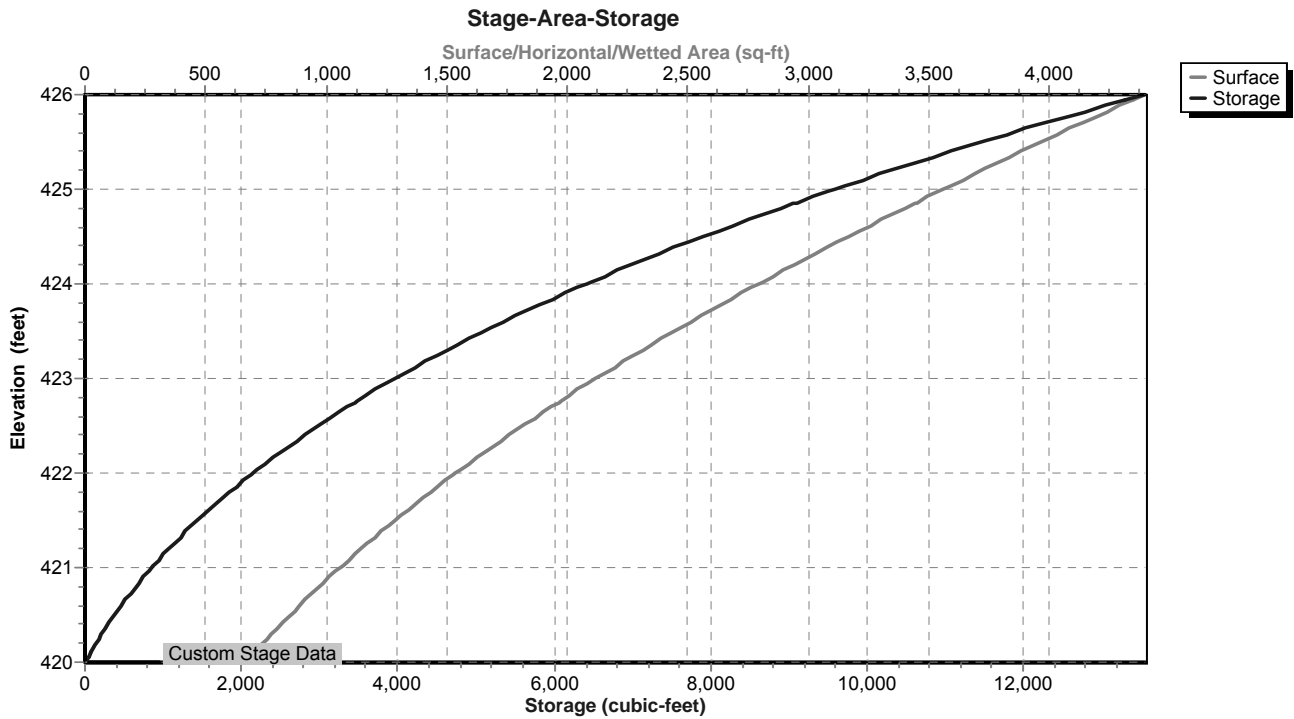
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond B-G4a: Dry Basin - G4a



Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

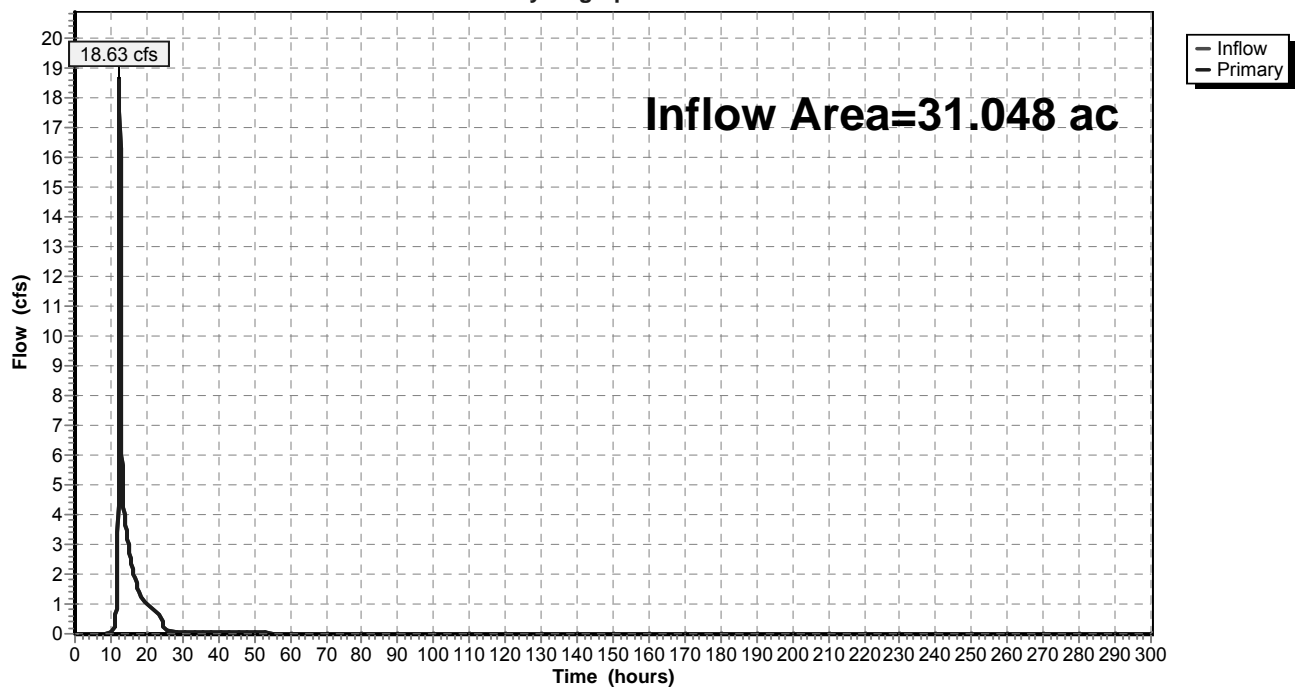
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 1.15" for 10 Year - North Salem event
Inflow = 18.63 cfs @ 12.41 hrs, Volume= 2.965 af
Primary = 18.63 cfs @ 12.41 hrs, Volume= 2.965 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.50" for 10 Year - North Salem event
 Inflow = 5.90 cfs @ 12.15 hrs, Volume= 0.492 af
 Outflow = 5.90 cfs @ 12.15 hrs, Volume= 0.492 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.36 cfs @ 12.15 hrs, Volume= 0.413 af
 Secondary = 3.54 cfs @ 12.15 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 525.42' @ 12.15 hrs
 Flood Elev= 527.50'

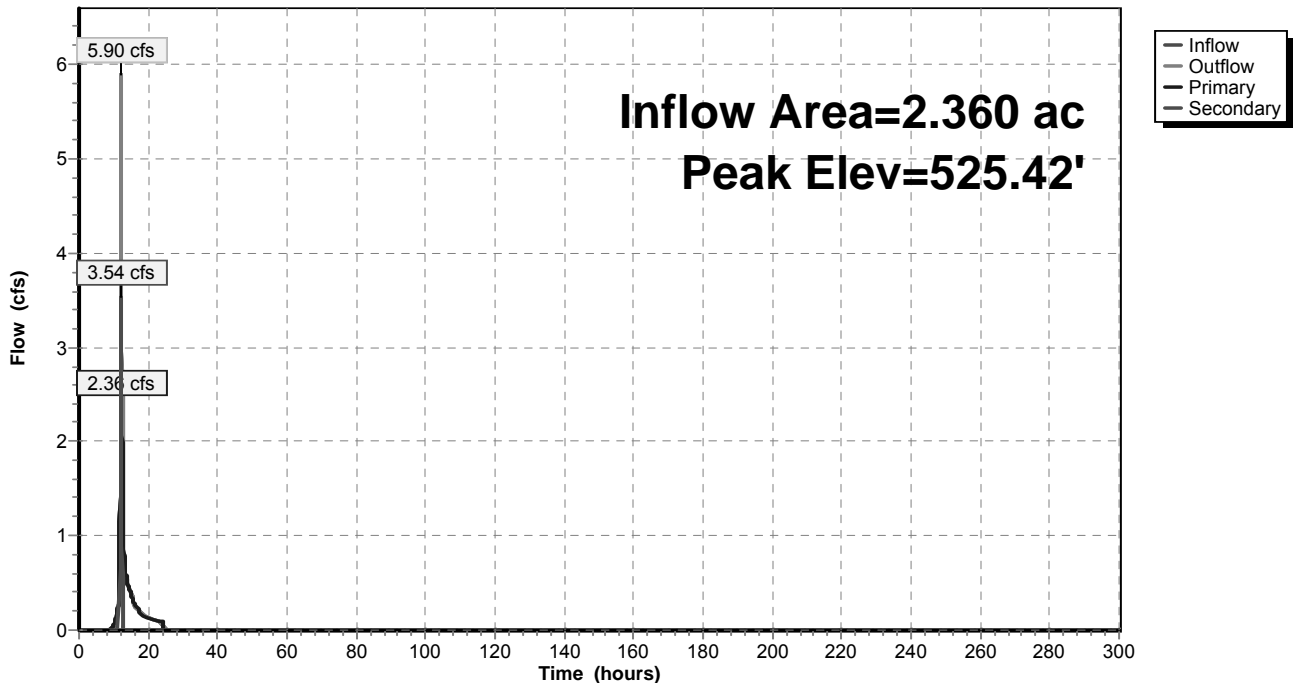
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.36 cfs @ 12.15 hrs HW=525.42' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.36 cfs @ 6.76 fps)

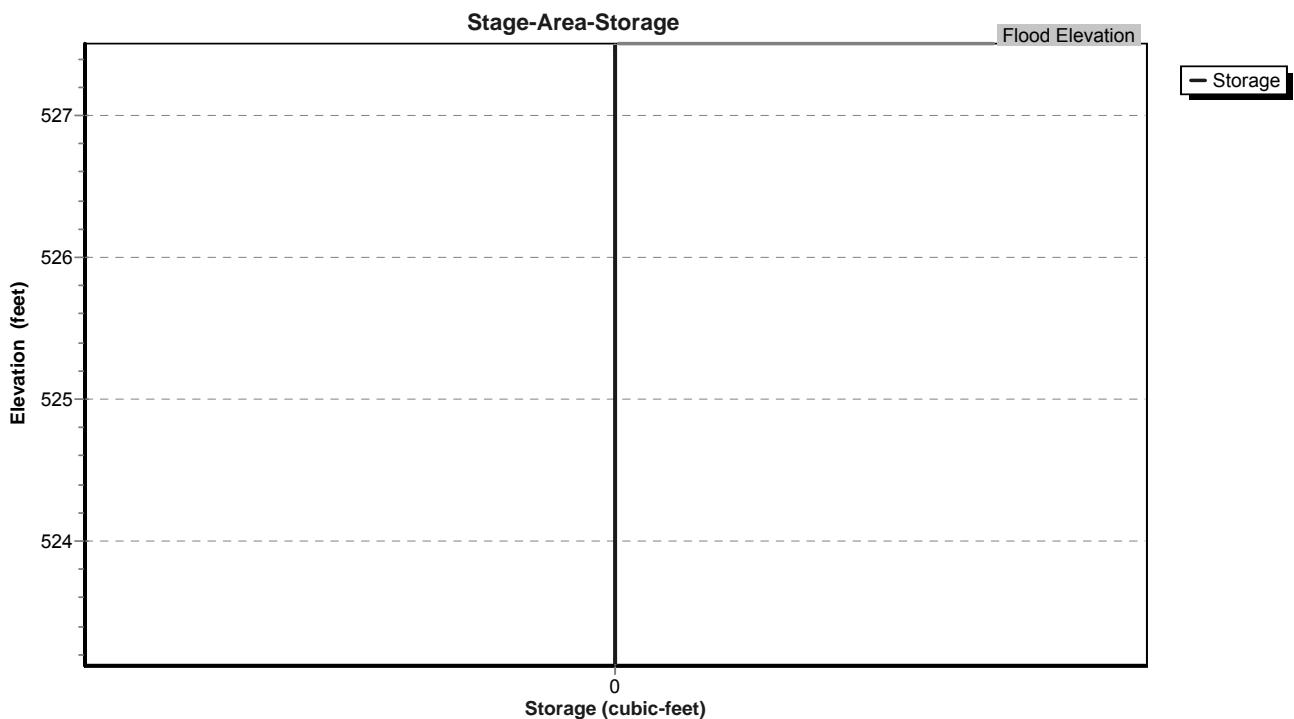
Secondary OutFlow Max=3.53 cfs @ 12.15 hrs HW=525.42' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 3.53 cfs @ 3.22 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Pond FS G1: Flow Splitter G1



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 2.68" for 10 Year - North Salem event
 Inflow = 17.97 cfs @ 12.15 hrs, Volume= 1.488 af
 Outflow = 4.52 cfs @ 12.60 hrs, Volume= 1.488 af, Atten= 75%, Lag= 27.2 min
 Discarded = 4.52 cfs @ 12.60 hrs, Volume= 1.488 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.20' @ 12.60 hrs Surf.Area= 8,142 sf Storage= 16,304 cf

Plug-Flow detention time= 23.3 min calculated for 1.488 af (100% of inflow)
 Center-of-Mass det. time= 23.3 min (862.4 - 839.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

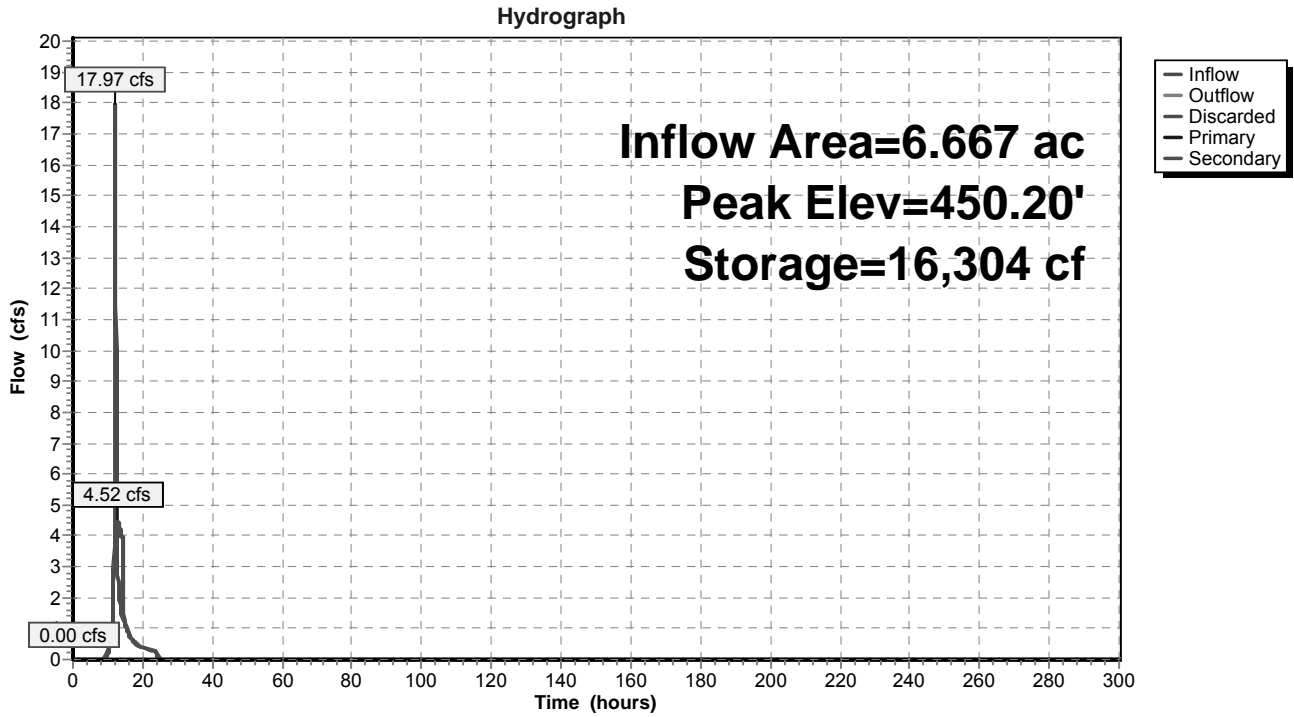
Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=4.52 cfs @ 12.60 hrs HW=450.20' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 4.52 cfs)

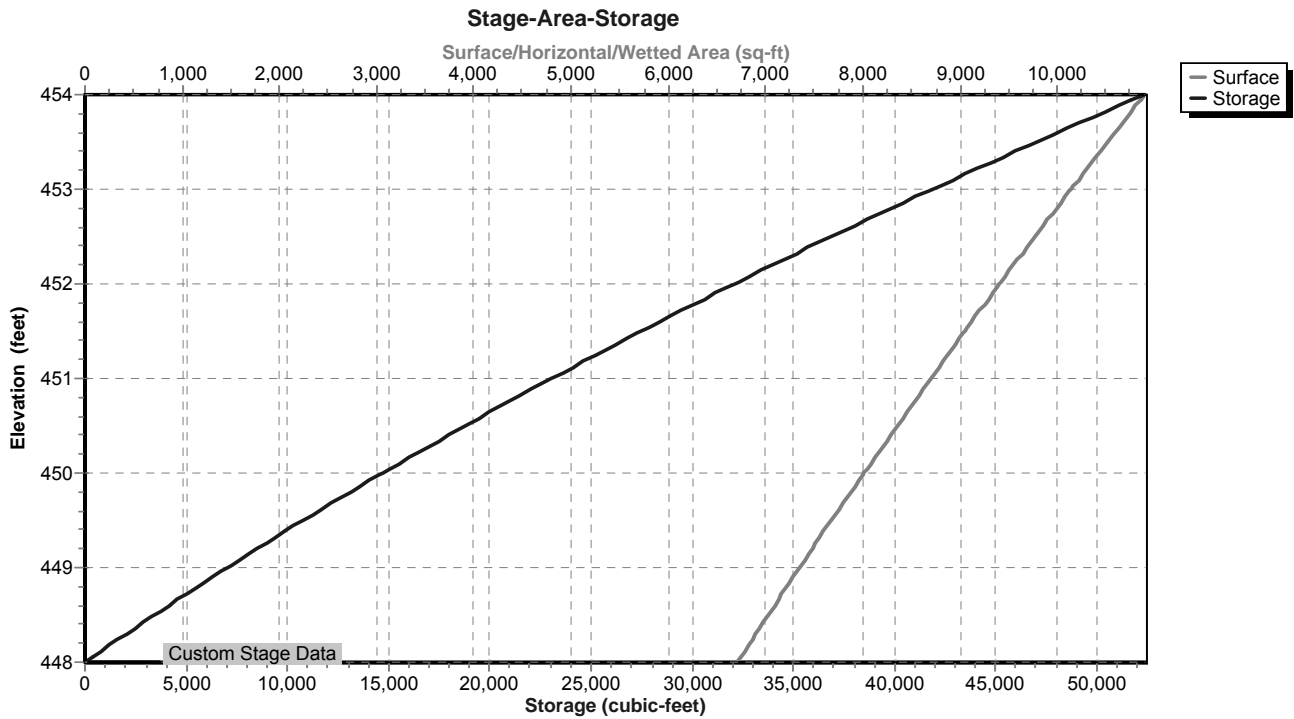
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 3.58 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2



Pond I-G2: Infiltration Basin-G2



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 3.14" for 10 Year - North Salem event
 Inflow = 9.25 cfs @ 12.21 hrs, Volume= 0.875 af
 Outflow = 1.33 cfs @ 13.06 hrs, Volume= 0.875 af, Atten= 86%, Lag= 51.1 min
 Discarded = 1.33 cfs @ 13.06 hrs, Volume= 0.875 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 402.09' @ 13.06 hrs Surf.Area= 7,368 sf Storage= 13,989 cf

Plug-Flow detention time= 90.1 min calculated for 0.874 af (100% of inflow)
 Center-of-Mass det. time= 90.1 min (921.4 - 831.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

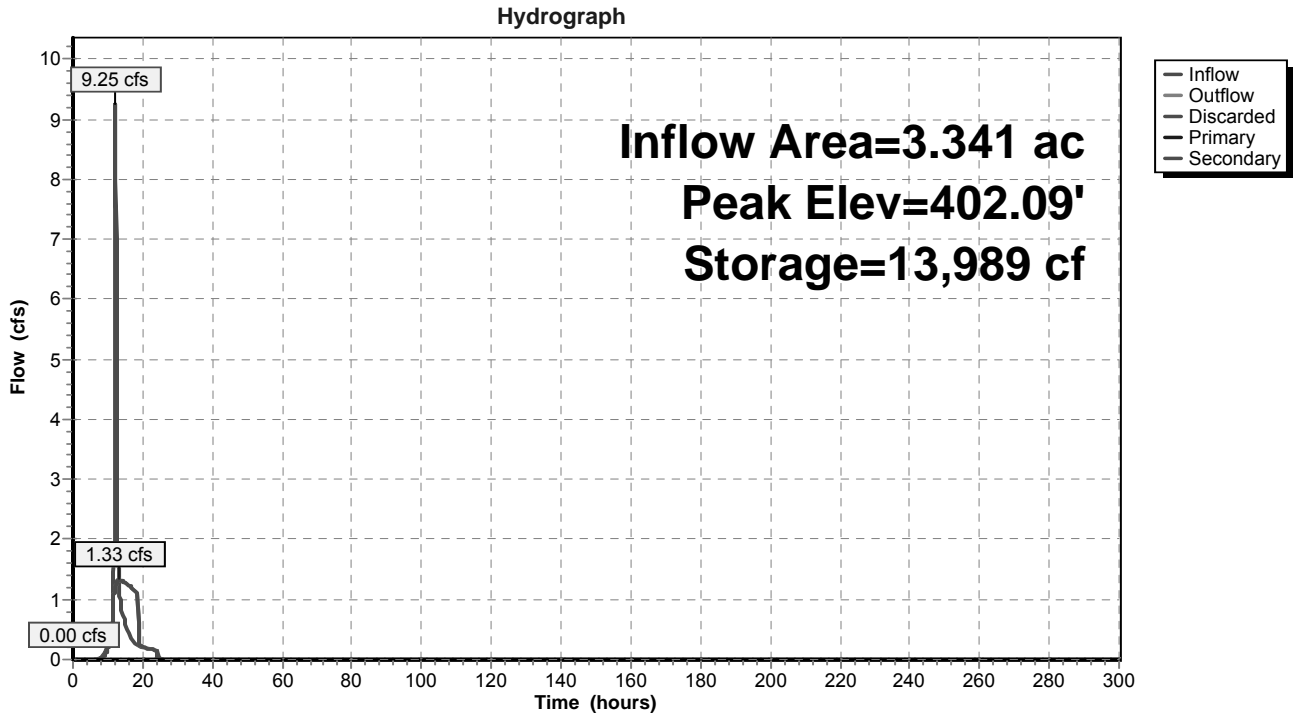
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.33 cfs @ 13.06 hrs HW=402.09' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.33 cfs)

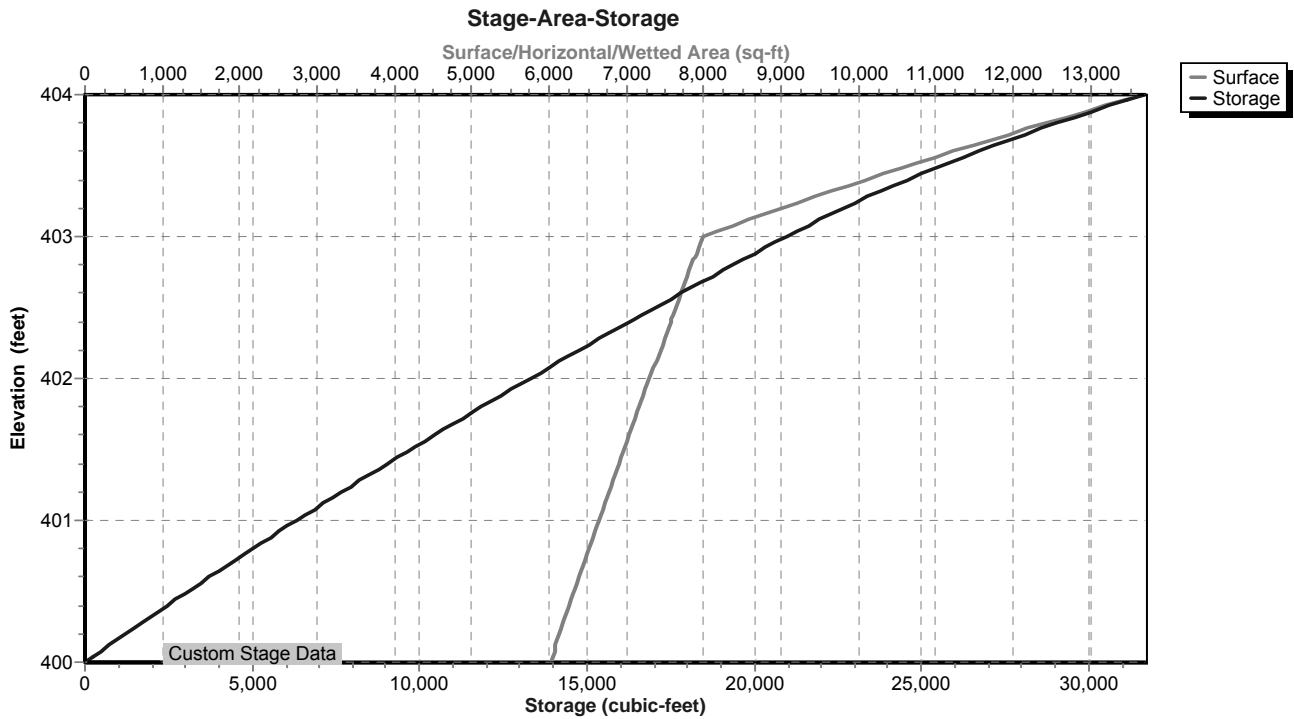
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 4.26 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 2.16" for 10 Year - North Salem event
 Inflow = 7.41 cfs @ 12.18 hrs, Volume= 0.669 af
 Outflow = 1.35 cfs @ 12.85 hrs, Volume= 0.669 af, Atten= 82%, Lag= 40.6 min
 Discarded = 1.35 cfs @ 12.85 hrs, Volume= 0.669 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 441.75' @ 12.85 hrs Surf.Area= 5,740 sf Storage= 9,122 cf

Plug-Flow detention time= 55.0 min calculated for 0.669 af (100% of inflow)
 Center-of-Mass det. time= 55.0 min (910.7 - 855.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
440.00	4,681	292.0	0	0	4,681	
442.00	5,898	317.0	10,556	10,556	6,037	
443.00	6,543	330.0	6,218	16,773	6,780	
444.00	7,214	342.0	6,876	23,649	7,505	

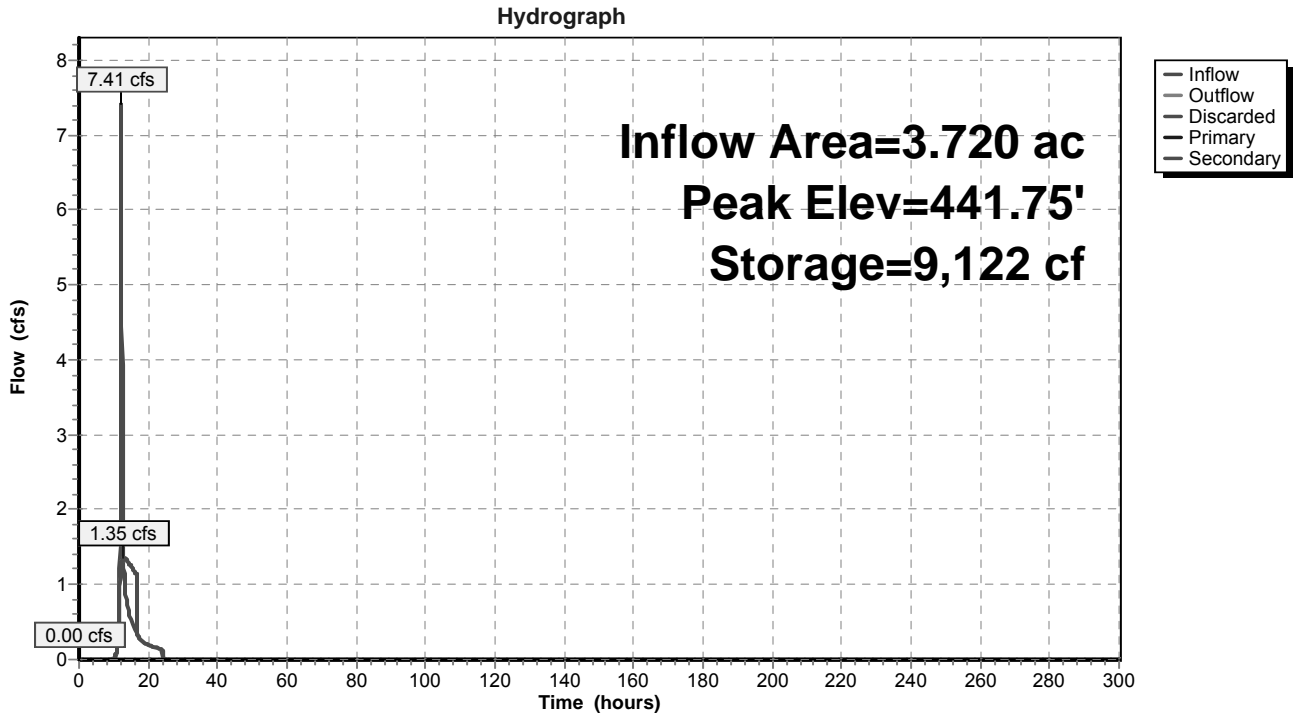
Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.35 cfs @ 12.85 hrs HW=441.75' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.35 cfs)

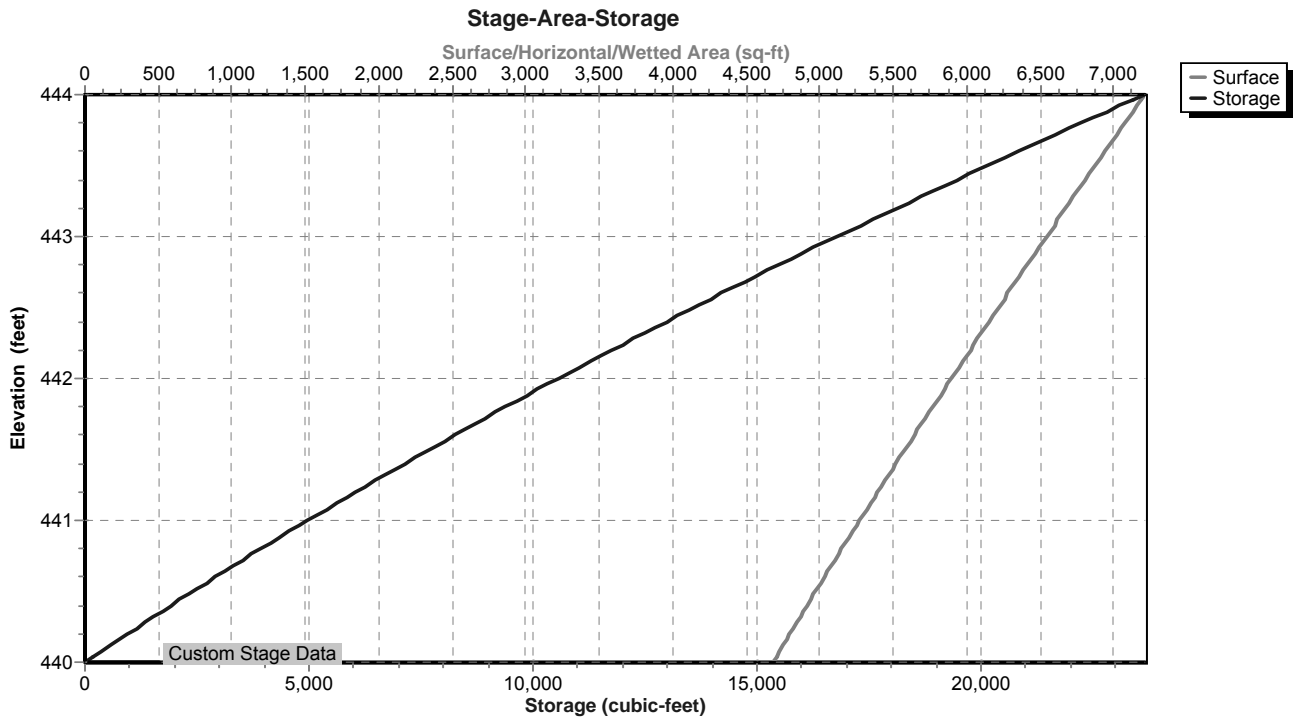
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.00 cfs of 3.58 cfs potential flow)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 OUTLET by 0.39'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.10" for 10 Year - North Salem event
 Inflow = 2.56 cfs @ 12.26 hrs, Volume= 0.413 af
 Outflow = 0.81 cfs @ 13.54 hrs, Volume= 0.413 af, Atten= 68%, Lag= 76.4 min
 Primary = 0.81 cfs @ 13.54 hrs, Volume= 0.413 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 519.89' @ 13.54 hrs Surf.Area= 3,364 sf Storage= 5,505 cf

Plug-Flow detention time= 870.0 min calculated for 0.413 af (100% of inflow)
 Center-of-Mass det. time= 872.1 min (1,781.9 - 909.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

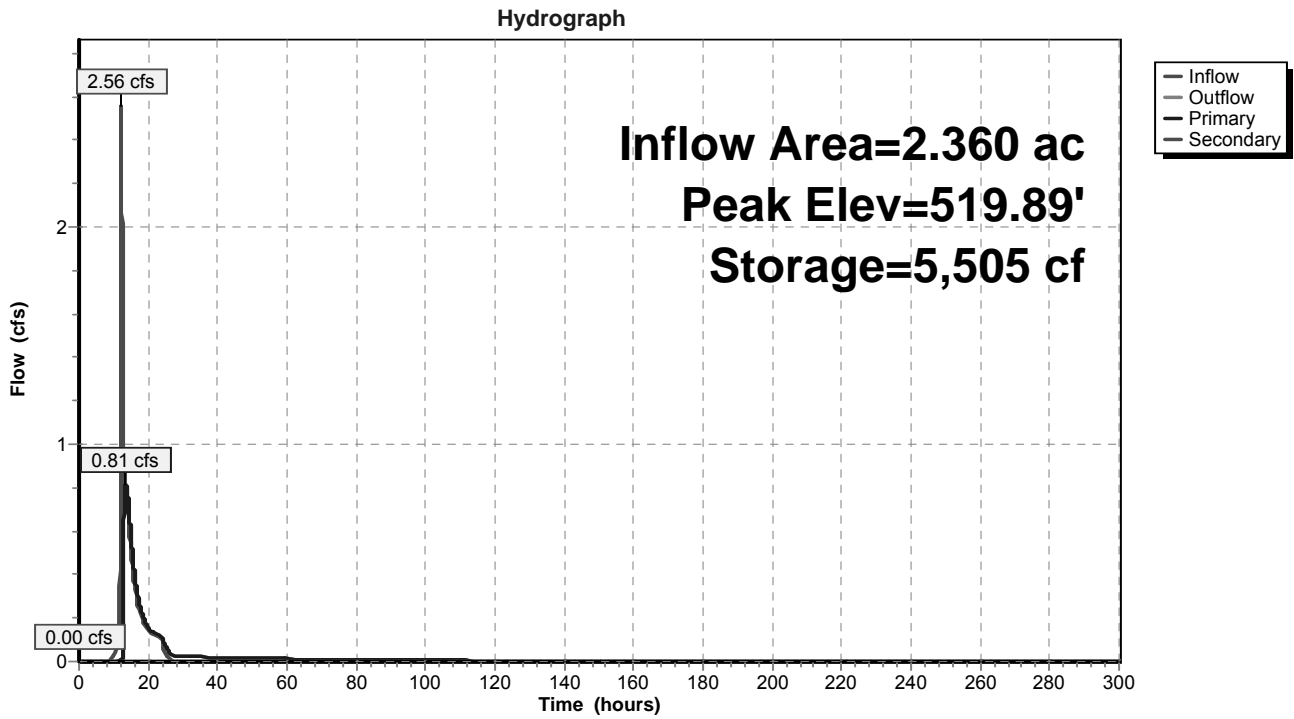
Primary OutFlow Max=0.81 cfs @ 13.54 hrs HW=519.89' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.81 cfs of 6.58 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.78 cfs @ 2.00 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

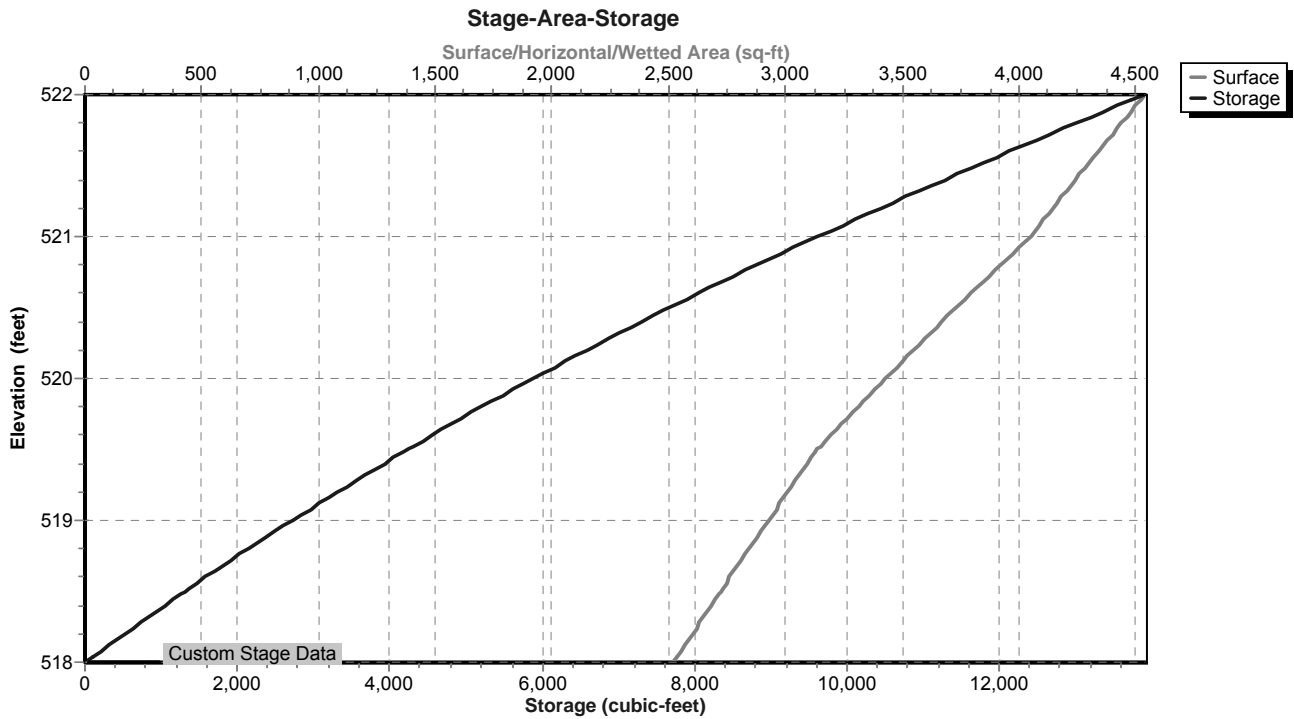
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G1: Sand Filter - G1



Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

[88] Warning: Qout>Qin may require Finer Routing>1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.10" for 10 Year - North Salem event
 Inflow = 2.36 cfs @ 12.15 hrs, Volume= 0.413 af
 Outflow = 2.56 cfs @ 12.26 hrs, Volume= 0.413 af, Atten= 0%, Lag= 6.8 min
 Primary = 2.56 cfs @ 12.26 hrs, Volume= 0.413 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 522.99' @ 12.27 hrs Surf.Area= 1,349 sf Storage= 2,895 cf

Plug-Flow detention time= 44.4 min calculated for 0.413 af (100% of inflow)
 Center-of-Mass det. time= 44.3 min (909.8 - 865.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

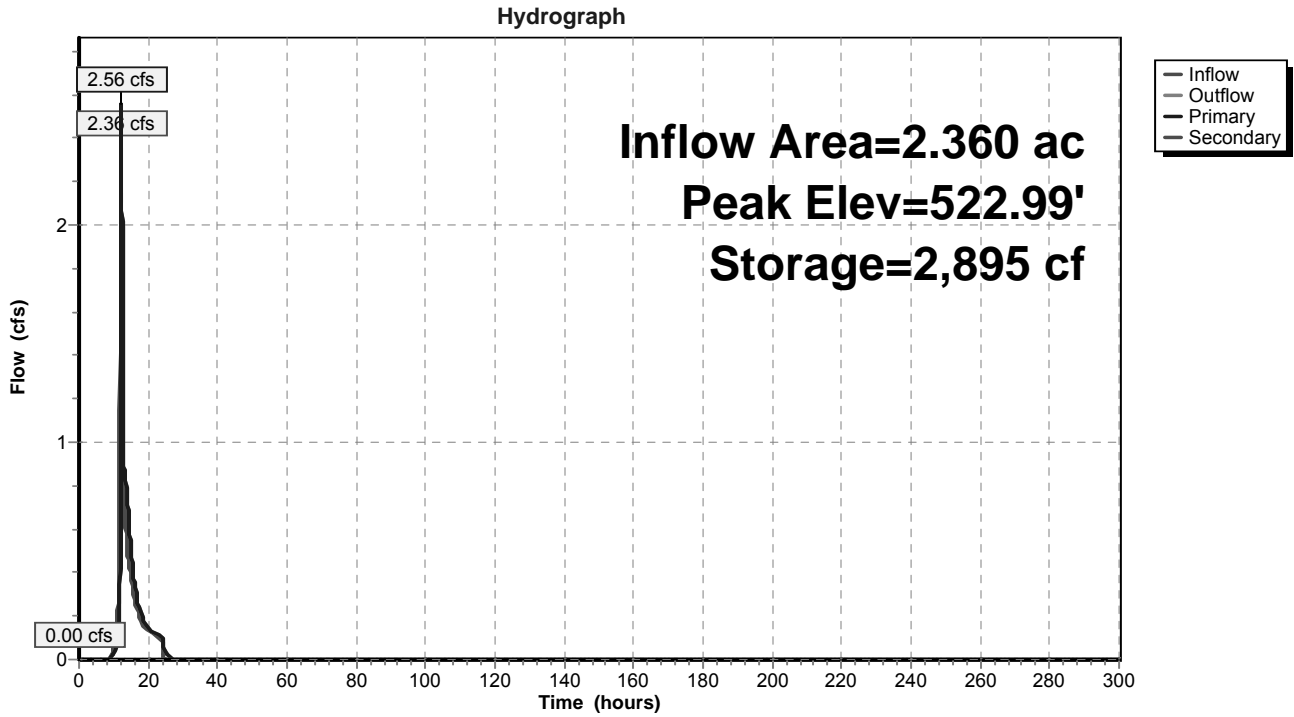
Primary OutFlow Max=2.36 cfs @ 12.26 hrs HW=522.98' (Free Discharge)

- 1=Outlet Pipe (Passes 2.36 cfs of 5.95 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.91 cfs @ 6.92 fps)
- 3=Top of Standpipe (Weir Controls 0.29 cfs @ 0.92 fps)
- 4=Top of Outlet Box (Weir Controls 1.17 cfs @ 0.92 fps)

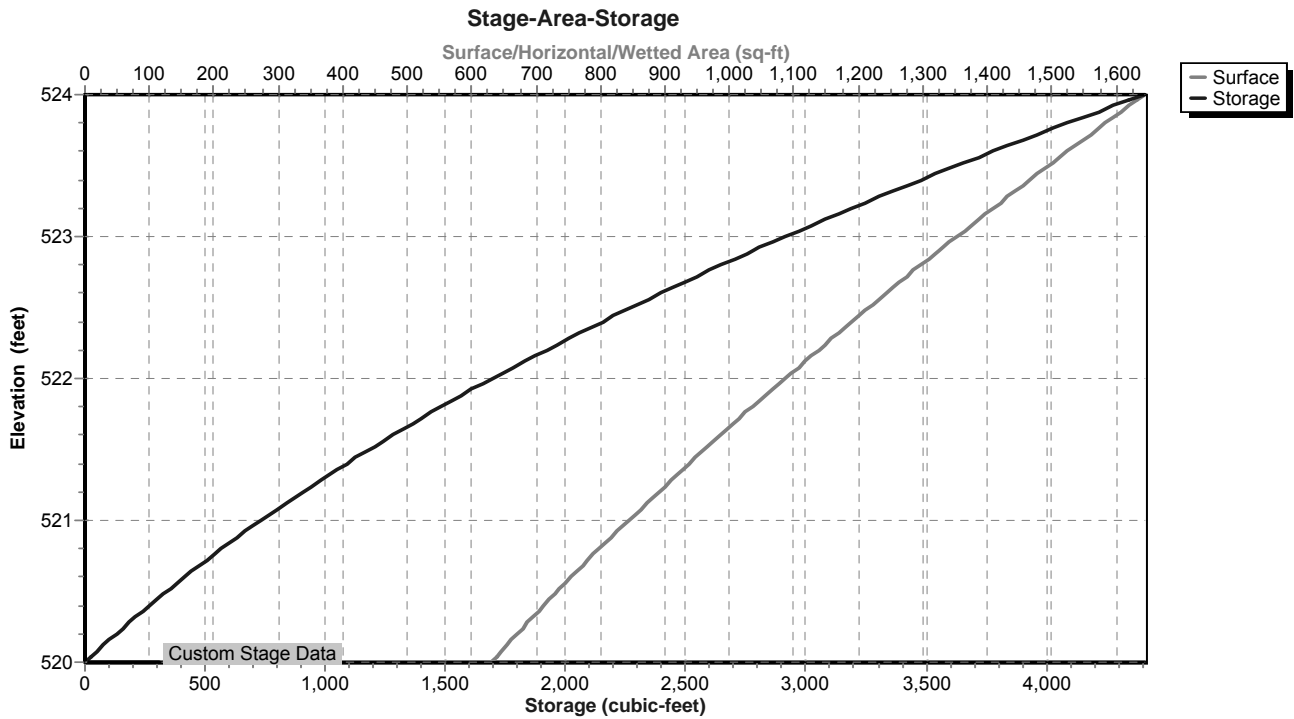
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-G1: Sand Filter Forebay - G1



Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=3.72"
Flow Length=184' Tc=10.2 min CN=71 Runoff=8.85 cfs 0.732 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=3.94"
Flow Length=619' Tc=10.1 min CN=73 Runoff=26.50 cfs 2.186 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=4.47"
Flow Length=770' Tc=15.1 min CN=78 Runoff=13.13 cfs 1.246 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=3.31"
Flow Length=983' Tc=12.1 min CN=67 Runoff=11.66 cfs 1.025 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=2.31"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=4.05 cfs 0.384 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=3.20"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=28.46 cfs 3.463 af

Pond B-G1: Dry Basin - G1 Peak Elev=514.55' Storage=4,564 cf Inflow=6.28 cfs 0.732 af
Primary=3.63 cfs 0.732 af Secondary=0.00 cfs 0.000 af Outflow=3.63 cfs 0.732 af

Pond B-G4a: Dry Basin - G4a Peak Elev=424.41' Storage=7,636 cf Inflow=4.71 cfs 0.509 af
Primary=3.71 cfs 0.509 af Secondary=0.00 cfs 0.000 af Outflow=3.71 cfs 0.509 af

Pond DP 7-1: Design Point 7-1 Inflow=32.47 cfs 4.847 af
Primary=32.47 cfs 4.847 af

Pond FS G1: Flow Splitter G1 Peak Elev=525.82' Inflow=8.85 cfs 0.732 af
Primary=2.59 cfs 0.563 af Secondary=6.26 cfs 0.169 af Outflow=8.85 cfs 0.732 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=451.66' Storage=28,939 cf Inflow=26.50 cfs 2.186 af
Discarded=5.09 cfs 2.177 af Primary=0.41 cfs 0.010 af Secondary=0.00 cfs 0.000 af Outflow=5.50 cfs 2.186 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=402.72' Storage=18,729 cf Inflow=13.13 cfs 1.246 af
Discarded=1.41 cfs 1.112 af Primary=3.15 cfs 0.134 af Secondary=0.00 cfs 0.000 af Outflow=4.56 cfs 1.246 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=442.52' Storage=13,684 cf Inflow=11.66 cfs 1.025 af
Discarded=1.47 cfs 0.900 af Primary=2.77 cfs 0.125 af Secondary=0.00 cfs 0.000 af Outflow=4.24 cfs 1.025 af

Pond SF-G1: Sand Filter - G1 Peak Elev=520.04' Storage=6,027 cf Inflow=2.83 cfs 0.563 af
Primary=1.77 cfs 0.563 af Secondary=0.00 cfs 0.000 af Outflow=1.77 cfs 0.563 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=522.99' Storage=2,901 cf Inflow=2.59 cfs 0.563 af
Primary=2.83 cfs 0.563 af Secondary=0.00 cfs 0.000 af Outflow=2.83 cfs 0.563 af

Total Runoff Area = 31.048 ac Runoff Volume = 9.037 af Average Runoff Depth = 3.49"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 8.85 cfs @ 12.15 hrs, Volume= 0.732 af, Depth= 3.72"

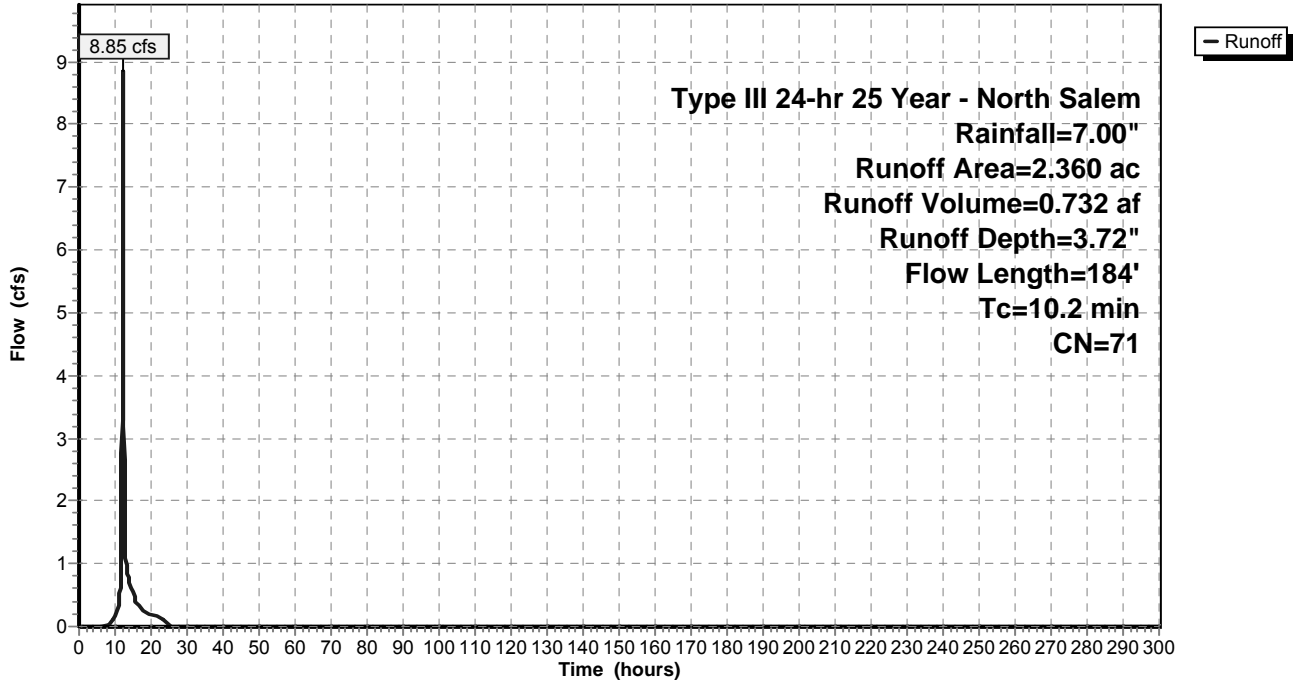
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 26.50 cfs @ 12.15 hrs, Volume= 2.186 af, Depth= 3.94"

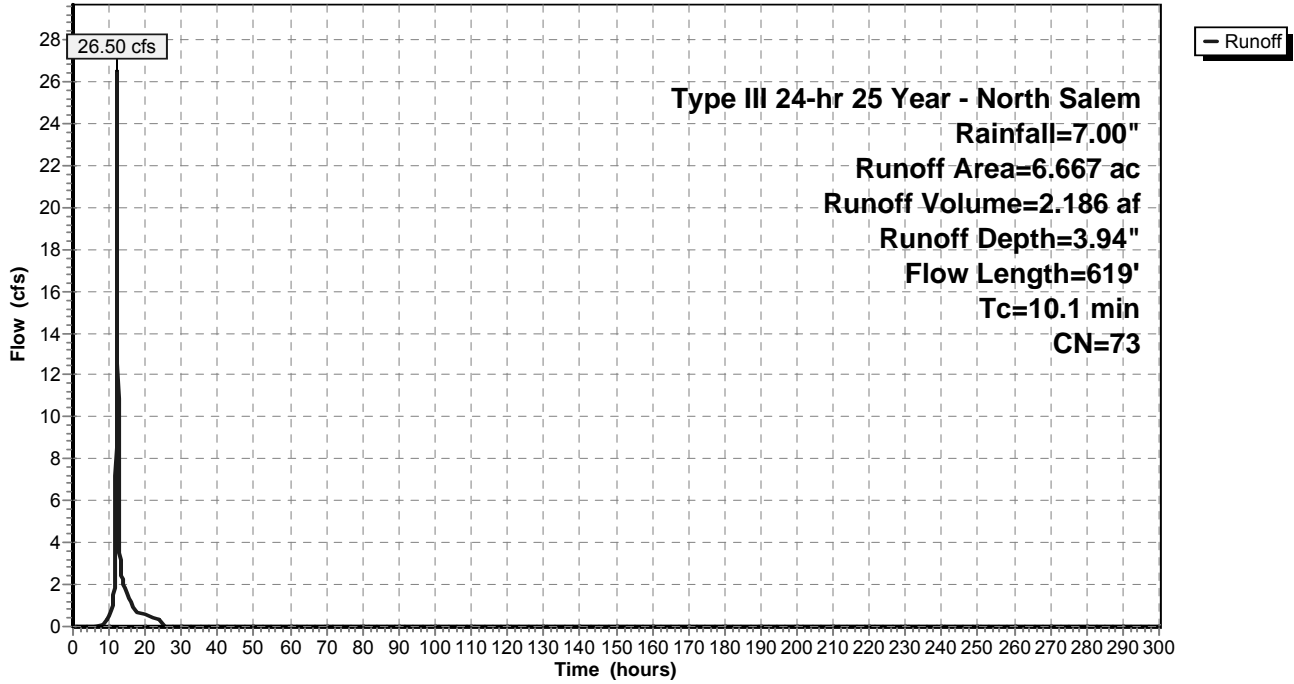
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 13.13 cfs @ 12.21 hrs, Volume= 1.246 af, Depth= 4.47"

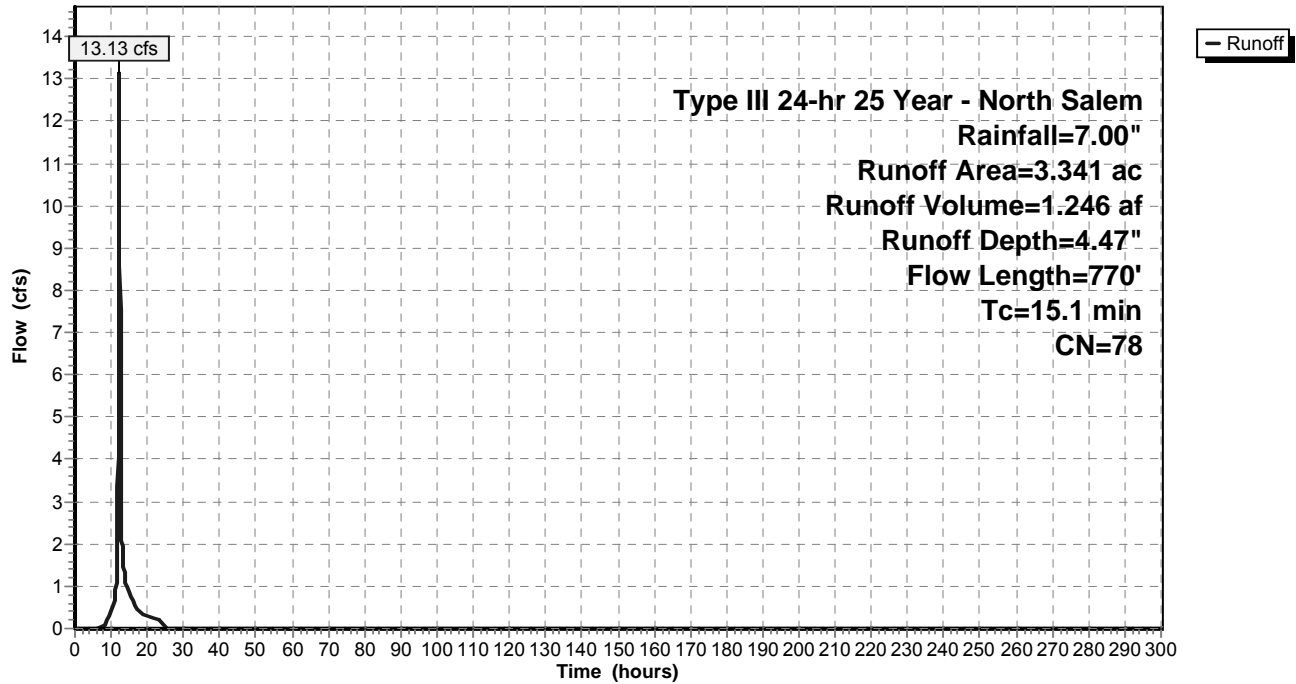
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

Runoff = 11.66 cfs @ 12.17 hrs, Volume= 1.025 af, Depth= 3.31"

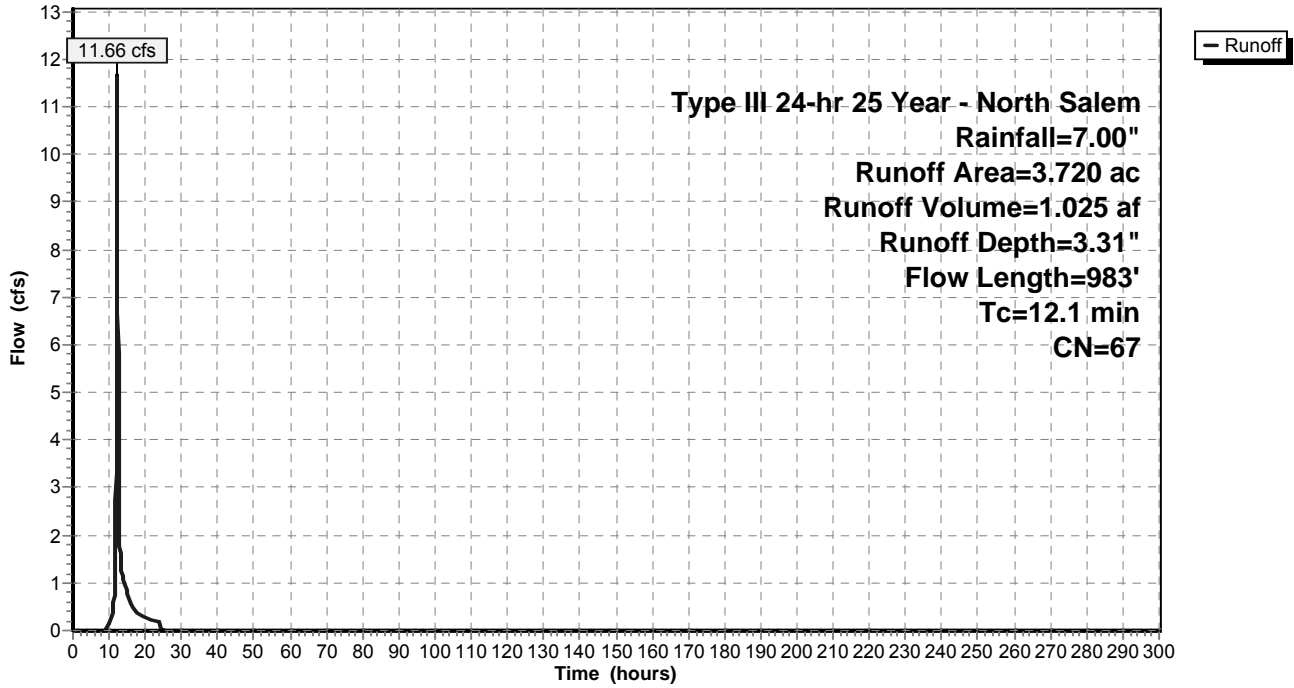
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b

Hydrograph



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 4.05 cfs @ 12.20 hrs, Volume= 0.384 af, Depth= 2.31"

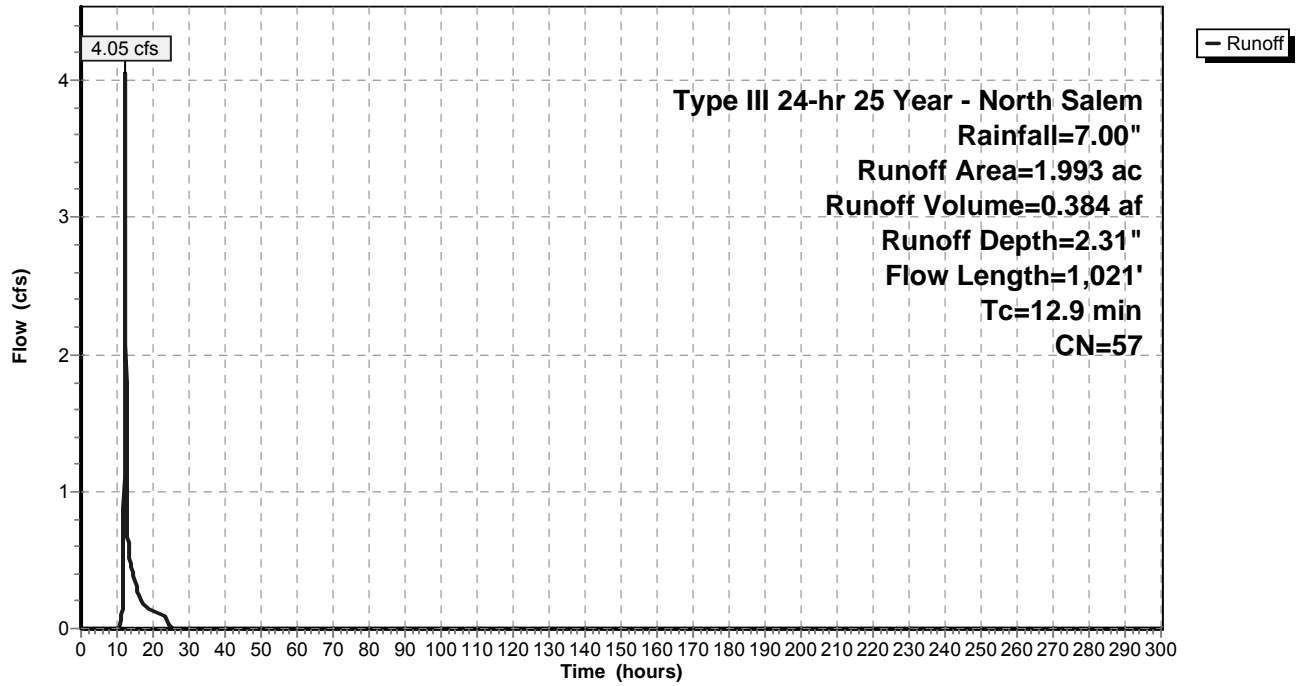
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 28.46 cfs @ 12.39 hrs, Volume= 3.463 af, Depth= 3.20"

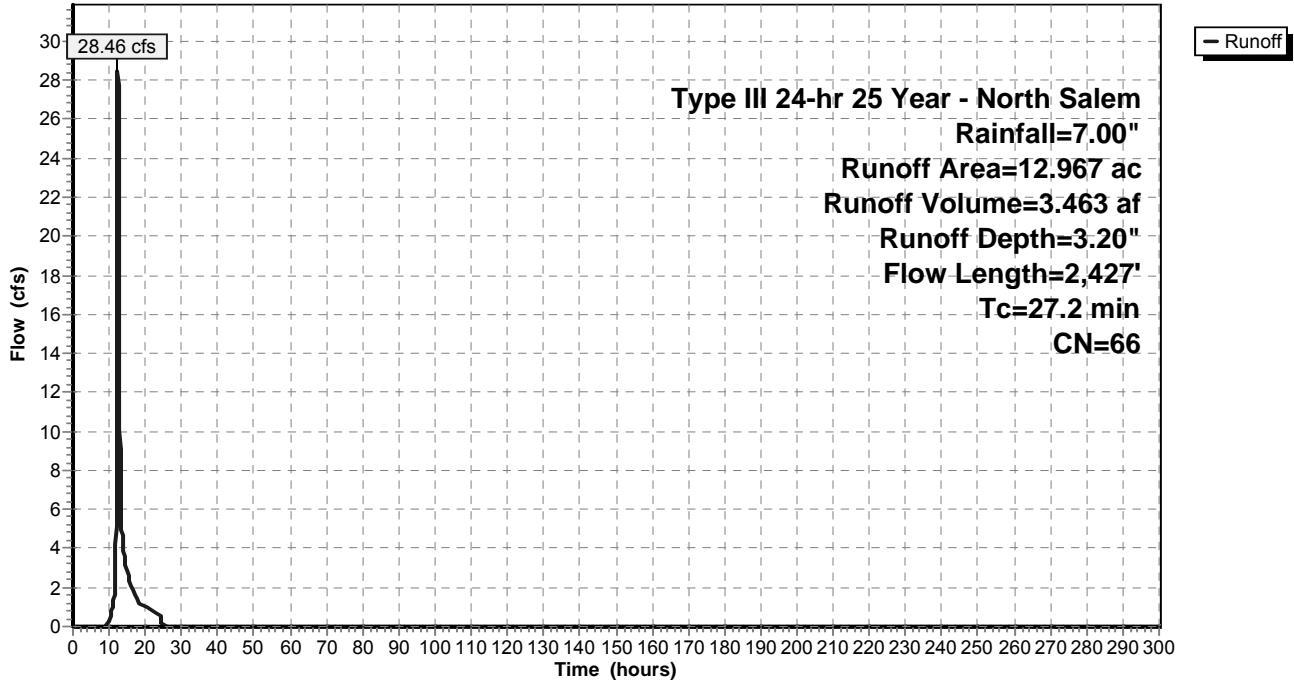
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 3.72" for 25 Year - North Salem event
 Inflow = 6.28 cfs @ 12.15 hrs, Volume= 0.732 af
 Outflow = 3.63 cfs @ 12.29 hrs, Volume= 0.732 af, Atten= 42%, Lag= 8.8 min
 Primary = 3.63 cfs @ 12.29 hrs, Volume= 0.732 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 514.55' @ 12.29 hrs Surf.Area= 2,543 sf Storage= 4,564 cf (3,946 cf above start)

Plug-Flow detention time= 236.9 min calculated for 0.718 af (98% of inflow)
 Center-of-Mass det. time= 64.6 min (1,431.8 - 1,367.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

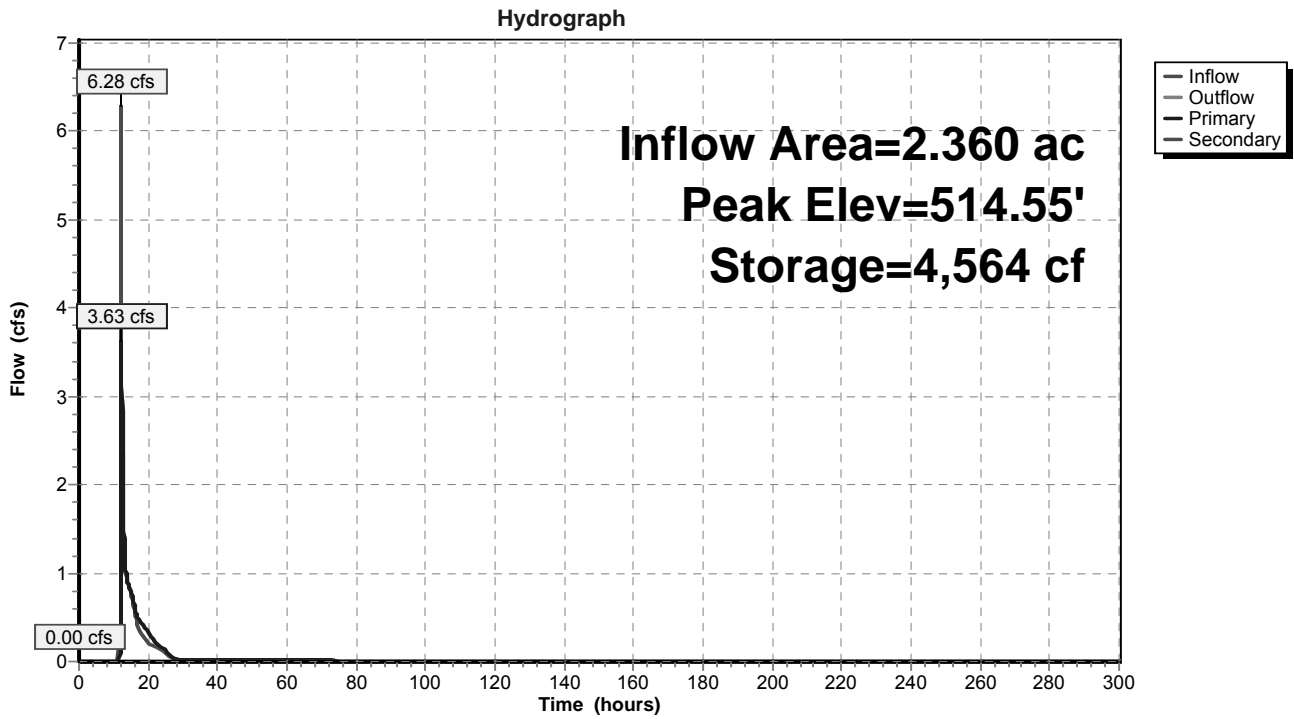
Primary OutFlow Max=3.61 cfs @ 12.29 hrs HW=514.55' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 3.61 cfs of 14.23 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.58 cfs @ 6.60 fps)
- ↑ 3=Orifice #2 (Orifice Controls 3.04 cfs @ 2.38 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

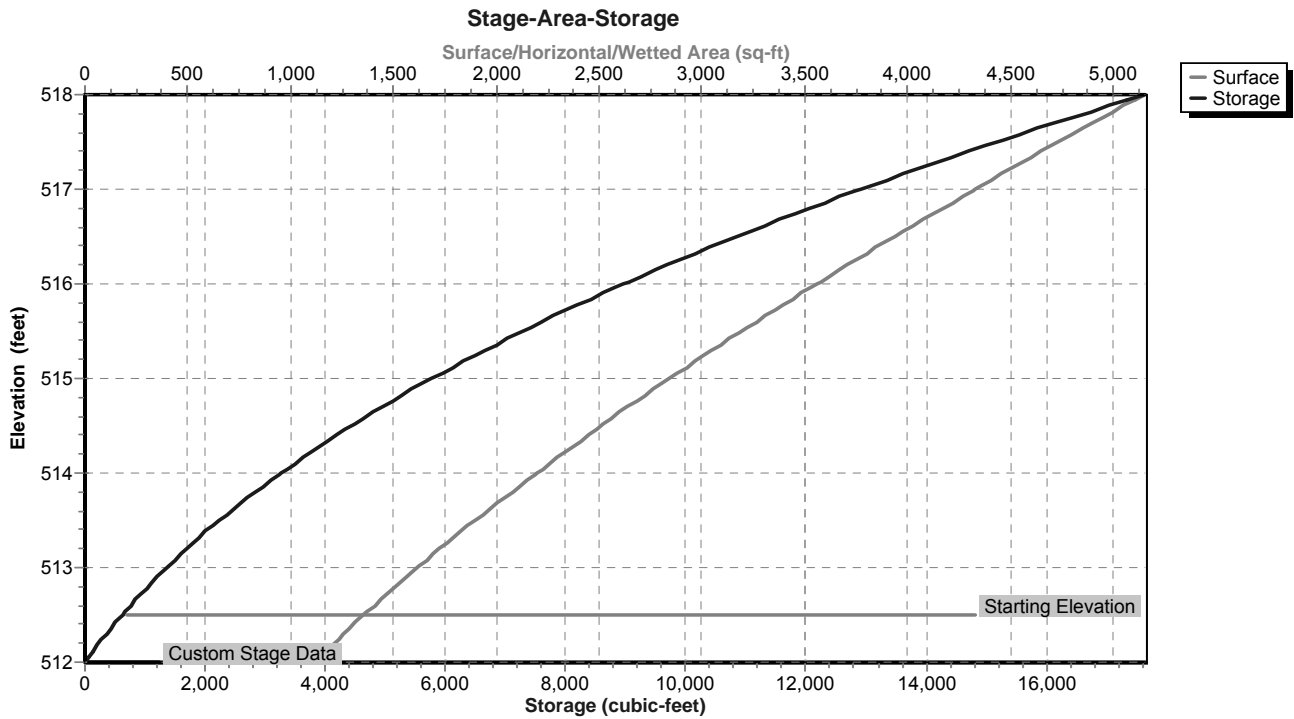
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 1.07" for 25 Year - North Salem event
 Inflow = 4.71 cfs @ 12.50 hrs, Volume= 0.509 af
 Outflow = 3.71 cfs @ 12.66 hrs, Volume= 0.509 af, Atten= 21%, Lag= 9.8 min
 Primary = 3.71 cfs @ 12.66 hrs, Volume= 0.509 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 424.41' @ 12.66 hrs Surf.Area= 3,101 sf Storage= 7,636 cf

Plug-Flow detention time= 288.6 min calculated for 0.509 af (100% of inflow)
 Center-of-Mass det. time= 288.3 min (1,130.4 - 842.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

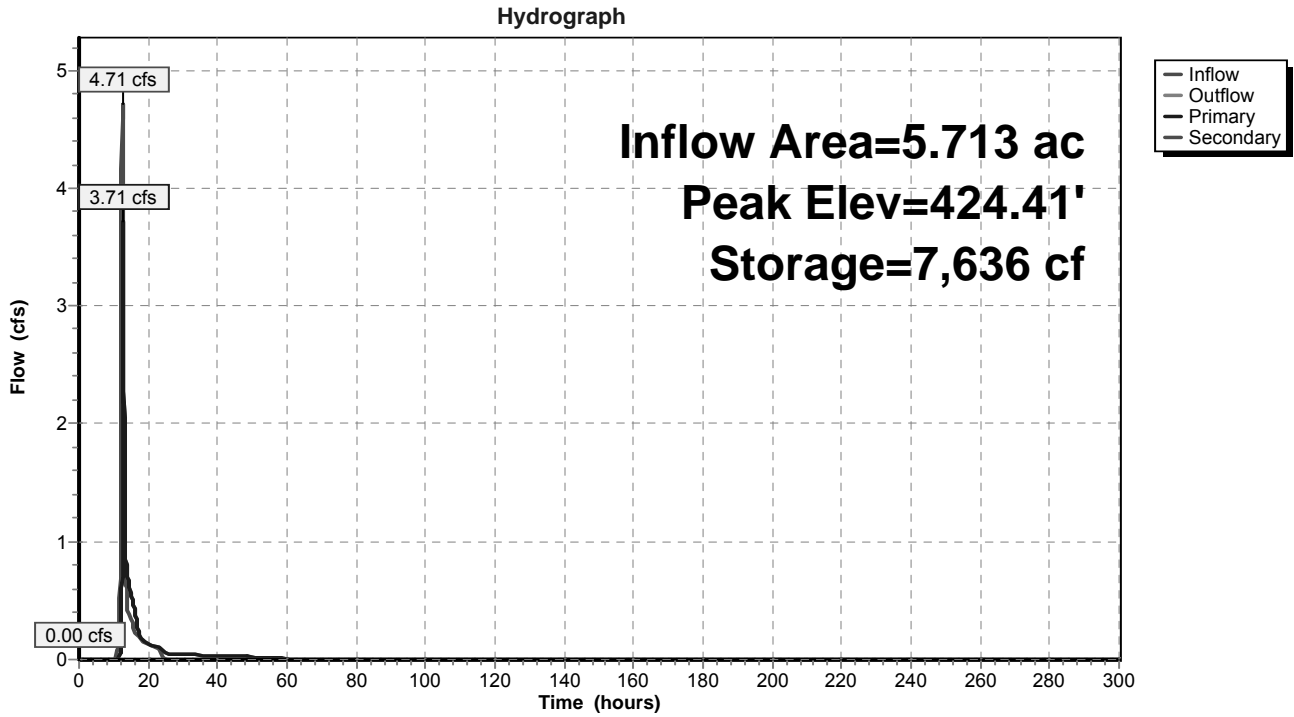
Primary OutFlow Max=3.68 cfs @ 12.66 hrs HW=424.41' (Free Discharge)

- ↑ 1=Culvert (Passes 3.68 cfs of 89.49 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.05 cfs @ 10.07 fps)
- ↑ 3=Orifice #2 (Orifice Controls 0.79 cfs @ 5.81 fps)
- ↑ 4=Orifice #3 (Orifice Controls 2.83 cfs @ 2.06 fps)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

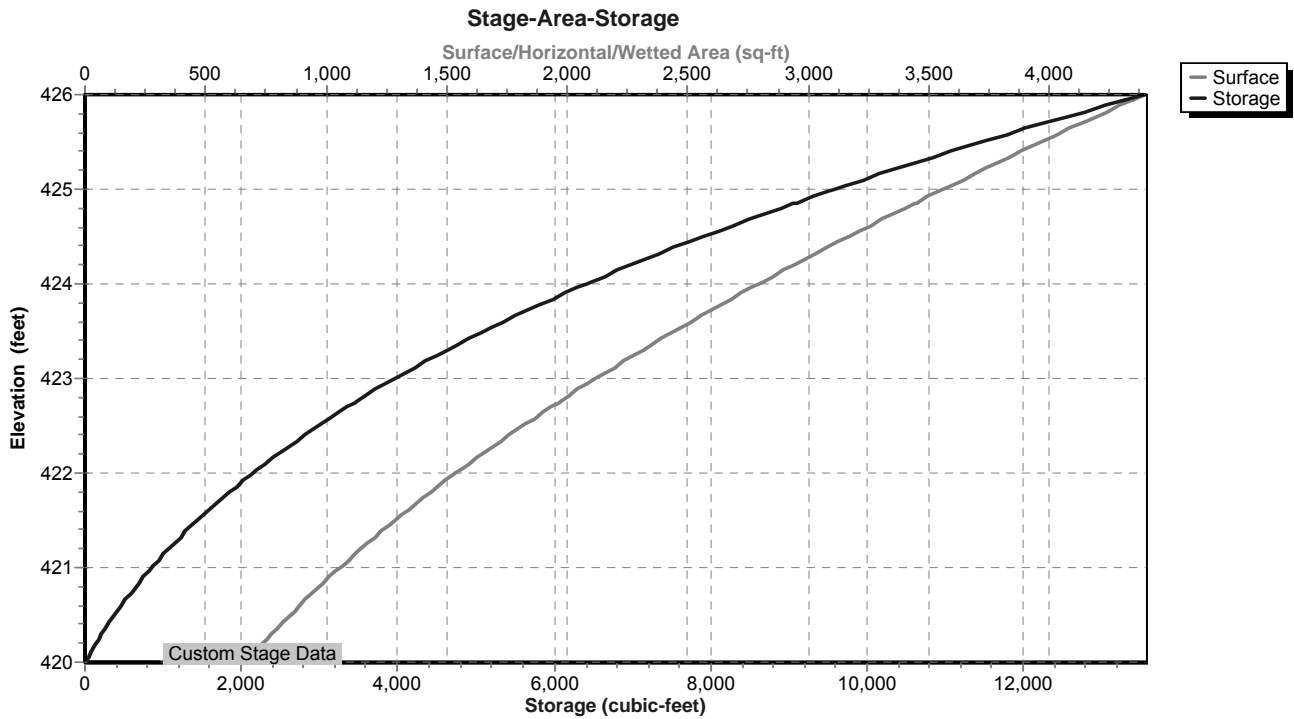
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond B-G4a: Dry Basin - G4a



Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

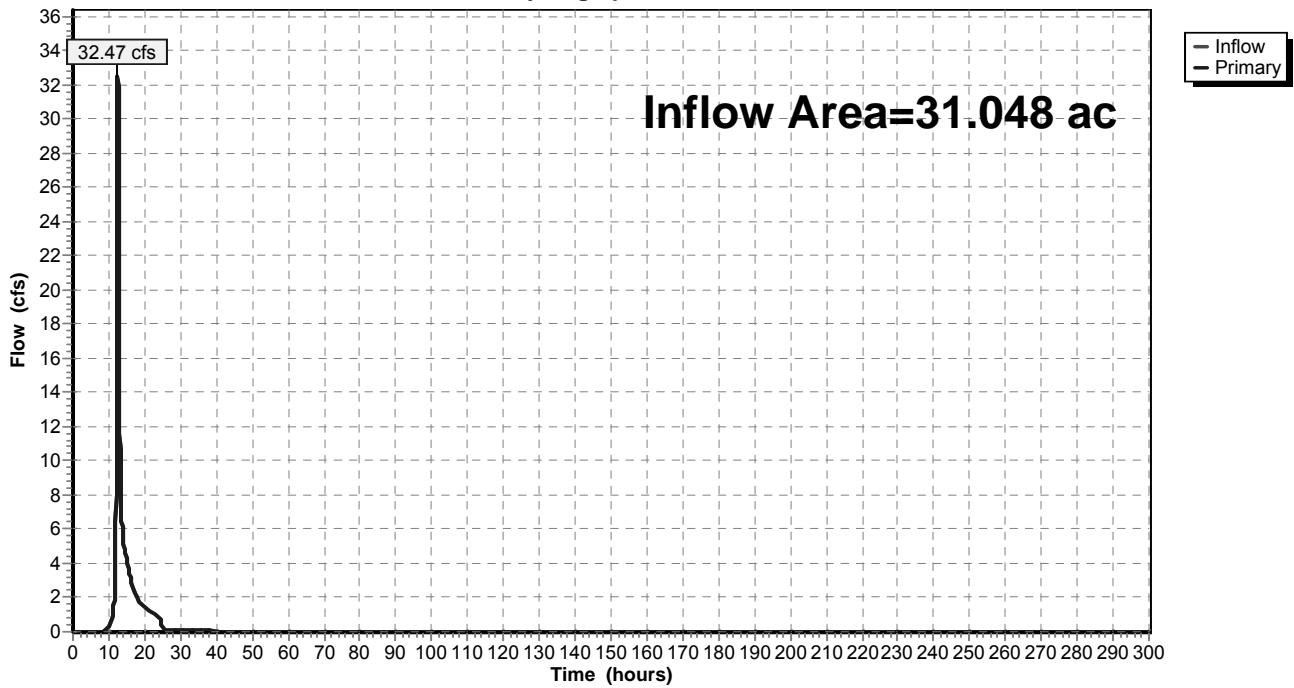
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 1.87" for 25 Year - North Salem event
Inflow = 32.47 cfs @ 12.52 hrs, Volume= 4.847 af
Primary = 32.47 cfs @ 12.52 hrs, Volume= 4.847 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 3.72" for 25 Year - North Salem event
 Inflow = 8.85 cfs @ 12.15 hrs, Volume= 0.732 af
 Outflow = 8.85 cfs @ 12.15 hrs, Volume= 0.732 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.59 cfs @ 12.15 hrs, Volume= 0.563 af
 Secondary = 6.26 cfs @ 12.15 hrs, Volume= 0.169 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 525.82' @ 12.15 hrs
 Flood Elev= 527.50'

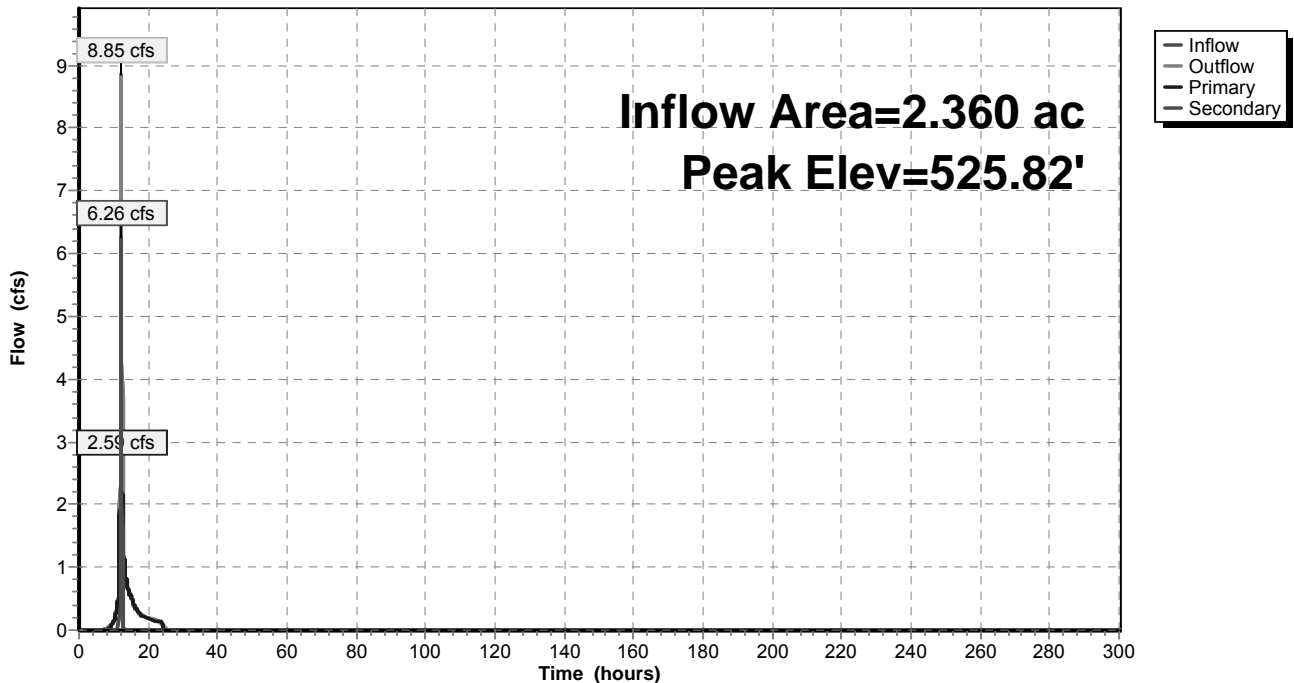
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.58 cfs @ 12.15 hrs HW=525.82' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.58 cfs @ 7.40 fps)

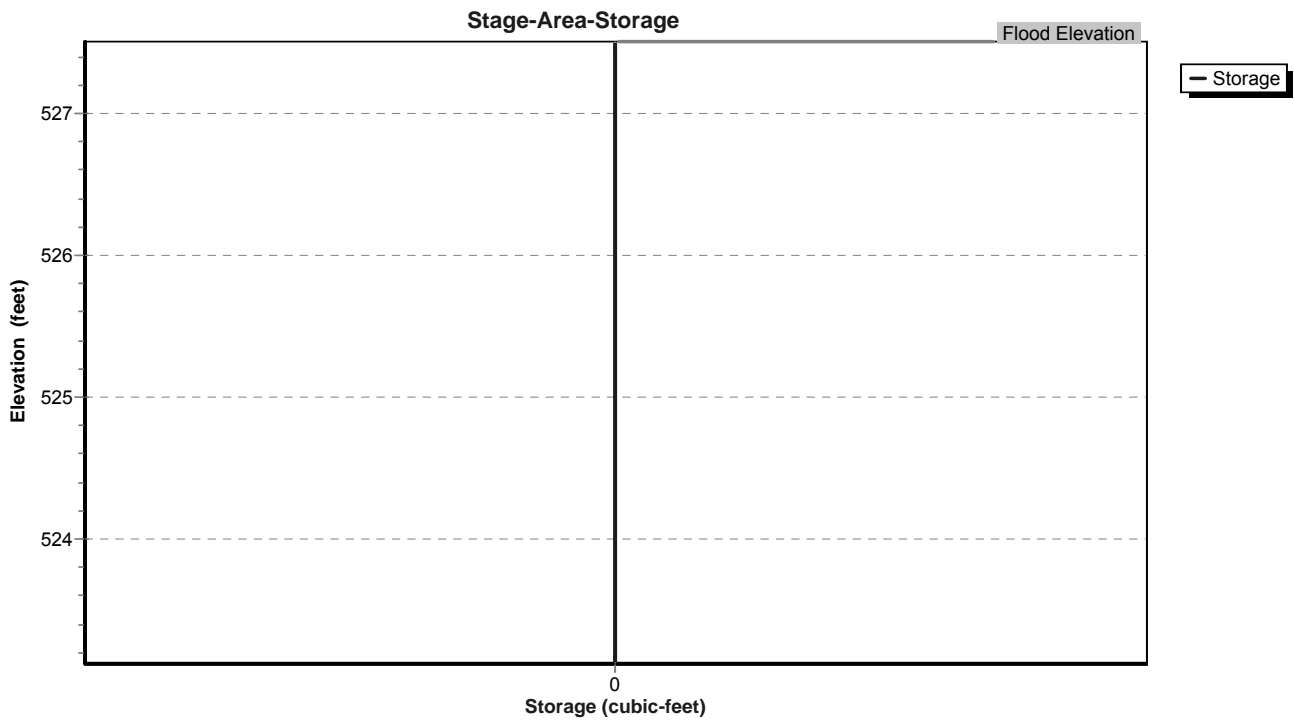
Secondary OutFlow Max=6.23 cfs @ 12.15 hrs HW=525.82' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 6.23 cfs @ 3.86 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Pond FS G1: Flow Splitter G1



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 3.94" for 25 Year - North Salem event
 Inflow = 26.50 cfs @ 12.15 hrs, Volume= 2.186 af
 Outflow = 5.50 cfs @ 12.64 hrs, Volume= 2.186 af, Atten= 79%, Lag= 29.9 min
 Discarded = 5.09 cfs @ 12.64 hrs, Volume= 2.177 af
 Primary = 0.41 cfs @ 12.64 hrs, Volume= 0.010 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 451.66' @ 12.64 hrs Surf.Area= 9,160 sf Storage= 28,939 cf

Plug-Flow detention time= 41.9 min calculated for 2.186 af (100% of inflow)
 Center-of-Mass det. time= 41.9 min (869.9 - 828.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

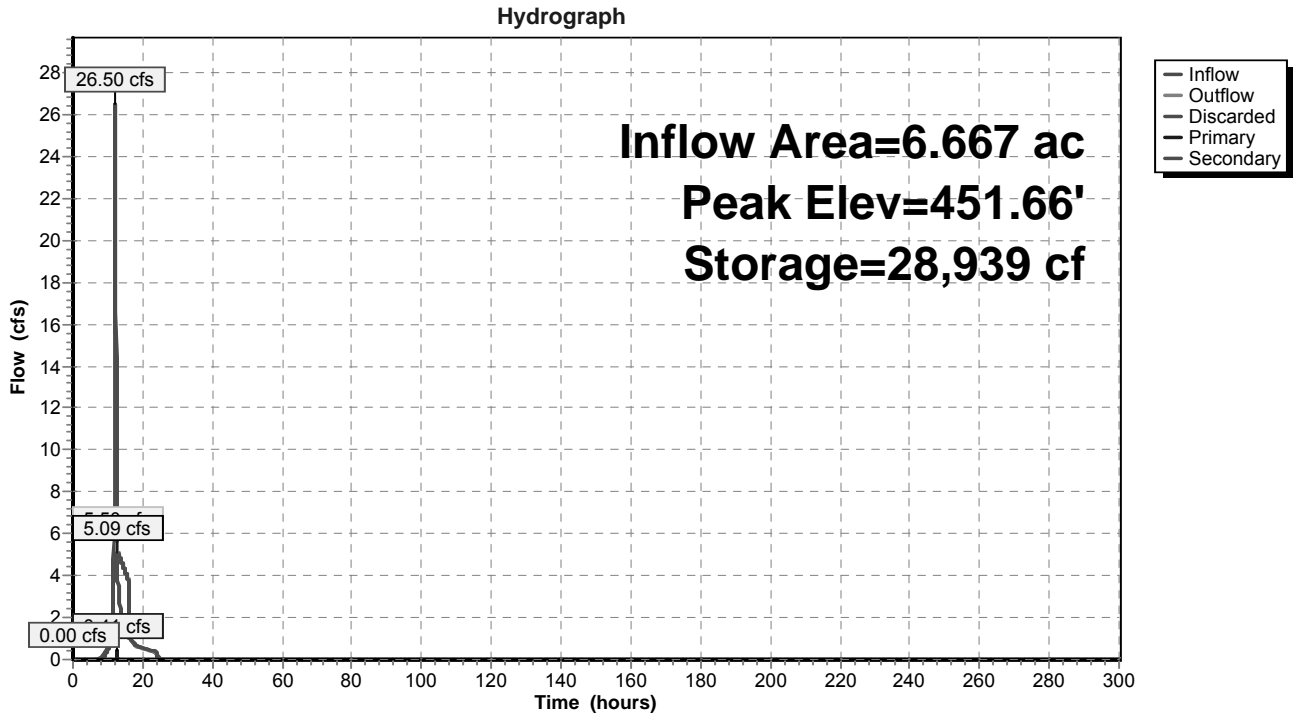
Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=5.09 cfs @ 12.64 hrs HW=451.66' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 5.09 cfs)

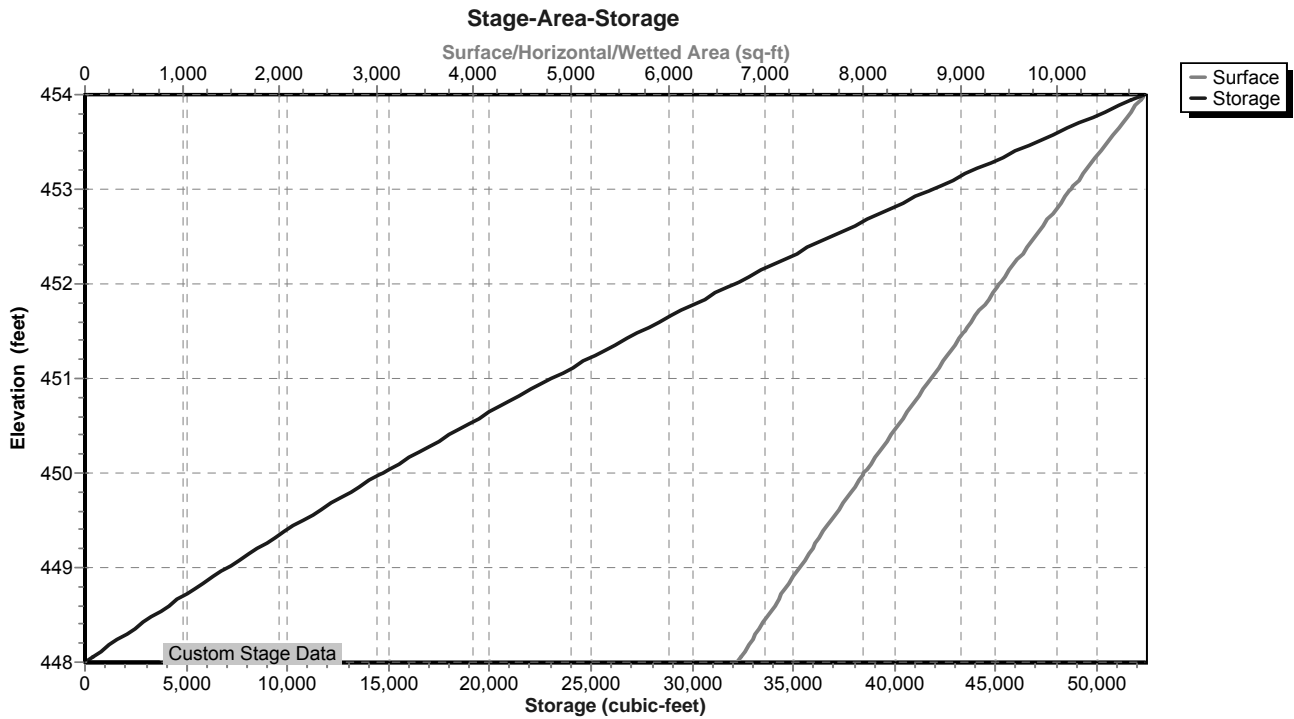
Primary OutFlow Max=0.41 cfs @ 12.64 hrs HW=451.66' (Free Discharge)
 ↳1=Outlet Pipe (Passes 0.41 cfs of 11.87 cfs potential flow)
 ↳↳2=Orifice #1 (Orifice Controls 0.41 cfs @ 1.28 fps)
 ↳↳↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2



Pond I-G2: Infiltration Basin-G2



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 4.47" for 25 Year - North Salem event
 Inflow = 13.13 cfs @ 12.21 hrs, Volume= 1.246 af
 Outflow = 4.56 cfs @ 12.62 hrs, Volume= 1.246 af, Atten= 65%, Lag= 24.7 min
 Discarded = 1.41 cfs @ 12.62 hrs, Volume= 1.112 af
 Primary = 3.15 cfs @ 12.62 hrs, Volume= 0.134 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 402.72' @ 12.62 hrs Surf.Area= 7,793 sf Storage= 18,729 cf

Plug-Flow detention time= 100.0 min calculated for 1.246 af (100% of inflow)
 Center-of-Mass det. time= 100.0 min (921.2 - 821.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

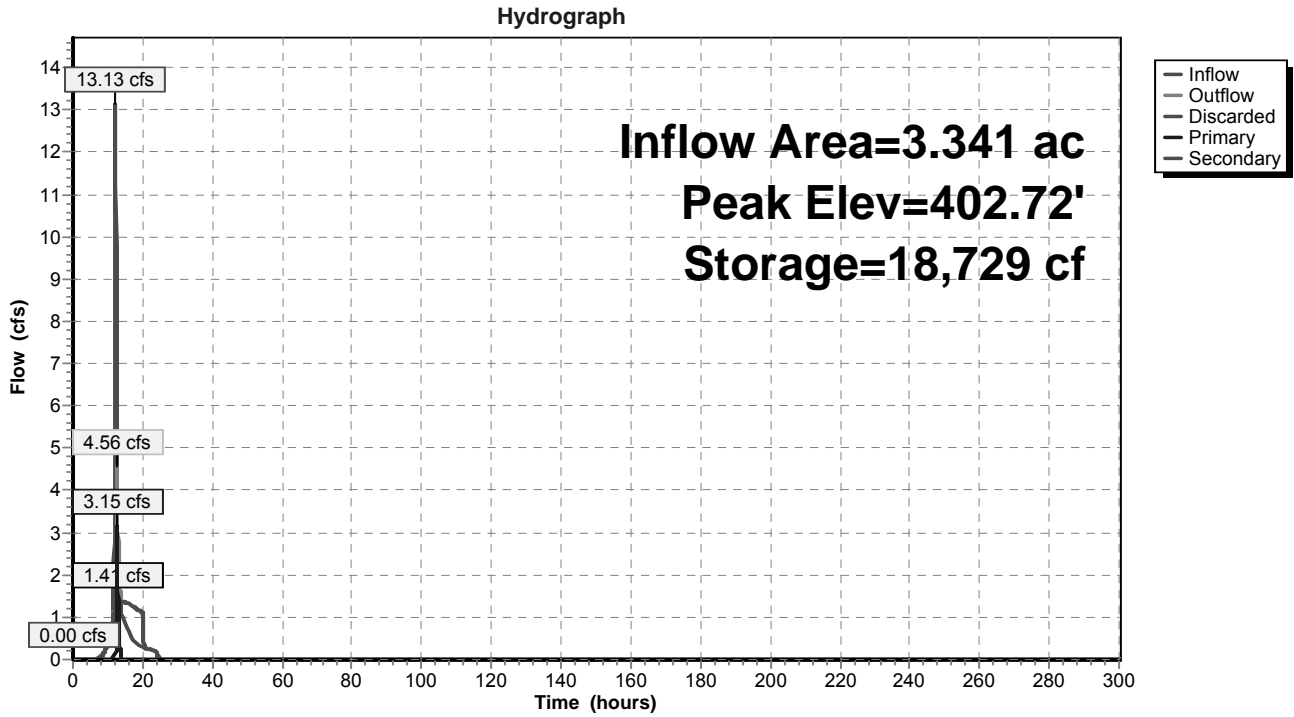
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.41 cfs @ 12.62 hrs HW=402.72' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.41 cfs)

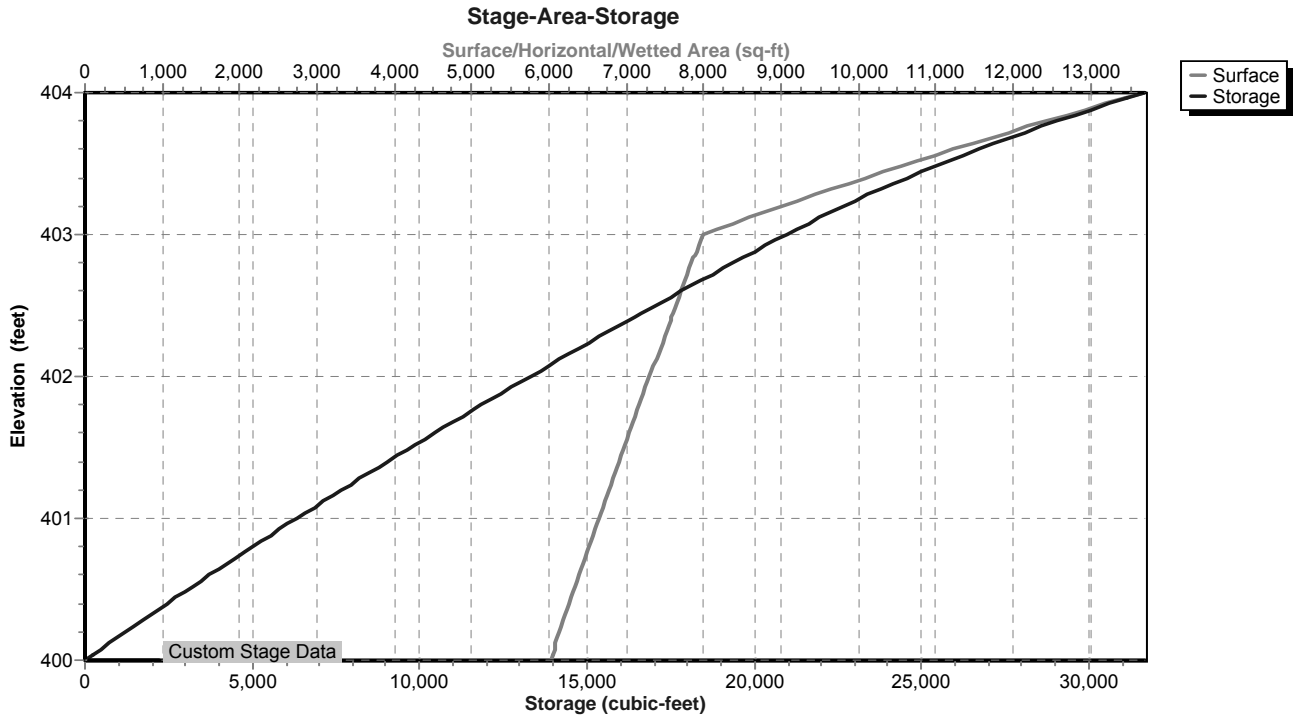
Primary OutFlow Max=3.11 cfs @ 12.62 hrs HW=402.72' (Free Discharge)
 ↳1=Outlet Pipe (Passes 3.11 cfs of 14.65 cfs potential flow)
 ↳2=Orifice #1 (Orifice Controls 3.11 cfs @ 1.75 fps)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 3.31" for 25 Year - North Salem event
 Inflow = 11.66 cfs @ 12.17 hrs, Volume= 1.025 af
 Outflow = 4.24 cfs @ 12.56 hrs, Volume= 1.025 af, Atten= 64%, Lag= 23.1 min
 Discarded = 1.47 cfs @ 12.56 hrs, Volume= 0.900 af
 Primary = 2.77 cfs @ 12.56 hrs, Volume= 0.125 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 442.52' @ 12.56 hrs Surf.Area= 6,227 sf Storage= 13,684 cf

Plug-Flow detention time= 66.3 min calculated for 1.025 af (100% of inflow)
 Center-of-Mass det. time= 66.3 min (909.4 - 843.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
440.00	4,681	292.0	0	0	4,681	
442.00	5,898	317.0	10,556	10,556	6,037	
443.00	6,543	330.0	6,218	16,773	6,780	
444.00	7,214	342.0	6,876	23,649	7,505	

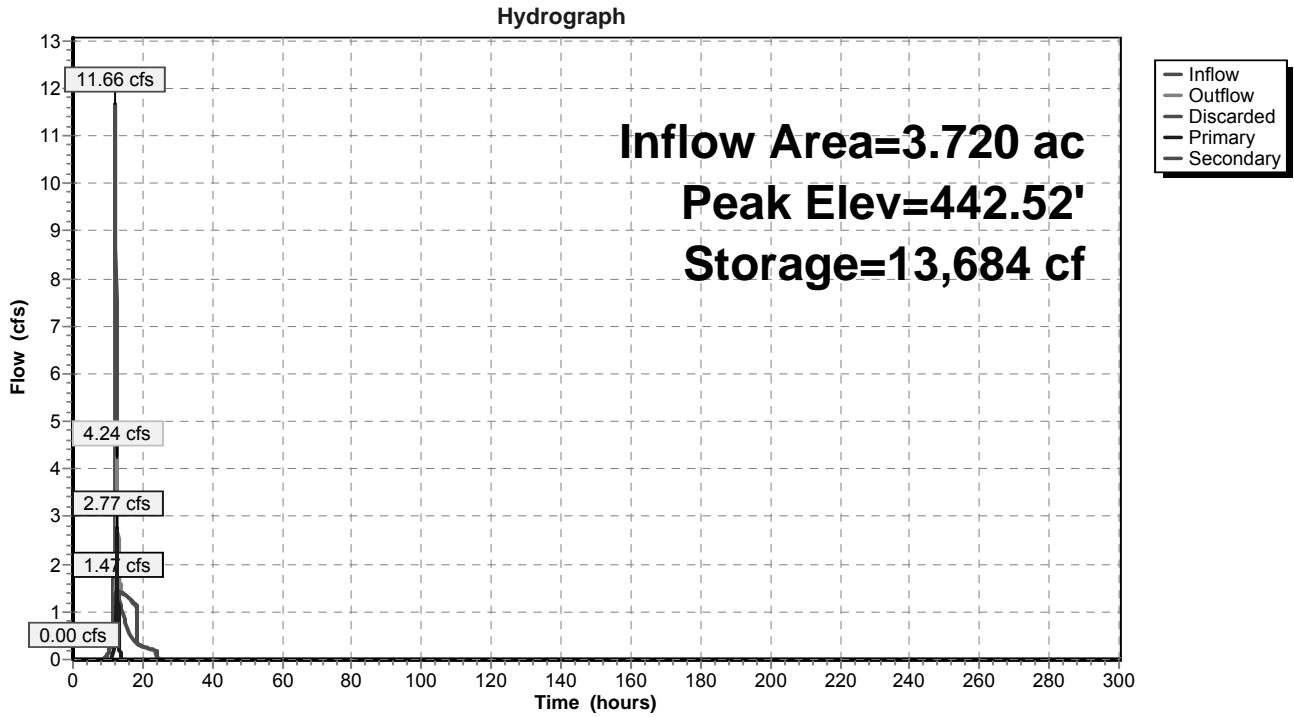
Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.47 cfs @ 12.56 hrs HW=442.51' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.47 cfs)

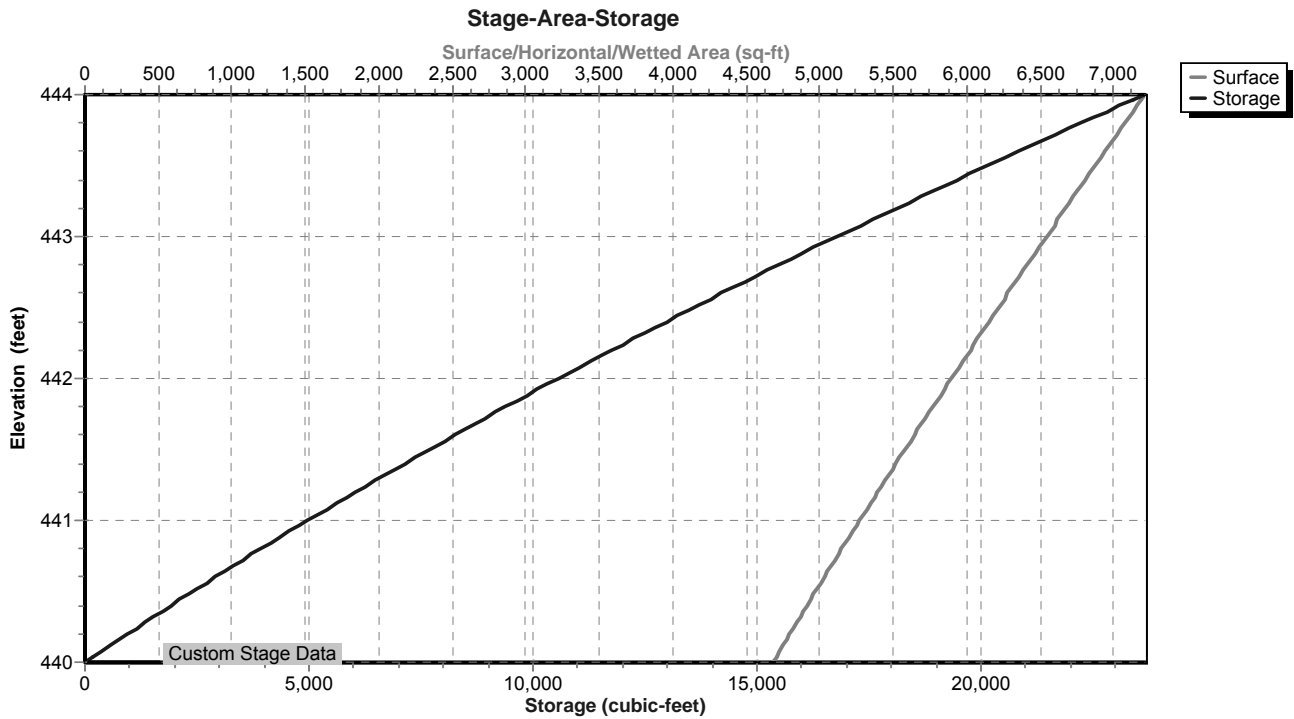
Primary OutFlow Max=2.76 cfs @ 12.56 hrs HW=442.51' (Free Discharge)
 ↳1=Outlet Pipe (Passes 2.76 cfs of 10.04 cfs potential flow)
 ↳2=Orifice #1 (Orifice Controls 2.76 cfs @ 2.12 fps)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 INLET by 0.04'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.86" for 25 Year - North Salem event
 Inflow = 2.83 cfs @ 12.12 hrs, Volume= 0.563 af
 Outflow = 1.77 cfs @ 12.67 hrs, Volume= 0.563 af, Atten= 37%, Lag= 33.3 min
 Primary = 1.77 cfs @ 12.67 hrs, Volume= 0.563 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 520.04' @ 12.67 hrs Surf.Area= 3,455 sf Storage= 6,027 cf

Plug-Flow detention time= 651.0 min calculated for 0.563 af (100% of inflow)
 Center-of-Mass det. time= 653.2 min (1,558.0 - 904.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

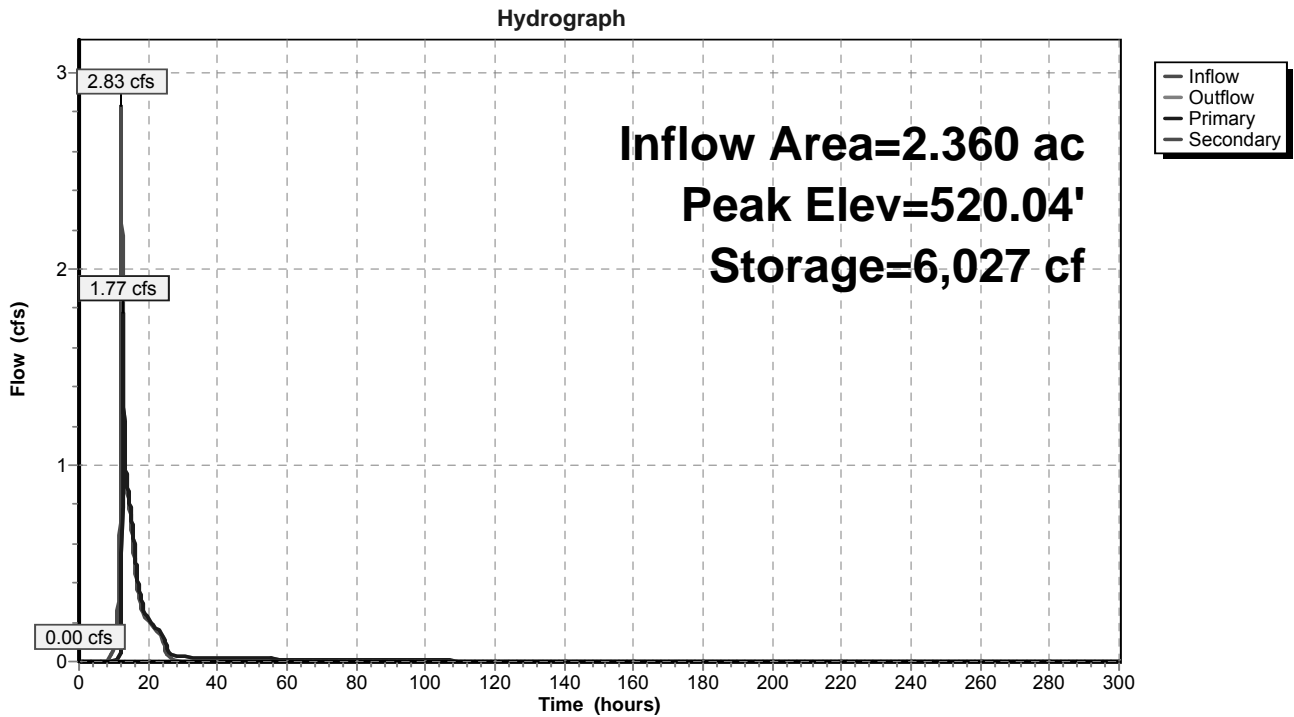
Primary OutFlow Max=1.75 cfs @ 12.67 hrs HW=520.04' (Free Discharge)

- 1=Outlet Pipe (Passes 1.75 cfs of 6.71 cfs potential flow)
- 2=Exfiltration (Exfiltration Controls 0.04 cfs)
- 3=Orifice #1 (Orifice Controls 1.28 cfs @ 2.36 fps)
- 4=Top of Outlet Box (Weir Controls 0.43 cfs @ 0.66 fps)

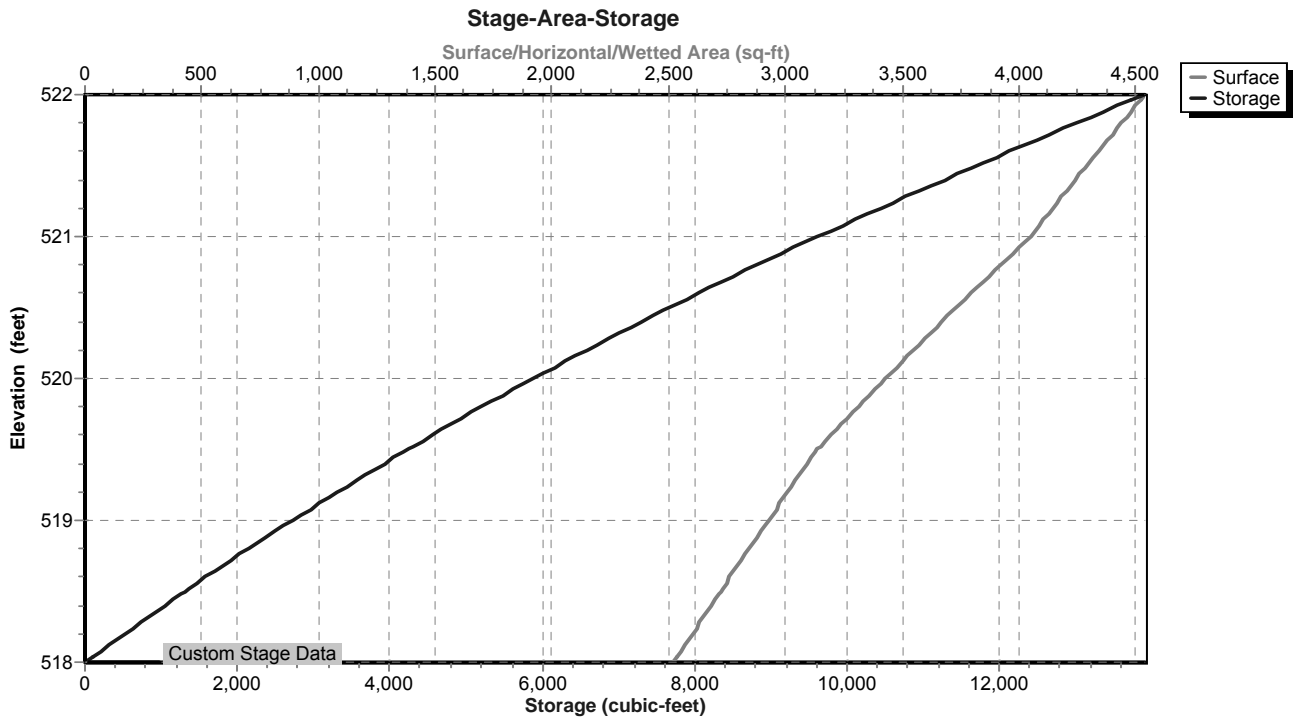
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G1: Sand Filter - G1



Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

[88] Warning: Qout>Qin may require Finer Routing>1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.86" for 25 Year - North Salem event
 Inflow = 2.59 cfs @ 12.15 hrs, Volume= 0.563 af
 Outflow = 2.83 cfs @ 12.12 hrs, Volume= 0.563 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.83 cfs @ 12.12 hrs, Volume= 0.563 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 522.99' @ 12.10 hrs Surf.Area= 1,350 sf Storage= 2,901 cf

Plug-Flow detention time= 42.0 min calculated for 0.563 af (100% of inflow)
 Center-of-Mass det. time= 42.0 min (904.8 - 862.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

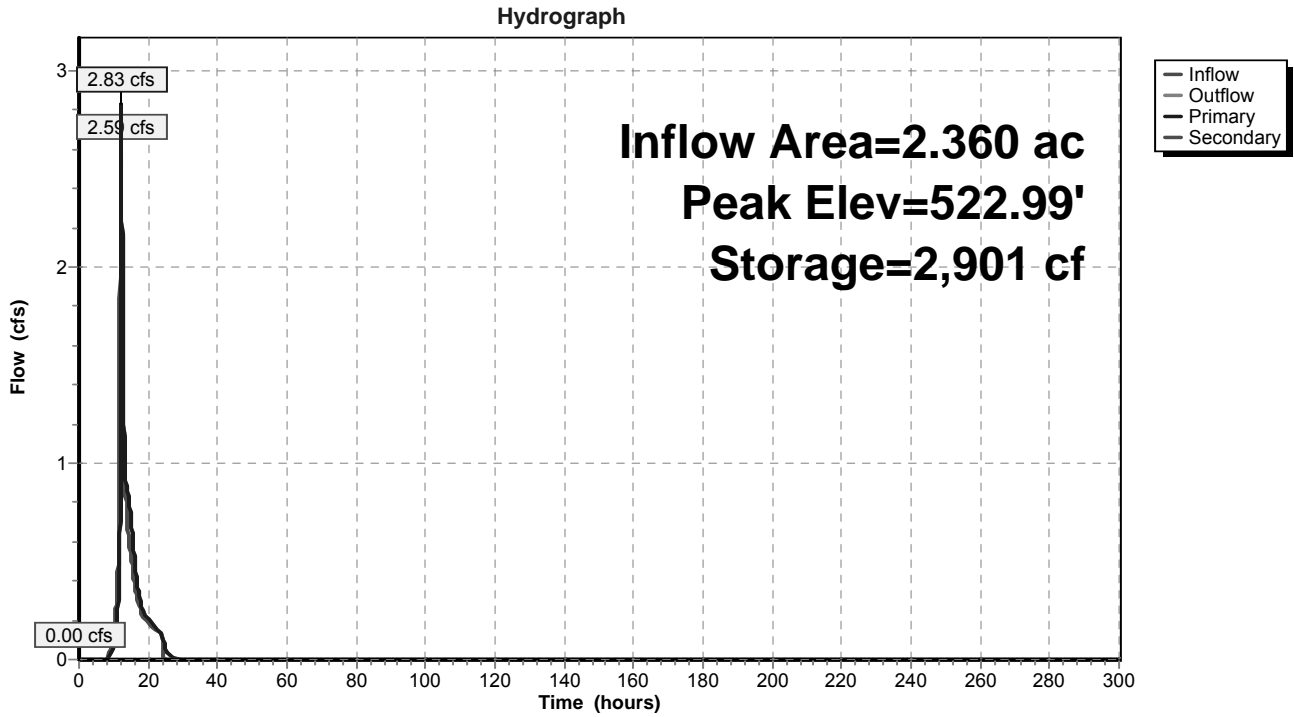
Primary OutFlow Max=2.61 cfs @ 12.12 hrs HW=522.99' (Free Discharge)

- 1=Outlet Pipe (Passes 2.61 cfs of 5.96 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 0.91 cfs @ 6.93 fps)
- 3=Top of Standpipe (Weir Controls 0.34 cfs @ 0.97 fps)
- 4=Top of Outlet Box (Weir Controls 1.37 cfs @ 0.97 fps)

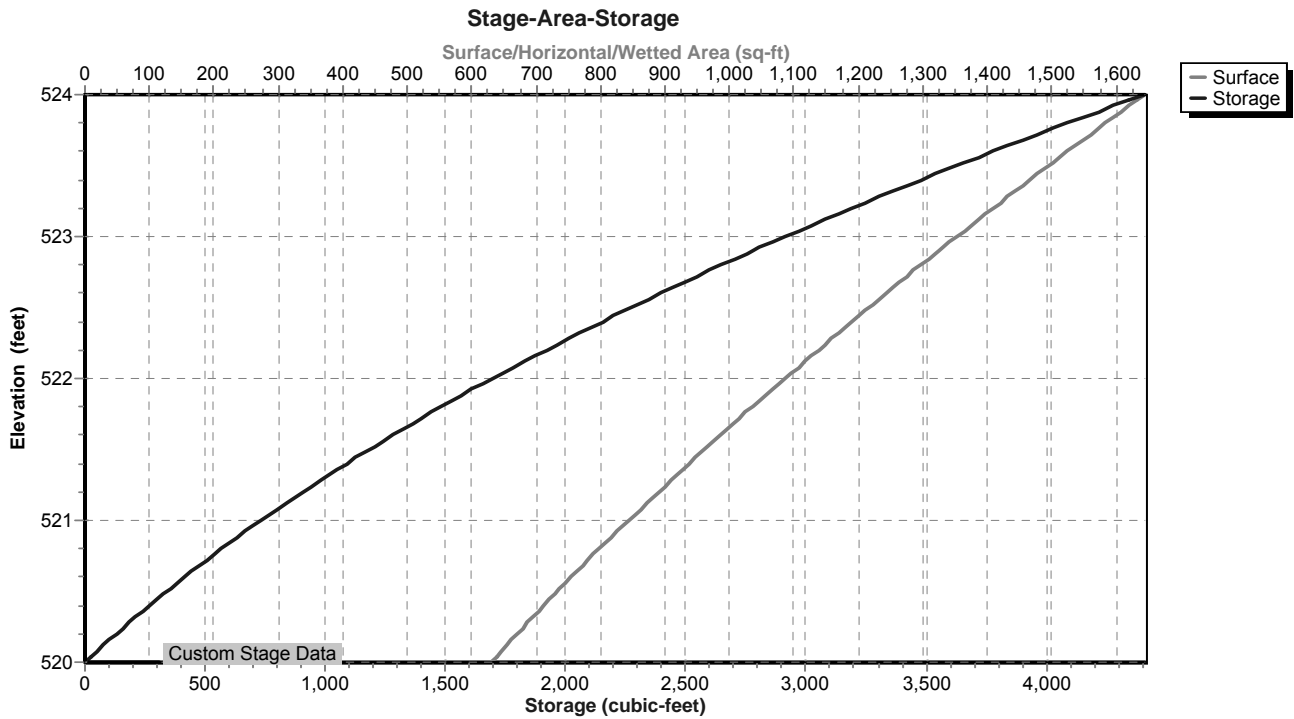
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-G1: Sand Filter Forebay - G1



Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Woodlands Post-Dev DP 7 - Part 1 07-2Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=5.46"
Flow Length=184' Tc=10.2 min CN=71 Runoff=12.95 cfs 1.074 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=5.71"
Flow Length=619' Tc=10.1 min CN=73 Runoff=38.25 cfs 3.170 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=6.32"
Flow Length=770' Tc=15.1 min CN=78 Runoff=18.38 cfs 1.760 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=4.96"
Flow Length=983' Tc=12.1 min CN=67 Runoff=17.63 cfs 1.539 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=3.73"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=6.78 cfs 0.620 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=4.84"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=43.38 cfs 5.231 af

Pond B-G1: Dry Basin - G1 Peak Elev=515.11' Storage=6,099 cf Inflow=11.04 cfs 1.073 af
Primary=9.45 cfs 1.073 af Secondary=0.00 cfs 0.000 af Outflow=9.45 cfs 1.073 af

Pond B-G4a: Dry Basin - G4a Peak Elev=424.98' Storage=9,510 cf Inflow=13.50 cfs 1.048 af
Primary=13.20 cfs 1.048 af Secondary=0.00 cfs 0.000 af Outflow=13.20 cfs 1.048 af

Pond DP 7-1: Design Point 7-1 Inflow=82.70 cfs 8.206 af
Primary=82.70 cfs 8.206 af

Pond FS G1: Flow Splitter G1 Peak Elev=526.65' Inflow=12.95 cfs 1.074 af
Primary=3.00 cfs 0.762 af Secondary=9.95 cfs 0.311 af Outflow=12.95 cfs 1.074 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=452.74' Storage=39,290 cf Inflow=38.25 cfs 3.170 af
Discarded=5.53 cfs 2.762 af Primary=8.13 cfs 0.407 af Secondary=0.00 cfs 0.000 af Outflow=13.66 cfs 3.170 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=402.99' Storage=20,870 cf Inflow=18.38 cfs 1.760 af
Discarded=1.44 cfs 1.313 af Primary=11.07 cfs 0.447 af Secondary=0.00 cfs 0.000 af Outflow=12.51 cfs 1.760 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=443.00' Storage=16,759 cf Inflow=17.63 cfs 1.539 af
Discarded=1.54 cfs 1.111 af Primary=8.86 cfs 0.428 af Secondary=0.00 cfs 0.000 af Outflow=10.40 cfs 1.539 af

Pond SF-G1: Sand Filter - G1 Peak Elev=520.08' Storage=6,152 cf Inflow=3.00 cfs 0.762 af
Primary=2.61 cfs 0.762 af Secondary=0.00 cfs 0.000 af Outflow=2.61 cfs 0.762 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=523.00' Storage=2,915 cf Inflow=3.00 cfs 0.762 af
Primary=2.99 cfs 0.762 af Secondary=0.00 cfs 0.000 af Outflow=3.00 cfs 0.762 af

Total Runoff Area = 31.048 ac Runoff Volume = 13.393 af Average Runoff Depth = 5.18"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 12.95 cfs @ 12.15 hrs, Volume= 1.074 af, Depth= 5.46"

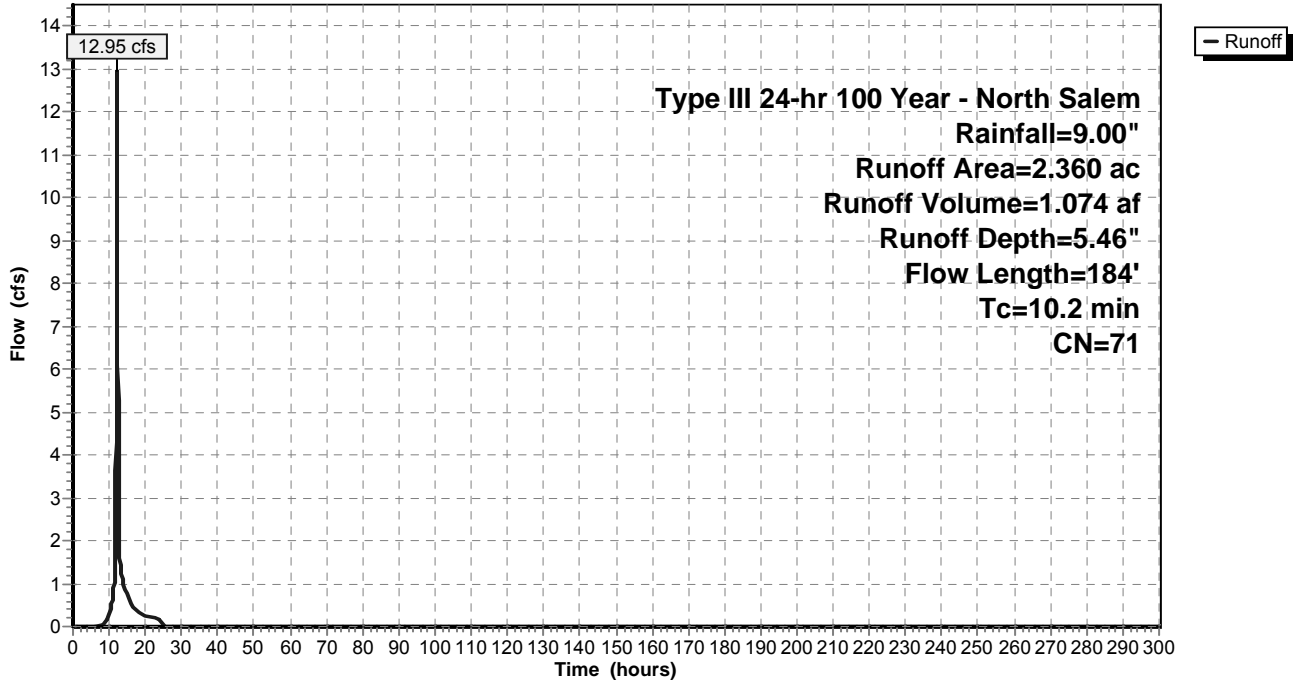
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 38.25 cfs @ 12.14 hrs, Volume= 3.170 af, Depth= 5.71"

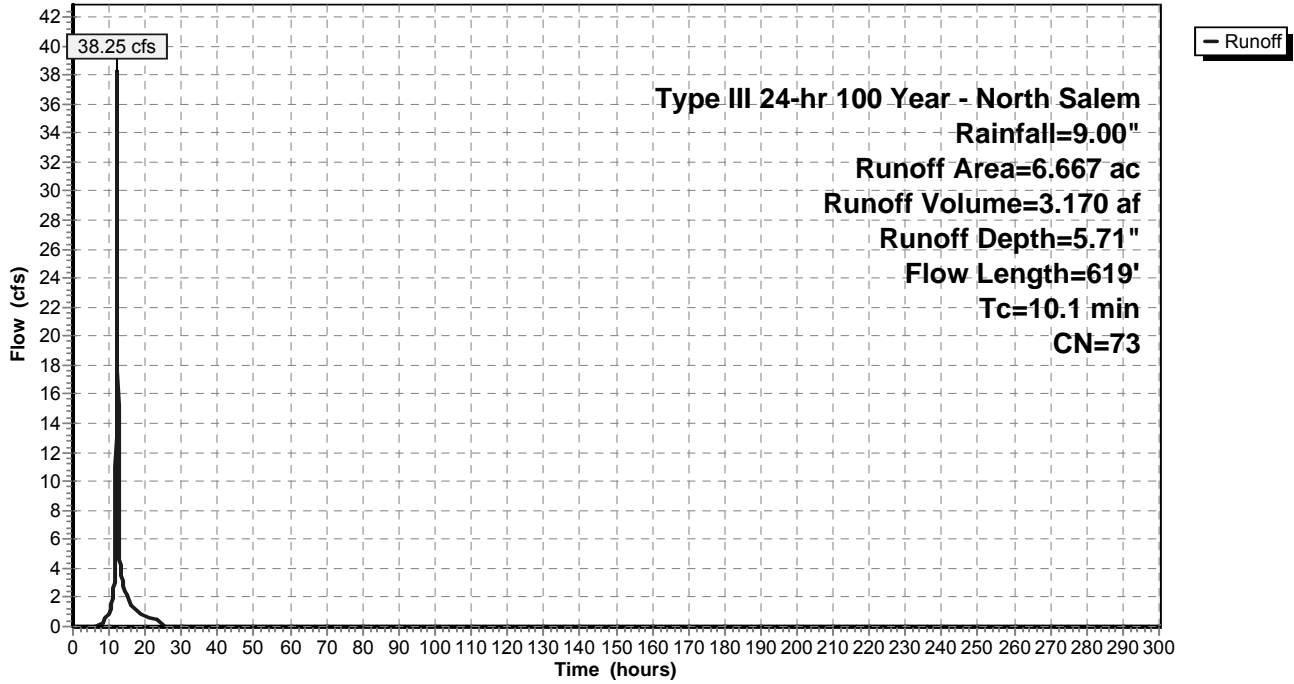
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 18.38 cfs @ 12.21 hrs, Volume= 1.760 af, Depth= 6.32"

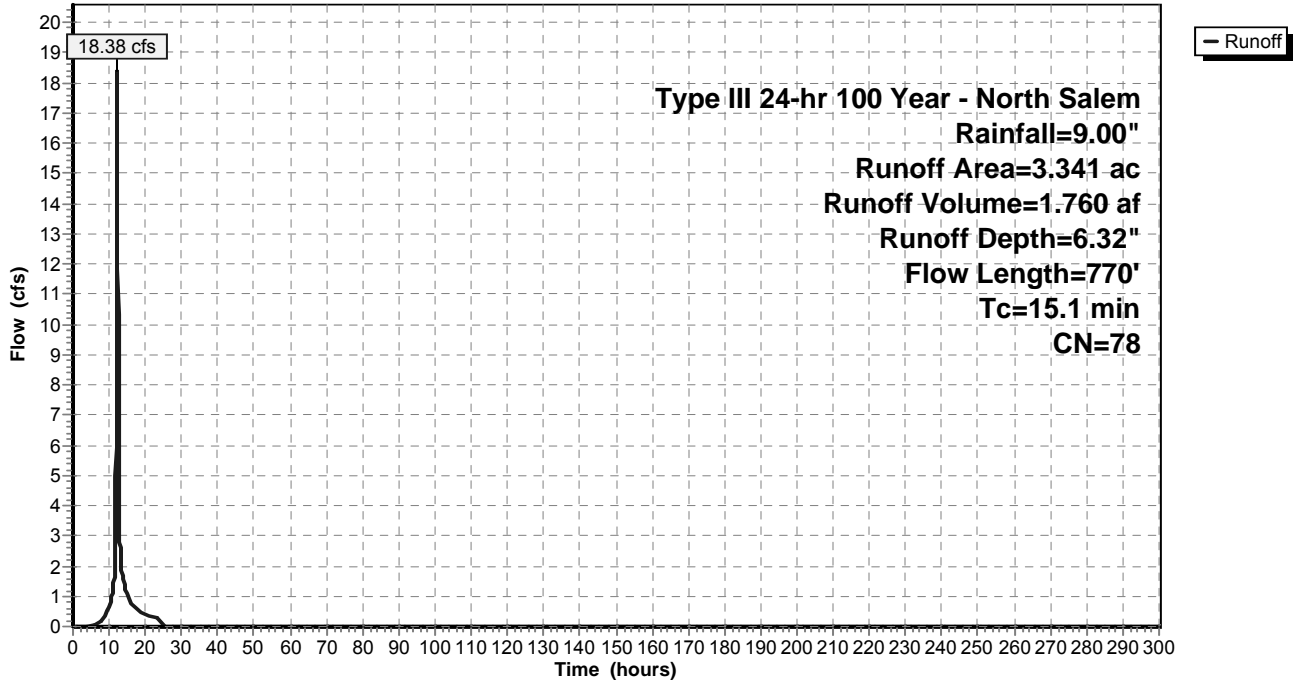
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

Runoff = 17.63 cfs @ 12.17 hrs, Volume= 1.539 af, Depth= 4.96"

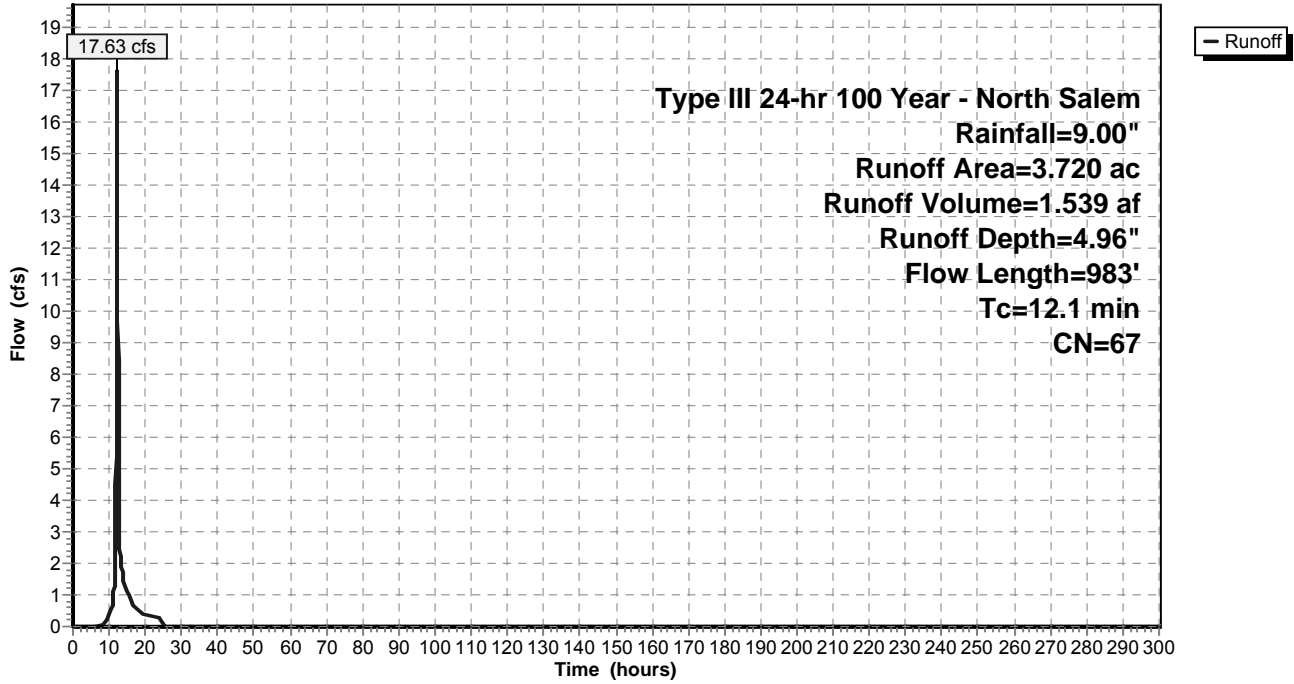
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b

Hydrograph



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 6.78 cfs @ 12.19 hrs, Volume= 0.620 af, Depth= 3.73"

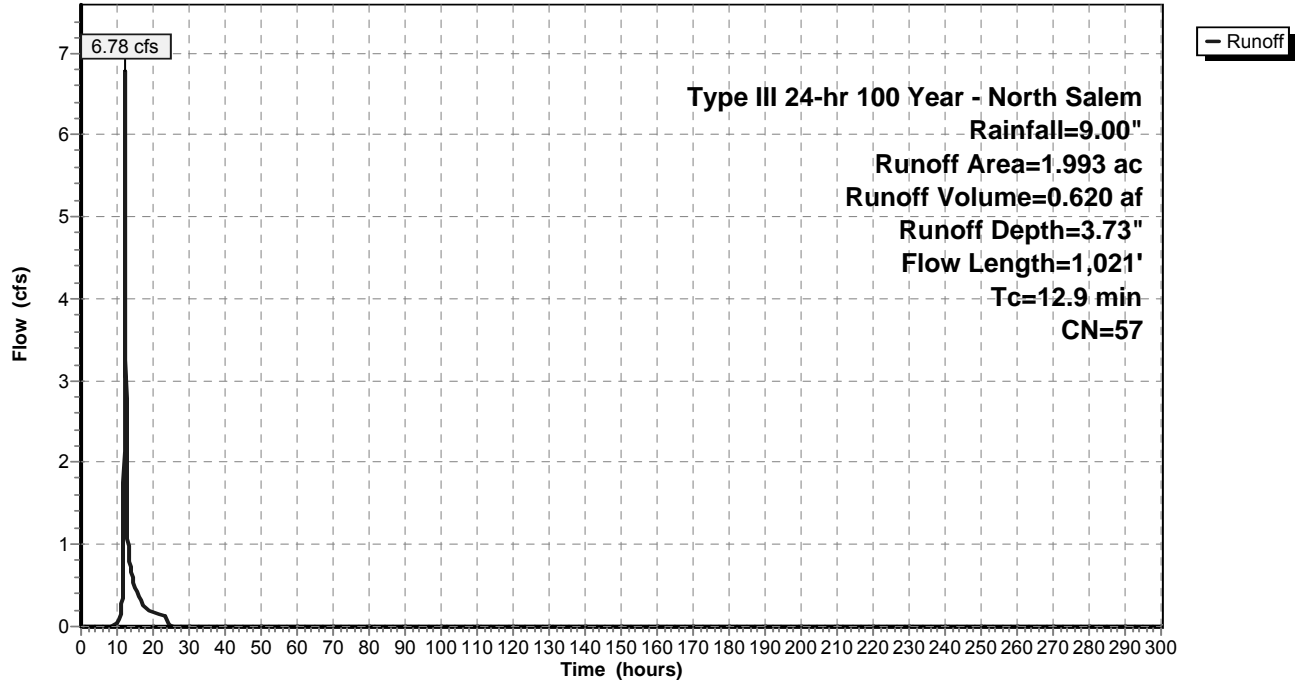
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 43.38 cfs @ 12.38 hrs, Volume= 5.231 af, Depth= 4.84"

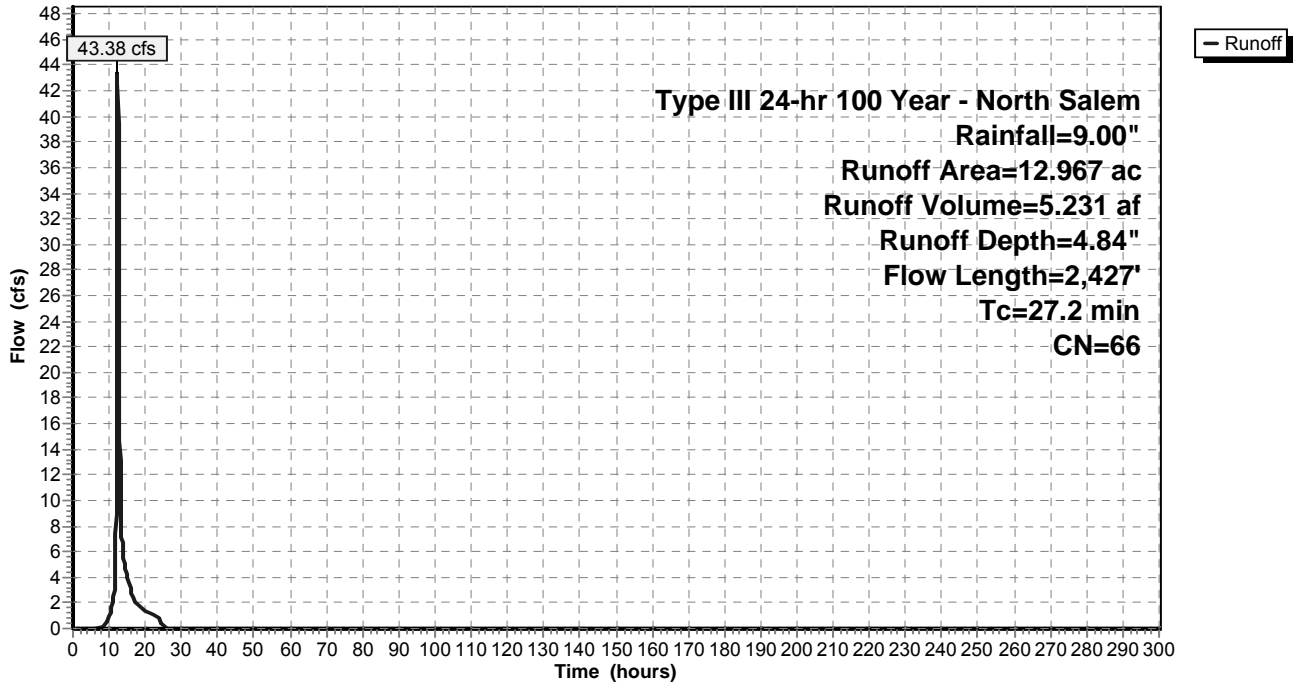
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 5.46" for 100 Year - North Salem event
 Inflow = 11.04 cfs @ 12.16 hrs, Volume= 1.073 af
 Outflow = 9.45 cfs @ 12.26 hrs, Volume= 1.073 af, Atten= 14%, Lag= 5.8 min
 Primary = 9.45 cfs @ 12.26 hrs, Volume= 1.073 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 515.11' @ 12.26 hrs Surf.Area= 2,918 sf Storage= 6,099 cf (5,481 cf above start)

Plug-Flow detention time= 167.6 min calculated for 1.059 af (99% of inflow)
 Center-of-Mass det. time= 50.7 min (1,250.8 - 1,200.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

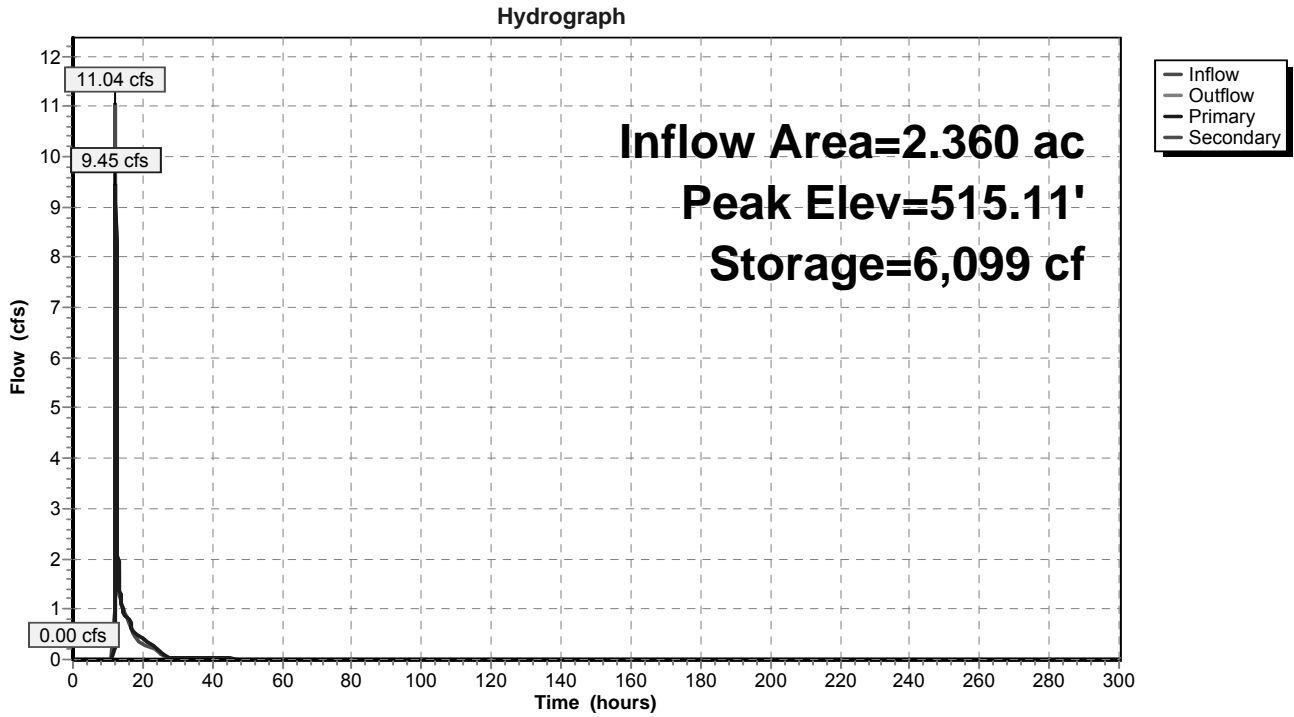
Primary OutFlow Max=9.38 cfs @ 12.26 hrs HW=515.11' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 9.38 cfs of 15.59 cfs potential flow)
- ↑ 2=Orifice #1 (Orifice Controls 0.66 cfs @ 7.52 fps)
- ↑ 3=Orifice #2 (Orifice Controls 8.73 cfs @ 3.38 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

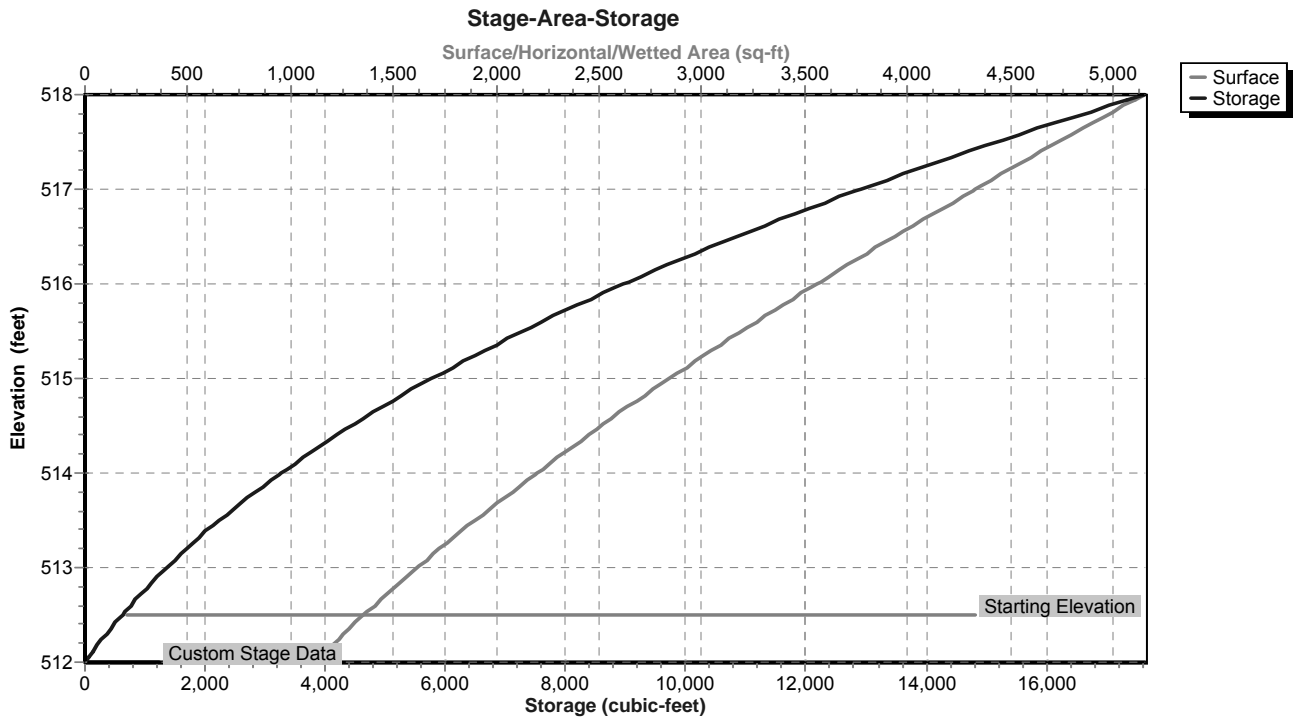
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 2.20" for 100 Year - North Salem event
 Inflow = 13.50 cfs @ 12.35 hrs, Volume= 1.048 af
 Outflow = 13.20 cfs @ 12.41 hrs, Volume= 1.048 af, Atten= 2%, Lag= 3.3 min
 Primary = 13.20 cfs @ 12.41 hrs, Volume= 1.048 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 424.98' @ 12.41 hrs Surf.Area= 3,543 sf Storage= 9,510 cf

Plug-Flow detention time= 150.0 min calculated for 1.048 af (100% of inflow)
 Center-of-Mass det. time= 150.4 min (965.4 - 815.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

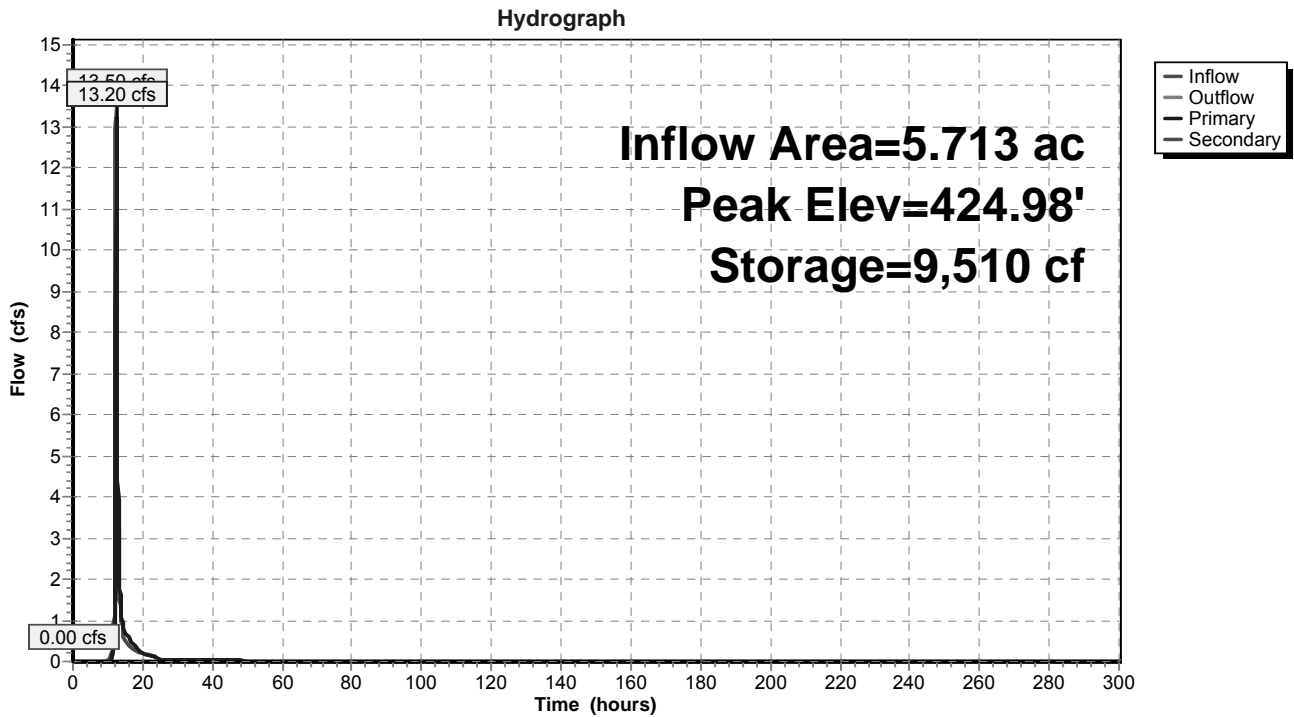
Primary OutFlow Max=13.09 cfs @ 12.41 hrs HW=424.98' (Free Discharge)

- 1=Culvert (Passes 13.09 cfs of 94.06 cfs potential flow)
- 2=Orifice #1 (Orifice Controls 0.06 cfs @ 10.70 fps)
- 3=Orifice #2 (Orifice Controls 0.93 cfs @ 6.84 fps)
- 4=Orifice #3 (Orifice Controls 9.74 cfs @ 3.51 fps)
- 5=Top of Outlet Box (Weir Controls 2.35 cfs @ 1.16 fps)

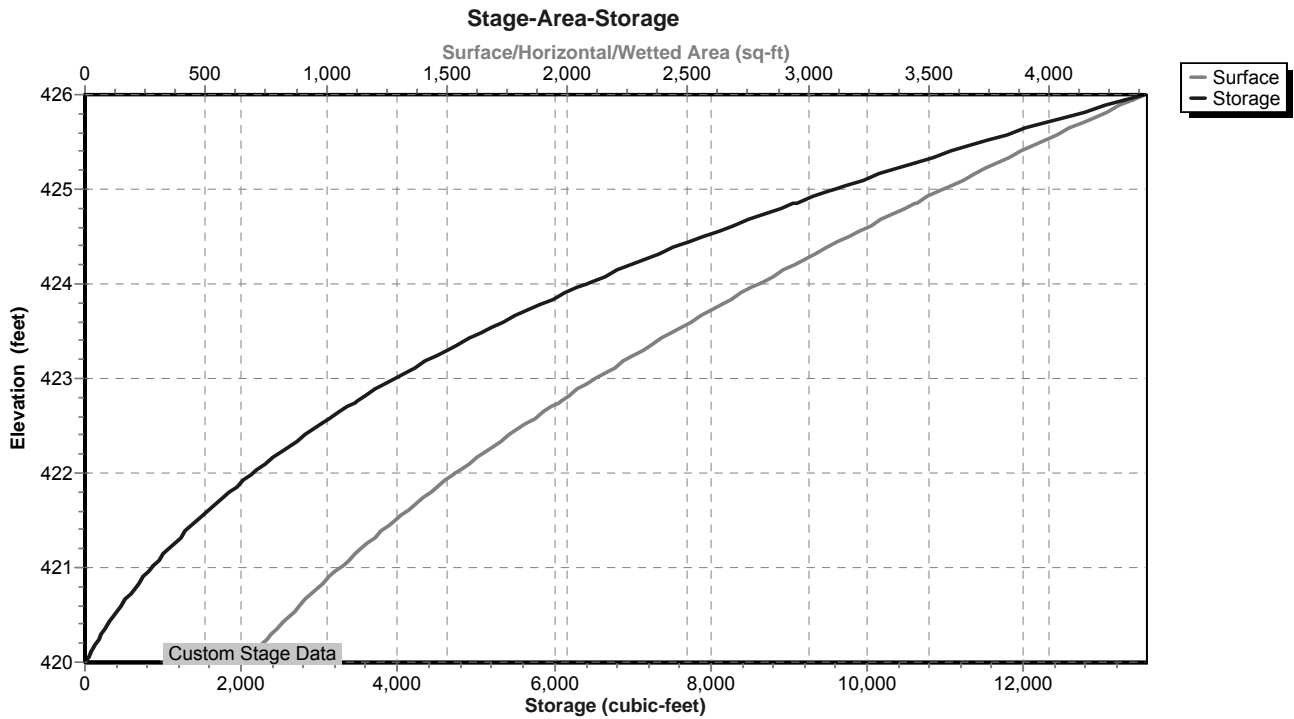
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond B-G4a: Dry Basin - G4a



Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

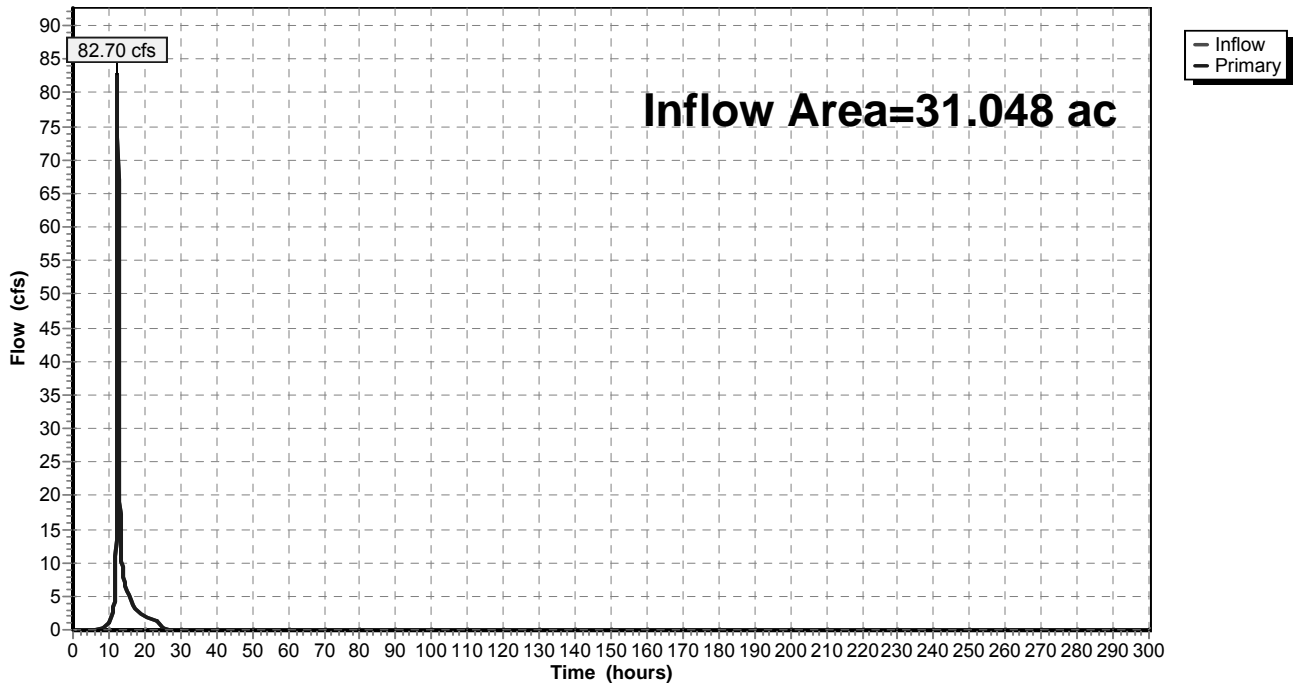
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 3.17" for 100 Year - North Salem event
Inflow = 82.70 cfs @ 12.39 hrs, Volume= 8.206 af
Primary = 82.70 cfs @ 12.39 hrs, Volume= 8.206 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 5.46" for 100 Year - North Salem event
 Inflow = 12.95 cfs @ 12.15 hrs, Volume= 1.074 af
 Outflow = 12.95 cfs @ 12.15 hrs, Volume= 1.074 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.00 cfs @ 12.15 hrs, Volume= 0.762 af
 Secondary = 9.95 cfs @ 12.15 hrs, Volume= 0.311 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 526.65' @ 12.15 hrs
 Flood Elev= 527.50'

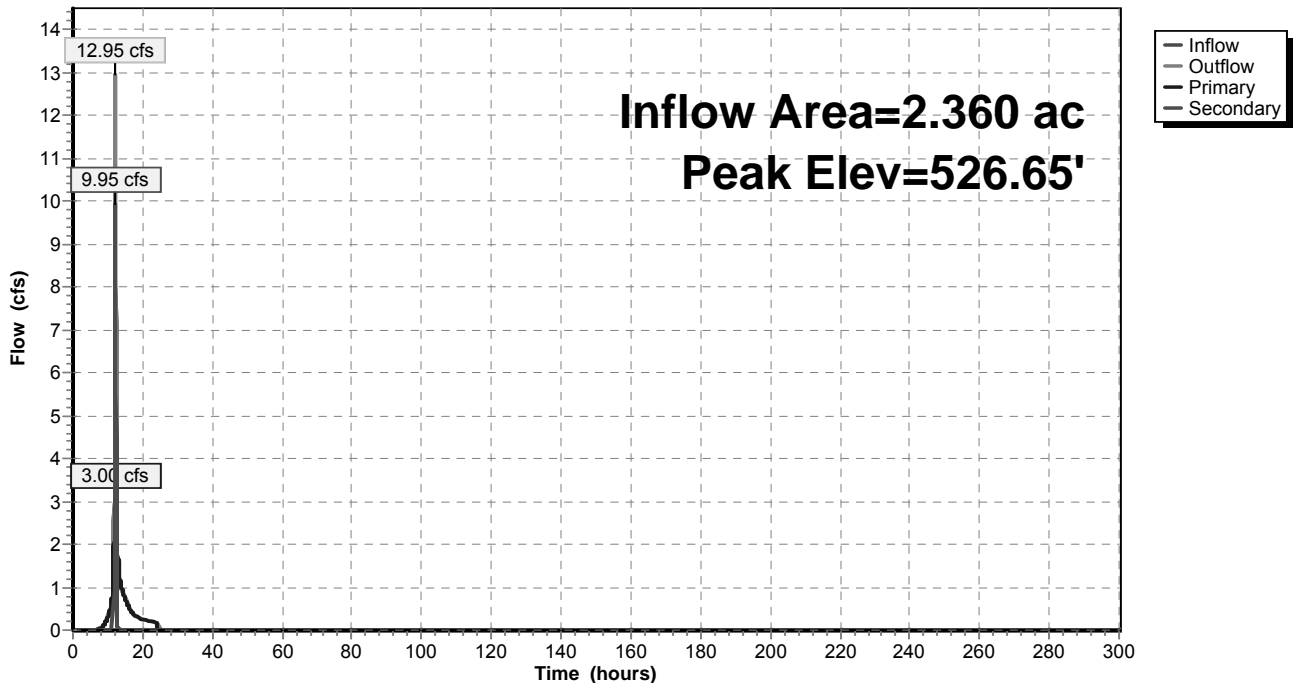
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.99 cfs @ 12.15 hrs HW=526.62' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.99 cfs @ 8.57 fps)

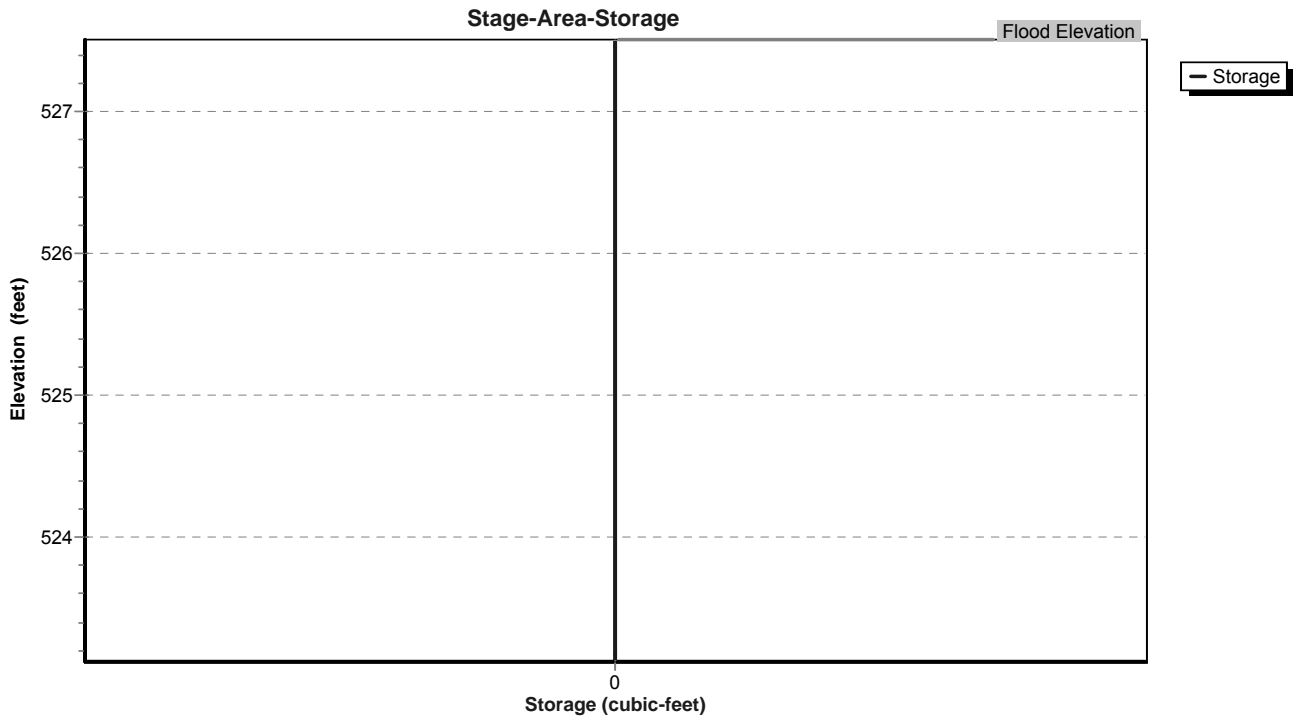
Secondary OutFlow Max=9.86 cfs @ 12.15 hrs HW=526.62' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 9.86 cfs @ 5.58 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Pond FS G1: Flow Splitter G1



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 5.71" for 100 Year - North Salem event
 Inflow = 38.25 cfs @ 12.14 hrs, Volume= 3.170 af
 Outflow = 13.66 cfs @ 12.49 hrs, Volume= 3.170 af, Atten= 64%, Lag= 20.6 min
 Discarded = 5.53 cfs @ 12.49 hrs, Volume= 2.762 af
 Primary = 8.13 cfs @ 12.49 hrs, Volume= 0.407 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 452.74' @ 12.49 hrs Surf.Area= 9,949 sf Storage= 39,290 cf

Plug-Flow detention time= 42.5 min calculated for 3.170 af (100% of inflow)
 Center-of-Mass det. time= 42.5 min (859.9 - 817.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

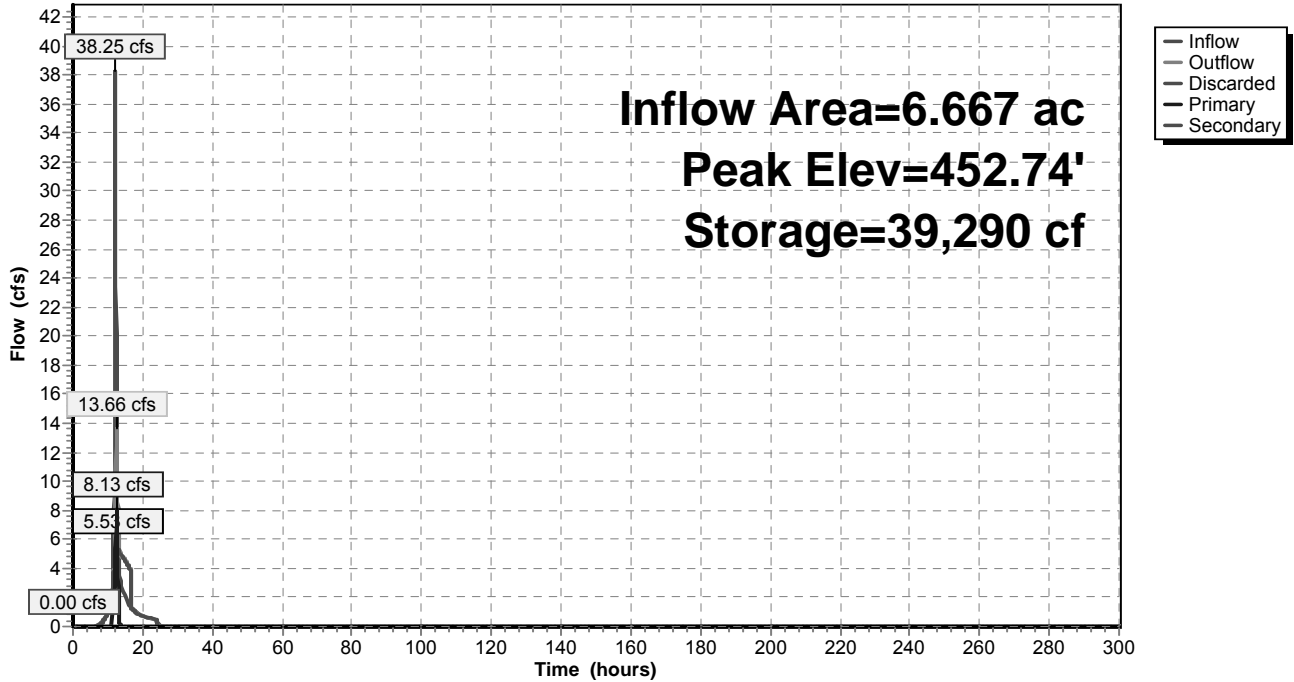
Discarded OutFlow Max=5.53 cfs @ 12.49 hrs HW=452.74' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 5.53 cfs)

Primary OutFlow Max=8.11 cfs @ 12.49 hrs HW=452.74' (Free Discharge)
 ↳1=Outlet Pipe (Passes 8.11 cfs of 13.36 cfs potential flow)
 ↳2=Orifice #1 (Orifice Controls 8.11 cfs @ 4.05 fps)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

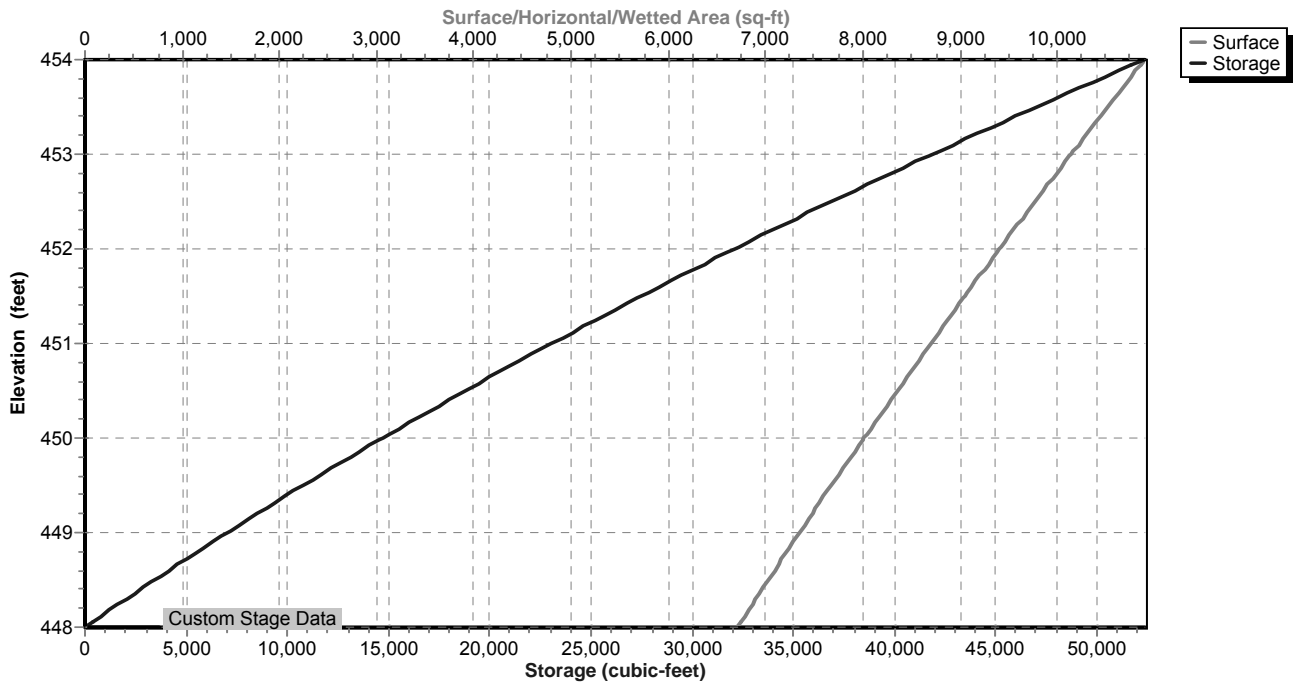
Pond I-G2: Infiltration Basin-G2

Hydrograph



Pond I-G2: Infiltration Basin-G2

Stage-Area-Storage



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 6.32" for 100 Year - North Salem event
 Inflow = 18.38 cfs @ 12.21 hrs, Volume= 1.760 af
 Outflow = 12.51 cfs @ 12.39 hrs, Volume= 1.760 af, Atten= 32%, Lag= 11.1 min
 Discarded = 1.44 cfs @ 12.39 hrs, Volume= 1.313 af
 Primary = 11.07 cfs @ 12.39 hrs, Volume= 0.447 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 402.99' @ 12.39 hrs Surf.Area= 7,980 sf Storage= 20,870 cf

Plug-Flow detention time= 87.3 min calculated for 1.760 af (100% of inflow)
 Center-of-Mass det. time= 87.3 min (898.7 - 811.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.44 cfs @ 12.39 hrs HW=402.99' (Free Discharge)

↳ **4=Exfiltration** (Exfiltration Controls 1.44 cfs)

Primary OutFlow Max=10.94 cfs @ 12.39 hrs HW=402.99' (Free Discharge)

↳ **1=Outlet Pipe** (Passes 10.94 cfs of 15.31 cfs potential flow)

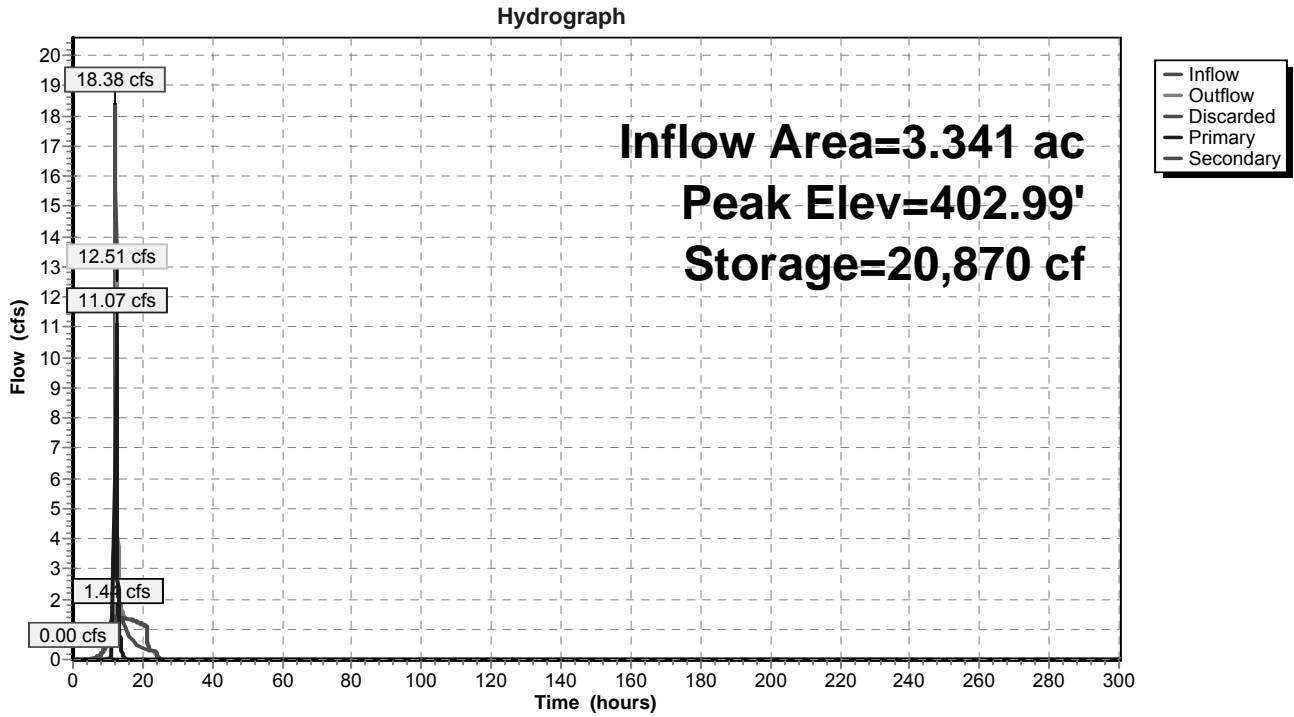
↳ **2=Orifice #1** (Orifice Controls 8.25 cfs @ 2.42 fps)

↳ **3=Top of Outlet Box** (Weir Controls 2.69 cfs @ 1.22 fps)

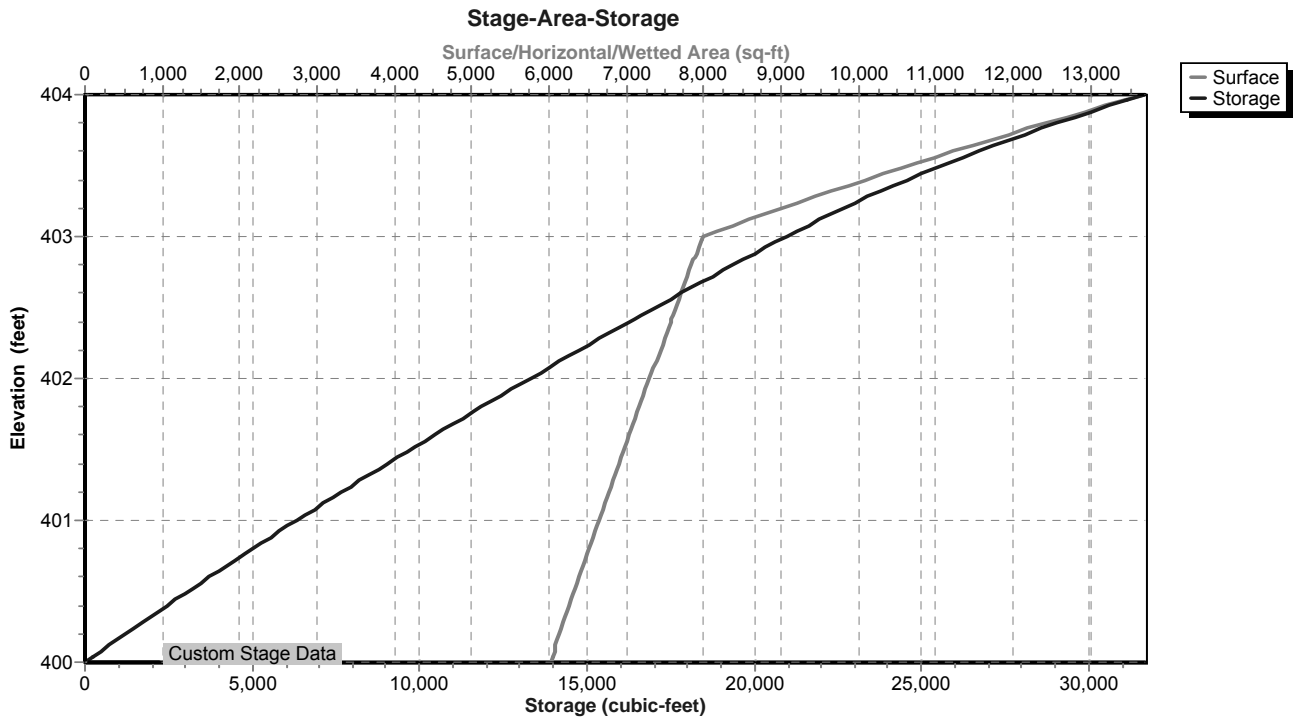
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)

↳ **5=Emergency Overflow** (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 4.96" for 100 Year - North Salem event
 Inflow = 17.63 cfs @ 12.17 hrs, Volume= 1.539 af
 Outflow = 10.40 cfs @ 12.38 hrs, Volume= 1.539 af, Atten= 41%, Lag= 12.6 min
 Discarded = 1.54 cfs @ 12.38 hrs, Volume= 1.111 af
 Primary = 8.86 cfs @ 12.38 hrs, Volume= 0.428 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 443.00' @ 12.38 hrs Surf.Area= 6,542 sf Storage= 16,759 cf

Plug-Flow detention time= 58.7 min calculated for 1.539 af (100% of inflow)
 Center-of-Mass det. time= 58.7 min (890.1 - 831.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
440.00	4,681	292.0	0	0	4,681
442.00	5,898	317.0	10,556	10,556	6,037
443.00	6,543	330.0	6,218	16,773	6,780
444.00	7,214	342.0	6,876	23,649	7,505

Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.54 cfs @ 12.38 hrs HW=442.99' (Free Discharge)

↳ **4=Exfiltration** (Exfiltration Controls 1.54 cfs)

Primary OutFlow Max=8.75 cfs @ 12.38 hrs HW=442.99' (Free Discharge)

↳ **1=Outlet Pipe** (Passes 8.75 cfs of 10.85 cfs potential flow)

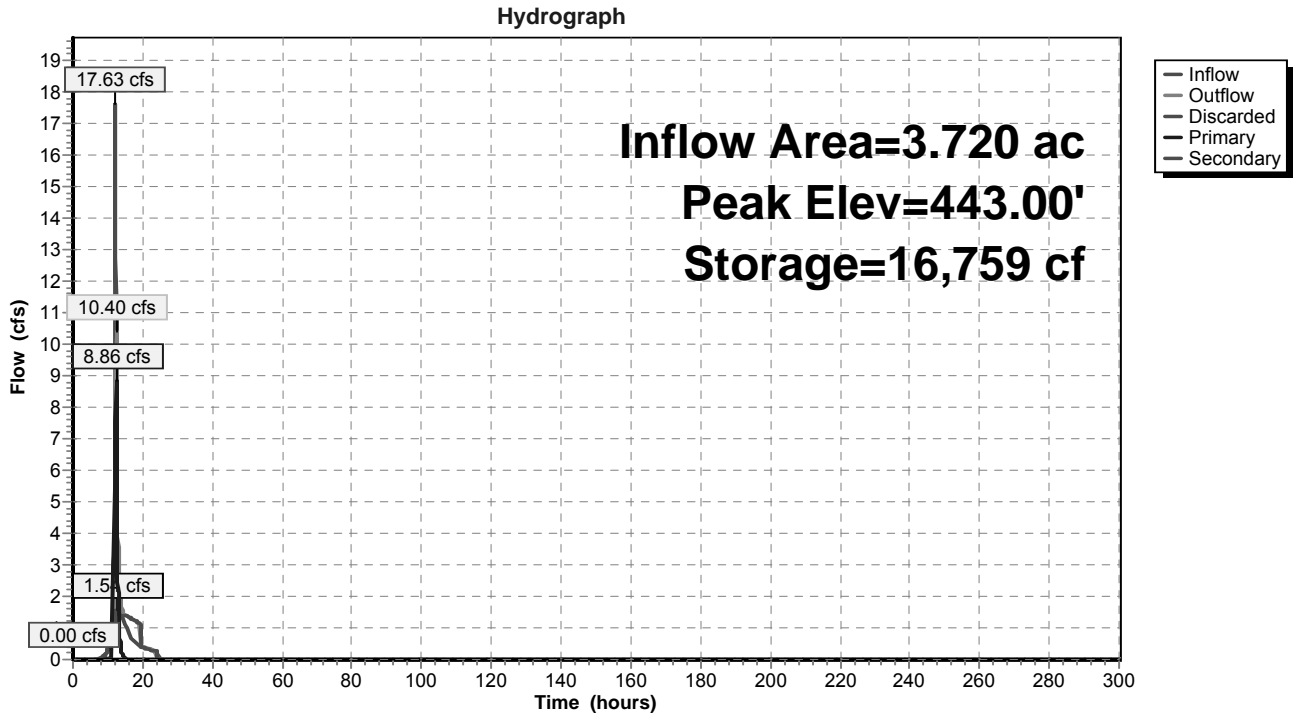
↳ **2=Orifice #1** (Orifice Controls 8.42 cfs @ 3.07 fps)

↳ **3=Top of Outlet Box** (Weir Controls 0.33 cfs @ 0.61 fps)

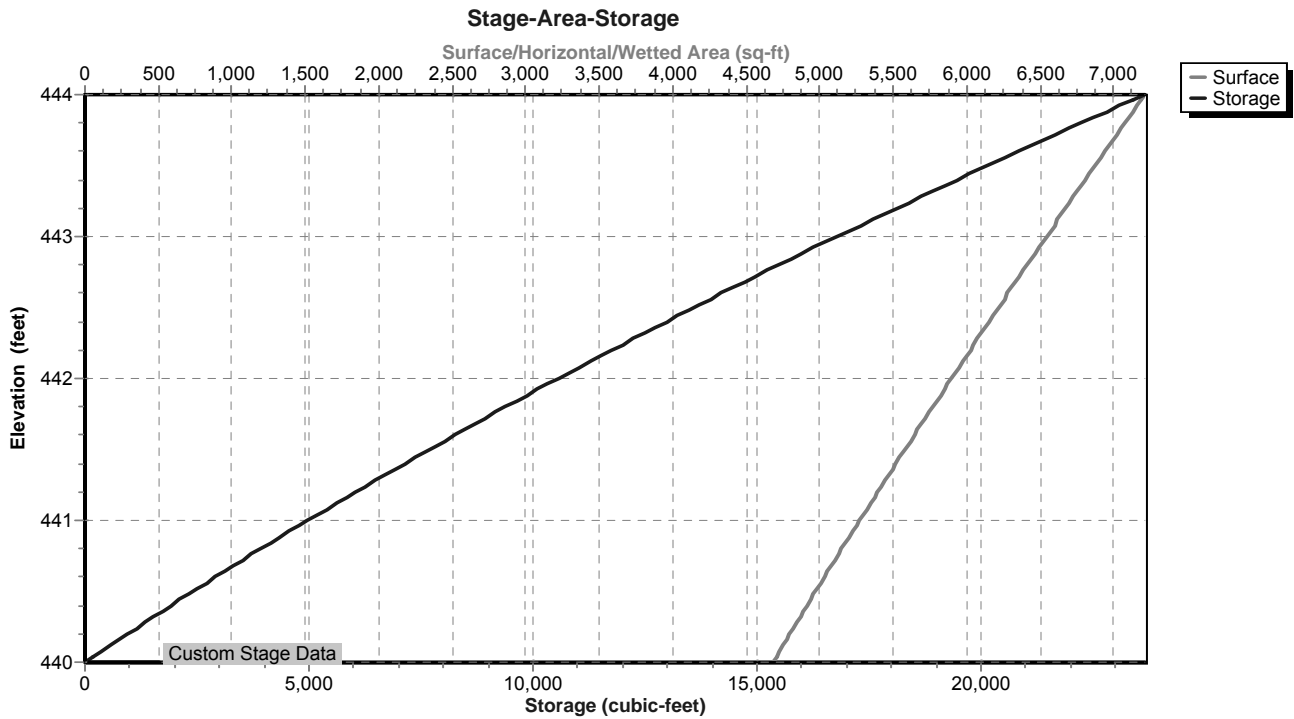
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)

↳ **5=Emergency Overflow** (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 INLET by 0.08'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 3.87" for 100 Year - North Salem event
 Inflow = 3.00 cfs @ 12.16 hrs, Volume= 0.762 af
 Outflow = 2.61 cfs @ 12.29 hrs, Volume= 0.762 af, Atten= 13%, Lag= 8.2 min
 Primary = 2.61 cfs @ 12.29 hrs, Volume= 0.762 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 520.08' @ 12.29 hrs Surf.Area= 3,476 sf Storage= 6,152 cf

Plug-Flow detention time= 491.5 min calculated for 0.762 af (100% of inflow)
 Center-of-Mass det. time= 493.8 min (1,391.6 - 897.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

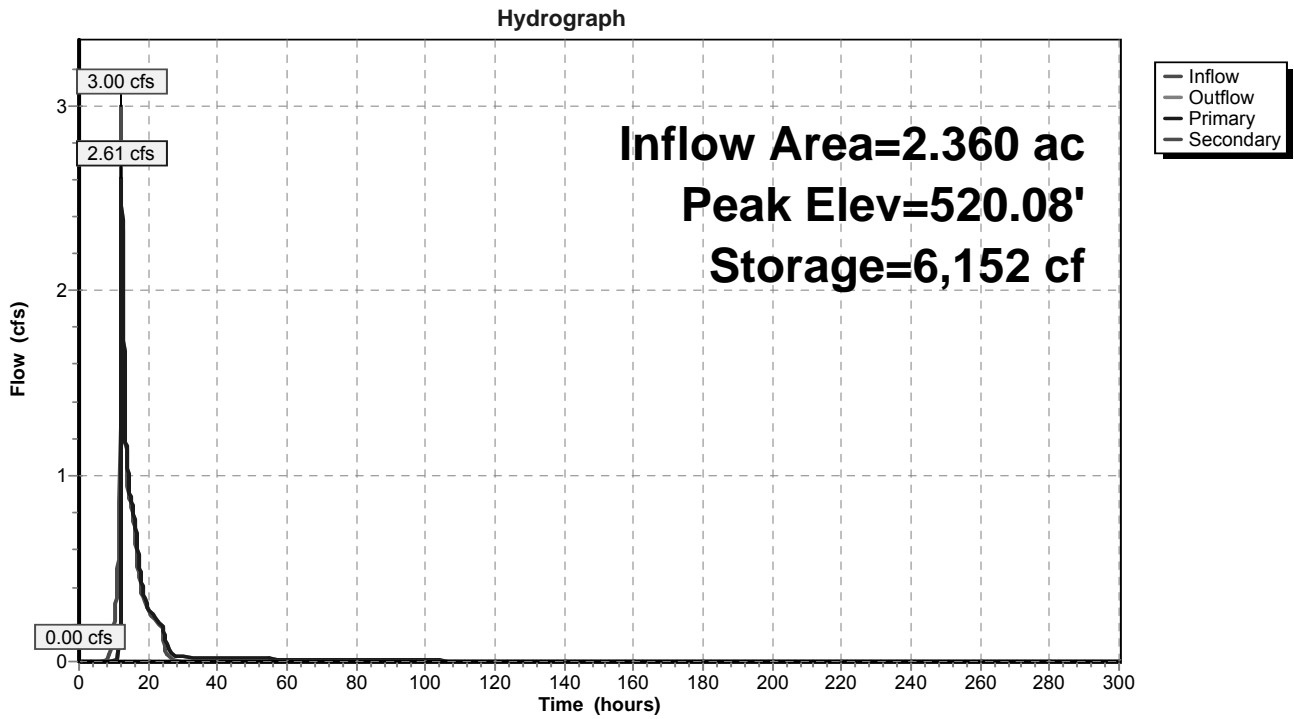
Primary OutFlow Max=2.60 cfs @ 12.29 hrs HW=520.08' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.60 cfs of 6.74 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.04 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 1.41 cfs @ 2.44 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 1.15 cfs @ 0.91 fps)

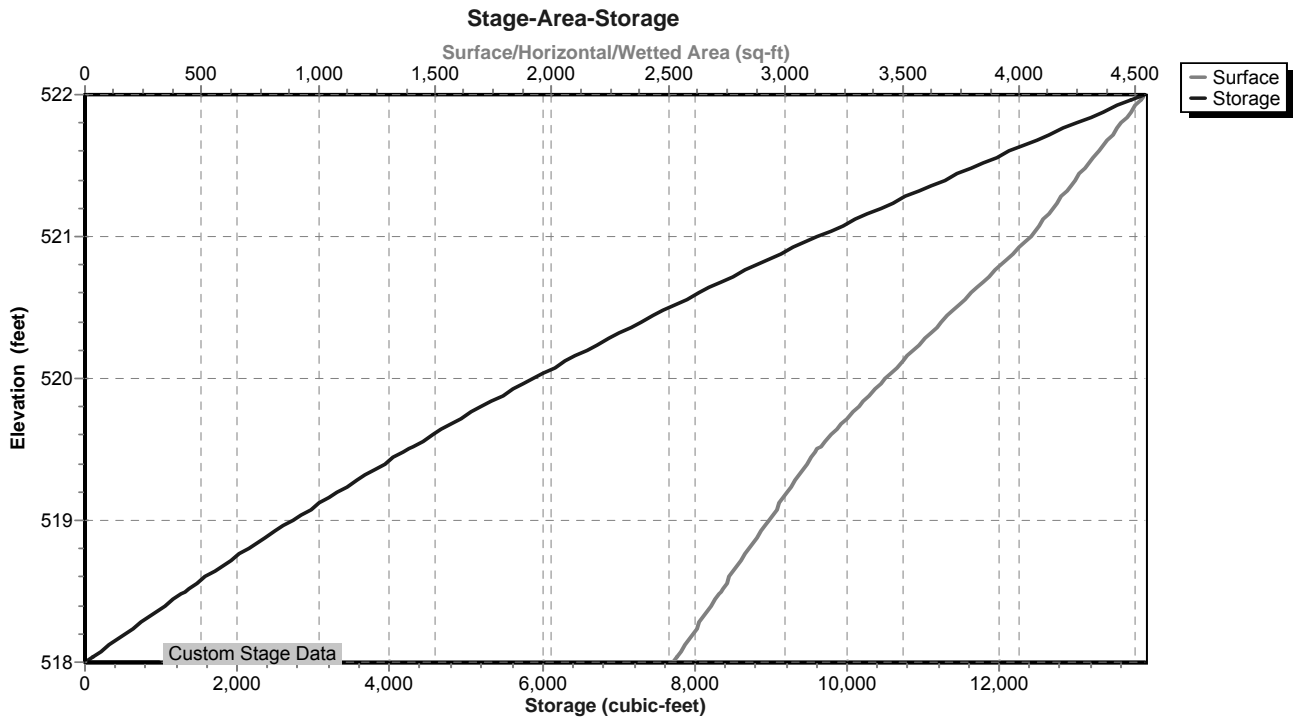
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G1: Sand Filter - G1



Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 3.87" for 100 Year - North Salem event
 Inflow = 3.00 cfs @ 12.15 hrs, Volume= 0.762 af
 Outflow = 3.00 cfs @ 12.16 hrs, Volume= 0.762 af, Atten= 0%, Lag= 0.8 min
 Primary = 2.99 cfs @ 12.16 hrs, Volume= 0.762 af
 Secondary = 0.00 cfs @ 12.15 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 523.00' @ 12.16 hrs Surf.Area= 1,353 sf Storage= 2,915 cf

Plug-Flow detention time= 39.4 min calculated for 0.762 af (100% of inflow)
 Center-of-Mass det. time= 39.5 min (897.8 - 858.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
520.00	630	102.0	0	0	630
522.00	1,087	128.0	1,696	1,696	1,159
523.00	1,353	140.0	1,218	2,914	1,447
524.00	1,645	153.0	1,497	4,411	1,784

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

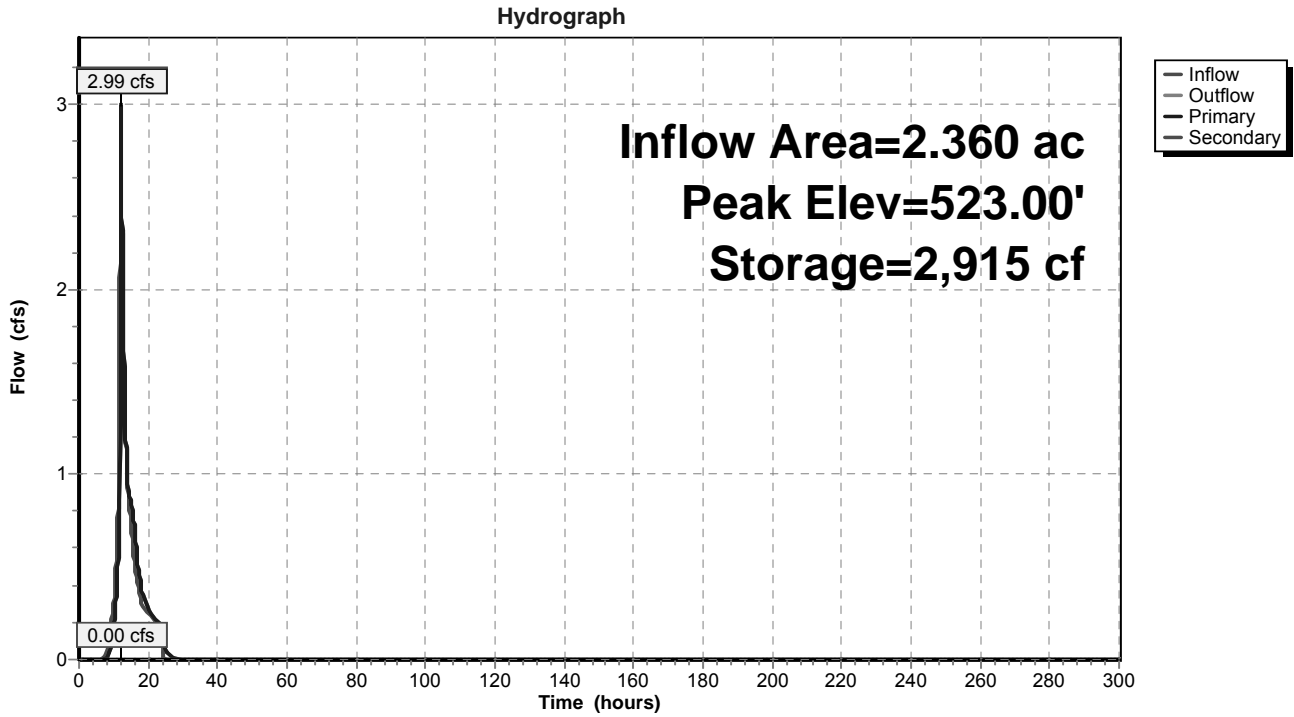
Primary OutFlow Max=2.97 cfs @ 12.16 hrs HW=523.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.97 cfs of 5.98 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.91 cfs @ 6.95 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.41 cfs @ 1.03 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 1.65 cfs @ 1.03 fps)

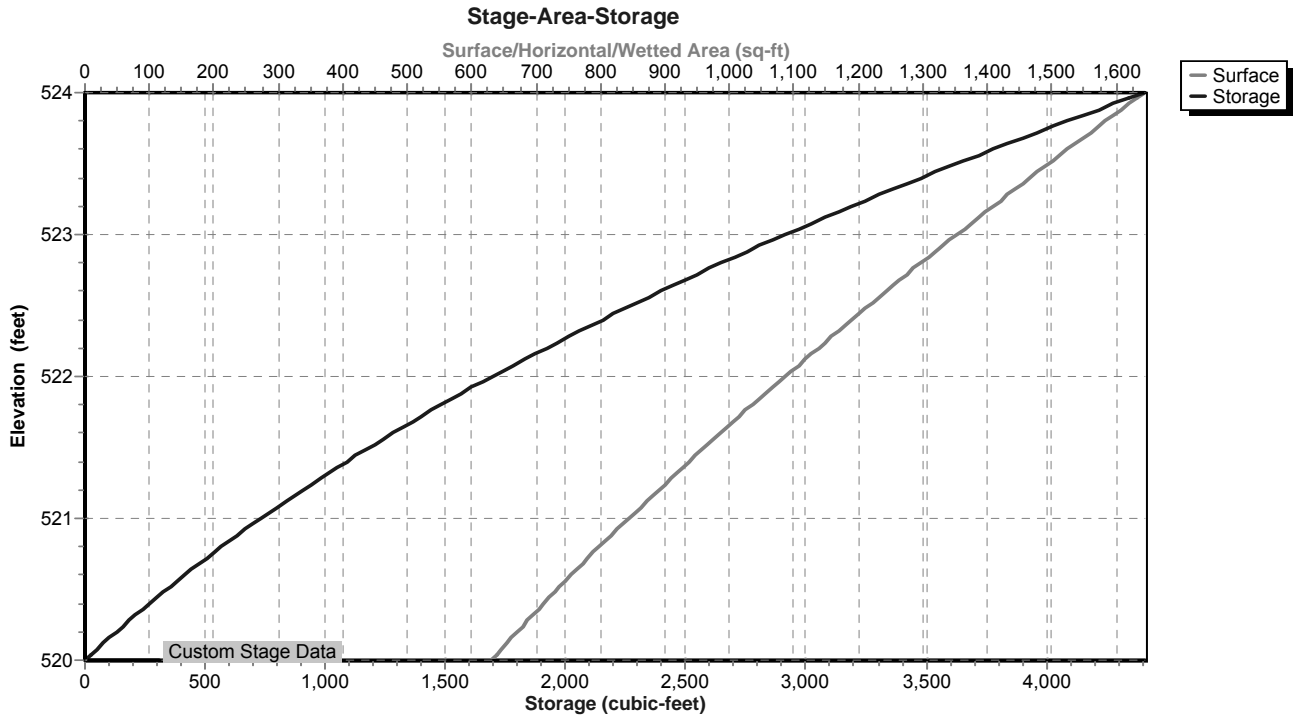
Secondary OutFlow Max=0.00 cfs @ 12.15 hrs HW=523.00' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 0.00 cfs @ 0.08 fps)

Pond SFF-G1: Sand Filter Forebay - G1



Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

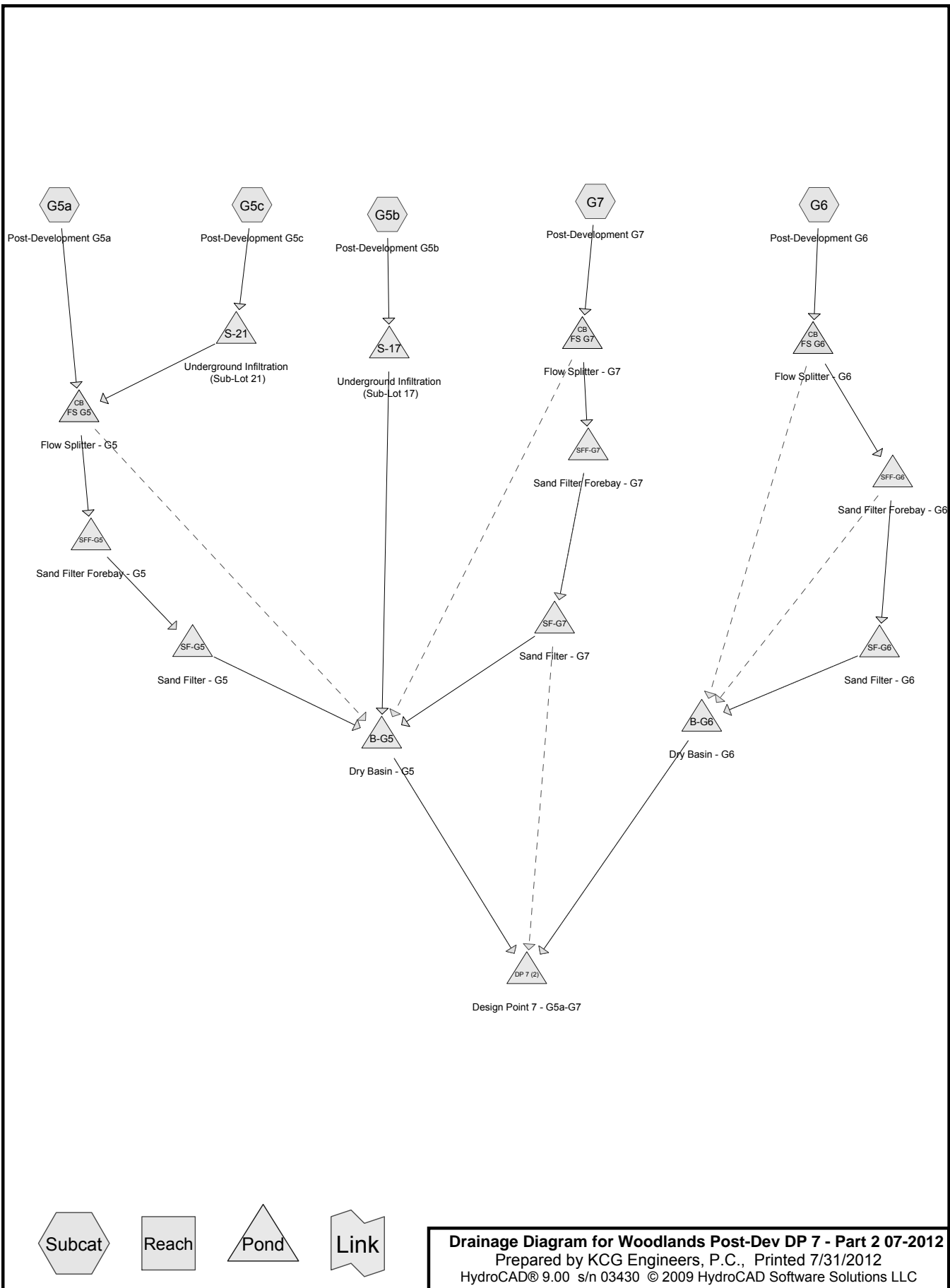
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			



Drainage Diagram for Woodlands Post-Dev DP 7 - Part 2 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.250	61	>75% Grass cover, Good, HSG B (G5a, G5c)
0.506	61	Basin, HSG B (G5a)
0.566	70	Woods, Good, HSG C (G6, G7)
2.992	74	>75% Grass cover, Good, HSG C (G6, G7)
0.517	74	Basin, HSG C (G6, G7)
0.511	98	Driveway (G5a, G5b, G5c, G6, G7)
0.365	98	Road & Emergency Access (G6)
0.353	98	Roadway (G5a)
0.013	98	Roof (Water Plant) (G6)
0.337	98	Roof/Walkway (G5b, G5c, G6, G7)
0.100	98	Sidewalk (G6, G7)
7.510		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=0.68"
Flow Length=833' Tc=13.0 min CN=68 Runoff=1.13 cfs 0.122 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=2.87"
Flow Length=245' Tc=2.0 min CN=98 Runoff=0.50 cfs 0.037 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=2.45"
Flow Length=245' Tc=2.0 min CN=94 Runoff=0.43 cfs 0.029 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=1.20"
Flow Length=917' Tc=20.9 min CN=78 Runoff=3.18 cfs 0.352 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=1.20"
Flow Length=649' Tc=14.6 min CN=78 Runoff=1.61 cfs 0.154 af

Pond B-G5: Dry Basin - G5 Peak Elev=420.68' Storage=333 cf Inflow=0.07 cfs 0.276 af
Primary=0.07 cfs 0.276 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.276 af

Pond B-G6: Dry Basin - G6 Peak Elev=448.79' Storage=888 cf Inflow=0.18 cfs 0.350 af
Primary=0.14 cfs 0.350 af Secondary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.350 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=0.21 cfs 0.626 af
Primary=0.21 cfs 0.626 af

Pond FS G5: Flow Splitter - G5 Peak Elev=437.83' Inflow=1.13 cfs 0.122 af
Primary=1.13 cfs 0.122 af Secondary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.122 af

Pond FS G6: Flow Splitter - G6 Peak Elev=464.76' Inflow=3.18 cfs 0.352 af
Primary=3.18 cfs 0.352 af Secondary=0.00 cfs 0.000 af Outflow=3.18 cfs 0.352 af

Pond FS G7: Flow Splitter - G7 Peak Elev=456.82' Inflow=1.61 cfs 0.154 af
Primary=1.61 cfs 0.154 af Secondary=0.00 cfs 0.000 af Outflow=1.61 cfs 0.154 af

Pond S-17: Underground Infiltration Peak Elev=433.01' Storage=0.000 af Inflow=0.50 cfs 0.037 af
Discarded=0.49 cfs 0.037 af Primary=0.00 cfs 0.000 af Outflow=0.49 cfs 0.037 af

Pond S-21: Underground Infiltration Peak Elev=499.01' Storage=0.000 af Inflow=0.43 cfs 0.029 af
Discarded=0.43 cfs 0.029 af Primary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.029 af

Pond SF-G5: Sand Filter - G5 Peak Elev=430.79' Storage=4,095 cf Inflow=0.54 cfs 0.122 af
Primary=0.03 cfs 0.122 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.122 af

Pond SF-G6: Sand Filter - G6 Peak Elev=458.77' Storage=11,500 cf Inflow=2.06 cfs 0.352 af
Primary=0.18 cfs 0.350 af Secondary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.350 af

Pond SF-G7: Sand Filter - G7 Peak Elev=450.76' Storage=5,229 cf Inflow=0.70 cfs 0.154 af
Primary=0.04 cfs 0.154 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.154 af

Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=433.74' Storage=1,095 cf Inflow=1.13 cfs 0.122 af
Primary=0.54 cfs 0.122 af Secondary=0.00 cfs 0.000 af Outflow=0.54 cfs 0.122 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=462.87' Storage=4,436 cf Inflow=3.18 cfs 0.352 af
Primary=2.06 cfs 0.352 af Secondary=0.00 cfs 0.000 af Outflow=2.06 cfs 0.352 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=454.19' Storage=1,760 cf Inflow=1.61 cfs 0.154 af
Primary=0.70 cfs 0.154 af Secondary=0.00 cfs 0.000 af Outflow=0.70 cfs 0.154 af

Total Runoff Area = 7.510 ac Runoff Volume = 0.694 af Average Runoff Depth = 1.11"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

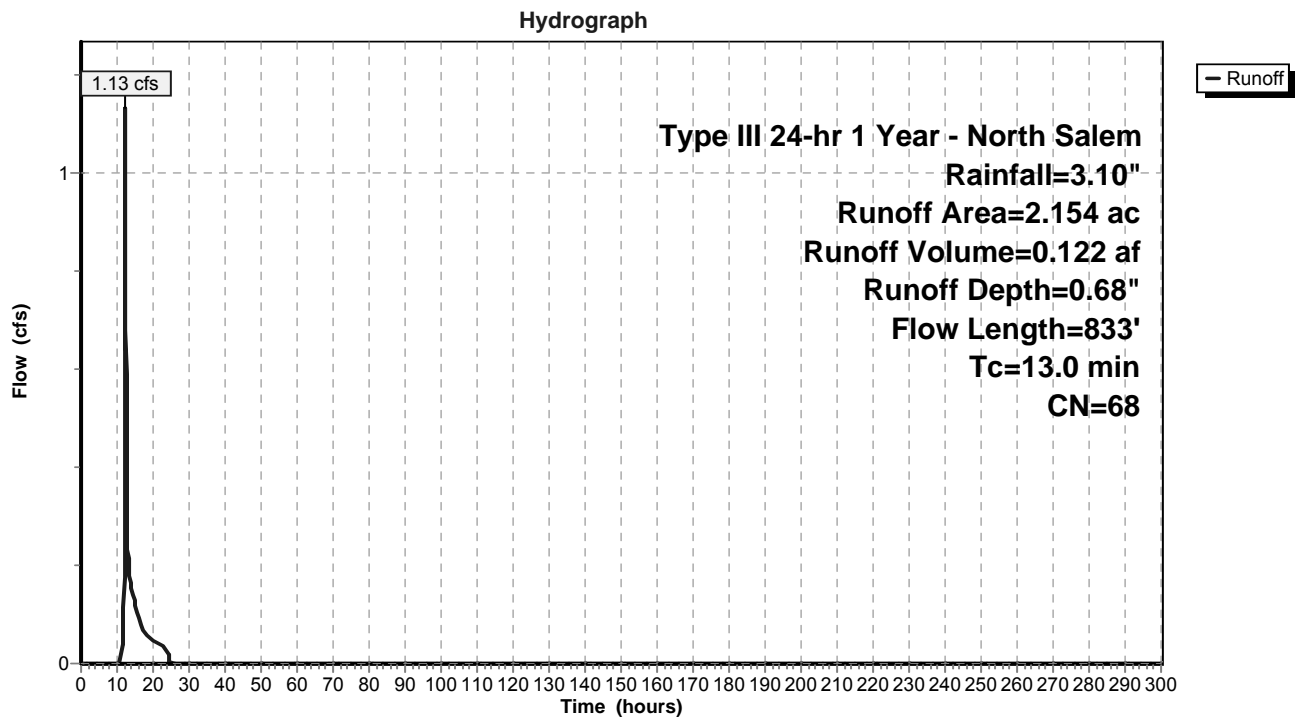
Runoff = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.50 cfs @ 12.03 hrs, Volume= 0.037 af, Depth= 2.87"

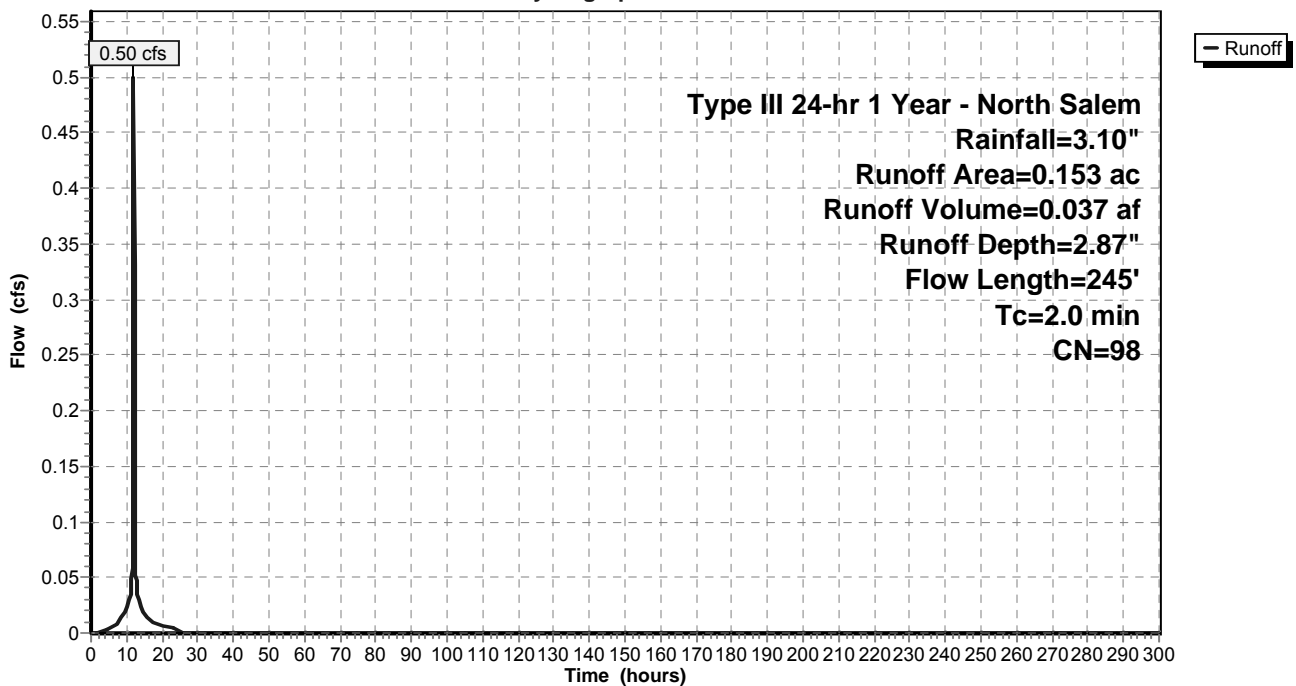
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af, Depth= 2.45"

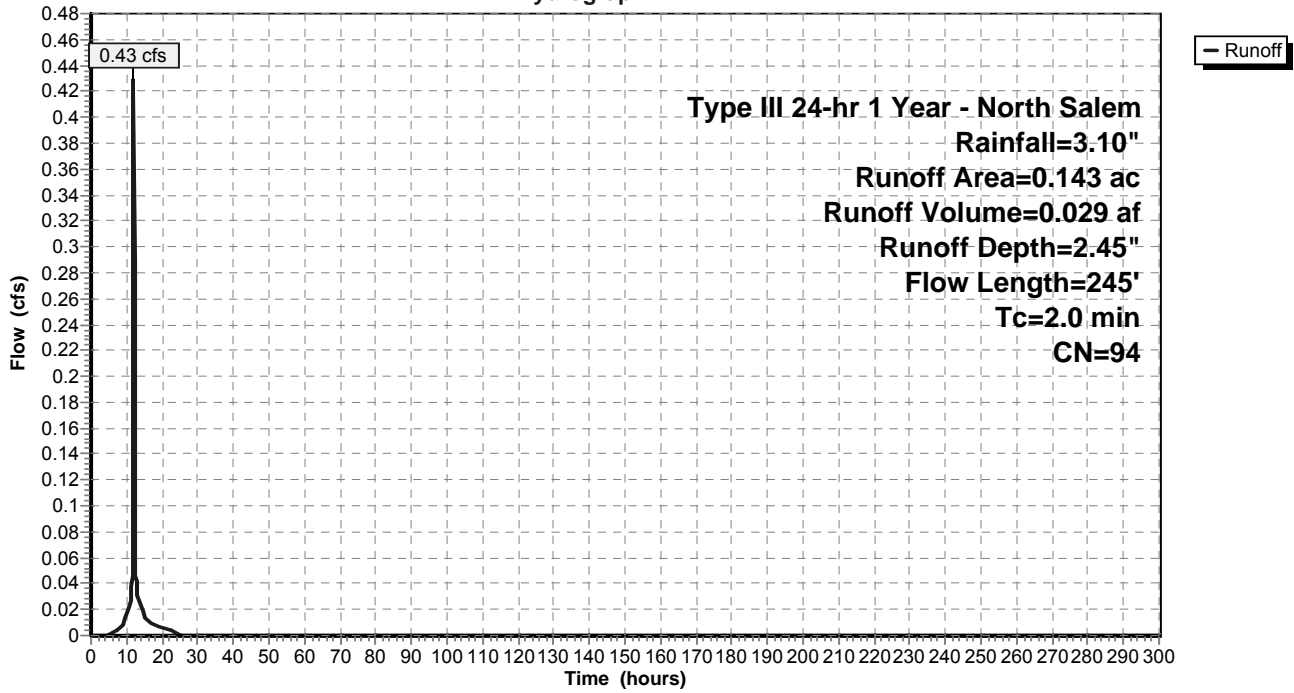
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c

Hydrograph



Summary for Subcatchment G6: Post-Development G6

Runoff = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af, Depth= 1.20"

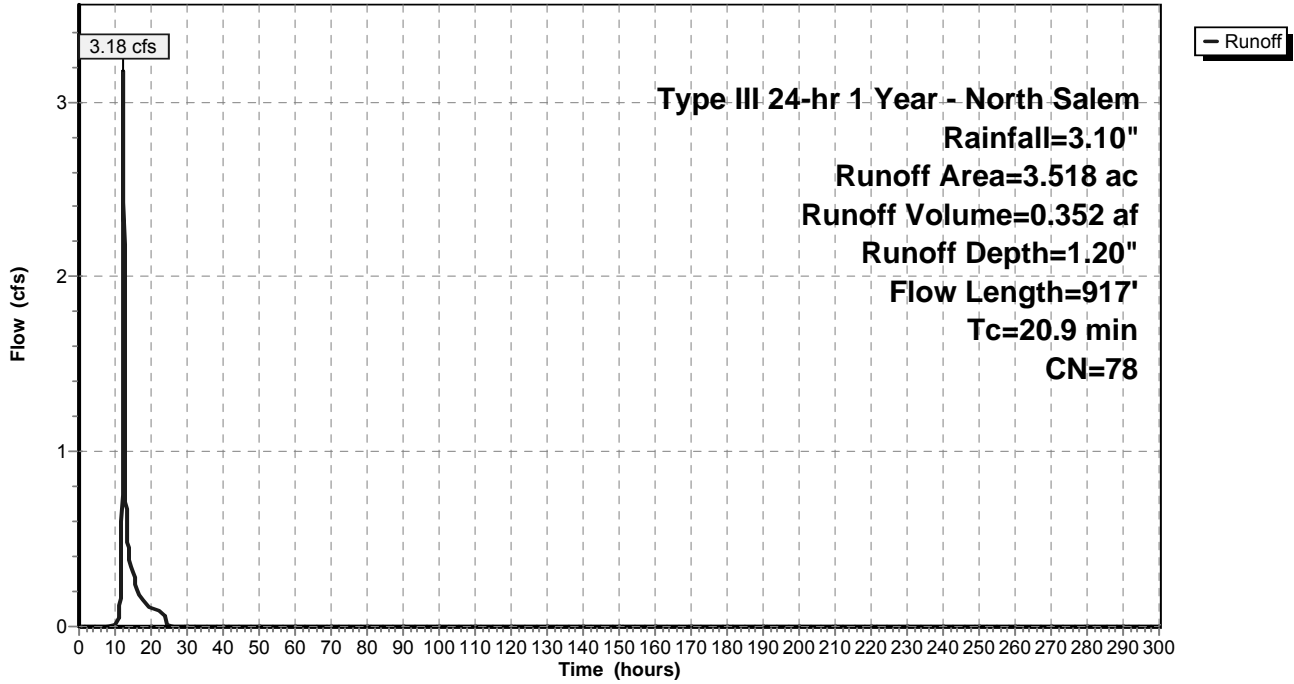
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6

Hydrograph



Summary for Subcatchment G7: Post-Development G7

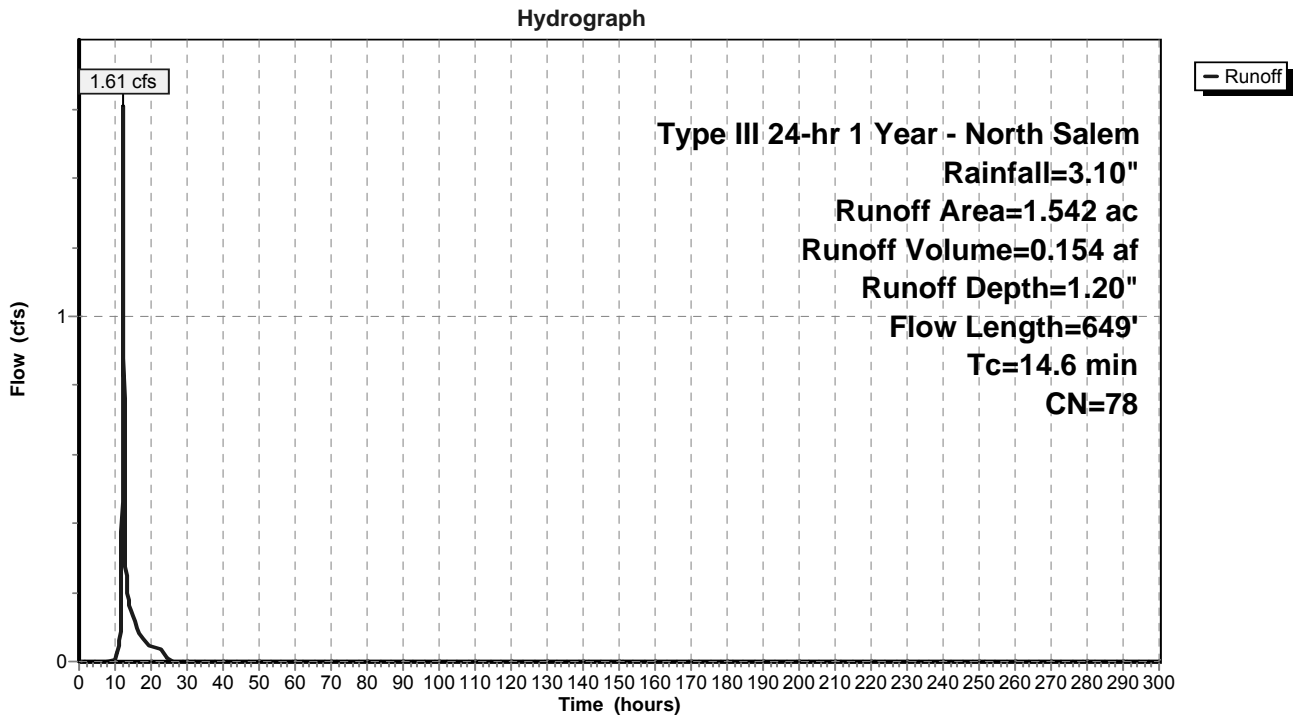
Runoff = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth > 0.83" for 1 Year - North Salem event
 Inflow = 0.07 cfs @ 24.06 hrs, Volume= 0.276 af
 Outflow = 0.07 cfs @ 24.24 hrs, Volume= 0.276 af, Atten= 0%, Lag= 11.1 min
 Primary = 0.07 cfs @ 24.24 hrs, Volume= 0.276 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 420.68' @ 24.24 hrs Surf.Area= 650 sf Storage= 333 cf (108 cf above start)

Plug-Flow detention time= 230.0 min calculated for 0.271 af (98% of inflow)
 Center-of-Mass det. time= 37.3 min (3,089.5 - 3,052.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

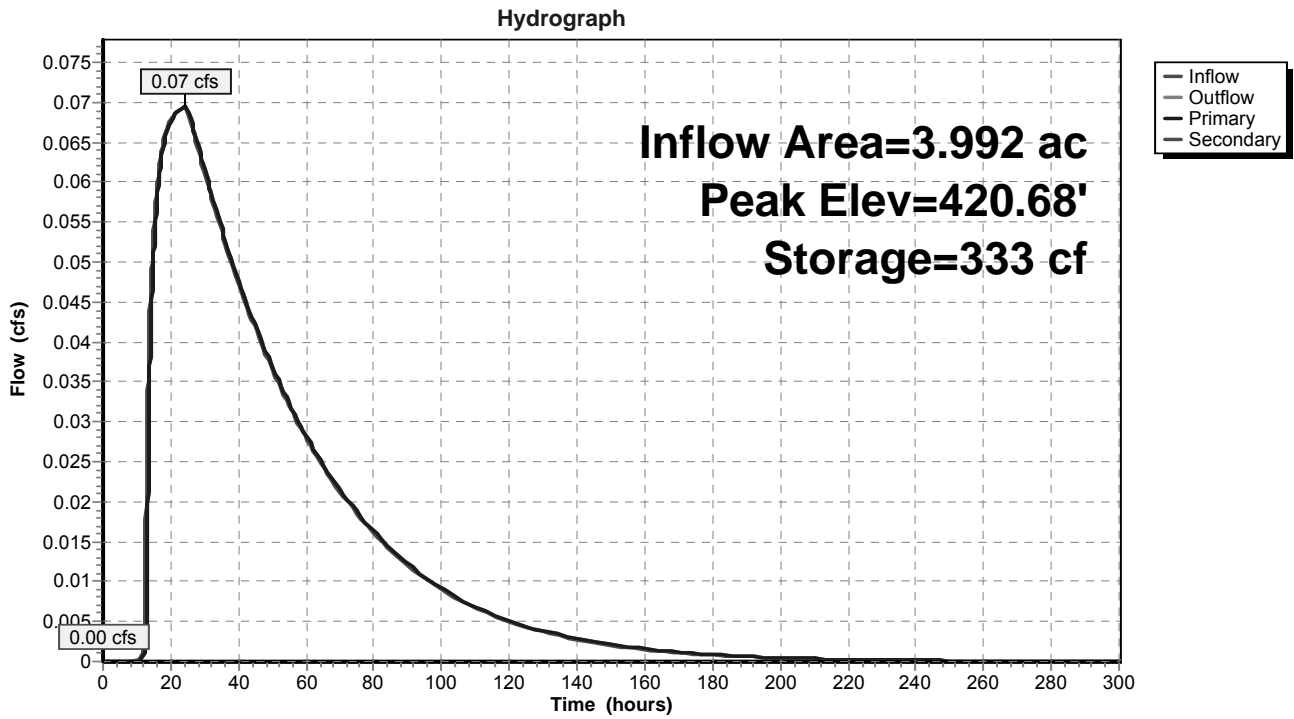
Primary OutFlow Max=0.07 cfs @ 24.24 hrs HW=420.68' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.07 cfs of 12.42 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.07 cfs @ 1.44 fps)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

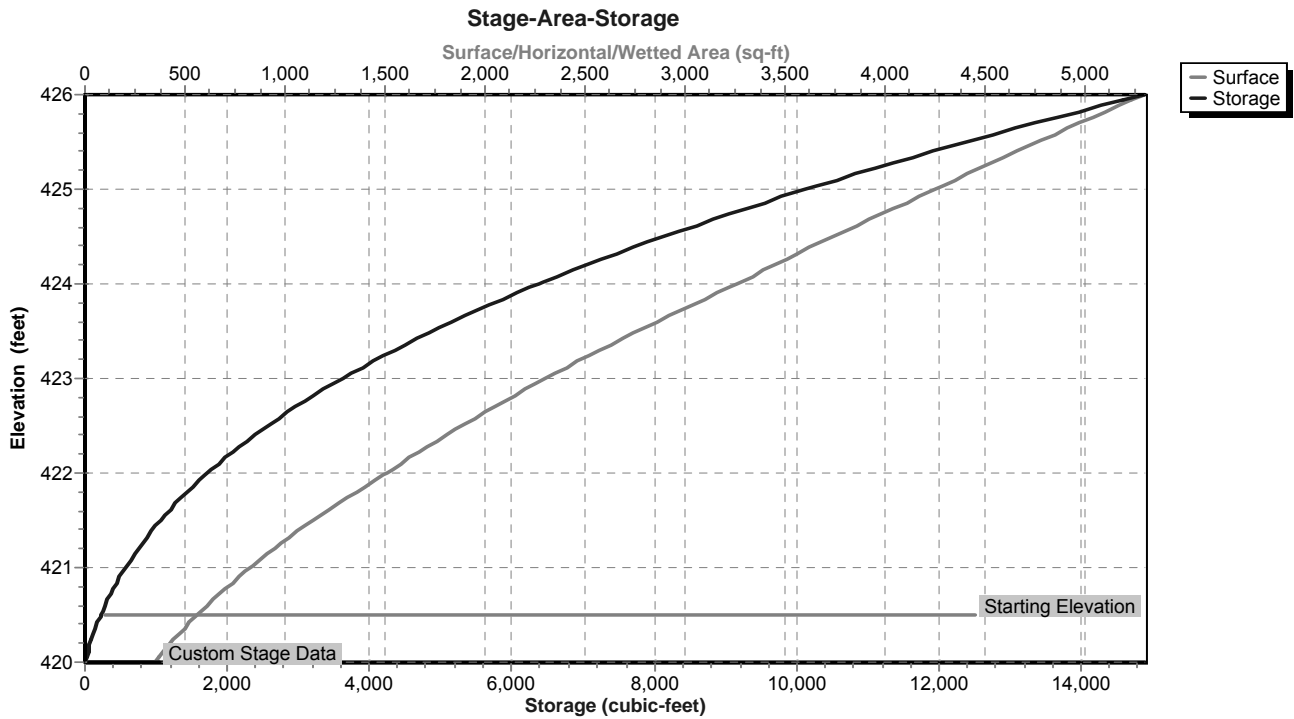
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G5: Dry Basin - G5



Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth > 1.19" for 1 Year - North Salem event
 Inflow = 0.18 cfs @ 18.43 hrs, Volume= 0.350 af
 Outflow = 0.14 cfs @ 19.21 hrs, Volume= 0.350 af, Atten= 19%, Lag= 47.0 min
 Primary = 0.14 cfs @ 19.21 hrs, Volume= 0.350 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 448.79' @ 19.21 hrs Surf.Area= 1,295 sf Storage= 888 cf (352 cf above start)

Plug-Flow detention time= 544.5 min calculated for 0.338 af (96% of inflow)
 Center-of-Mass det. time= 75.4 min (4,029.7 - 3,954.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

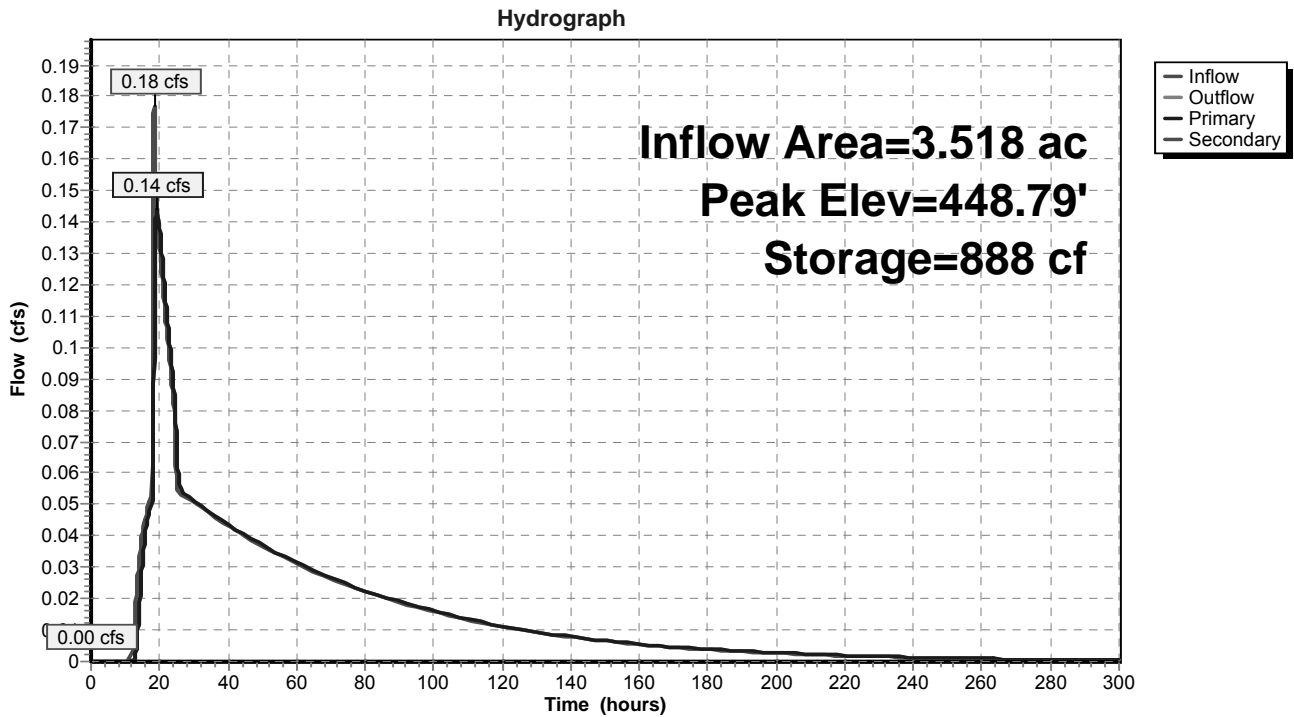
Primary OutFlow Max=0.14 cfs @ 19.21 hrs HW=448.79' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.14 cfs of 8.24 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.14 cfs @ 1.82 fps)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

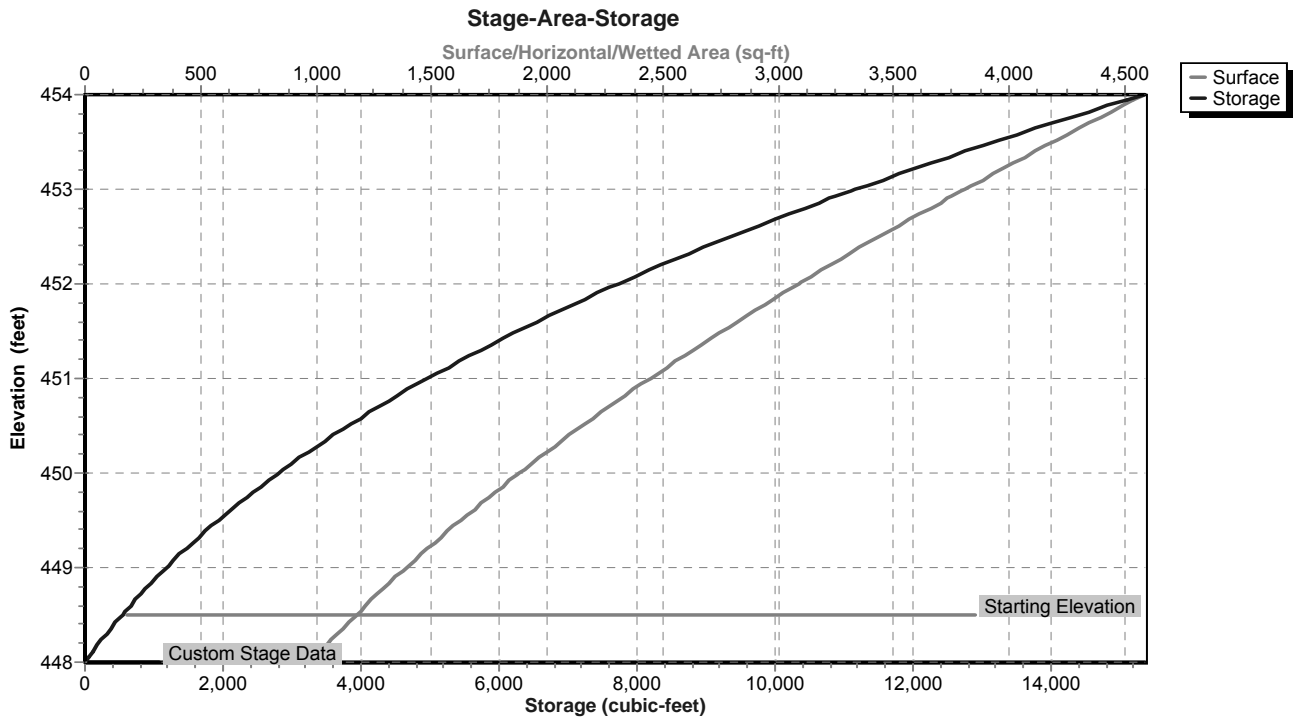
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G6: Dry Basin - G6



Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

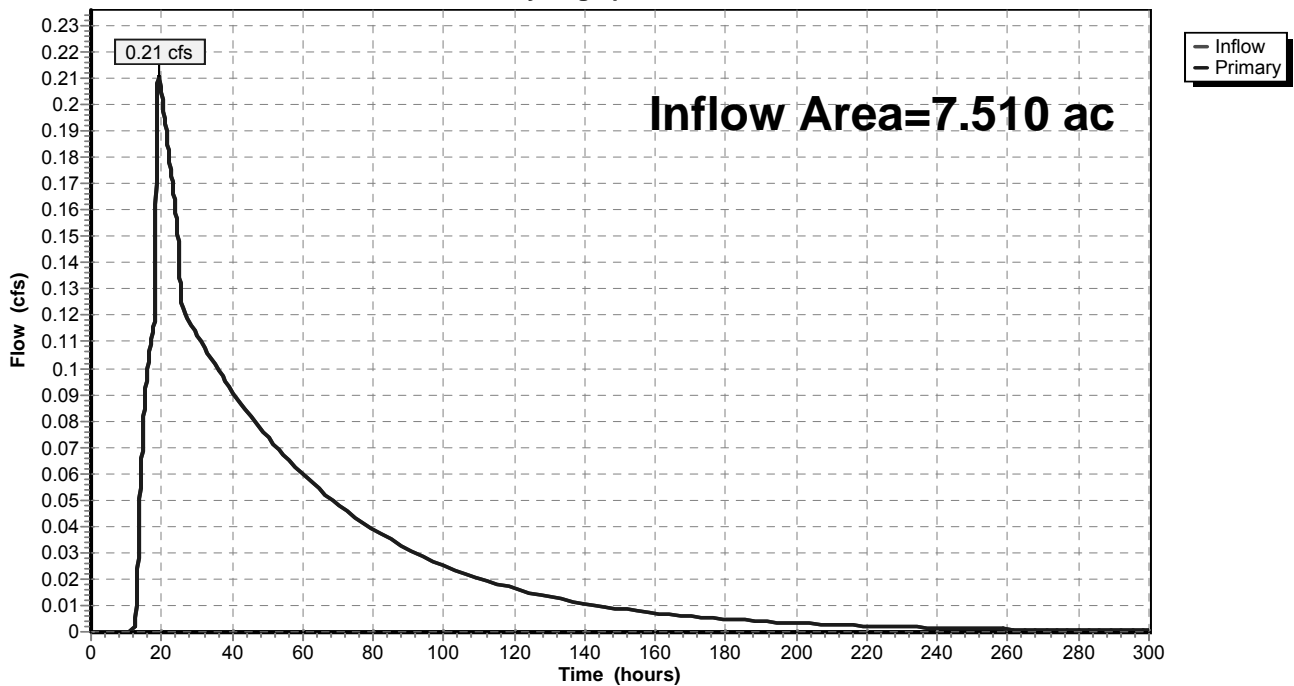
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth > 1.00" for 1 Year - North Salem event
Inflow = 0.21 cfs @ 19.24 hrs, Volume= 0.626 af
Primary = 0.21 cfs @ 19.24 hrs, Volume= 0.626 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7

Hydrograph



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af
 Outflow = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 437.83' @ 12.21 hrs
 Flood Elev= 527.50'

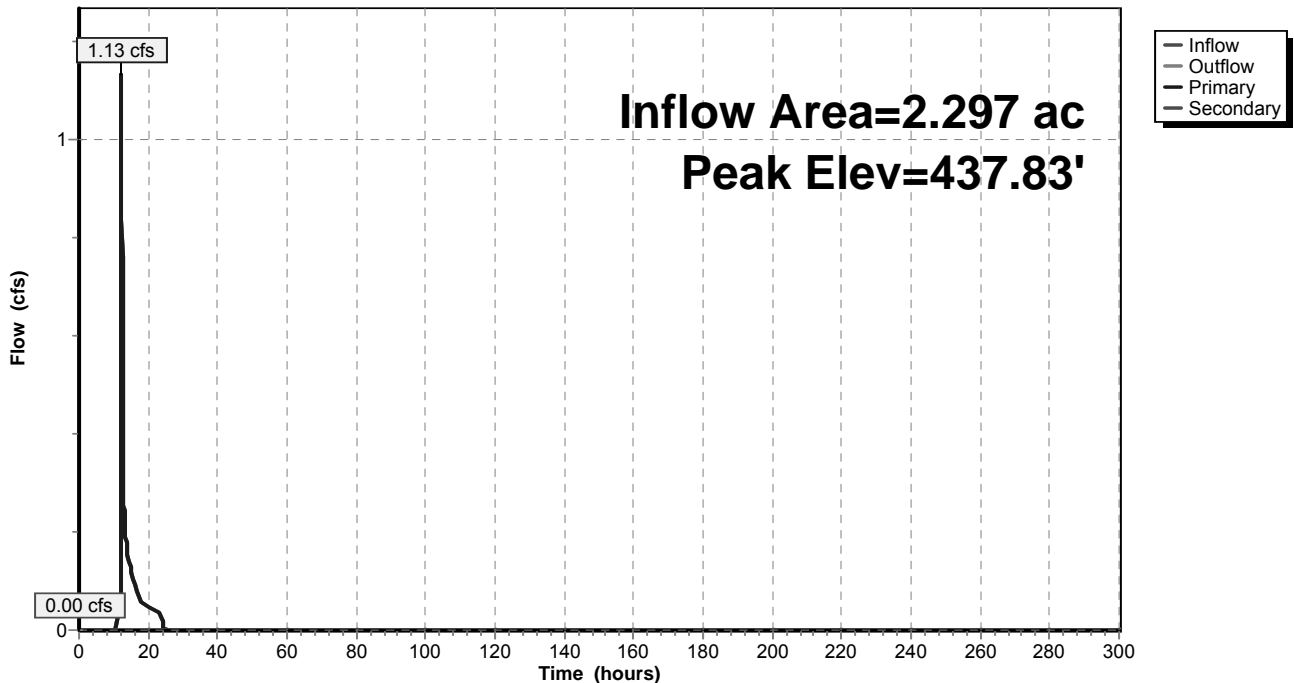
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.13 cfs @ 12.21 hrs HW=437.80' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.13 cfs @ 5.75 fps)

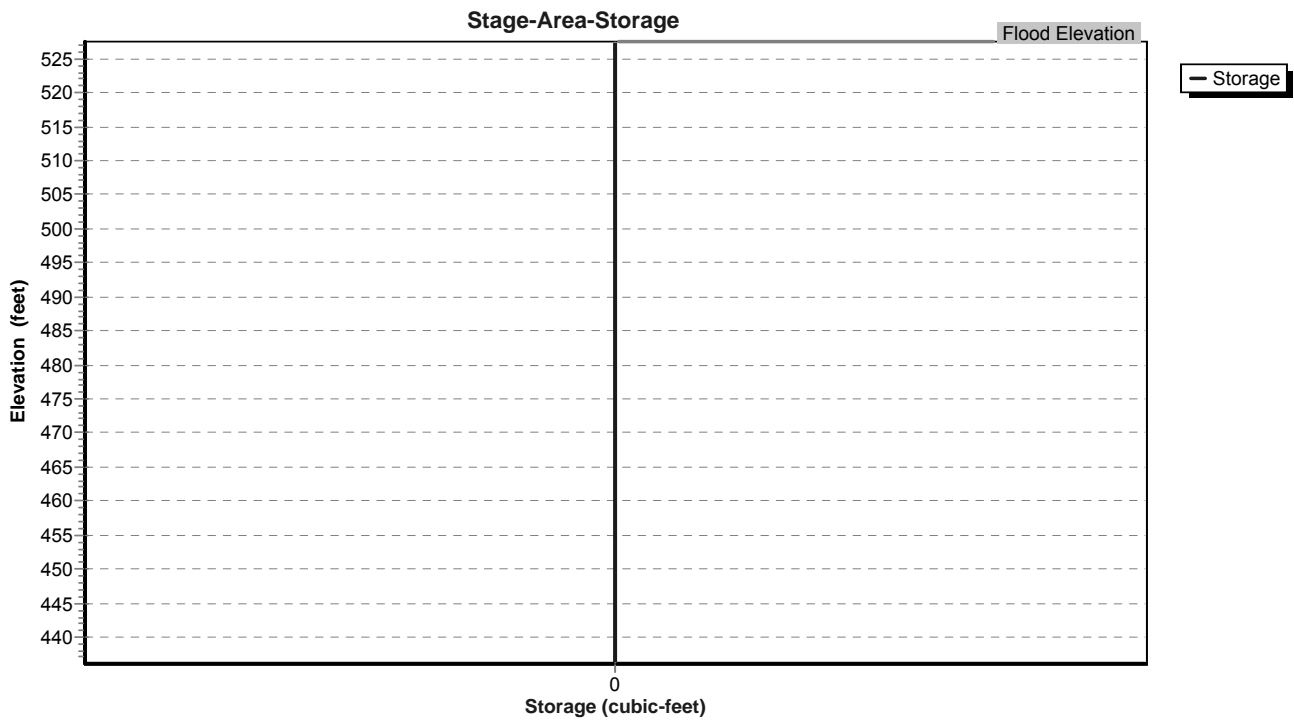
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=436.12' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G5: Flow Splitter - G5

Hydrograph



Pond FS G5: Flow Splitter - G5



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af
 Outflow = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.76' @ 12.31 hrs
 Flood Elev= 554.50'

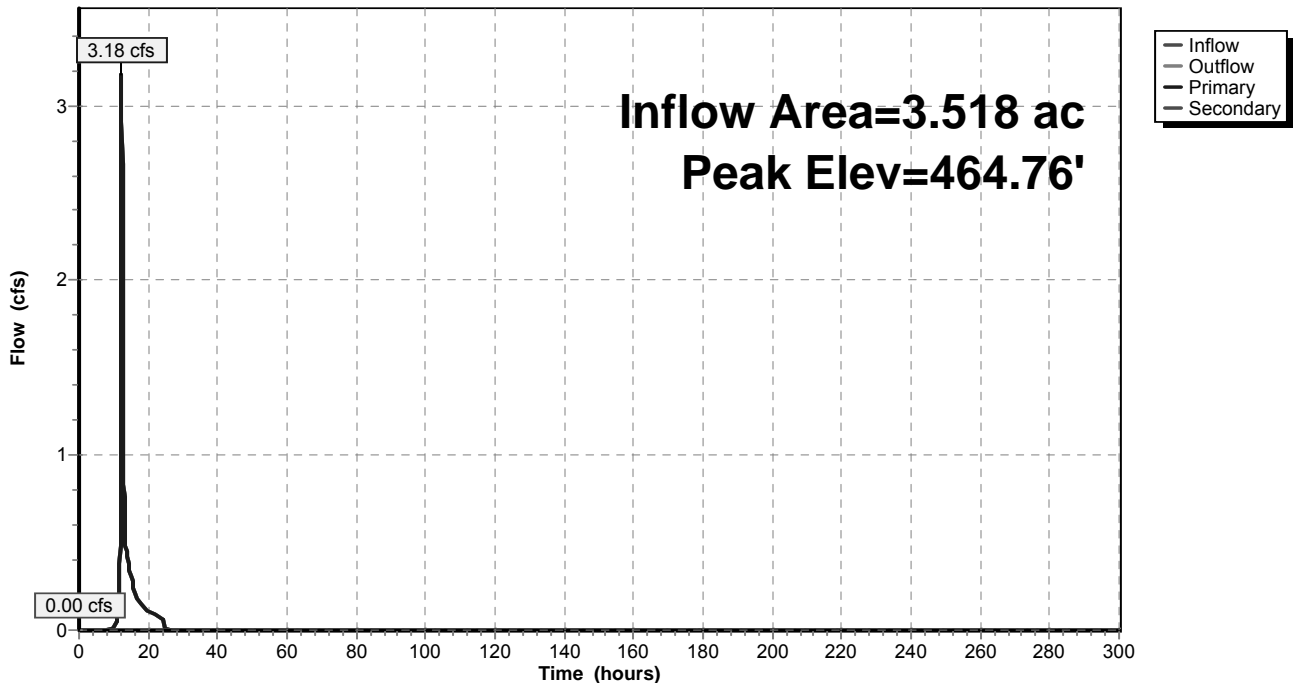
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=3.17 cfs @ 12.31 hrs HW=464.76' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 3.17 cfs @ 4.04 fps)

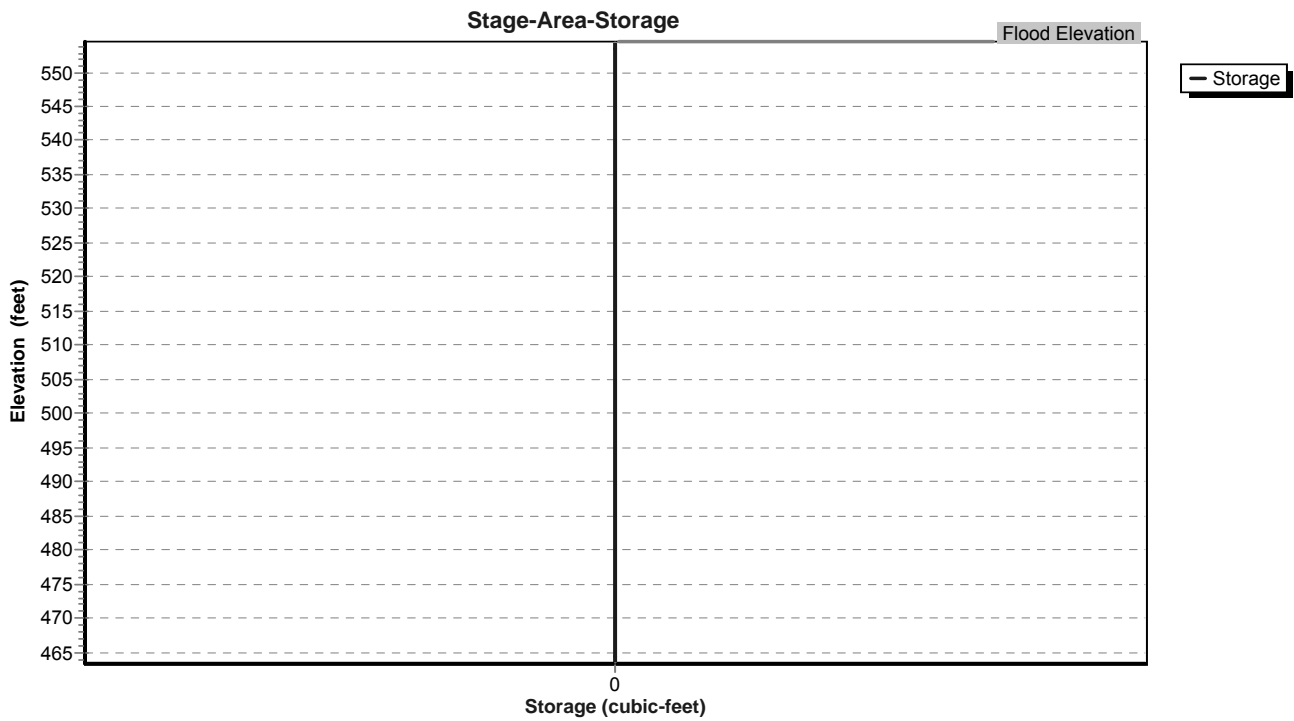
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.35' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G6: Flow Splitter - G6

Hydrograph



Pond FS G6: Flow Splitter - G6



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af
 Outflow = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 456.82' @ 12.21 hrs
 Flood Elev= 554.50'

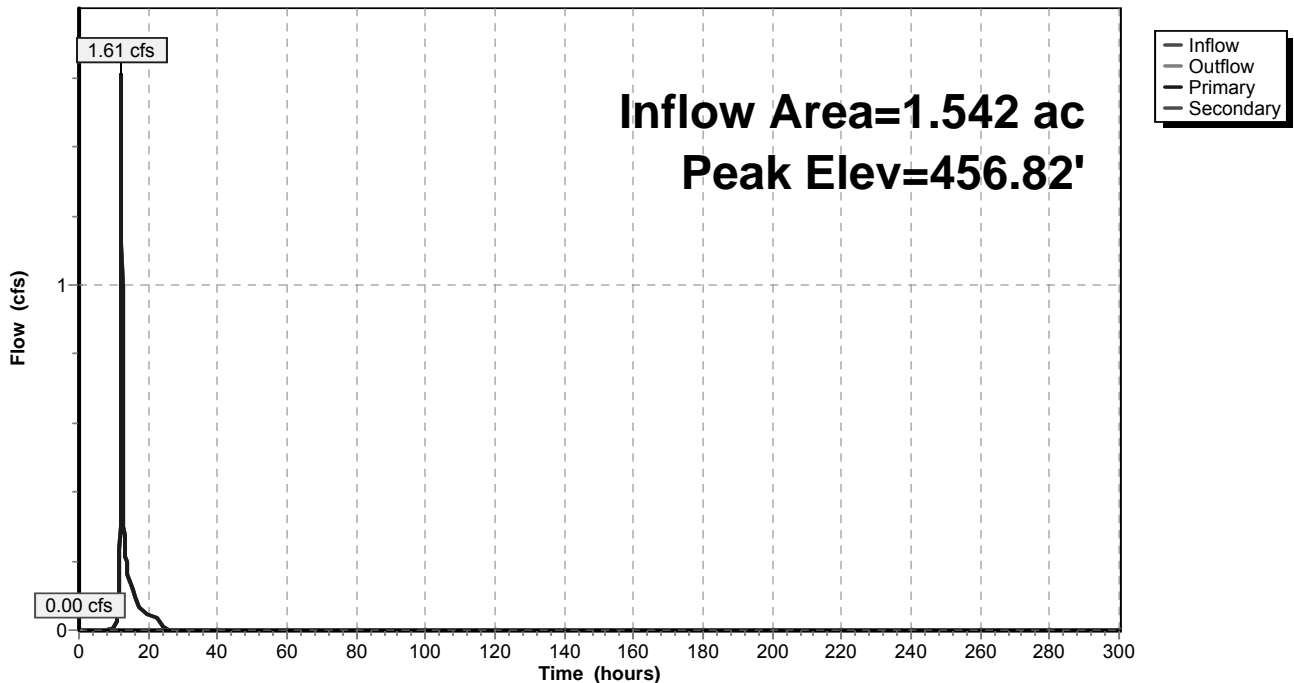
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 ' S= 0.0807 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=1.60 cfs @ 12.21 hrs HW=456.79' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.60 cfs @ 4.57 fps)

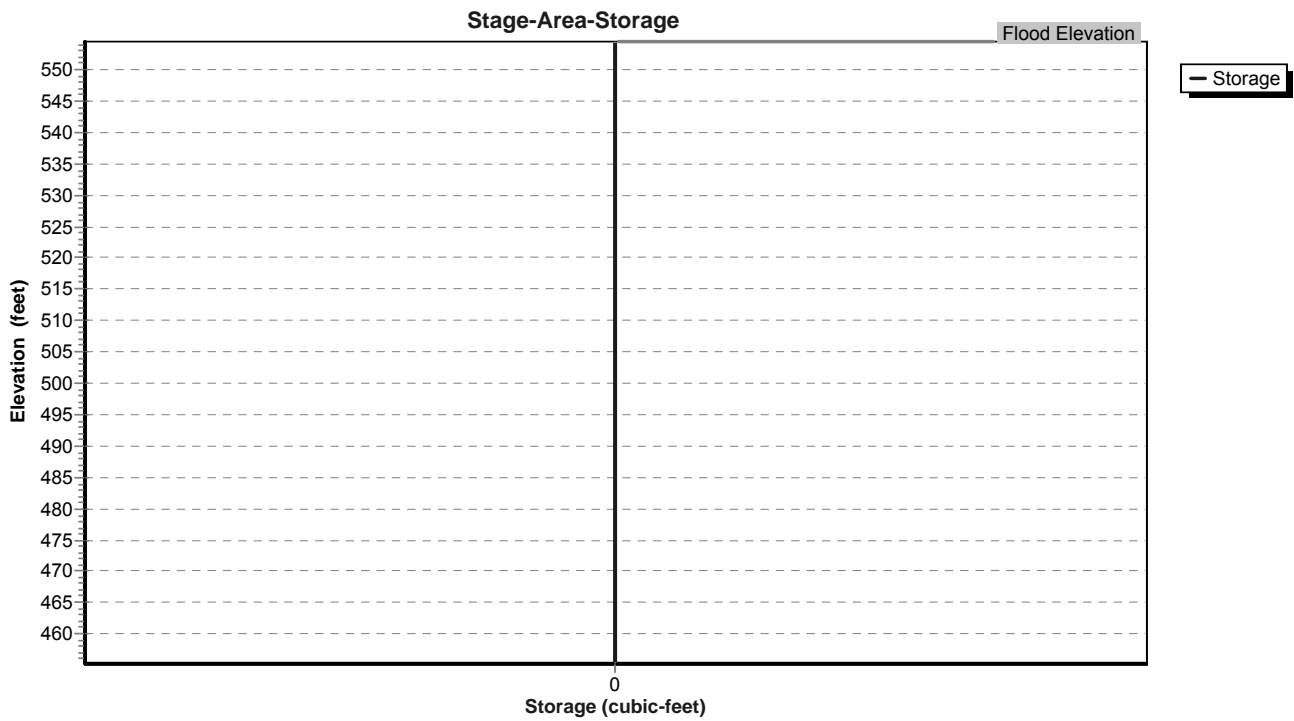
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=455.30' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G7: Flow Splitter - G7

Hydrograph



Pond FS G7: Flow Splitter - G7



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 2.87" for 1 Year - North Salem event
 Inflow = 0.50 cfs @ 12.03 hrs, Volume= 0.037 af
 Outflow = 0.49 cfs @ 12.03 hrs, Volume= 0.037 af, Atten= 1%, Lag= 0.1 min
 Discarded = 0.49 cfs @ 12.03 hrs, Volume= 0.037 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.01' @ 12.03 hrs Surf.Area= 0.022 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.037 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (753.5 - 753.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

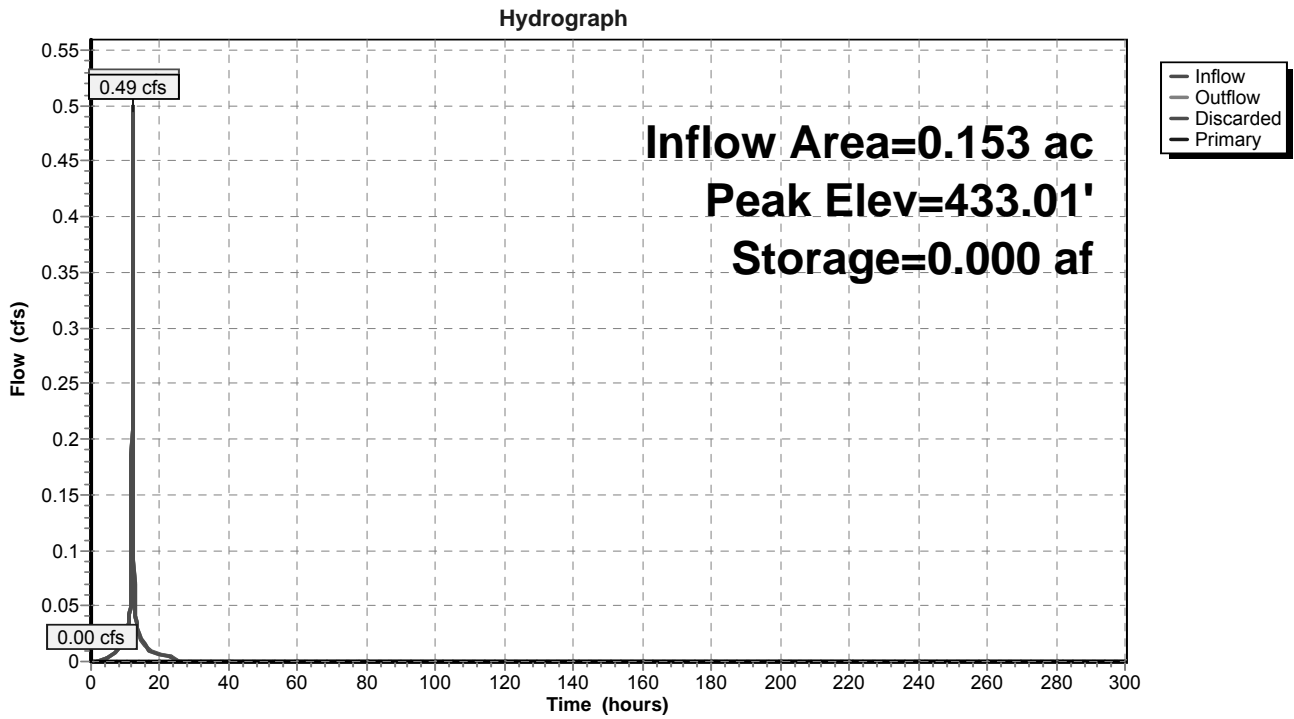
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

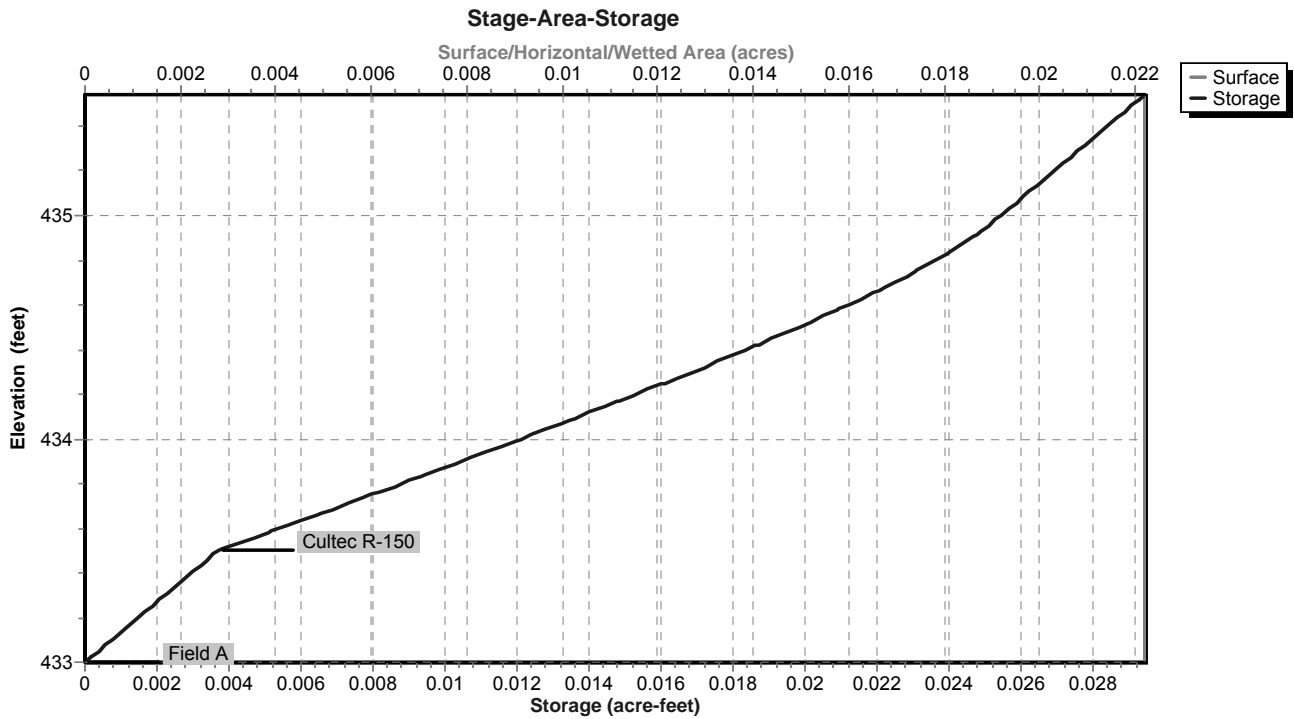
Discarded OutFlow Max=0.90 cfs @ 12.03 hrs HW=433.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 2.45" for 1 Year - North Salem event
 Inflow = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af
 Outflow = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.01' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.029 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (784.5 - 784.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

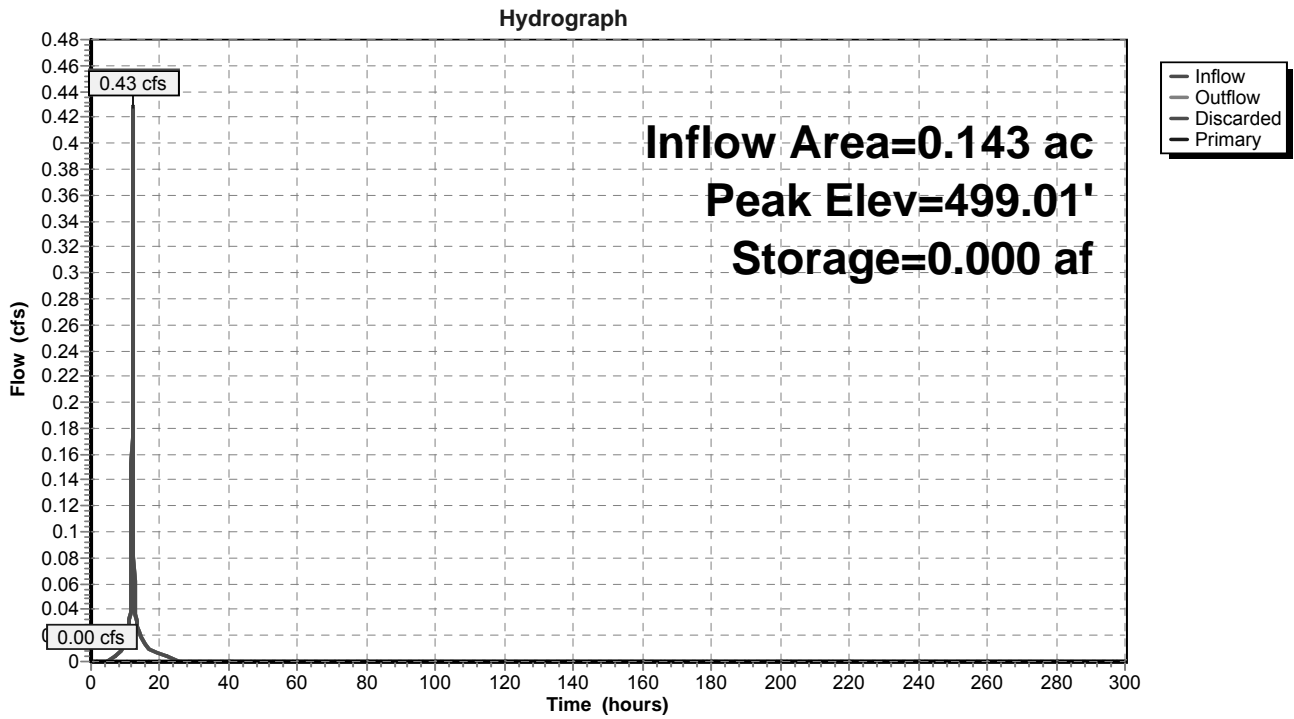
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

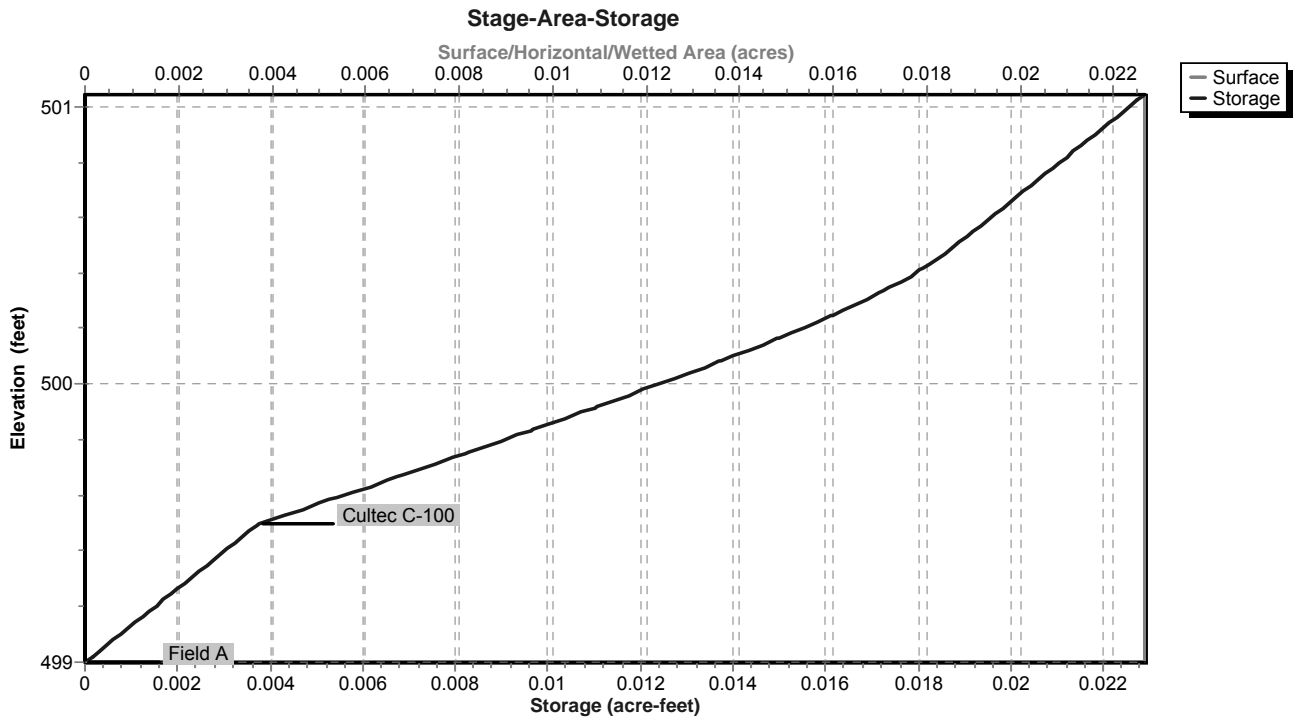
Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 0.54 cfs @ 12.58 hrs, Volume= 0.122 af
 Outflow = 0.03 cfs @ 24.21 hrs, Volume= 0.122 af, Atten= 94%, Lag= 697.7 min
 Primary = 0.03 cfs @ 24.21 hrs, Volume= 0.122 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 430.79' @ 24.21 hrs Surf.Area= 1,888 sf Storage= 4,095 cf

Plug-Flow detention time= 2,047.6 min calculated for 0.122 af (100% of inflow)
 Center-of-Mass det. time= 2,049.8 min (2,980.2 - 930.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

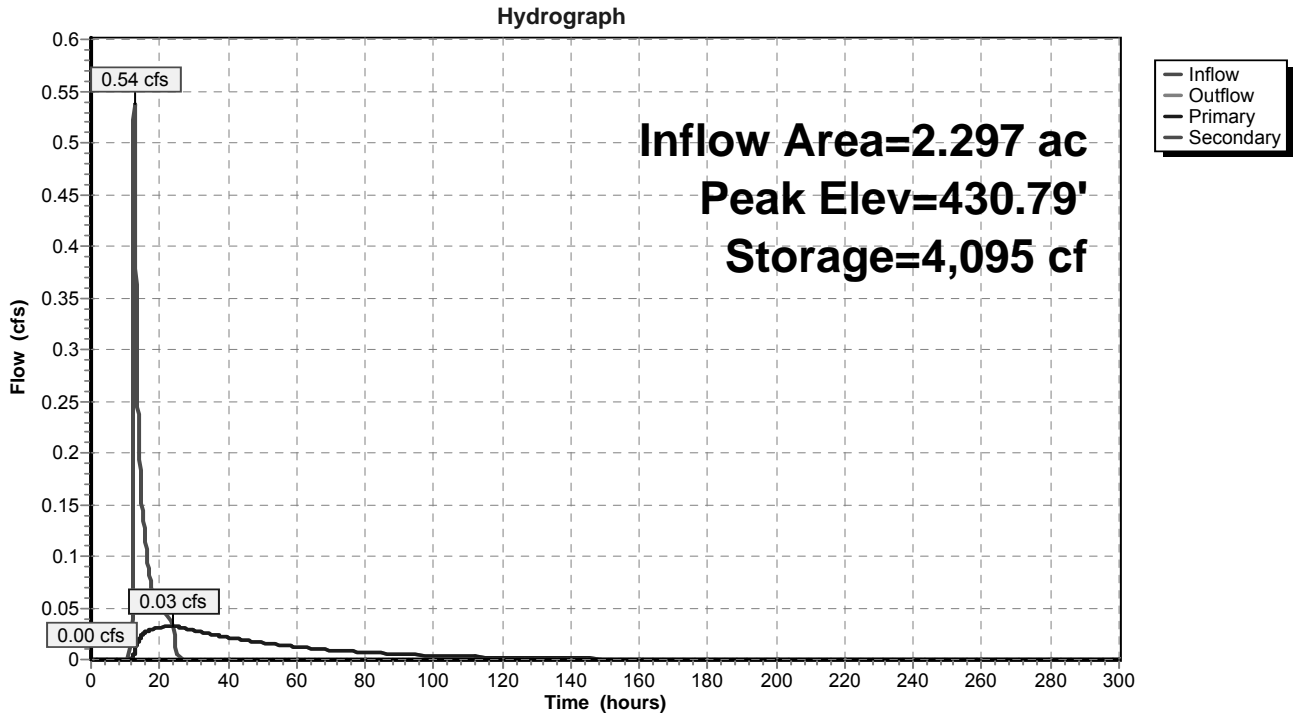
Primary OutFlow Max=0.03 cfs @ 24.21 hrs HW=430.79' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.03 cfs of 7.31 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

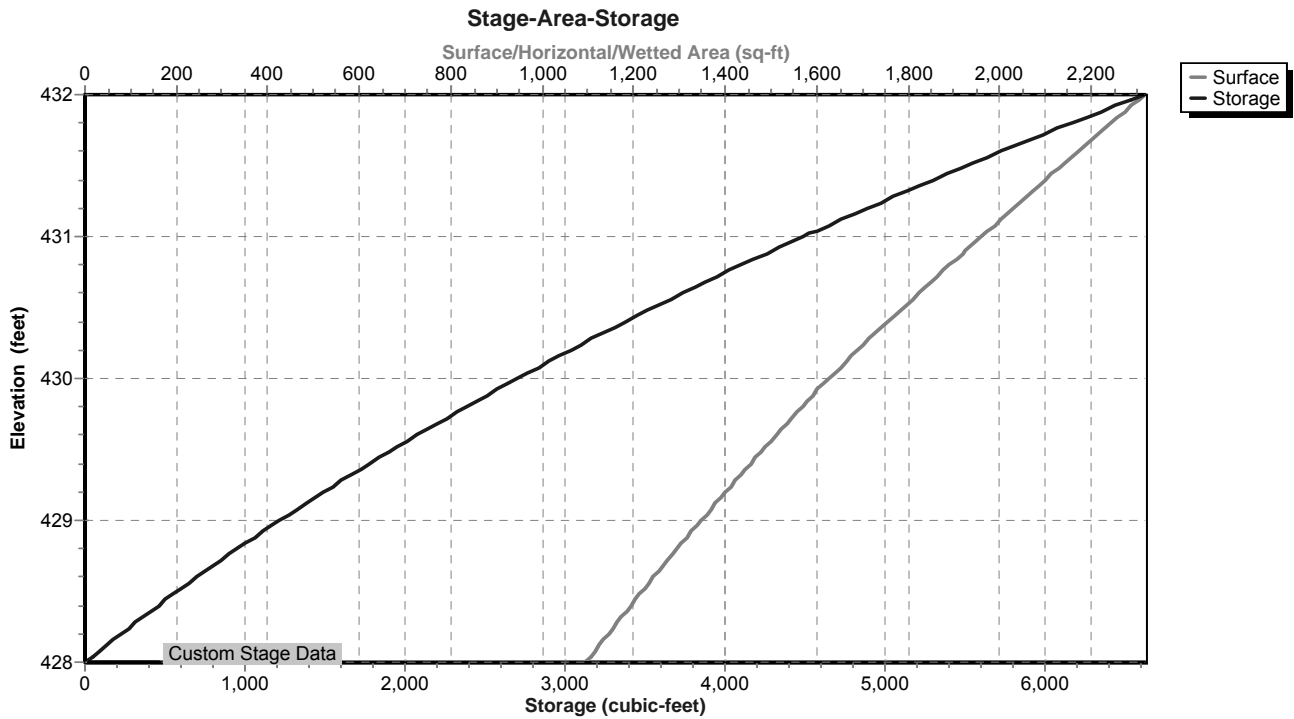
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G5: Sand Filter - G5



Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 2.06 cfs @ 12.60 hrs, Volume= 0.352 af
 Outflow = 0.18 cfs @ 18.43 hrs, Volume= 0.350 af, Atten= 91%, Lag= 349.7 min
 Primary = 0.18 cfs @ 18.43 hrs, Volume= 0.350 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.77' @ 18.43 hrs Surf.Area= 4,839 sf Storage= 11,500 cf

Plug-Flow detention time= 3,018.5 min calculated for 0.350 af (99% of inflow)
 Center-of-Mass det. time= 3,014.4 min (3,954.4 - 940.0)

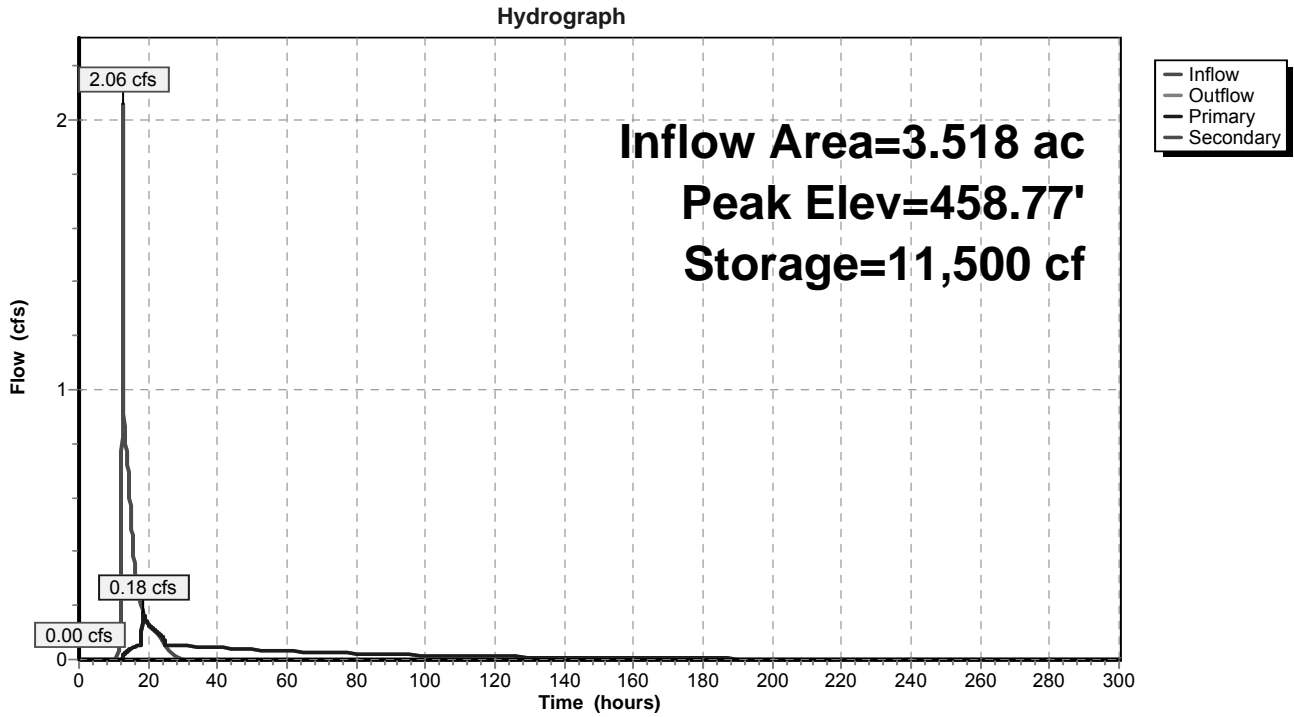
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

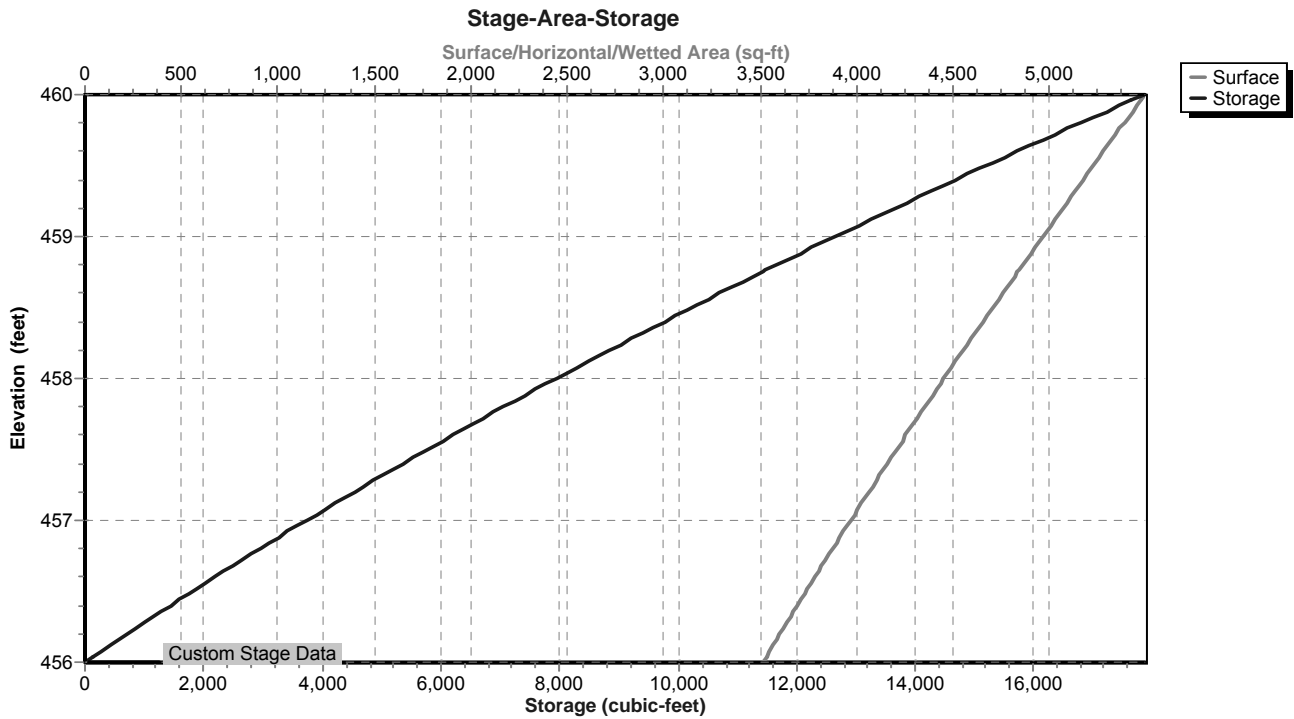
Primary OutFlow Max=0.15 cfs @ 18.43 hrs HW=458.77' (Free Discharge)
 ↑ **1=Outlet Pipe** (Passes 0.15 cfs of 7.28 cfs potential flow)
 ↑ **2=Exfiltration** (Exfiltration Controls 0.05 cfs)
 ↑ **3=Top of Outlet Box** (Weir Controls 0.10 cfs @ 0.40 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ **4=Emergency Overflow** (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 0.70 cfs @ 12.58 hrs, Volume= 0.154 af
 Outflow = 0.04 cfs @ 23.48 hrs, Volume= 0.154 af, Atten= 95%, Lag= 654.5 min
 Primary = 0.04 cfs @ 23.48 hrs, Volume= 0.154 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.76' @ 23.48 hrs Surf.Area= 2,376 sf Storage= 5,229 cf

Plug-Flow detention time= 2,204.6 min calculated for 0.154 af (100% of inflow)
 Center-of-Mass det. time= 2,204.4 min (3,109.0 - 904.6)

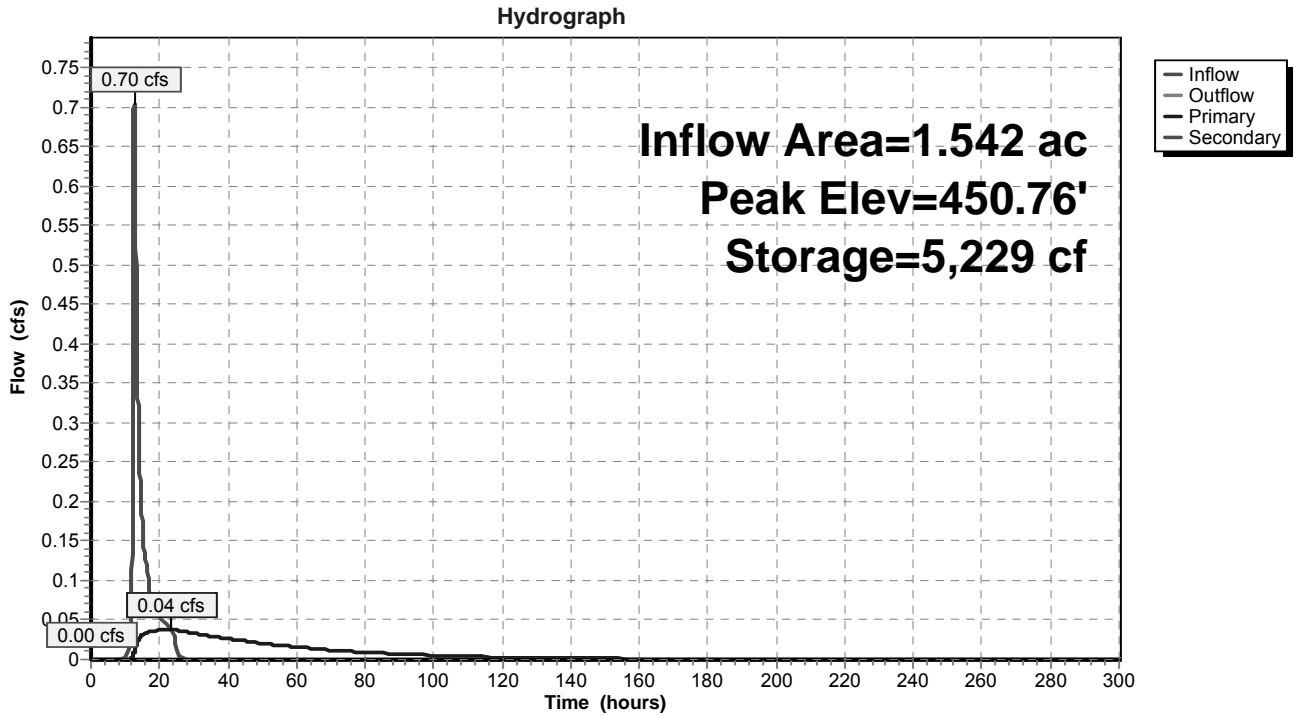
Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

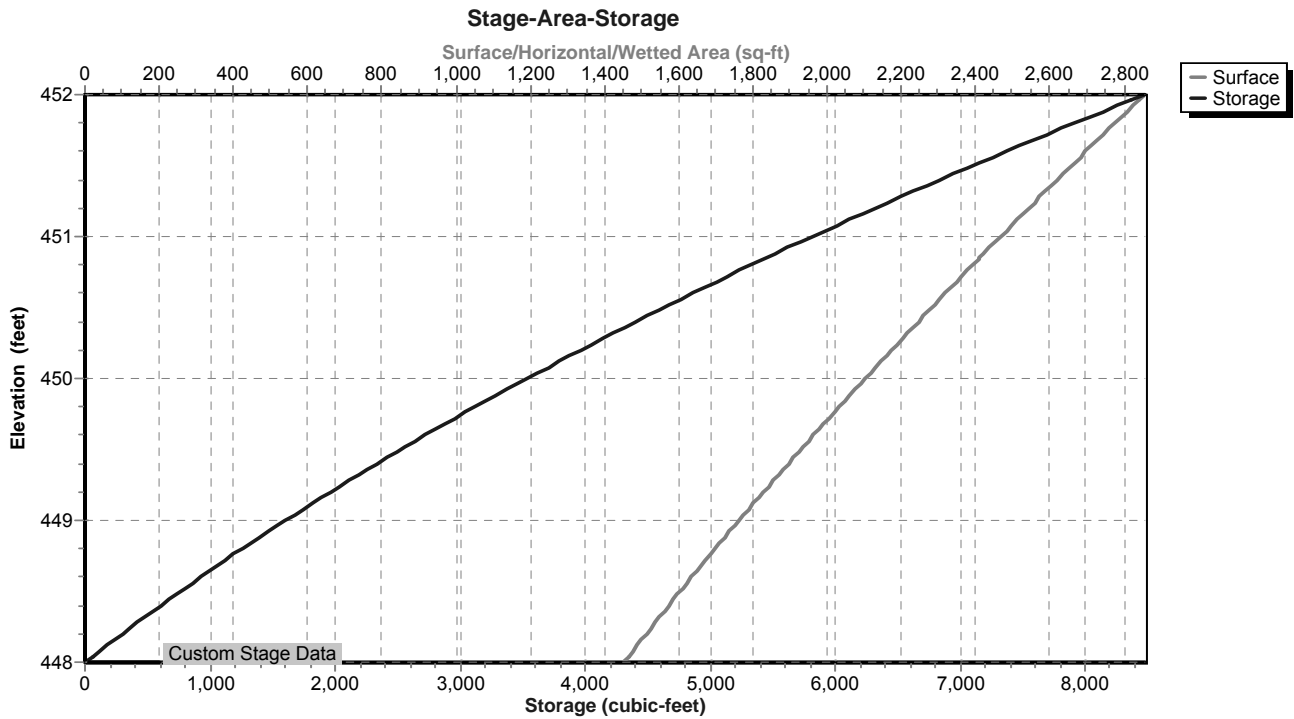
Primary OutFlow Max=0.04 cfs @ 23.48 hrs HW=450.76' (Free Discharge)
 ↑ **1=Outlet Pipe** (Passes 0.04 cfs of 7.28 cfs potential flow)
 ↑ **2=Exfiltration** (Exfiltration Controls 0.04 cfs)
 ↑ **3=Top of Outlet Box** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↑ **4=Emergency Overflow** (Controls 0.00 cfs)

Pond SF-G7: Sand Filter - G7



Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af
 Outflow = 0.54 cfs @ 12.58 hrs, Volume= 0.122 af, Atten= 53%, Lag= 22.1 min
 Primary = 0.54 cfs @ 12.58 hrs, Volume= 0.122 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.74' @ 12.58 hrs Surf.Area= 812 sf Storage= 1,095 cf

Plug-Flow detention time= 38.1 min calculated for 0.122 af (100% of inflow)
 Center-of-Mass det. time= 38.1 min (930.4 - 892.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

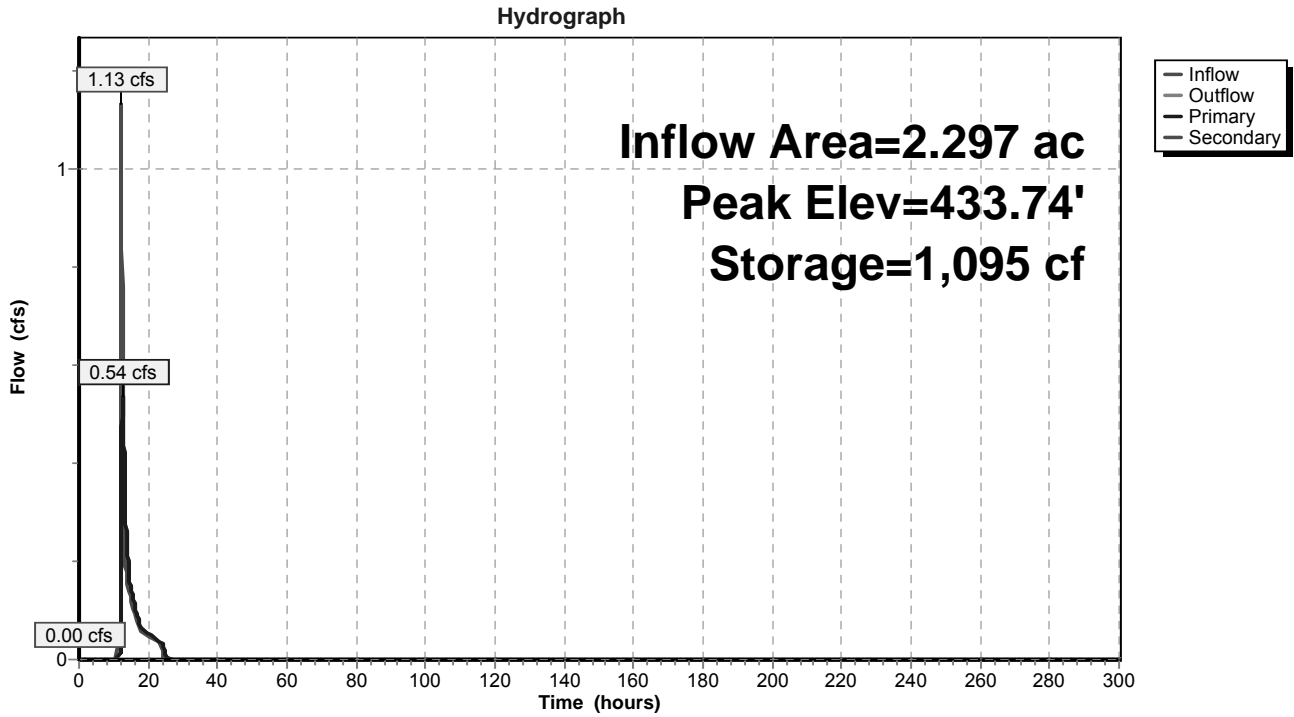
Primary OutFlow Max=0.54 cfs @ 12.58 hrs HW=433.74' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.54 cfs of 4.22 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.54 cfs @ 4.14 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

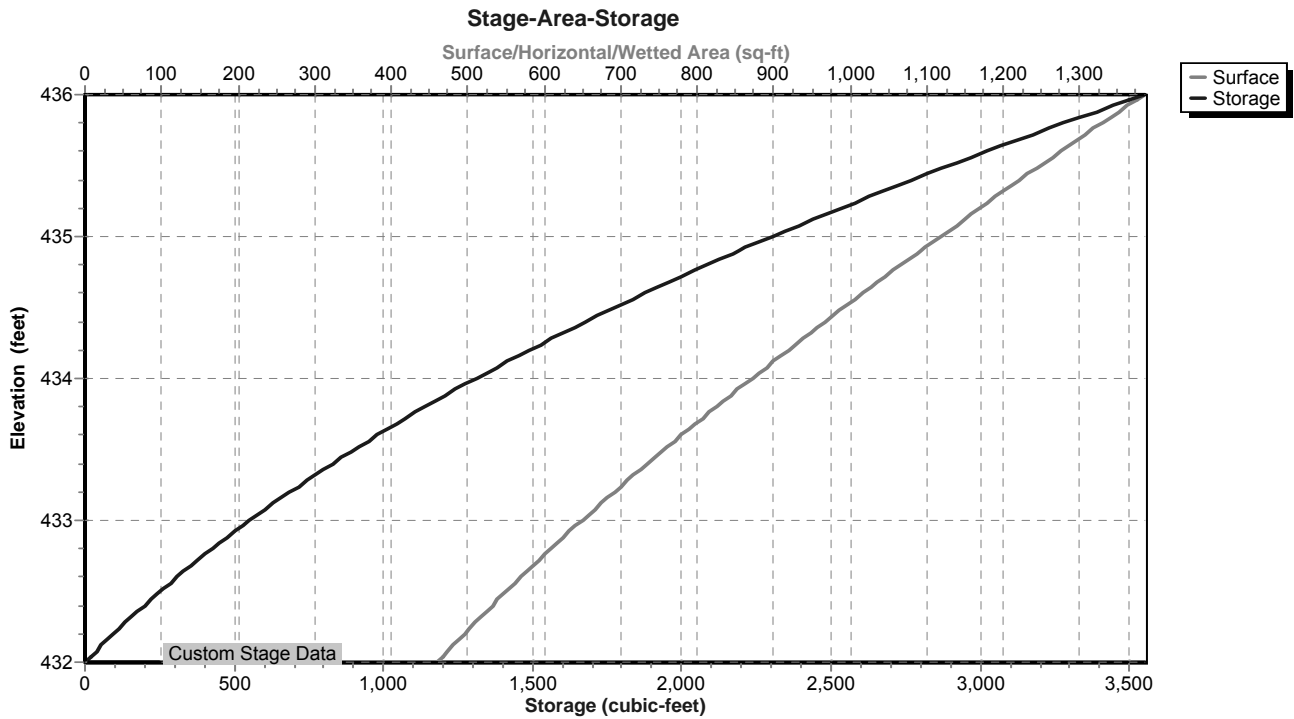
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G5: Sand Filter Forebay - G5



Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af
 Outflow = 2.06 cfs @ 12.60 hrs, Volume= 0.352 af, Atten= 35%, Lag= 17.6 min
 Primary = 2.06 cfs @ 12.60 hrs, Volume= 0.352 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.87' @ 12.60 hrs Surf.Area= 2,090 sf Storage= 4,436 cf

Plug-Flow detention time= 75.1 min calculated for 0.352 af (100% of inflow)
 Center-of-Mass det. time= 75.2 min (940.0 - 864.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

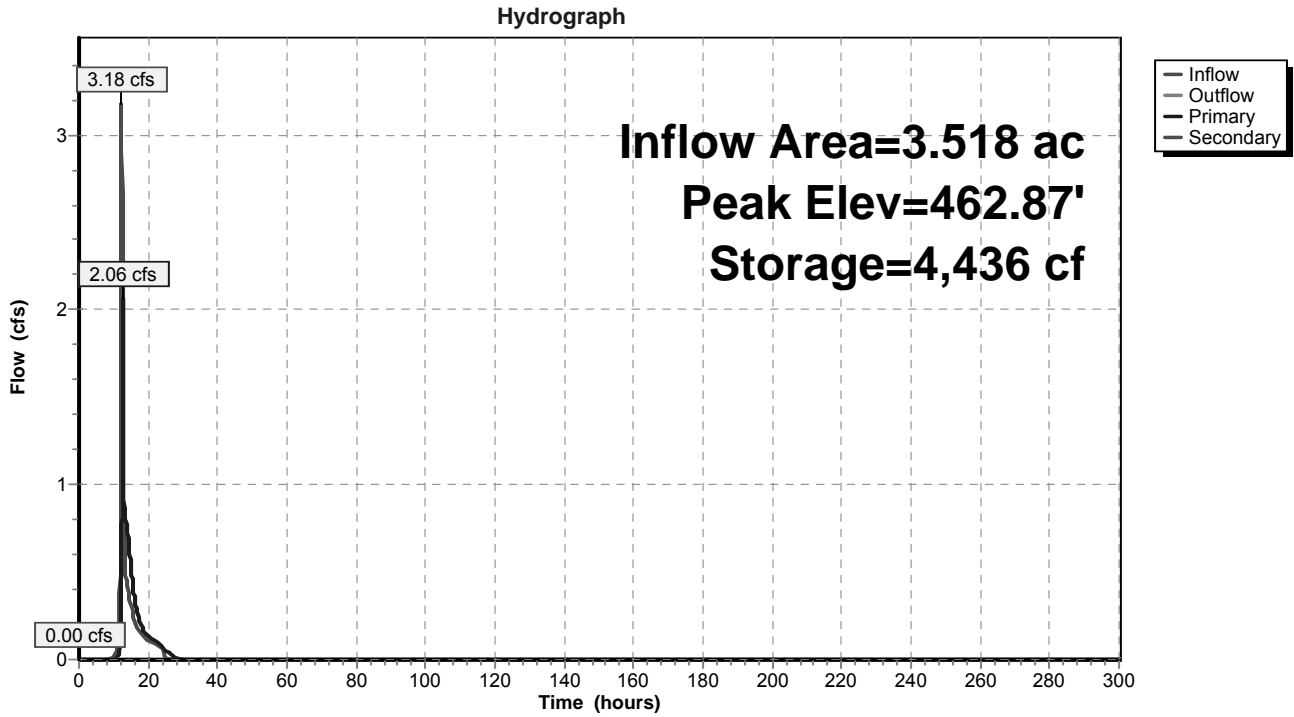
Primary OutFlow Max=2.04 cfs @ 12.60 hrs HW=462.87' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.04 cfs of 5.82 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.88 cfs @ 6.73 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.40 cfs @ 0.88 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.76 cfs @ 0.88 fps)

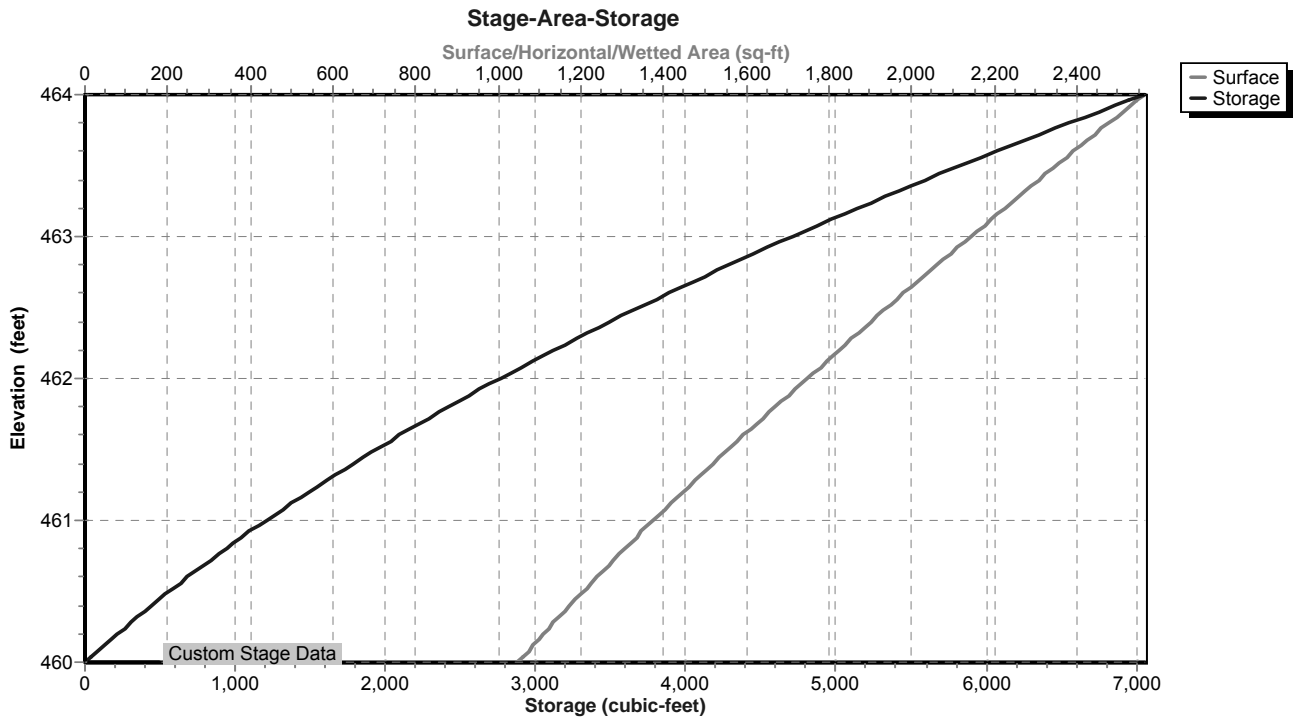
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G6: Sand Filter Forebay - G6



Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af
 Outflow = 0.70 cfs @ 12.58 hrs, Volume= 0.154 af, Atten= 56%, Lag= 21.7 min
 Primary = 0.70 cfs @ 12.58 hrs, Volume= 0.154 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 454.19' @ 12.58 hrs Surf.Area= 1,048 sf Storage= 1,760 cf

Plug-Flow detention time= 45.9 min calculated for 0.154 af (100% of inflow)
 Center-of-Mass det. time= 45.7 min (904.6 - 858.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
452.00	581	93.0	0	0	581
454.00	1,003	118.0	1,565	1,565	1,051
455.00	1,251	130.0	1,125	2,690	1,318
456.00	1,525	143.0	1,386	4,075	1,632

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

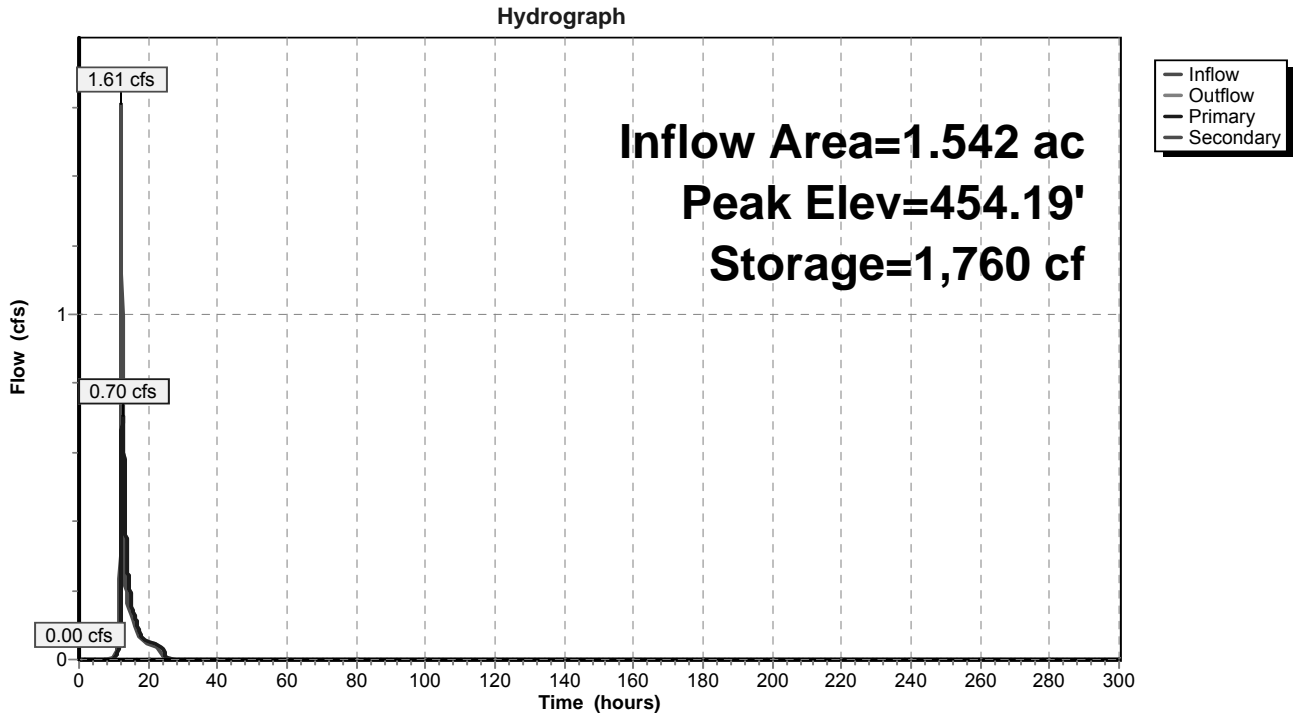
Primary OutFlow Max=0.70 cfs @ 12.58 hrs HW=454.19' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.70 cfs of 2.29 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.70 cfs @ 5.37 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

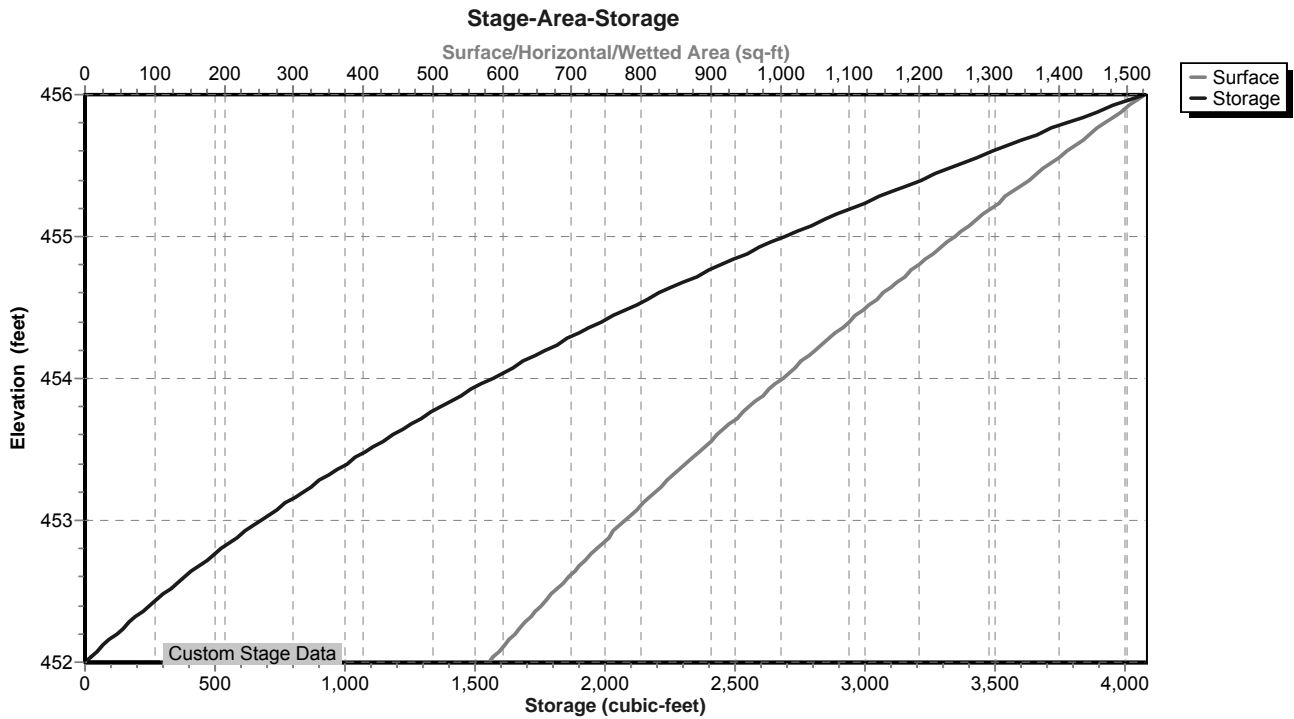
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G7: Sand Filter Forebay - G7



Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=1.02"
Flow Length=833' Tc=13.0 min CN=68 Runoff=1.84 cfs 0.183 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=3.47"
Flow Length=245' Tc=2.0 min CN=98 Runoff=0.60 cfs 0.044 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=3.03"
Flow Length=245' Tc=2.0 min CN=94 Runoff=0.52 cfs 0.036 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=1.65"
Flow Length=917' Tc=20.9 min CN=78 Runoff=4.44 cfs 0.484 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=1.65"
Flow Length=649' Tc=14.6 min CN=78 Runoff=2.25 cfs 0.212 af

Pond B-G5: Dry Basin - G5 Peak Elev=421.24' Storage=781 cf Inflow=1.04 cfs 0.395 af
Primary=0.32 cfs 0.395 af Secondary=0.00 cfs 0.000 af Outflow=0.32 cfs 0.395 af

Pond B-G6: Dry Basin - G6 Peak Elev=449.48' Storage=1,899 cf Inflow=0.69 cfs 0.482 af
Primary=0.38 cfs 0.482 af Secondary=0.00 cfs 0.000 af Outflow=0.38 cfs 0.482 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=0.69 cfs 0.877 af
Primary=0.69 cfs 0.877 af

Pond FS G5: Flow Splitter - G5 Peak Elev=438.15' Inflow=1.84 cfs 0.183 af
Primary=1.26 cfs 0.174 af Secondary=0.59 cfs 0.009 af Outflow=1.84 cfs 0.183 af

Pond FS G6: Flow Splitter - G6 Peak Elev=465.12' Inflow=4.44 cfs 0.484 af
Primary=3.76 cfs 0.472 af Secondary=0.68 cfs 0.012 af Outflow=4.44 cfs 0.484 af

Pond FS G7: Flow Splitter - G7 Peak Elev=457.12' Inflow=2.25 cfs 0.212 af
Primary=1.80 cfs 0.207 af Secondary=0.44 cfs 0.006 af Outflow=2.25 cfs 0.212 af

Pond S-17: Underground Infiltration Peak Elev=433.02' Storage=0.000 af Inflow=0.60 cfs 0.044 af
Discarded=0.59 cfs 0.044 af Primary=0.00 cfs 0.000 af Outflow=0.59 cfs 0.044 af

Pond S-21: Underground Infiltration Peak Elev=499.01' Storage=0.000 af Inflow=0.52 cfs 0.036 af
Discarded=0.52 cfs 0.036 af Primary=0.00 cfs 0.000 af Outflow=0.52 cfs 0.036 af

Pond SF-G5: Sand Filter - G5 Peak Elev=430.92' Storage=4,346 cf Inflow=0.73 cfs 0.174 af
Primary=0.20 cfs 0.174 af Secondary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.174 af

Pond SF-G6: Sand Filter - G6 Peak Elev=458.80' Storage=11,654 cf Inflow=3.94 cfs 0.472 af
Primary=0.60 cfs 0.470 af Secondary=0.00 cfs 0.000 af Outflow=0.60 cfs 0.470 af

Pond SF-G7: Sand Filter - G7 Peak Elev=450.88' Storage=5,518 cf Inflow=0.85 cfs 0.207 af
Primary=0.22 cfs 0.207 af Secondary=0.00 cfs 0.000 af Outflow=0.22 cfs 0.207 af

Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=434.28' Storage=1,563 cf Inflow=1.26 cfs 0.174 af
Primary=0.73 cfs 0.174 af Secondary=0.00 cfs 0.000 af Outflow=0.73 cfs 0.174 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=462.93' Storage=4,558 cf Inflow=3.76 cfs 0.472 af
Primary=3.94 cfs 0.472 af Secondary=0.00 cfs 0.000 af Outflow=3.94 cfs 0.472 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=454.76' Storage=2,397 cf Inflow=1.80 cfs 0.207 af
Primary=0.85 cfs 0.207 af Secondary=0.00 cfs 0.000 af Outflow=0.85 cfs 0.207 af

Total Runoff Area = 7.510 ac Runoff Volume = 0.959 af Average Runoff Depth = 1.53"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

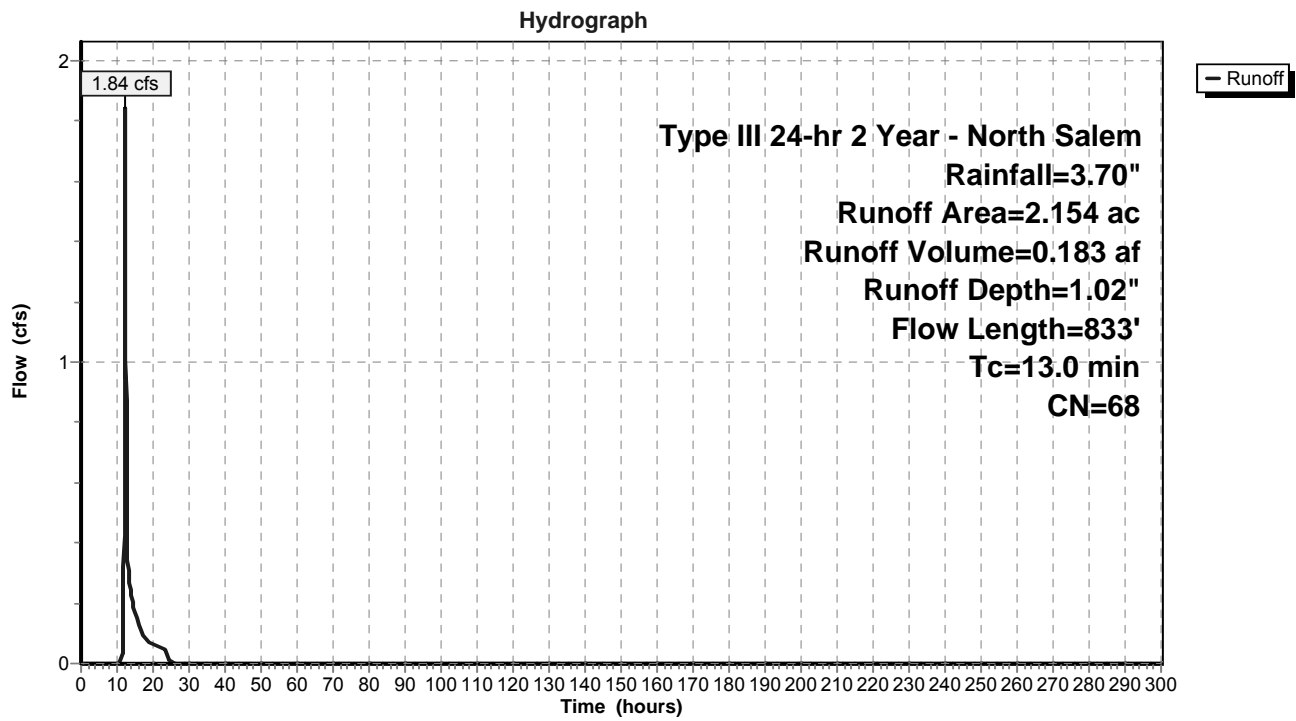
Runoff = 1.84 cfs @ 12.20 hrs, Volume= 0.183 af, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.60 cfs @ 12.03 hrs, Volume= 0.044 af, Depth= 3.47"

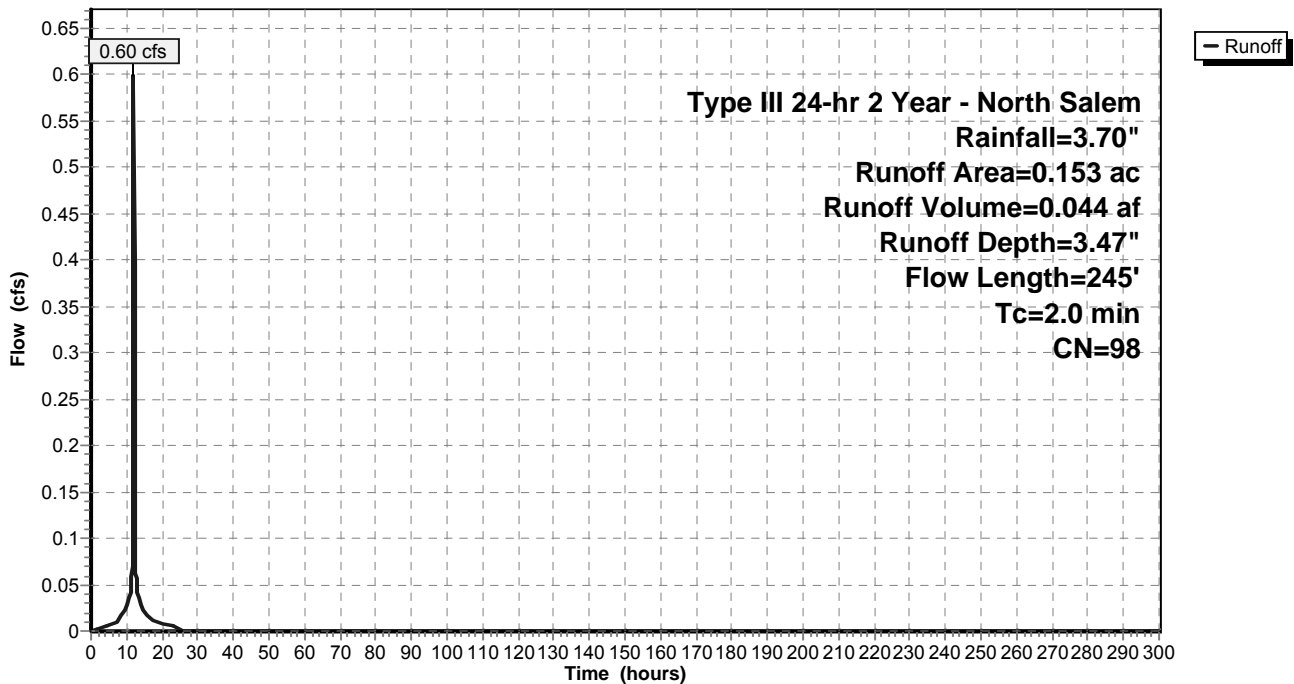
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af, Depth= 3.03"

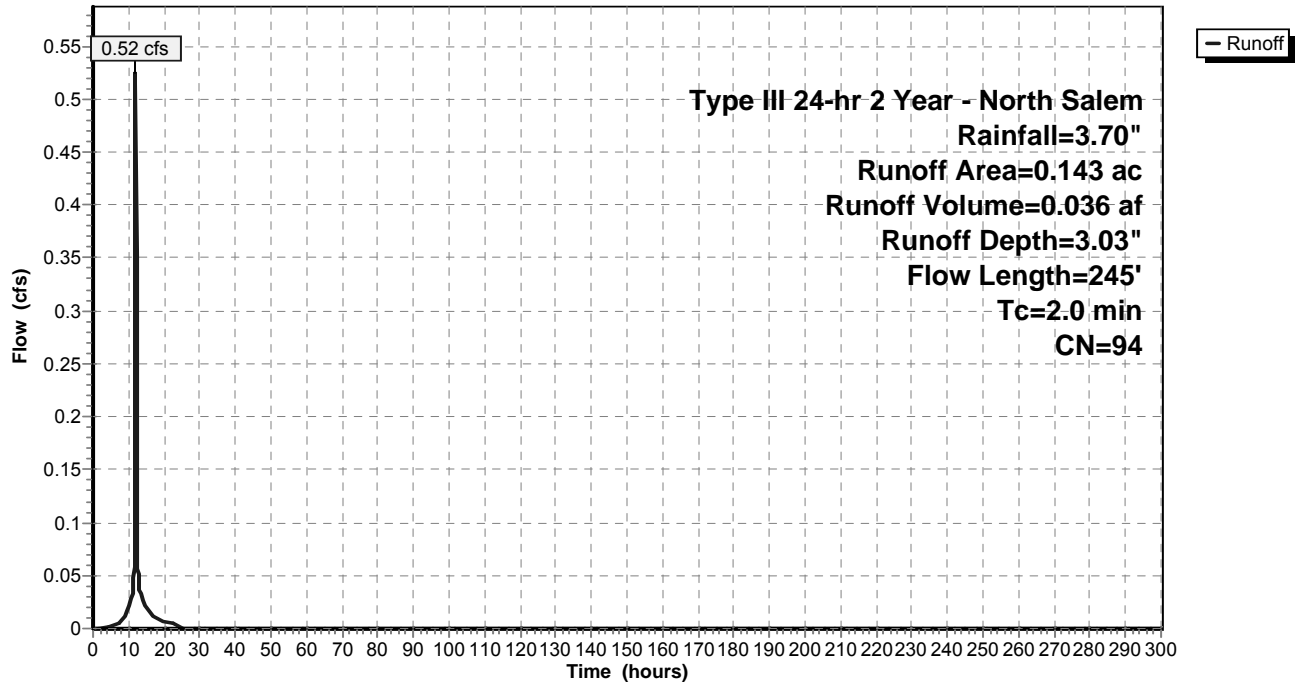
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c

Hydrograph



Summary for Subcatchment G6: Post-Development G6

Runoff = 4.44 cfs @ 12.30 hrs, Volume= 0.484 af, Depth= 1.65"

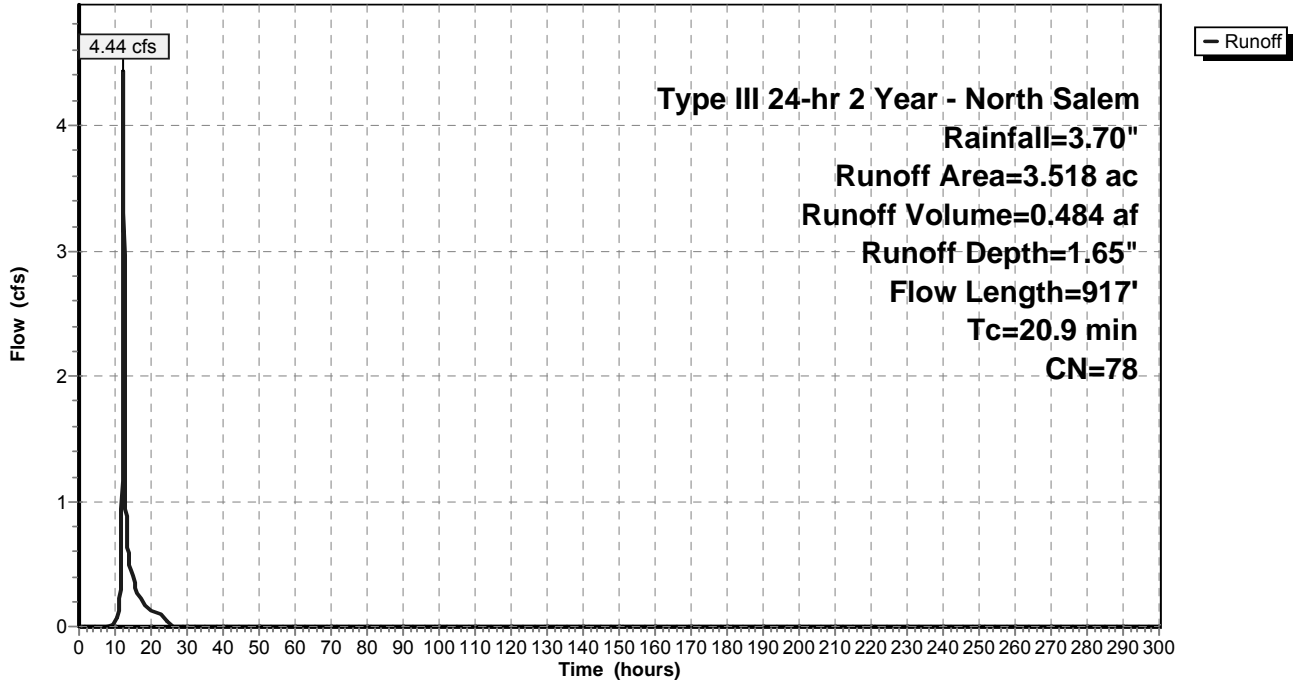
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6

Hydrograph



Summary for Subcatchment G7: Post-Development G7

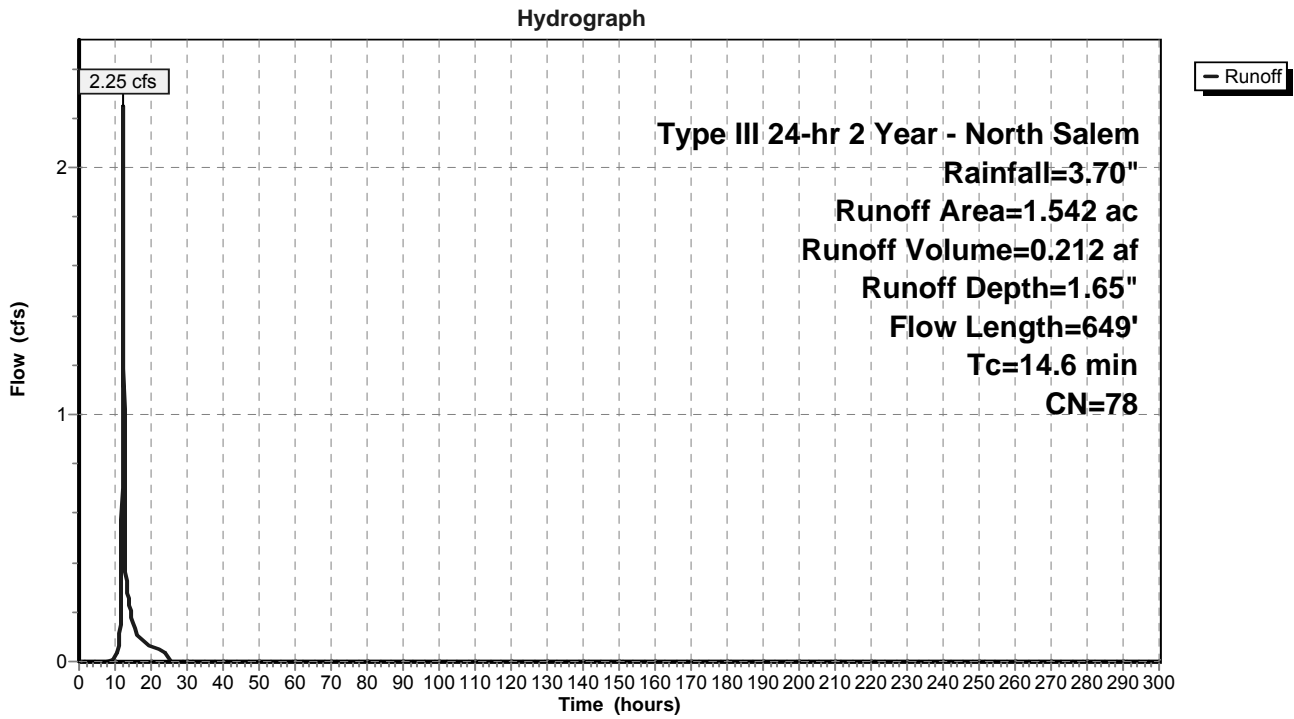
Runoff = 2.25 cfs @ 12.21 hrs, Volume= 0.212 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 1.19" for 2 Year - North Salem event
 Inflow = 1.04 cfs @ 12.21 hrs, Volume= 0.395 af
 Outflow = 0.32 cfs @ 15.94 hrs, Volume= 0.395 af, Atten= 69%, Lag= 223.8 min
 Primary = 0.32 cfs @ 15.94 hrs, Volume= 0.395 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 421.24' @ 15.94 hrs Surf.Area= 969 sf Storage= 781 cf (556 cf above start)

Plug-Flow detention time= 170.6 min calculated for 0.390 af (99% of inflow)
 Center-of-Mass det. time= 33.0 min (2,548.0 - 2,515.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

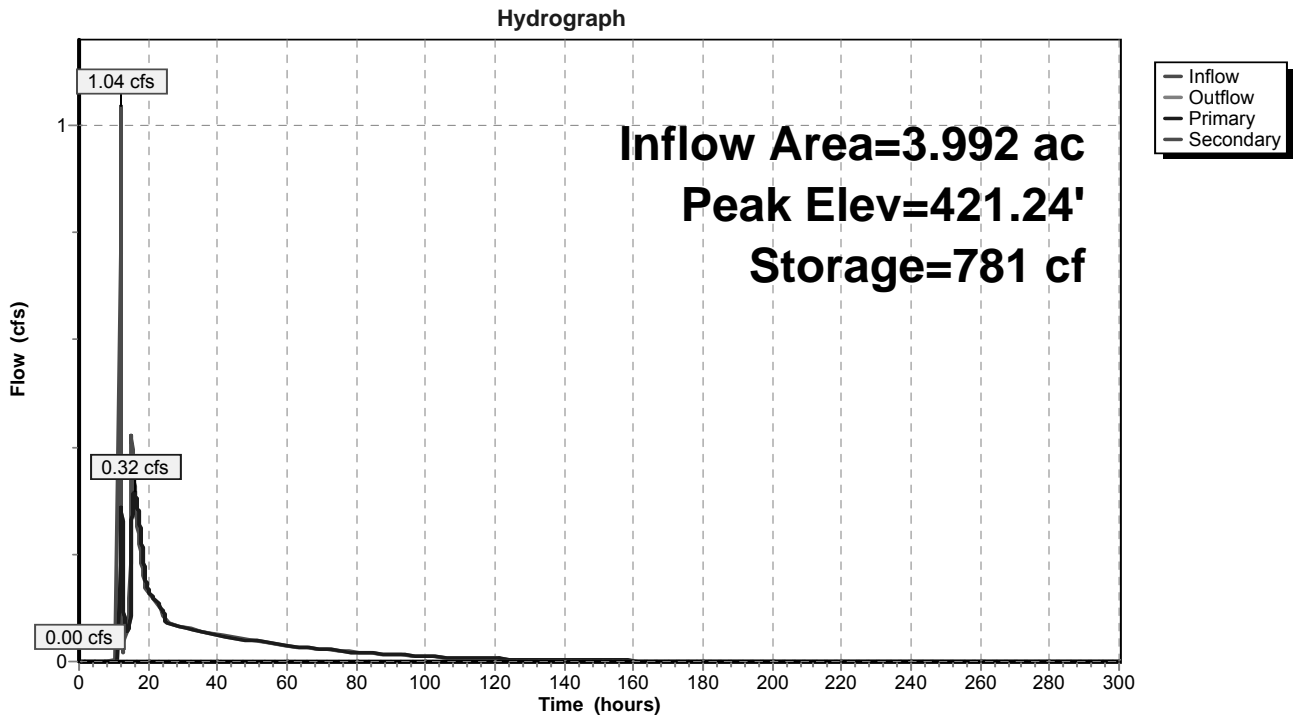
Primary OutFlow Max=0.32 cfs @ 15.94 hrs HW=421.24' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.32 cfs of 16.82 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.32 cfs @ 3.63 fps)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

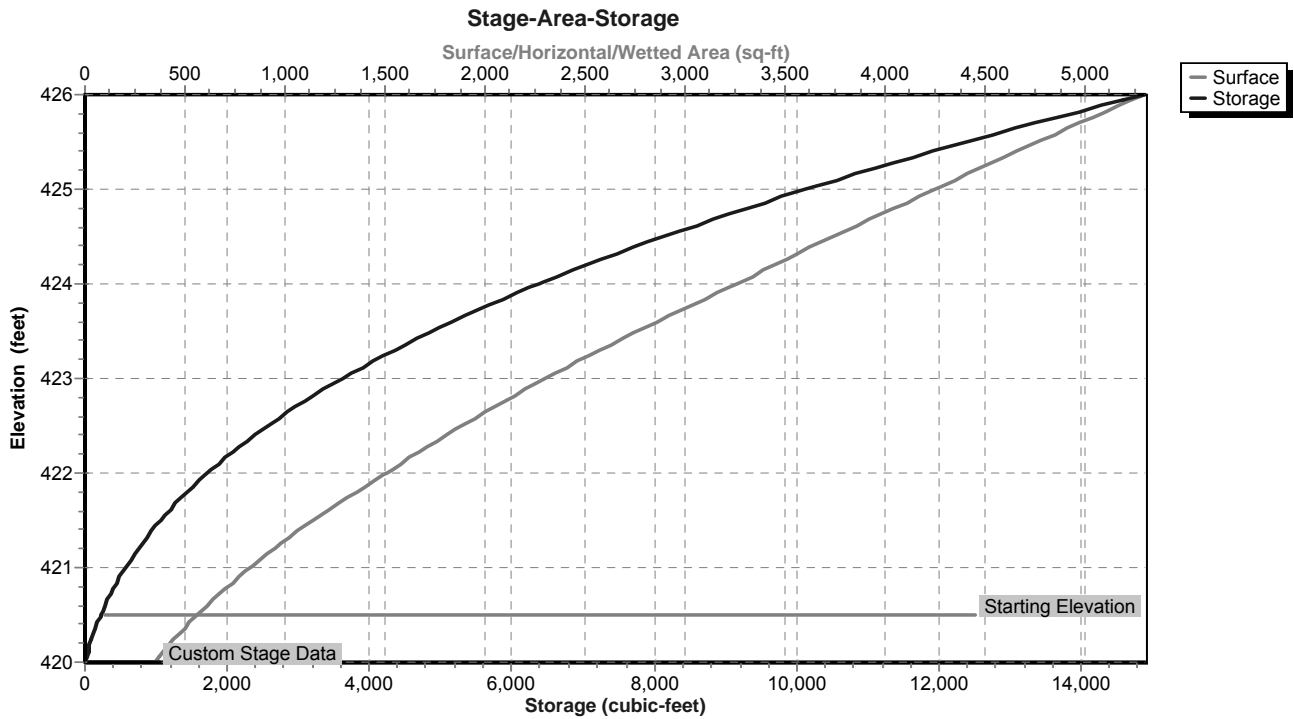
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G5: Dry Basin - G5



Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth > 1.64" for 2 Year - North Salem event
 Inflow = 0.69 cfs @ 12.30 hrs, Volume= 0.482 af
 Outflow = 0.38 cfs @ 16.58 hrs, Volume= 0.482 af, Atten= 45%, Lag= 256.8 min
 Primary = 0.38 cfs @ 16.58 hrs, Volume= 0.482 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 449.48' @ 16.58 hrs Surf.Area= 1,617 sf Storage= 1,899 cf (1,362 cf above start)

Plug-Flow detention time= 410.0 min calculated for 0.470 af (97% of inflow)
 Center-of-Mass det. time= 68.4 min (3,222.6 - 3,154.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.38 cfs @ 16.58 hrs HW=449.48' (Free Discharge)

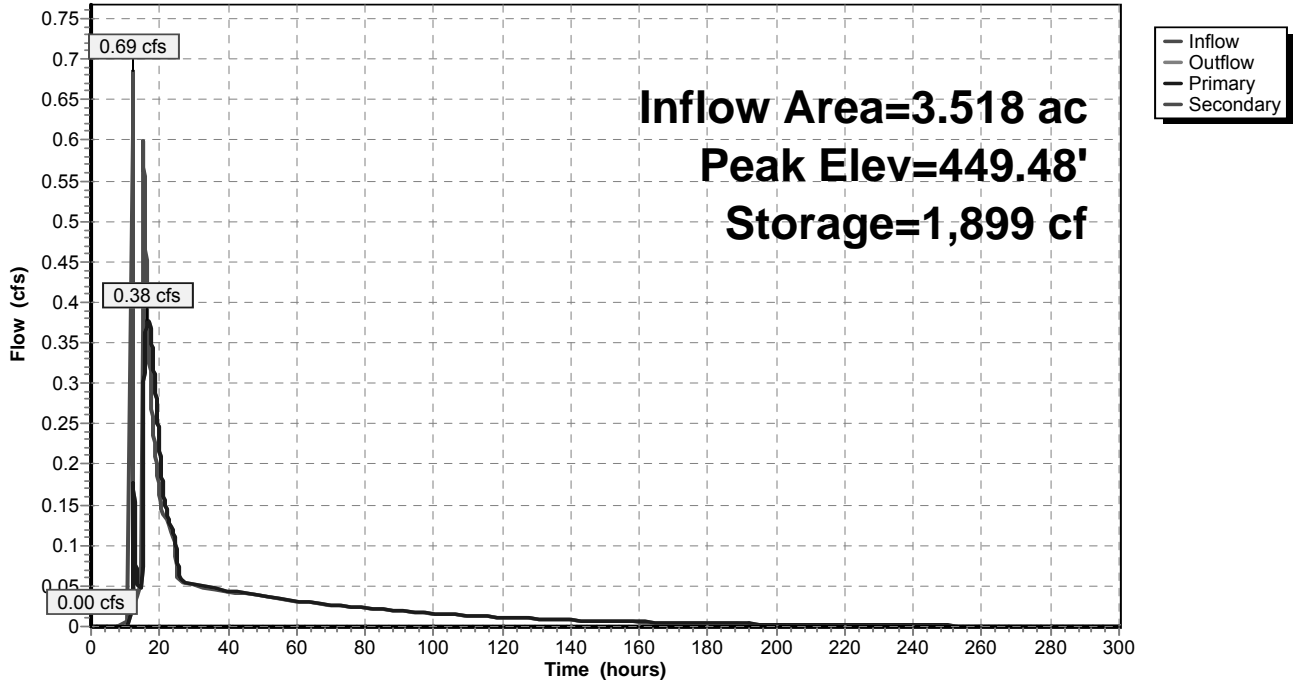
- ↑ 1=Outlet Pipe (Passes 0.38 cfs of 15.03 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.38 cfs @ 4.34 fps)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

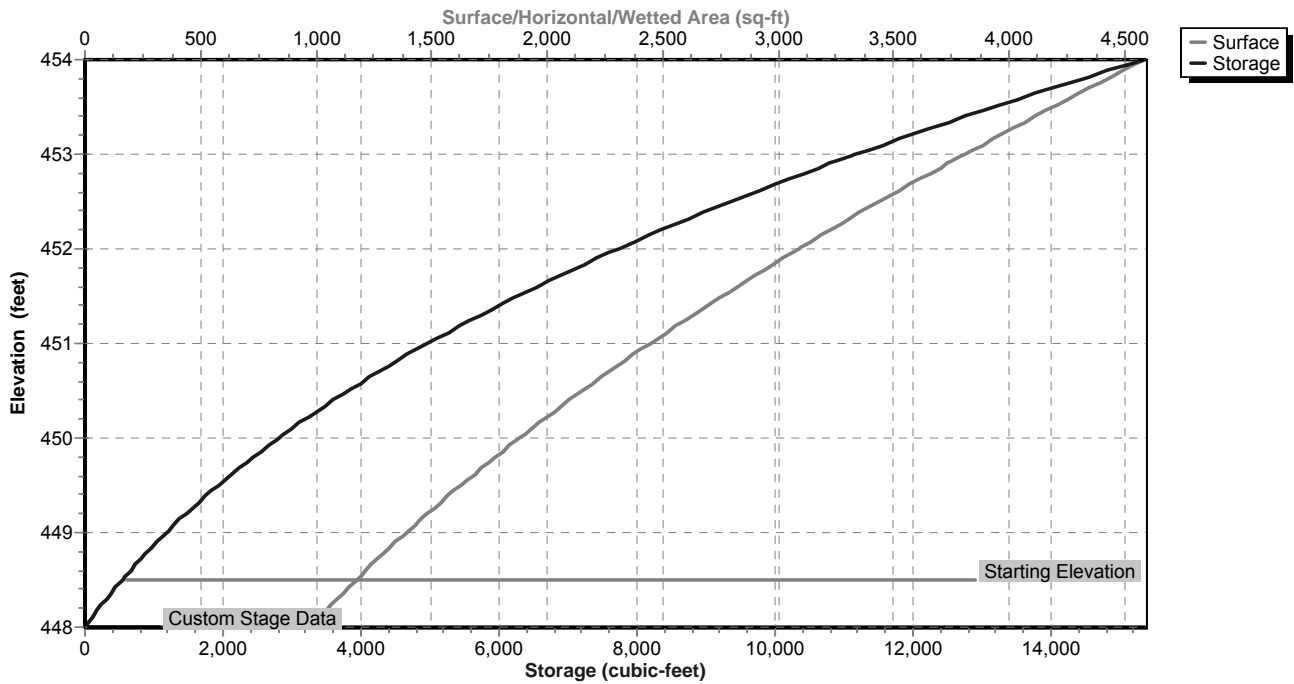
Pond B-G6: Dry Basin - G6

Hydrograph



Pond B-G6: Dry Basin - G6

Stage-Area-Storage



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

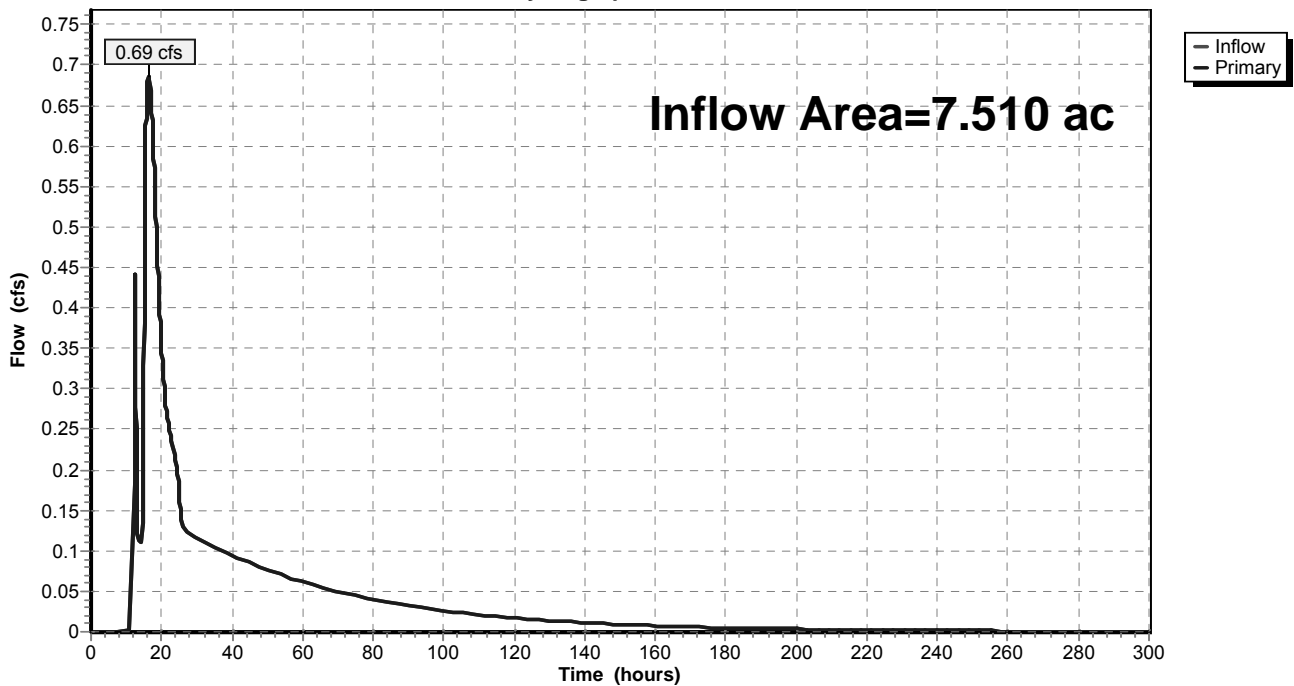
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth > 1.40" for 2 Year - North Salem event
 Inflow = 0.69 cfs @ 16.27 hrs, Volume= 0.877 af
 Primary = 0.69 cfs @ 16.27 hrs, Volume= 0.877 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7

Hydrograph



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.96" for 2 Year - North Salem event
 Inflow = 1.84 cfs @ 12.20 hrs, Volume= 0.183 af
 Outflow = 1.84 cfs @ 12.20 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.26 cfs @ 12.20 hrs, Volume= 0.174 af
 Secondary = 0.59 cfs @ 12.20 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 438.15' @ 12.20 hrs
 Flood Elev= 527.50'

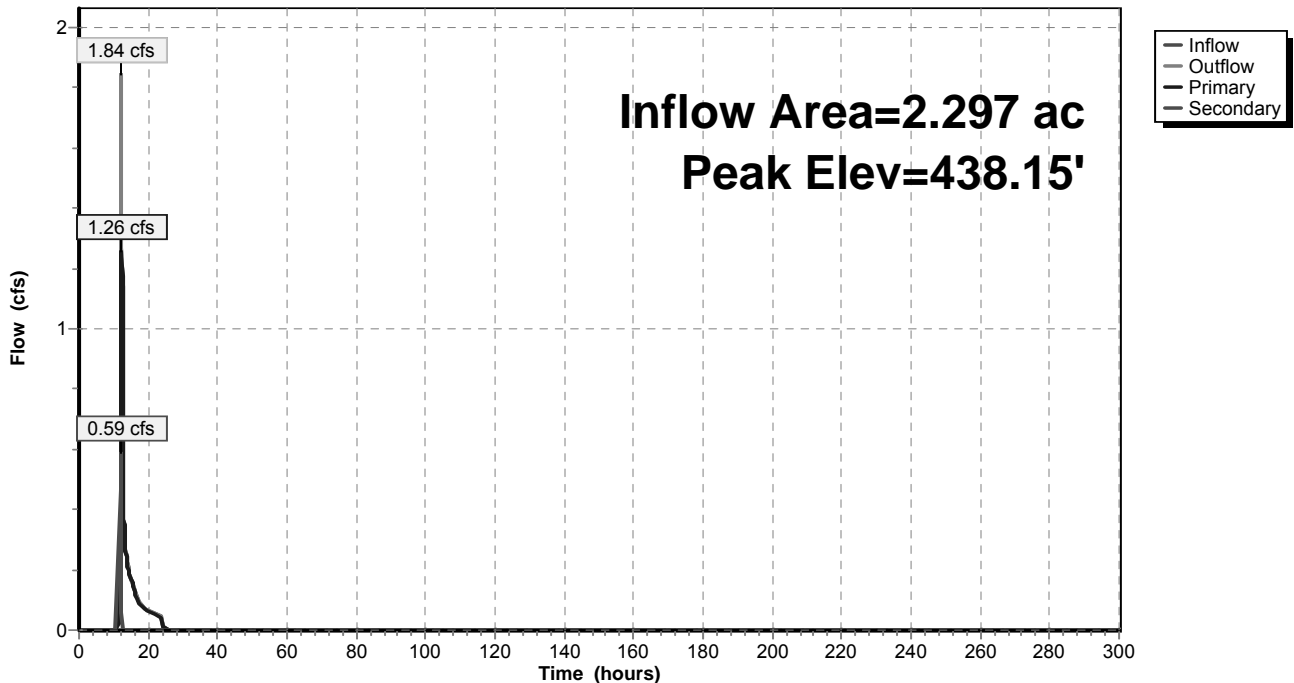
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.26 cfs @ 12.20 hrs HW=438.15' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.26 cfs @ 6.43 fps)

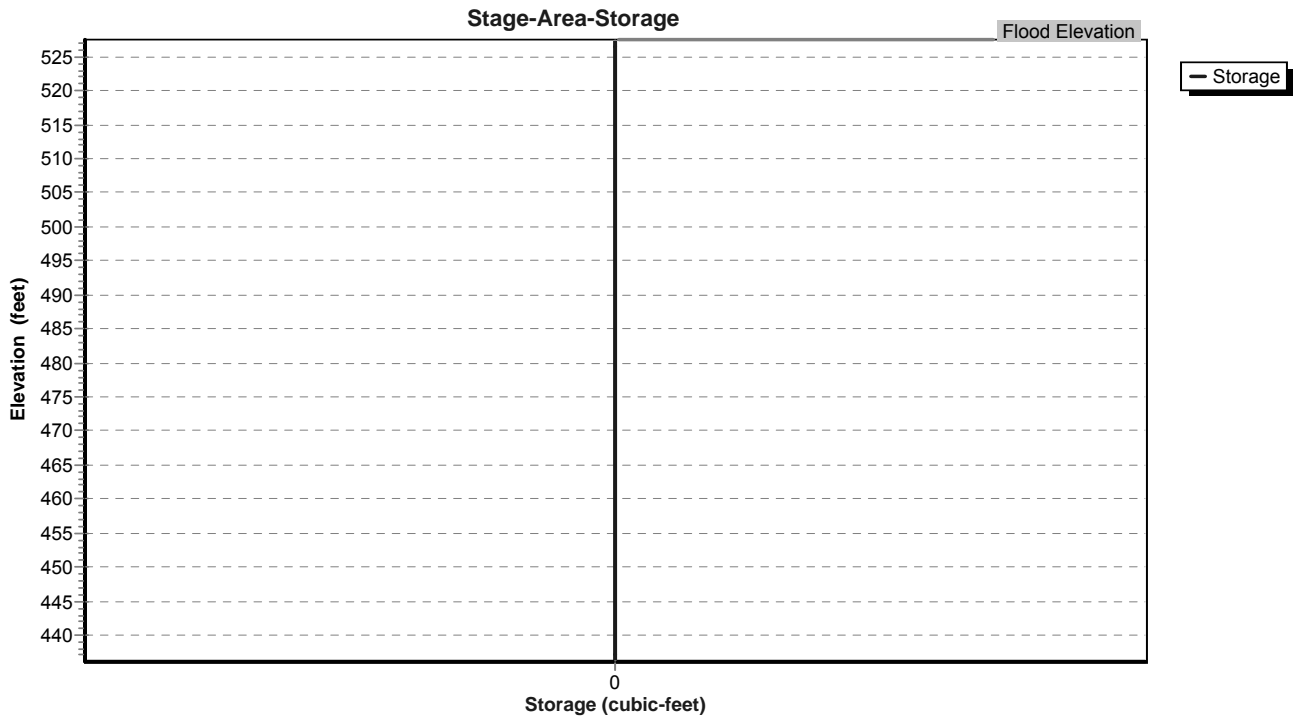
Secondary OutFlow Max=0.12 cfs @ 12.20 hrs HW=438.15' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.12 cfs @ 1.32 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Pond FS G5: Flow Splitter - G5



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.65" for 2 Year - North Salem event
 Inflow = 4.44 cfs @ 12.30 hrs, Volume= 0.484 af
 Outflow = 4.44 cfs @ 12.30 hrs, Volume= 0.484 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.76 cfs @ 12.30 hrs, Volume= 0.472 af
 Secondary = 0.68 cfs @ 12.30 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.12' @ 12.30 hrs
 Flood Elev= 554.50'

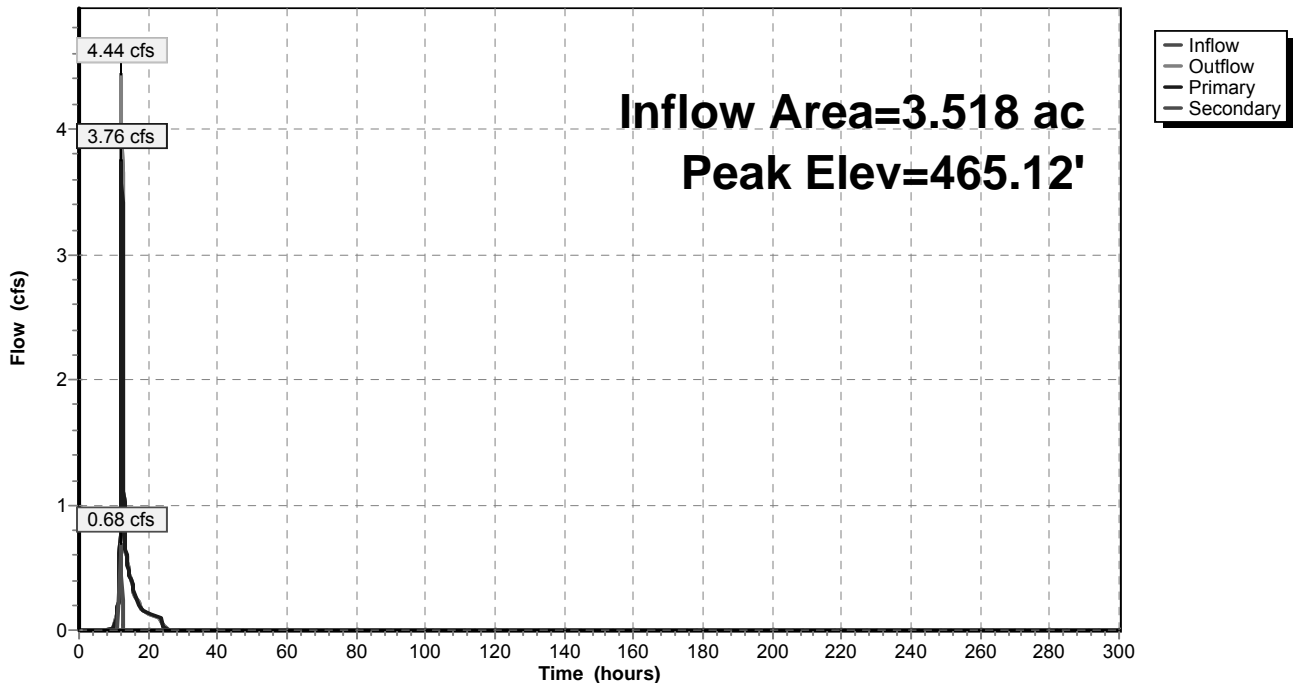
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=3.76 cfs @ 12.30 hrs HW=465.12' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 3.76 cfs @ 4.79 fps)

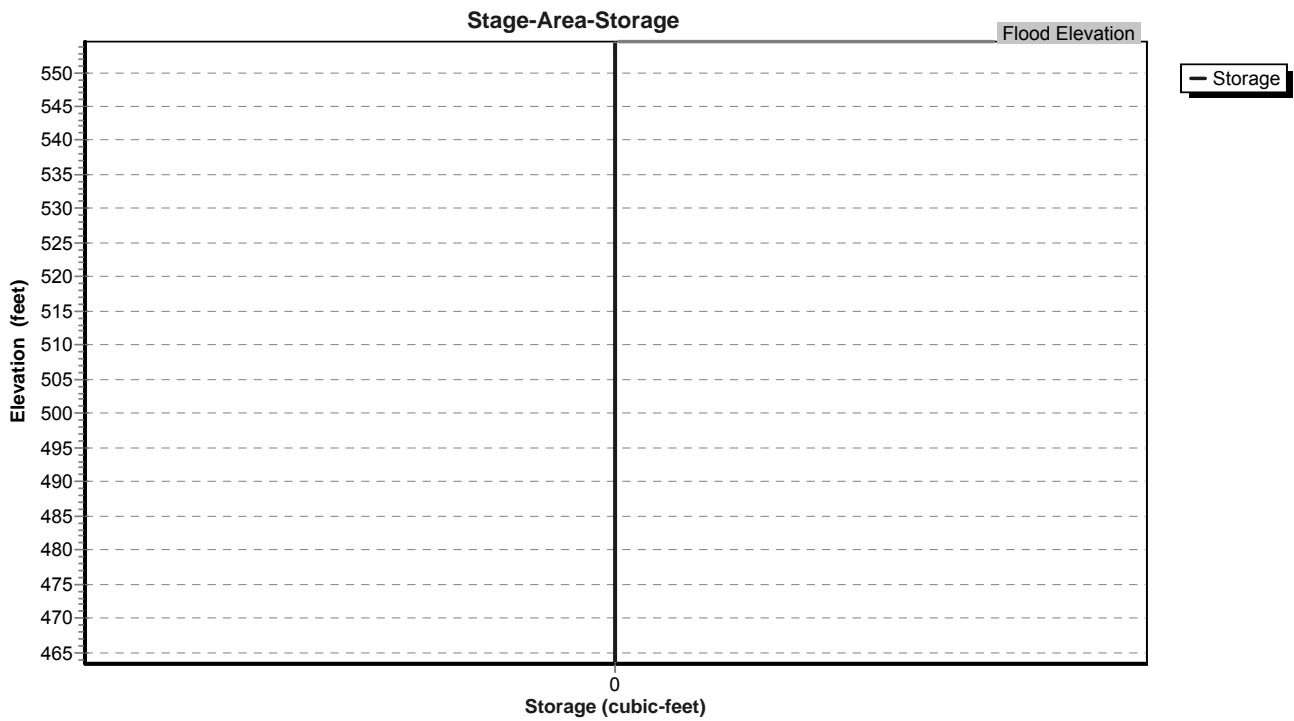
Secondary OutFlow Max=0.59 cfs @ 12.30 hrs HW=465.12' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.59 cfs @ 1.73 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Pond FS G6: Flow Splitter - G6



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.65" for 2 Year - North Salem event
 Inflow = 2.25 cfs @ 12.21 hrs, Volume= 0.212 af
 Outflow = 2.25 cfs @ 12.21 hrs, Volume= 0.212 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.80 cfs @ 12.21 hrs, Volume= 0.207 af
 Secondary = 0.44 cfs @ 12.21 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 457.12' @ 12.21 hrs
 Flood Elev= 554.50'

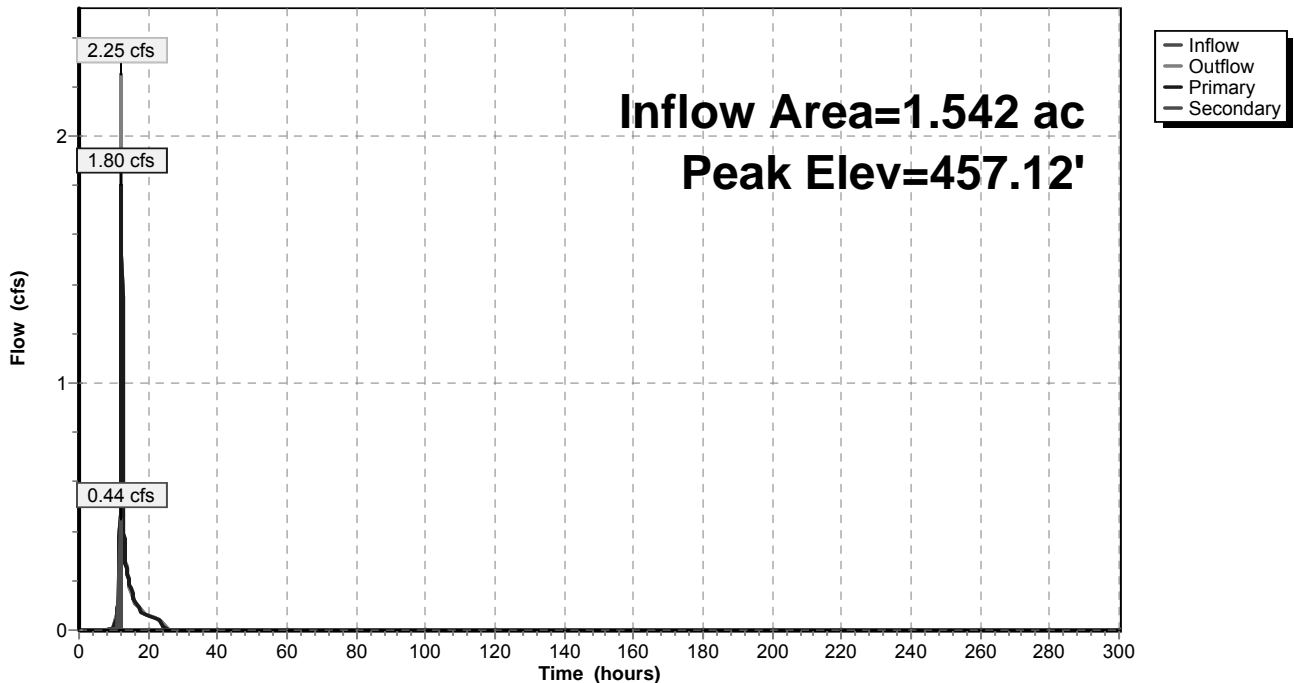
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=1.80 cfs @ 12.21 hrs HW=457.11' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.80 cfs @ 5.16 fps)

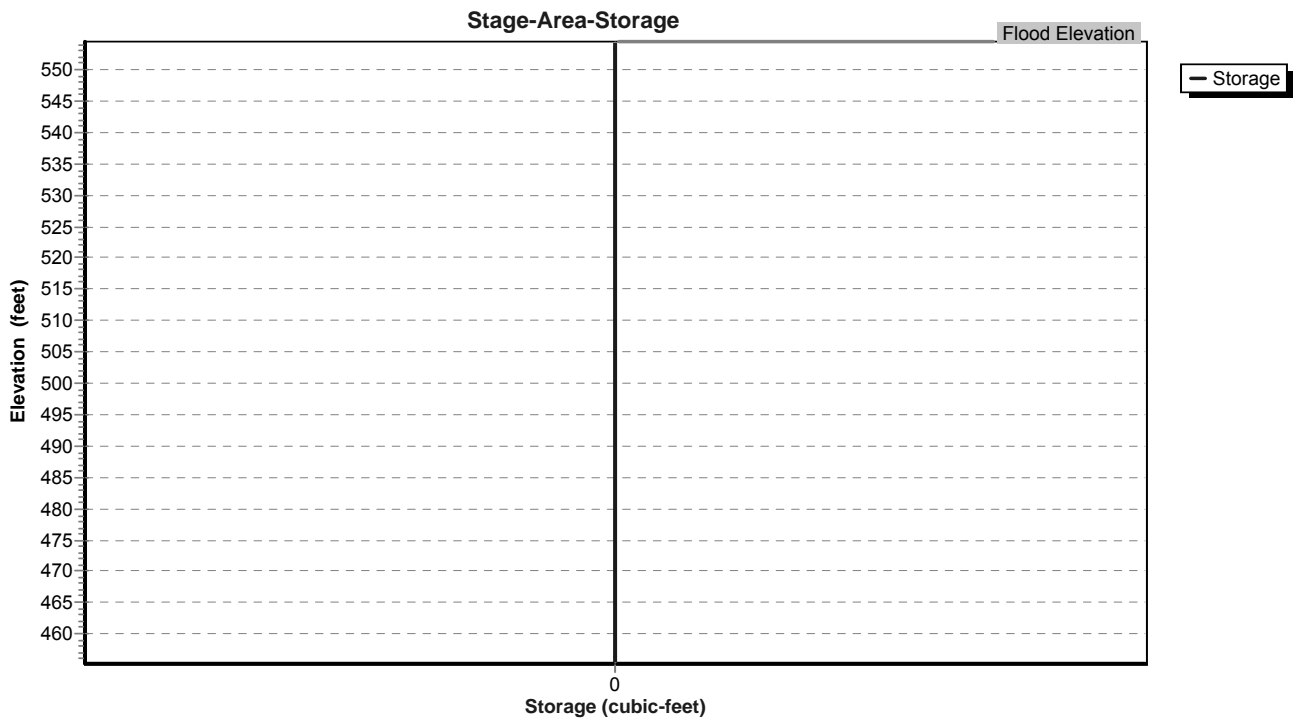
Secondary OutFlow Max=0.24 cfs @ 12.21 hrs HW=457.11' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.24 cfs @ 1.37 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Pond FS G7: Flow Splitter - G7



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 3.47" for 2 Year - North Salem event
 Inflow = 0.60 cfs @ 12.03 hrs, Volume= 0.044 af
 Outflow = 0.59 cfs @ 12.03 hrs, Volume= 0.044 af, Atten= 1%, Lag= 0.1 min
 Discarded = 0.59 cfs @ 12.03 hrs, Volume= 0.044 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.02' @ 12.03 hrs Surf.Area= 0.022 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.044 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (749.9 - 749.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

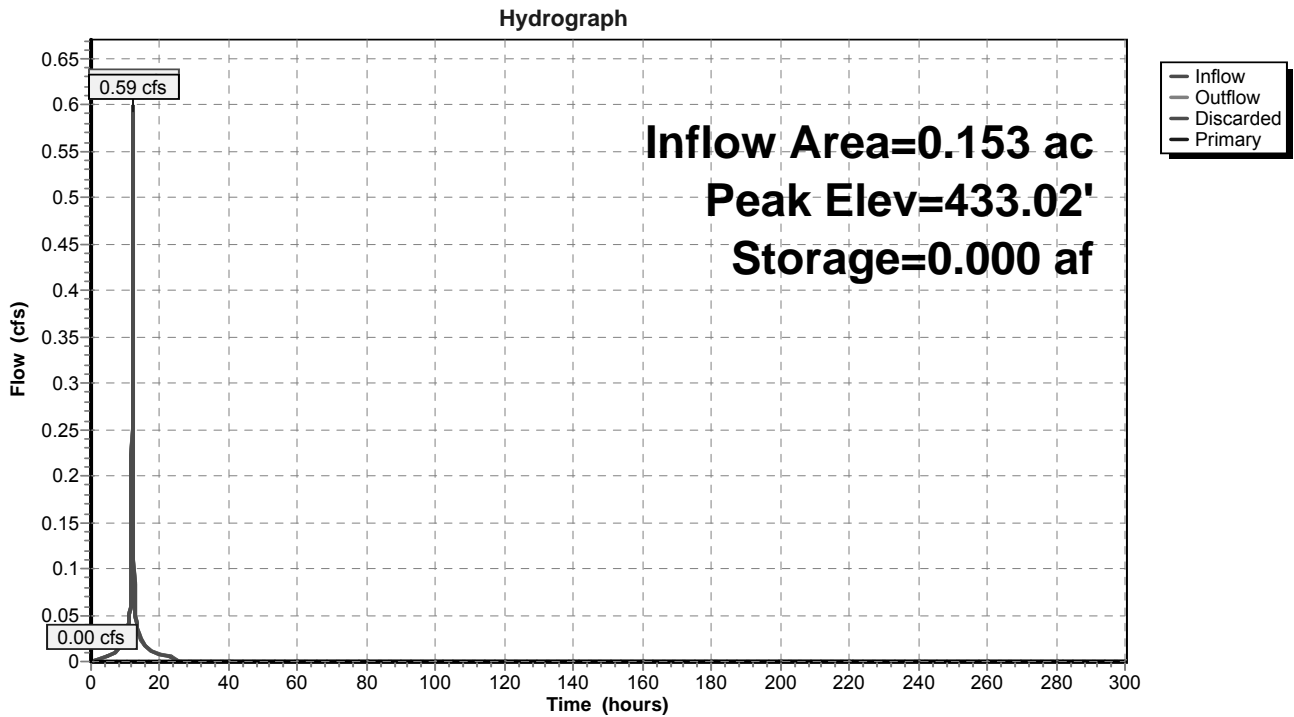
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

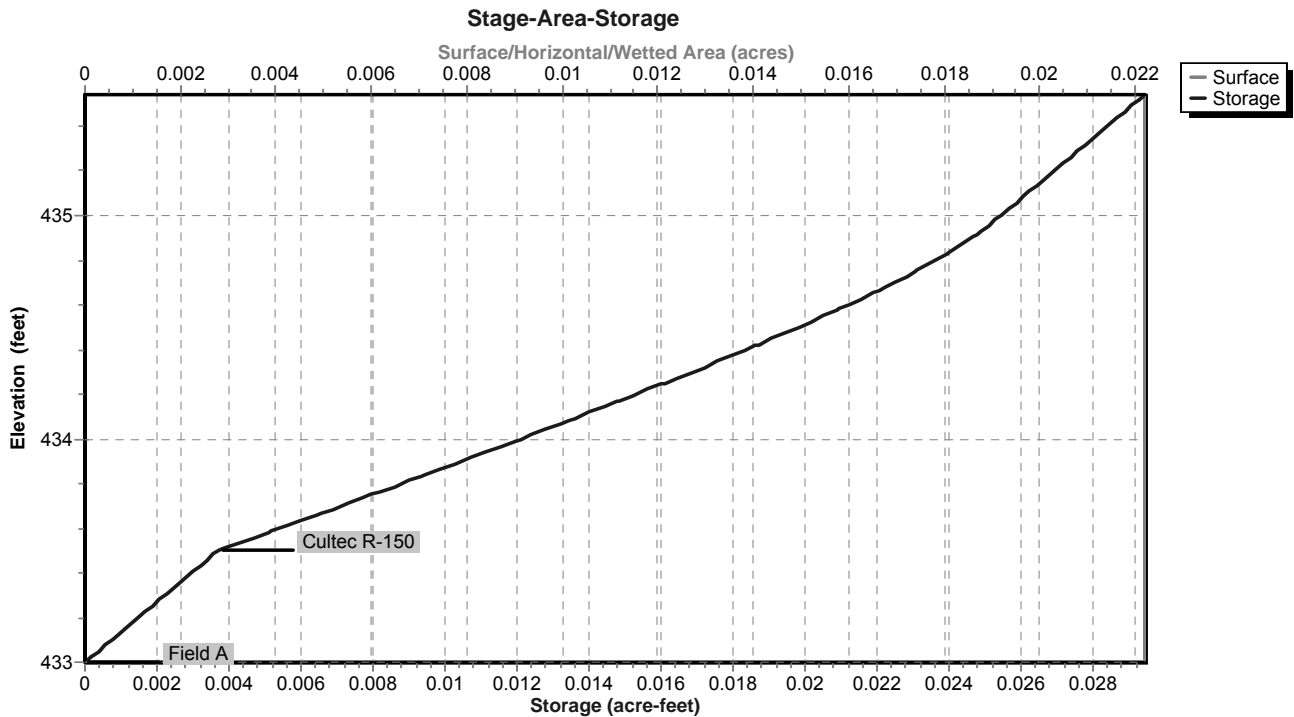
Discarded OutFlow Max=0.90 cfs @ 12.03 hrs HW=433.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 3.03" for 2 Year - North Salem event
 Inflow = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af
 Outflow = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.01' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (778.8 - 778.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

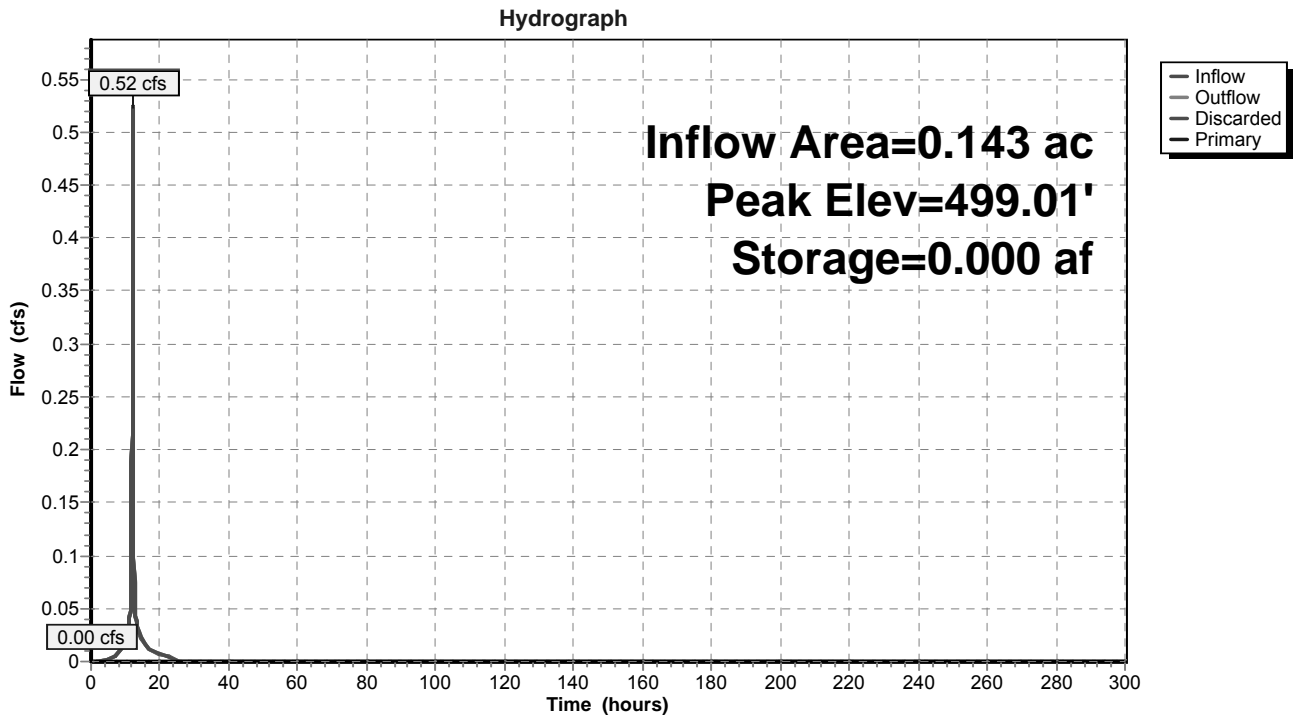
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

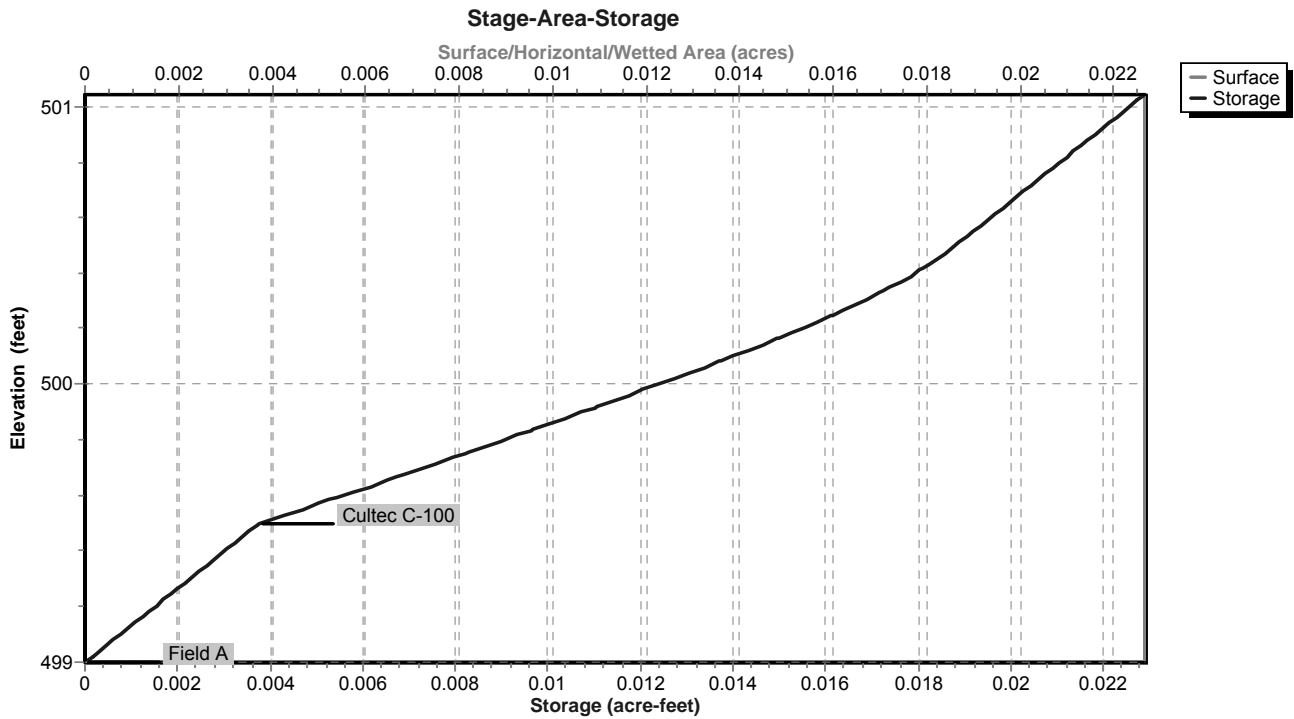
Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
 Inflow = 0.73 cfs @ 12.61 hrs, Volume= 0.174 af
 Outflow = 0.20 cfs @ 15.16 hrs, Volume= 0.174 af, Atten= 72%, Lag= 153.1 min
 Primary = 0.20 cfs @ 15.16 hrs, Volume= 0.174 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 430.92' @ 15.16 hrs Surf.Area= 1,934 sf Storage= 4,346 cf

Plug-Flow detention time= 1,563.5 min calculated for 0.174 af (100% of inflow)
 Center-of-Mass det. time= 1,563.4 min (2,487.2 - 923.8)

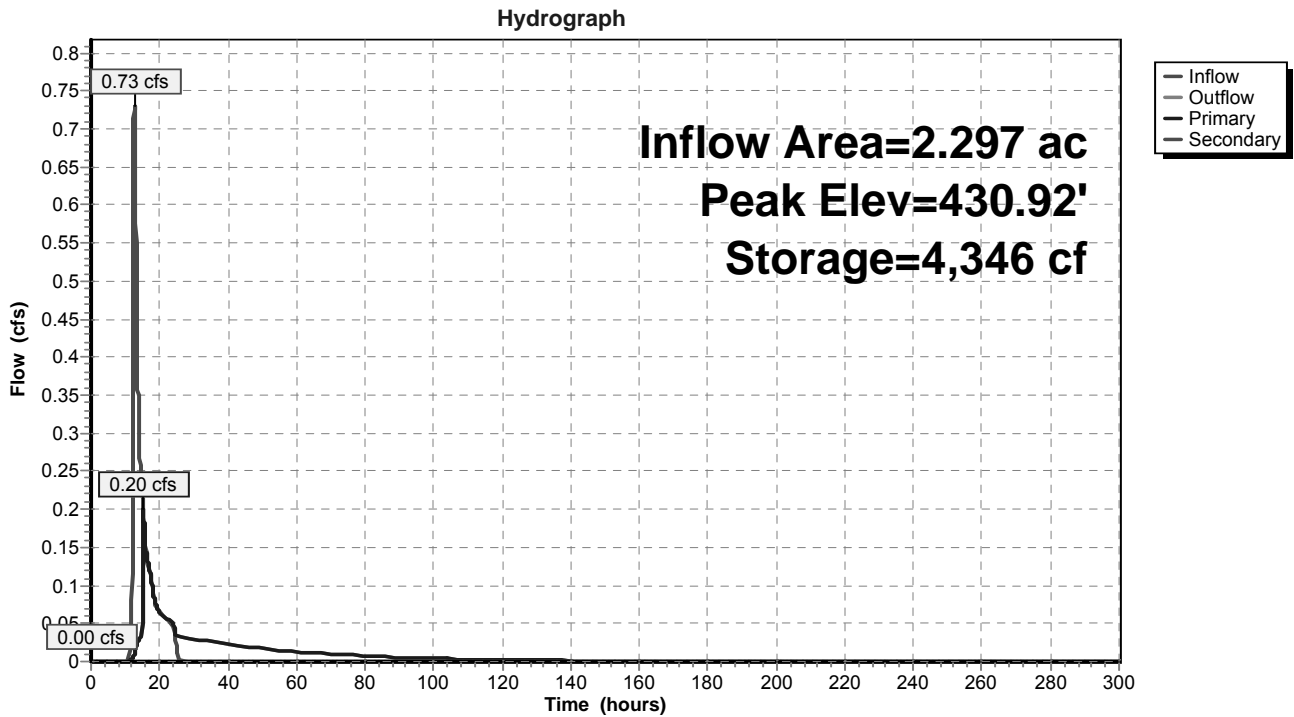
Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

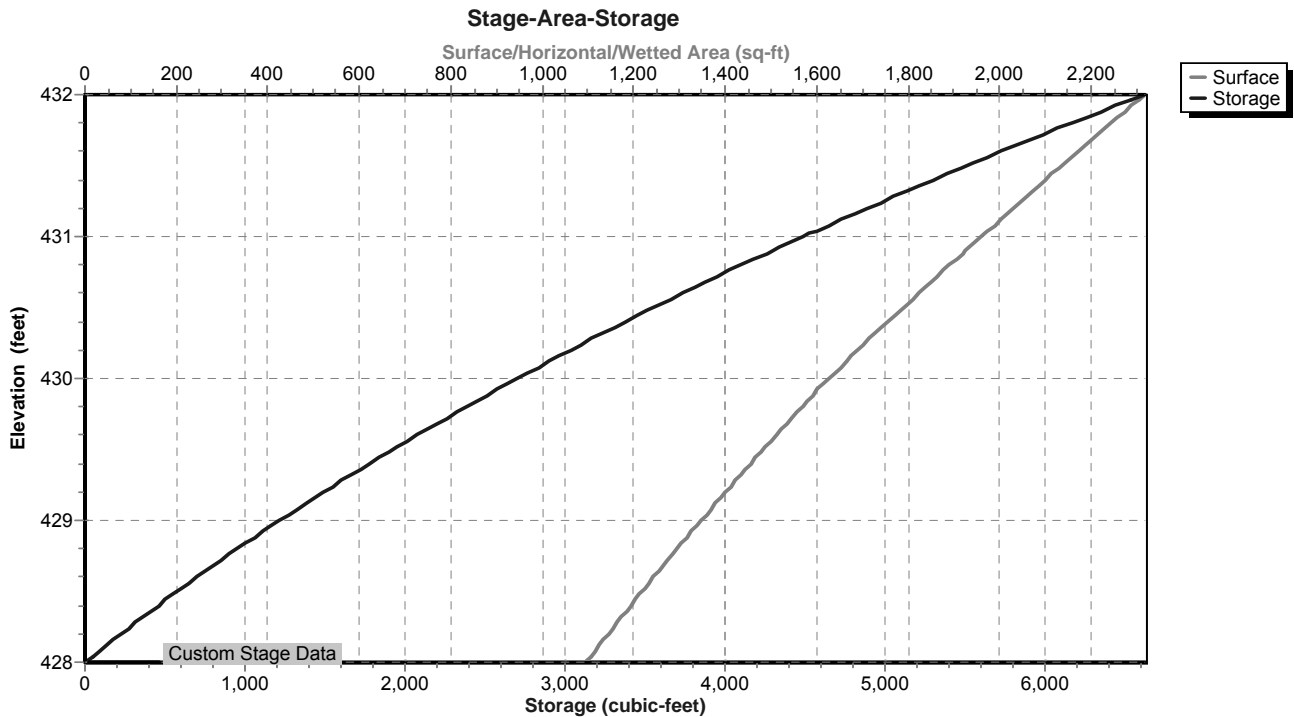
Primary OutFlow Max=0.19 cfs @ 15.16 hrs HW=430.92' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 0.19 cfs of 7.40 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 0.15 cfs @ 0.51 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G5: Sand Filter - G5



Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.61" for 2 Year - North Salem event
 Inflow = 3.94 cfs @ 12.42 hrs, Volume= 0.472 af
 Outflow = 0.60 cfs @ 15.18 hrs, Volume= 0.470 af, Atten= 85%, Lag= 165.7 min
 Primary = 0.60 cfs @ 15.18 hrs, Volume= 0.470 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.80' @ 15.18 hrs Surf.Area= 4,855 sf Storage= 11,654 cf

Plug-Flow detention time= 2,292.4 min calculated for 0.470 af (100% of inflow)
 Center-of-Mass det. time= 2,291.6 min (3,217.0 - 925.4)

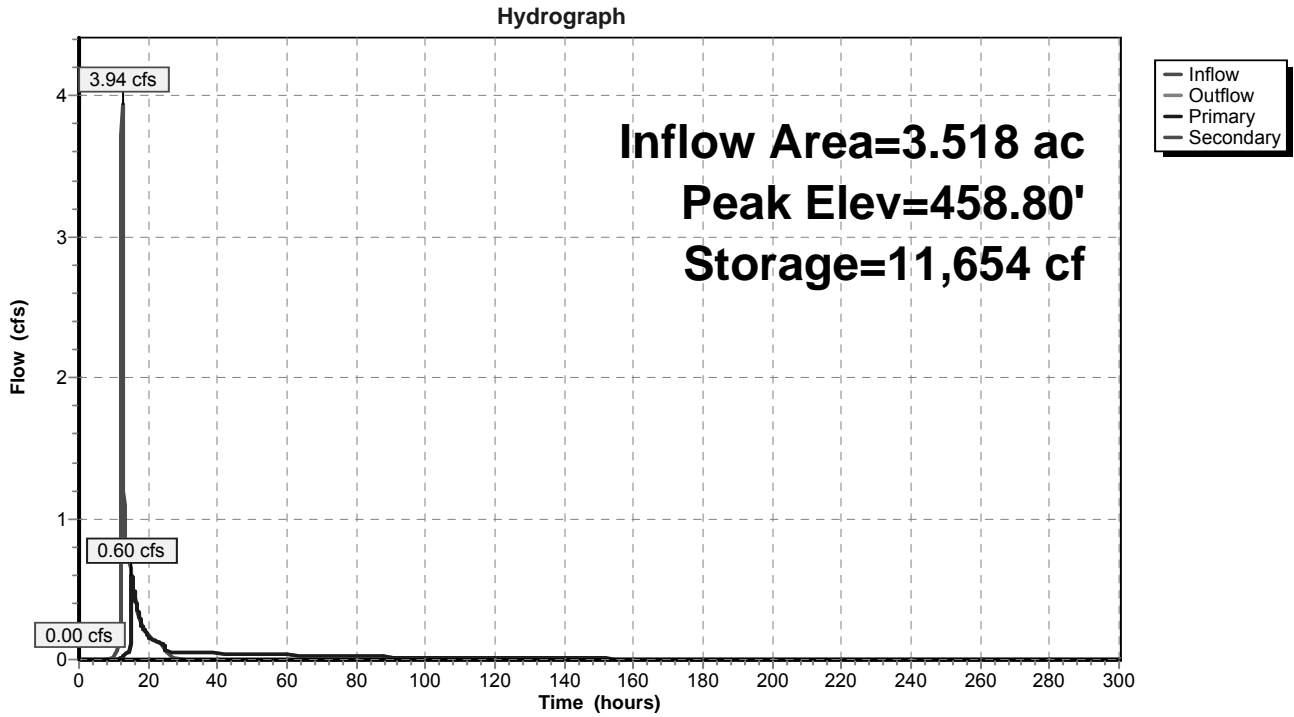
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

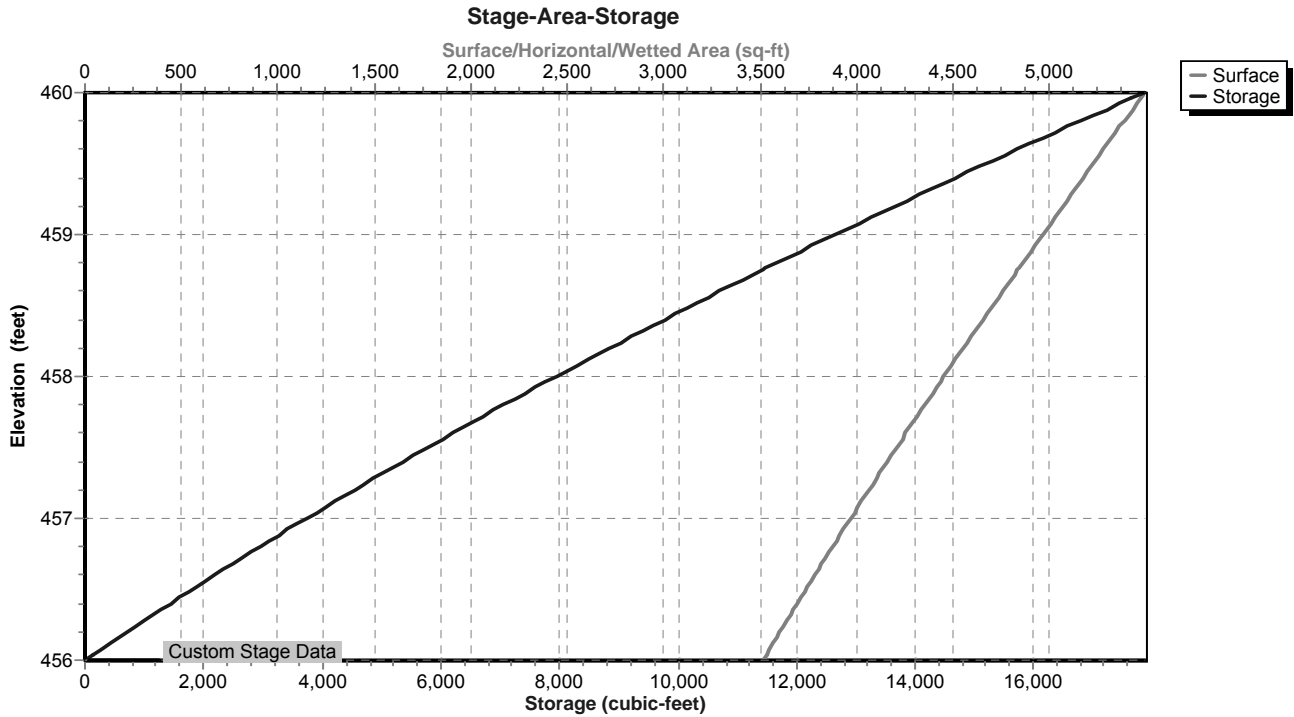
Primary OutFlow Max=0.59 cfs @ 15.18 hrs HW=458.80' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 0.59 cfs of 7.31 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.05 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 0.53 cfs @ 0.71 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.61" for 2 Year - North Salem event
 Inflow = 0.85 cfs @ 12.61 hrs, Volume= 0.207 af
 Outflow = 0.22 cfs @ 15.02 hrs, Volume= 0.207 af, Atten= 74%, Lag= 144.7 min
 Primary = 0.22 cfs @ 15.02 hrs, Volume= 0.207 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.88' @ 15.02 hrs Surf.Area= 2,421 sf Storage= 5,518 cf

Plug-Flow detention time= 1,763.8 min calculated for 0.207 af (100% of inflow)
 Center-of-Mass det. time= 1,765.9 min (2,664.9 - 898.9)

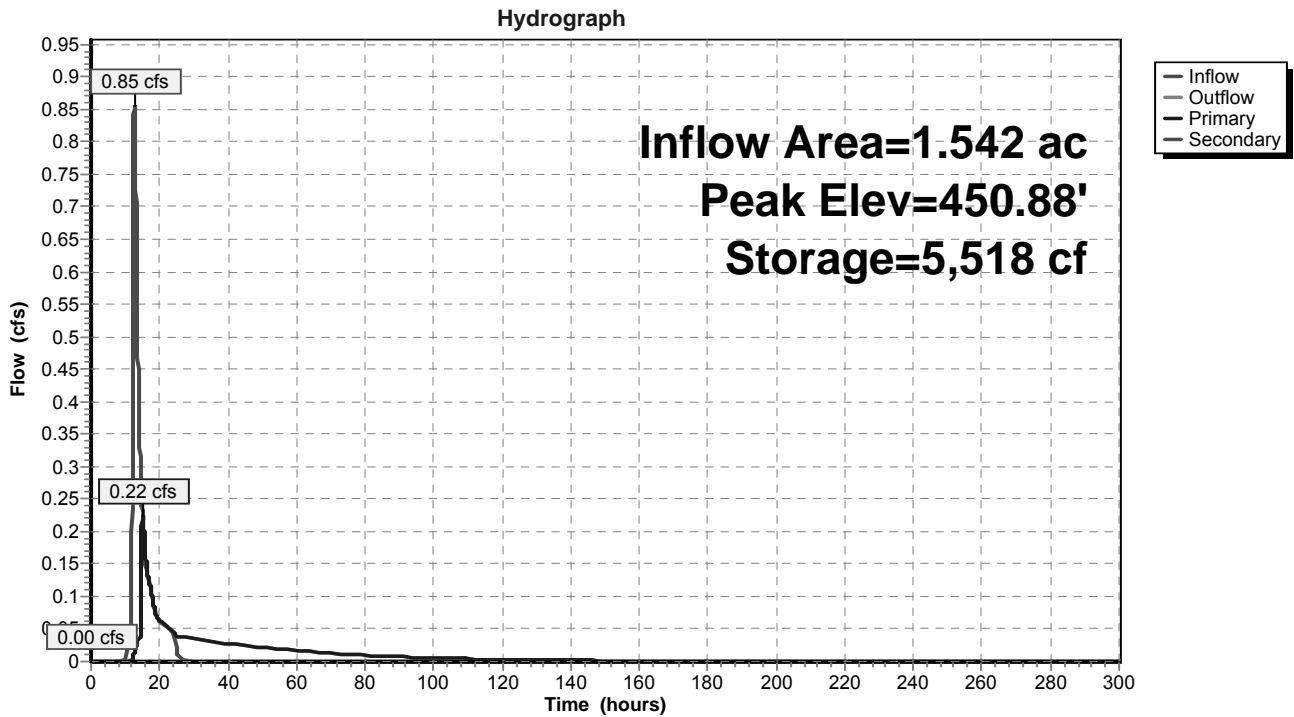
Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

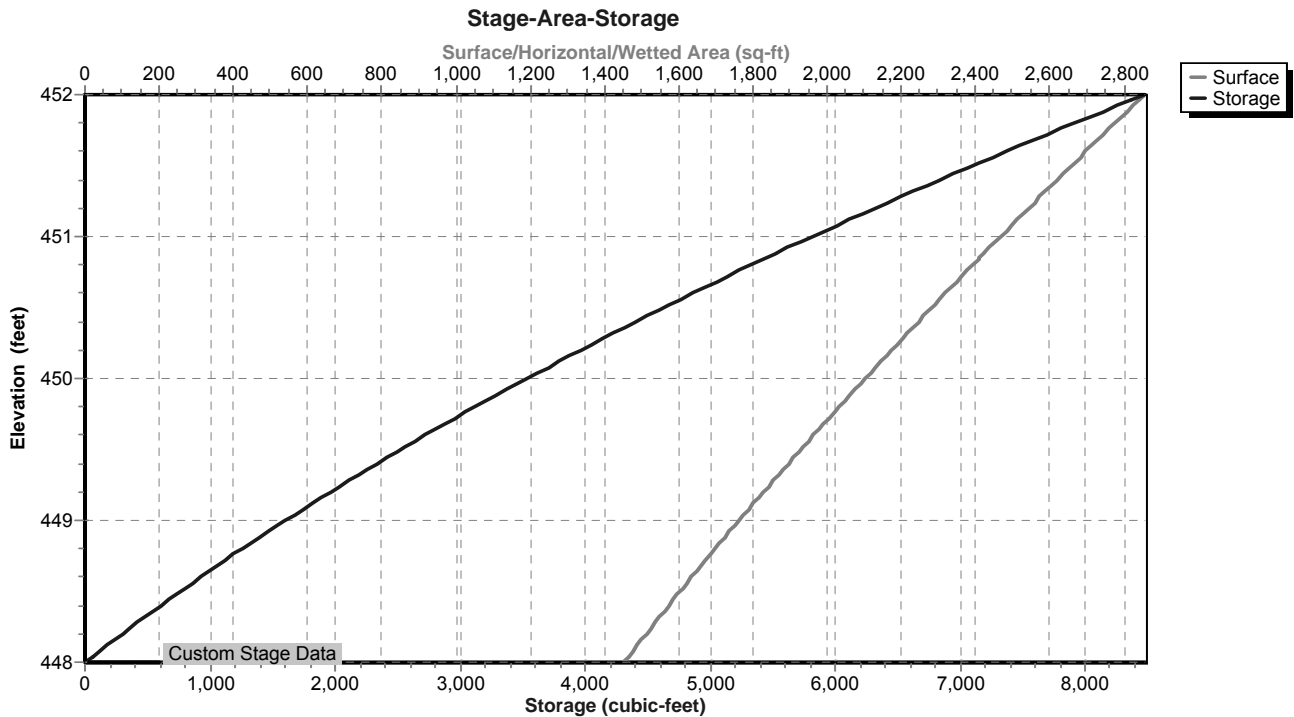
Primary OutFlow Max=0.22 cfs @ 15.02 hrs HW=450.88' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 0.22 cfs of 7.37 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.04 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 0.18 cfs @ 0.54 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G7: Sand Filter - G7



Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
 Inflow = 1.26 cfs @ 12.20 hrs, Volume= 0.174 af
 Outflow = 0.73 cfs @ 12.61 hrs, Volume= 0.174 af, Atten= 42%, Lag= 24.1 min
 Primary = 0.73 cfs @ 12.61 hrs, Volume= 0.174 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 434.28' @ 12.61 hrs Surf.Area= 938 sf Storage= 1,563 cf

Plug-Flow detention time= 37.7 min calculated for 0.174 af (100% of inflow)
 Center-of-Mass det. time= 37.8 min (923.8 - 886.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

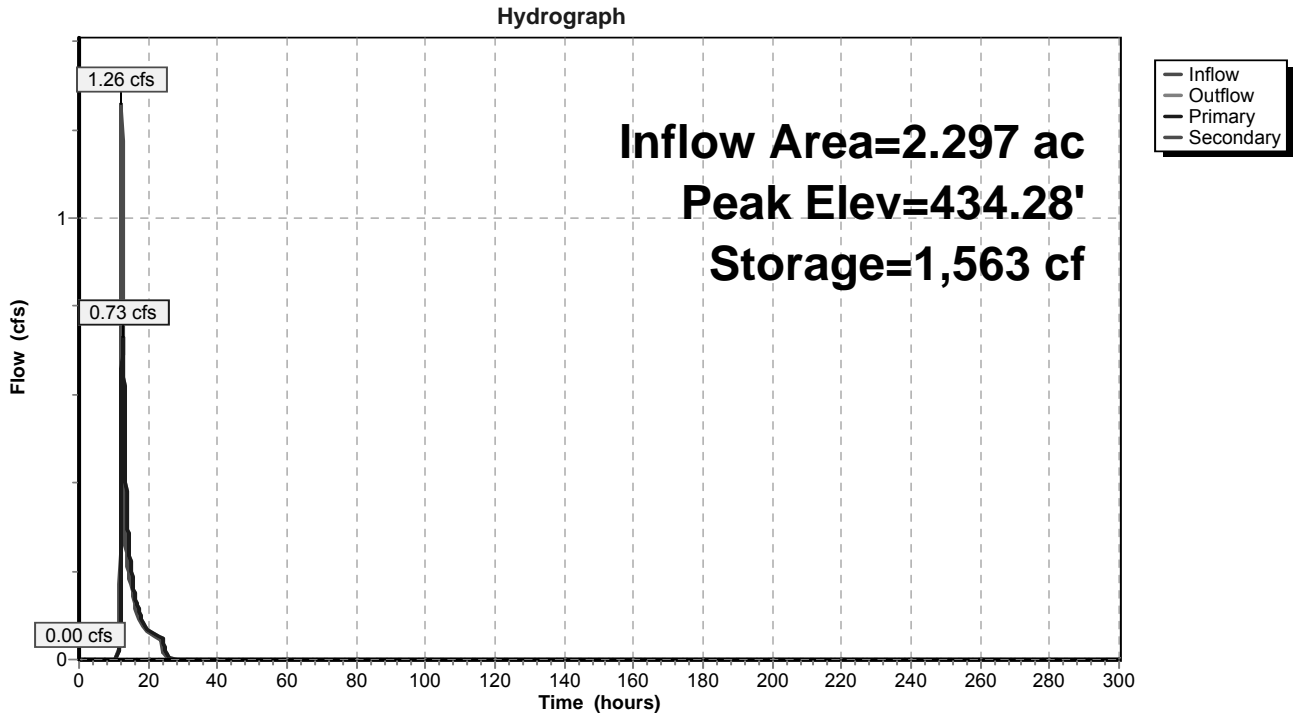
Primary OutFlow Max=0.73 cfs @ 12.61 hrs HW=434.28' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.73 cfs of 5.04 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.73 cfs @ 5.57 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

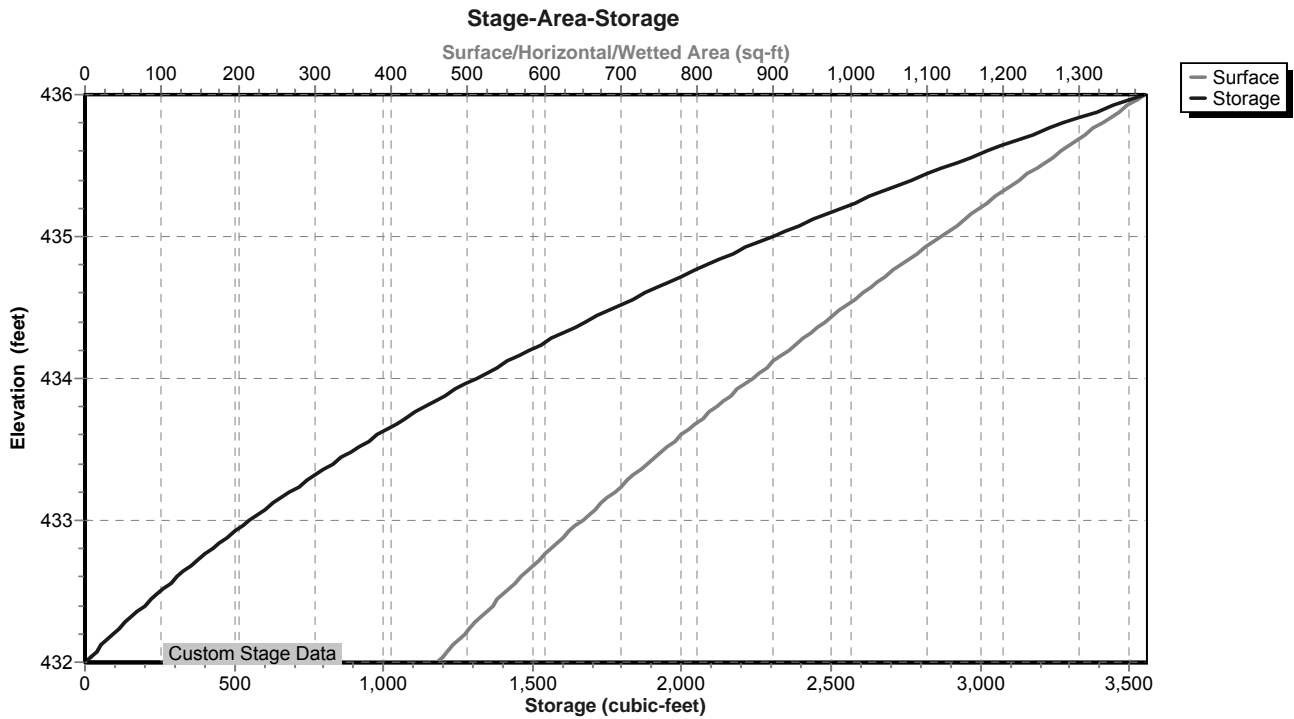
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G5: Sand Filter Forebay - G5



Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

[88] Warning: Qout>Qin may require Finer Routing>1

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.61" for 2 Year - North Salem event
 Inflow = 3.76 cfs @ 12.30 hrs, Volume= 0.472 af
 Outflow = 3.94 cfs @ 12.42 hrs, Volume= 0.472 af, Atten= 0%, Lag= 7.2 min
 Primary = 3.94 cfs @ 12.42 hrs, Volume= 0.472 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.93' @ 12.40 hrs Surf.Area= 2,114 sf Storage= 4,558 cf

Plug-Flow detention time= 67.2 min calculated for 0.472 af (100% of inflow)
 Center-of-Mass det. time= 67.1 min (925.4 - 858.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

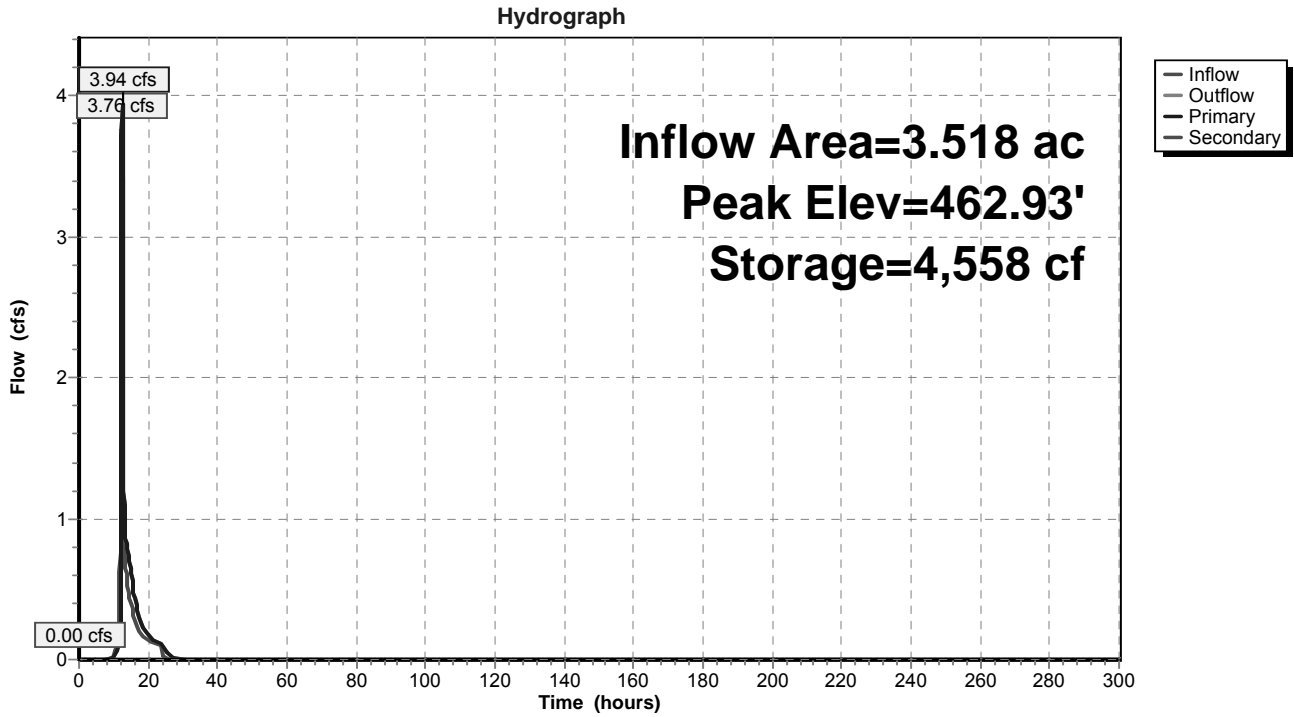
Primary OutFlow Max=3.60 cfs @ 12.42 hrs HW=462.93' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 3.60 cfs of 5.88 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.89 cfs @ 6.83 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.93 cfs @ 1.16 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 1.77 cfs @ 1.16 fps)

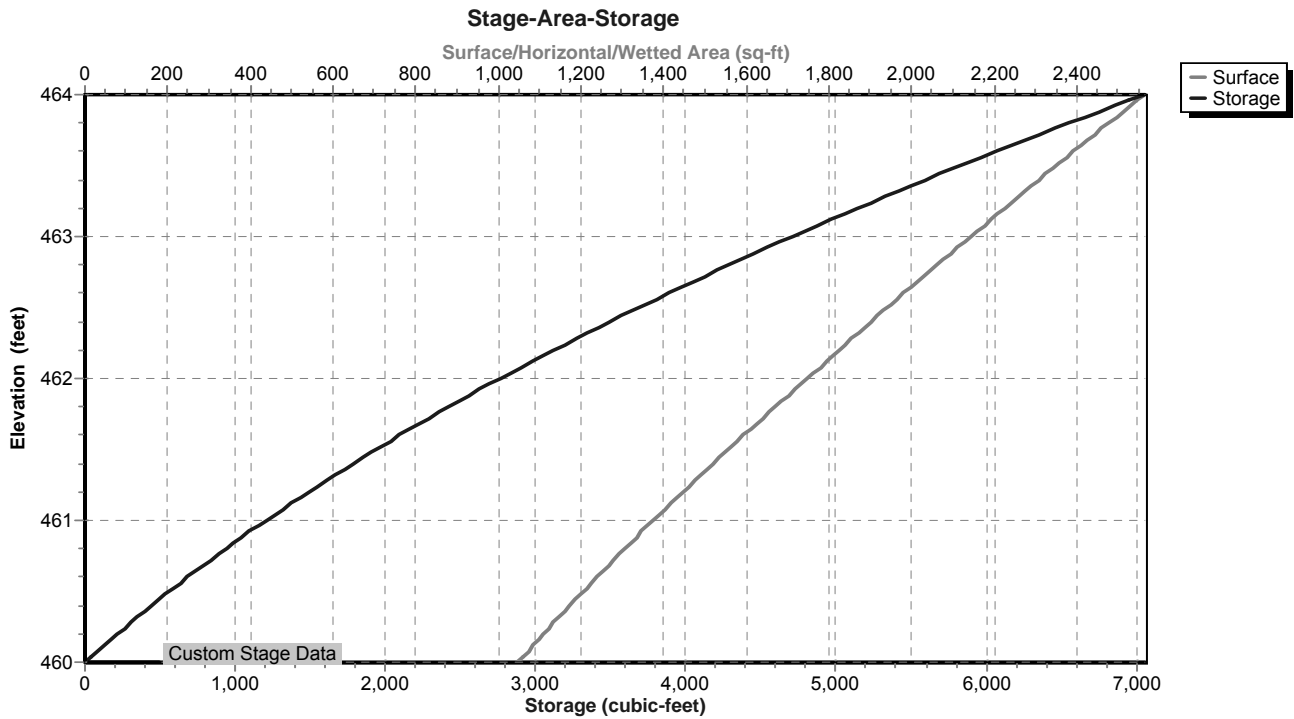
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G6: Sand Filter Forebay - G6



Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.61" for 2 Year - North Salem event
 Inflow = 1.80 cfs @ 12.21 hrs, Volume= 0.207 af
 Outflow = 0.85 cfs @ 12.61 hrs, Volume= 0.207 af, Atten= 53%, Lag= 23.8 min
 Primary = 0.85 cfs @ 12.61 hrs, Volume= 0.207 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 454.76' @ 12.61 hrs Surf.Area= 1,189 sf Storage= 2,397 cf

Plug-Flow detention time= 46.3 min calculated for 0.207 af (100% of inflow)
 Center-of-Mass det. time= 46.3 min (898.9 - 852.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
452.00	581	93.0	0	0	581
454.00	1,003	118.0	1,565	1,565	1,051
455.00	1,251	130.0	1,125	2,690	1,318
456.00	1,525	143.0	1,386	4,075	1,632

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

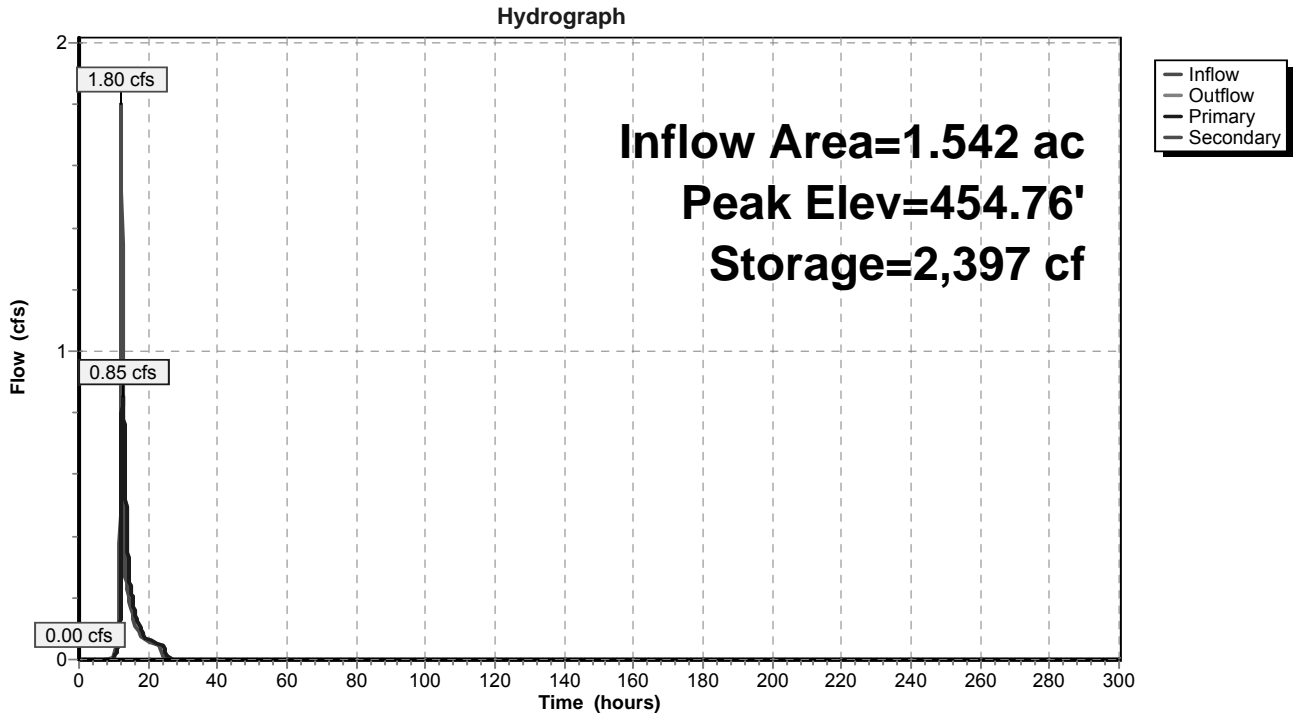
Primary OutFlow Max=0.85 cfs @ 12.61 hrs HW=454.76' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.85 cfs of 2.62 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.85 cfs @ 6.53 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

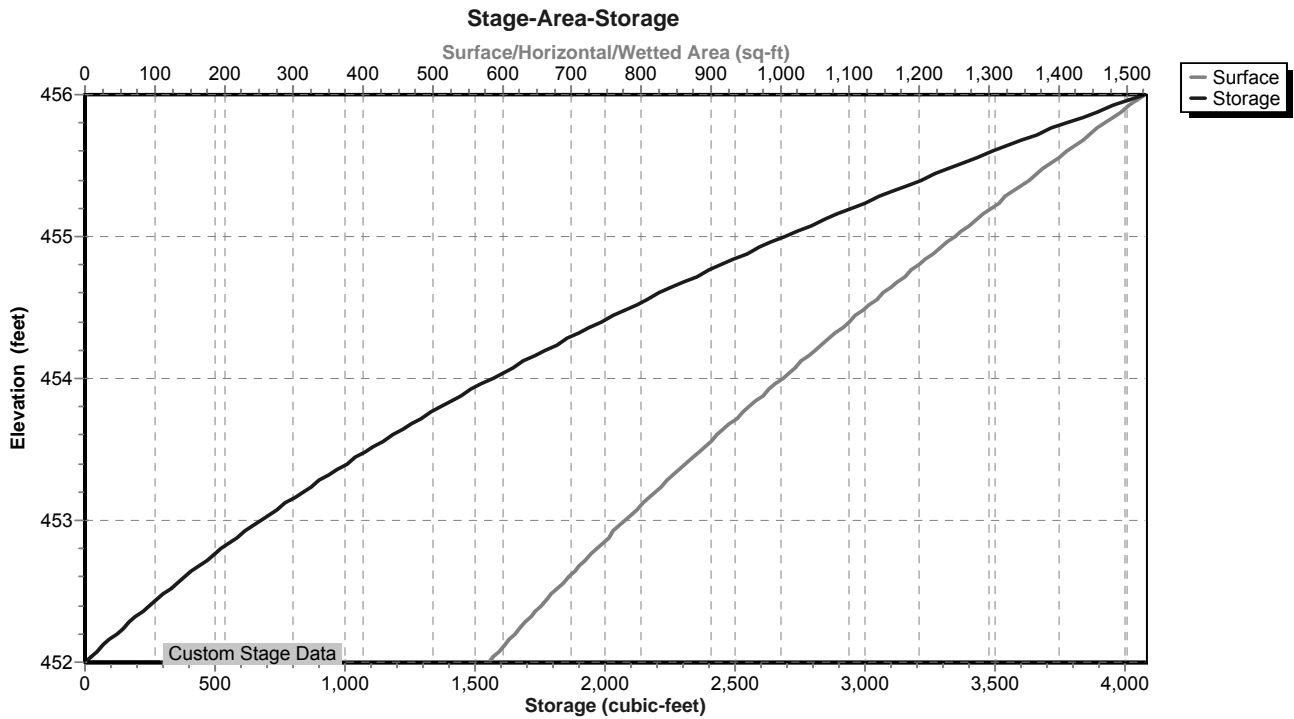
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G7: Sand Filter Forebay - G7



Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=2.24"
Flow Length=833' Tc=13.0 min CN=68 Runoff=4.38 cfs 0.403 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=5.26"
Flow Length=245' Tc=2.0 min CN=98 Runoff=0.89 cfs 0.067 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=4.80"
Flow Length=245' Tc=2.0 min CN=94 Runoff=0.81 cfs 0.057 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=3.14"
Flow Length=917' Tc=20.9 min CN=78 Runoff=8.55 cfs 0.921 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=3.14"
Flow Length=649' Tc=14.6 min CN=78 Runoff=4.32 cfs 0.404 af

Pond B-G5: Dry Basin - G5 Peak Elev=424.08' Storage=6,658 cf Inflow=5.25 cfs 0.806 af
Primary=1.06 cfs 0.806 af Secondary=0.00 cfs 0.000 af Outflow=1.06 cfs 0.806 af

Pond B-G6: Dry Basin - G6 Peak Elev=451.97' Storage=7,617 cf Inflow=4.15 cfs 0.919 af
Primary=0.98 cfs 0.919 af Secondary=0.00 cfs 0.000 af Outflow=0.98 cfs 0.919 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=1.97 cfs 1.725 af
Primary=1.97 cfs 1.725 af

Pond FS G5: Flow Splitter - G5 Peak Elev=438.76' Inflow=4.38 cfs 0.403 af
Primary=1.46 cfs 0.319 af Secondary=2.92 cfs 0.083 af Outflow=4.38 cfs 0.403 af

Pond FS G6: Flow Splitter - G6 Peak Elev=465.64' Inflow=8.55 cfs 0.921 af
Primary=4.42 cfs 0.796 af Secondary=4.13 cfs 0.124 af Outflow=8.55 cfs 0.921 af

Pond FS G7: Flow Splitter - G7 Peak Elev=457.49' Inflow=4.32 cfs 0.404 af
Primary=2.01 cfs 0.348 af Secondary=2.31 cfs 0.055 af Outflow=4.32 cfs 0.404 af

Pond S-17: Underground Infiltration Peak Elev=433.03' Storage=0.000 af Inflow=0.89 cfs 0.067 af
Discarded=0.89 cfs 0.067 af Primary=0.00 cfs 0.000 af Outflow=0.89 cfs 0.067 af

Pond S-21: Underground Infiltration Peak Elev=499.01' Storage=0.000 af Inflow=0.81 cfs 0.057 af
Discarded=0.80 cfs 0.057 af Primary=0.00 cfs 0.000 af Outflow=0.80 cfs 0.057 af

Pond SF-G5: Sand Filter - G5 Peak Elev=430.97' Storage=4,437 cf Inflow=1.26 cfs 0.319 af
Primary=0.81 cfs 0.319 af Secondary=0.00 cfs 0.000 af Outflow=0.81 cfs 0.319 af

Pond SF-G6: Sand Filter - G6 Peak Elev=458.87' Storage=12,027 cf Inflow=4.42 cfs 0.796 af
Primary=2.34 cfs 0.795 af Secondary=0.00 cfs 0.000 af Outflow=2.34 cfs 0.795 af

Pond SF-G7: Sand Filter - G7 Peak Elev=450.92' Storage=5,631 cf Inflow=1.97 cfs 0.348 af
Primary=0.84 cfs 0.348 af Secondary=0.00 cfs 0.000 af Outflow=0.84 cfs 0.348 af

Woodlands Post-Dev DP 7 - Part 2 07-20 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Prepared by KCG Engineers, P.C.

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=434.94' Storage=2,238 cf Inflow=1.46 cfs 0.319 af
Primary=1.26 cfs 0.319 af Secondary=0.00 cfs 0.000 af Outflow=1.26 cfs 0.319 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=462.95' Storage=4,603 cf Inflow=4.42 cfs 0.796 af
Primary=4.42 cfs 0.796 af Secondary=0.00 cfs 0.000 af Outflow=4.42 cfs 0.796 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=454.95' Storage=2,629 cf Inflow=2.01 cfs 0.348 af
Primary=1.97 cfs 0.348 af Secondary=0.00 cfs 0.000 af Outflow=1.97 cfs 0.348 af

Total Runoff Area = 7.510 ac Runoff Volume = 1.851 af Average Runoff Depth = 2.96"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

Runoff = 4.38 cfs @ 12.19 hrs, Volume= 0.403 af, Depth= 2.24"

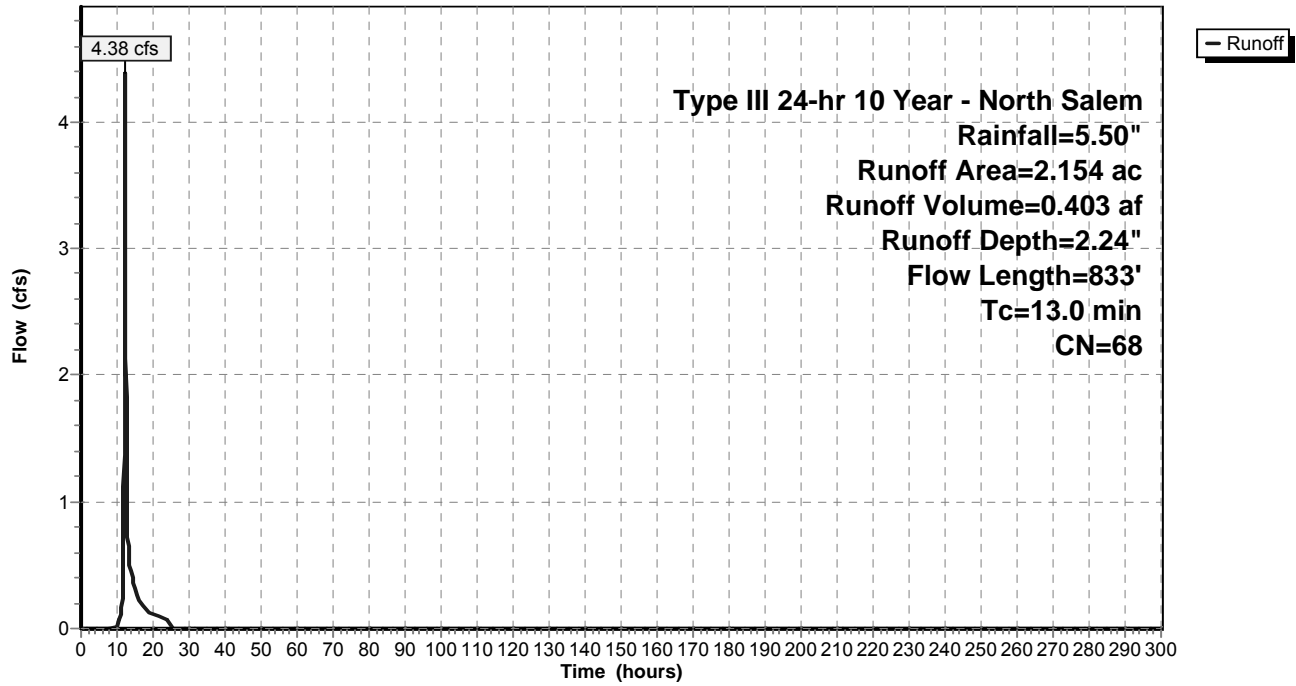
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a

Hydrograph



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

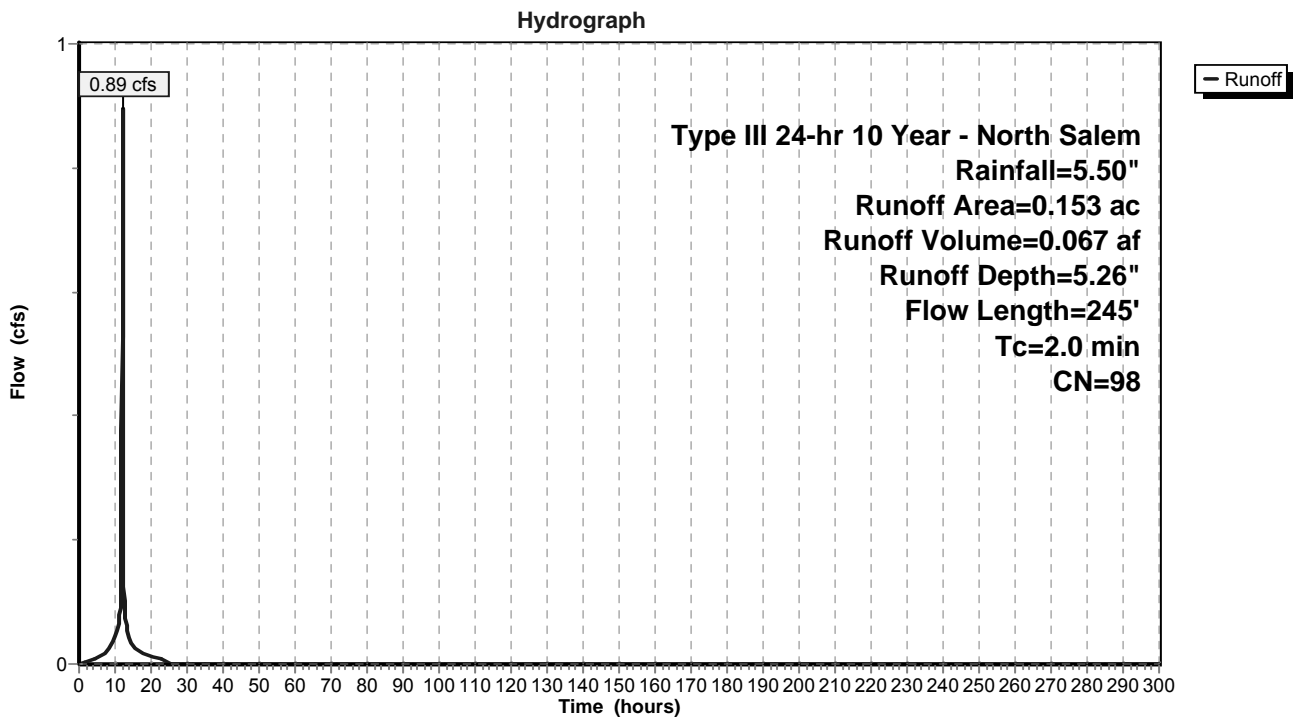
Runoff = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.81 cfs @ 12.03 hrs, Volume= 0.057 af, Depth= 4.80"

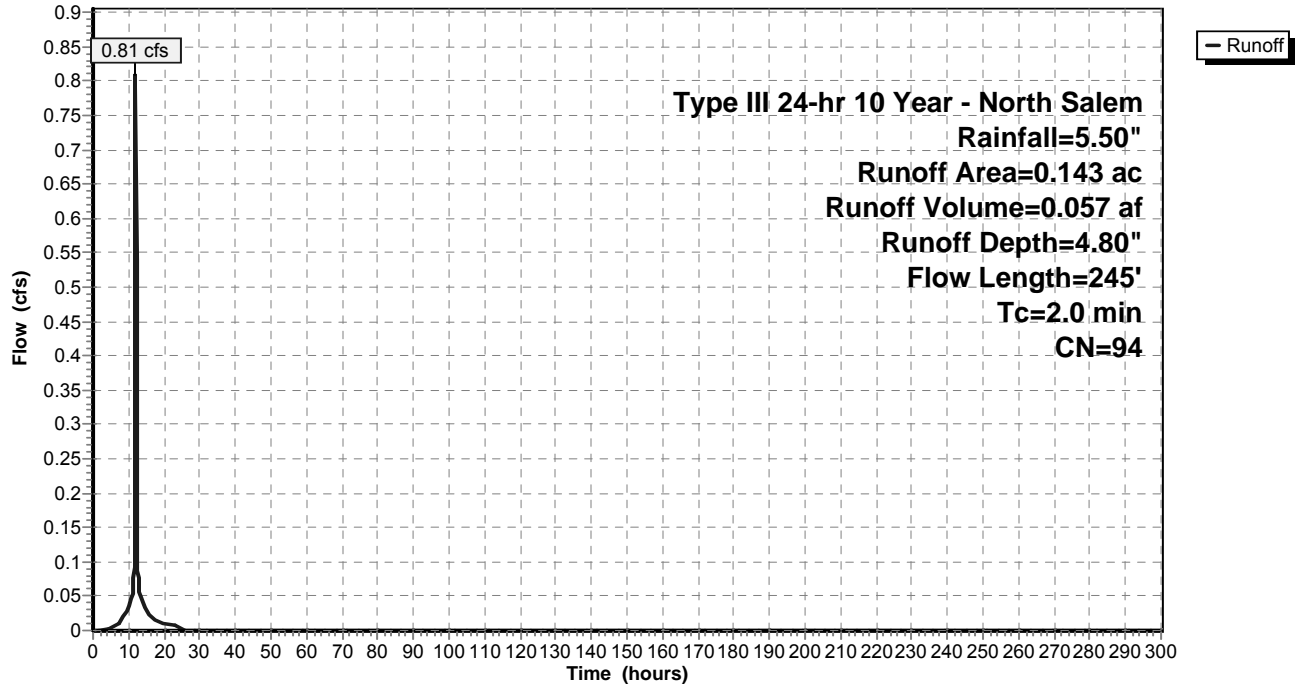
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c

Hydrograph



Summary for Subcatchment G6: Post-Development G6

Runoff = 8.55 cfs @ 12.29 hrs, Volume= 0.921 af, Depth= 3.14"

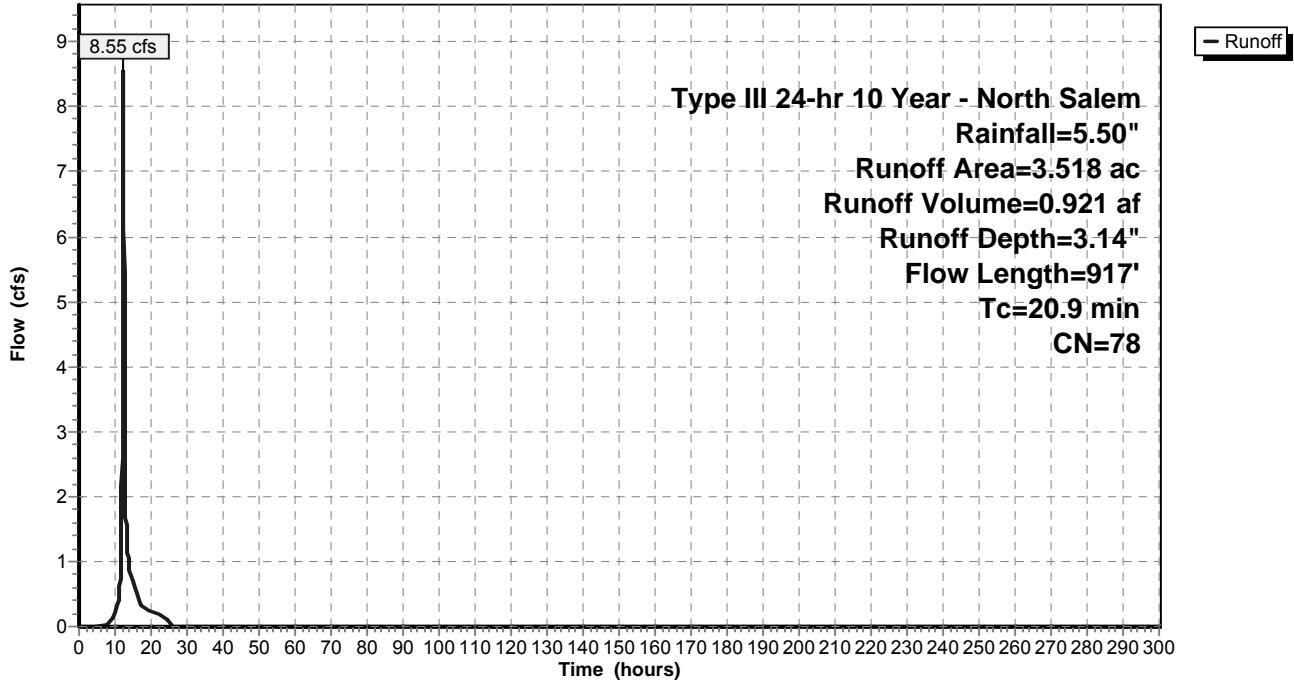
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6

Hydrograph



Summary for Subcatchment G7: Post-Development G7

Runoff = 4.32 cfs @ 12.20 hrs, Volume= 0.404 af, Depth= 3.14"

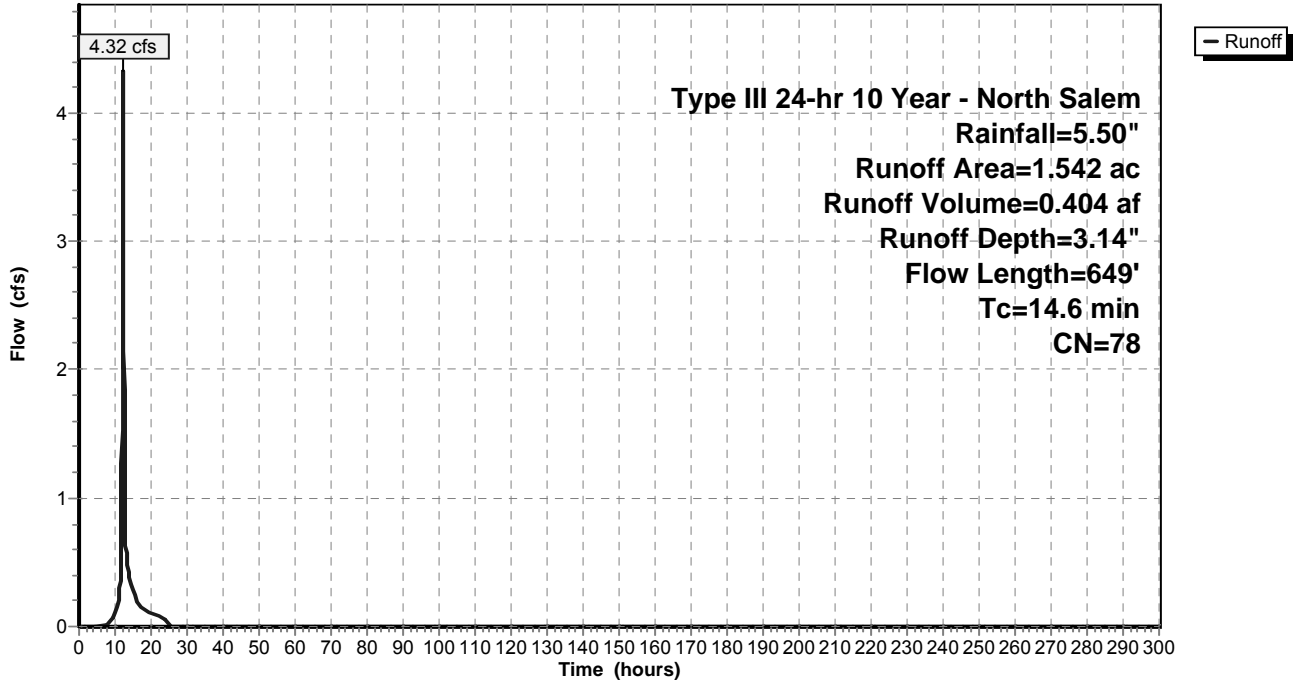
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7

Hydrograph



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 2.42" for 10 Year - North Salem event
 Inflow = 5.25 cfs @ 12.20 hrs, Volume= 0.806 af
 Outflow = 1.06 cfs @ 14.31 hrs, Volume= 0.806 af, Atten= 80%, Lag= 126.7 min
 Primary = 1.06 cfs @ 14.31 hrs, Volume= 0.806 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 424.08' @ 14.31 hrs Surf.Area= 3,342 sf Storage= 6,658 cf (6,433 cf above start)

Plug-Flow detention time= 144.5 min calculated for 0.801 af (99% of inflow)
 Center-of-Mass det. time= 76.9 min (1,763.5 - 1,686.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

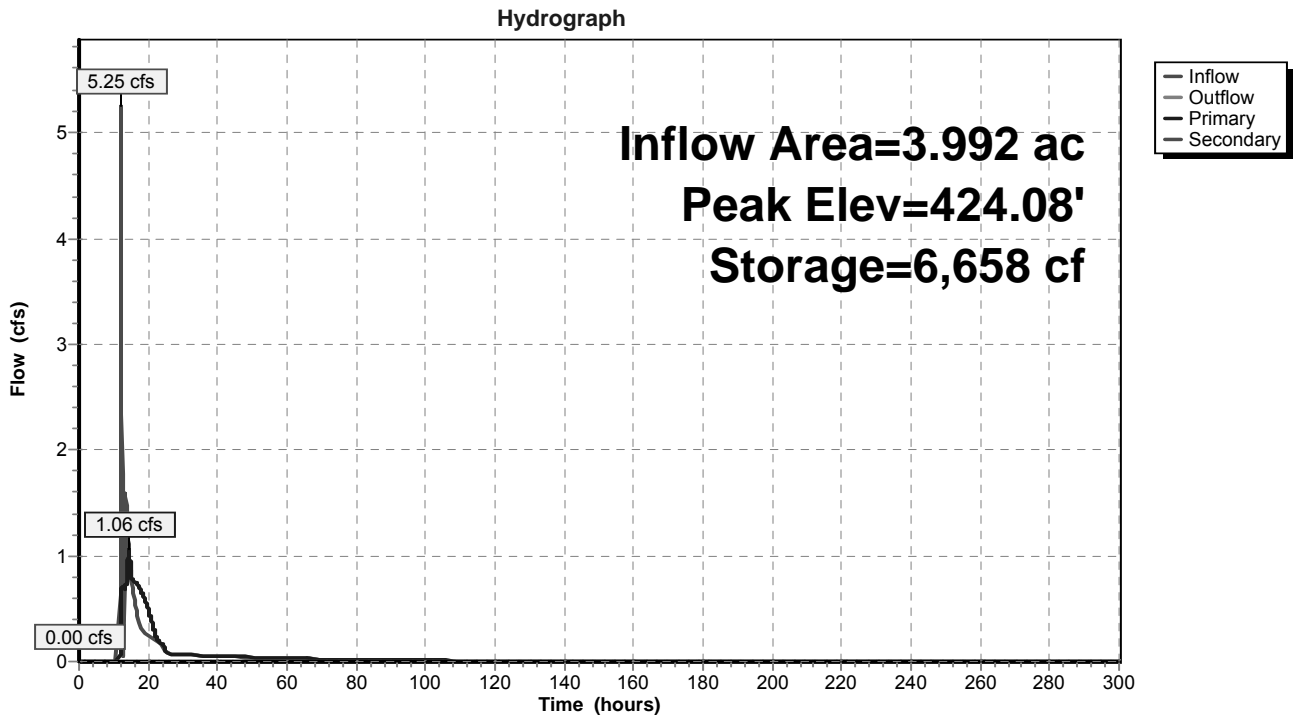
Primary OutFlow Max=1.05 cfs @ 14.31 hrs HW=424.08' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.05 cfs of 30.57 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.78 cfs @ 8.90 fps)
- ↑ 3=Orifice/Grate (Orifice Controls 0.28 cfs @ 0.93 fps)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

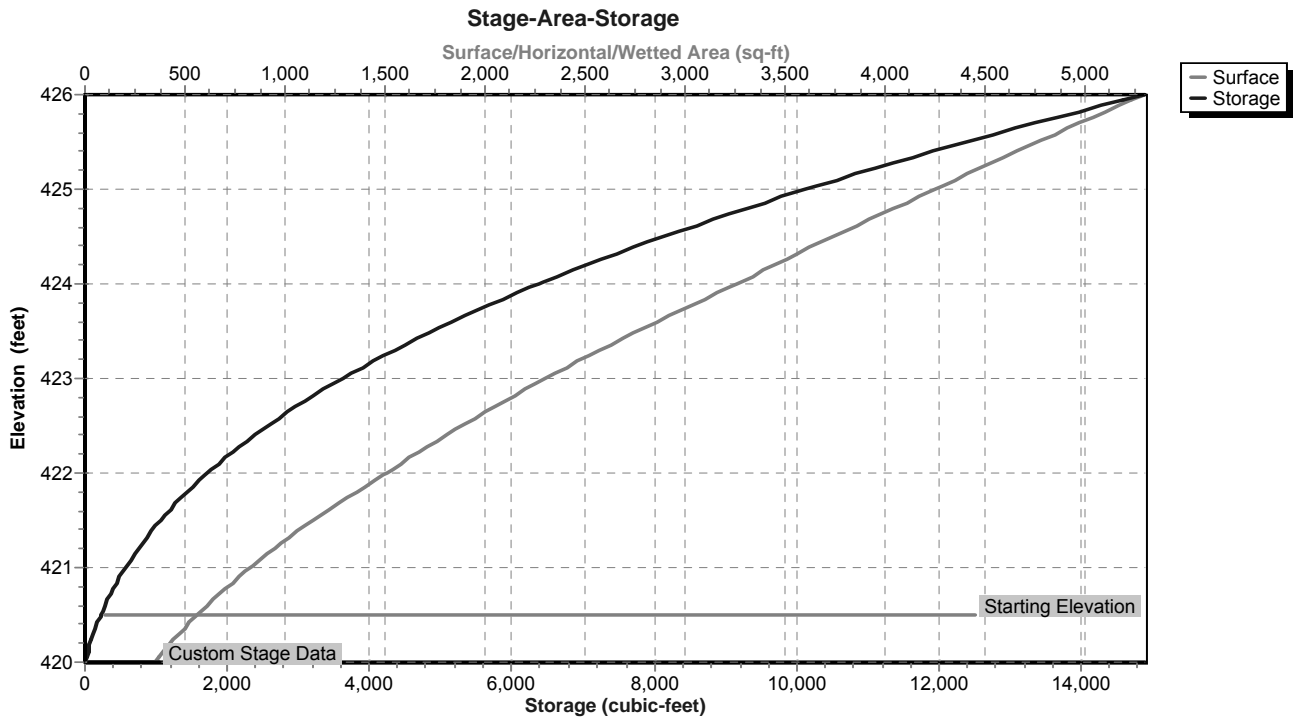
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G5: Dry Basin - G5



Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth > 3.13" for 10 Year - North Salem event
 Inflow = 4.15 cfs @ 12.29 hrs, Volume= 0.919 af
 Outflow = 0.98 cfs @ 13.92 hrs, Volume= 0.919 af, Atten= 76%, Lag= 97.5 min
 Primary = 0.98 cfs @ 13.92 hrs, Volume= 0.919 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 451.97' @ 13.92 hrs Surf.Area= 3,064 sf Storage= 7,617 cf (7,081 cf above start)

Plug-Flow detention time= 284.4 min calculated for 0.906 af (99% of inflow)
 Center-of-Mass det. time= 105.4 min (2,191.2 - 2,085.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

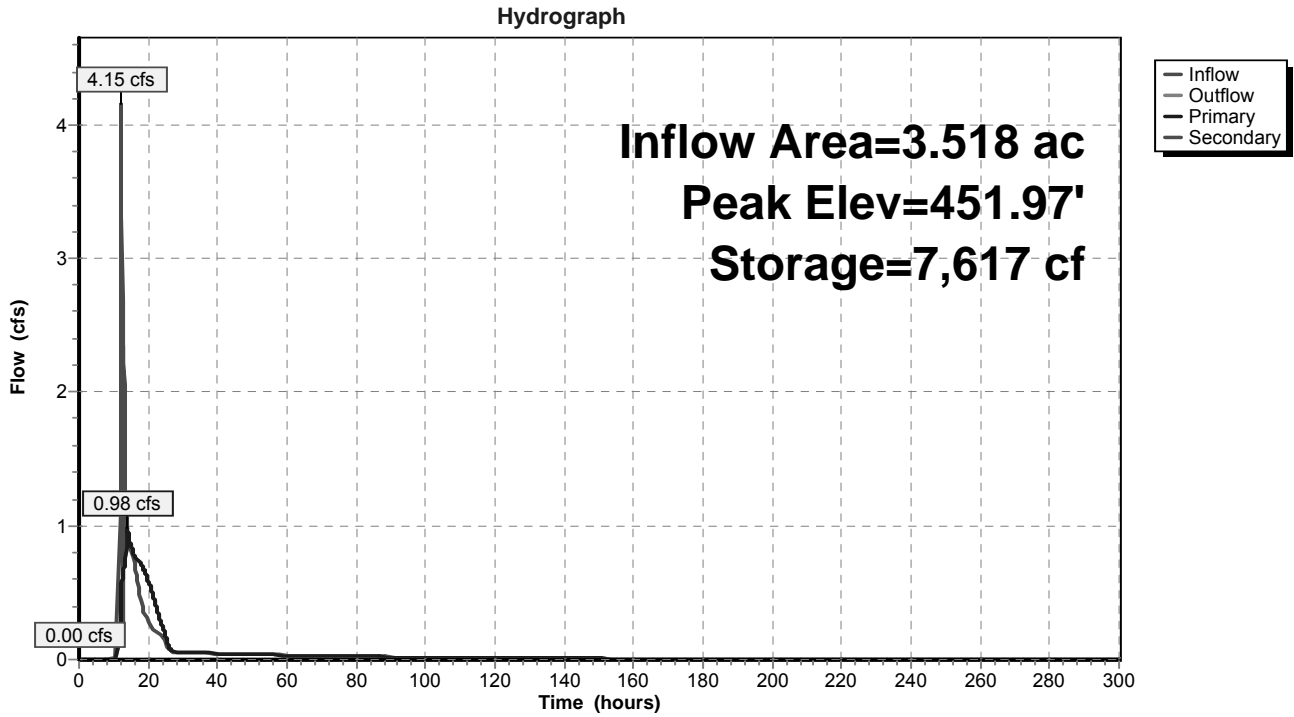
Primary OutFlow Max=0.98 cfs @ 13.92 hrs HW=451.97' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.98 cfs of 28.16 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.76 cfs @ 8.74 fps)
- ↑ 3=Orifice/Grate (Orifice Controls 0.21 cfs @ 0.82 fps)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

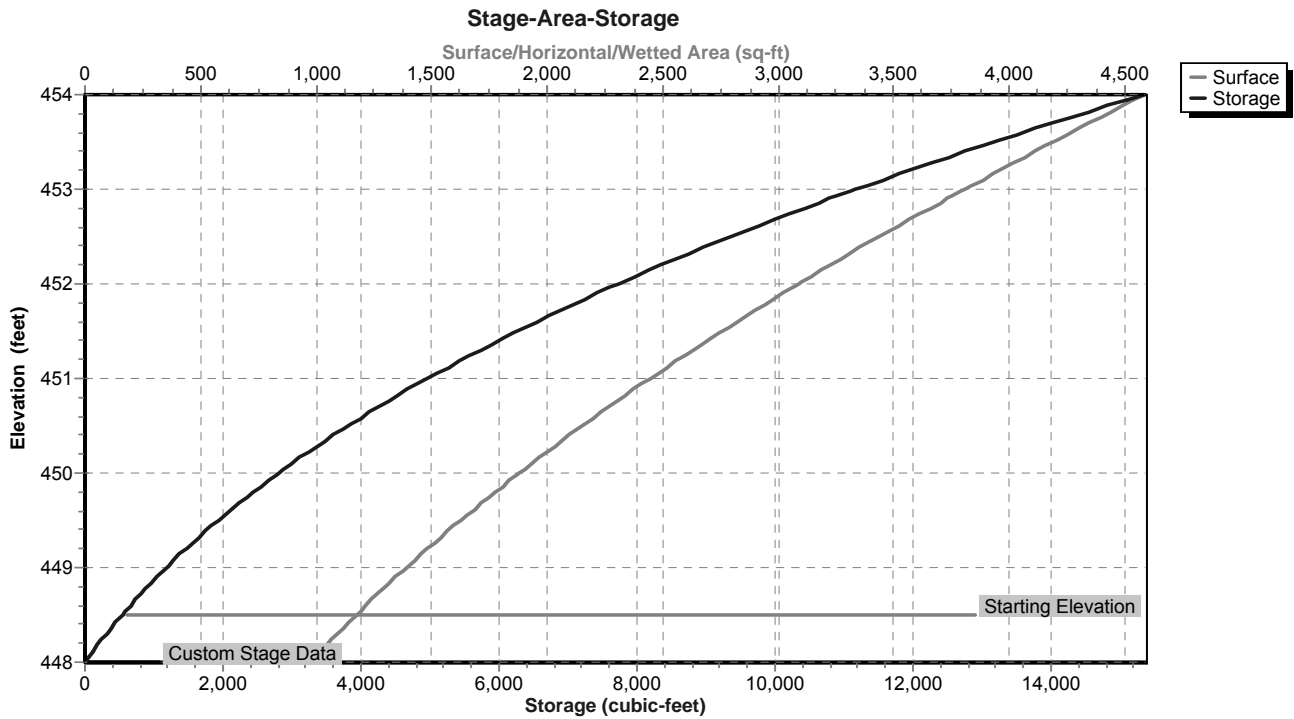
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G6: Dry Basin - G6



Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

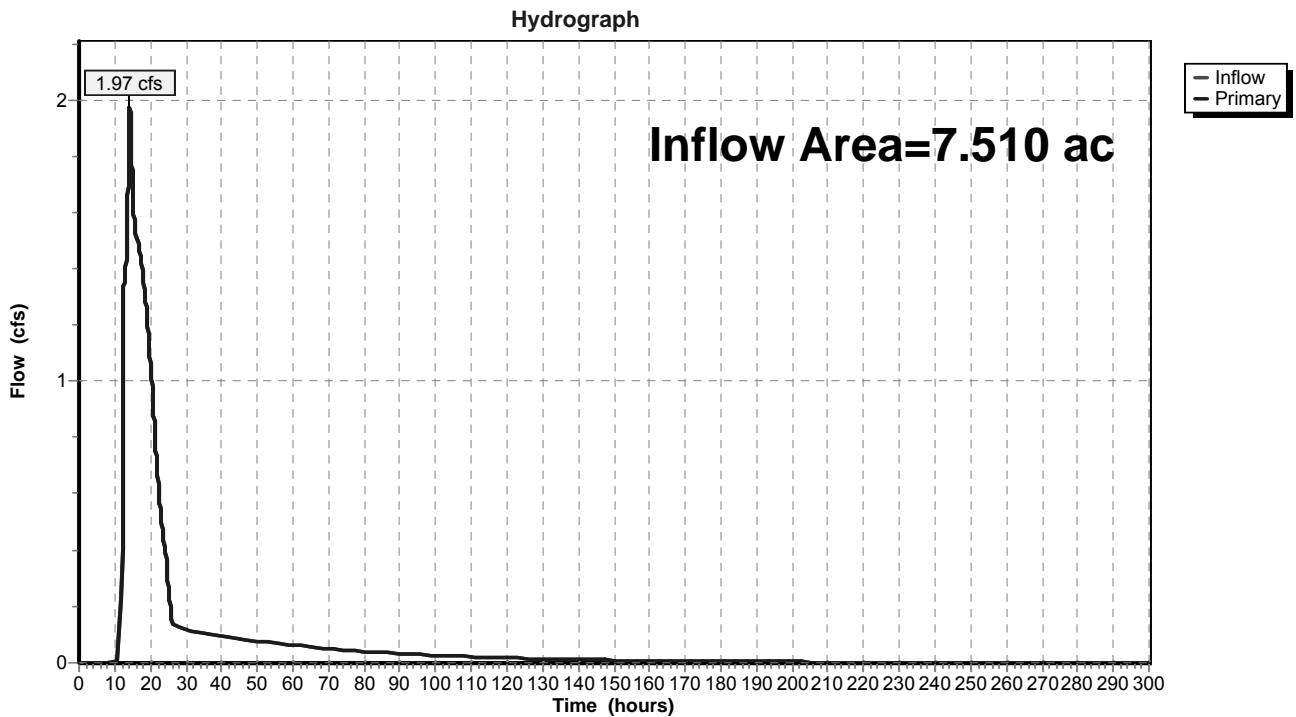
Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth > 2.76" for 10 Year - North Salem event
Inflow = 1.97 cfs @ 14.27 hrs, Volume= 1.725 af
Primary = 1.97 cfs @ 14.27 hrs, Volume= 1.725 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 2.10" for 10 Year - North Salem event
 Inflow = 4.38 cfs @ 12.19 hrs, Volume= 0.403 af
 Outflow = 4.38 cfs @ 12.19 hrs, Volume= 0.403 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.46 cfs @ 12.19 hrs, Volume= 0.319 af
 Secondary = 2.92 cfs @ 12.19 hrs, Volume= 0.083 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 438.76' @ 12.19 hrs
 Flood Elev= 527.50'

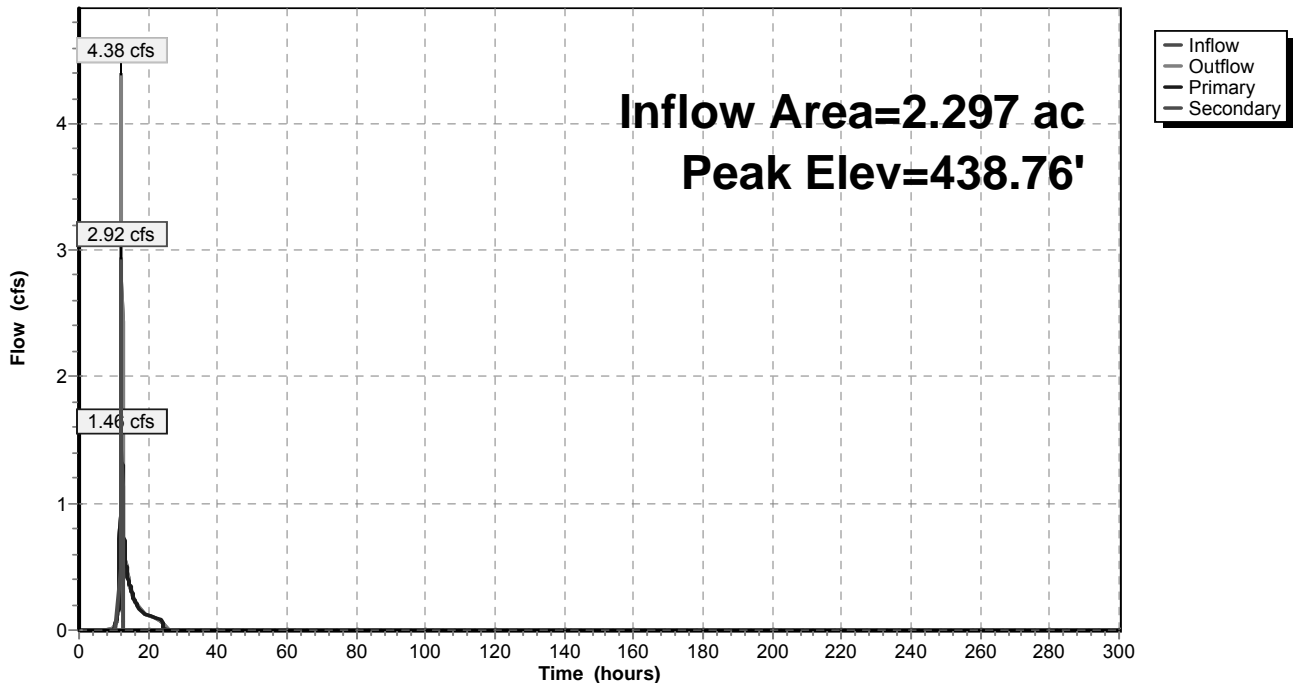
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.46 cfs @ 12.19 hrs HW=438.75' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.46 cfs @ 7.43 fps)

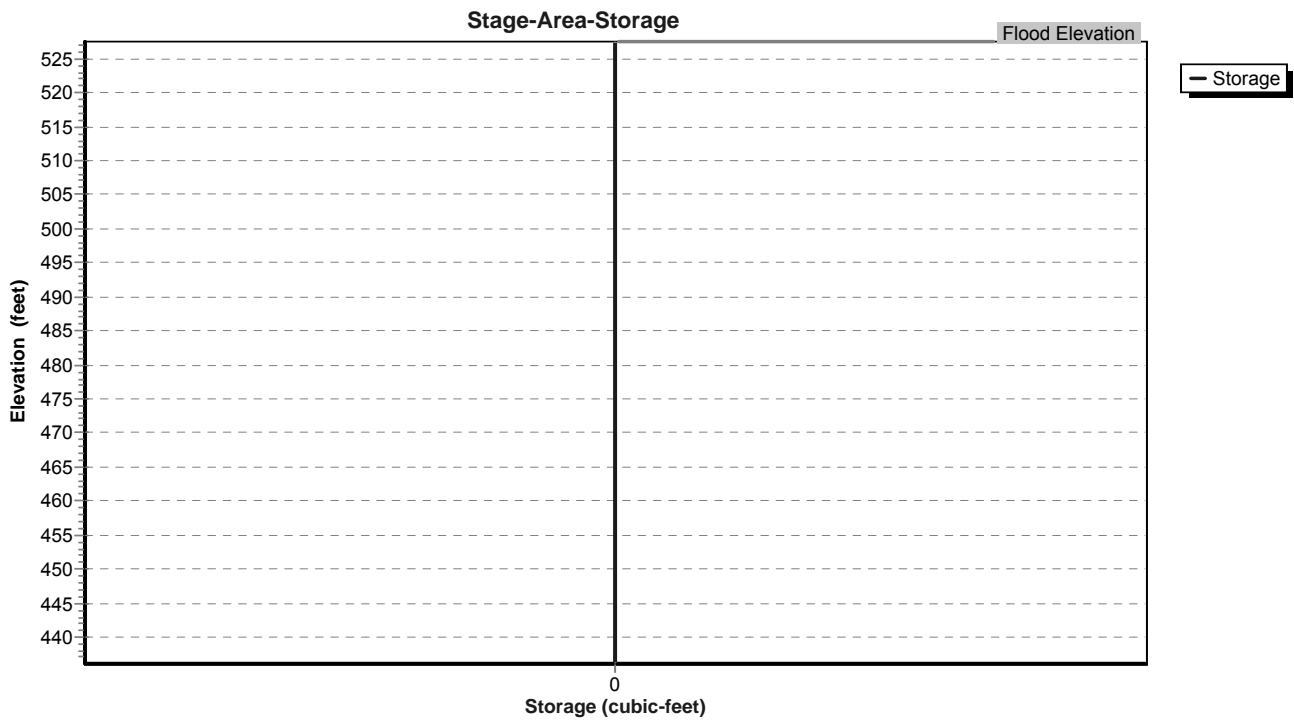
Secondary OutFlow Max=2.60 cfs @ 12.19 hrs HW=438.75' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 2.60 cfs @ 2.95 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Pond FS G5: Flow Splitter - G5



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 3.14" for 10 Year - North Salem event
 Inflow = 8.55 cfs @ 12.29 hrs, Volume= 0.921 af
 Outflow = 8.55 cfs @ 12.29 hrs, Volume= 0.921 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.42 cfs @ 12.29 hrs, Volume= 0.796 af
 Secondary = 4.13 cfs @ 12.29 hrs, Volume= 0.124 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.64' @ 12.29 hrs
 Flood Elev= 554.50'

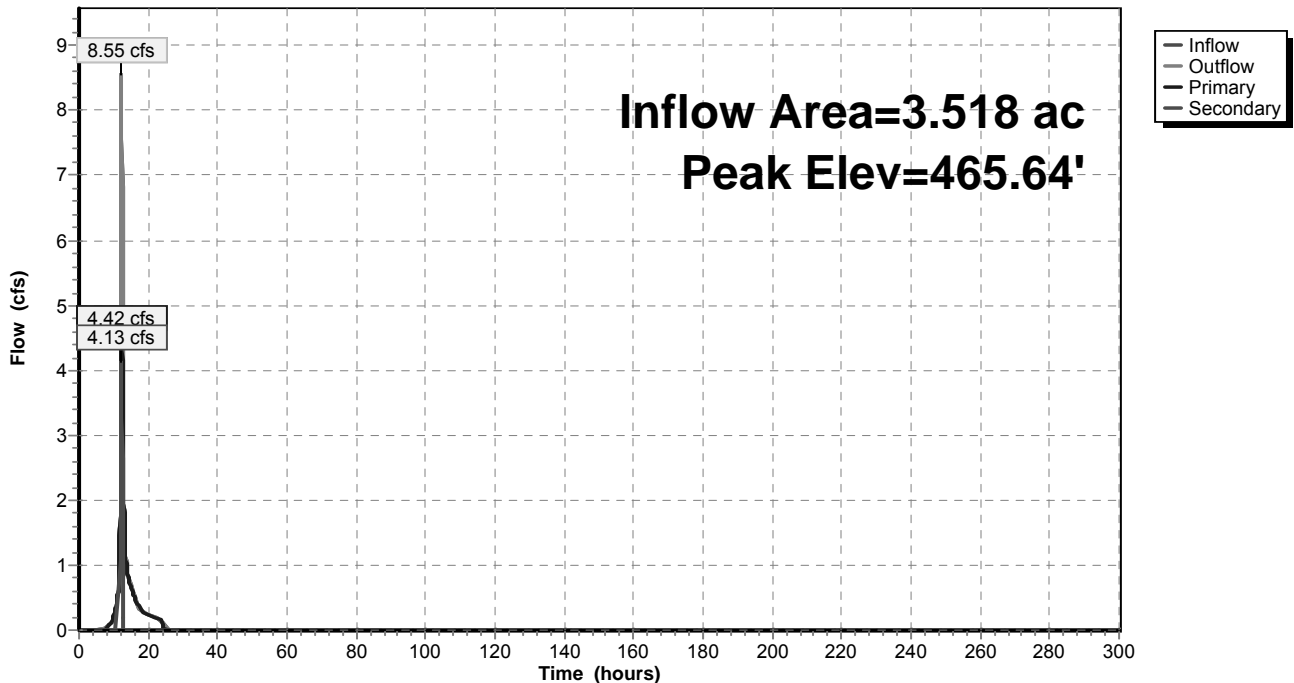
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=4.45 cfs @ 12.29 hrs HW=465.63' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 4.45 cfs @ 5.67 fps)

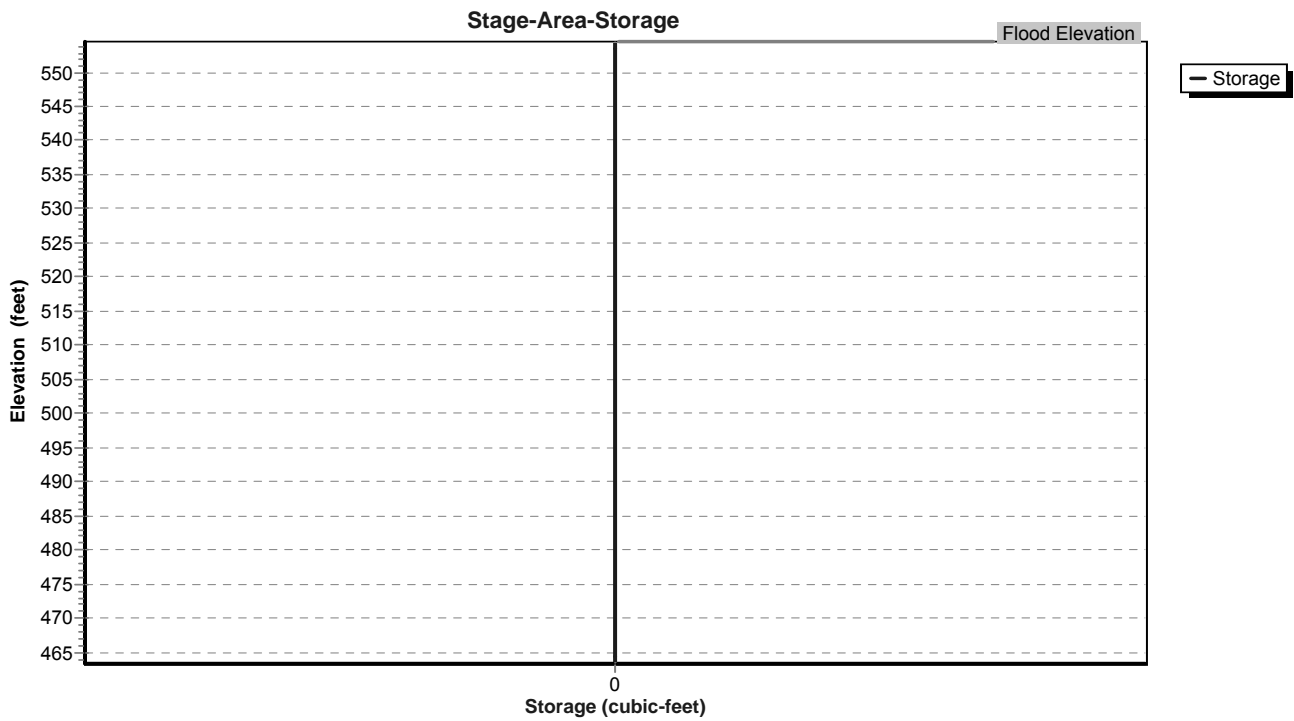
Secondary OutFlow Max=3.47 cfs @ 12.29 hrs HW=465.63' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 3.47 cfs @ 2.76 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Pond FS G6: Flow Splitter - G6



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 3.14" for 10 Year - North Salem event
 Inflow = 4.32 cfs @ 12.20 hrs, Volume= 0.404 af
 Outflow = 4.32 cfs @ 12.20 hrs, Volume= 0.404 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.01 cfs @ 12.20 hrs, Volume= 0.348 af
 Secondary = 2.31 cfs @ 12.20 hrs, Volume= 0.055 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 457.49' @ 12.20 hrs
 Flood Elev= 554.50'

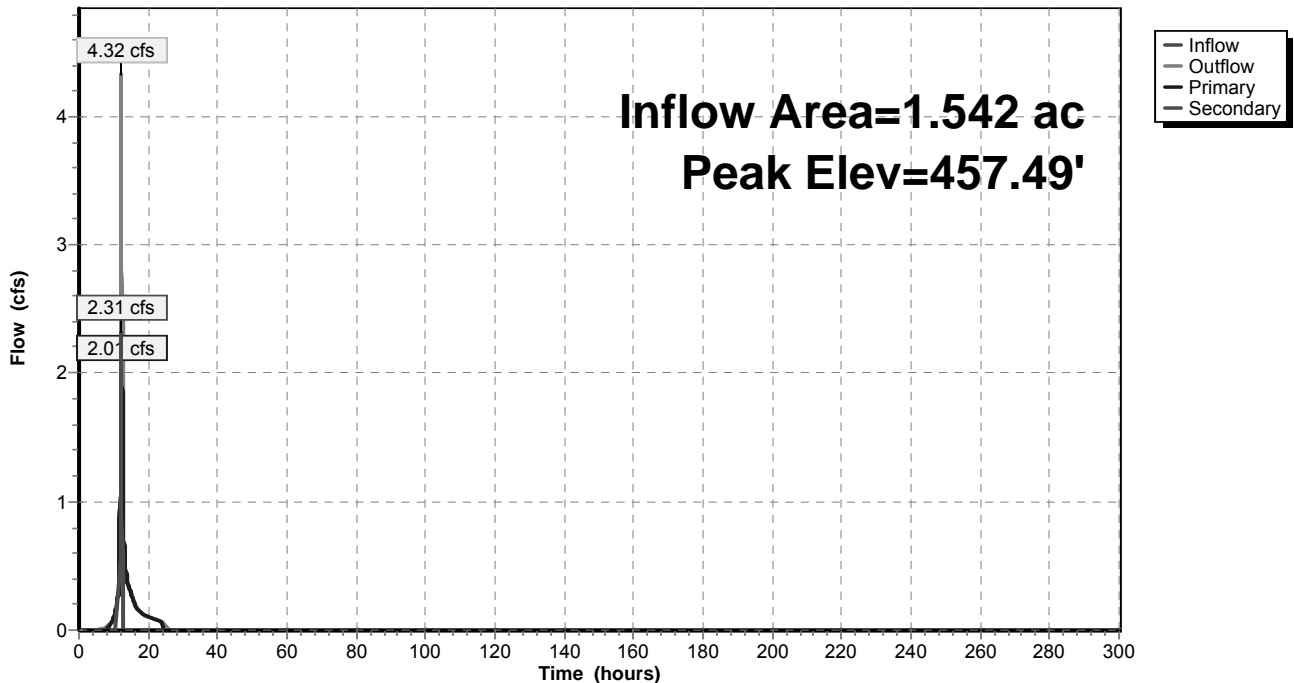
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=2.02 cfs @ 12.20 hrs HW=457.49' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.02 cfs @ 5.79 fps)

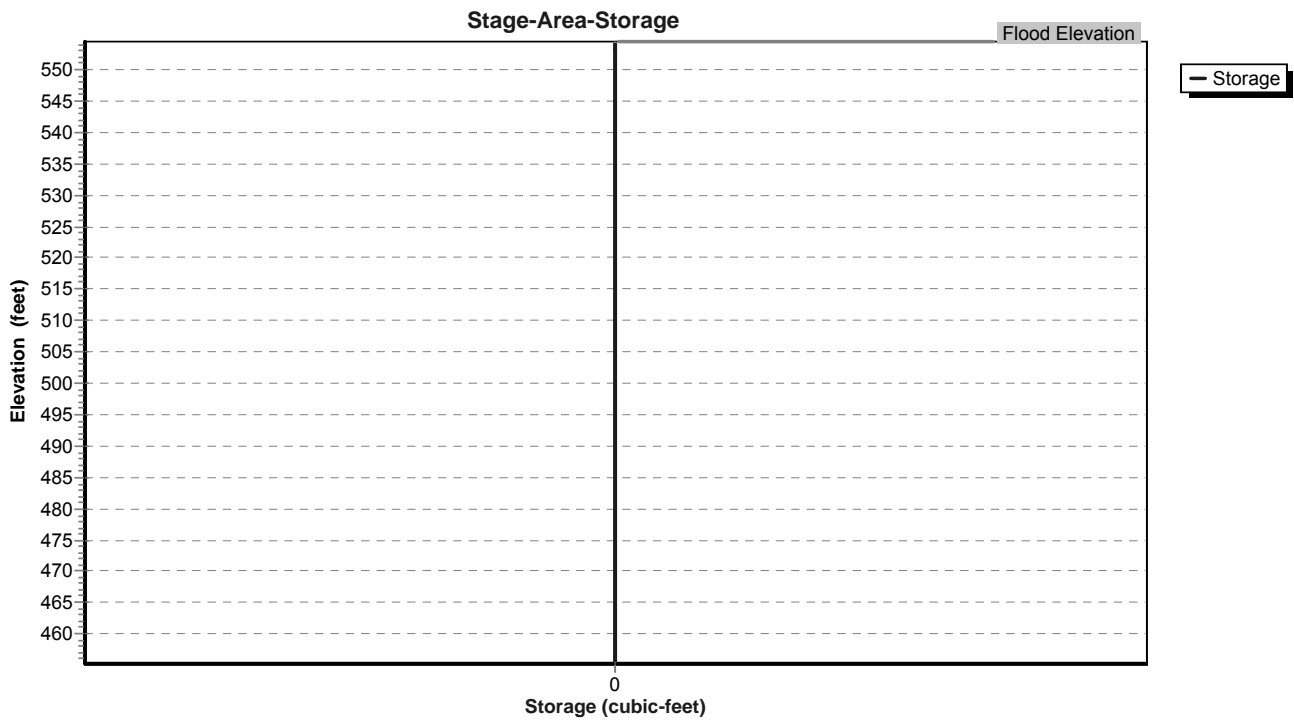
Secondary OutFlow Max=1.78 cfs @ 12.20 hrs HW=457.49' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 1.78 cfs @ 2.30 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Pond FS G7: Flow Splitter - G7



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 5.26" for 10 Year - North Salem event
 Inflow = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af
 Outflow = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af, Atten= 1%, Lag= 0.1 min
 Discarded = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.03' @ 12.03 hrs Surf.Area= 0.022 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.067 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (742.9 - 742.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

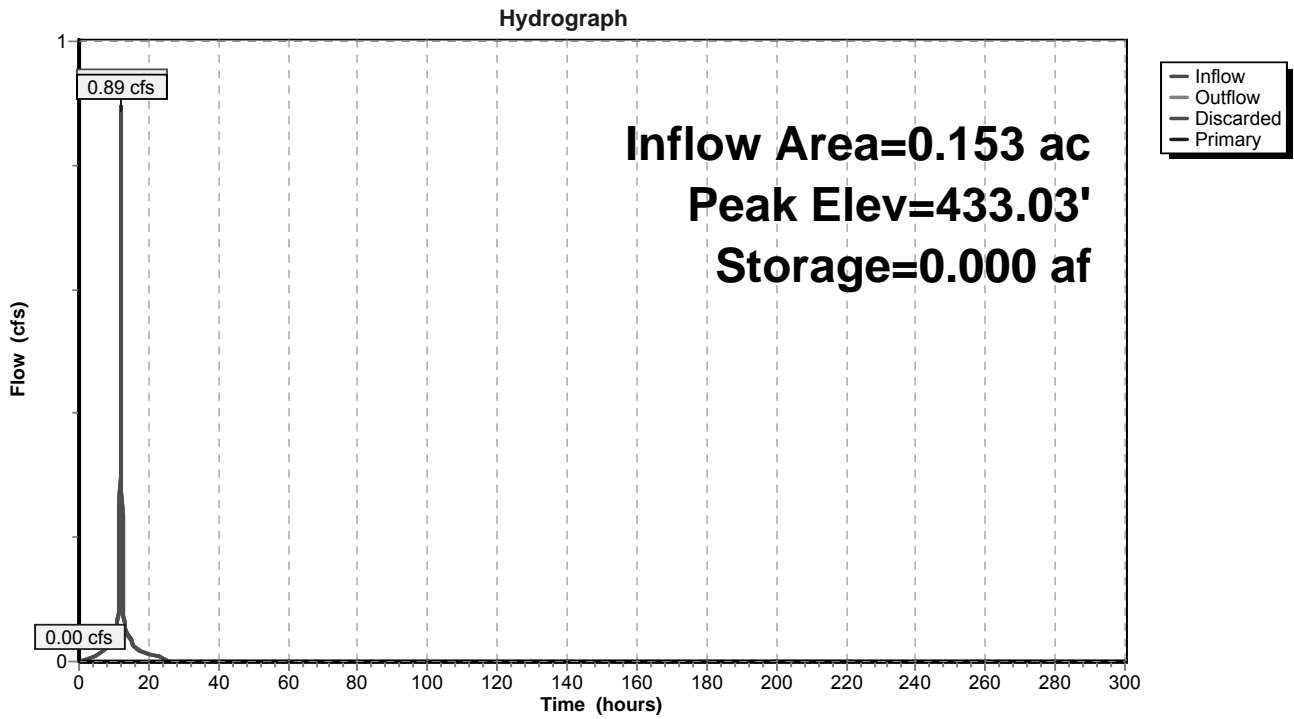
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

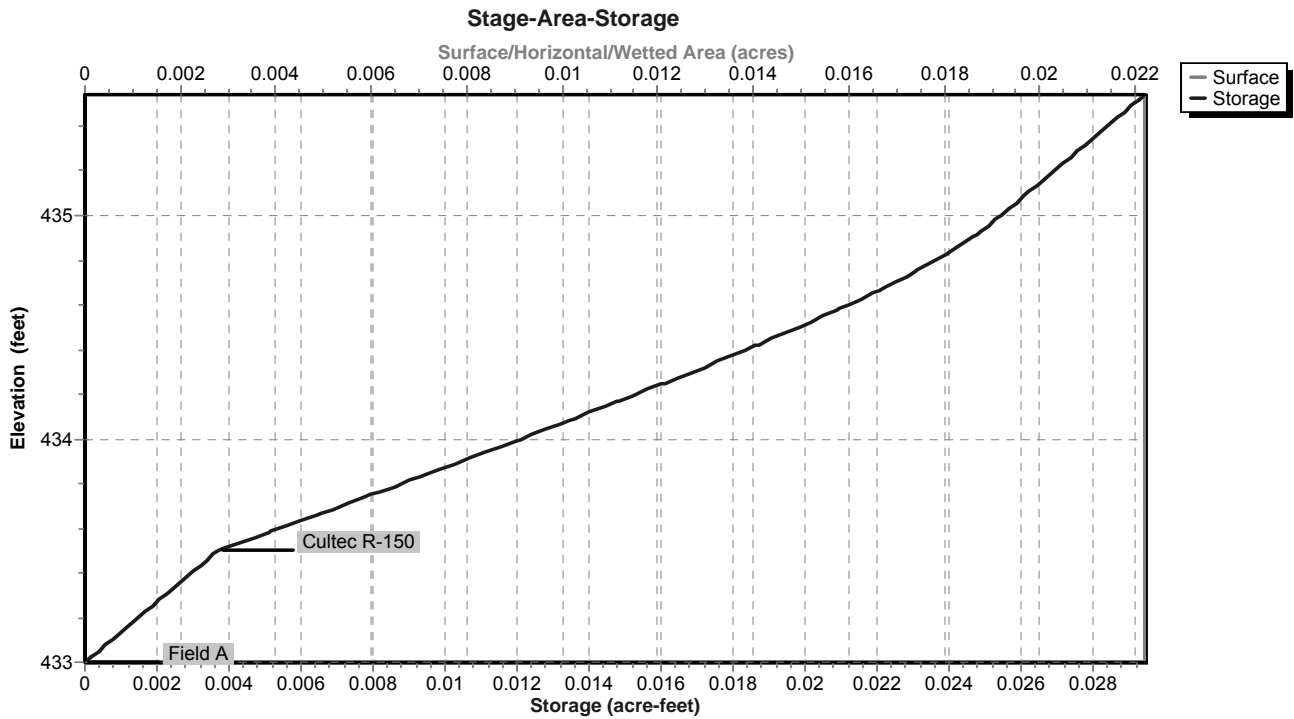
Discarded OutFlow Max=0.90 cfs @ 12.03 hrs HW=433.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 4.80" for 10 Year - North Salem event
 Inflow = 0.81 cfs @ 12.03 hrs, Volume= 0.057 af
 Outflow = 0.80 cfs @ 12.03 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.80 cfs @ 12.03 hrs, Volume= 0.057 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.01' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.057 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (767.2 - 767.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

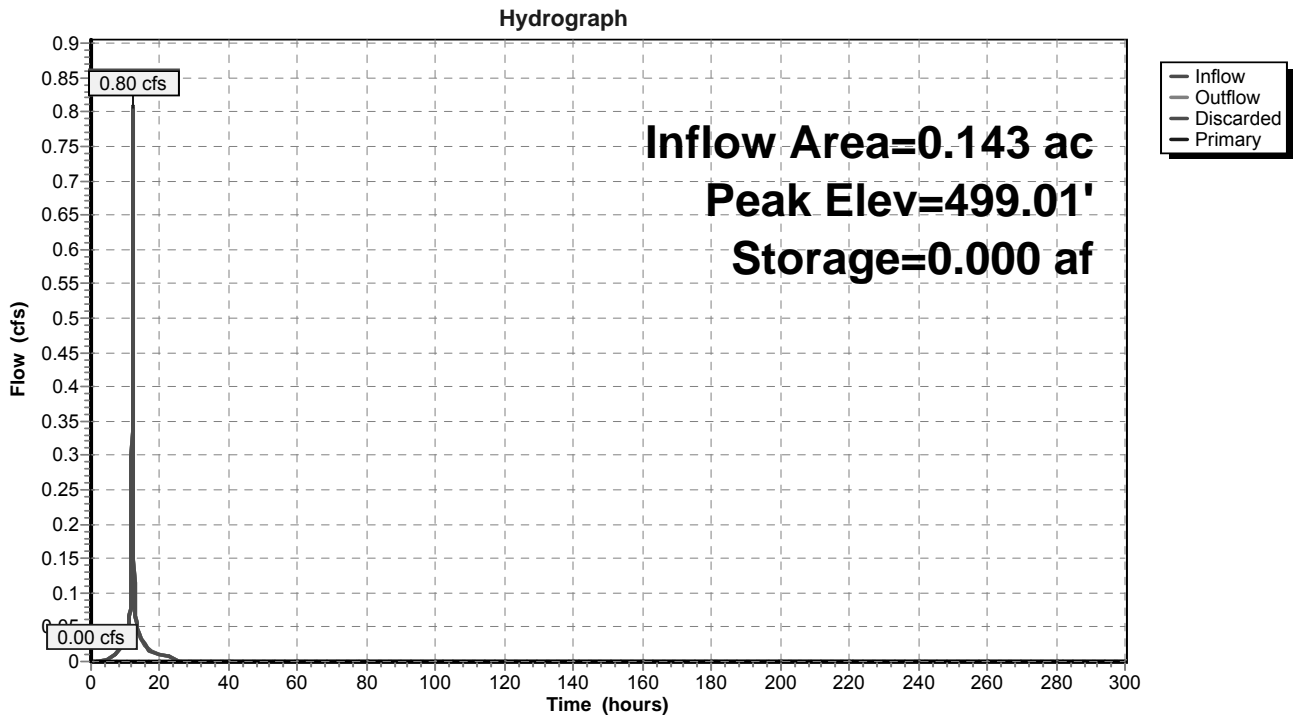
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

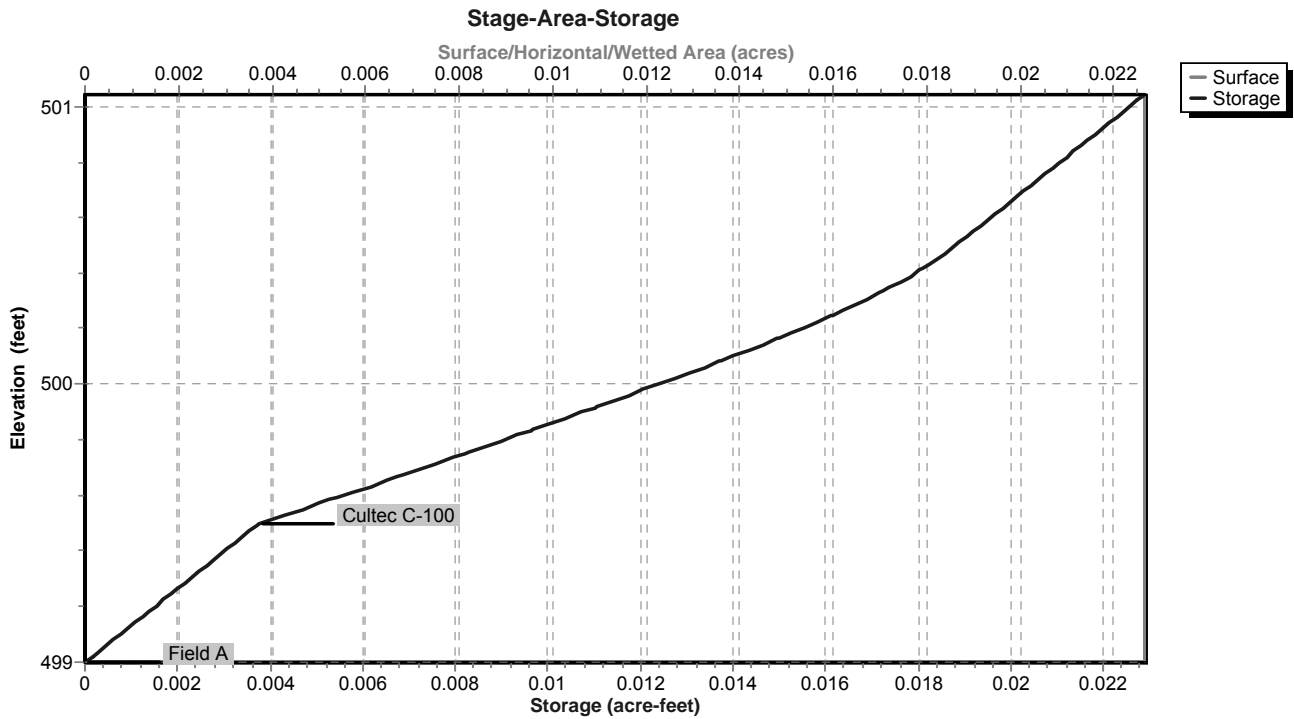
Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 1.67" for 10 Year - North Salem event
 Inflow = 1.26 cfs @ 12.62 hrs, Volume= 0.319 af
 Outflow = 0.81 cfs @ 13.35 hrs, Volume= 0.319 af, Atten= 36%, Lag= 44.0 min
 Primary = 0.81 cfs @ 13.35 hrs, Volume= 0.319 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 430.97' @ 13.35 hrs Surf.Area= 1,950 sf Storage= 4,437 cf

Plug-Flow detention time= 873.8 min calculated for 0.319 af (100% of inflow)
 Center-of-Mass det. time= 873.7 min (1,795.8 - 922.1)

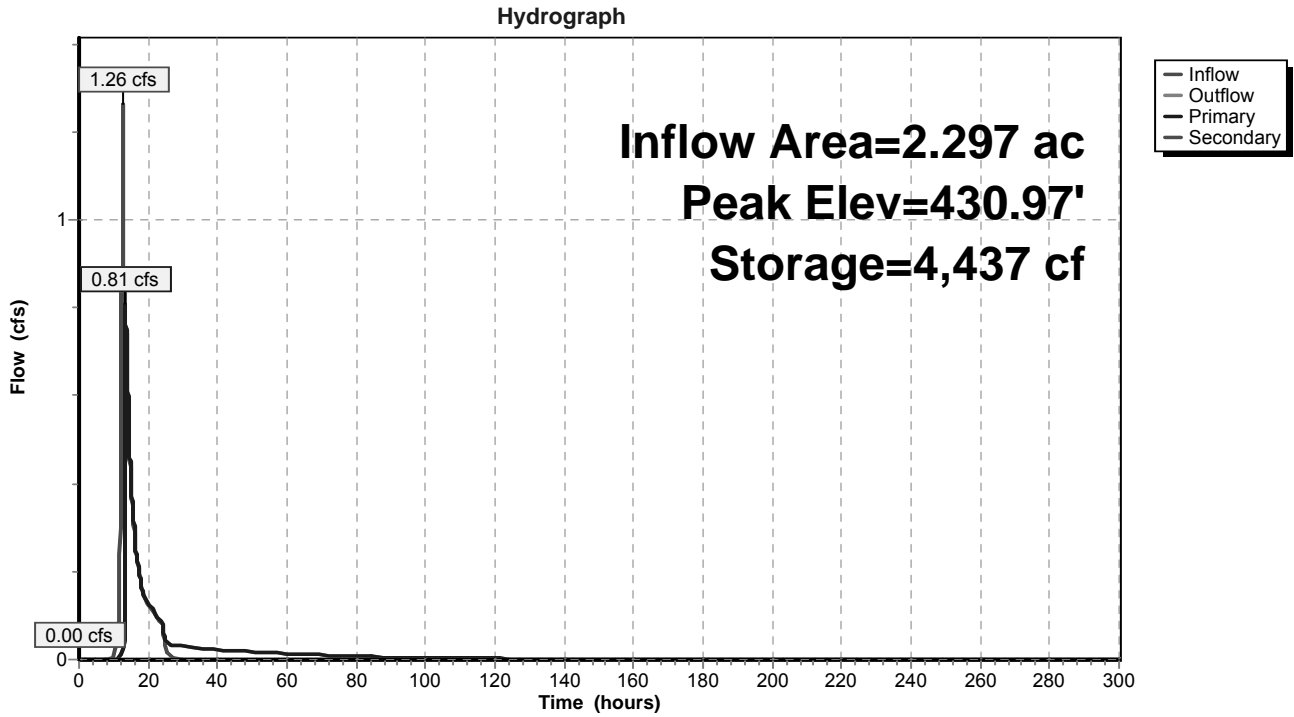
Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

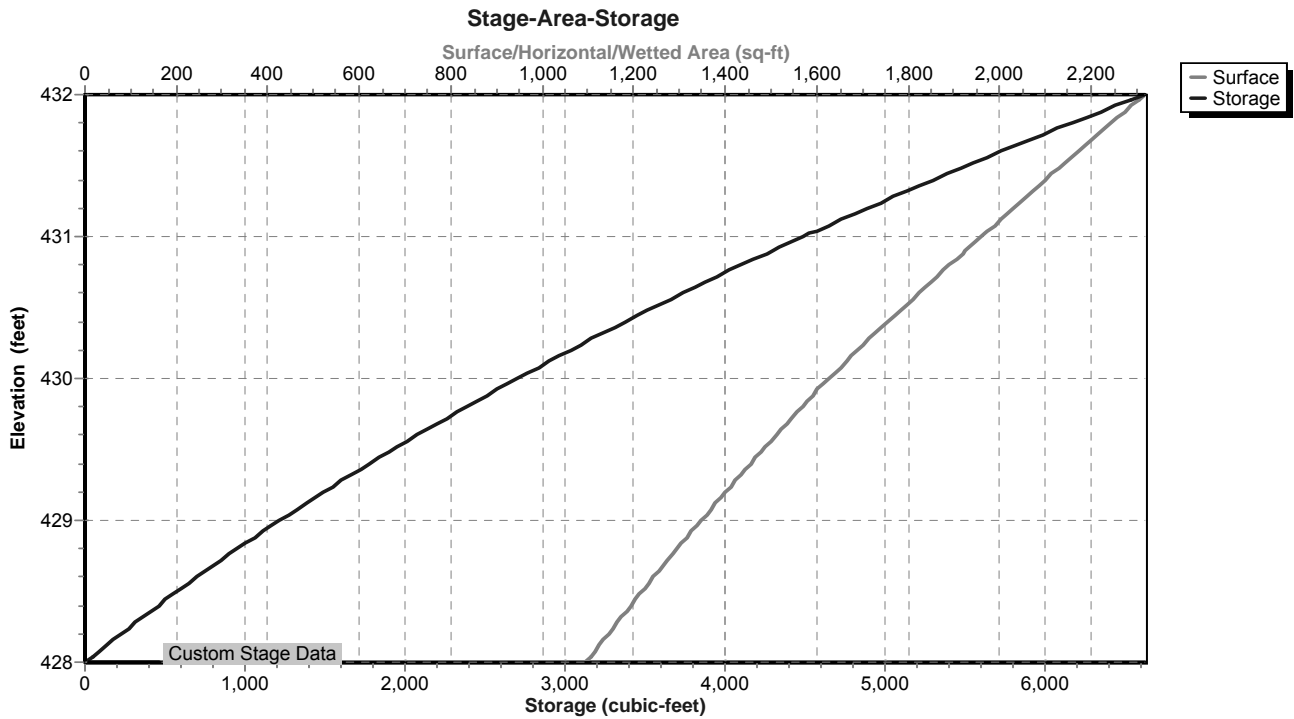
Primary OutFlow Max=0.79 cfs @ 13.35 hrs HW=430.97' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 0.79 cfs of 7.44 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 0.75 cfs @ 0.88 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G5: Sand Filter - G5



Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 2.72" for 10 Year - North Salem event
 Inflow = 4.42 cfs @ 12.31 hrs, Volume= 0.796 af
 Outflow = 2.34 cfs @ 12.89 hrs, Volume= 0.795 af, Atten= 47%, Lag= 34.9 min
 Primary = 2.34 cfs @ 12.89 hrs, Volume= 0.795 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.87' @ 12.89 hrs Surf.Area= 4,895 sf Storage= 12,027 cf

Plug-Flow detention time= 1,389.3 min calculated for 0.795 af (100% of inflow)
 Center-of-Mass det. time= 1,387.2 min (2,296.4 - 909.2)

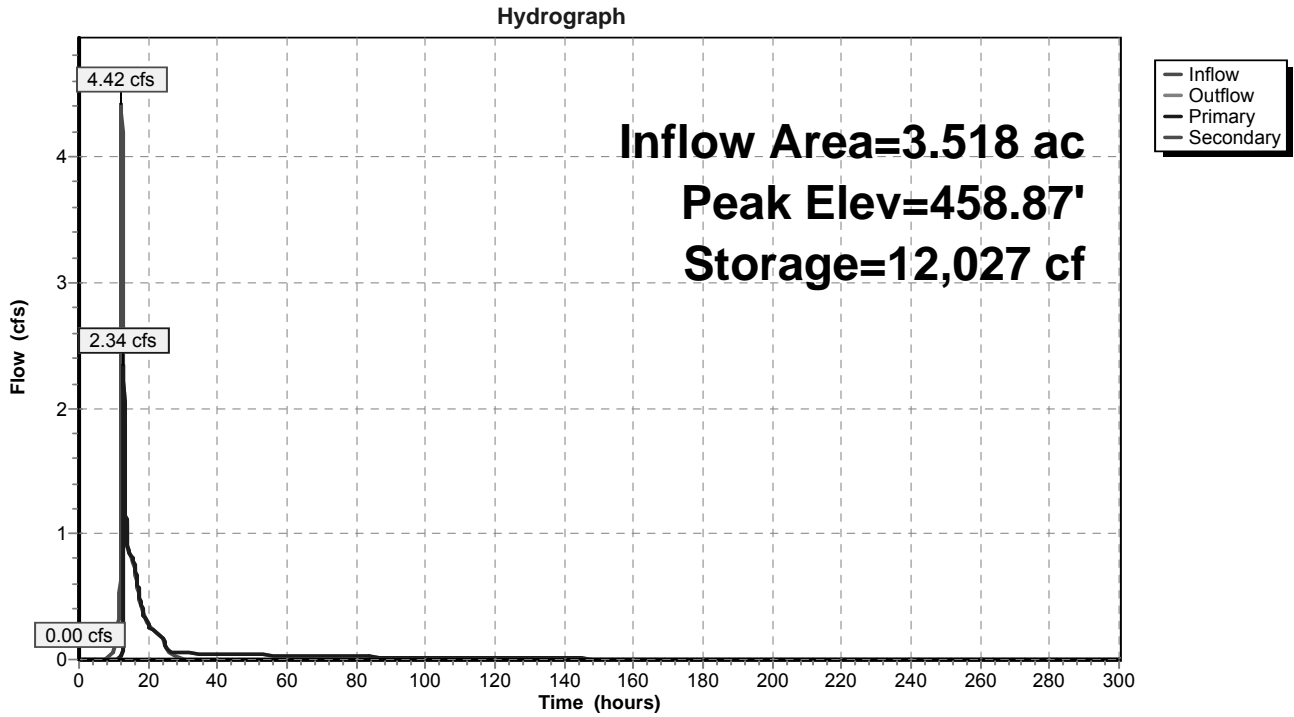
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

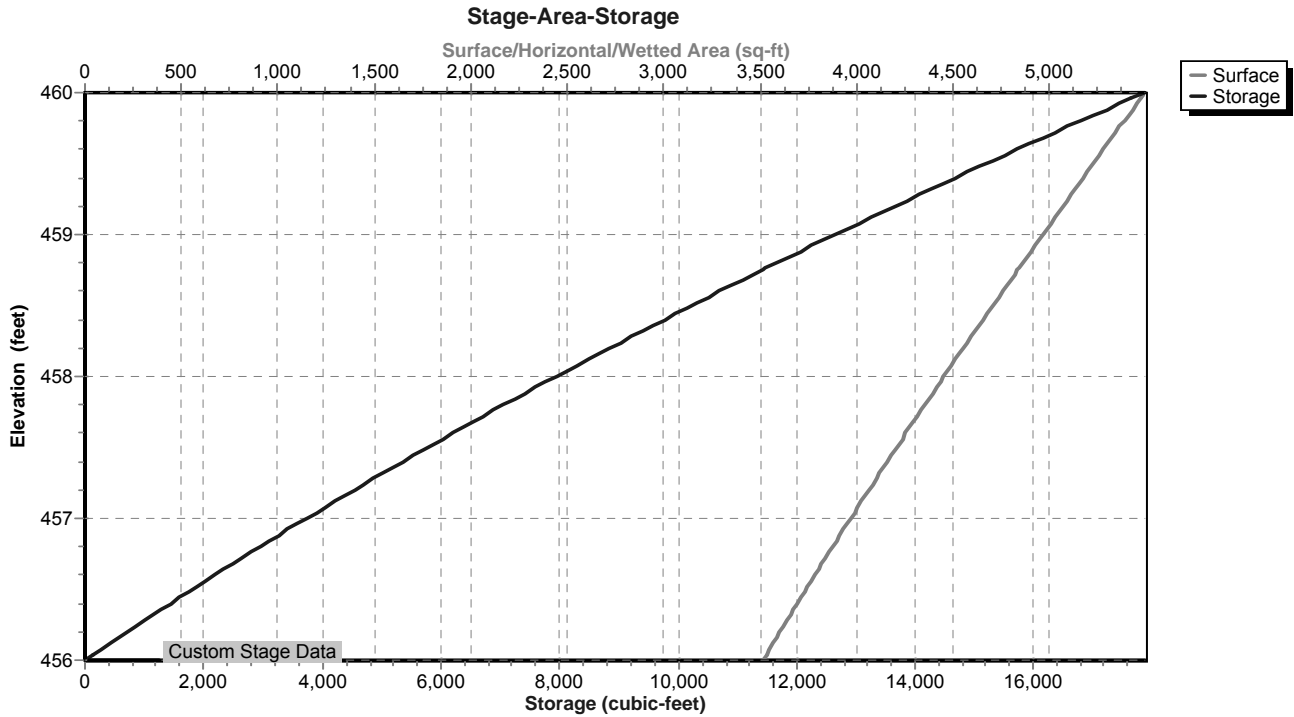
Primary OutFlow Max=2.32 cfs @ 12.89 hrs HW=458.87' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 2.32 cfs of 7.37 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.06 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 2.26 cfs @ 1.15 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 2.71" for 10 Year - North Salem event
 Inflow = 1.97 cfs @ 12.37 hrs, Volume= 0.348 af
 Outflow = 0.84 cfs @ 13.12 hrs, Volume= 0.348 af, Atten= 58%, Lag= 45.4 min
 Primary = 0.84 cfs @ 13.12 hrs, Volume= 0.348 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.92' @ 13.12 hrs Surf.Area= 2,438 sf Storage= 5,631 cf

Plug-Flow detention time= 1,075.2 min calculated for 0.348 af (100% of inflow)
 Center-of-Mass det. time= 1,077.4 min (1,965.0 - 887.6)

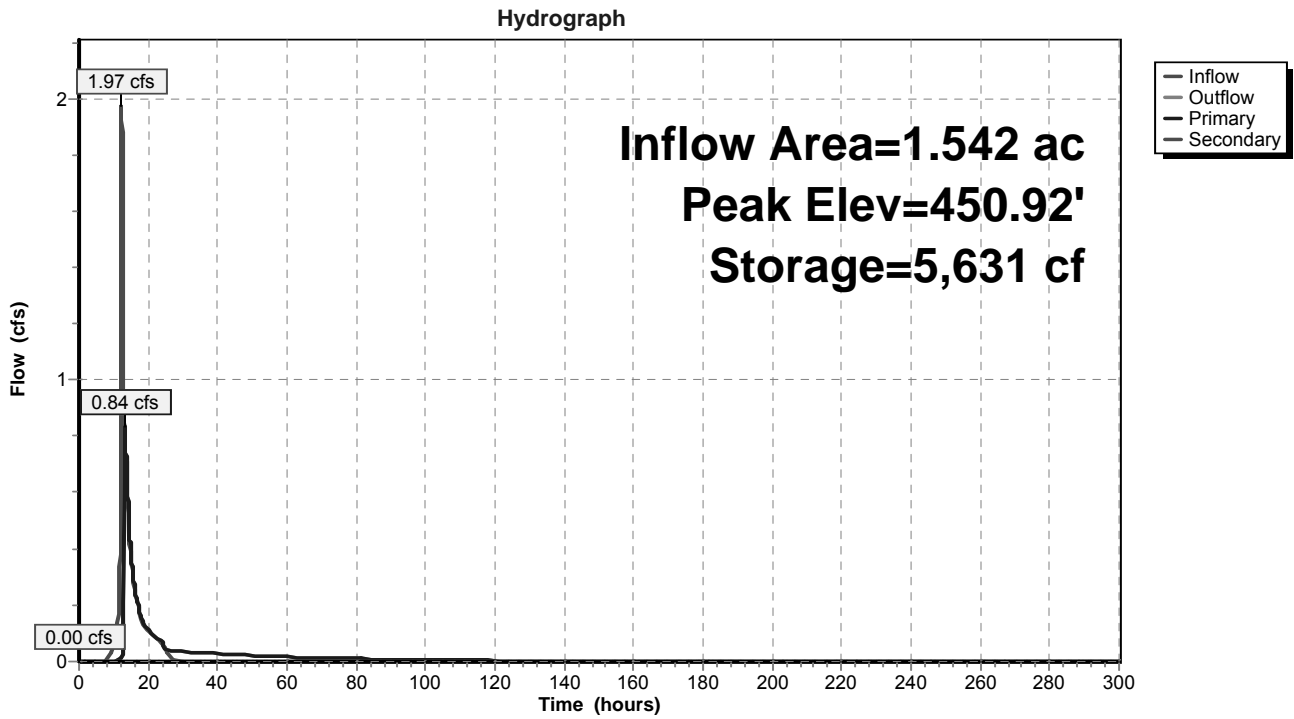
Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

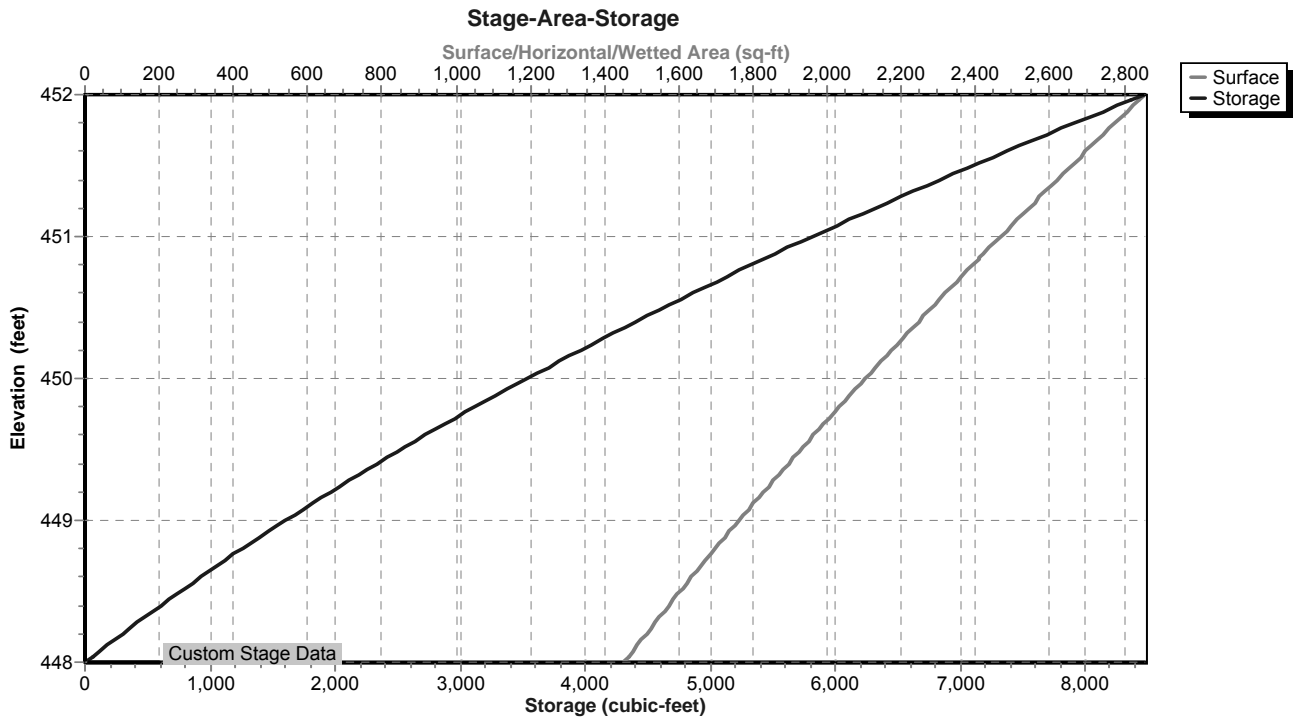
Primary OutFlow Max=0.82 cfs @ 13.12 hrs HW=450.92' (Free Discharge)
 ↑ **1=Outlet Pipe** (Passes 0.82 cfs of 7.40 cfs potential flow)
 ↑ **2=Exfiltration** (Exfiltration Controls 0.04 cfs)
 ↑ **3=Top of Outlet Box** (Weir Controls 0.78 cfs @ 0.89 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↑ **4=Emergency Overflow** (Controls 0.00 cfs)

Pond SF-G7: Sand Filter - G7



Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 1.67" for 10 Year - North Salem event
 Inflow = 1.46 cfs @ 12.19 hrs, Volume= 0.319 af
 Outflow = 1.26 cfs @ 12.62 hrs, Volume= 0.319 af, Atten= 13%, Lag= 25.8 min
 Primary = 1.26 cfs @ 12.62 hrs, Volume= 0.319 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 434.94' @ 12.62 hrs Surf.Area= 1,103 sf Storage= 2,238 cf

Plug-Flow detention time= 37.0 min calculated for 0.319 af (100% of inflow)
 Center-of-Mass det. time= 37.0 min (922.1 - 885.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

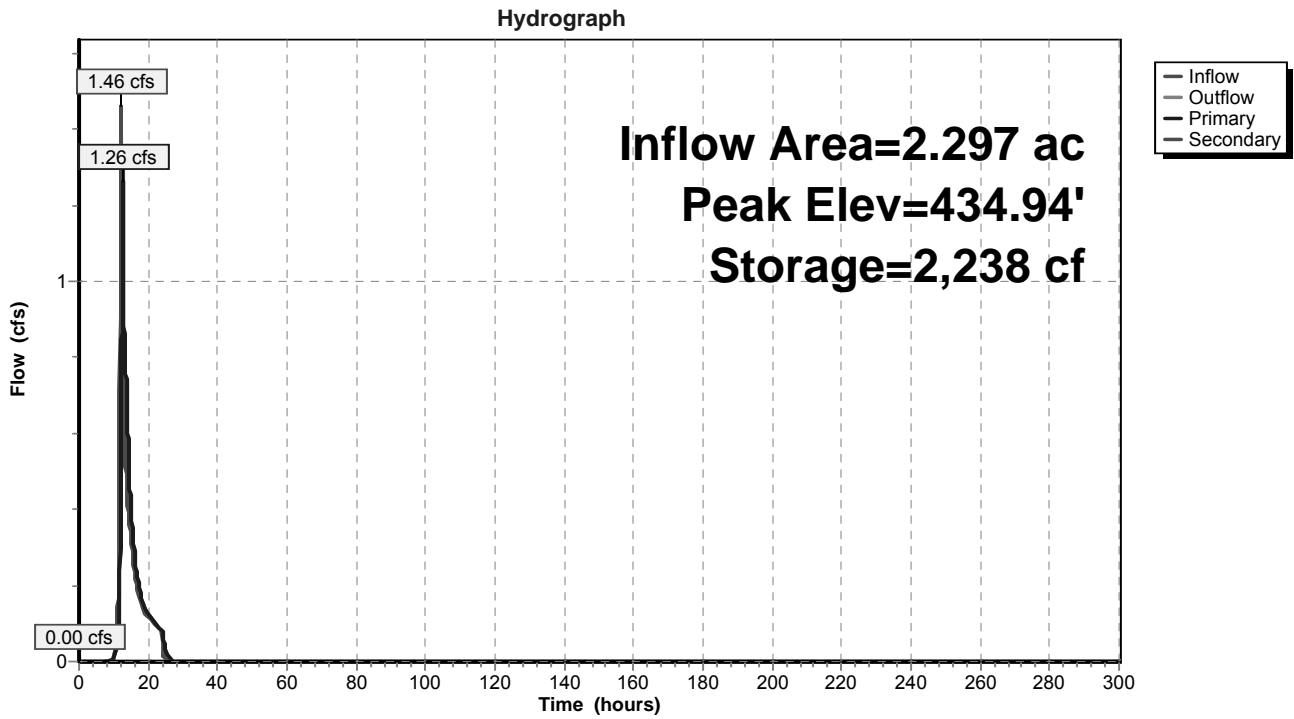
Primary OutFlow Max=1.20 cfs @ 12.62 hrs HW=434.94' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.20 cfs of 5.91 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.85 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.10 cfs @ 0.65 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.21 cfs @ 0.65 fps)

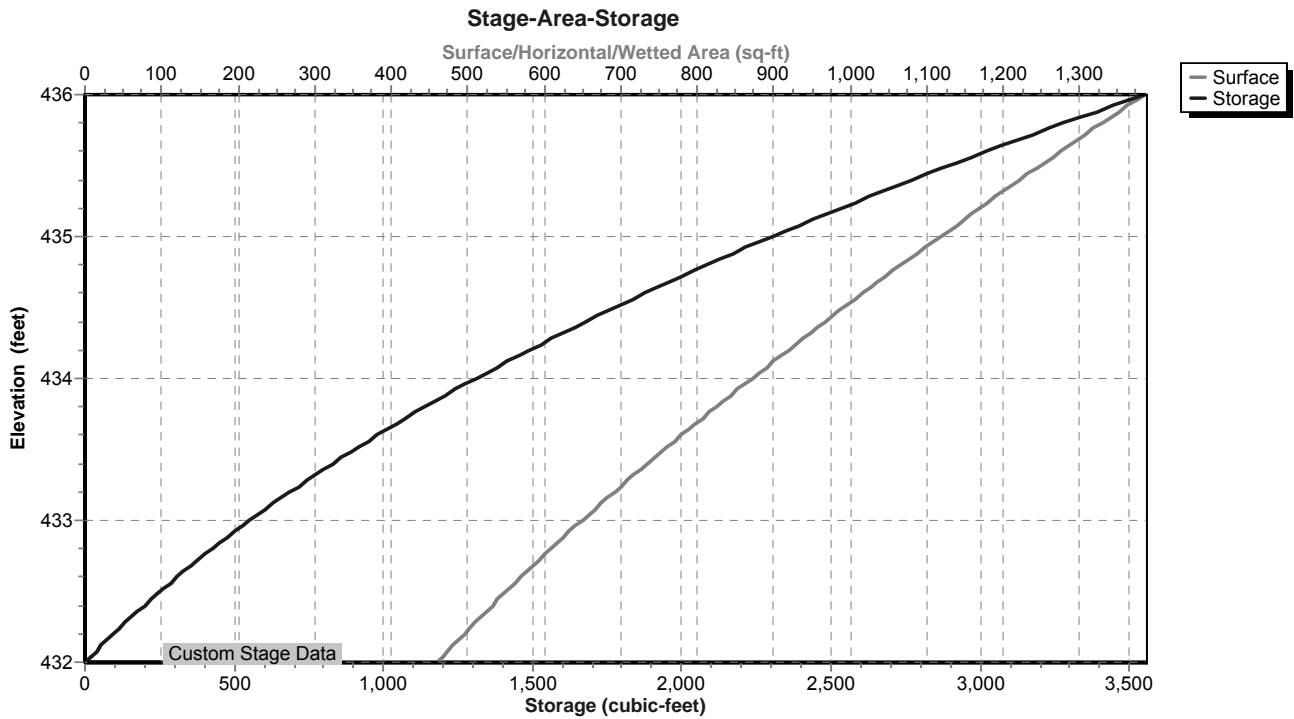
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G5: Sand Filter Forebay - G5



Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 2.72" for 10 Year - North Salem event
 Inflow = 4.42 cfs @ 12.29 hrs, Volume= 0.796 af
 Outflow = 4.42 cfs @ 12.31 hrs, Volume= 0.796 af, Atten= 0%, Lag= 1.1 min
 Primary = 4.42 cfs @ 12.31 hrs, Volume= 0.796 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.95' @ 12.31 hrs Surf.Area= 2,123 sf Storage= 4,603 cf

Plug-Flow detention time= 57.3 min calculated for 0.796 af (100% of inflow)
 Center-of-Mass det. time= 57.4 min (909.2 - 851.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

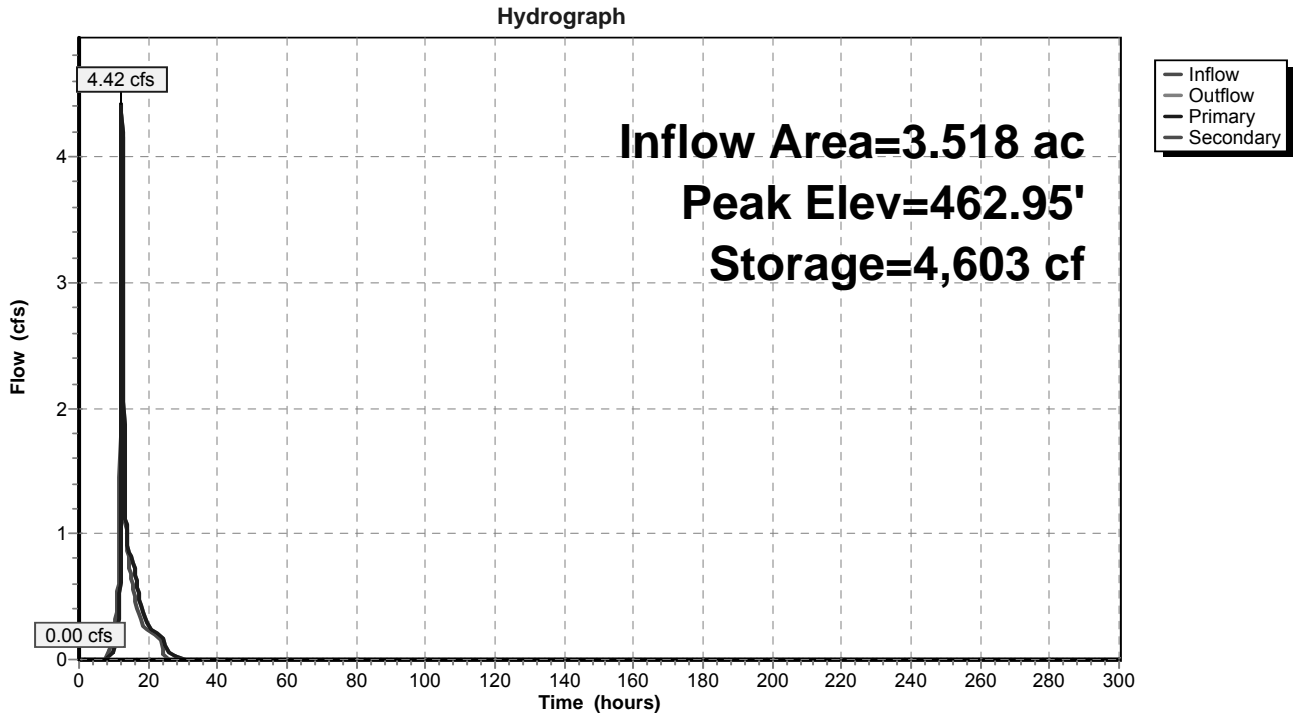
Primary OutFlow Max=4.40 cfs @ 12.31 hrs HW=462.95' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 4.40 cfs of 5.91 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.87 fps)
- ↑ 3=Top of Standpipe (Weir Controls 1.20 cfs @ 1.27 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 2.30 cfs @ 1.27 fps)

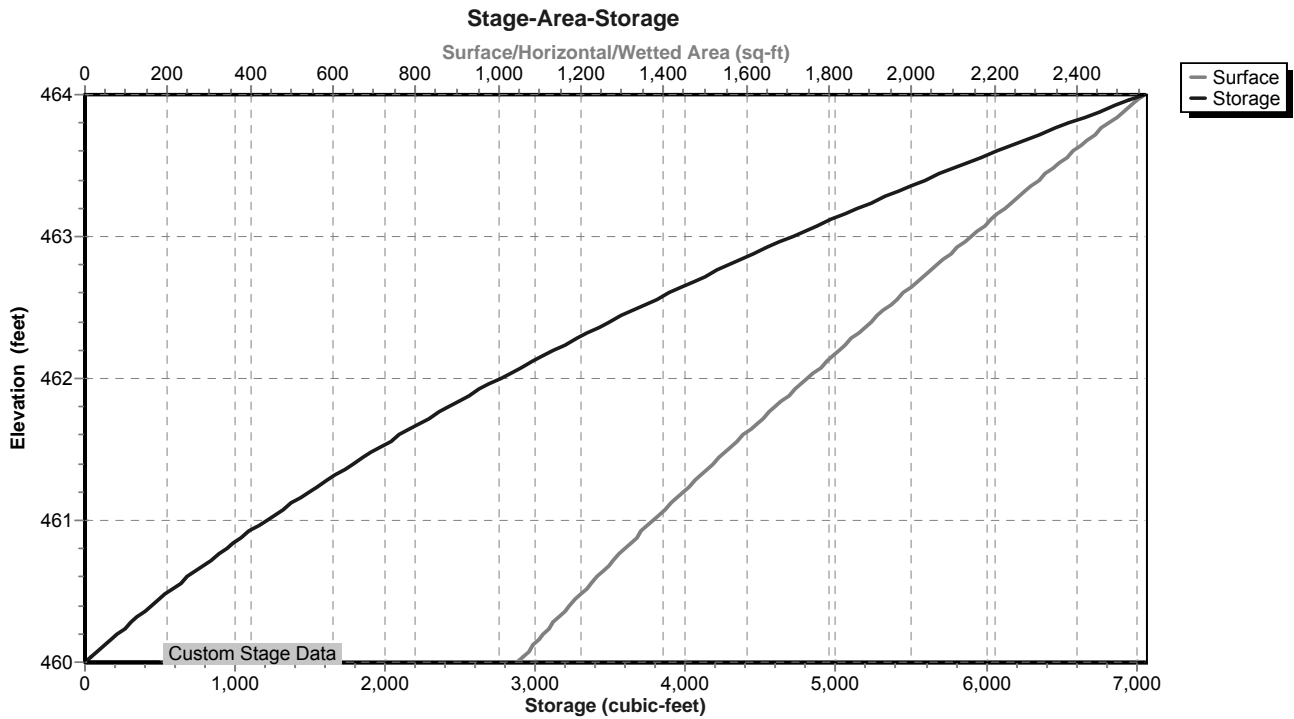
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G6: Sand Filter Forebay - G6



Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 2.71" for 10 Year - North Salem event
 Inflow = 2.01 cfs @ 12.20 hrs, Volume= 0.348 af
 Outflow = 1.97 cfs @ 12.37 hrs, Volume= 0.348 af, Atten= 2%, Lag= 9.8 min
 Primary = 1.97 cfs @ 12.37 hrs, Volume= 0.348 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 454.95' @ 12.37 hrs Surf.Area= 1,238 sf Storage= 2,629 cf

Plug-Flow detention time= 41.5 min calculated for 0.348 af (100% of inflow)
 Center-of-Mass det. time= 41.5 min (887.6 - 846.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
452.00	581	93.0	0	0	581
454.00	1,003	118.0	1,565	1,565	1,051
455.00	1,251	130.0	1,125	2,690	1,318
456.00	1,525	143.0	1,386	4,075	1,632

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

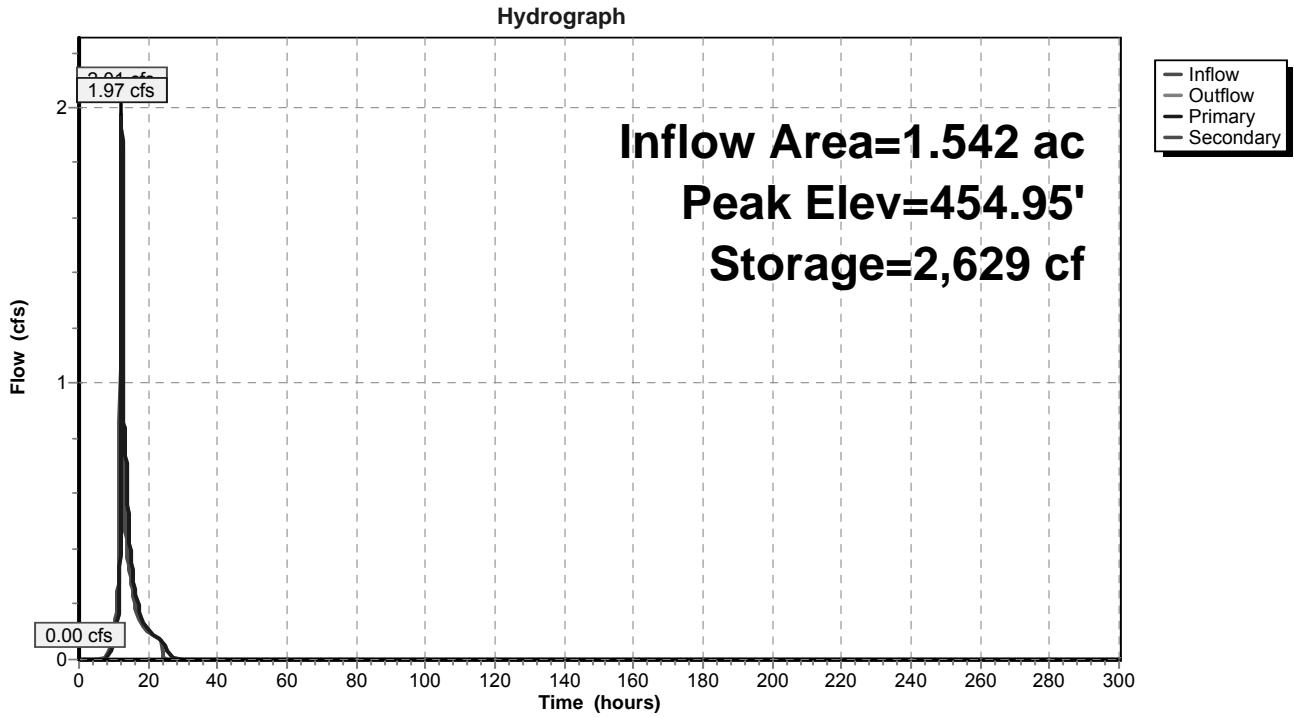
Primary OutFlow Max=1.93 cfs @ 12.37 hrs HW=454.95' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.93 cfs of 2.72 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.87 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.74 cfs @ 1.26 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.29 cfs @ 0.73 fps)

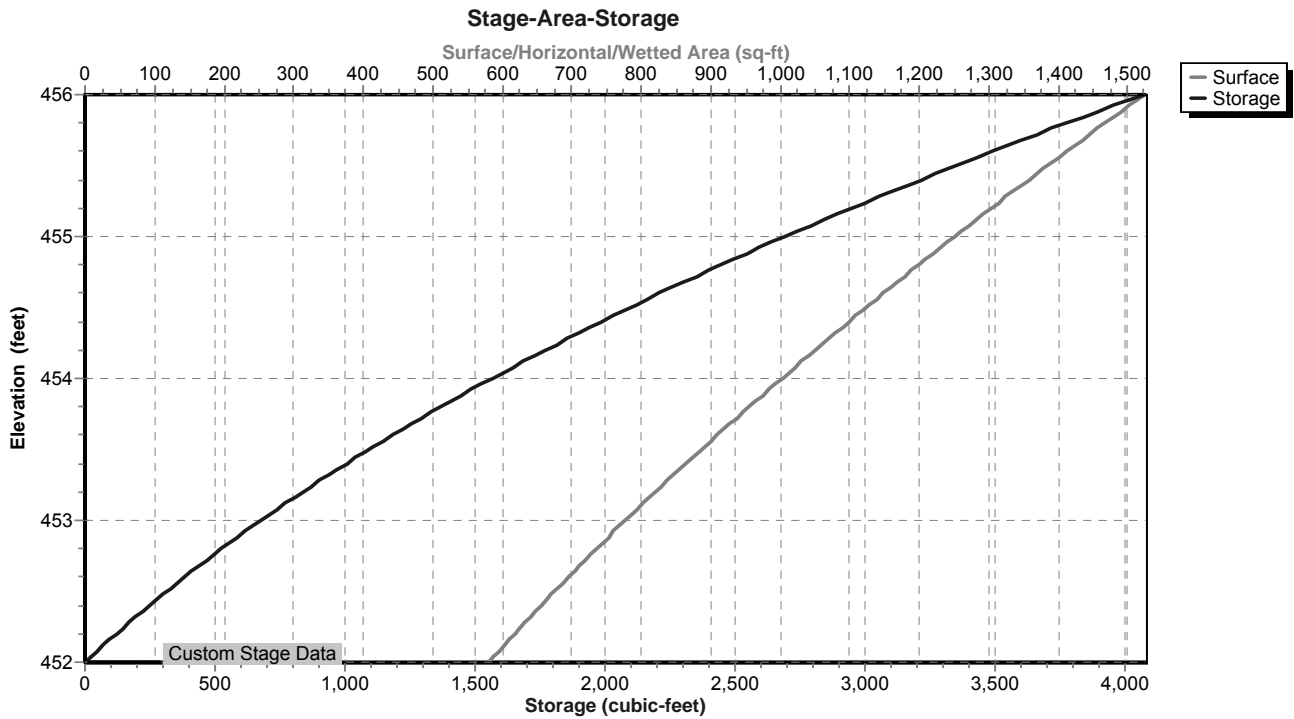
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G7: Sand Filter Forebay - G7



Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=3.41"
Flow Length=833' Tc=13.0 min CN=68 Runoff=6.77 cfs 0.612 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=6.76"
Flow Length=245' Tc=2.0 min CN=98 Runoff=1.14 cfs 0.086 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=6.29"
Flow Length=245' Tc=2.0 min CN=94 Runoff=1.04 cfs 0.075 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=4.47"
Flow Length=917' Tc=20.9 min CN=78 Runoff=12.14 cfs 1.312 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=4.47"
Flow Length=649' Tc=14.6 min CN=78 Runoff=6.14 cfs 0.575 af

Pond B-G5: Dry Basin - G5 Peak Elev=424.48' Storage=8,072 cf Inflow=9.22 cfs 1.187 af
Primary=4.68 cfs 1.187 af Secondary=0.00 cfs 0.000 af Outflow=4.68 cfs 1.187 af

Pond B-G6: Dry Basin - G6 Peak Elev=452.49' Storage=9,305 cf Inflow=7.46 cfs 1.310 af
Primary=6.57 cfs 1.310 af Secondary=0.00 cfs 0.000 af Outflow=6.57 cfs 1.310 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=9.94 cfs 2.497 af
Primary=9.94 cfs 2.497 af

Pond FS G5: Flow Splitter - G5 Peak Elev=439.18' Inflow=6.77 cfs 0.612 af
Primary=1.58 cfs 0.440 af Secondary=5.19 cfs 0.173 af Outflow=6.77 cfs 0.612 af

Pond FS G6: Flow Splitter - G6 Peak Elev=466.06' Inflow=12.14 cfs 1.312 af
Primary=4.96 cfs 1.055 af Secondary=7.18 cfs 0.257 af Outflow=12.14 cfs 1.312 af

Pond FS G7: Flow Splitter - G7 Peak Elev=457.72' Inflow=6.14 cfs 0.575 af
Primary=2.13 cfs 0.459 af Secondary=4.01 cfs 0.116 af Outflow=6.14 cfs 0.575 af

Pond S-17: Underground Infiltration Peak Elev=433.19' Storage=0.001 af Inflow=1.14 cfs 0.086 af
Discarded=0.90 cfs 0.088 af Primary=0.00 cfs 0.000 af Outflow=0.90 cfs 0.088 af

Pond S-21: Underground Infiltration Peak Elev=499.02' Storage=0.000 af Inflow=1.04 cfs 0.075 af
Discarded=1.04 cfs 0.075 af Primary=0.00 cfs 0.000 af Outflow=1.04 cfs 0.075 af

Pond SF-G5: Sand Filter - G5 Peak Elev=431.00' Storage=4,485 cf Inflow=1.53 cfs 0.440 af
Primary=1.21 cfs 0.440 af Secondary=0.00 cfs 0.000 af Outflow=1.21 cfs 0.440 af

Pond SF-G6: Sand Filter - G6 Peak Elev=458.93' Storage=12,326 cf Inflow=4.95 cfs 1.055 af
Primary=4.22 cfs 1.053 af Secondary=0.00 cfs 0.000 af Outflow=4.22 cfs 1.053 af

Pond SF-G7: Sand Filter - G7 Peak Elev=450.97' Storage=5,755 cf Inflow=2.14 cfs 0.459 af
Primary=1.78 cfs 0.459 af Secondary=0.00 cfs 0.000 af Outflow=1.78 cfs 0.459 af

Woodlands Post-Dev DP 7 - Part 2 07-20 *Type III 24-hr 25 Year - North Salem Rainfall=7.00"*

Prepared by KCG Engineers, P.C.

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=434.96' Storage=2,263 cf Inflow=1.58 cfs 0.440 af
Primary=1.53 cfs 0.440 af Secondary=0.00 cfs 0.000 af Outflow=1.53 cfs 0.440 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=462.97' Storage=4,638 cf Inflow=4.96 cfs 1.055 af
Primary=4.95 cfs 1.055 af Secondary=0.00 cfs 0.000 af Outflow=4.95 cfs 1.055 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=454.96' Storage=2,642 cf Inflow=2.13 cfs 0.459 af
Primary=2.14 cfs 0.459 af Secondary=0.00 cfs 0.000 af Outflow=2.14 cfs 0.459 af

Total Runoff Area = 7.510 ac Runoff Volume = 2.660 af Average Runoff Depth = 4.25"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

Runoff = 6.77 cfs @ 12.19 hrs, Volume= 0.612 af, Depth= 3.41"

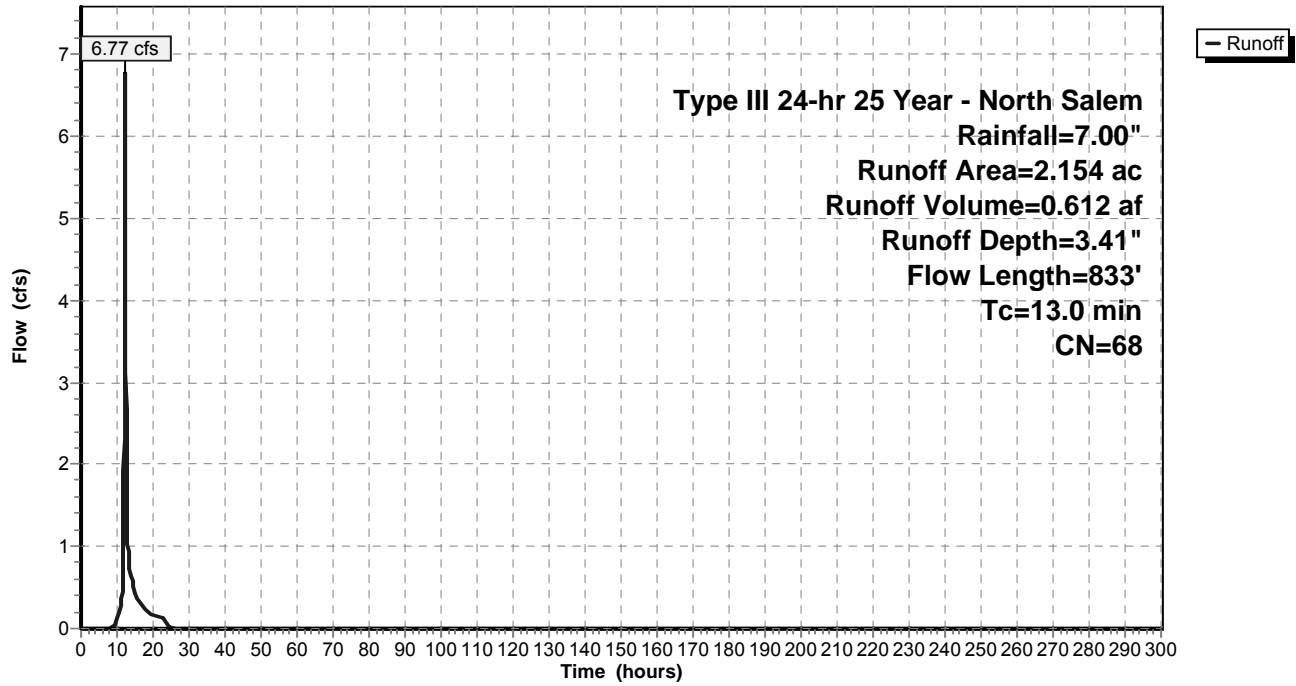
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a

Hydrograph



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.14 cfs @ 12.03 hrs, Volume= 0.086 af, Depth= 6.76"

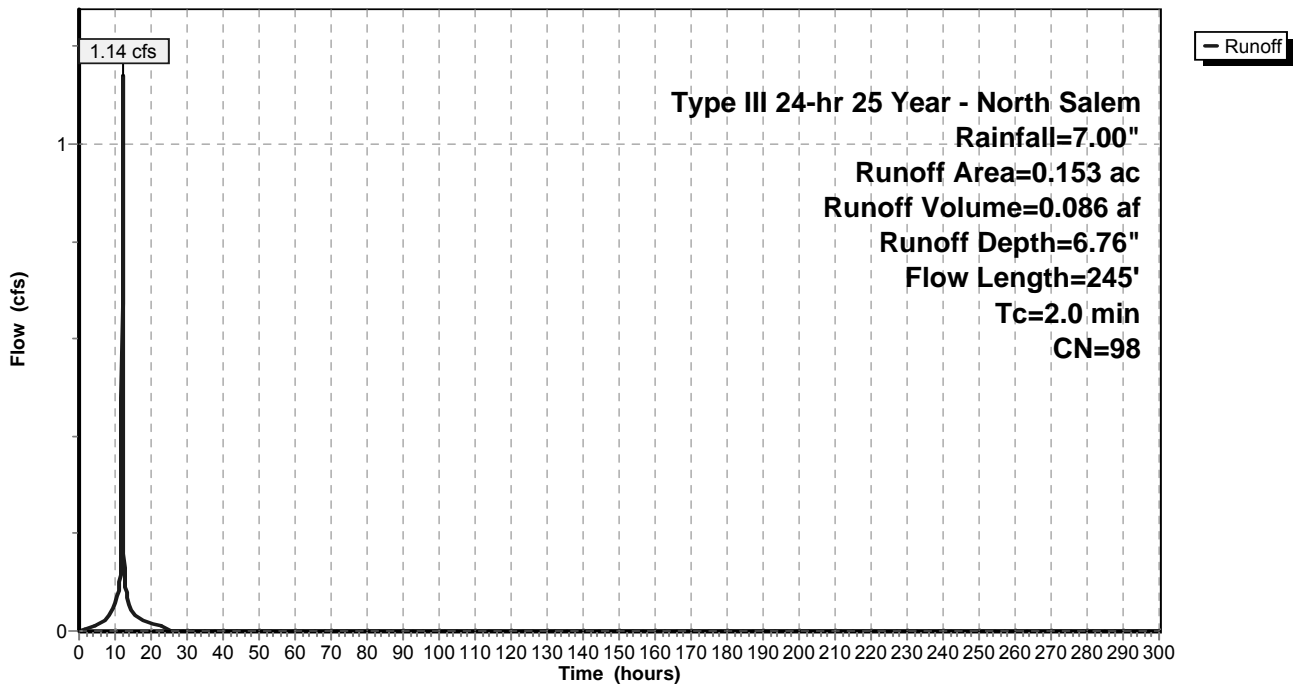
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

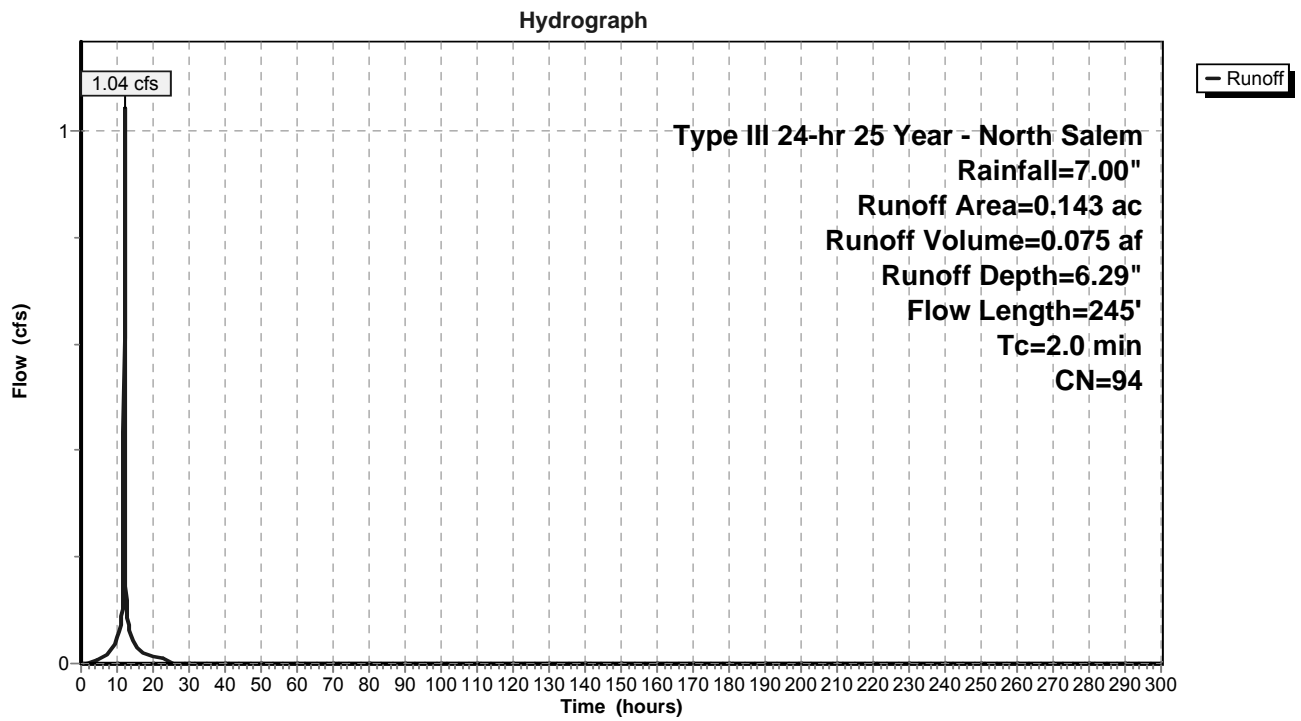
Runoff = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af, Depth= 6.29"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c



Summary for Subcatchment G6: Post-Development G6

Runoff = 12.14 cfs @ 12.29 hrs, Volume= 1.312 af, Depth= 4.47"

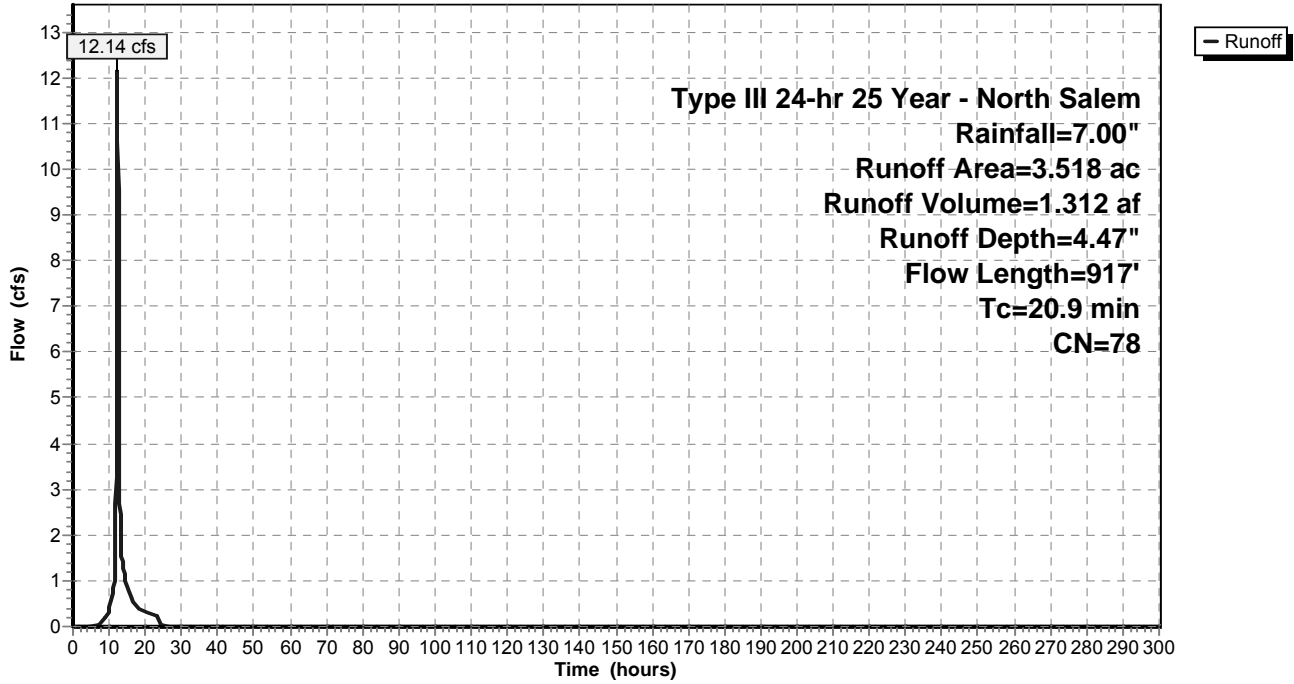
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6

Hydrograph



Summary for Subcatchment G7: Post-Development G7

Runoff = 6.14 cfs @ 12.20 hrs, Volume= 0.575 af, Depth= 4.47"

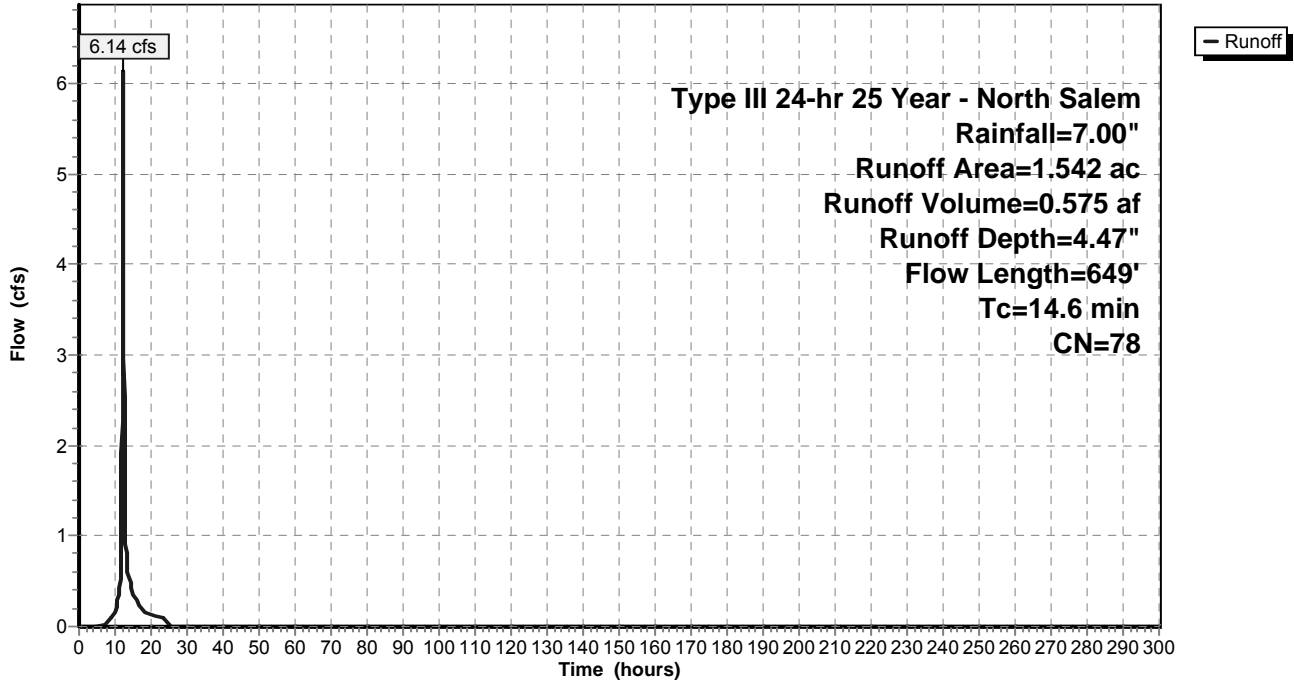
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7

Hydrograph



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 3.57" for 25 Year - North Salem event
 Inflow = 9.22 cfs @ 12.19 hrs, Volume= 1.187 af
 Outflow = 4.68 cfs @ 12.41 hrs, Volume= 1.187 af, Atten= 49%, Lag= 12.7 min
 Primary = 4.68 cfs @ 12.41 hrs, Volume= 1.187 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 424.48' @ 12.41 hrs Surf.Area= 3,727 sf Storage= 8,072 cf (7,847 cf above start)

Plug-Flow detention time= 111.4 min calculated for 1.182 af (100% of inflow)
 Center-of-Mass det. time= 66.7 min (1,485.9 - 1,419.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

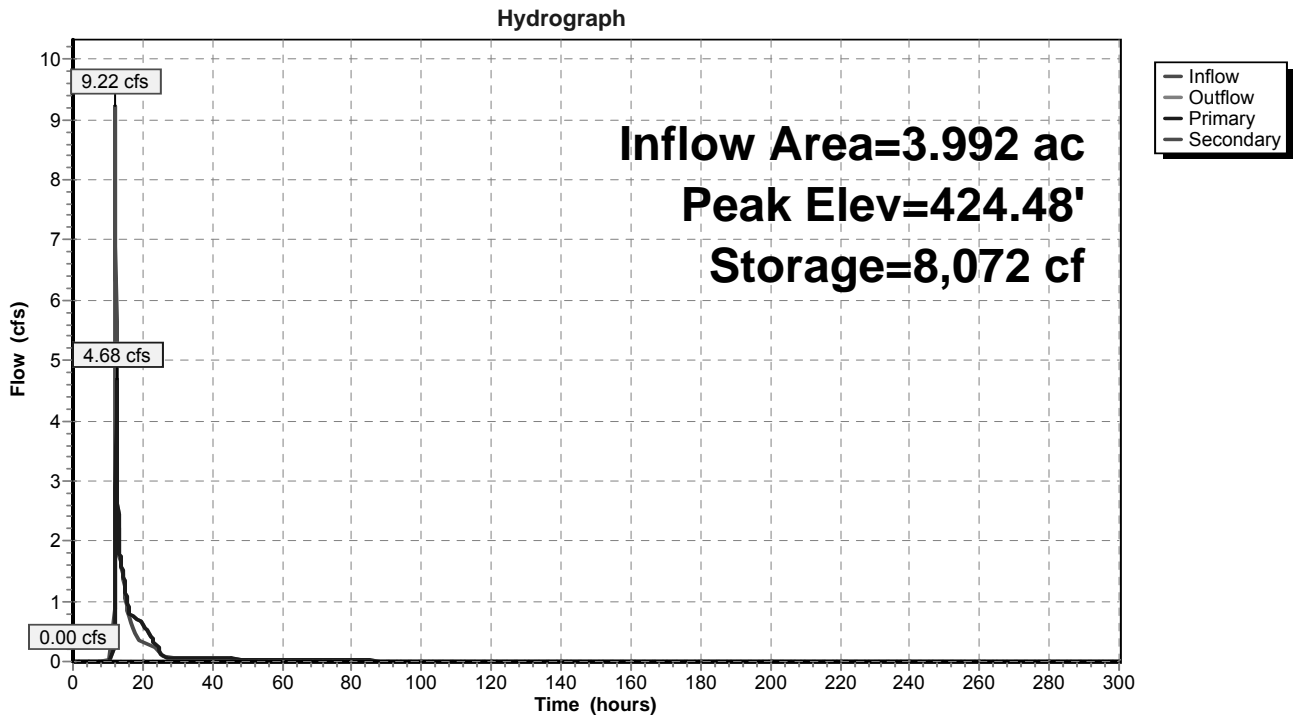
Primary OutFlow Max=4.65 cfs @ 12.41 hrs HW=424.48' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 4.65 cfs of 32.02 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.82 cfs @ 9.40 fps)
- ↑ 3=Orifice/Grate (Orifice Controls 3.83 cfs @ 2.23 fps)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

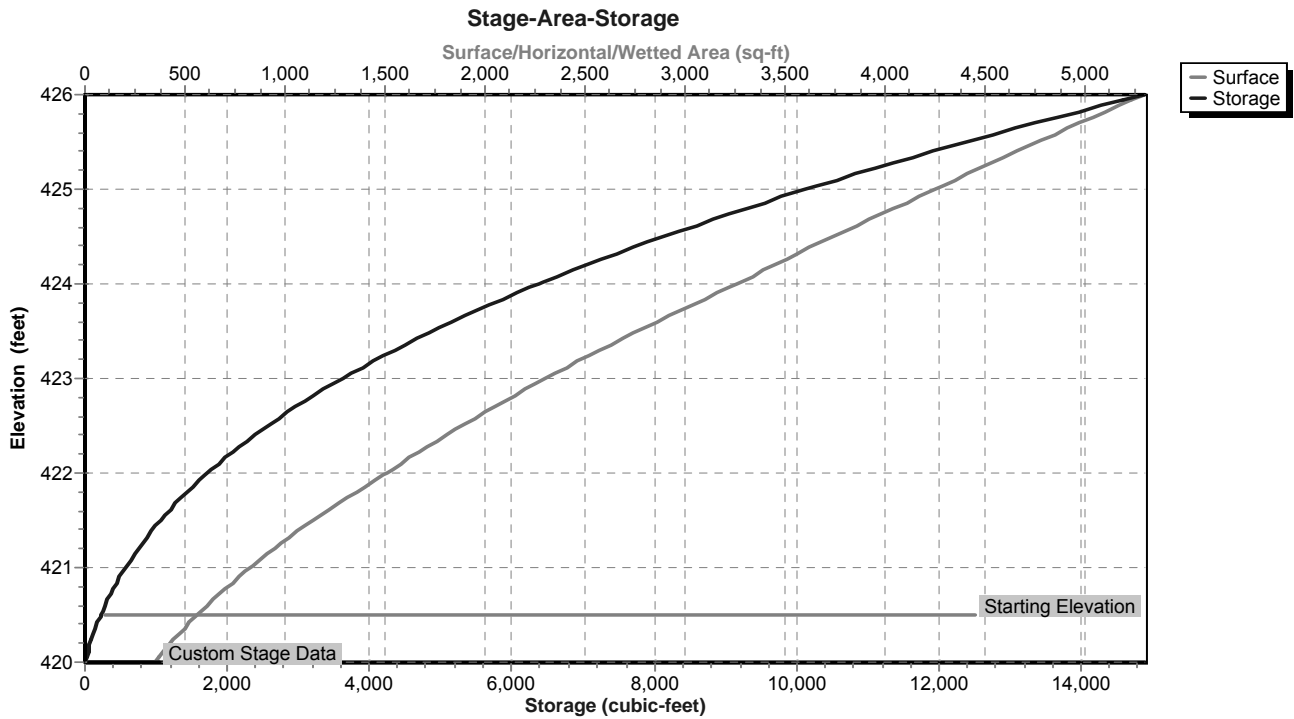
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G5: Dry Basin - G5



Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 4.47" for 25 Year - North Salem event
 Inflow = 7.46 cfs @ 12.53 hrs, Volume= 1.310 af
 Outflow = 6.57 cfs @ 12.62 hrs, Volume= 1.310 af, Atten= 12%, Lag= 5.3 min
 Primary = 6.57 cfs @ 12.62 hrs, Volume= 1.310 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 452.49' @ 12.62 hrs Surf.Area= 3,428 sf Storage= 9,305 cf (8,768 cf above start)

Plug-Flow detention time= 212.1 min calculated for 1.297 af (99% of inflow)
 Center-of-Mass det. time= 86.9 min (1,807.3 - 1,720.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

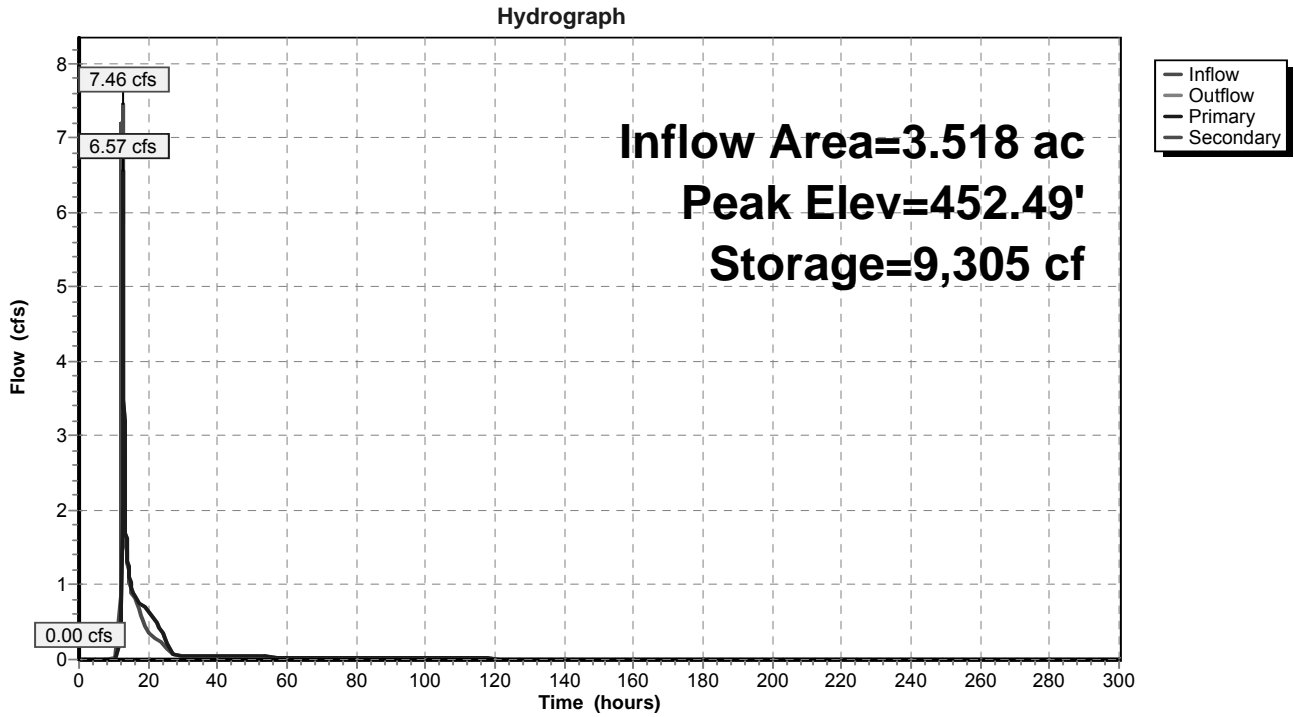
Primary OutFlow Max=6.48 cfs @ 12.62 hrs HW=452.48' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 6.48 cfs of 30.17 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.82 cfs @ 9.40 fps)
- ↑ 3=Orifice/Grate (Orifice Controls 5.66 cfs @ 2.44 fps)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

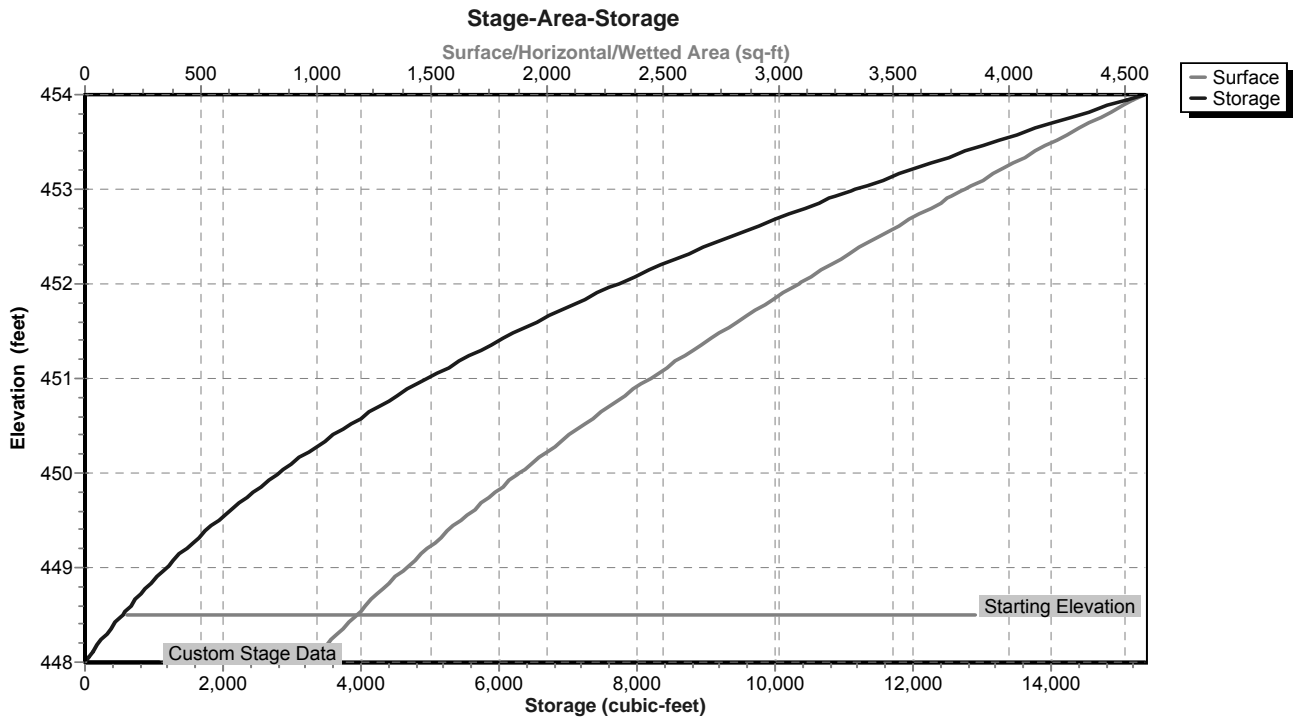
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G6: Dry Basin - G6



Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

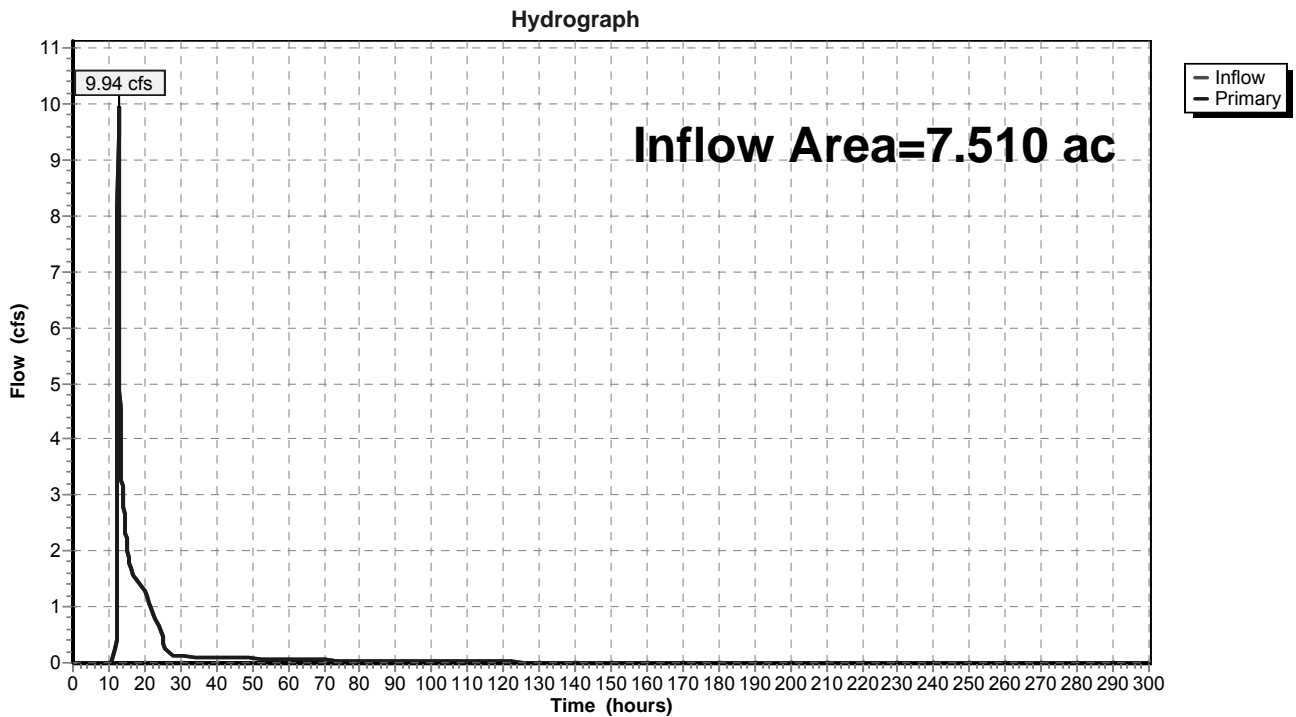
Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth = 3.99" for 25 Year - North Salem event
Inflow = 9.94 cfs @ 12.60 hrs, Volume= 2.497 af
Primary = 9.94 cfs @ 12.60 hrs, Volume= 2.497 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
 Inflow = 6.77 cfs @ 12.19 hrs, Volume= 0.612 af
 Outflow = 6.77 cfs @ 12.19 hrs, Volume= 0.612 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.58 cfs @ 12.19 hrs, Volume= 0.440 af
 Secondary = 5.19 cfs @ 12.19 hrs, Volume= 0.173 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 439.18' @ 12.19 hrs
 Flood Elev= 527.50'

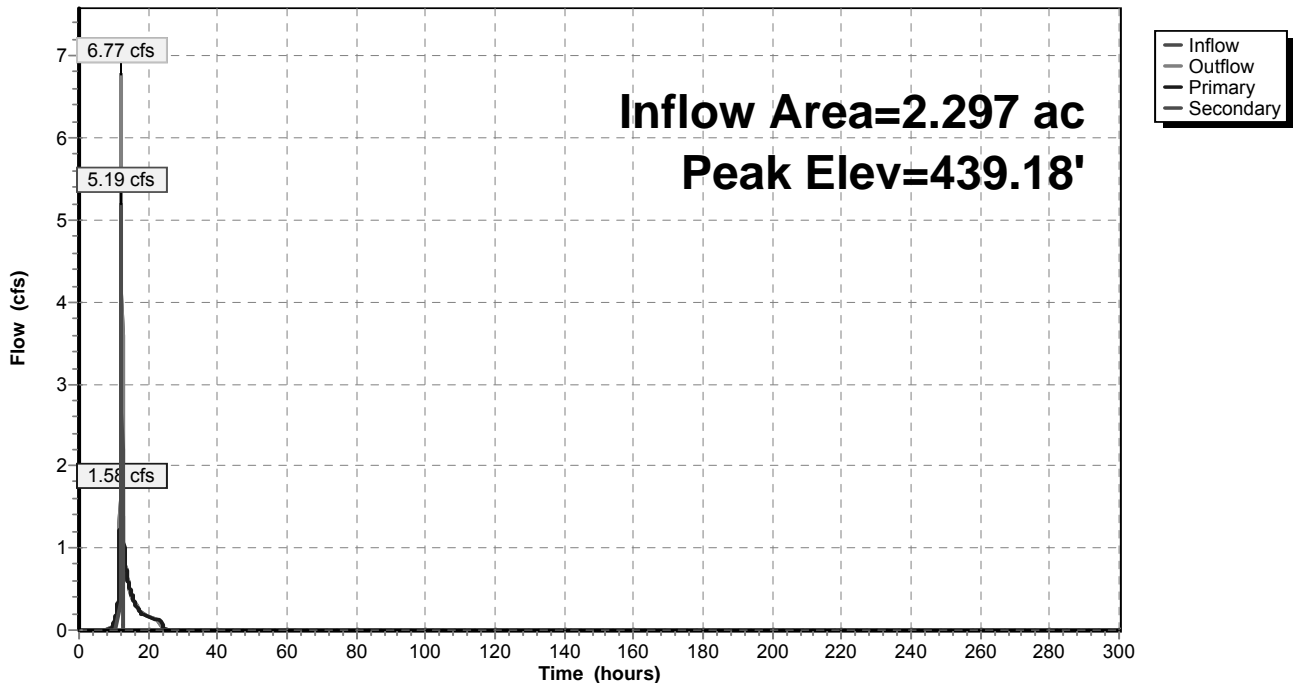
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.58 cfs @ 12.19 hrs HW=439.17' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.58 cfs @ 8.06 fps)

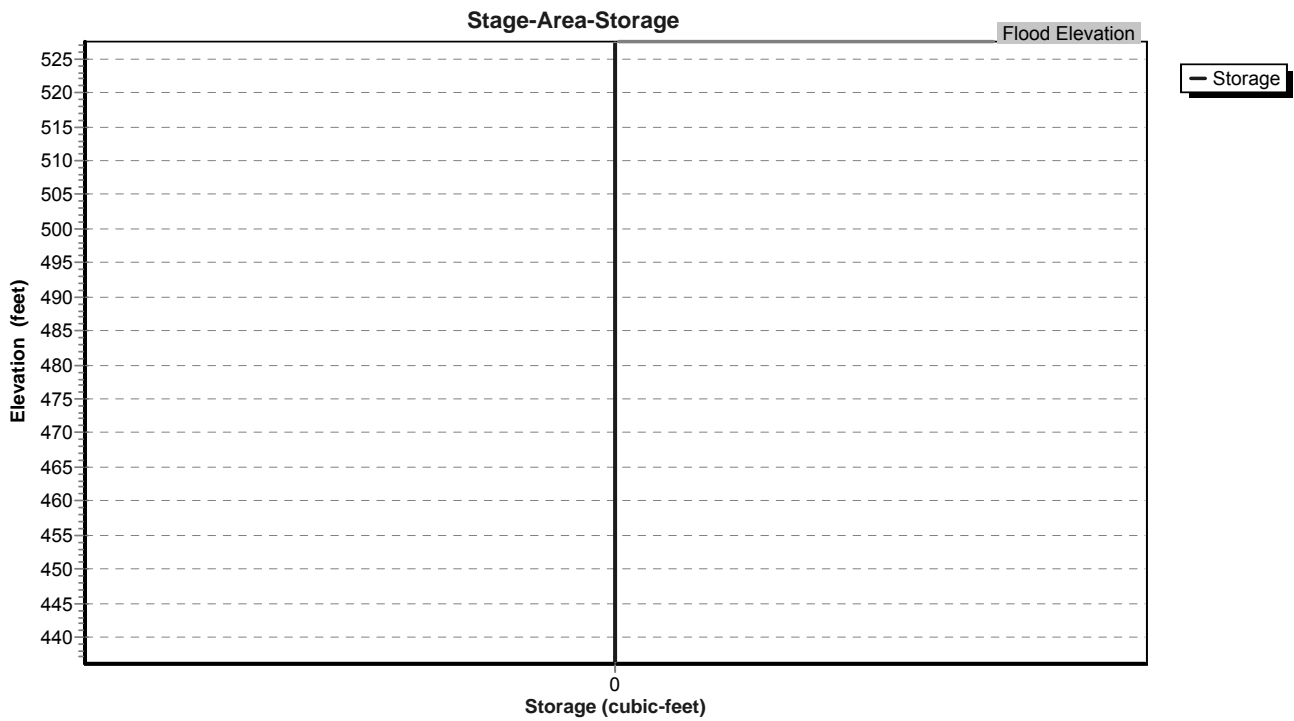
Secondary OutFlow Max=5.46 cfs @ 12.19 hrs HW=439.17' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 5.46 cfs @ 3.68 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Pond FS G5: Flow Splitter - G5



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 4.47" for 25 Year - North Salem event
 Inflow = 12.14 cfs @ 12.29 hrs, Volume= 1.312 af
 Outflow = 12.14 cfs @ 12.29 hrs, Volume= 1.312 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.96 cfs @ 12.29 hrs, Volume= 1.055 af
 Secondary = 7.18 cfs @ 12.29 hrs, Volume= 0.257 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 466.06' @ 12.29 hrs
 Flood Elev= 554.50'

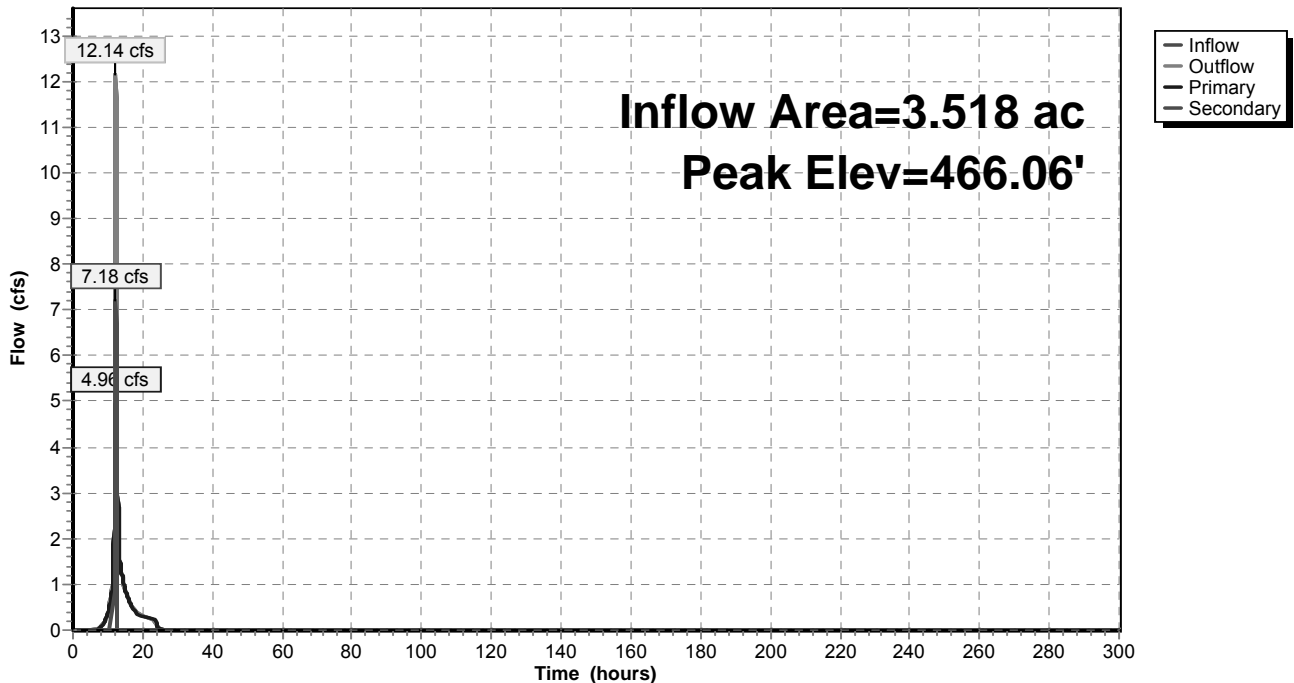
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=4.95 cfs @ 12.29 hrs HW=466.05' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 4.95 cfs @ 6.31 fps)

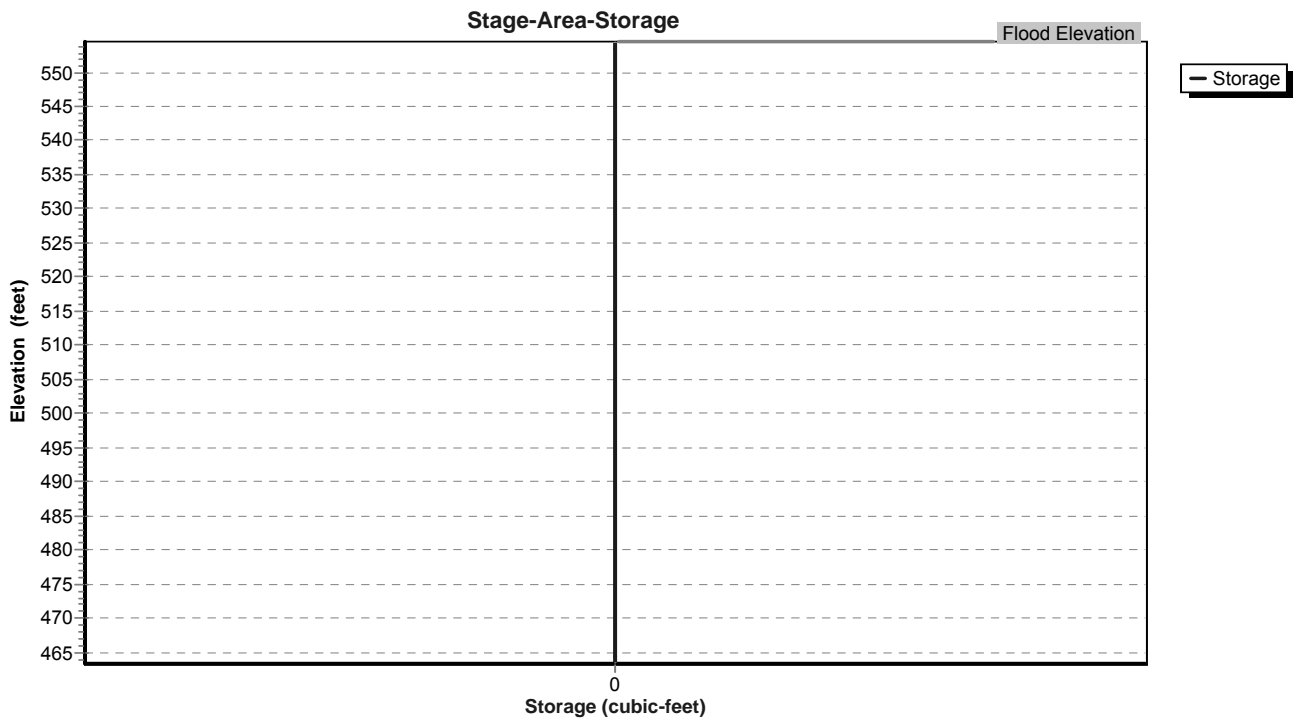
Secondary OutFlow Max=7.05 cfs @ 12.29 hrs HW=466.05' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 7.05 cfs @ 3.38 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Pond FS G6: Flow Splitter - G6



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 4.47" for 25 Year - North Salem event
 Inflow = 6.14 cfs @ 12.20 hrs, Volume= 0.575 af
 Outflow = 6.14 cfs @ 12.20 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.13 cfs @ 12.20 hrs, Volume= 0.459 af
 Secondary = 4.01 cfs @ 12.20 hrs, Volume= 0.116 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 457.72' @ 12.20 hrs
 Flood Elev= 554.50'

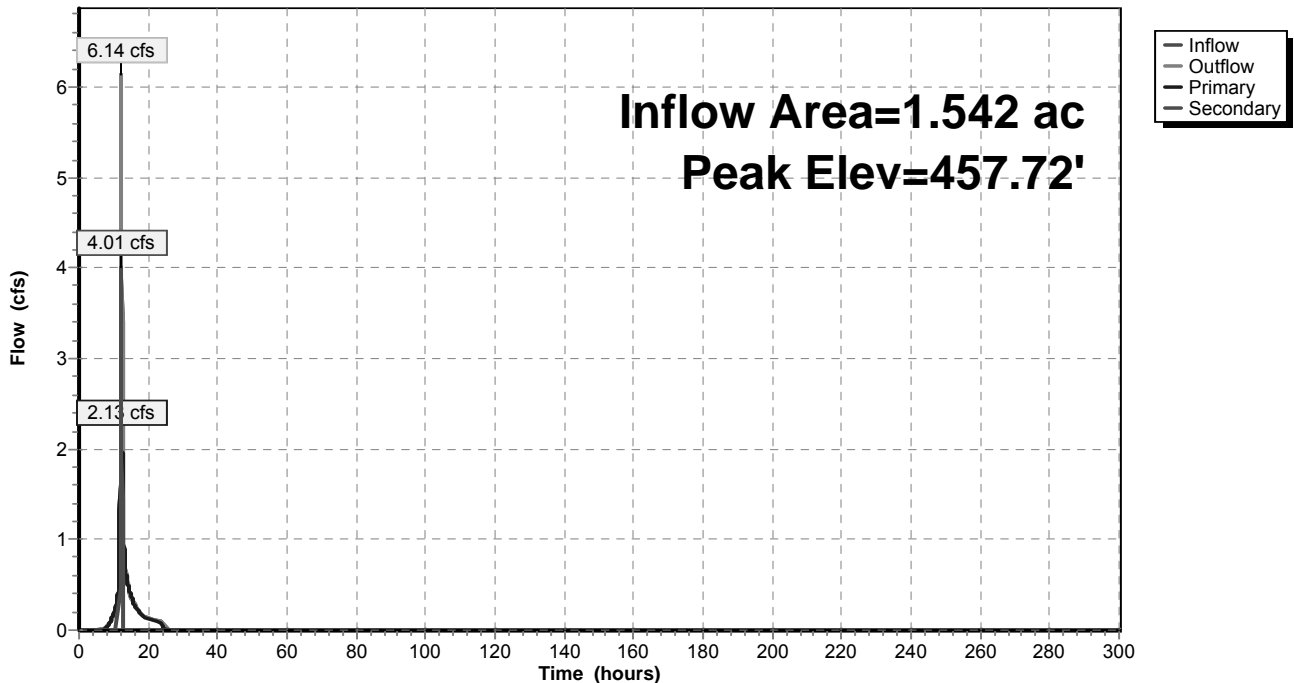
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=2.14 cfs @ 12.20 hrs HW=457.72' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.14 cfs @ 6.13 fps)

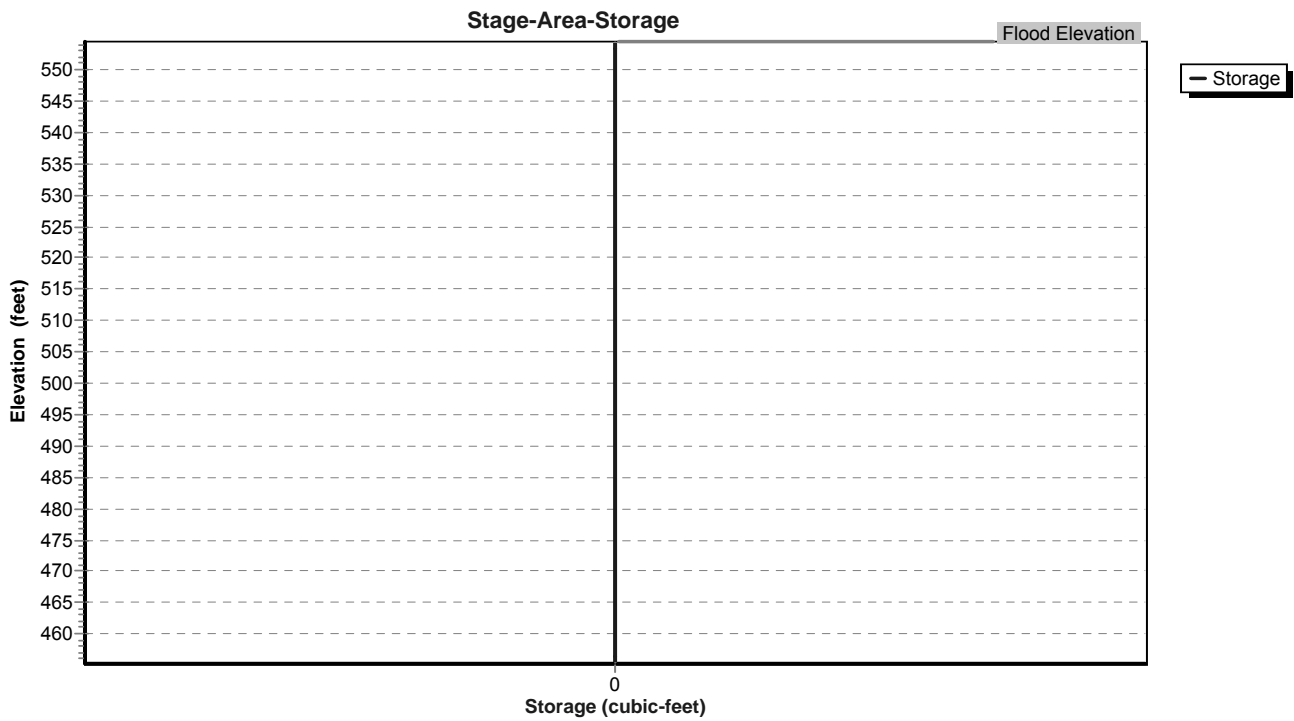
Secondary OutFlow Max=3.29 cfs @ 12.20 hrs HW=457.72' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 3.29 cfs @ 2.72 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Pond FS G7: Flow Splitter - G7



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 6.76" for 25 Year - North Salem event
 Inflow = 1.14 cfs @ 12.03 hrs, Volume= 0.086 af
 Outflow = 0.90 cfs @ 12.00 hrs, Volume= 0.088 af, Atten= 21%, Lag= 0.0 min
 Discarded = 0.90 cfs @ 12.00 hrs, Volume= 0.088 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.19' @ 12.08 hrs Surf.Area= 0.022 ac Storage= 0.001 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.1 min (739.3 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

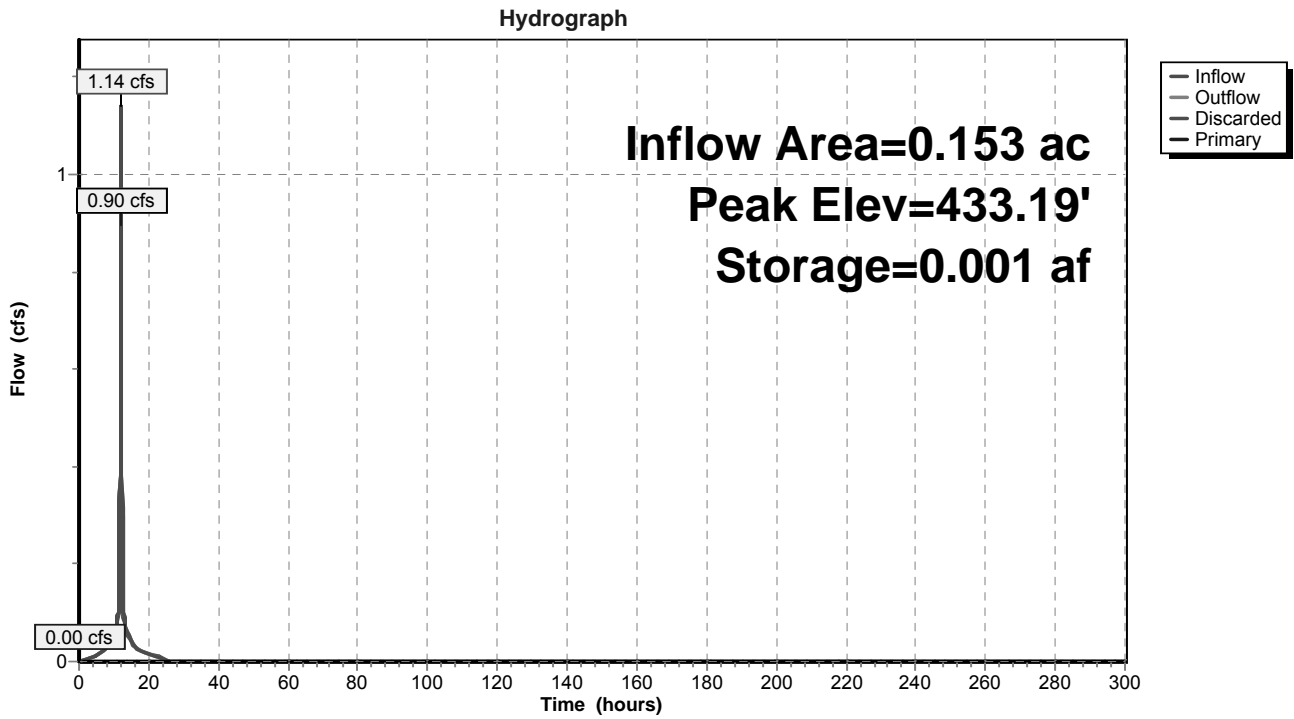
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

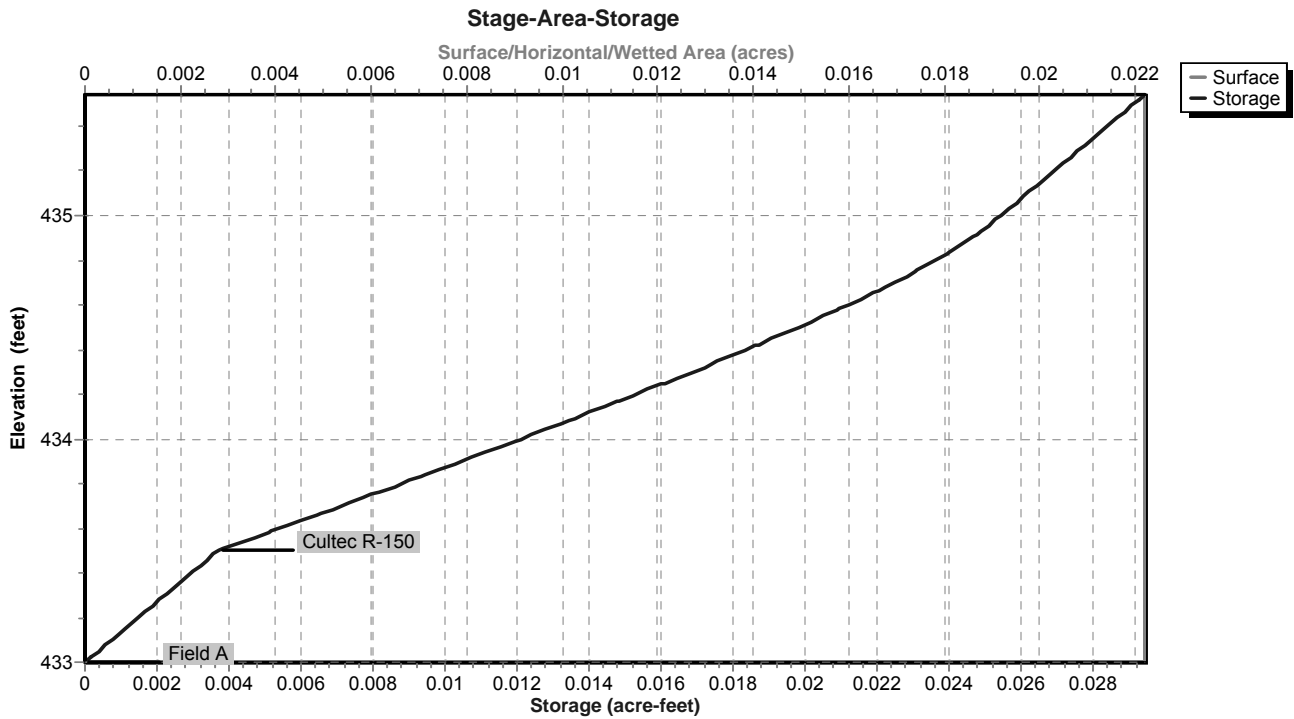
Discarded OutFlow Max=0.90 cfs @ 12.00 hrs HW=433.05' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 6.29" for 25 Year - North Salem event
 Inflow = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af
 Outflow = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
 Discarded = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.02' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.075 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (760.9 - 760.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

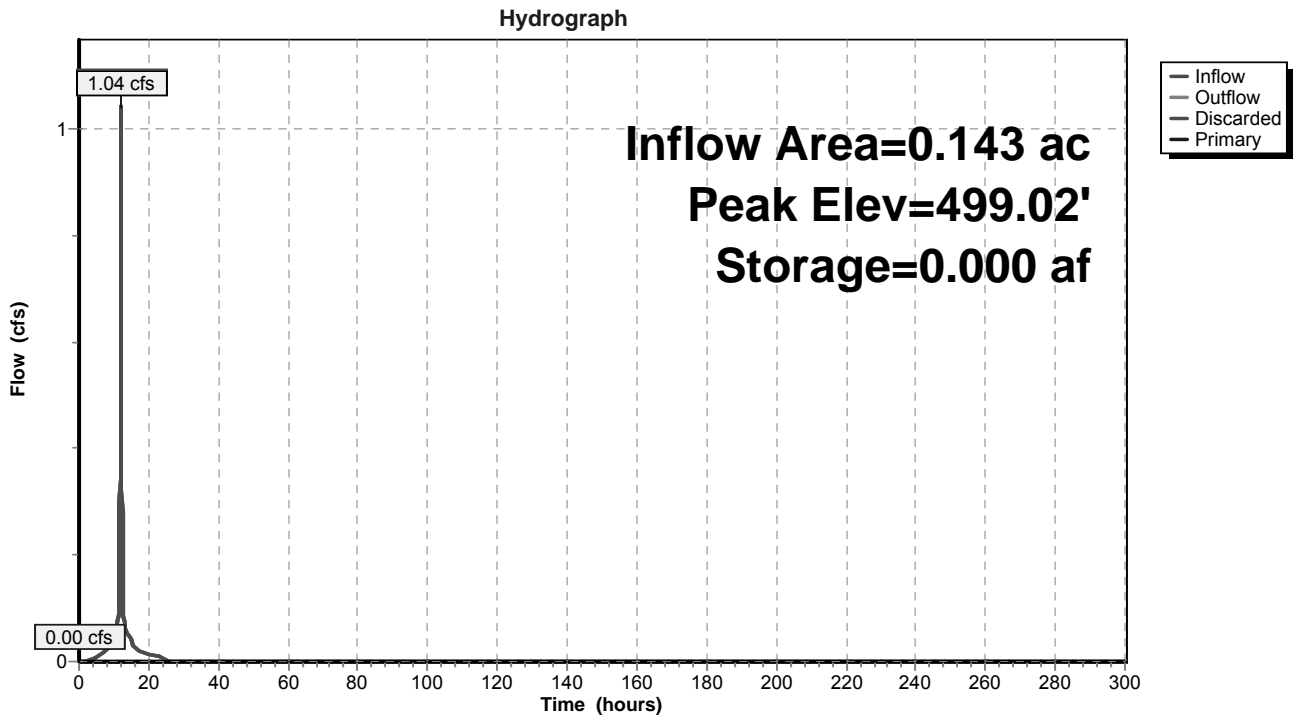
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

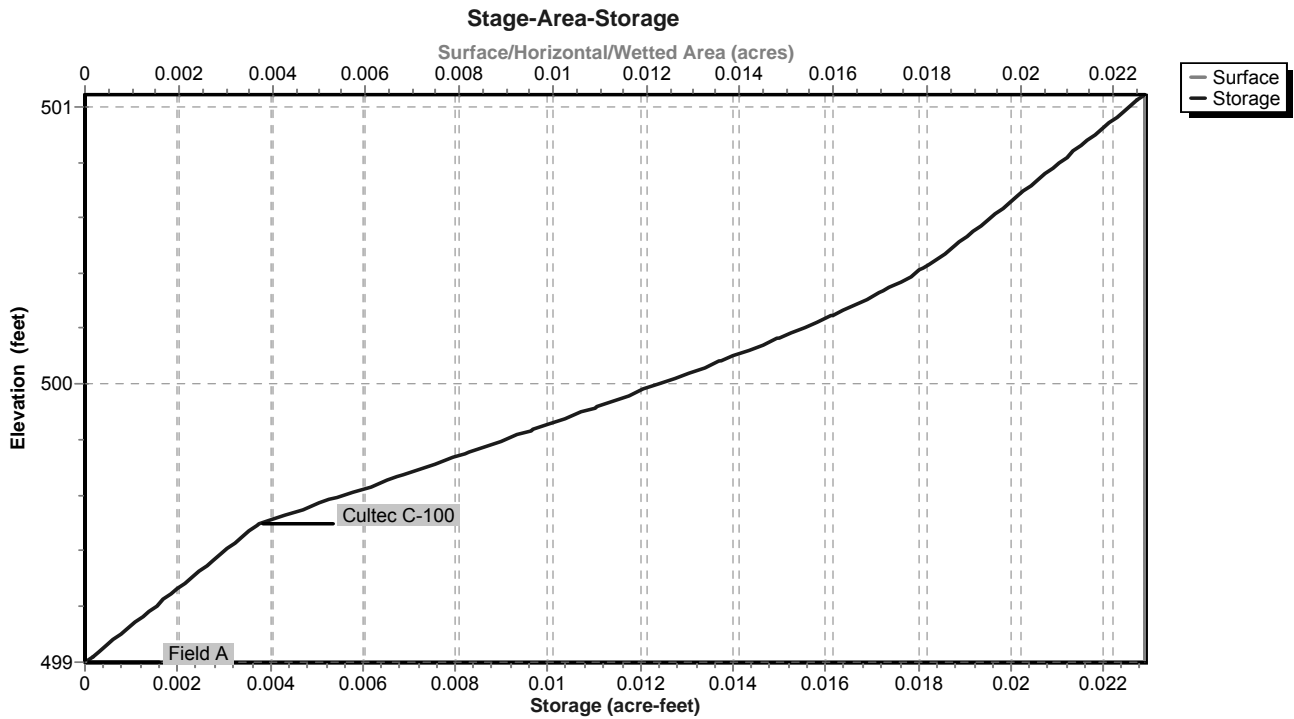
Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 2.30" for 25 Year - North Salem event
 Inflow = 1.53 cfs @ 12.37 hrs, Volume= 0.440 af
 Outflow = 1.21 cfs @ 12.85 hrs, Volume= 0.440 af, Atten= 21%, Lag= 28.6 min
 Primary = 1.21 cfs @ 12.85 hrs, Volume= 0.440 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.00' @ 12.85 hrs Surf.Area= 1,959 sf Storage= 4,485 cf

Plug-Flow detention time= 644.1 min calculated for 0.440 af (100% of inflow)
 Center-of-Mass det. time= 644.0 min (1,563.5 - 919.5)

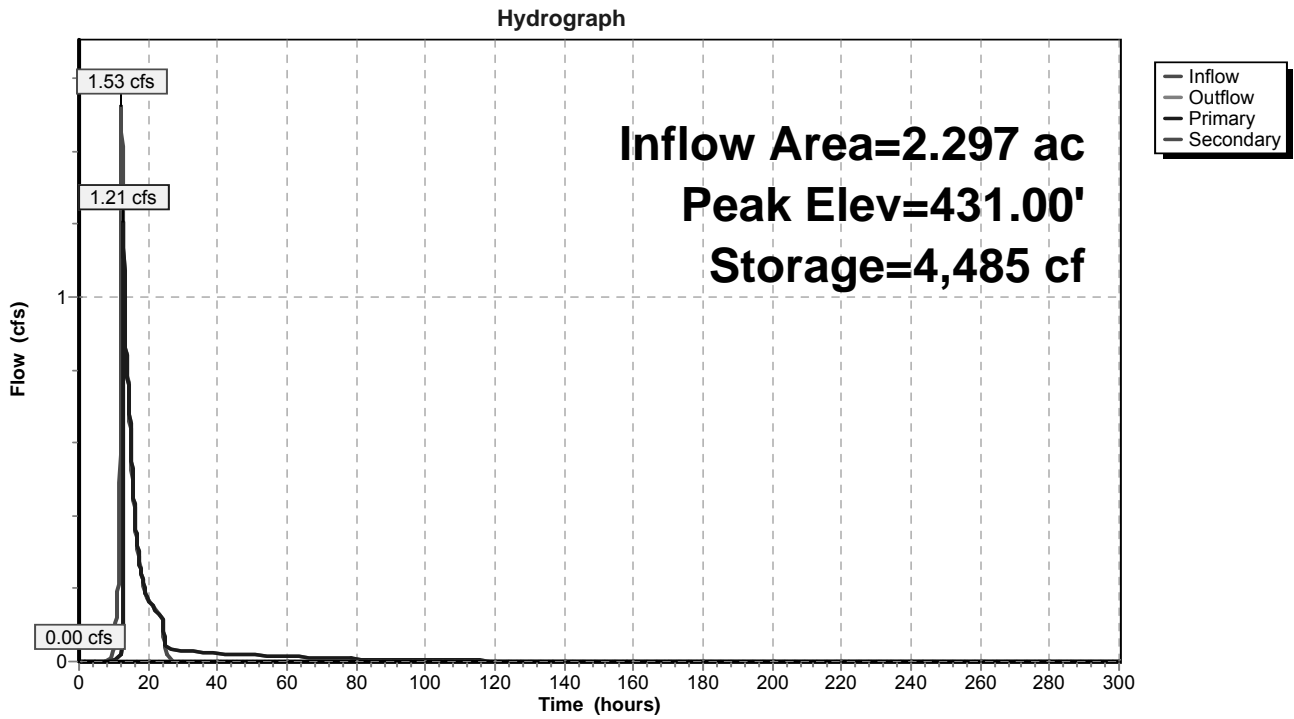
Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

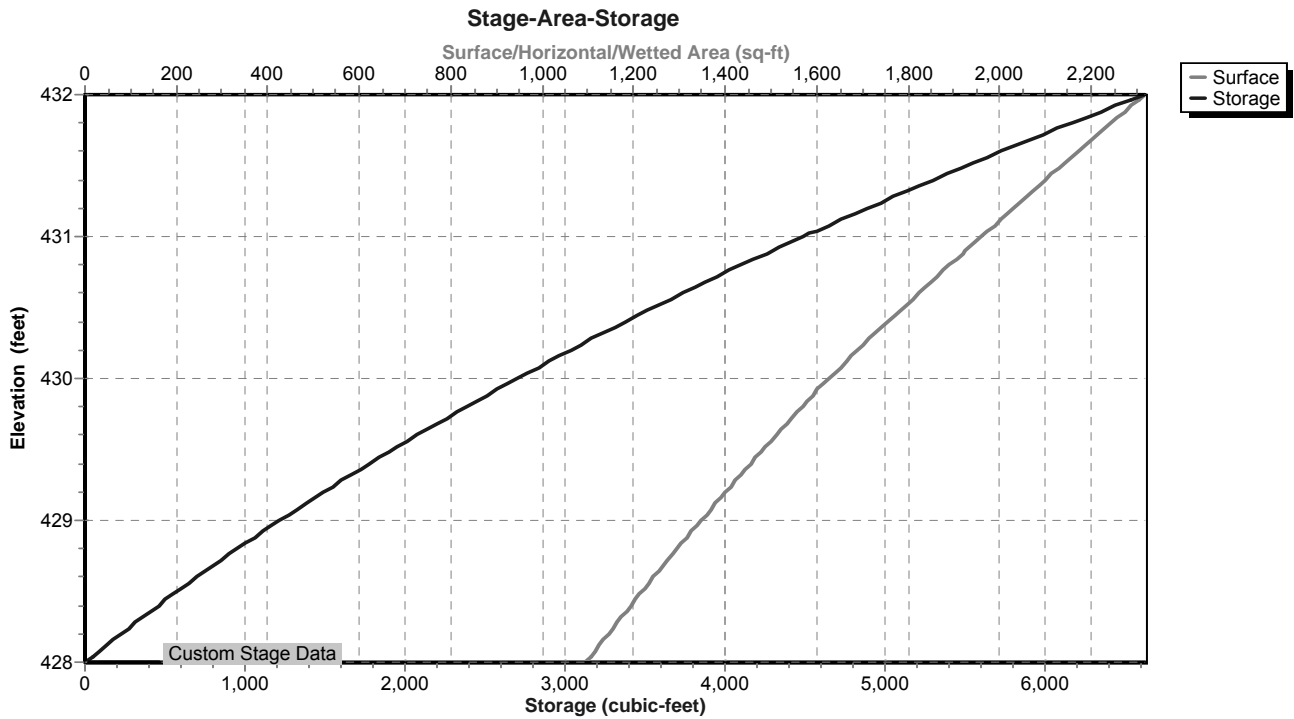
Primary OutFlow Max=1.20 cfs @ 12.85 hrs HW=431.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 1.20 cfs of 7.46 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.03 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 1.16 cfs @ 1.01 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G5: Sand Filter - G5



Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 3.60" for 25 Year - North Salem event
 Inflow = 4.95 cfs @ 12.31 hrs, Volume= 1.055 af
 Outflow = 4.22 cfs @ 12.61 hrs, Volume= 1.053 af, Atten= 15%, Lag= 18.0 min
 Primary = 4.22 cfs @ 12.61 hrs, Volume= 1.053 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.93' @ 12.61 hrs Surf.Area= 4,927 sf Storage= 12,326 cf

Plug-Flow detention time= 1,060.5 min calculated for 1.053 af (100% of inflow)
 Center-of-Mass det. time= 1,058.9 min (1,959.3 - 900.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

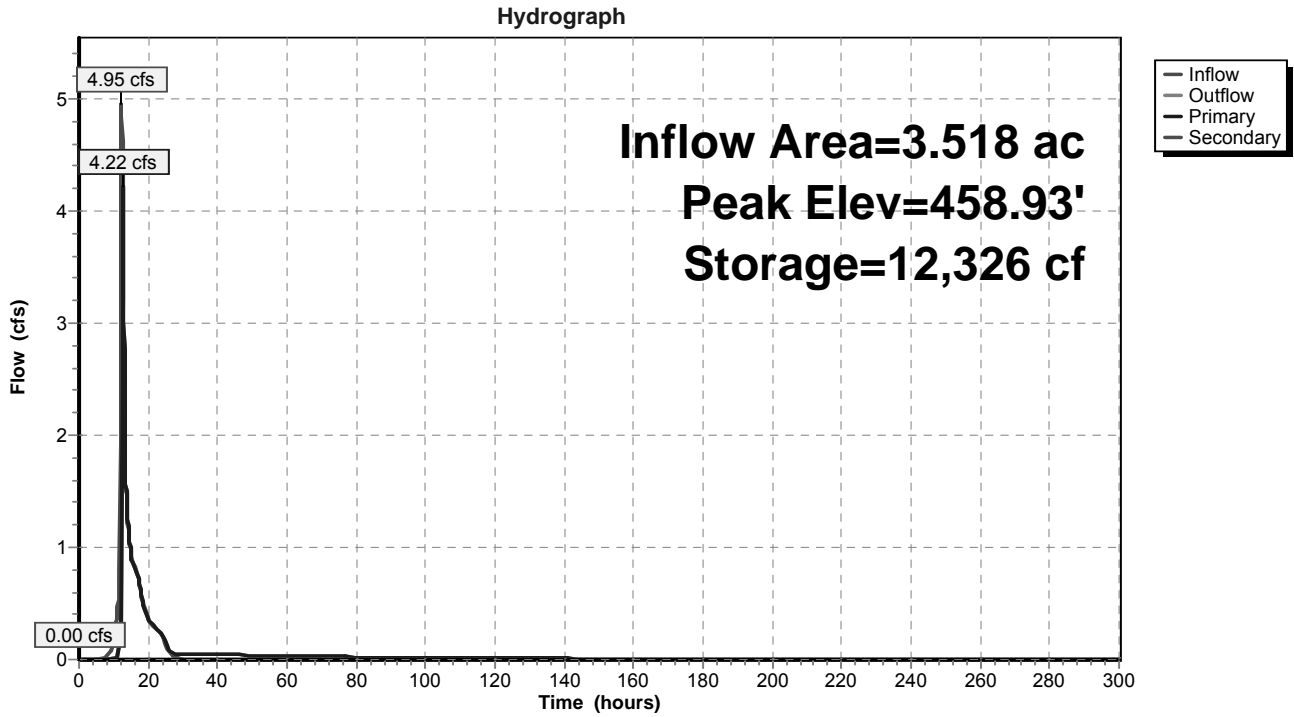
Primary OutFlow Max=4.19 cfs @ 12.61 hrs HW=458.93' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 4.19 cfs of 7.41 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.06 cfs)
- ↑ 3=Top of Outlet Box (Weir Controls 4.14 cfs @ 1.40 fps)

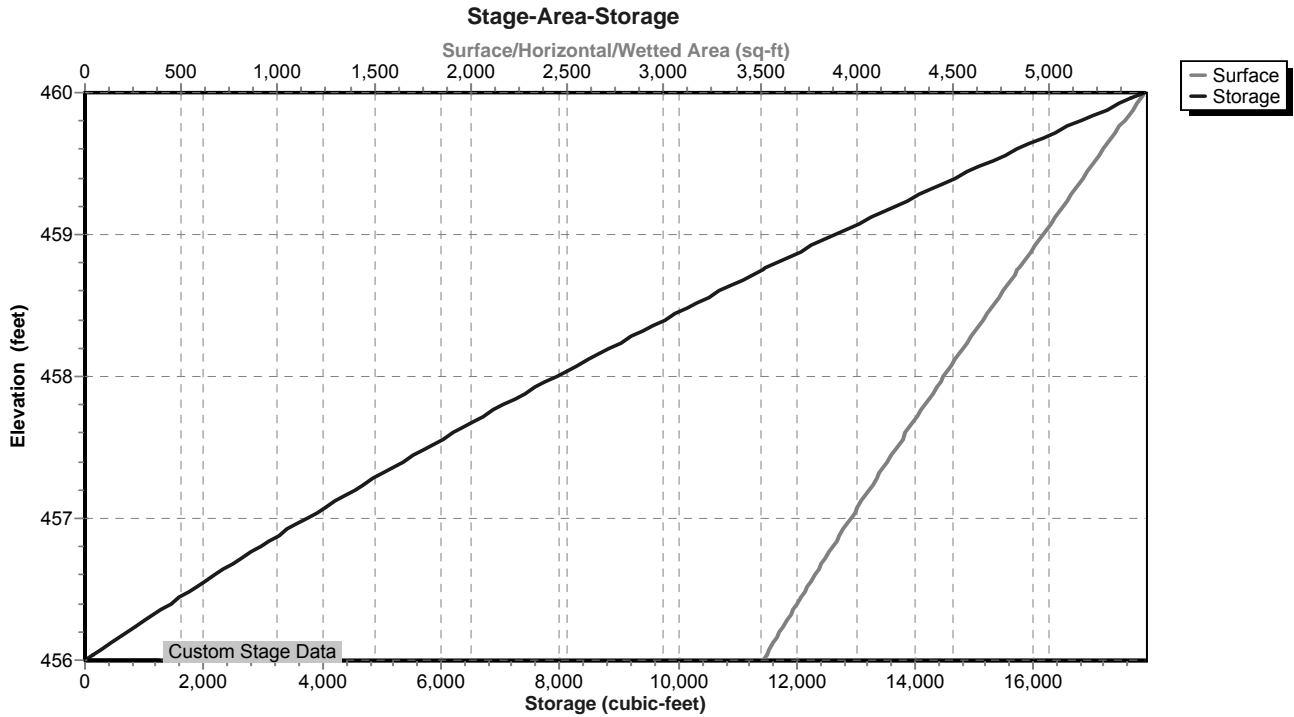
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 3.58" for 25 Year - North Salem event
 Inflow = 2.14 cfs @ 12.20 hrs, Volume= 0.459 af
 Outflow = 1.78 cfs @ 12.63 hrs, Volume= 0.459 af, Atten= 17%, Lag= 26.1 min
 Primary = 1.78 cfs @ 12.63 hrs, Volume= 0.459 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.97' @ 12.63 hrs Surf.Area= 2,457 sf Storage= 5,755 cf

Plug-Flow detention time= 826.0 min calculated for 0.459 af (100% of inflow)
 Center-of-Mass det. time= 828.3 min (1,710.5 - 882.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

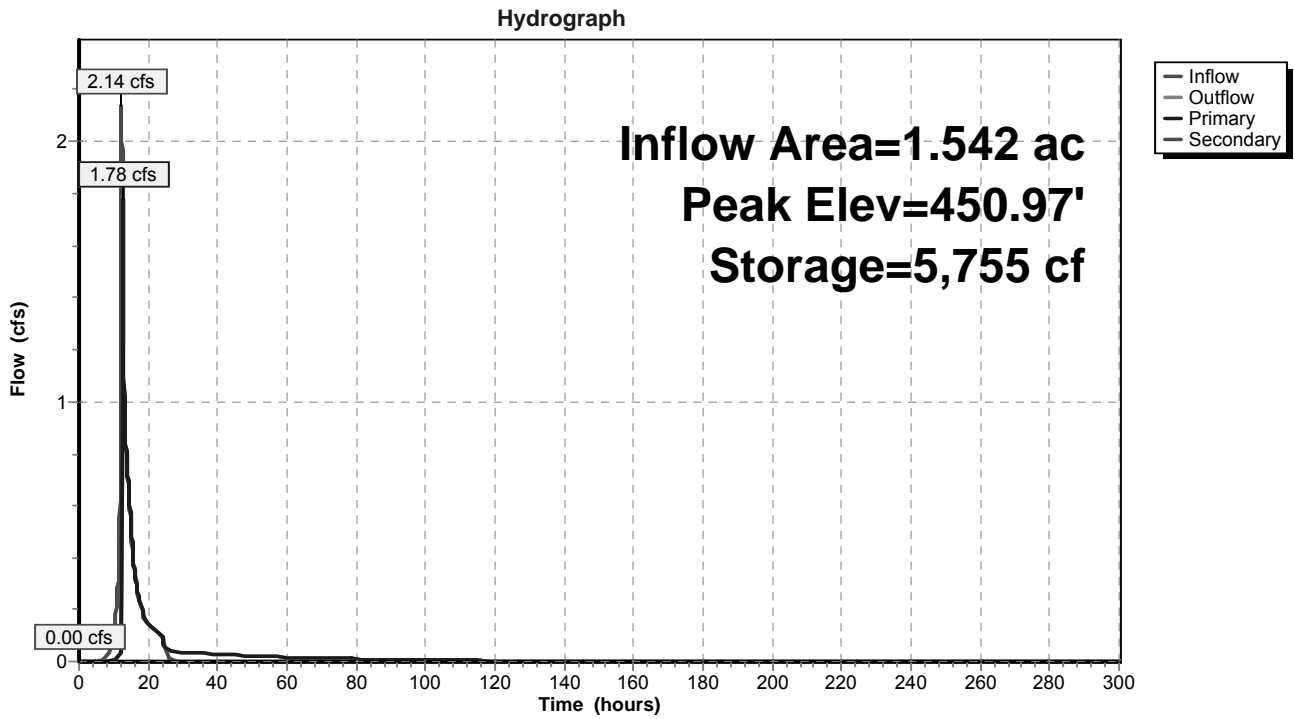
Primary OutFlow Max=1.75 cfs @ 12.63 hrs HW=450.97' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.75 cfs of 7.44 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.04 cfs)
- ↑ 3=Top of Outlet Box (Weir Controls 1.71 cfs @ 1.15 fps)

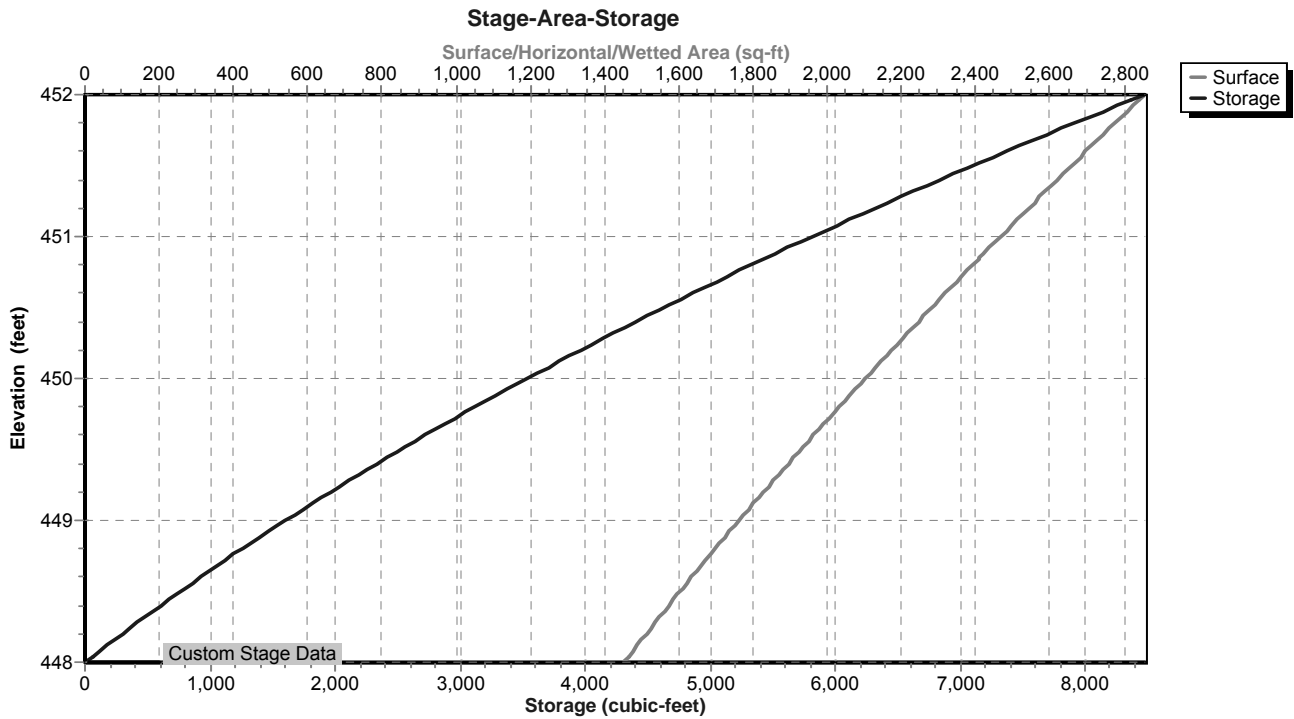
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G7: Sand Filter - G7



Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 2.30" for 25 Year - North Salem event
 Inflow = 1.58 cfs @ 12.19 hrs, Volume= 0.440 af
 Outflow = 1.53 cfs @ 12.37 hrs, Volume= 0.440 af, Atten= 3%, Lag= 11.1 min
 Primary = 1.53 cfs @ 12.37 hrs, Volume= 0.440 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 434.96' @ 12.37 hrs Surf.Area= 1,109 sf Storage= 2,263 cf

Plug-Flow detention time= 35.9 min calculated for 0.440 af (100% of inflow)
 Center-of-Mass det. time= 35.9 min (919.5 - 883.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

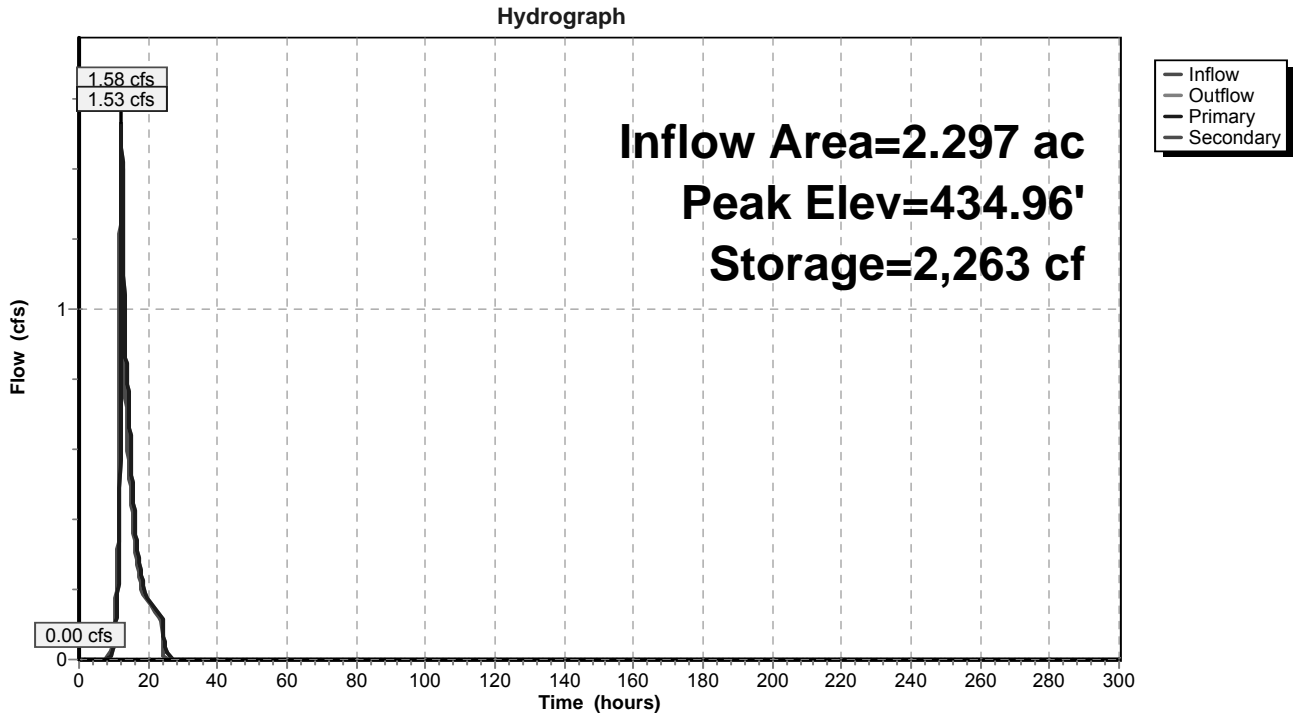
Primary OutFlow Max=1.47 cfs @ 12.37 hrs HW=434.96' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.47 cfs of 5.93 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.88 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.19 cfs @ 0.80 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.38 cfs @ 0.80 fps)

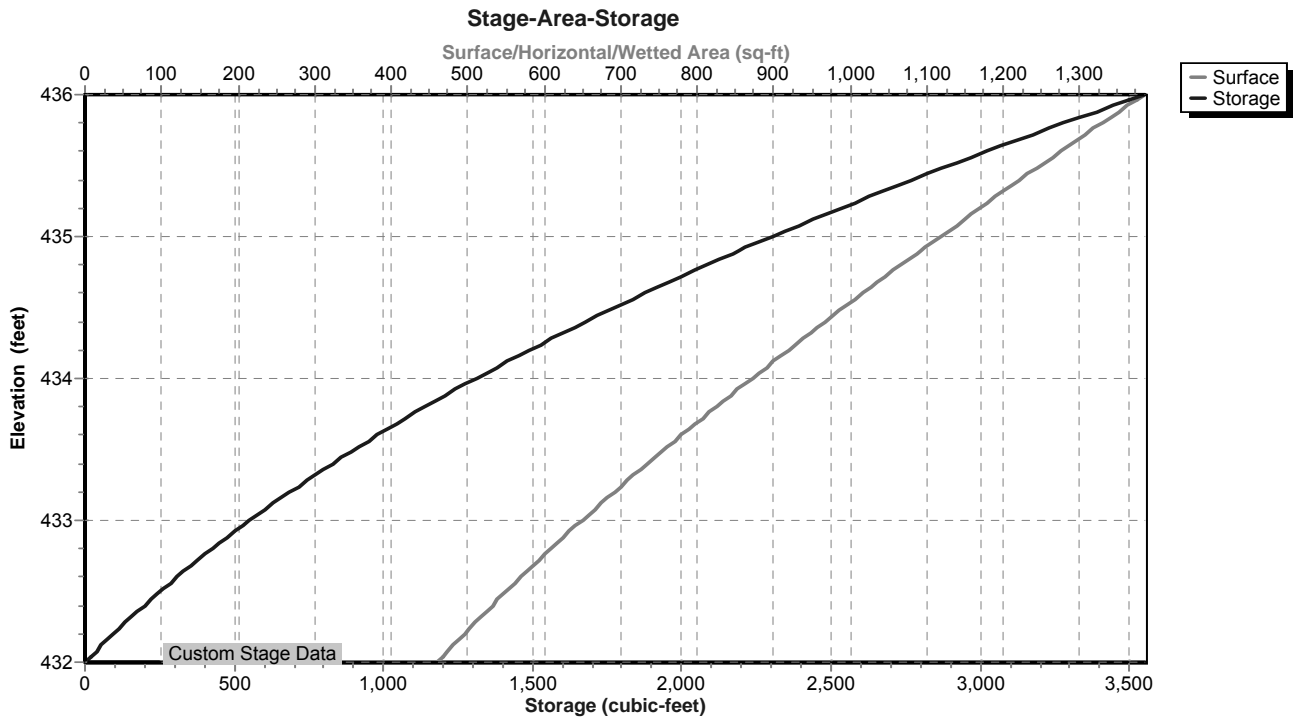
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G5: Sand Filter Forebay - G5



Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 3.60" for 25 Year - North Salem event
 Inflow = 4.96 cfs @ 12.29 hrs, Volume= 1.055 af
 Outflow = 4.95 cfs @ 12.31 hrs, Volume= 1.055 af, Atten= 0%, Lag= 1.2 min
 Primary = 4.95 cfs @ 12.31 hrs, Volume= 1.055 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.97' @ 12.31 hrs Surf.Area= 2,129 sf Storage= 4,638 cf

Plug-Flow detention time= 52.8 min calculated for 1.055 af (100% of inflow)
 Center-of-Mass det. time= 52.8 min (900.4 - 847.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

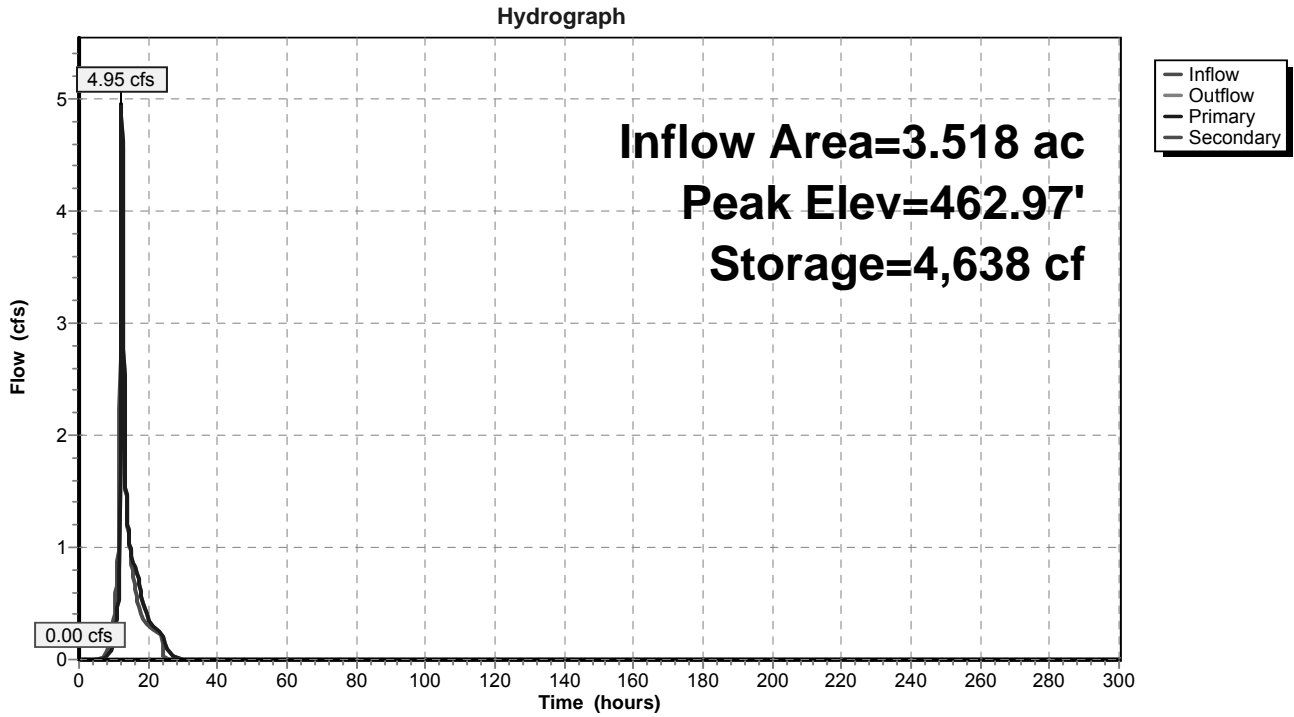
Primary OutFlow Max=4.99 cfs @ 12.31 hrs HW=462.97' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 4.99 cfs of 5.92 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.90 fps)
- ↑ 3=Top of Standpipe (Weir Controls 1.40 cfs @ 1.34 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 2.68 cfs @ 1.34 fps)

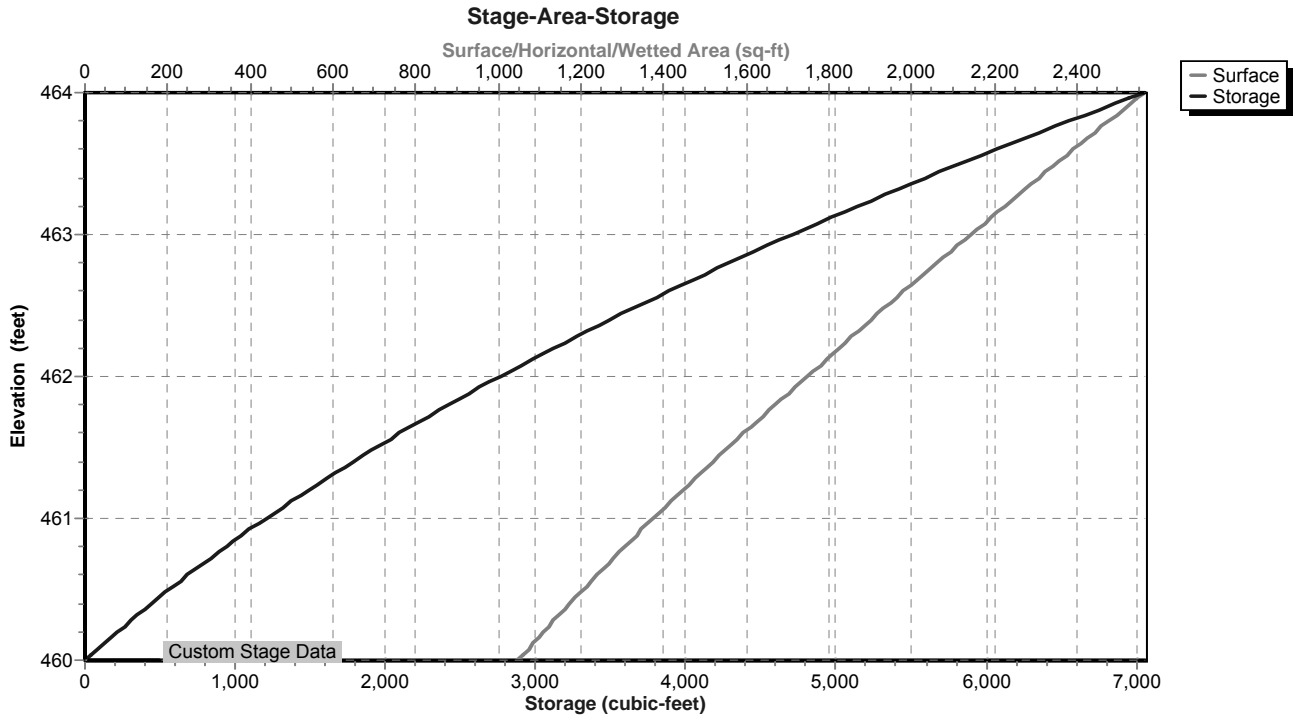
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G6: Sand Filter Forebay - G6



Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

[88] Warning: Qout>Qin may require Finer Routing>1

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 3.58" for 25 Year - North Salem event
 Inflow = 2.13 cfs @ 12.20 hrs, Volume= 0.459 af
 Outflow = 2.14 cfs @ 12.20 hrs, Volume= 0.459 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.14 cfs @ 12.20 hrs, Volume= 0.459 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 454.96' @ 12.20 hrs Surf.Area= 1,241 sf Storage= 2,642 cf

Plug-Flow detention time= 39.8 min calculated for 0.459 af (100% of inflow)
 Center-of-Mass det. time= 39.8 min (882.2 - 842.4)

Volume	Invert	Avail.Storage	Storage Description			
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
452.00	581	93.0	0	0	581	
454.00	1,003	118.0	1,565	1,565	1,051	
455.00	1,251	130.0	1,125	2,690	1,318	
456.00	1,525	143.0	1,386	4,075	1,632	

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

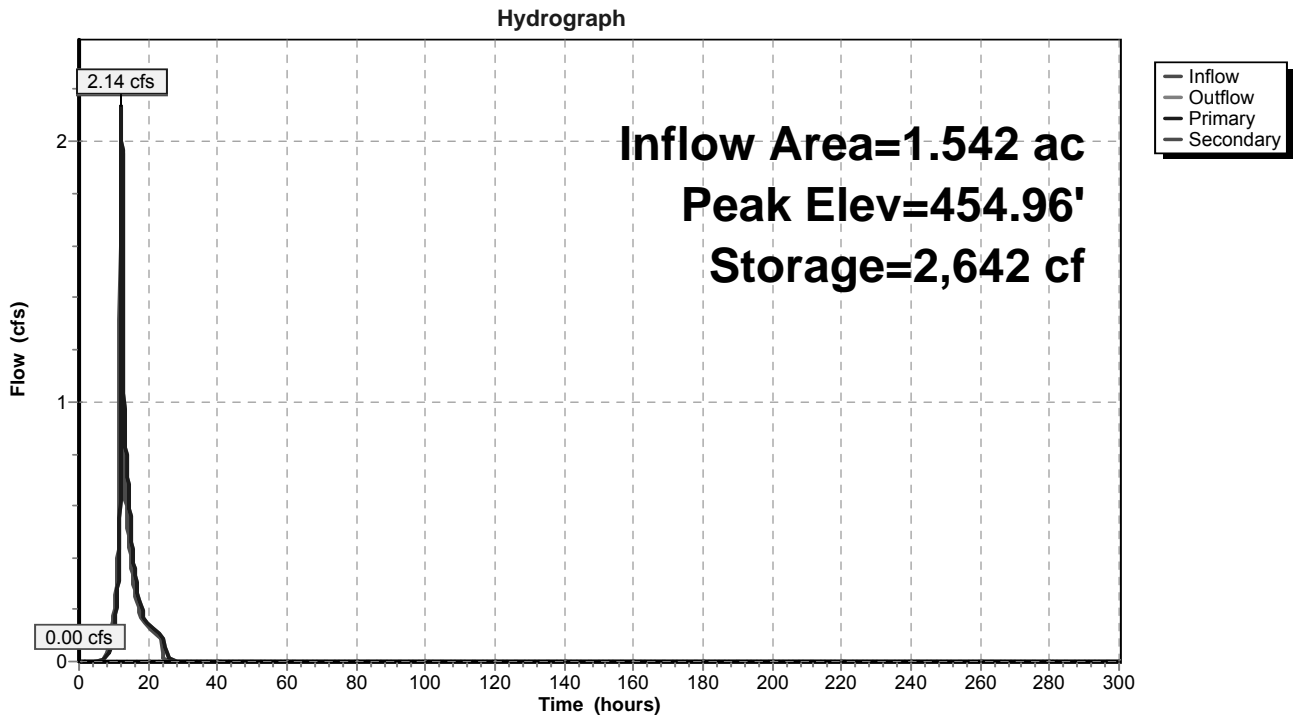
Primary OutFlow Max=2.14 cfs @ 12.20 hrs HW=454.96' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.14 cfs of 2.72 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.89 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.84 cfs @ 1.32 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.40 cfs @ 0.81 fps)

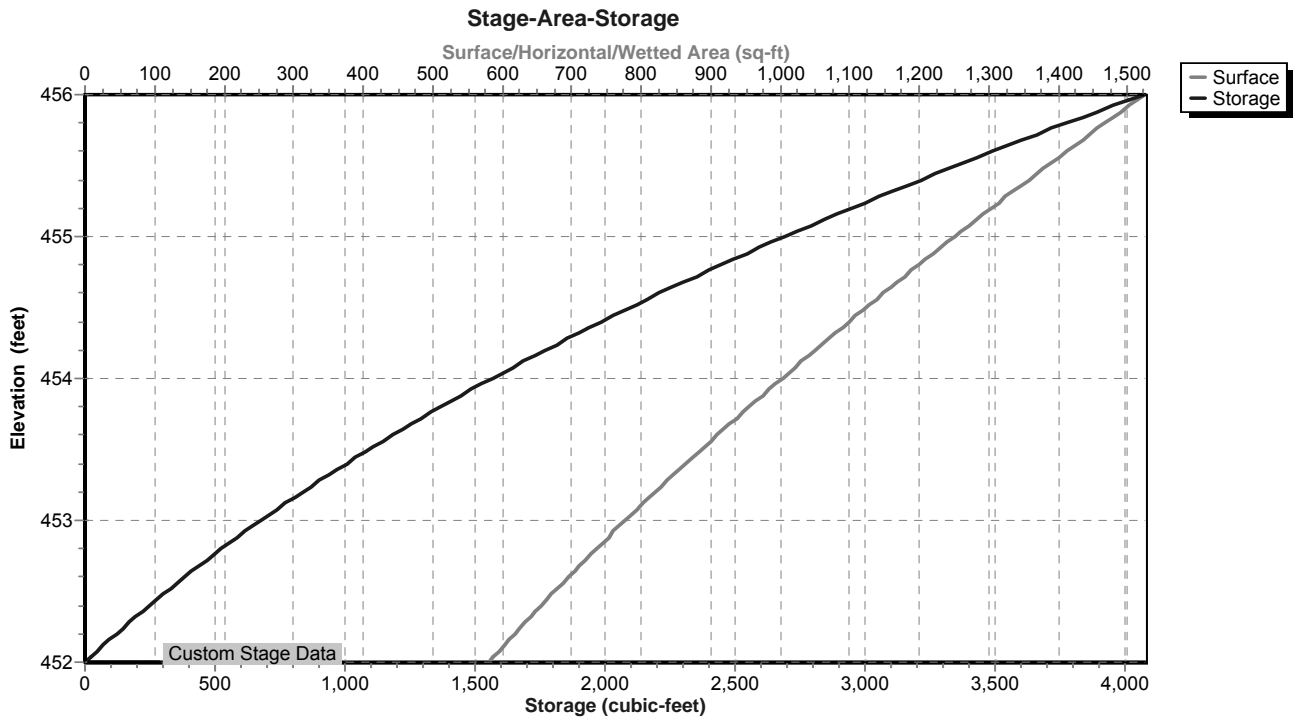
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G7: Sand Filter Forebay - G7



Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Woodlands Post-Dev DP 7 - Part 2 07-2Type III 24-hr 100 Year - North Salem Rainfall=9.00"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=5.09"
Flow Length=833' Tc=13.0 min CN=68 Runoff=10.15 cfs 0.913 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=8.76"
Flow Length=245' Tc=2.0 min CN=98 Runoff=1.47 cfs 0.112 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=8.28"
Flow Length=245' Tc=2.0 min CN=94 Runoff=1.35 cfs 0.099 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=6.32"
Flow Length=917' Tc=20.9 min CN=78 Runoff=17.00 cfs 1.853 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=6.32"
Flow Length=649' Tc=14.6 min CN=78 Runoff=8.59 cfs 0.812 af

Pond B-G5: Dry Basin - G5 Peak Elev=425.05' Storage=10,329 cf Inflow=15.53 cfs 1.726 af
Primary=13.42 cfs 1.723 af Secondary=0.33 cfs 0.003 af Outflow=13.74 cfs 1.726 af

Pond B-G6: Dry Basin - G6 Peak Elev=452.96' Storage=11,013 cf Inflow=16.83 cfs 1.851 af
Primary=15.30 cfs 1.851 af Secondary=0.00 cfs 0.000 af Outflow=15.30 cfs 1.851 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=28.44 cfs 3.577 af
Primary=28.44 cfs 3.577 af

Pond FS G5: Flow Splitter - G5 Peak Elev=439.74' Inflow=10.15 cfs 0.913 af
Primary=1.74 cfs 0.596 af Secondary=8.42 cfs 0.317 af Outflow=10.15 cfs 0.913 af

Pond FS G6: Flow Splitter - G6 Peak Elev=466.60' Inflow=17.00 cfs 1.853 af
Primary=5.51 cfs 1.390 af Secondary=11.49 cfs 0.464 af Outflow=17.00 cfs 1.853 af

Pond FS G7: Flow Splitter - G7 Peak Elev=458.03' Inflow=8.59 cfs 0.812 af
Primary=2.29 cfs 0.603 af Secondary=6.30 cfs 0.209 af Outflow=8.59 cfs 0.812 af

Pond S-17: Underground Infiltration Peak Elev=433.55' Storage=0.005 af Inflow=1.47 cfs 0.112 af
Discarded=0.90 cfs 0.112 af Primary=0.00 cfs 0.000 af Outflow=0.90 cfs 0.112 af

Pond S-21: Underground Infiltration Peak Elev=499.02' Storage=0.000 af Inflow=1.35 cfs 0.099 af
Discarded=1.35 cfs 0.099 af Primary=0.00 cfs 0.000 af Outflow=1.35 cfs 0.099 af

Pond SF-G5: Sand Filter - G5 Peak Elev=431.02' Storage=4,523 cf Inflow=1.73 cfs 0.596 af
Primary=1.58 cfs 0.596 af Secondary=0.00 cfs 0.000 af Outflow=1.58 cfs 0.596 af

Pond SF-G6: Sand Filter - G6 Peak Elev=458.97' Storage=12,500 cf Inflow=5.51 cfs 1.390 af
Primary=5.46 cfs 1.388 af Secondary=0.00 cfs 0.000 af Outflow=5.46 cfs 1.388 af

Pond SF-G7: Sand Filter - G7 Peak Elev=450.99' Storage=5,805 cf Inflow=2.28 cfs 0.603 af
Primary=2.23 cfs 0.603 af Secondary=0.00 cfs 0.000 af Outflow=2.23 cfs 0.603 af

Woodlands Post-Dev DP 7 - Part 2 07-2 *Type III 24-hr 100 Year - North Salem Rainfall=9.00"*

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=434.98' Storage=2,275 cf Inflow=1.74 cfs 0.596 af
Primary=1.73 cfs 0.596 af Secondary=0.00 cfs 0.000 af Outflow=1.73 cfs 0.596 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=462.99' Storage=4,676 cf Inflow=5.51 cfs 1.390 af
Primary=5.51 cfs 1.390 af Secondary=0.00 cfs 0.000 af Outflow=5.51 cfs 1.390 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=454.97' Storage=2,653 cf Inflow=2.29 cfs 0.603 af
Primary=2.28 cfs 0.603 af Secondary=0.00 cfs 0.000 af Outflow=2.28 cfs 0.603 af

Total Runoff Area = 7.510 ac Runoff Volume = 3.789 af Average Runoff Depth = 6.05"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

Runoff = 10.15 cfs @ 12.18 hrs, Volume= 0.913 af, Depth= 5.09"

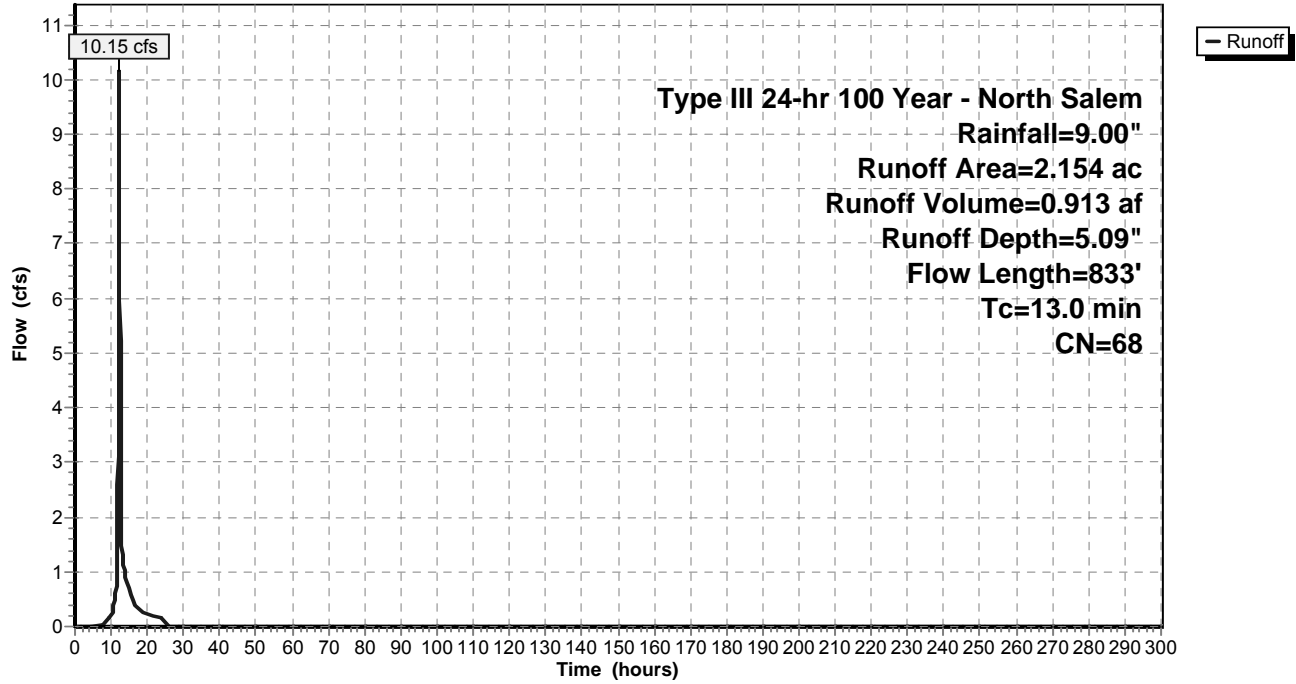
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a

Hydrograph



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.47 cfs @ 12.03 hrs, Volume= 0.112 af, Depth= 8.76"

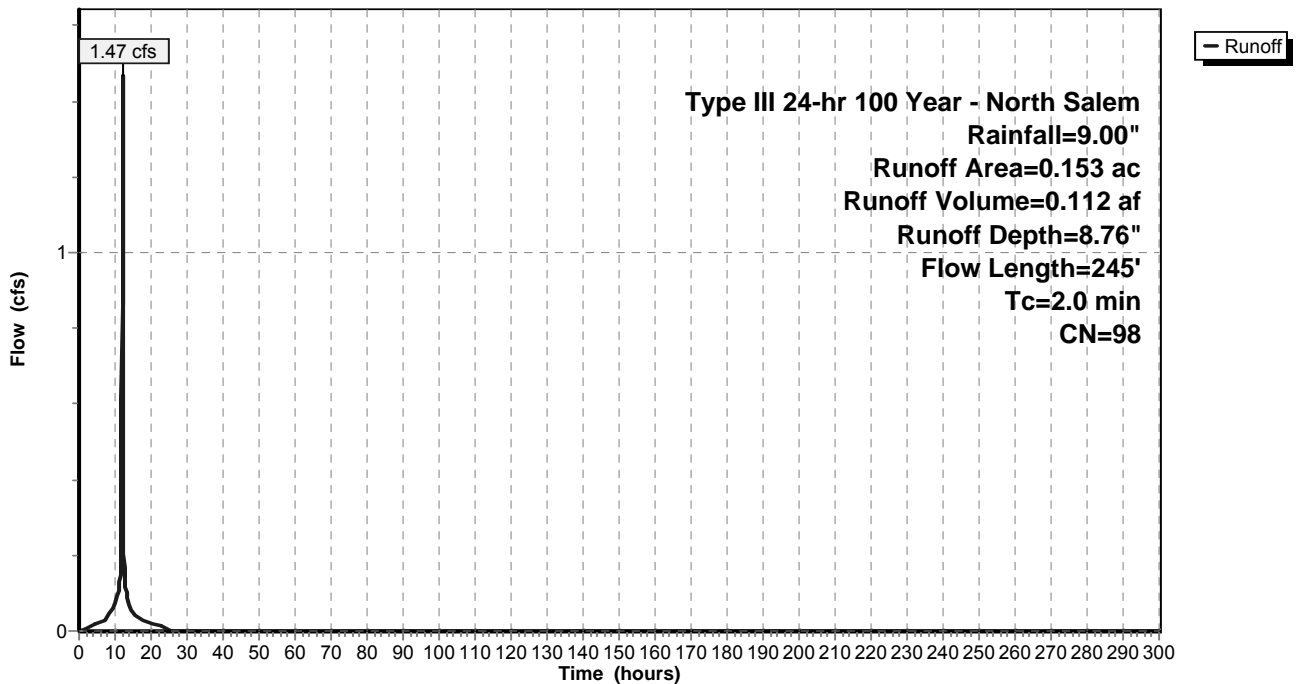
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af, Depth= 8.28"

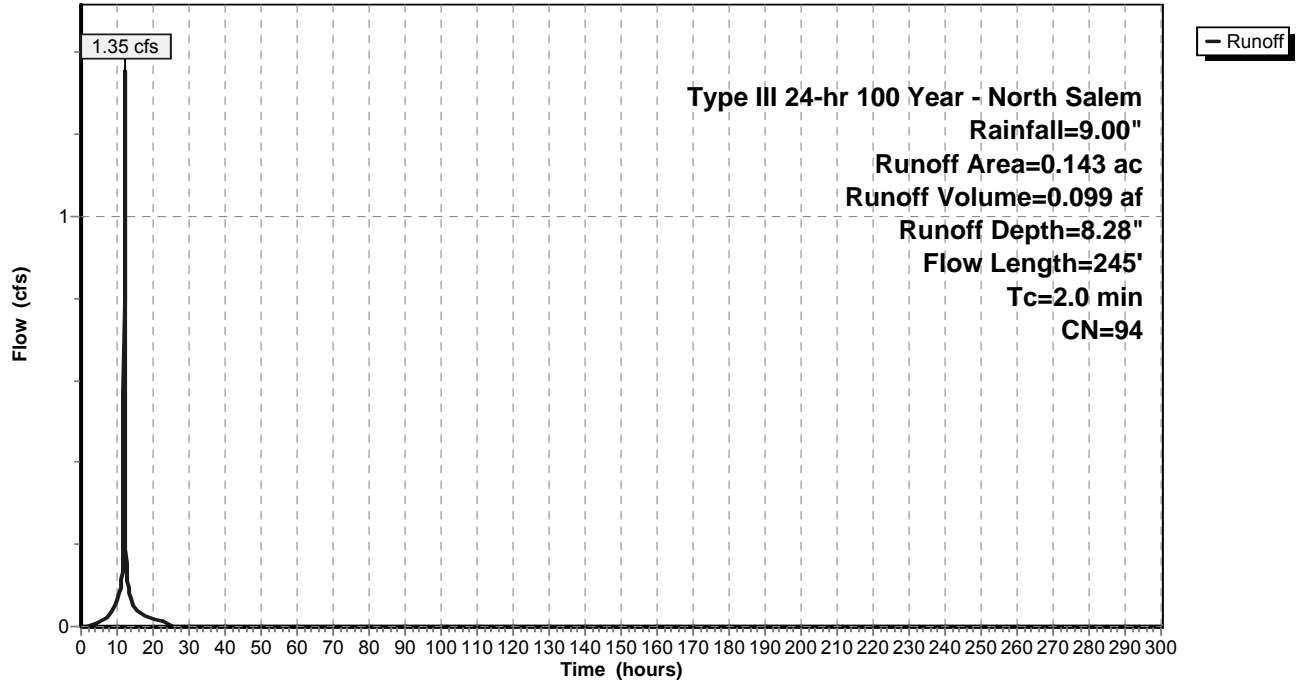
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c

Hydrograph



Summary for Subcatchment G6: Post-Development G6

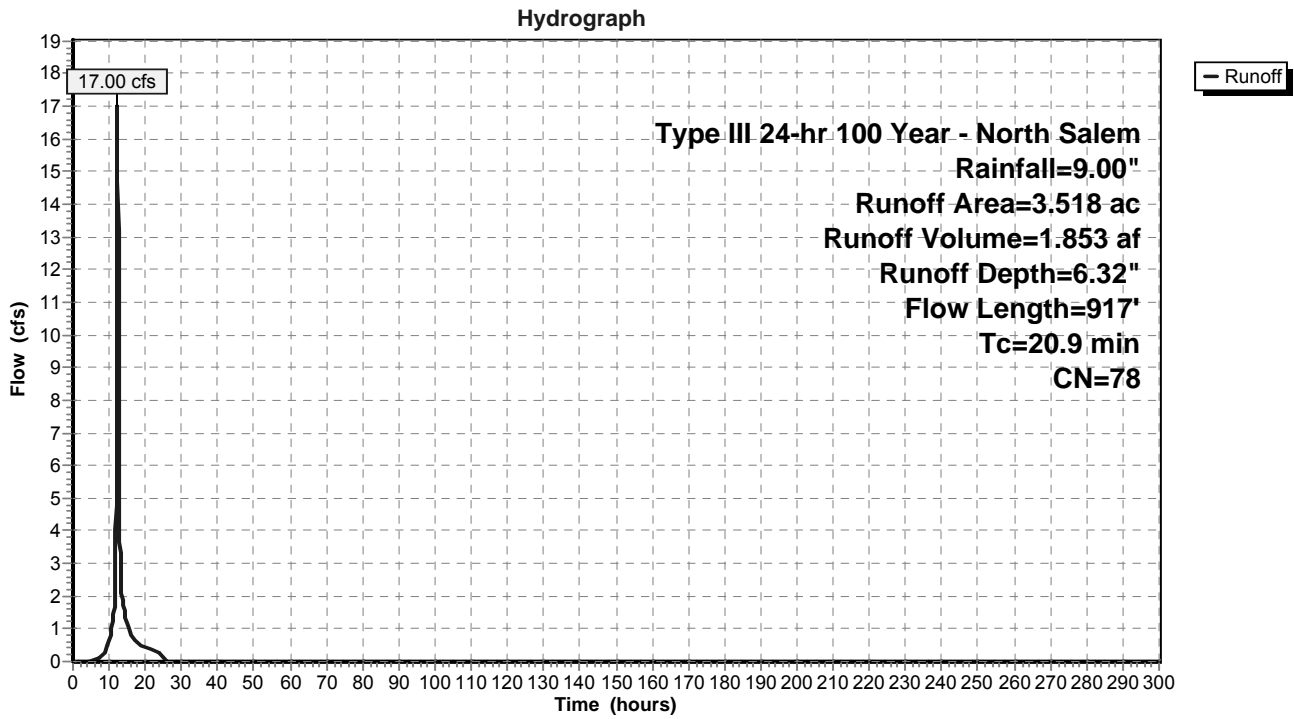
Runoff = 17.00 cfs @ 12.28 hrs, Volume= 1.853 af, Depth= 6.32"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6



Summary for Subcatchment G7: Post-Development G7

Runoff = 8.59 cfs @ 12.20 hrs, Volume= 0.812 af, Depth= 6.32"

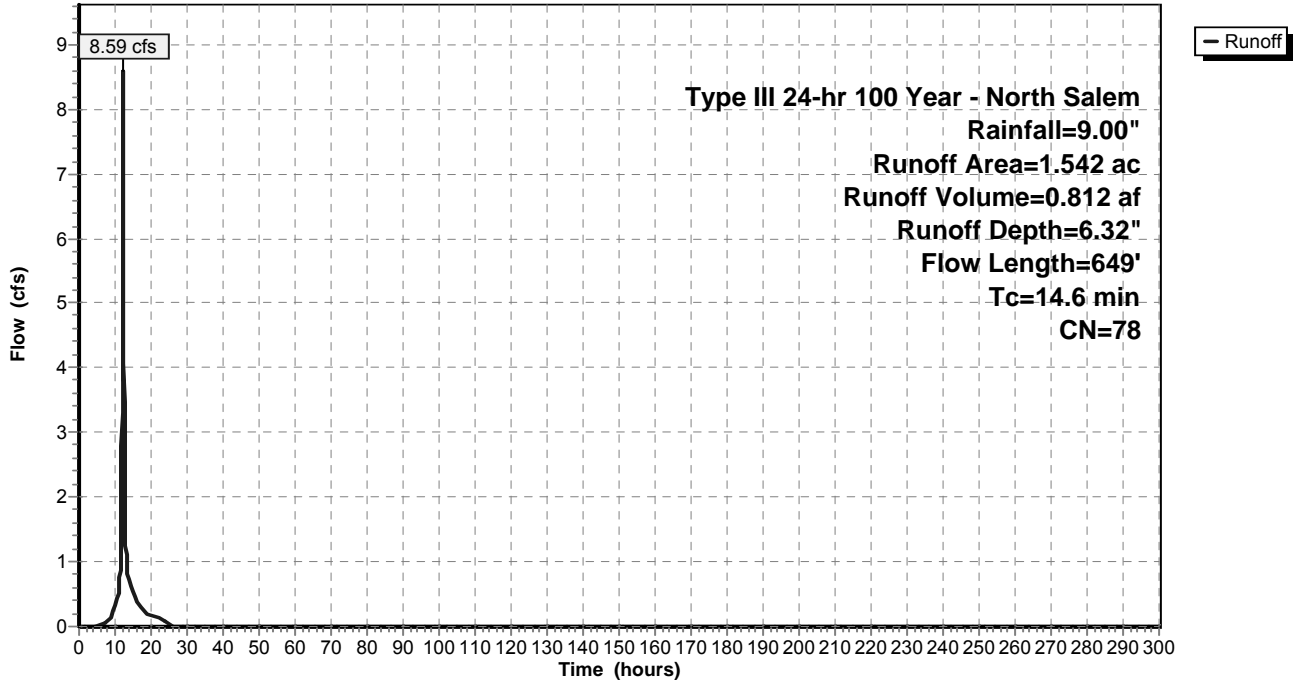
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7

Hydrograph



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 5.19" for 100 Year - North Salem event
 Inflow = 15.53 cfs @ 12.22 hrs, Volume= 1.726 af
 Outflow = 13.74 cfs @ 12.33 hrs, Volume= 1.726 af, Atten= 12%, Lag= 6.7 min
 Primary = 13.42 cfs @ 12.33 hrs, Volume= 1.723 af
 Secondary = 0.33 cfs @ 12.33 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 425.05' @ 12.33 hrs Surf.Area= 4,300 sf Storage= 10,329 cf (10,105 cf above start)

Plug-Flow detention time= 85.6 min calculated for 1.720 af (100% of inflow)
 Center-of-Mass det. time= 55.1 min (1,293.4 - 1,238.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

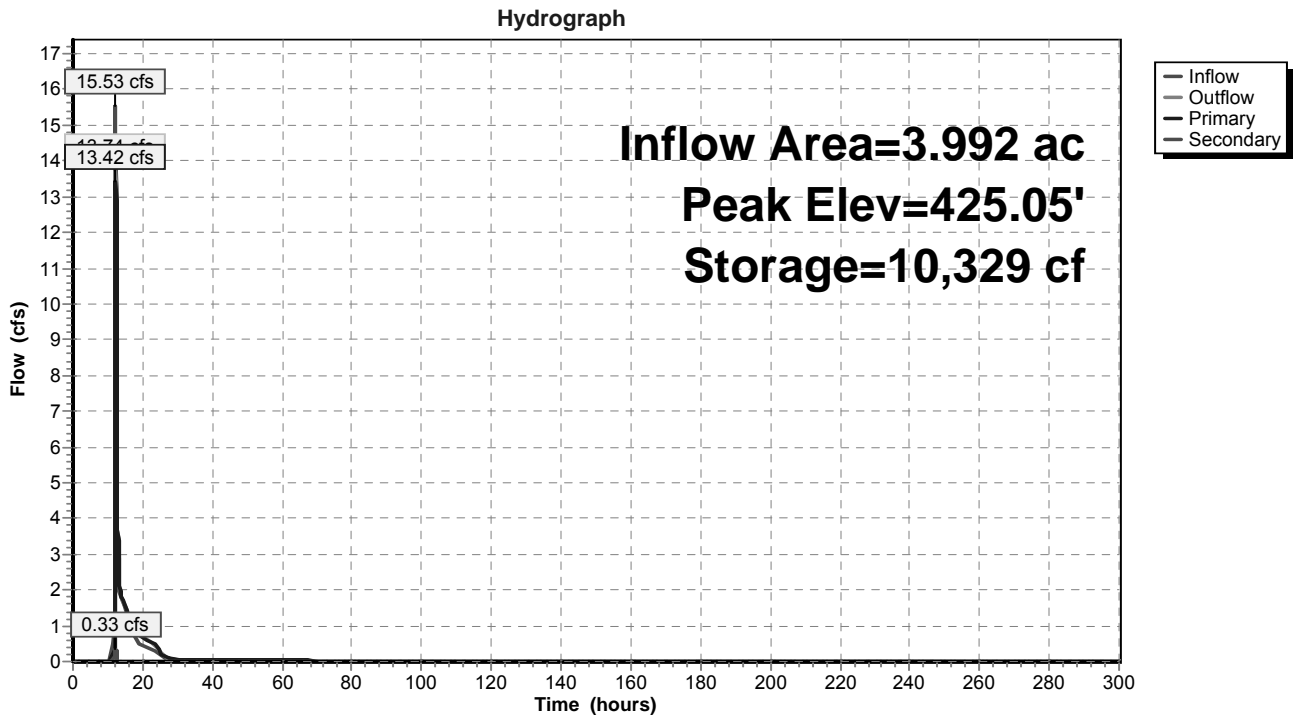
Primary OutFlow Max=13.30 cfs @ 12.33 hrs HW=425.04' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 13.30 cfs of 33.97 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.88 cfs @ 10.07 fps)
- ↑ 3=Orifice/Grate (Orifice Controls 12.08 cfs @ 3.39 fps)
- ↑ 4=Top of Box Elevation (Weir Controls 0.34 cfs @ 0.67 fps)

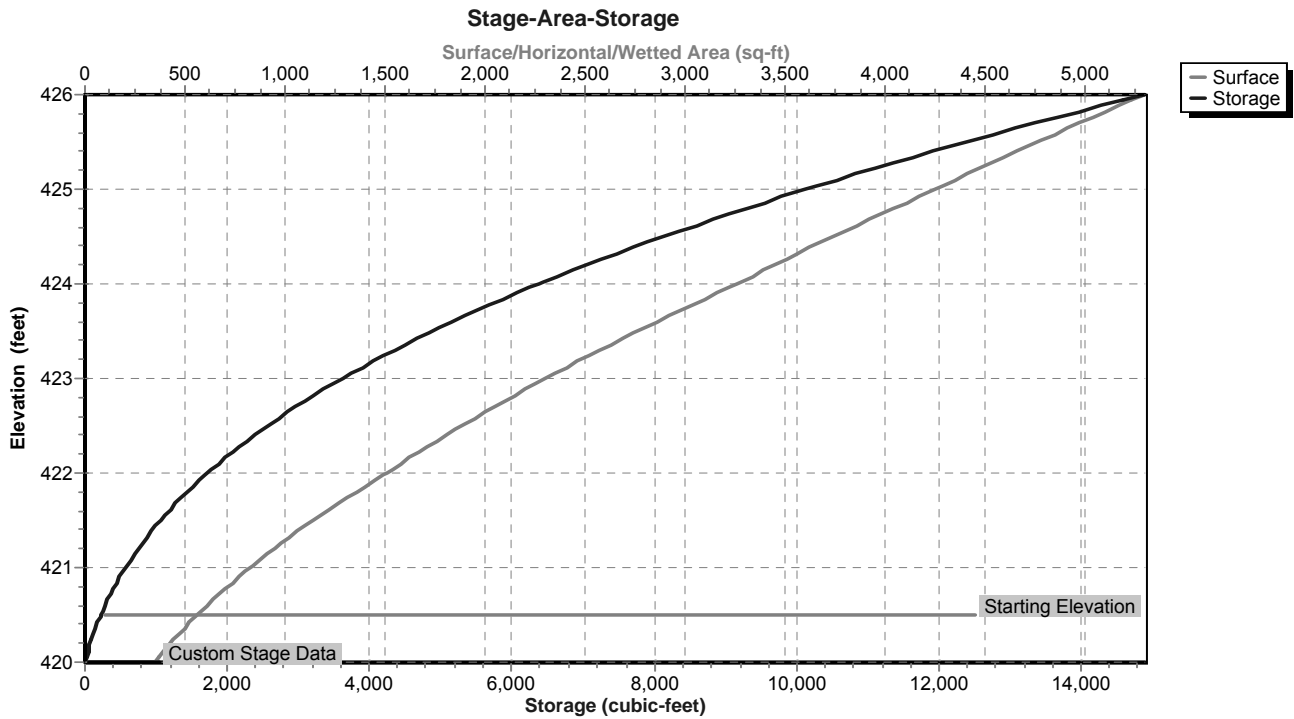
Secondary OutFlow Max=0.28 cfs @ 12.33 hrs HW=425.04' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.28 cfs @ 0.67 fps)

Pond B-G5: Dry Basin - G5



Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 6.32" for 100 Year - North Salem event
 Inflow = 16.83 cfs @ 12.30 hrs, Volume= 1.851 af
 Outflow = 15.30 cfs @ 12.40 hrs, Volume= 1.851 af, Atten= 9%, Lag= 6.2 min
 Primary = 15.30 cfs @ 12.40 hrs, Volume= 1.851 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 452.96' @ 12.40 hrs Surf.Area= 3,778 sf Storage= 11,013 cf (10,477 cf above start)

Plug-Flow detention time= 157.6 min calculated for 1.839 af (99% of inflow)
 Center-of-Mass det. time= 70.2 min (1,533.7 - 1,463.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

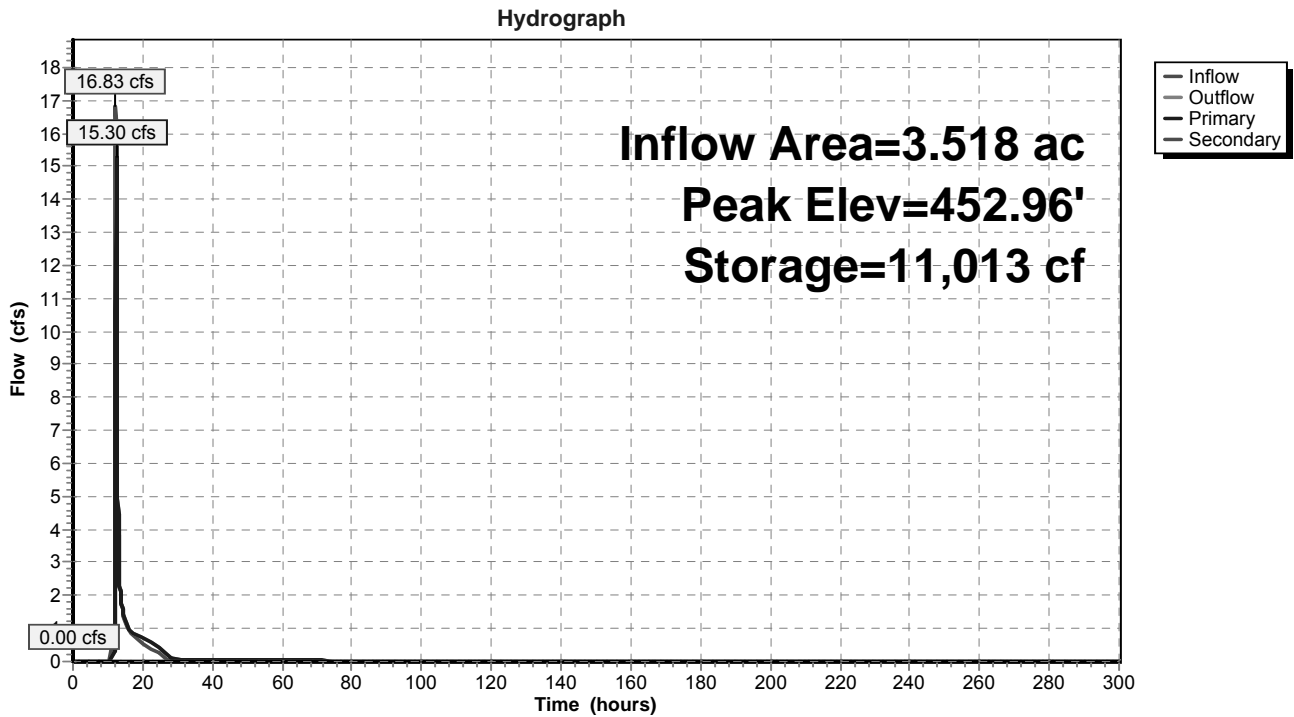
Primary OutFlow Max=15.25 cfs @ 12.40 hrs HW=452.96' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 15.25 cfs of 31.94 cfs potential flow)
- ↑ 2=Low Flow Orifice (Orifice Controls 0.87 cfs @ 9.98 fps)
- ↑ 3=Orifice/Grate (Orifice Controls 13.81 cfs @ 3.45 fps)
- ↑ 4=Top of Box Elevation (Weir Controls 0.57 cfs @ 0.80 fps)

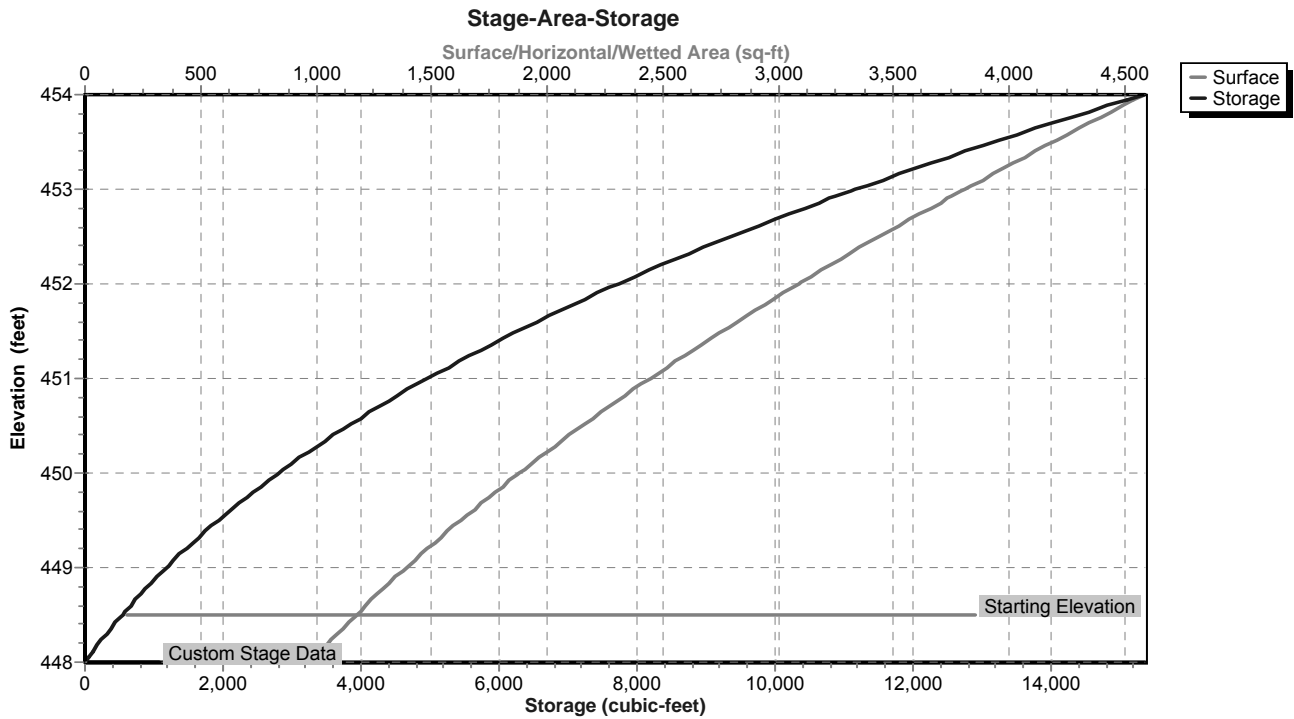
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G6: Dry Basin - G6



Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

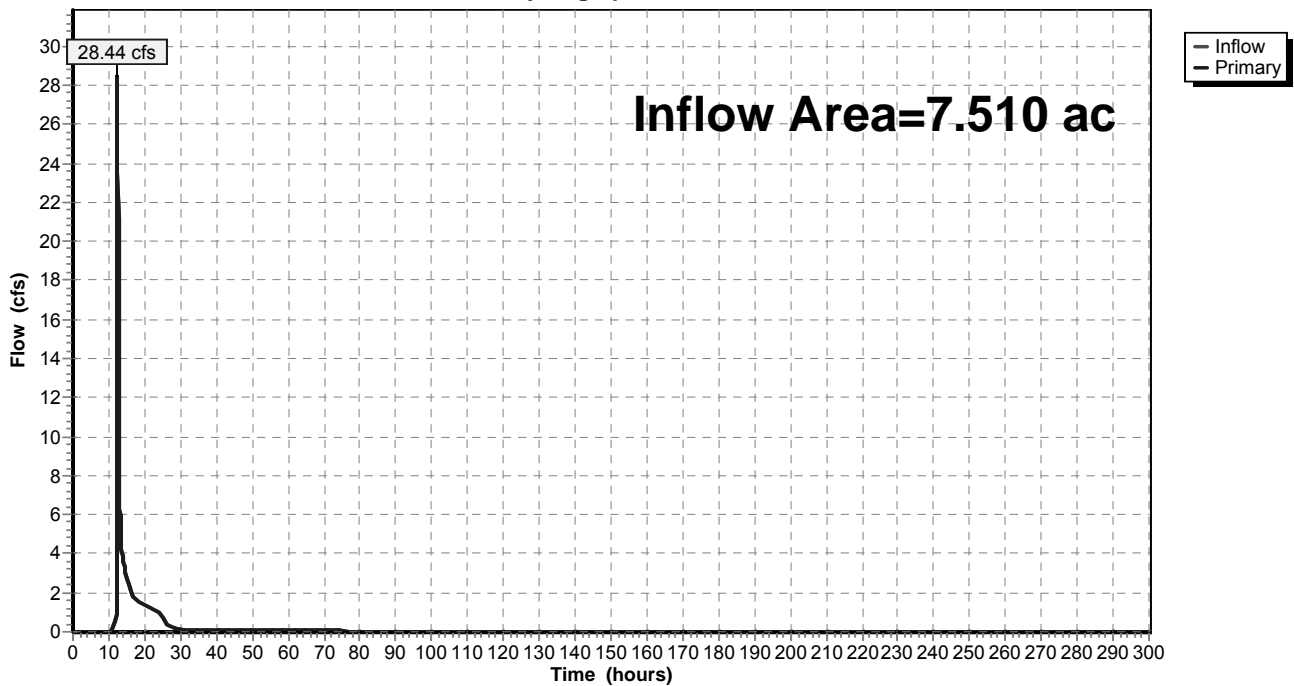
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth = 5.72" for 100 Year - North Salem event
Inflow = 28.44 cfs @ 12.37 hrs, Volume= 3.577 af
Primary = 28.44 cfs @ 12.37 hrs, Volume= 3.577 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7

Hydrograph



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 4.77" for 100 Year - North Salem event
 Inflow = 10.15 cfs @ 12.18 hrs, Volume= 0.913 af
 Outflow = 10.15 cfs @ 12.18 hrs, Volume= 0.913 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.74 cfs @ 12.18 hrs, Volume= 0.596 af
 Secondary = 8.42 cfs @ 12.18 hrs, Volume= 0.317 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 439.74' @ 12.18 hrs
 Flood Elev= 527.50'

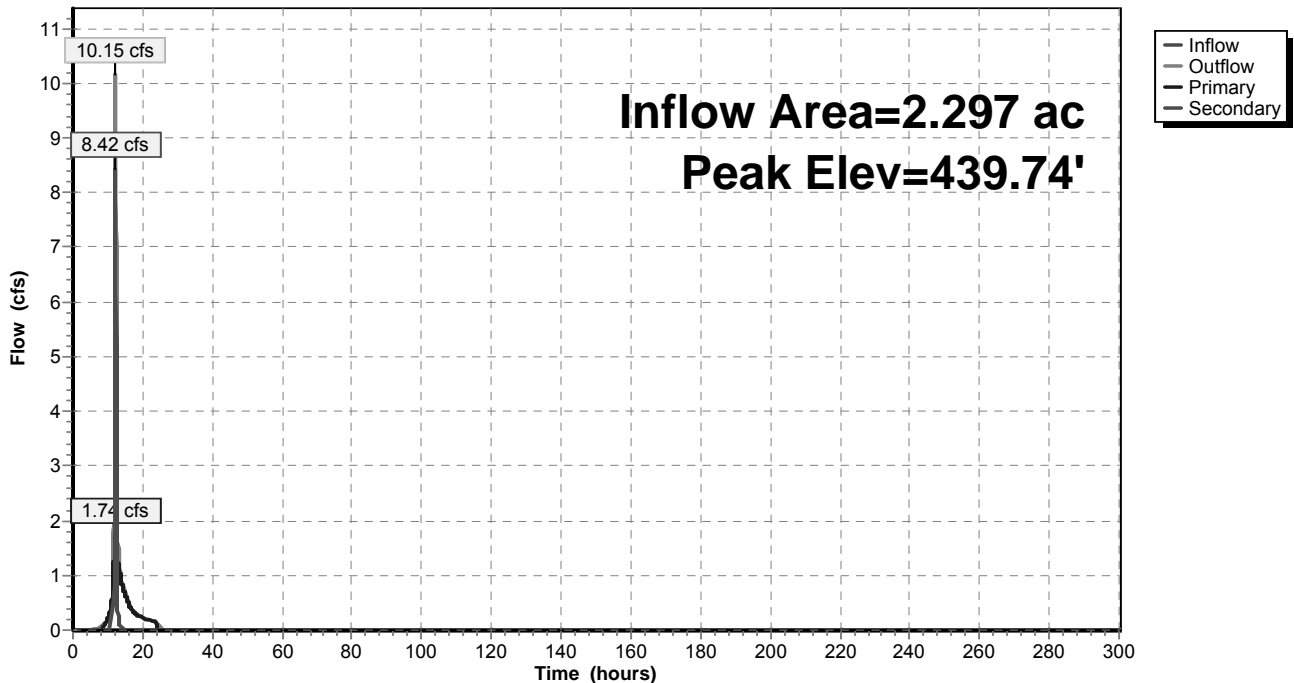
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 ' ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 ' ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.73 cfs @ 12.18 hrs HW=439.72' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.73 cfs @ 8.81 fps)

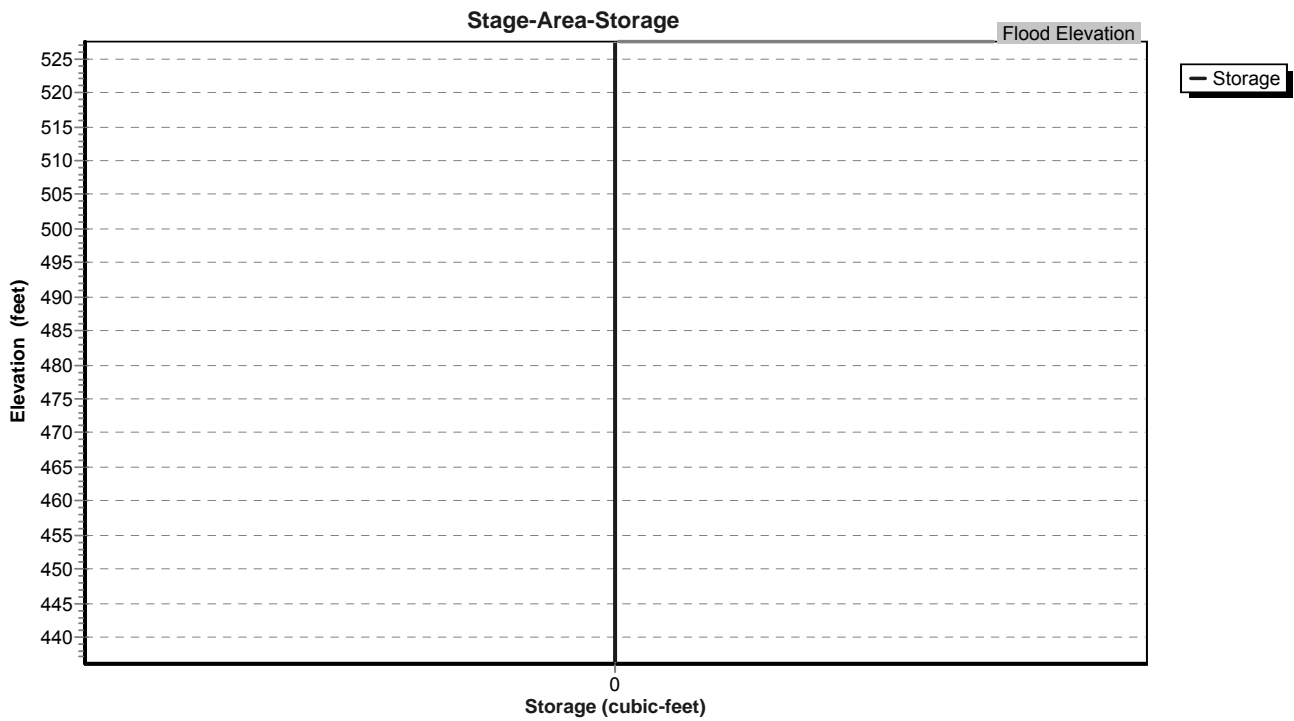
Secondary OutFlow Max=8.37 cfs @ 12.18 hrs HW=439.72' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 8.37 cfs @ 4.74 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Pond FS G5: Flow Splitter - G5



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 6.32" for 100 Year - North Salem event
 Inflow = 17.00 cfs @ 12.28 hrs, Volume= 1.853 af
 Outflow = 17.00 cfs @ 12.28 hrs, Volume= 1.853 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.51 cfs @ 12.28 hrs, Volume= 1.390 af
 Secondary = 11.49 cfs @ 12.28 hrs, Volume= 0.464 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 466.60' @ 12.28 hrs
 Flood Elev= 554.50'

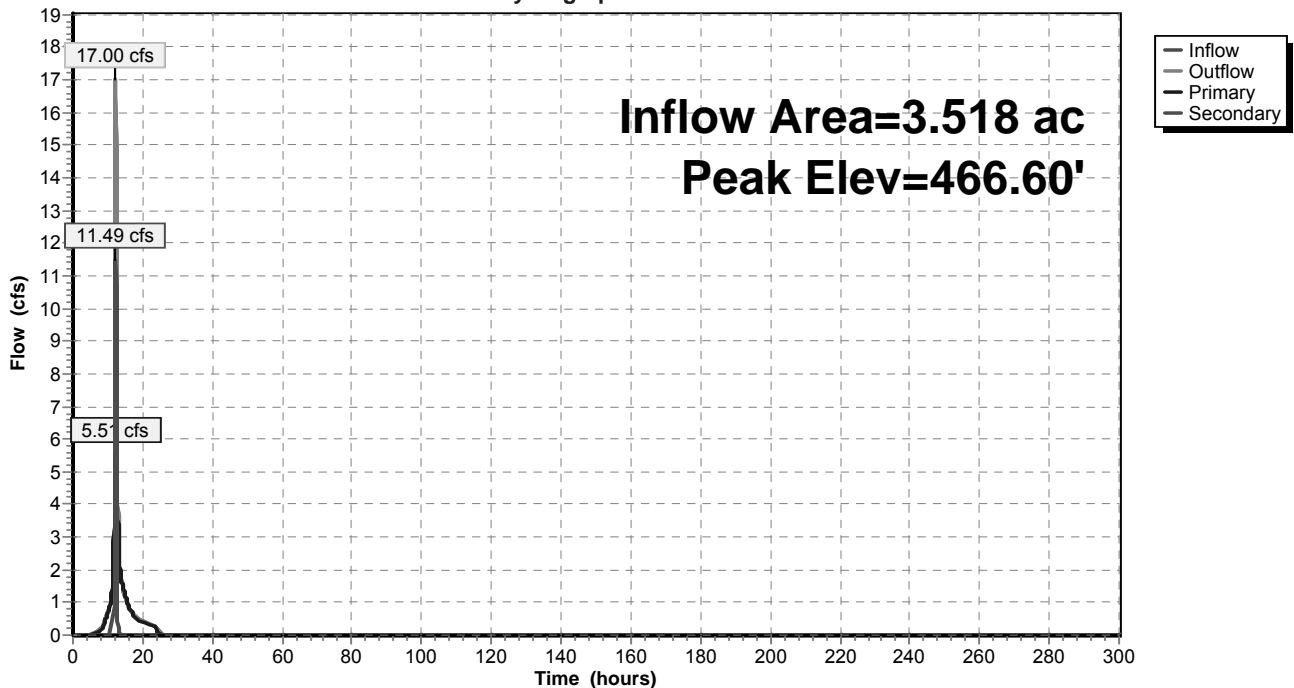
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' /' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' /' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=5.52 cfs @ 12.28 hrs HW=466.59' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 5.52 cfs @ 7.03 fps)

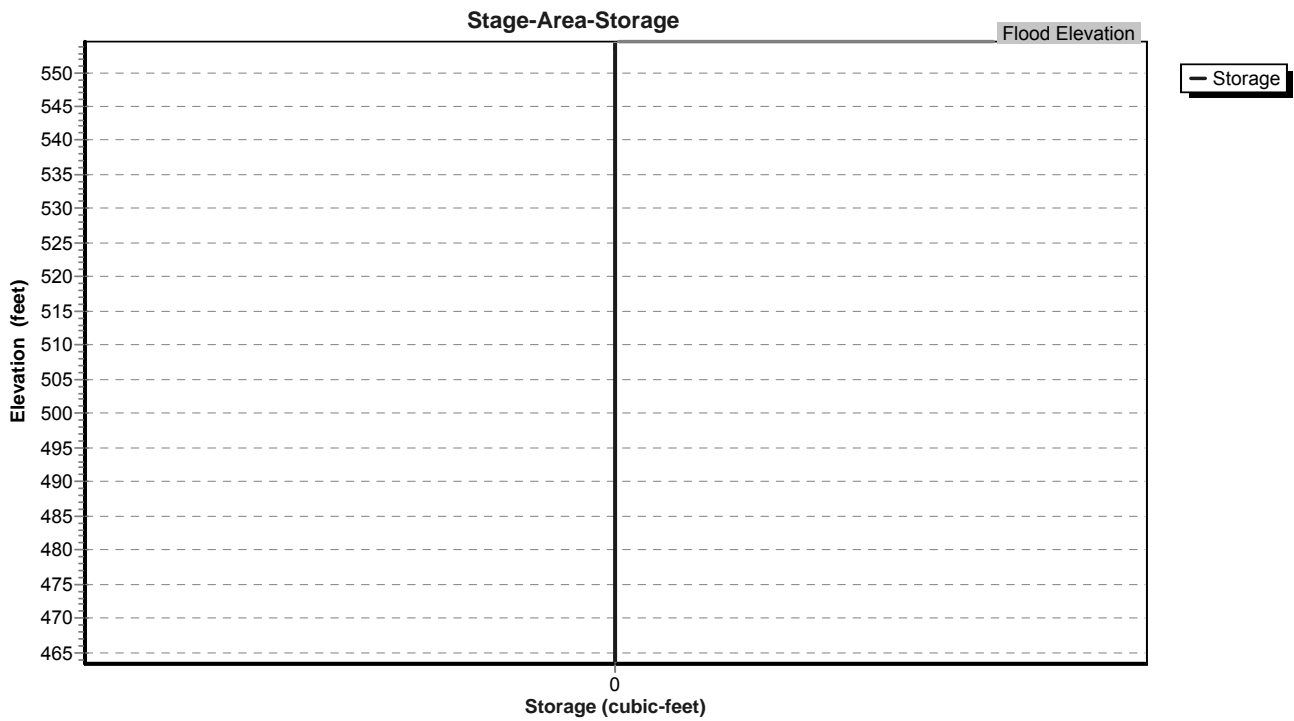
Secondary OutFlow Max=11.99 cfs @ 12.28 hrs HW=466.59' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 11.99 cfs @ 4.03 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Pond FS G6: Flow Splitter - G6



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 6.32" for 100 Year - North Salem event
 Inflow = 8.59 cfs @ 12.20 hrs, Volume= 0.812 af
 Outflow = 8.59 cfs @ 12.20 hrs, Volume= 0.812 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.29 cfs @ 12.20 hrs, Volume= 0.603 af
 Secondary = 6.30 cfs @ 12.20 hrs, Volume= 0.209 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.03' @ 12.20 hrs
 Flood Elev= 554.50'

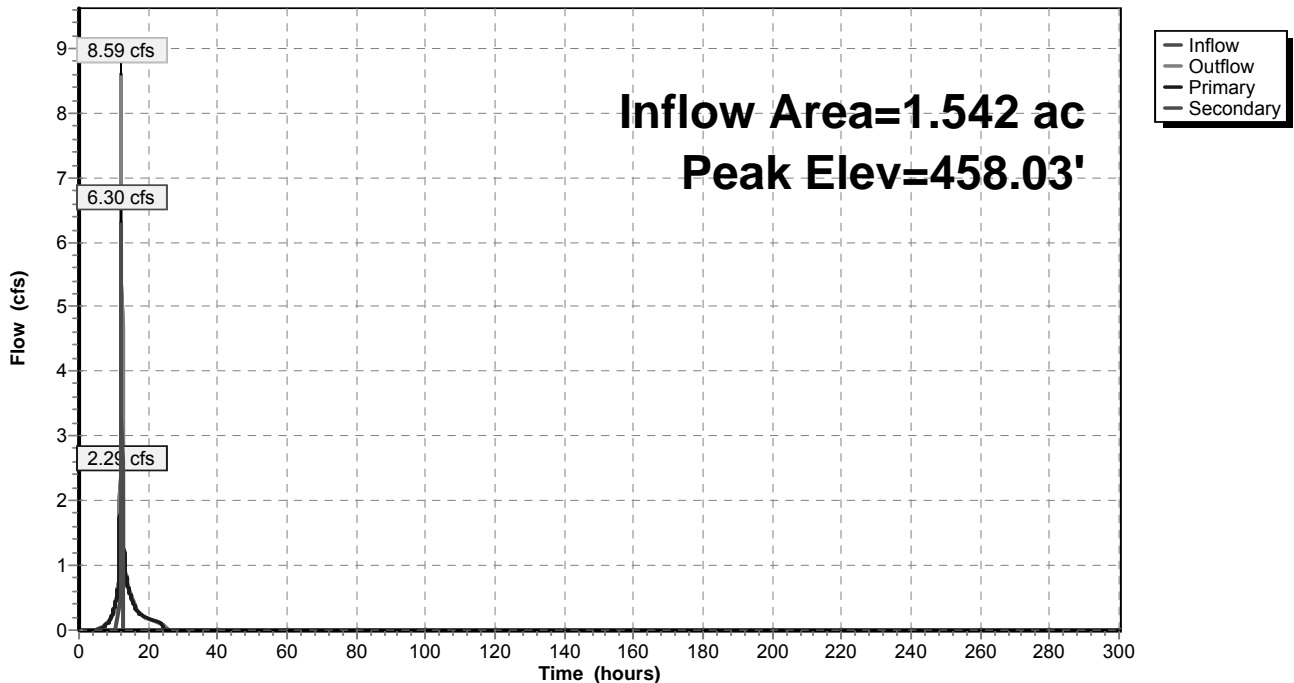
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=2.30 cfs @ 12.20 hrs HW=458.03' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.30 cfs @ 6.58 fps)

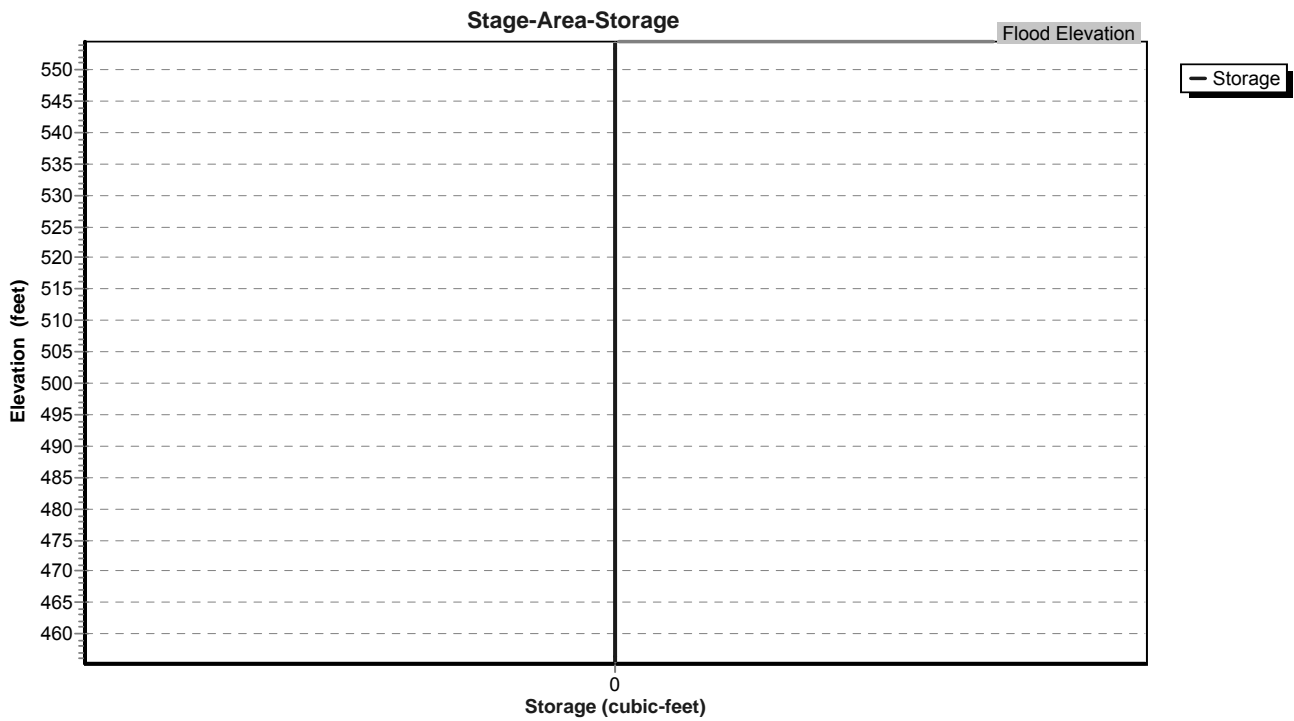
Secondary OutFlow Max=5.83 cfs @ 12.20 hrs HW=458.03' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 5.83 cfs @ 3.19 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Pond FS G7: Flow Splitter - G7



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 8.76" for 100 Year - North Salem event
 Inflow = 1.47 cfs @ 12.03 hrs, Volume= 0.112 af
 Outflow = 0.90 cfs @ 12.00 hrs, Volume= 0.112 af, Atten= 39%, Lag= 0.0 min
 Discarded = 0.90 cfs @ 12.00 hrs, Volume= 0.112 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.55' @ 12.12 hrs Surf.Area= 0.022 ac Storage= 0.005 af

Plug-Flow detention time= 1.5 min calculated for 0.112 af (100% of inflow)
 Center-of-Mass det. time= 0.6 min (736.7 - 736.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

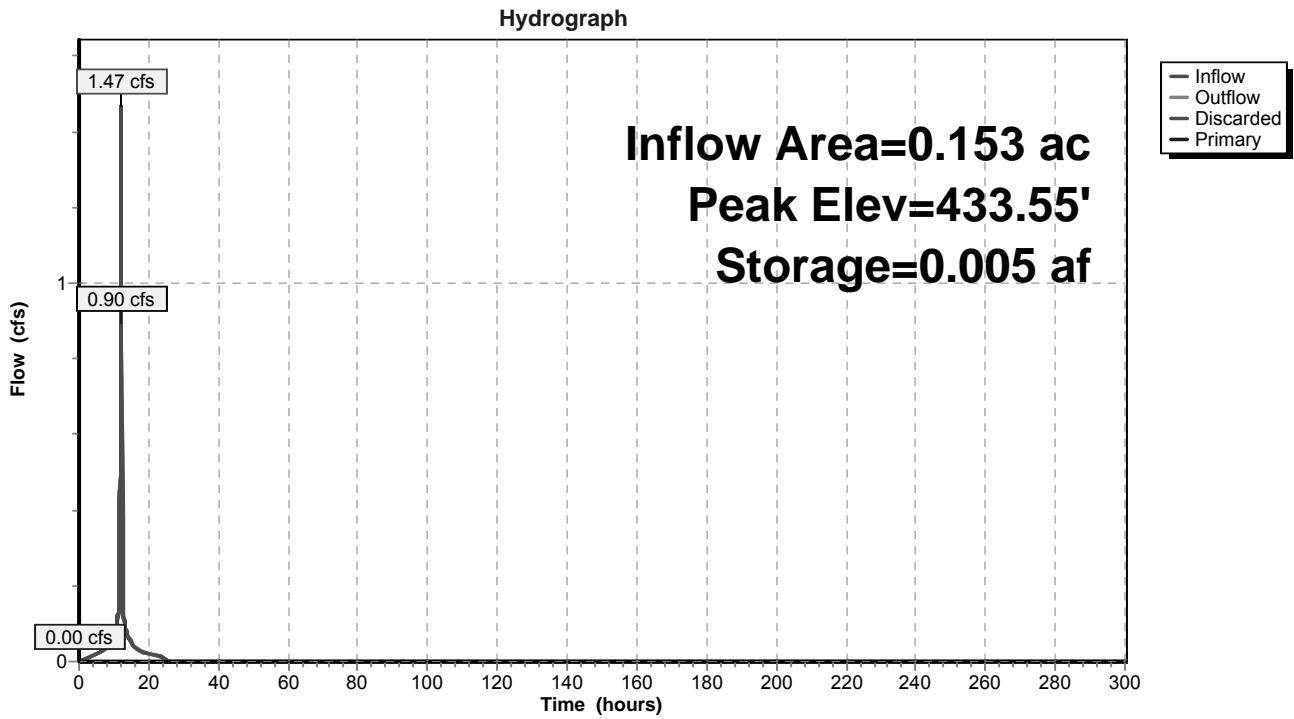
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

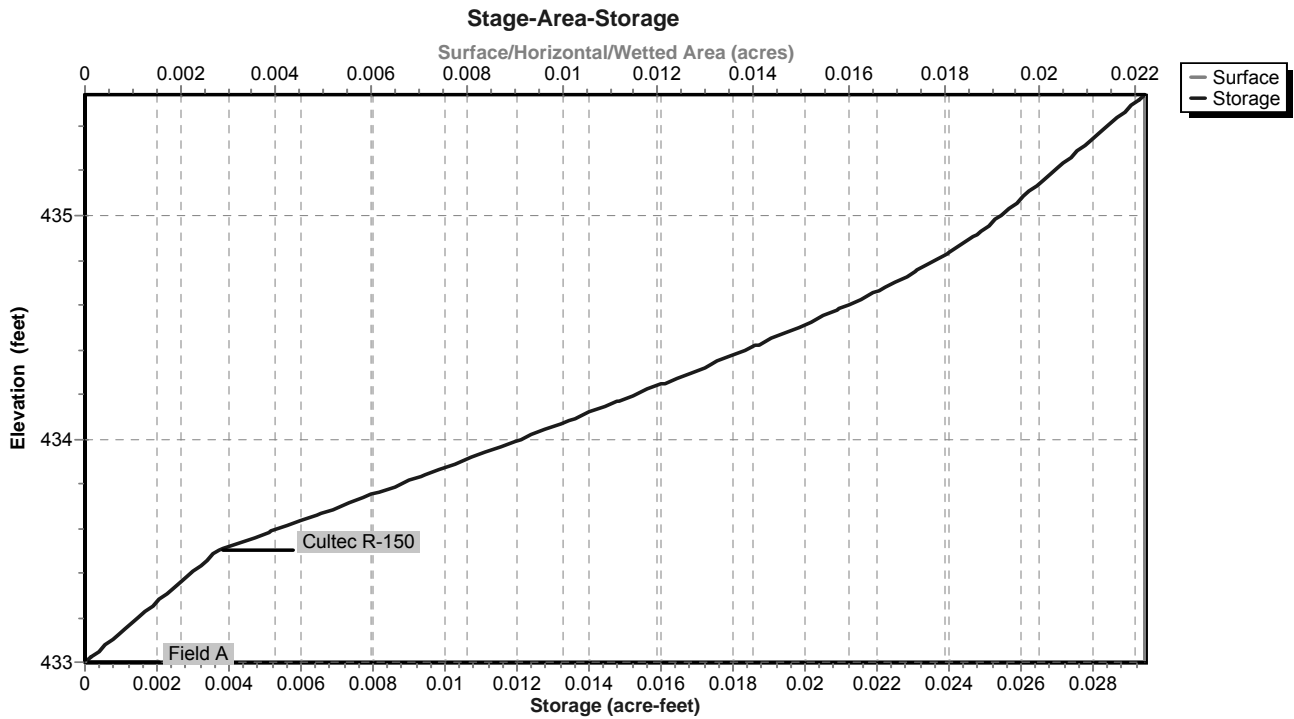
Discarded OutFlow Max=0.90 cfs @ 12.00 hrs HW=433.15' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 8.28" for 100 Year - North Salem event
 Inflow = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af
 Outflow = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
 Discarded = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.02' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.099 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (755.1 - 755.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

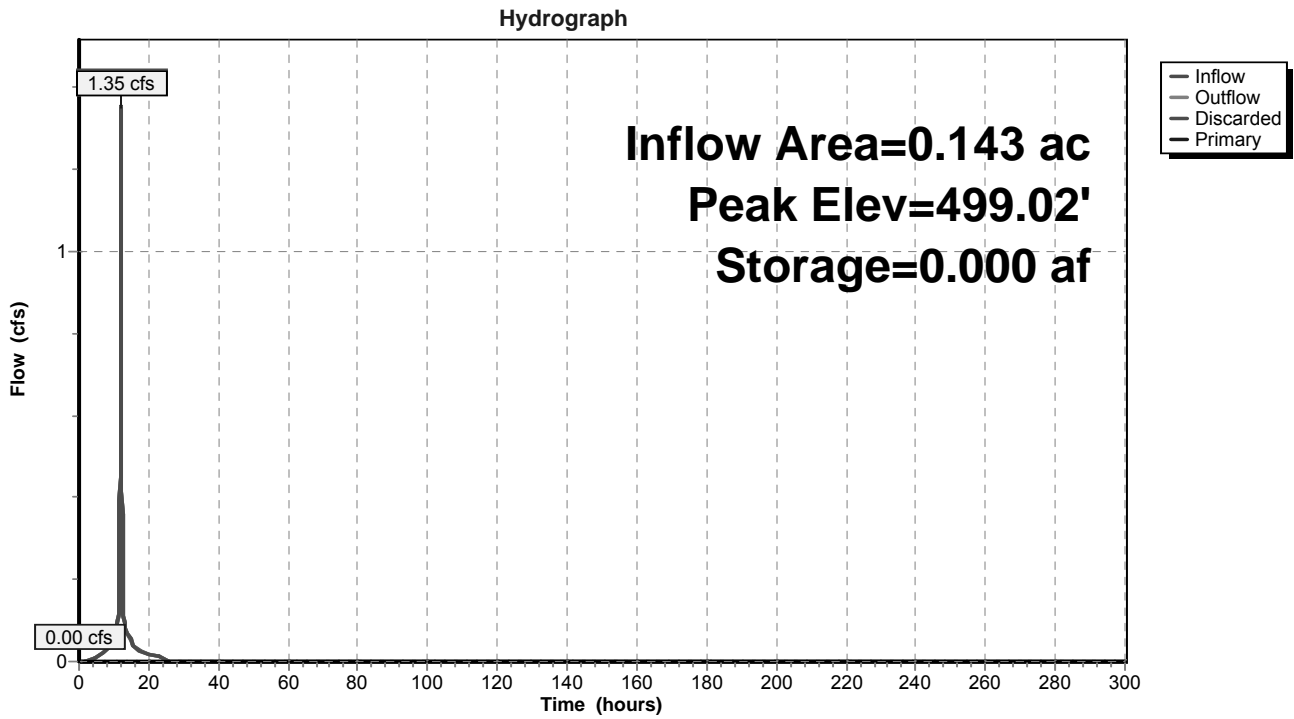
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

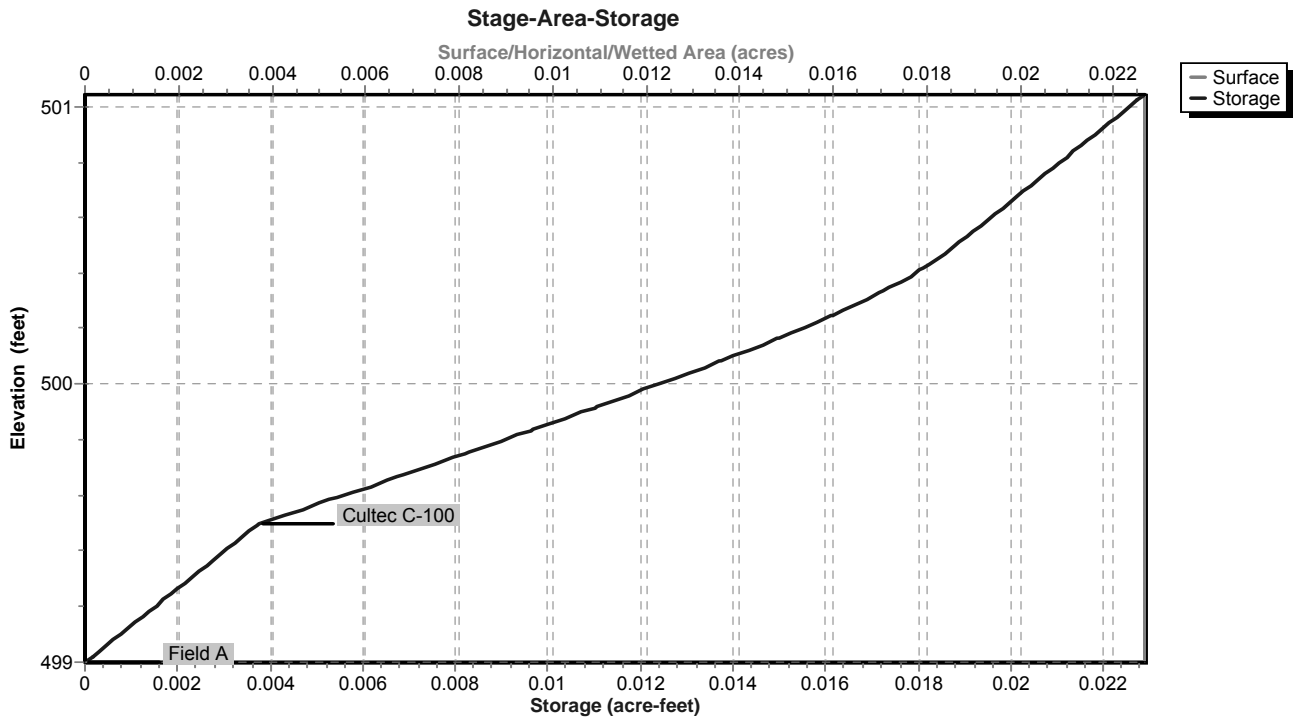
Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 3.11" for 100 Year - North Salem event
 Inflow = 1.73 cfs @ 12.20 hrs, Volume= 0.596 af
 Outflow = 1.58 cfs @ 12.38 hrs, Volume= 0.596 af, Atten= 9%, Lag= 11.2 min
 Primary = 1.58 cfs @ 12.38 hrs, Volume= 0.596 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.02' @ 12.38 hrs Surf.Area= 1,965 sf Storage= 4,523 cf

Plug-Flow detention time= 481.4 min calculated for 0.596 af (100% of inflow)
 Center-of-Mass det. time= 483.7 min (1,398.9 - 915.2)

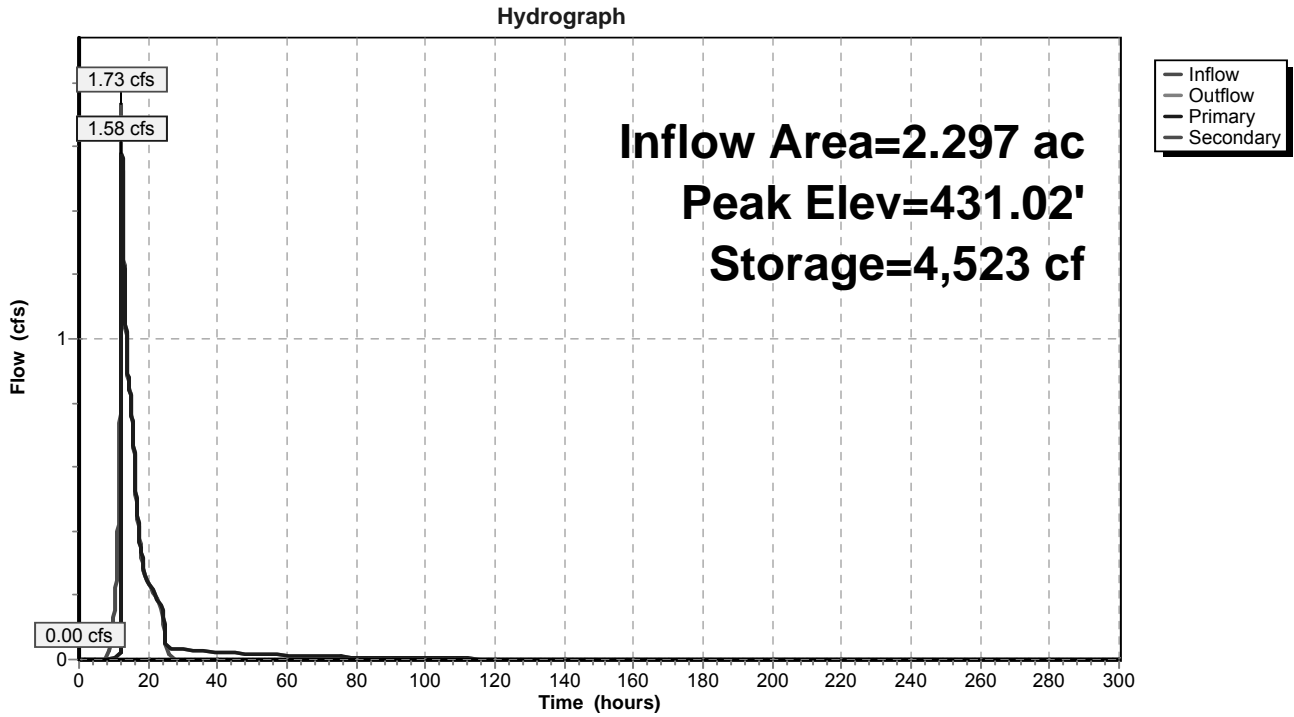
Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

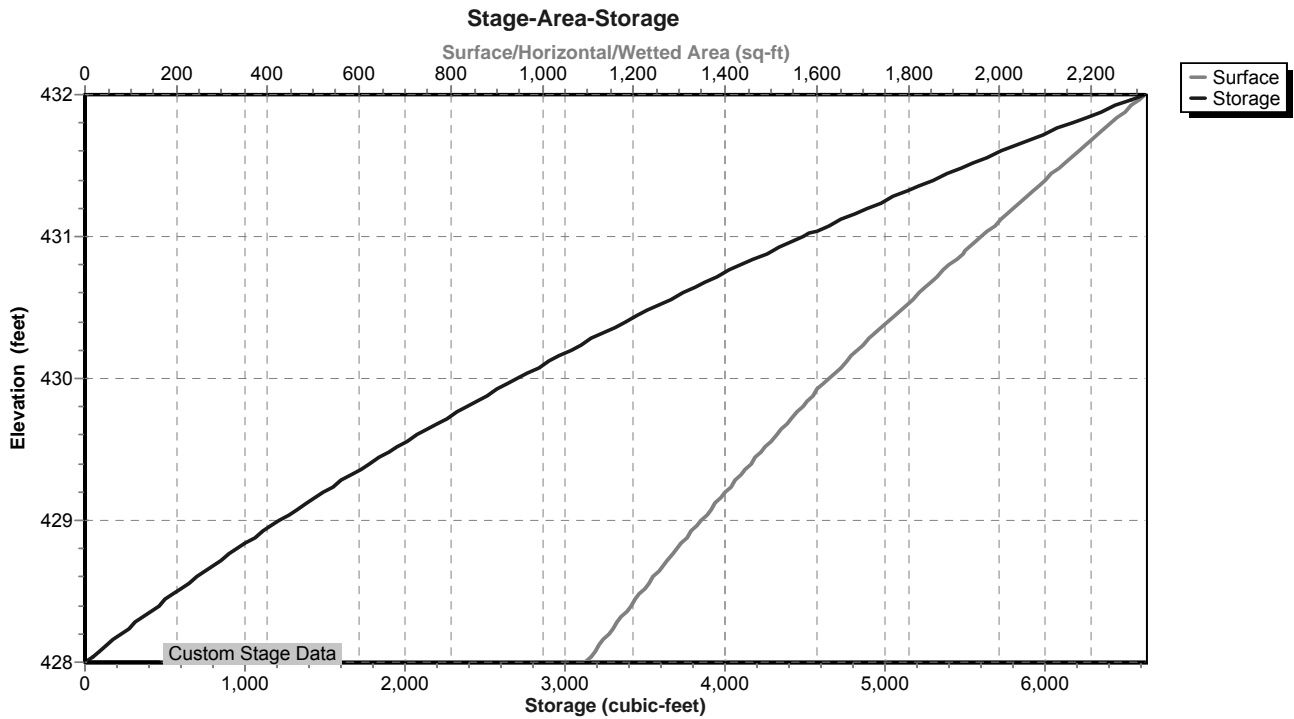
Primary OutFlow Max=1.57 cfs @ 12.38 hrs HW=431.02' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 1.57 cfs of 7.47 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.04 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 1.54 cfs @ 1.11 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G5: Sand Filter - G5



Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 4.74" for 100 Year - North Salem event
 Inflow = 5.51 cfs @ 12.30 hrs, Volume= 1.390 af
 Outflow = 5.46 cfs @ 12.35 hrs, Volume= 1.388 af, Atten= 1%, Lag= 2.9 min
 Primary = 5.46 cfs @ 12.35 hrs, Volume= 1.388 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.97' @ 12.35 hrs Surf.Area= 4,945 sf Storage= 12,500 cf

Plug-Flow detention time= 815.7 min calculated for 1.388 af (100% of inflow)
 Center-of-Mass det. time= 814.5 min (1,705.1 - 890.6)

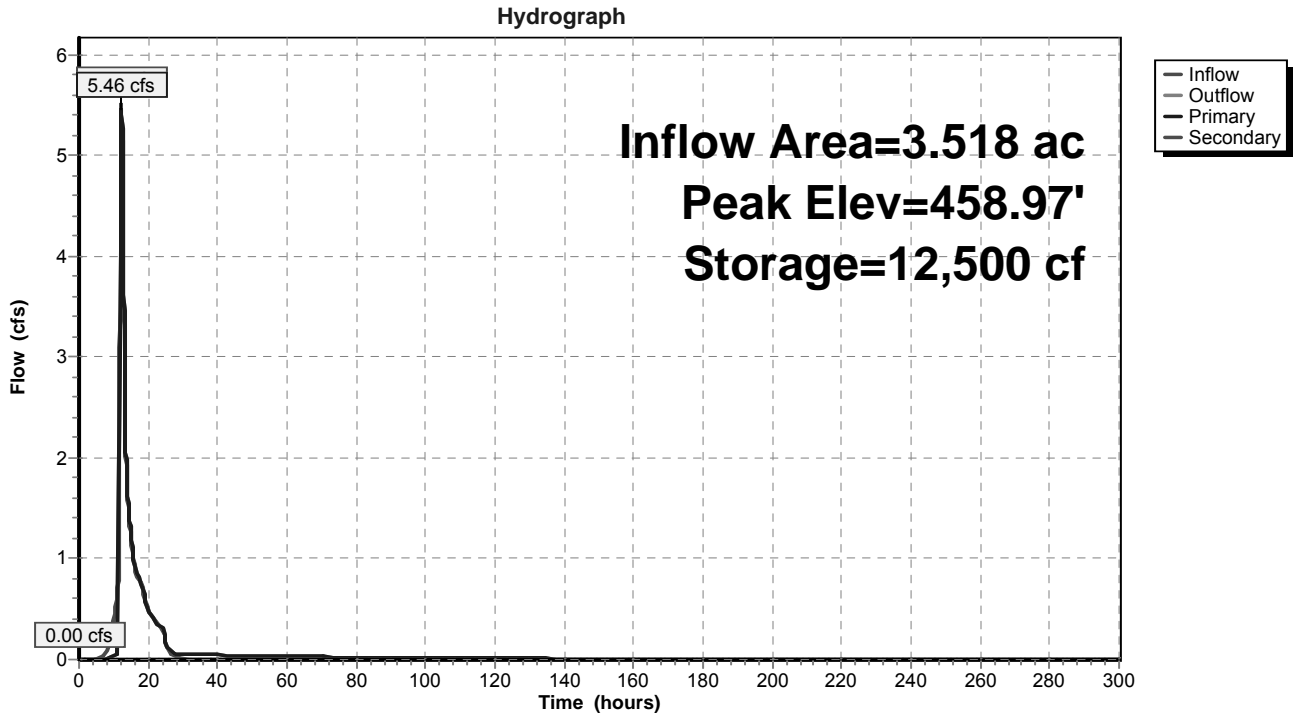
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

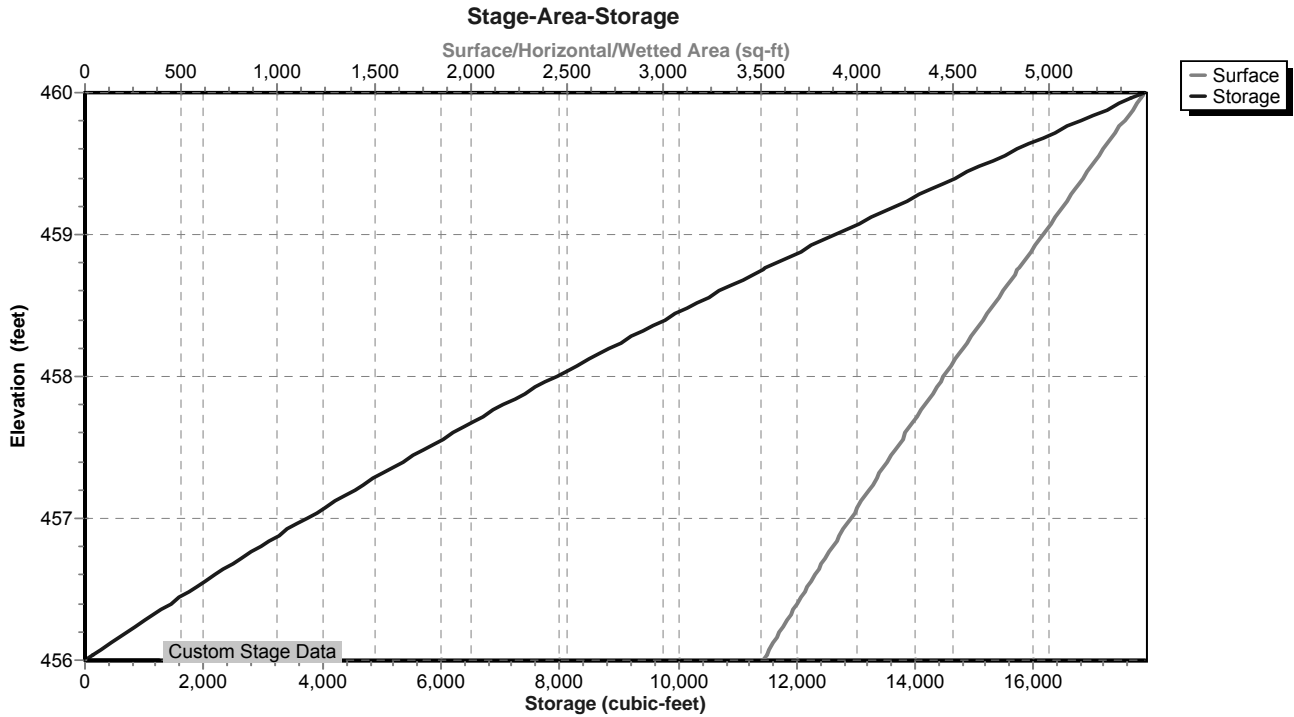
Primary OutFlow Max=5.45 cfs @ 12.35 hrs HW=458.97' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 5.45 cfs of 7.44 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.06 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 5.39 cfs @ 1.53 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 4.69" for 100 Year - North Salem event
 Inflow = 2.28 cfs @ 12.22 hrs, Volume= 0.603 af
 Outflow = 2.23 cfs @ 12.32 hrs, Volume= 0.603 af, Atten= 2%, Lag= 6.0 min
 Primary = 2.23 cfs @ 12.32 hrs, Volume= 0.603 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.99' @ 12.30 hrs Surf.Area= 2,465 sf Storage= 5,805 cf

Plug-Flow detention time= 643.0 min calculated for 0.603 af (100% of inflow)
 Center-of-Mass det. time= 642.8 min (1,518.8 - 875.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

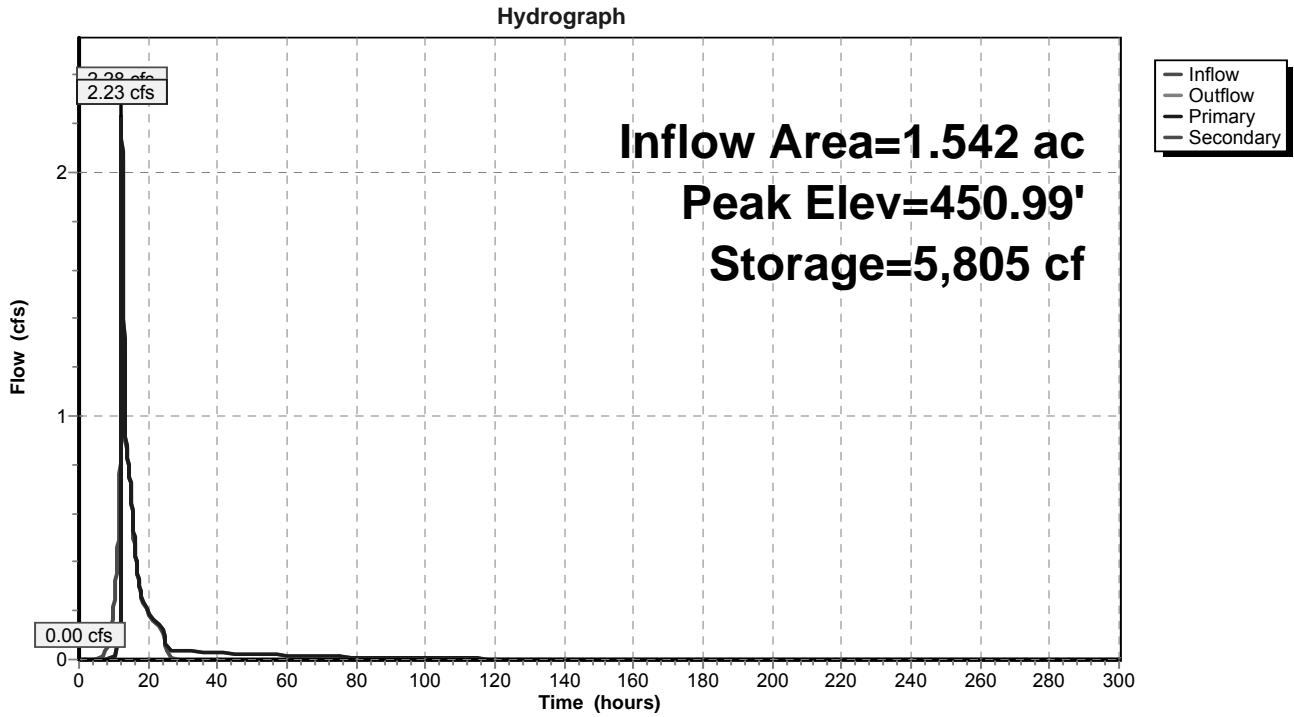
Primary OutFlow Max=2.19 cfs @ 12.32 hrs HW=450.99' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.19 cfs of 7.46 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.04 cfs)
- ↑ 3=Top of Outlet Box (Weir Controls 2.15 cfs @ 1.24 fps)

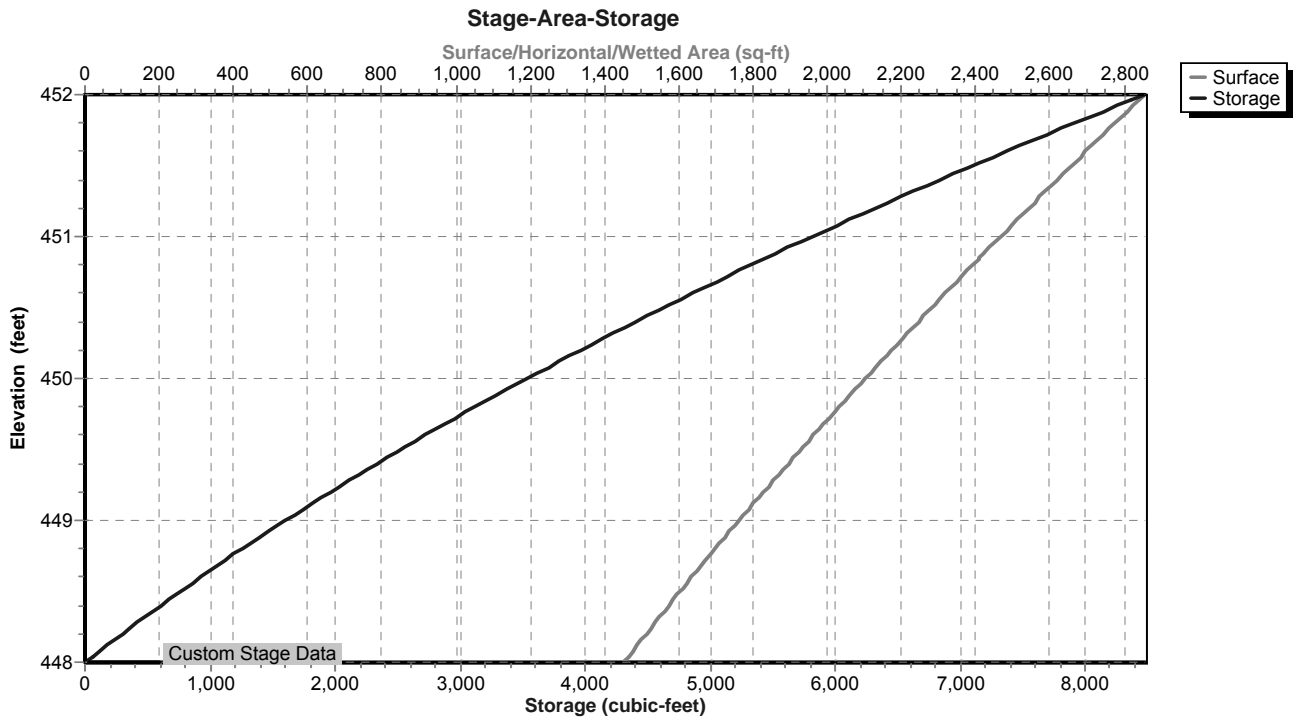
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G7: Sand Filter - G7



Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 3.11" for 100 Year - North Salem event
 Inflow = 1.74 cfs @ 12.18 hrs, Volume= 0.596 af
 Outflow = 1.73 cfs @ 12.20 hrs, Volume= 0.596 af, Atten= 0%, Lag= 0.9 min
 Primary = 1.73 cfs @ 12.20 hrs, Volume= 0.596 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 434.98' @ 12.20 hrs Surf.Area= 1,112 sf Storage= 2,275 cf

Plug-Flow detention time= 34.6 min calculated for 0.596 af (100% of inflow)
 Center-of-Mass det. time= 34.6 min (915.2 - 880.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

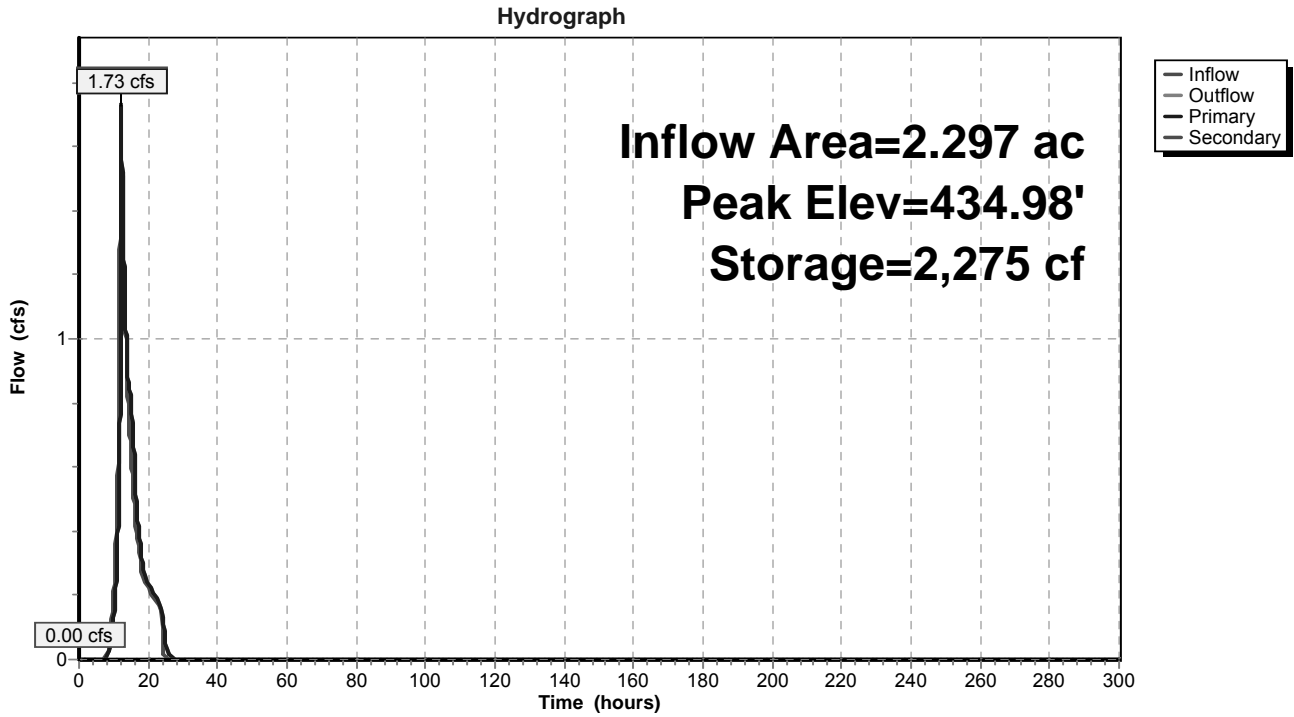
Primary OutFlow Max=1.71 cfs @ 12.20 hrs HW=434.98' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.71 cfs of 5.95 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.91 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.27 cfs @ 0.90 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.54 cfs @ 0.90 fps)

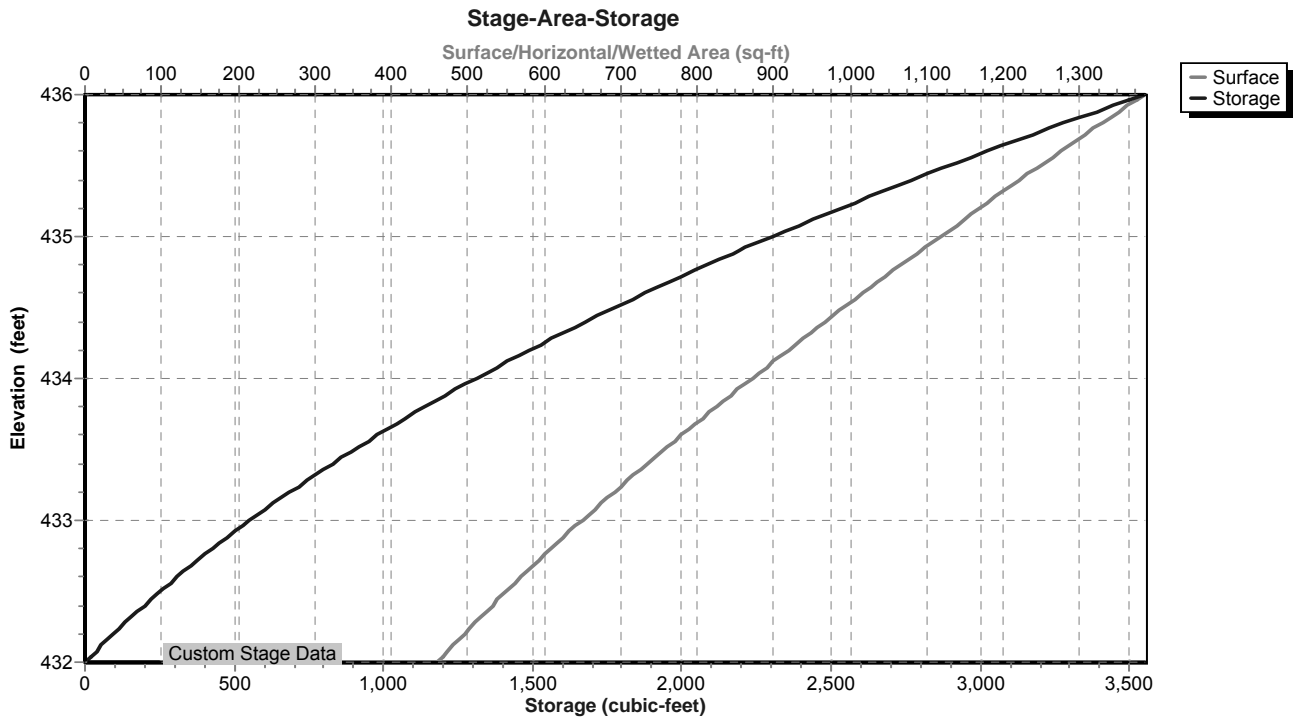
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G5: Sand Filter Forebay - G5



Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 4.74" for 100 Year - North Salem event
 Inflow = 5.51 cfs @ 12.28 hrs, Volume= 1.390 af
 Outflow = 5.51 cfs @ 12.30 hrs, Volume= 1.390 af, Atten= 0%, Lag= 1.3 min
 Primary = 5.51 cfs @ 12.30 hrs, Volume= 1.390 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.99' @ 12.30 hrs Surf.Area= 2,137 sf Storage= 4,676 cf

Plug-Flow detention time= 48.2 min calculated for 1.389 af (100% of inflow)
 Center-of-Mass det. time= 48.3 min (890.6 - 842.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

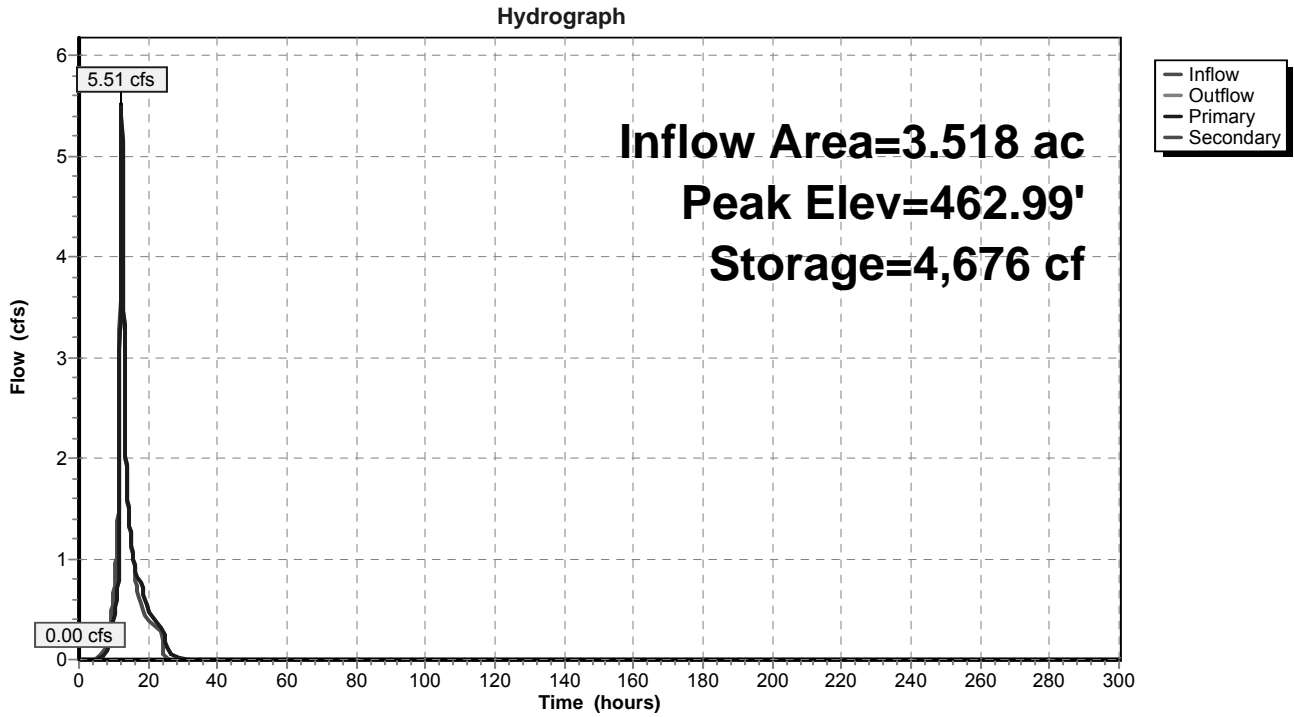
Primary OutFlow Max=5.67 cfs @ 12.30 hrs HW=462.99' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 5.67 cfs of 5.94 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.91 cfs @ 6.93 fps)
- ↑ 3=Top of Standpipe (Weir Controls 1.64 cfs @ 1.41 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 3.13 cfs @ 1.41 fps)

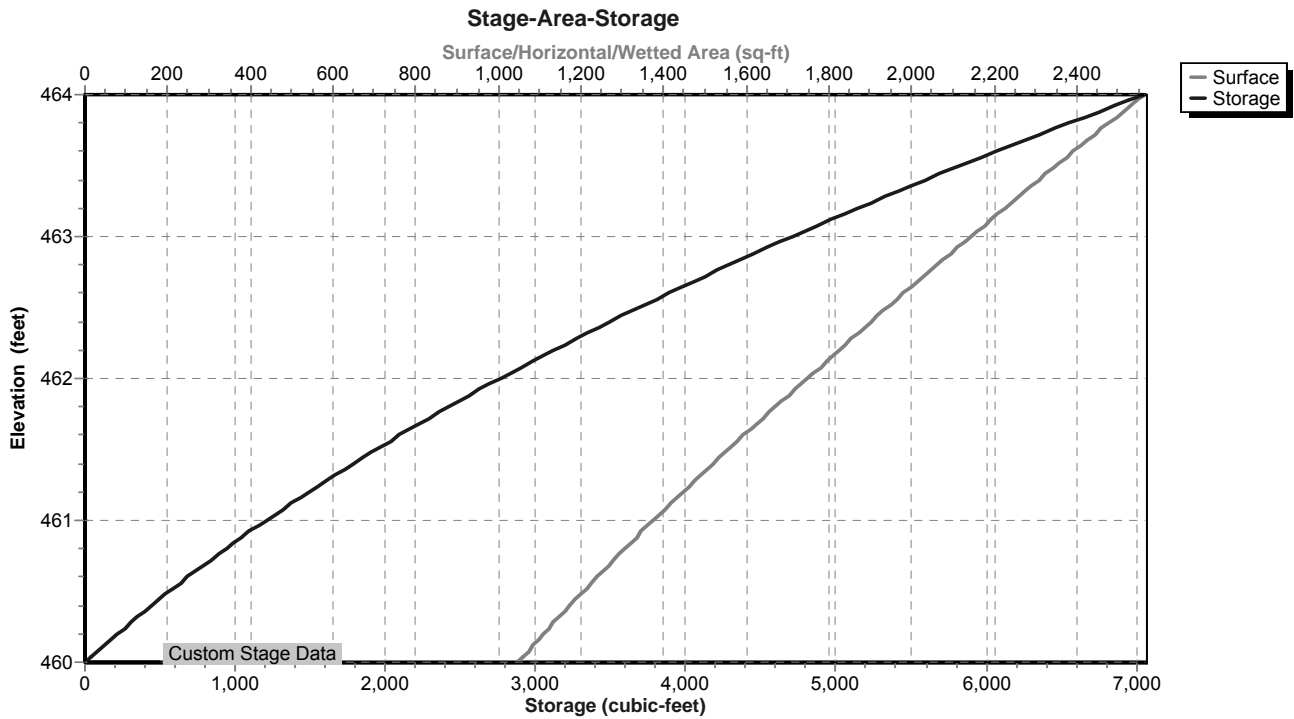
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G6: Sand Filter Forebay - G6



Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 4.69" for 100 Year - North Salem event
 Inflow = 2.29 cfs @ 12.20 hrs, Volume= 0.603 af
 Outflow = 2.28 cfs @ 12.22 hrs, Volume= 0.603 af, Atten= 0%, Lag= 1.3 min
 Primary = 2.28 cfs @ 12.22 hrs, Volume= 0.603 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 454.97' @ 12.22 hrs Surf.Area= 1,243 sf Storage= 2,653 cf

Plug-Flow detention time= 38.4 min calculated for 0.603 af (100% of inflow)
 Center-of-Mass det. time= 38.5 min (875.9 - 837.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
452.00	581	93.0	0	0	581
454.00	1,003	118.0	1,565	1,565	1,051
455.00	1,251	130.0	1,125	2,690	1,318
456.00	1,525	143.0	1,386	4,075	1,632

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

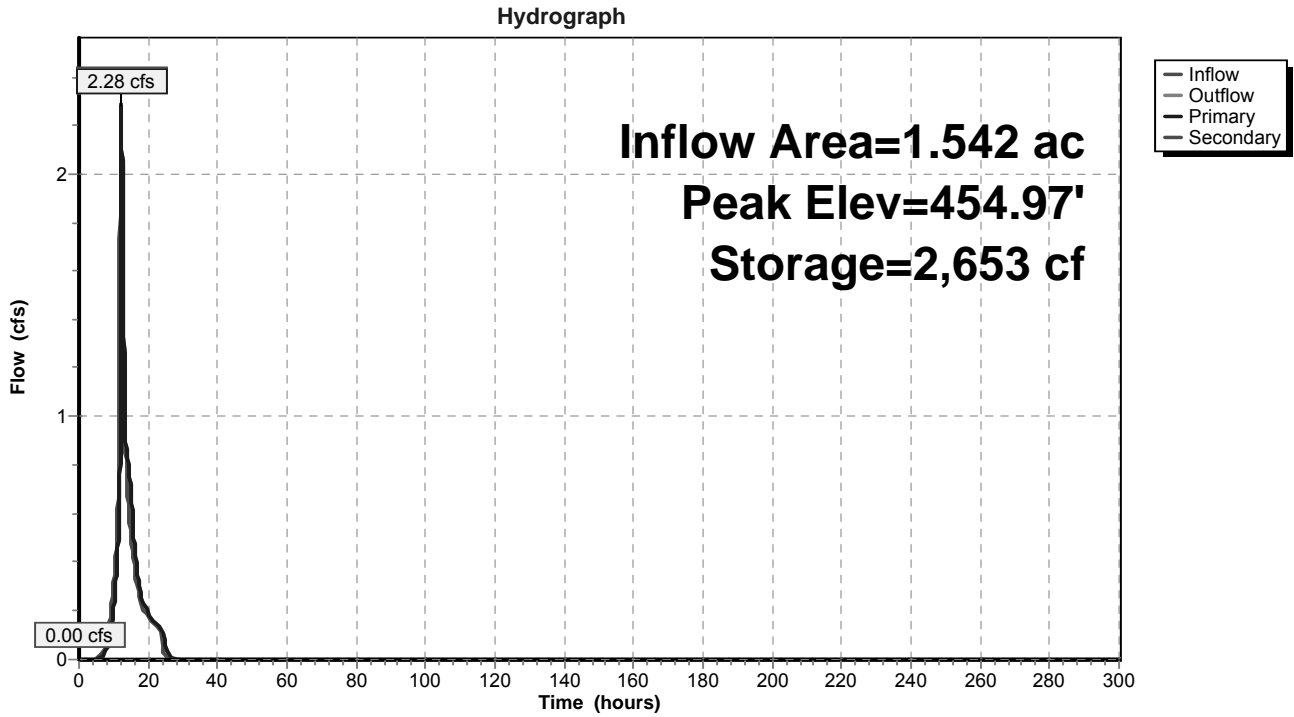
Primary OutFlow Max=2.29 cfs @ 12.22 hrs HW=454.97' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 2.29 cfs of 2.73 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.90 cfs @ 6.90 fps)
- ↑ 3=Top of Standpipe (Weir Controls 0.90 cfs @ 1.35 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.49 cfs @ 0.87 fps)

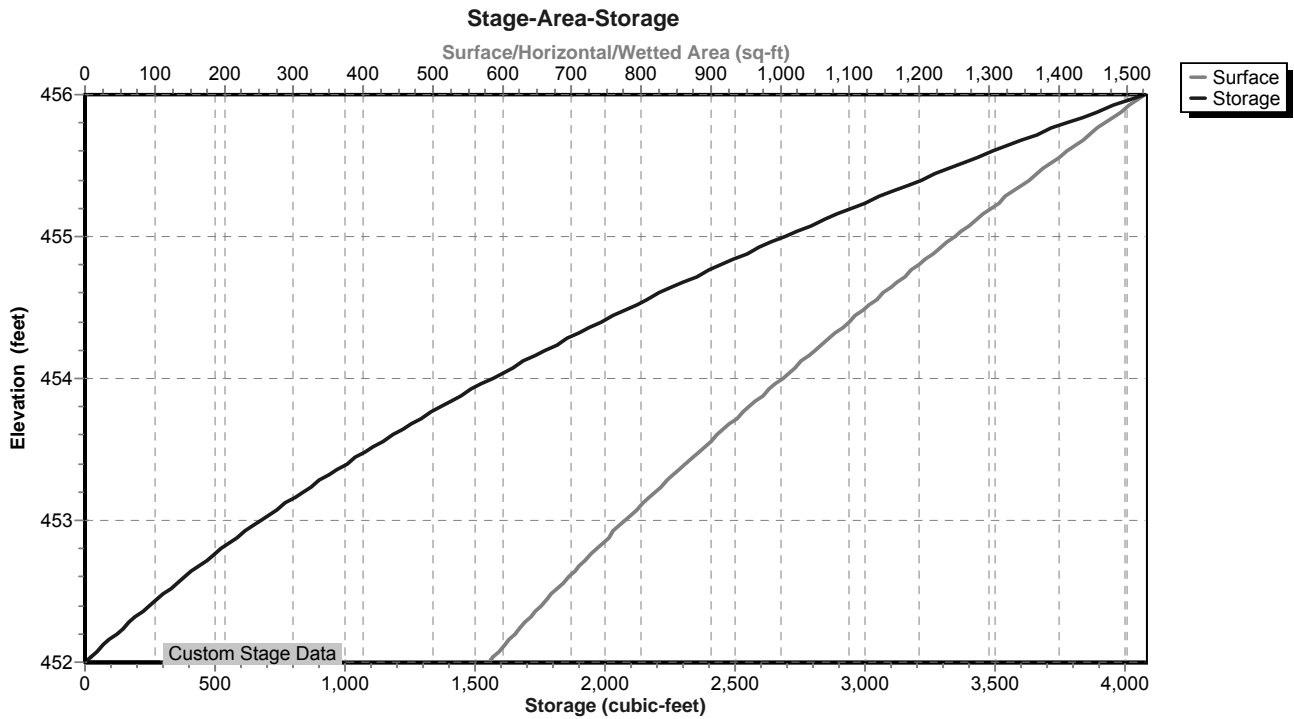
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-G7: Sand Filter Forebay - G7



Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

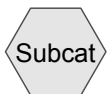
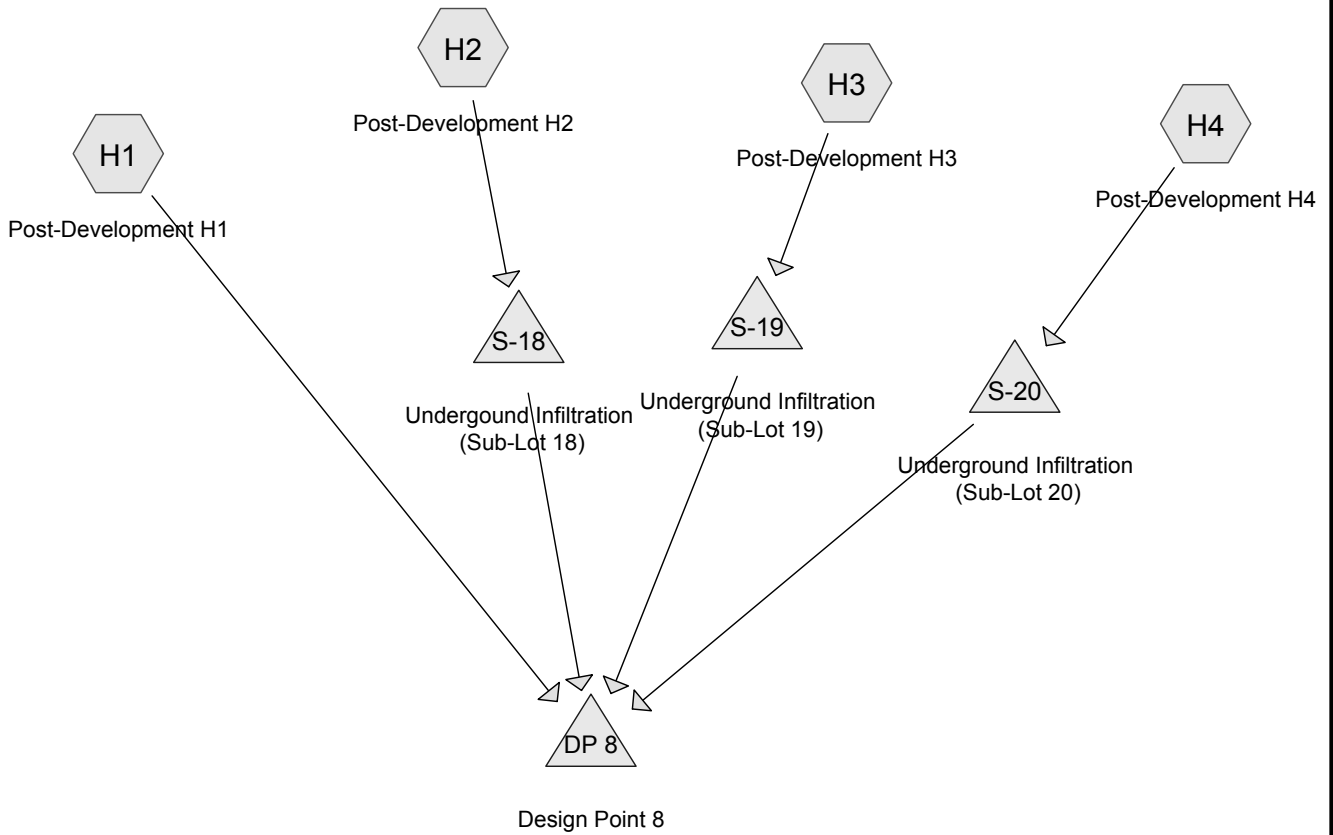
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

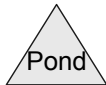
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			



Subcat



Reach



Pond



Link

Drainage Diagram for Woodlands Post-Dev DP 8 07-2012
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Woodlands Post-Dev DP 8 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.634	55	Woods, Good, HSG B, CrC Soils (H1)
0.113	61	>75% Grass cover, Good, HSG B (H1)
0.179	70	Woods, Good, HSG C (H2, H3, H4)
4.880	70	Woods, Good, HSG C, CtC Soils (H1)
2.914	74	>75% Grass cover, Good, HSG C (H1, H2, H3, H4)
0.198	98	Driveway (H2, H3, H4)
0.192	98	Roof/Walkway (H2, H3, H4)
9.110		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H1: Post-DevelopmentH1 Runoff Area=8.063 ac 0.00% Impervious Runoff Depth=0.77"
Flow Length=857' Tc=12.4 min CN=70 Runoff=5.13 cfs 0.518 af

Subcatchment H2: Post-DevelopmentH2 Runoff Area=0.349 ac 38.11% Impervious Runoff Depth=1.53"
Flow Length=252' Tc=7.2 min CN=83 Runoff=0.59 cfs 0.044 af

Subcatchment H3: Post-DevelopmentH3 Runoff Area=0.289 ac 41.87% Impervious Runoff Depth=1.53"
Flow Length=223' Tc=8.7 min CN=83 Runoff=0.46 cfs 0.037 af

Subcatchment H4: Post-DevelopmentH4 Runoff Area=0.409 ac 33.25% Impervious Runoff Depth=1.39"
Flow Length=314' Tc=12.7 min CN=81 Runoff=0.52 cfs 0.047 af

Pond DP 8: Design Point 8 Inflow=5.13 cfs 0.518 af
Primary=5.13 cfs 0.518 af

Pond S-18: Underground Infiltration (Sub-Lot Peak Elev=443.89' Storage=0.007 af Inflow=0.59 cfs 0.044 af
Discarded=0.20 cfs 0.044 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.044 af

Pond S-19: Underground Infiltration Peak Elev=451.58' Storage=0.000 af Inflow=0.46 cfs 0.037 af
Discarded=0.46 cfs 0.037 af Primary=0.00 cfs 0.000 af Outflow=0.46 cfs 0.037 af

Pond S-20: Underground Infiltration Peak Elev=470.01' Storage=0.000 af Inflow=0.52 cfs 0.047 af
Discarded=0.52 cfs 0.047 af Primary=0.00 cfs 0.000 af Outflow=0.52 cfs 0.047 af

Total Runoff Area = 9.110 ac Runoff Volume = 0.646 af Average Runoff Depth = 0.85"
95.72% Pervious = 8.720 ac 4.28% Impervious = 0.390 ac

Summary for Subcatchment H1: Post-Development H1

Runoff = 5.13 cfs @ 12.20 hrs, Volume= 0.518 af, Depth= 0.77"

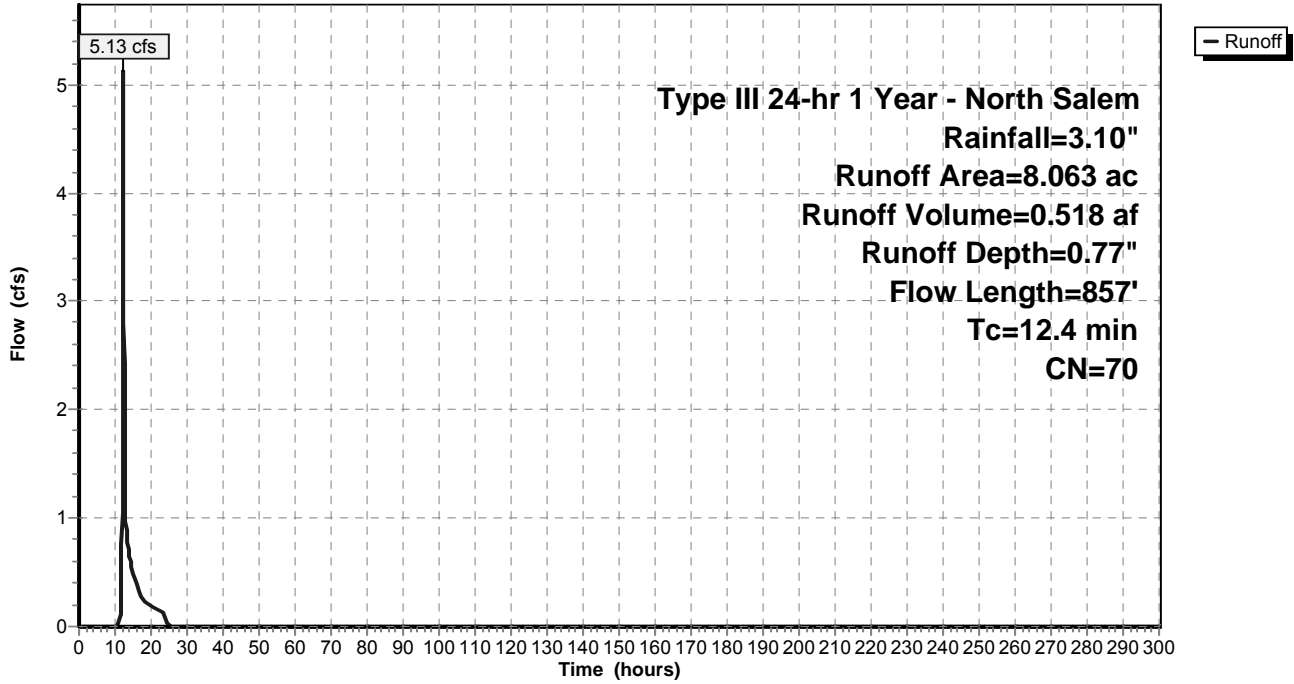
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 4.880	70	Woods, Good, HSG C, CtC Soils
2.436	74	>75% Grass cover, Good, HSG C
* 0.634	55	Woods, Good, HSG B, CrC Soils
0.113	61	>75% Grass cover, Good, HSG B
8.063	70	Weighted Average
8.063		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	60	0.1000	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	84	0.0417	3.29		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	321	0.2118	7.41		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.8	327	0.1651	6.54		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
12.4	857	Total			

Subcatchment H1: Post-Development H1

Hydrograph



Summary for Subcatchment H2: Post-Development H2

Runoff = 0.59 cfs @ 12.11 hrs, Volume= 0.044 af, Depth= 1.53"

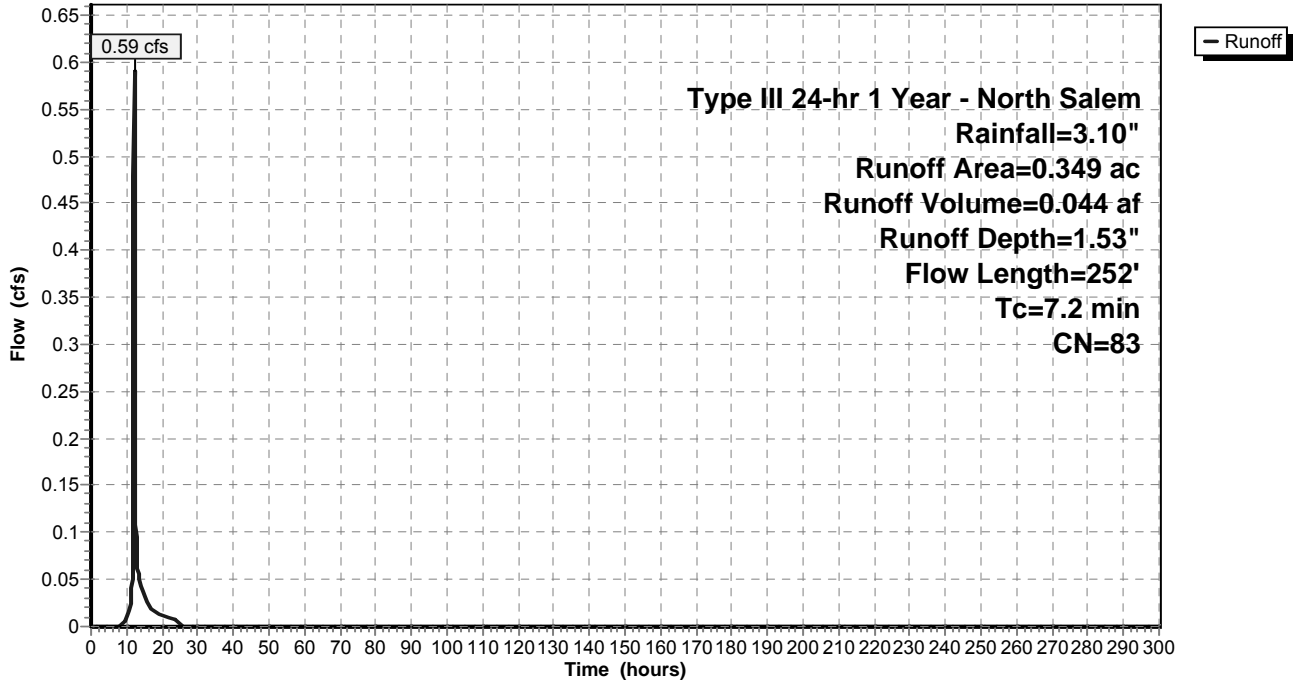
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.069	98	Driveway
0.177	74	>75% Grass cover, Good, HSG C
0.039	70	Woods, Good, HSG C
0.349	83	Weighted Average
0.216		61.89% Pervious Area
0.133		38.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	44	0.1818	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.1	44	0.4091	0.36		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	138	0.0326	2.91		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	26	0.1587	17.93	6.26	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
7.2	252	Total			

Subcatchment H2: Post-Development H2

Hydrograph



Summary for Subcatchment H3: Post-Development H3

Runoff = 0.46 cfs @ 12.13 hrs, Volume= 0.037 af, Depth= 1.53"

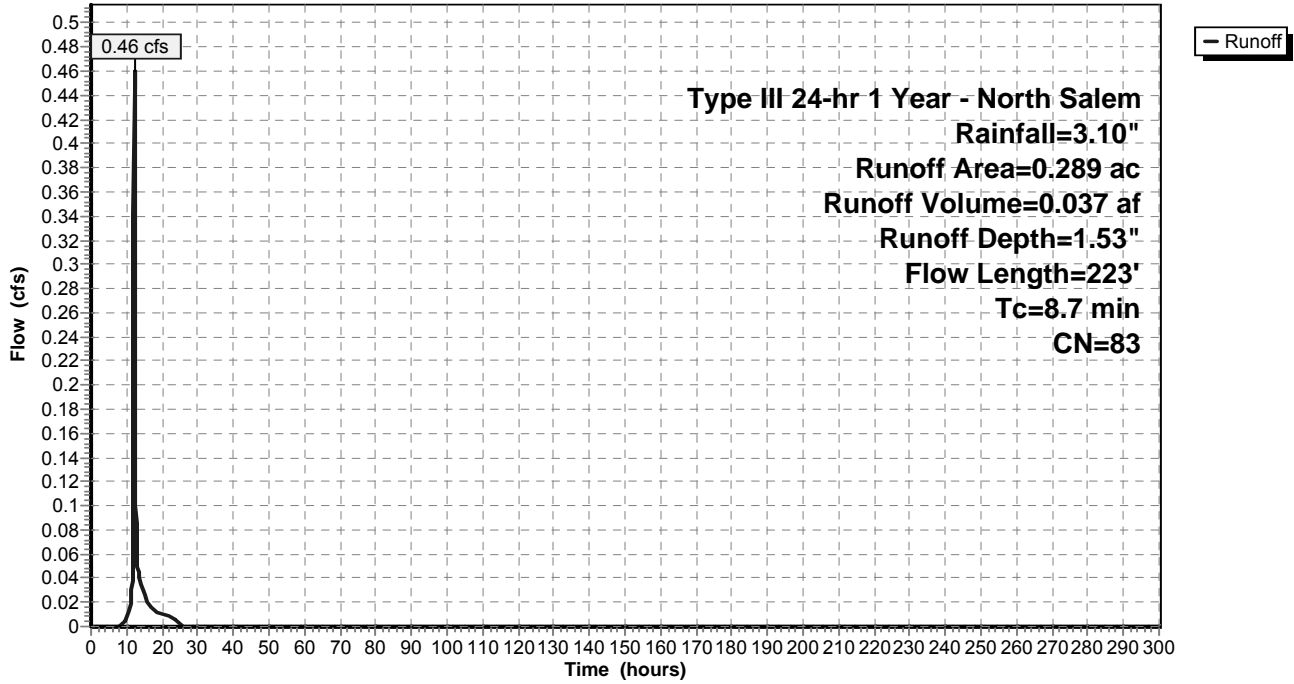
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.057	98	Driveway
0.101	74	>75% Grass cover, Good, HSG C
0.067	70	Woods, Good, HSG C
0.289	83	Weighted Average
0.168		58.13% Pervious Area
0.121		41.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	89	0.1685	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	11	0.5454	0.30		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.0	16	0.3125	9.00		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	25	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	42	0.0100	4.50	1.57	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
0.0	40	0.2000	20.13	7.03	Pipe Channel, F-G 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
8.7	223	Total			

Subcatchment H3: Post-Development H3

Hydrograph



Summary for Subcatchment H4: Post-Development H4

Runoff = 0.52 cfs @ 12.18 hrs, Volume= 0.047 af, Depth= 1.39"

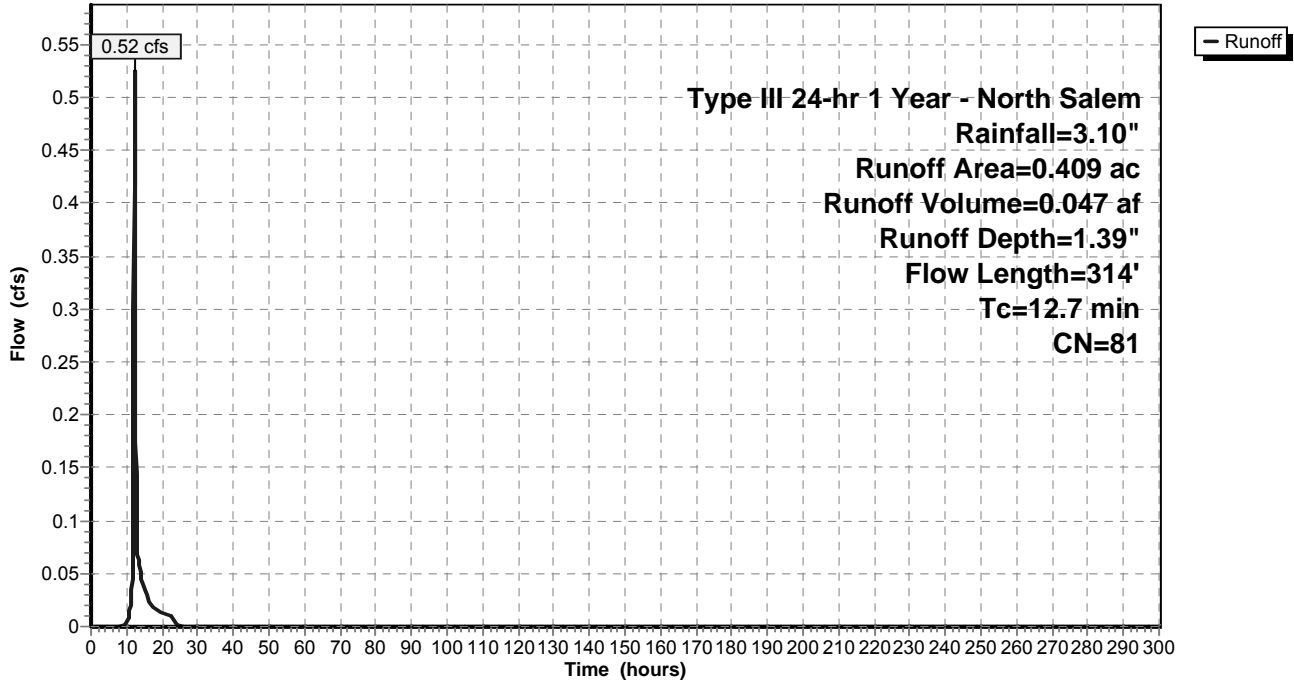
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.072	98	Driveway
0.200	74	>75% Grass cover, Good, HSG C
0.073	70	Woods, Good, HSG C
0.409	81	Weighted Average
0.273		66.75% Pervious Area
0.136		33.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	36	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	80	0.0100	4.50	1.57	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.2	56	0.0100	4.50	1.57	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.0	42	0.2000	20.13	7.03	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
12.7	314	Total			

Subcatchment H4: Post-Development H4

Hydrograph



Summary for Pond DP 8: Design Point 8

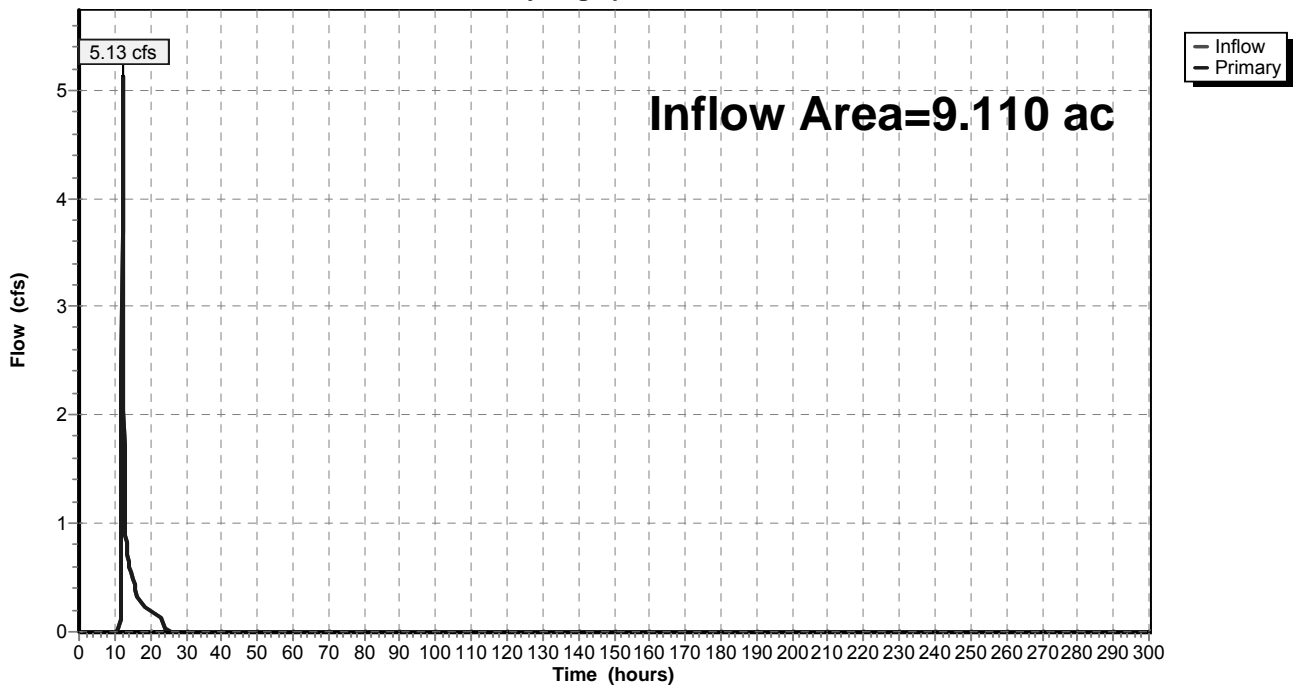
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.110 ac, 4.28% Impervious, Inflow Depth = 0.68" for 1 Year - North Salem event
Inflow = 5.13 cfs @ 12.20 hrs, Volume= 0.518 af
Primary = 5.13 cfs @ 12.20 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Summary for Pond S-18: Underground Infiltration (Sub-Lot 18)

Inflow Area = 0.349 ac, 38.11% Impervious, Inflow Depth = 1.53" for 1 Year - North Salem event
 Inflow = 0.59 cfs @ 12.11 hrs, Volume= 0.044 af
 Outflow = 0.20 cfs @ 11.95 hrs, Volume= 0.044 af, Atten= 65%, Lag= 0.0 min
 Discarded = 0.20 cfs @ 11.95 hrs, Volume= 0.044 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 443.89' @ 12.44 hrs Surf.Area= 0.027 ac Storage= 0.007 af

Plug-Flow detention time= 10.1 min calculated for 0.044 af (100% of inflow)
 Center-of-Mass det. time= 7.4 min (843.0 - 835.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	443.42'	0.010 af	25.00'W x 47.00'L x 1.63'H Field A 0.044 af Overall - 0.013 af Embedded = 0.030 af x 33.3% Voids
#2A	443.67'	0.013 af	Cultec C-100 x 42 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.024 af	Total Available Storage

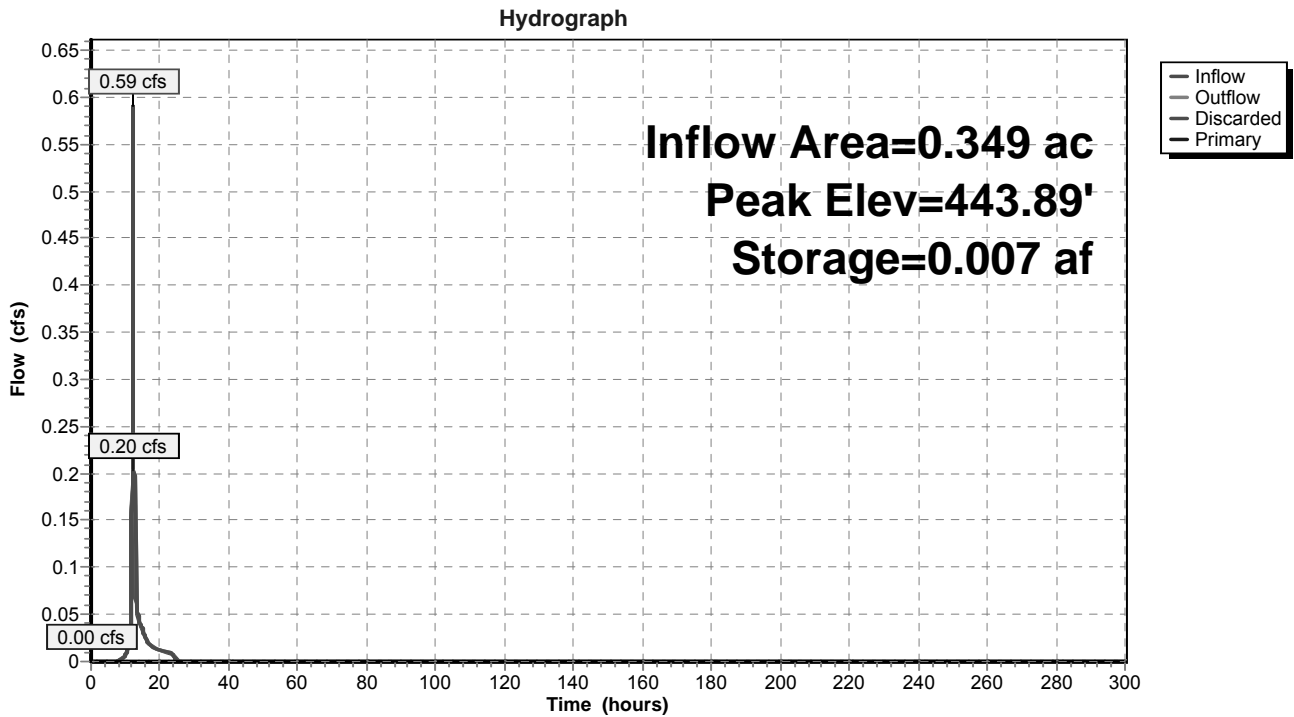
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	443.42'	7.500 in/hr Exfiltration over Surface area
#2	Primary	444.60'	6.0" Vert. Orifice/Grate X 6.00 C= 0.600

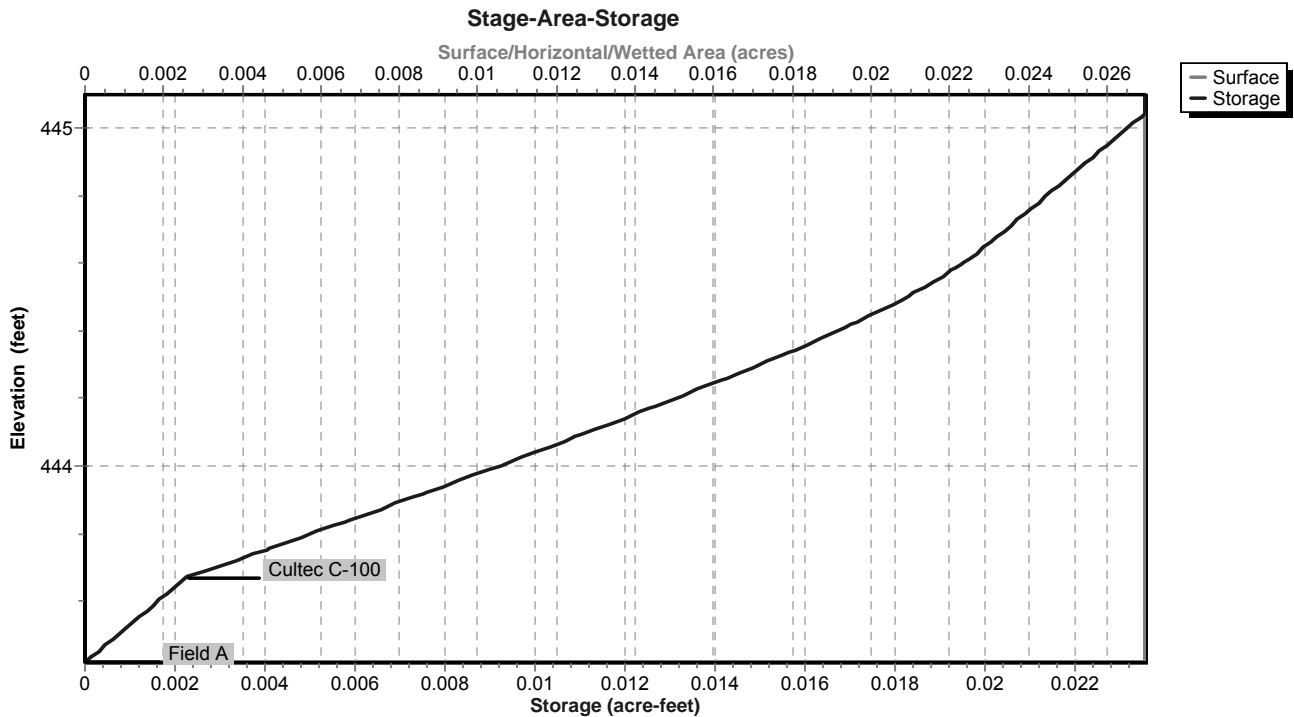
Discarded OutFlow Max=0.20 cfs @ 11.95 hrs HW=443.44' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=443.42' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-18: Underground Infiltration (Sub-Lot 18)



Pond S-18: Underground Infiltration (Sub-Lot 18)



Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
443.42	0.027	0.000	443.95	0.027	0.008
443.43	0.027	0.000	443.96	0.027	0.008
443.44	0.027	0.000	443.97	0.027	0.009
443.45	0.027	0.000	443.98	0.027	0.009
443.46	0.027	0.000	443.99	0.027	0.009
443.47	0.027	0.000	444.00	0.027	0.009
443.48	0.027	0.001	444.01	0.027	0.009
443.49	0.027	0.001	444.02	0.027	0.010
443.50	0.027	0.001	444.03	0.027	0.010
443.51	0.027	0.001	444.04	0.027	0.010
443.52	0.027	0.001	444.05	0.027	0.010
443.53	0.027	0.001	444.06	0.027	0.010
443.54	0.027	0.001	444.07	0.027	0.011
443.55	0.027	0.001	444.08	0.027	0.011
443.56	0.027	0.001	444.09	0.027	0.011
443.57	0.027	0.001	444.10	0.027	0.011
443.58	0.027	0.001	444.11	0.027	0.011
443.59	0.027	0.002	444.12	0.027	0.012
443.60	0.027	0.002	444.13	0.027	0.012
443.61	0.027	0.002	444.14	0.027	0.012
443.62	0.027	0.002	444.15	0.027	0.012
443.63	0.027	0.002	444.16	0.027	0.012
443.64	0.027	0.002	444.17	0.027	0.013
443.65	0.027	0.002	444.18	0.027	0.013
443.66	0.027	0.002	444.19	0.027	0.013
443.67	0.027	0.002	444.20	0.027	0.013
443.68	0.027	0.002	444.21	0.027	0.013
443.69	0.027	0.003	444.22	0.027	0.014
443.70	0.027	0.003	444.23	0.027	0.014
443.71	0.027	0.003	444.24	0.027	0.014
443.72	0.027	0.003	444.25	0.027	0.014
443.73	0.027	0.004	444.26	0.027	0.014
443.74	0.027	0.004	444.27	0.027	0.014
443.75	0.027	0.004	444.28	0.027	0.015
443.76	0.027	0.004	444.29	0.027	0.015
443.77	0.027	0.004	444.30	0.027	0.015
443.78	0.027	0.005	444.31	0.027	0.015
443.79	0.027	0.005	444.32	0.027	0.015
443.80	0.027	0.005	444.33	0.027	0.016
443.81	0.027	0.005	444.34	0.027	0.016
443.82	0.027	0.005	444.35	0.027	0.016
443.83	0.027	0.006	444.36	0.027	0.016
443.84	0.027	0.006	444.37	0.027	0.016
443.85	0.027	0.006	444.38	0.027	0.016
443.86	0.027	0.006	444.39	0.027	0.017
443.87	0.027	0.006	444.40	0.027	0.017
443.88	0.027	0.007	444.41	0.027	0.017
443.89	0.027	0.007	444.42	0.027	0.017
443.90	0.027	0.007	444.43	0.027	0.017
443.91	0.027	0.007	444.44	0.027	0.017
443.92	0.027	0.008	444.45	0.027	0.018
443.93	0.027	0.008	444.46	0.027	0.018
443.94	0.027	0.008	444.47	0.027	0.018

Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
444.48	0.027	0.018	445.01	0.027	0.023
444.49	0.027	0.018	445.02	0.027	0.023
444.50	0.027	0.018	445.03	0.027	0.023
444.51	0.027	0.018	445.04	0.027	0.024
444.52	0.027	0.019	445.05	0.027	0.024
444.53	0.027	0.019	445.06	0.027	0.024
444.54	0.027	0.019	445.07	0.027	0.024
444.55	0.027	0.019	445.08	0.027	0.024
444.56	0.027	0.019	445.09	0.027	0.024
444.57	0.027	0.019	445.10	0.027	0.024
444.58	0.027	0.019			
444.59	0.027	0.019			
444.60	0.027	0.020			
444.61	0.027	0.020			
444.62	0.027	0.020			
444.63	0.027	0.020			
444.64	0.027	0.020			
444.65	0.027	0.020			
444.66	0.027	0.020			
444.67	0.027	0.020			
444.68	0.027	0.020			
444.69	0.027	0.020			
444.70	0.027	0.020			
444.71	0.027	0.021			
444.72	0.027	0.021			
444.73	0.027	0.021			
444.74	0.027	0.021			
444.75	0.027	0.021			
444.76	0.027	0.021			
444.77	0.027	0.021			
444.78	0.027	0.021			
444.79	0.027	0.021			
444.80	0.027	0.021			
444.81	0.027	0.021			
444.82	0.027	0.022			
444.83	0.027	0.022			
444.84	0.027	0.022			
444.85	0.027	0.022			
444.86	0.027	0.022			
444.87	0.027	0.022			
444.88	0.027	0.022			
444.89	0.027	0.022			
444.90	0.027	0.022			
444.91	0.027	0.022			
444.92	0.027	0.022			
444.93	0.027	0.023			
444.94	0.027	0.023			
444.95	0.027	0.023			
444.96	0.027	0.023			
444.97	0.027	0.023			
444.98	0.027	0.023			
444.99	0.027	0.023			
445.00	0.027	0.023			

Summary for Pond S-19: Underground Infiltration (Sub-Lot 19)

Inflow Area = 0.289 ac, 41.87% Impervious, Inflow Depth = 1.53" for 1 Year - North Salem event
 Inflow = 0.46 cfs @ 12.13 hrs, Volume= 0.037 af
 Outflow = 0.46 cfs @ 12.13 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.46 cfs @ 12.13 hrs, Volume= 0.037 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 451.58' @ 12.13 hrs Surf.Area= 0.032 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.037 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (837.0 - 836.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	451.58'	0.012 af	15.00'W x 92.00'L x 1.63'H Field A 0.051 af Overall - 0.015 af Embedded = 0.036 af x 33.3% Voids
#2A	451.83'	0.015 af	Cultec C-100 x 48 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.027 af	Total Available Storage

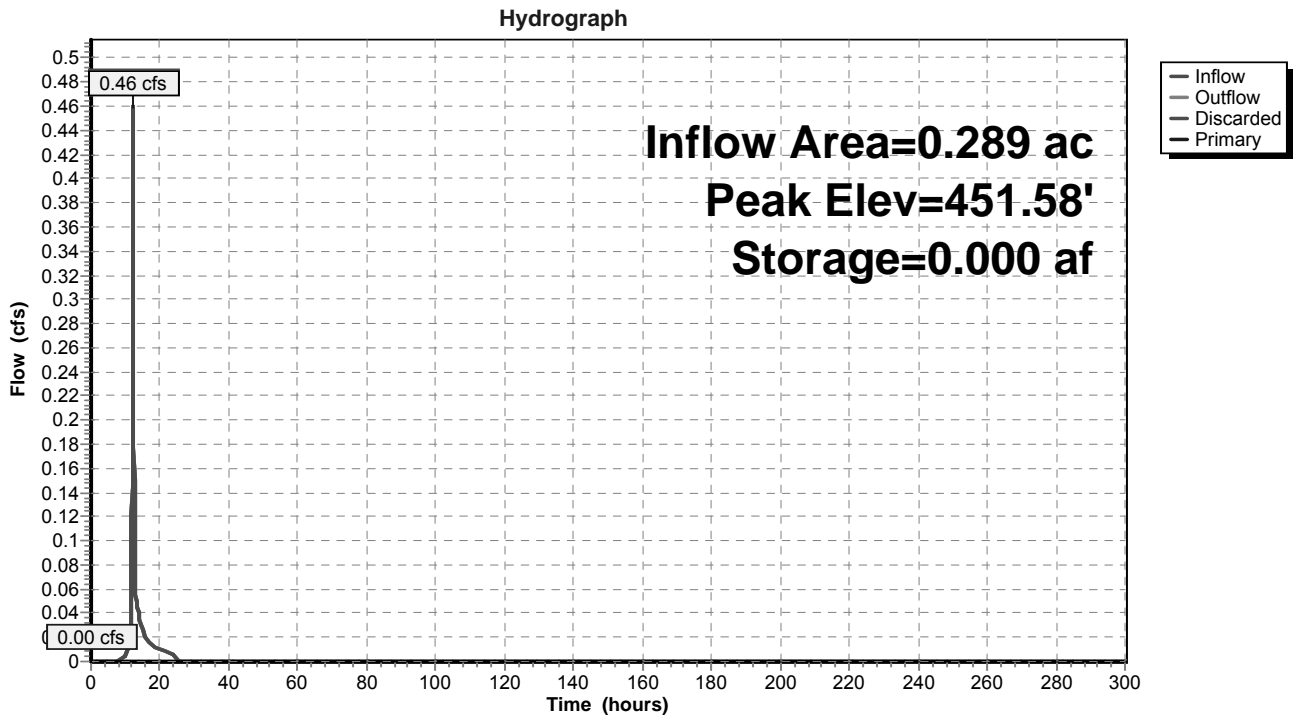
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	451.58'	60.000 in/hr Exfiltration over Surface area
#2	Primary	452.91'	3.0" Vert. Orifice/Grate C= 0.600

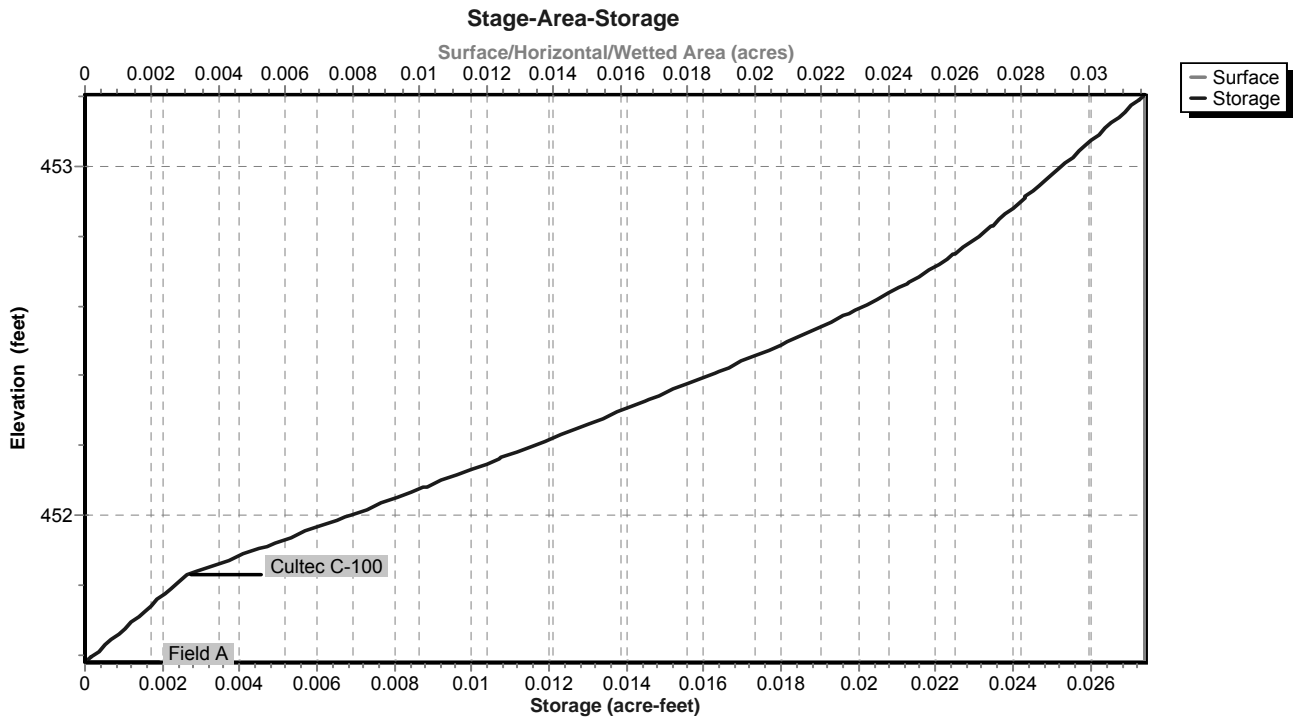
Discarded OutFlow Max=1.92 cfs @ 12.13 hrs HW=451.58' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.92 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=451.58' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-19: Underground Infiltration (Sub-Lot 19)



Pond S-19: Underground Infiltration (Sub-Lot 19)



Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
451.58	0.032	0.000	452.11	0.032	0.009
451.59	0.032	0.000	452.12	0.032	0.010
451.60	0.032	0.000	452.13	0.032	0.010
451.61	0.032	0.000	452.14	0.032	0.010
451.62	0.032	0.000	452.15	0.032	0.010
451.63	0.032	0.001	452.16	0.032	0.011
451.64	0.032	0.001	452.17	0.032	0.011
451.65	0.032	0.001	452.18	0.032	0.011
451.66	0.032	0.001	452.19	0.032	0.011
451.67	0.032	0.001	452.20	0.032	0.012
451.68	0.032	0.001	452.21	0.032	0.012
451.69	0.032	0.001	452.22	0.032	0.012
451.70	0.032	0.001	452.23	0.032	0.012
451.71	0.032	0.001	452.24	0.032	0.013
451.72	0.032	0.001	452.25	0.032	0.013
451.73	0.032	0.002	452.26	0.032	0.013
451.74	0.032	0.002	452.27	0.032	0.013
451.75	0.032	0.002	452.28	0.032	0.013
451.76	0.032	0.002	452.29	0.032	0.014
451.77	0.032	0.002	452.30	0.032	0.014
451.78	0.032	0.002	452.31	0.032	0.014
451.79	0.032	0.002	452.32	0.032	0.014
451.80	0.032	0.002	452.33	0.032	0.015
451.81	0.032	0.002	452.34	0.032	0.015
451.82	0.032	0.003	452.35	0.032	0.015
451.83	0.032	0.003	452.36	0.032	0.015
451.84	0.032	0.003	452.37	0.032	0.015
451.85	0.032	0.003	452.38	0.032	0.016
451.86	0.032	0.003	452.39	0.032	0.016
451.87	0.032	0.004	452.40	0.032	0.016
451.88	0.032	0.004	452.41	0.032	0.016
451.89	0.032	0.004	452.42	0.032	0.017
451.90	0.032	0.004	452.43	0.032	0.017
451.91	0.032	0.005	452.44	0.032	0.017
451.92	0.032	0.005	452.45	0.032	0.017
451.93	0.032	0.005	452.46	0.032	0.017
451.94	0.032	0.005	452.47	0.032	0.018
451.95	0.032	0.006	452.48	0.032	0.018
451.96	0.032	0.006	452.49	0.032	0.018
451.97	0.032	0.006	452.50	0.032	0.018
451.98	0.032	0.006	452.51	0.032	0.018
451.99	0.032	0.007	452.52	0.032	0.019
452.00	0.032	0.007	452.53	0.032	0.019
452.01	0.032	0.007	452.54	0.032	0.019
452.02	0.032	0.007	452.55	0.032	0.019
452.03	0.032	0.008	452.56	0.032	0.019
452.04	0.032	0.008	452.57	0.032	0.020
452.05	0.032	0.008	452.58	0.032	0.020
452.06	0.032	0.008	452.59	0.032	0.020
452.07	0.032	0.009	452.60	0.032	0.020
452.08	0.032	0.009	452.61	0.032	0.020
452.09	0.032	0.009	452.62	0.032	0.020
452.10	0.032	0.009	452.63	0.032	0.021

Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
452.64	0.032	0.021	453.17	0.032	0.027
452.65	0.032	0.021	453.18	0.032	0.027
452.66	0.032	0.021	453.19	0.032	0.027
452.67	0.032	0.021	453.20	0.032	0.027
452.68	0.032	0.022			
452.69	0.032	0.022			
452.70	0.032	0.022			
452.71	0.032	0.022			
452.72	0.032	0.022			
452.73	0.032	0.022			
452.74	0.032	0.022			
452.75	0.032	0.023			
452.76	0.032	0.023			
452.77	0.032	0.023			
452.78	0.032	0.023			
452.79	0.032	0.023			
452.80	0.032	0.023			
452.81	0.032	0.023			
452.82	0.032	0.023			
452.83	0.032	0.023			
452.84	0.032	0.024			
452.85	0.032	0.024			
452.86	0.032	0.024			
452.87	0.032	0.024			
452.88	0.032	0.024			
452.89	0.032	0.024			
452.90	0.032	0.024			
452.91	0.032	0.024			
452.92	0.032	0.024			
452.93	0.032	0.025			
452.94	0.032	0.025			
452.95	0.032	0.025			
452.96	0.032	0.025			
452.97	0.032	0.025			
452.98	0.032	0.025			
452.99	0.032	0.025			
453.00	0.032	0.025			
453.01	0.032	0.025			
453.02	0.032	0.025			
453.03	0.032	0.026			
453.04	0.032	0.026			
453.05	0.032	0.026			
453.06	0.032	0.026			
453.07	0.032	0.026			
453.08	0.032	0.026			
453.09	0.032	0.026			
453.10	0.032	0.026			
453.11	0.032	0.026			
453.12	0.032	0.027			
453.13	0.032	0.027			
453.14	0.032	0.027			
453.15	0.032	0.027			
453.16	0.032	0.027			

Summary for Pond S-20: Underground Infiltration (Sub-Lot 20)

Inflow Area = 0.409 ac, 33.25% Impervious, Inflow Depth = 1.39" for 1 Year - North Salem event
 Inflow = 0.52 cfs @ 12.18 hrs, Volume= 0.047 af
 Outflow = 0.52 cfs @ 12.18 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.52 cfs @ 12.18 hrs, Volume= 0.047 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 470.01' @ 12.18 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.047 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (847.4 - 847.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	470.00'	0.012 af	18.33'W x 54.50'L x 2.04'H Field A 0.047 af Overall - 0.011 af Embedded = 0.036 af x 33.3% Voids
#2A	470.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

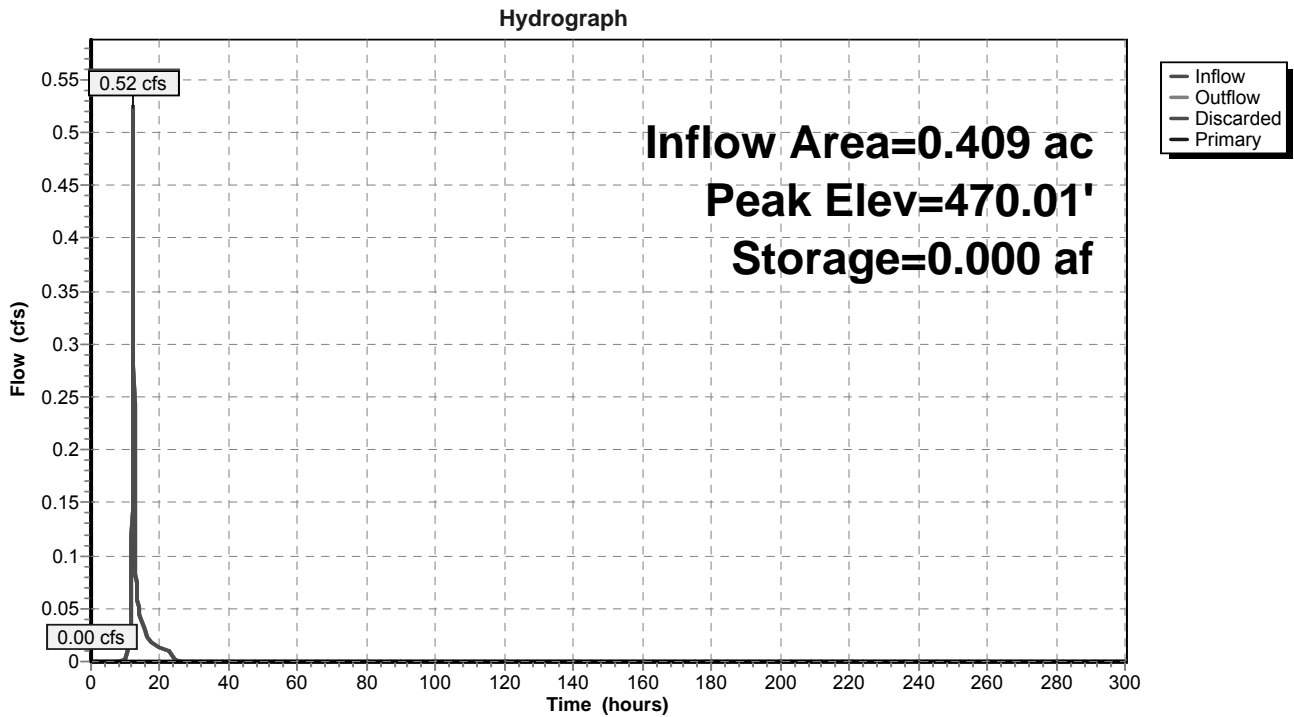
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	470.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	471.33'	3.0" Vert. Orifice/Grate X 2.00 C= 0.600

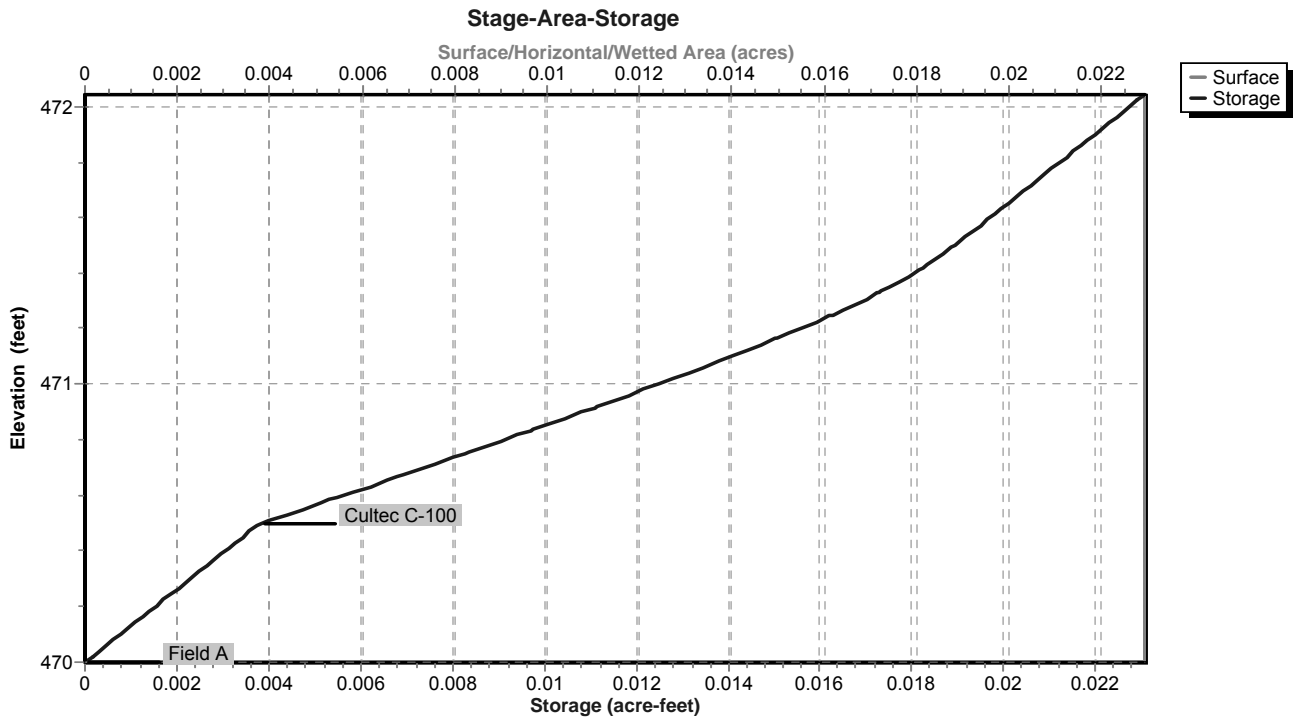
Discarded OutFlow Max=1.39 cfs @ 12.18 hrs HW=470.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.39 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=470.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-20: Underground Infiltration (Sub-Lot 20)



Pond S-20: Underground Infiltration (Sub-Lot 20)



Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
470.00	0.023	0.000	470.53	0.023	0.004
470.01	0.023	0.000	470.54	0.023	0.005
470.02	0.023	0.000	470.55	0.023	0.005
470.03	0.023	0.000	470.56	0.023	0.005
470.04	0.023	0.000	470.57	0.023	0.005
470.05	0.023	0.000	470.58	0.023	0.005
470.06	0.023	0.000	470.59	0.023	0.005
470.07	0.023	0.001	470.60	0.023	0.006
470.08	0.023	0.001	470.61	0.023	0.006
470.09	0.023	0.001	470.62	0.023	0.006
470.10	0.023	0.001	470.63	0.023	0.006
470.11	0.023	0.001	470.64	0.023	0.006
470.12	0.023	0.001	470.65	0.023	0.007
470.13	0.023	0.001	470.66	0.023	0.007
470.14	0.023	0.001	470.67	0.023	0.007
470.15	0.023	0.001	470.68	0.023	0.007
470.16	0.023	0.001	470.69	0.023	0.007
470.17	0.023	0.001	470.70	0.023	0.007
470.18	0.023	0.001	470.71	0.023	0.008
470.19	0.023	0.001	470.72	0.023	0.008
470.20	0.023	0.002	470.73	0.023	0.008
470.21	0.023	0.002	470.74	0.023	0.008
470.22	0.023	0.002	470.75	0.023	0.008
470.23	0.023	0.002	470.76	0.023	0.008
470.24	0.023	0.002	470.77	0.023	0.009
470.25	0.023	0.002	470.78	0.023	0.009
470.26	0.023	0.002	470.79	0.023	0.009
470.27	0.023	0.002	470.80	0.023	0.009
470.28	0.023	0.002	470.81	0.023	0.009
470.29	0.023	0.002	470.82	0.023	0.009
470.30	0.023	0.002	470.83	0.023	0.010
470.31	0.023	0.002	470.84	0.023	0.010
470.32	0.023	0.002	470.85	0.023	0.010
470.33	0.023	0.003	470.86	0.023	0.010
470.34	0.023	0.003	470.87	0.023	0.010
470.35	0.023	0.003	470.88	0.023	0.010
470.36	0.023	0.003	470.89	0.023	0.011
470.37	0.023	0.003	470.90	0.023	0.011
470.38	0.023	0.003	470.91	0.023	0.011
470.39	0.023	0.003	470.92	0.023	0.011
470.40	0.023	0.003	470.93	0.023	0.011
470.41	0.023	0.003	470.94	0.023	0.011
470.42	0.023	0.003	470.95	0.023	0.012
470.43	0.023	0.003	470.96	0.023	0.012
470.44	0.023	0.003	470.97	0.023	0.012
470.45	0.023	0.003	470.98	0.023	0.012
470.46	0.023	0.004	470.99	0.023	0.012
470.47	0.023	0.004	471.00	0.023	0.012
470.48	0.023	0.004	471.01	0.023	0.013
470.49	0.023	0.004	471.02	0.023	0.013
470.50	0.023	0.004	471.03	0.023	0.013
470.51	0.023	0.004	471.04	0.023	0.013
470.52	0.023	0.004	471.05	0.023	0.013

Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
471.06	0.023	0.013	471.59	0.023	0.020
471.07	0.023	0.014	471.60	0.023	0.020
471.08	0.023	0.014	471.61	0.023	0.020
471.09	0.023	0.014	471.62	0.023	0.020
471.10	0.023	0.014	471.63	0.023	0.020
471.11	0.023	0.014	471.64	0.023	0.020
471.12	0.023	0.014	471.65	0.023	0.020
471.13	0.023	0.015	471.66	0.023	0.020
471.14	0.023	0.015	471.67	0.023	0.020
471.15	0.023	0.015	471.68	0.023	0.020
471.16	0.023	0.015	471.69	0.023	0.020
471.17	0.023	0.015	471.70	0.023	0.020
471.18	0.023	0.015	471.71	0.023	0.021
471.19	0.023	0.015	471.72	0.023	0.021
471.20	0.023	0.016	471.73	0.023	0.021
471.21	0.023	0.016	471.74	0.023	0.021
471.22	0.023	0.016	471.75	0.023	0.021
471.23	0.023	0.016	471.76	0.023	0.021
471.24	0.023	0.016	471.77	0.023	0.021
471.25	0.023	0.016	471.78	0.023	0.021
471.26	0.023	0.016	471.79	0.023	0.021
471.27	0.023	0.017	471.80	0.023	0.021
471.28	0.023	0.017	471.81	0.023	0.021
471.29	0.023	0.017	471.82	0.023	0.021
471.30	0.023	0.017	471.83	0.023	0.021
471.31	0.023	0.017	471.84	0.023	0.022
471.32	0.023	0.017	471.85	0.023	0.022
471.33	0.023	0.017	471.86	0.023	0.022
471.34	0.023	0.017	471.87	0.023	0.022
471.35	0.023	0.018	471.88	0.023	0.022
471.36	0.023	0.018	471.89	0.023	0.022
471.37	0.023	0.018	471.90	0.023	0.022
471.38	0.023	0.018	471.91	0.023	0.022
471.39	0.023	0.018	471.92	0.023	0.022
471.40	0.023	0.018	471.93	0.023	0.022
471.41	0.023	0.018	471.94	0.023	0.022
471.42	0.023	0.018	471.95	0.023	0.022
471.43	0.023	0.018	471.96	0.023	0.022
471.44	0.023	0.018	471.97	0.023	0.023
471.45	0.023	0.019	471.98	0.023	0.023
471.46	0.023	0.019	471.99	0.023	0.023
471.47	0.023	0.019	472.00	0.023	0.023
471.48	0.023	0.019	472.01	0.023	0.023
471.49	0.023	0.019	472.02	0.023	0.023
471.50	0.023	0.019	472.03	0.023	0.023
471.51	0.023	0.019	472.04	0.023	0.023
471.52	0.023	0.019			
471.53	0.023	0.019			
471.54	0.023	0.019			
471.55	0.023	0.019			
471.56	0.023	0.019			
471.57	0.023	0.019			
471.58	0.023	0.020			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H1: Post-DevelopmentH1 Runoff Area=8.063 ac 0.00% Impervious Runoff Depth=1.13"
Flow Length=857' Tc=12.4 min CN=70 Runoff=8.00 cfs 0.762 af

Subcatchment H2: Post-DevelopmentH2 Runoff Area=0.349 ac 38.11% Impervious Runoff Depth=2.03"
Flow Length=252' Tc=7.2 min CN=83 Runoff=0.79 cfs 0.059 af

Subcatchment H3: Post-DevelopmentH3 Runoff Area=0.289 ac 41.87% Impervious Runoff Depth=2.03"
Flow Length=223' Tc=8.7 min CN=83 Runoff=0.61 cfs 0.049 af

Subcatchment H4: Post-DevelopmentH4 Runoff Area=0.409 ac 33.25% Impervious Runoff Depth=1.87"
Flow Length=314' Tc=12.7 min CN=81 Runoff=0.71 cfs 0.064 af

Pond DP 8: Design Point 8 Inflow=8.00 cfs 0.762 af
Primary=8.00 cfs 0.762 af

Pond S-18: Underground Infiltration (Sub-Lot Peak Elev=444.17' Storage=0.012 af Inflow=0.79 cfs 0.059 af
Discarded=0.20 cfs 0.059 af Primary=0.00 cfs 0.000 af Outflow=0.20 cfs 0.059 af

Pond S-19: Underground Infiltration Peak Elev=451.59' Storage=0.000 af Inflow=0.61 cfs 0.049 af
Discarded=0.61 cfs 0.049 af Primary=0.00 cfs 0.000 af Outflow=0.61 cfs 0.049 af

Pond S-20: Underground Infiltration Peak Elev=470.01' Storage=0.000 af Inflow=0.71 cfs 0.064 af
Discarded=0.71 cfs 0.064 af Primary=0.00 cfs 0.000 af Outflow=0.71 cfs 0.064 af

Total Runoff Area = 9.110 ac Runoff Volume = 0.933 af Average Runoff Depth = 1.23"
95.72% Pervious = 8.720 ac 4.28% Impervious = 0.390 ac

Summary for Subcatchment H1: Post-Development H1

Runoff = 8.00 cfs @ 12.19 hrs, Volume= 0.762 af, Depth= 1.13"

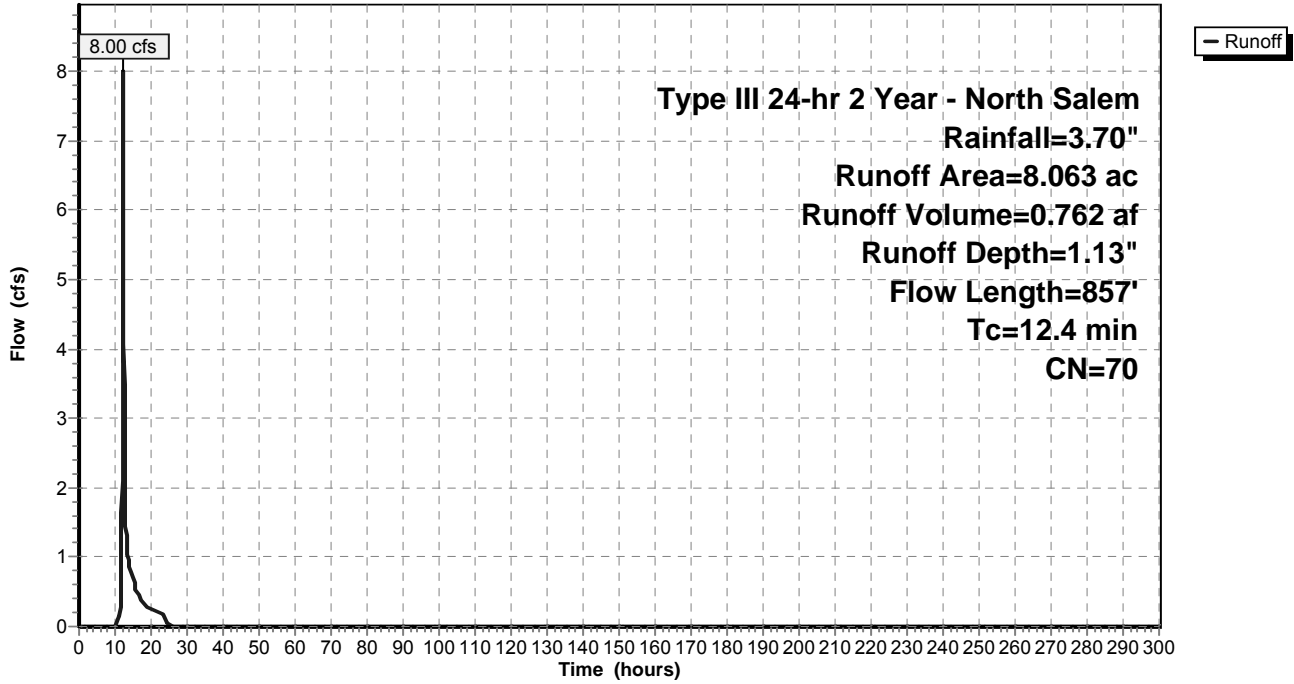
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 4.880	70	Woods, Good, HSG C, CtC Soils
2.436	74	>75% Grass cover, Good, HSG C
* 0.634	55	Woods, Good, HSG B, CrC Soils
0.113	61	>75% Grass cover, Good, HSG B
8.063	70	Weighted Average
8.063		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	60	0.1000	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	84	0.0417	3.29		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	321	0.2118	7.41		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.8	327	0.1651	6.54		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
12.4	857	Total			

Subcatchment H1: Post-Development H1

Hydrograph



Summary for Subcatchment H2: Post-Development H2

Runoff = 0.79 cfs @ 12.11 hrs, Volume= 0.059 af, Depth= 2.03"

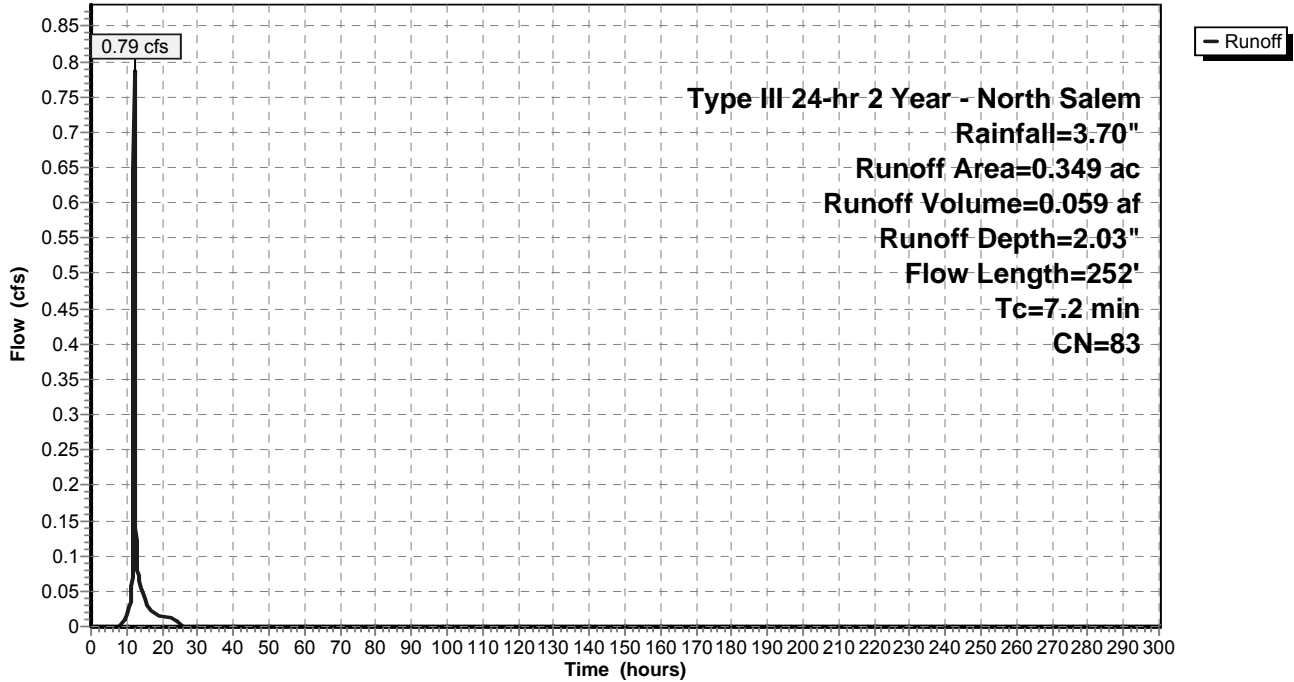
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.069	98	Driveway
0.177	74	>75% Grass cover, Good, HSG C
0.039	70	Woods, Good, HSG C
0.349	83	Weighted Average
0.216		61.89% Pervious Area
0.133		38.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	44	0.1818	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.1	44	0.4091	0.36		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	138	0.0326	2.91		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	26	0.1587	17.93	6.26	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
7.2	252	Total			

Subcatchment H2: Post-Development H2

Hydrograph



Summary for Subcatchment H3: Post-Development H3

Runoff = 0.61 cfs @ 12.13 hrs, Volume= 0.049 af, Depth= 2.03"

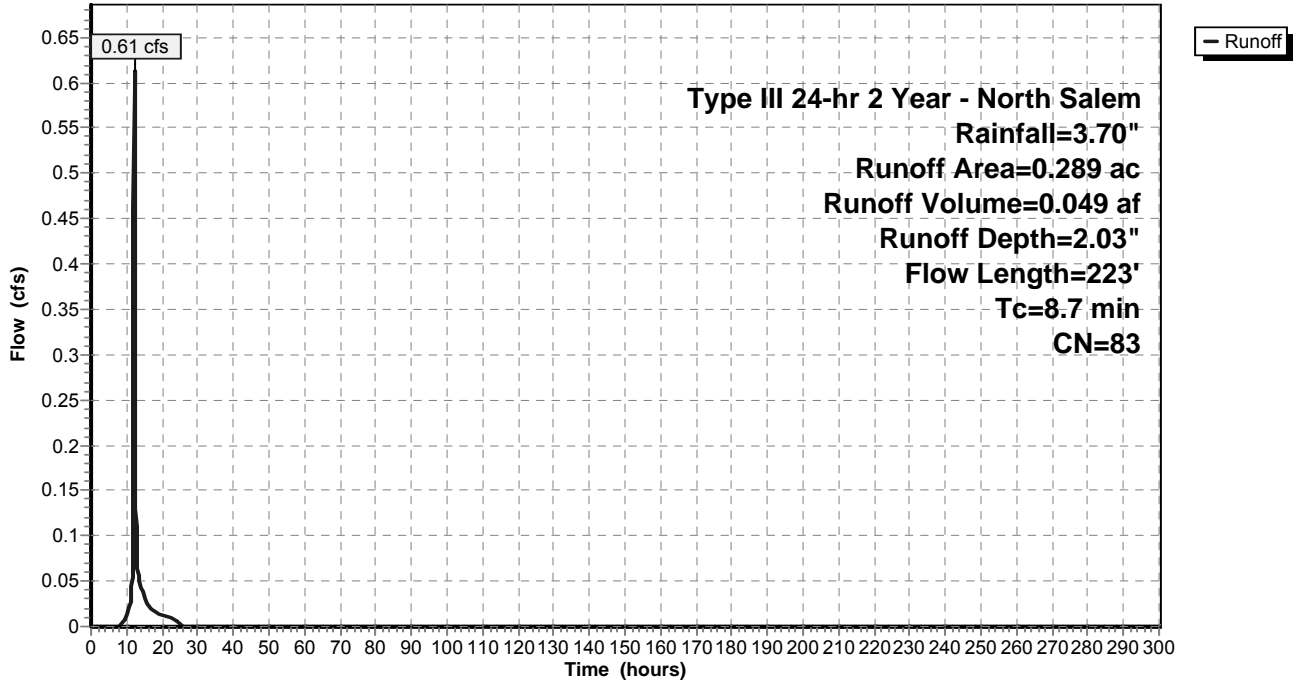
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.057	98	Driveway
0.101	74	>75% Grass cover, Good, HSG C
0.067	70	Woods, Good, HSG C
0.289	83	Weighted Average
0.168		58.13% Pervious Area
0.121		41.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	89	0.1685	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	11	0.5454	0.30		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.0	16	0.3125	9.00		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	25	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	42	0.0100	4.50	1.57	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
0.0	40	0.2000	20.13	7.03	Pipe Channel, F-G 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
8.7	223	Total			

Subcatchment H3: Post-Development H3

Hydrograph



Summary for Subcatchment H4: Post-Development H4

Runoff = 0.71 cfs @ 12.18 hrs, Volume= 0.064 af, Depth= 1.87"

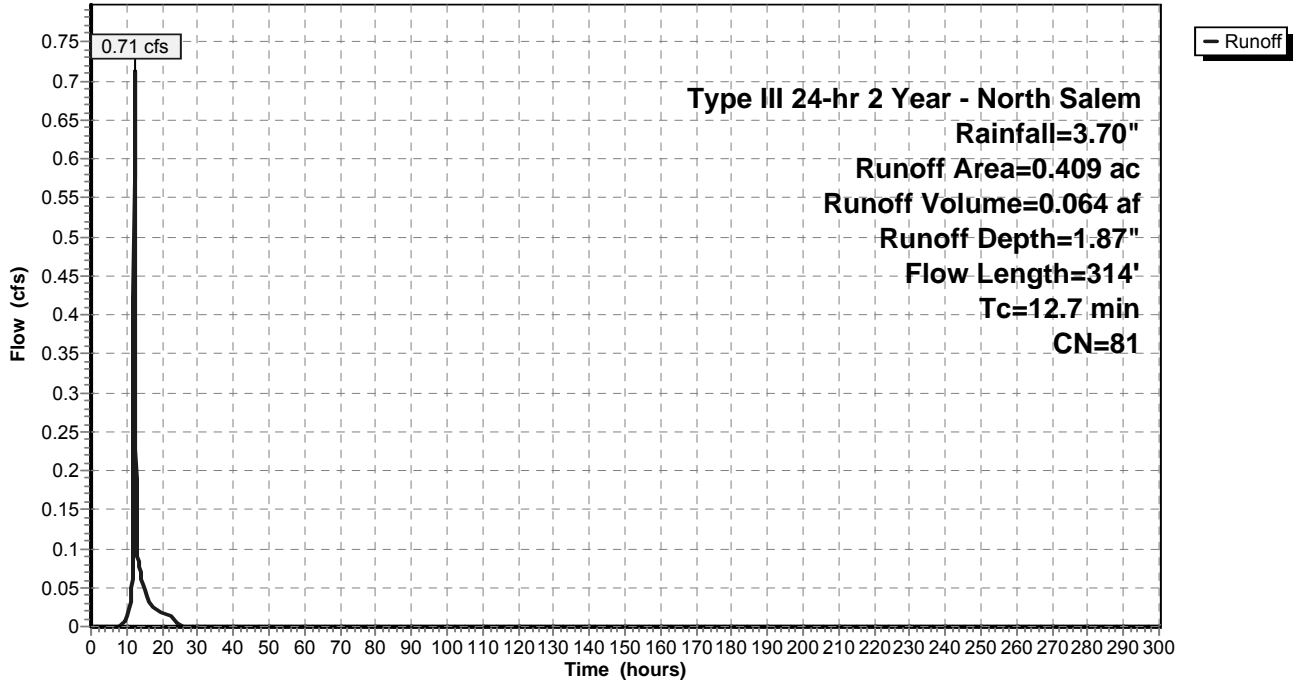
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.072	98	Driveway
0.200	74	>75% Grass cover, Good, HSG C
0.073	70	Woods, Good, HSG C
0.409	81	Weighted Average
0.273		66.75% Pervious Area
0.136		33.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	36	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	80	0.0100	4.50	1.57	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.2	56	0.0100	4.50	1.57	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.0	42	0.2000	20.13	7.03	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
12.7	314	Total			

Subcatchment H4: Post-Development H4

Hydrograph



Summary for Pond DP 8: Design Point 8

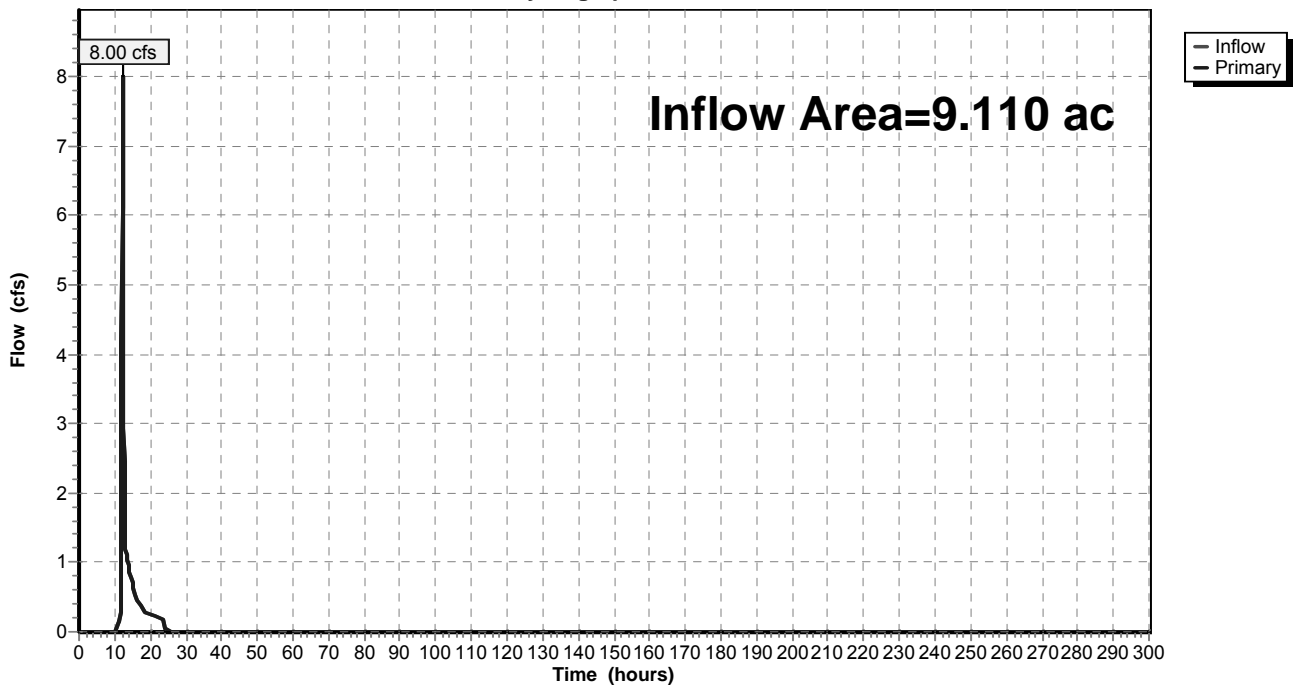
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.110 ac, 4.28% Impervious, Inflow Depth = 1.00" for 2 Year - North Salem event
Inflow = 8.00 cfs @ 12.19 hrs, Volume= 0.762 af
Primary = 8.00 cfs @ 12.19 hrs, Volume= 0.762 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Summary for Pond S-18: Underground Infiltration (Sub-Lot 18)

Inflow Area = 0.349 ac, 38.11% Impervious, Inflow Depth = 2.03" for 2 Year - North Salem event
 Inflow = 0.79 cfs @ 12.11 hrs, Volume= 0.059 af
 Outflow = 0.20 cfs @ 11.85 hrs, Volume= 0.059 af, Atten= 74%, Lag= 0.0 min
 Discarded = 0.20 cfs @ 11.85 hrs, Volume= 0.059 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 444.17' @ 12.51 hrs Surf.Area= 0.027 ac Storage= 0.012 af

Plug-Flow detention time= 14.1 min calculated for 0.059 af (100% of inflow)
 Center-of-Mass det. time= 14.1 min (841.5 - 827.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	443.42'	0.010 af	25.00'W x 47.00'L x 1.63'H Field A 0.044 af Overall - 0.013 af Embedded = 0.030 af x 33.3% Voids
#2A	443.67'	0.013 af	Cultec C-100 x 42 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.024 af	Total Available Storage

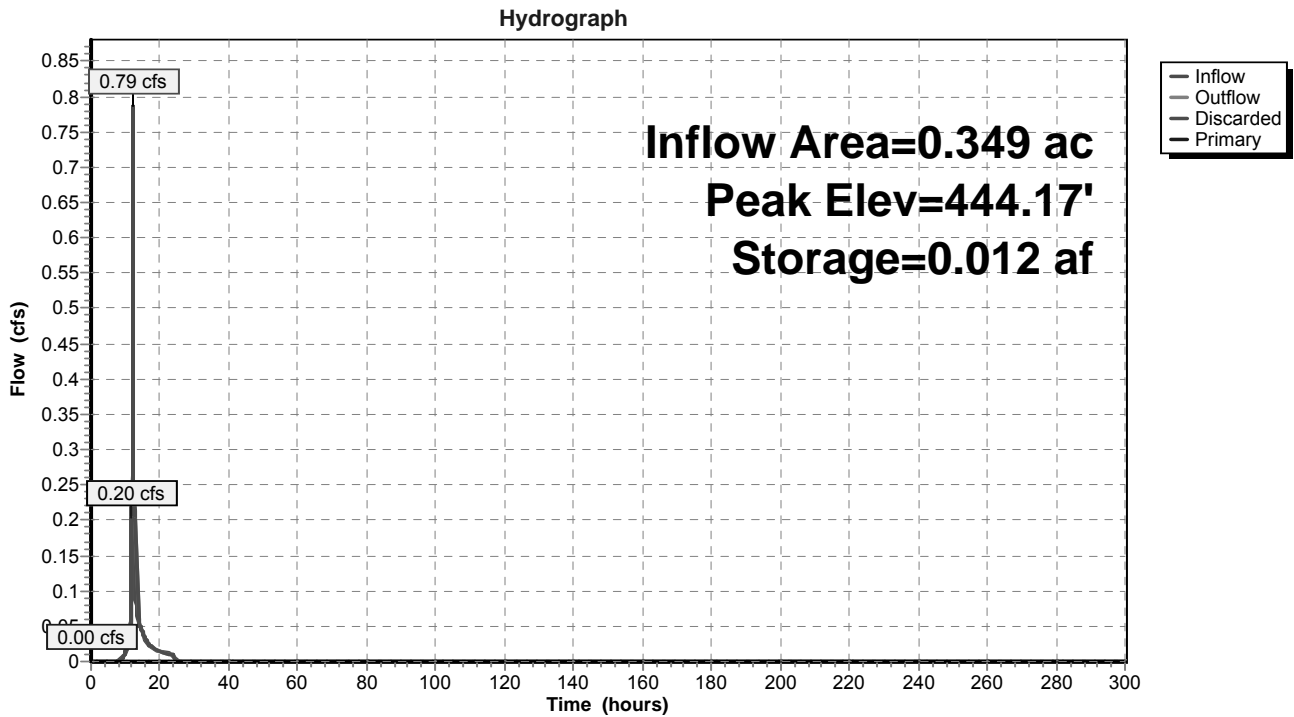
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	443.42'	7.500 in/hr Exfiltration over Surface area
#2	Primary	444.60'	6.0" Vert. Orifice/Grate X 6.00 C= 0.600

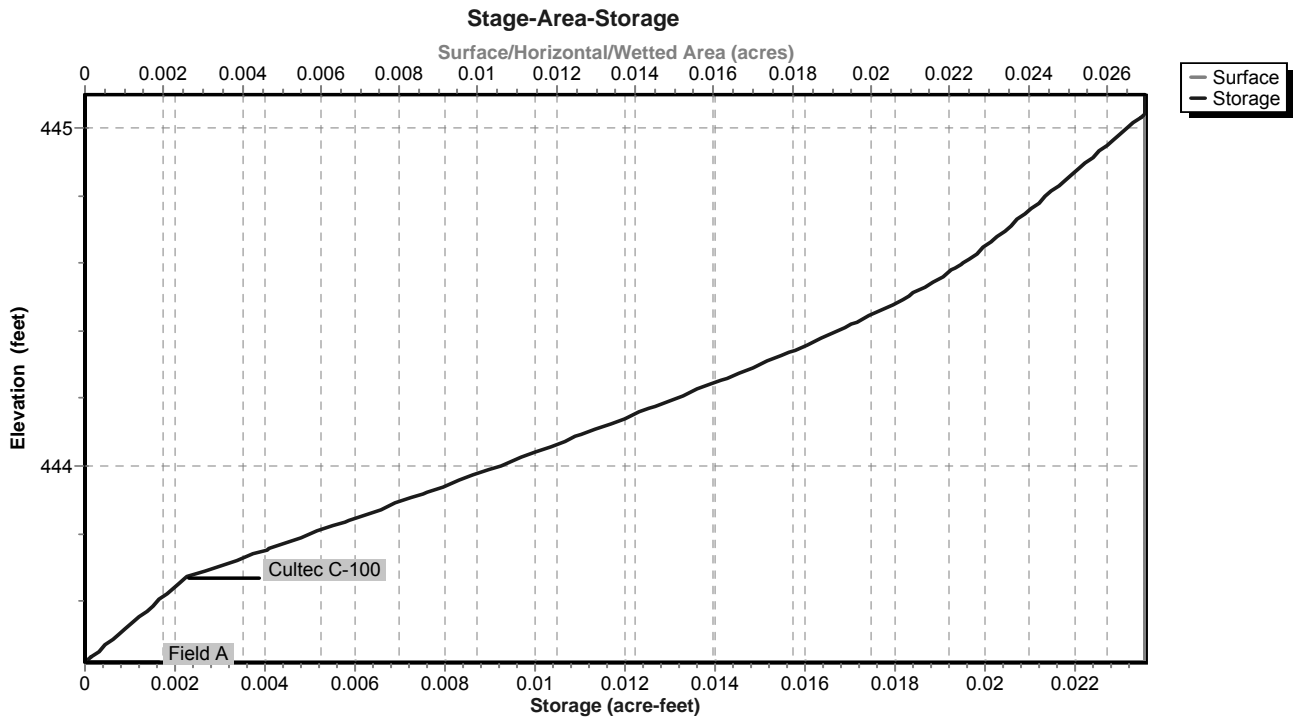
Discarded OutFlow Max=0.20 cfs @ 11.85 hrs HW=443.44' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=443.42' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-18: Underground Infiltration (Sub-Lot 18)



Pond S-18: Underground Infiltration (Sub-Lot 18)



Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
443.42	0.027	0.000	443.95	0.027	0.008
443.43	0.027	0.000	443.96	0.027	0.008
443.44	0.027	0.000	443.97	0.027	0.009
443.45	0.027	0.000	443.98	0.027	0.009
443.46	0.027	0.000	443.99	0.027	0.009
443.47	0.027	0.000	444.00	0.027	0.009
443.48	0.027	0.001	444.01	0.027	0.009
443.49	0.027	0.001	444.02	0.027	0.010
443.50	0.027	0.001	444.03	0.027	0.010
443.51	0.027	0.001	444.04	0.027	0.010
443.52	0.027	0.001	444.05	0.027	0.010
443.53	0.027	0.001	444.06	0.027	0.010
443.54	0.027	0.001	444.07	0.027	0.011
443.55	0.027	0.001	444.08	0.027	0.011
443.56	0.027	0.001	444.09	0.027	0.011
443.57	0.027	0.001	444.10	0.027	0.011
443.58	0.027	0.001	444.11	0.027	0.011
443.59	0.027	0.002	444.12	0.027	0.012
443.60	0.027	0.002	444.13	0.027	0.012
443.61	0.027	0.002	444.14	0.027	0.012
443.62	0.027	0.002	444.15	0.027	0.012
443.63	0.027	0.002	444.16	0.027	0.012
443.64	0.027	0.002	444.17	0.027	0.013
443.65	0.027	0.002	444.18	0.027	0.013
443.66	0.027	0.002	444.19	0.027	0.013
443.67	0.027	0.002	444.20	0.027	0.013
443.68	0.027	0.002	444.21	0.027	0.013
443.69	0.027	0.003	444.22	0.027	0.014
443.70	0.027	0.003	444.23	0.027	0.014
443.71	0.027	0.003	444.24	0.027	0.014
443.72	0.027	0.003	444.25	0.027	0.014
443.73	0.027	0.004	444.26	0.027	0.014
443.74	0.027	0.004	444.27	0.027	0.014
443.75	0.027	0.004	444.28	0.027	0.015
443.76	0.027	0.004	444.29	0.027	0.015
443.77	0.027	0.004	444.30	0.027	0.015
443.78	0.027	0.005	444.31	0.027	0.015
443.79	0.027	0.005	444.32	0.027	0.015
443.80	0.027	0.005	444.33	0.027	0.016
443.81	0.027	0.005	444.34	0.027	0.016
443.82	0.027	0.005	444.35	0.027	0.016
443.83	0.027	0.006	444.36	0.027	0.016
443.84	0.027	0.006	444.37	0.027	0.016
443.85	0.027	0.006	444.38	0.027	0.016
443.86	0.027	0.006	444.39	0.027	0.017
443.87	0.027	0.006	444.40	0.027	0.017
443.88	0.027	0.007	444.41	0.027	0.017
443.89	0.027	0.007	444.42	0.027	0.017
443.90	0.027	0.007	444.43	0.027	0.017
443.91	0.027	0.007	444.44	0.027	0.017
443.92	0.027	0.008	444.45	0.027	0.018
443.93	0.027	0.008	444.46	0.027	0.018
443.94	0.027	0.008	444.47	0.027	0.018

Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
444.48	0.027	0.018	445.01	0.027	0.023
444.49	0.027	0.018	445.02	0.027	0.023
444.50	0.027	0.018	445.03	0.027	0.023
444.51	0.027	0.018	445.04	0.027	0.024
444.52	0.027	0.019	445.05	0.027	0.024
444.53	0.027	0.019	445.06	0.027	0.024
444.54	0.027	0.019	445.07	0.027	0.024
444.55	0.027	0.019	445.08	0.027	0.024
444.56	0.027	0.019	445.09	0.027	0.024
444.57	0.027	0.019	445.10	0.027	0.024
444.58	0.027	0.019			
444.59	0.027	0.019			
444.60	0.027	0.020			
444.61	0.027	0.020			
444.62	0.027	0.020			
444.63	0.027	0.020			
444.64	0.027	0.020			
444.65	0.027	0.020			
444.66	0.027	0.020			
444.67	0.027	0.020			
444.68	0.027	0.020			
444.69	0.027	0.020			
444.70	0.027	0.020			
444.71	0.027	0.021			
444.72	0.027	0.021			
444.73	0.027	0.021			
444.74	0.027	0.021			
444.75	0.027	0.021			
444.76	0.027	0.021			
444.77	0.027	0.021			
444.78	0.027	0.021			
444.79	0.027	0.021			
444.80	0.027	0.021			
444.81	0.027	0.021			
444.82	0.027	0.022			
444.83	0.027	0.022			
444.84	0.027	0.022			
444.85	0.027	0.022			
444.86	0.027	0.022			
444.87	0.027	0.022			
444.88	0.027	0.022			
444.89	0.027	0.022			
444.90	0.027	0.022			
444.91	0.027	0.022			
444.92	0.027	0.022			
444.93	0.027	0.023			
444.94	0.027	0.023			
444.95	0.027	0.023			
444.96	0.027	0.023			
444.97	0.027	0.023			
444.98	0.027	0.023			
444.99	0.027	0.023			
445.00	0.027	0.023			

Summary for Pond S-19: Underground Infiltration (Sub-Lot 19)

Inflow Area = 0.289 ac, 41.87% Impervious, Inflow Depth = 2.03" for 2 Year - North Salem event
 Inflow = 0.61 cfs @ 12.13 hrs, Volume= 0.049 af
 Outflow = 0.61 cfs @ 12.13 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.61 cfs @ 12.13 hrs, Volume= 0.049 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 451.59' @ 12.13 hrs Surf.Area= 0.032 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.049 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (828.8 - 828.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	451.58'	0.012 af	15.00'W x 92.00'L x 1.63'H Field A 0.051 af Overall - 0.015 af Embedded = 0.036 af x 33.3% Voids
#2A	451.83'	0.015 af	Cultec C-100 x 48 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.027 af	Total Available Storage

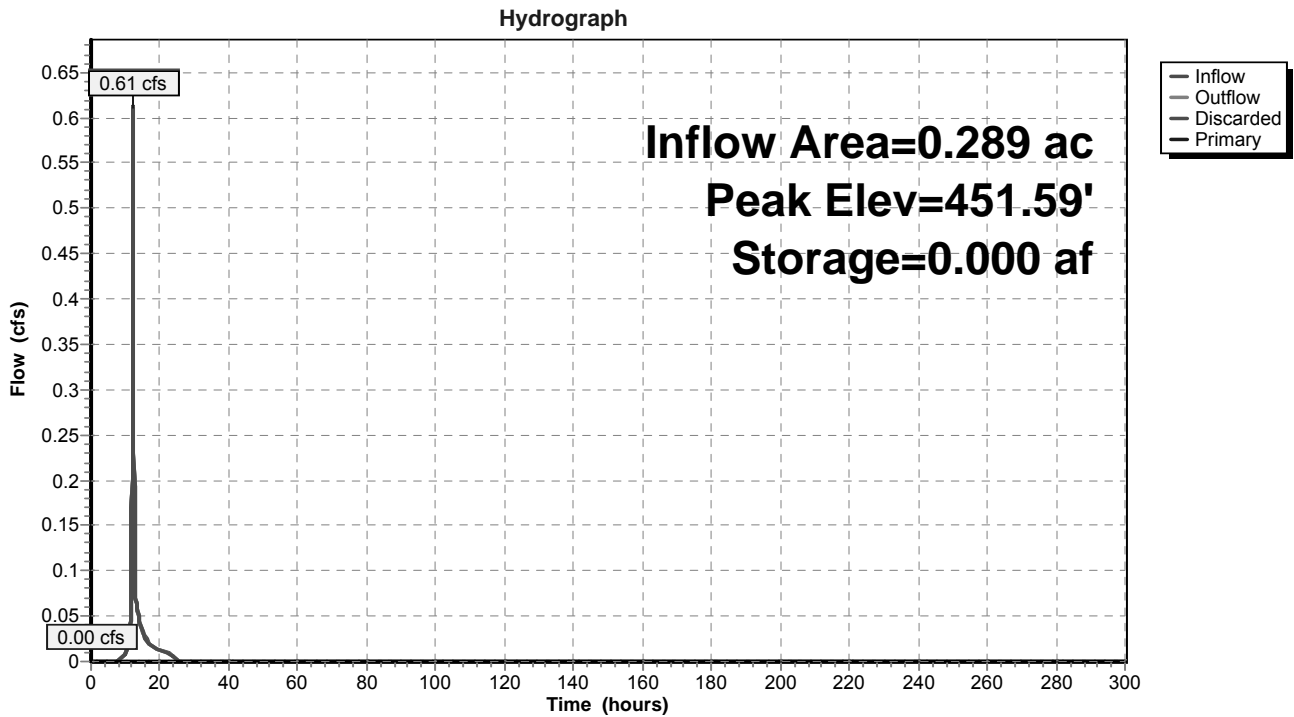
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	451.58'	60.000 in/hr Exfiltration over Surface area
#2	Primary	452.91'	3.0" Vert. Orifice/Grate C= 0.600

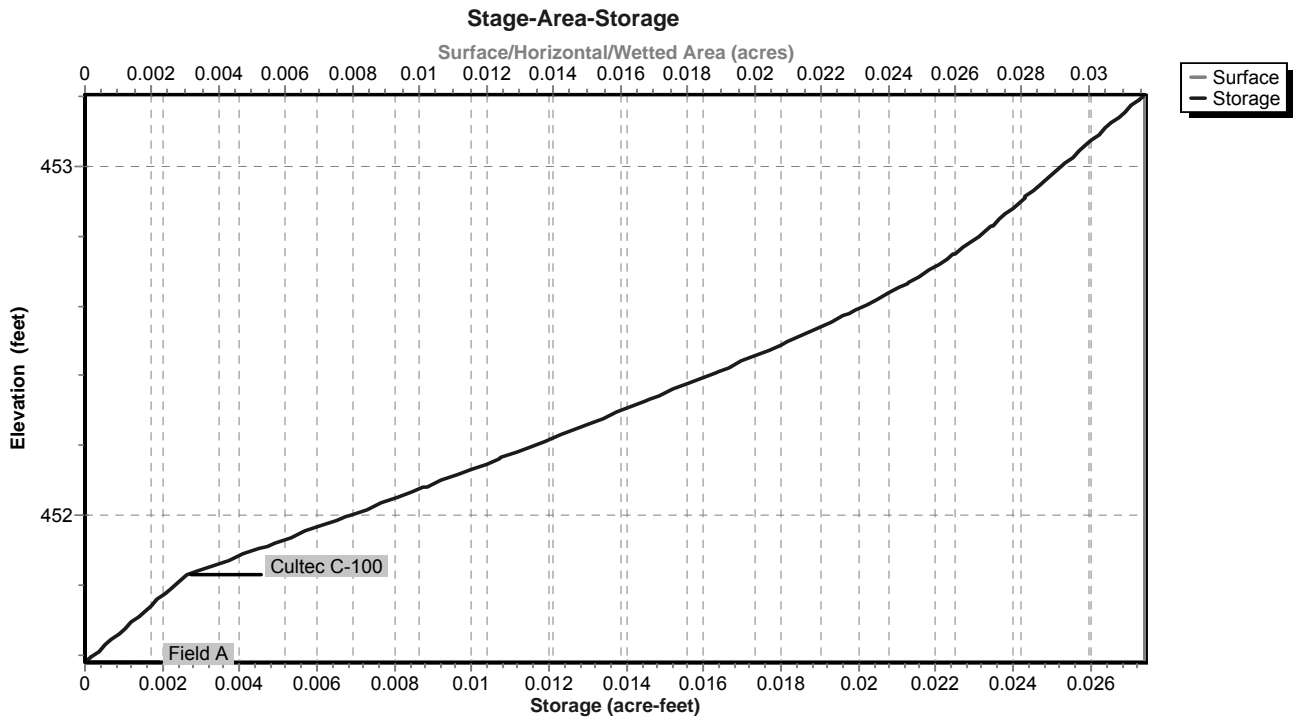
Discarded OutFlow Max=1.92 cfs @ 12.13 hrs HW=451.59' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.92 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=451.58' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-19: Underground Infiltration (Sub-Lot 19)



Pond S-19: Underground Infiltration (Sub-Lot 19)



Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
451.58	0.032	0.000	452.11	0.032	0.009
451.59	0.032	0.000	452.12	0.032	0.010
451.60	0.032	0.000	452.13	0.032	0.010
451.61	0.032	0.000	452.14	0.032	0.010
451.62	0.032	0.000	452.15	0.032	0.010
451.63	0.032	0.001	452.16	0.032	0.011
451.64	0.032	0.001	452.17	0.032	0.011
451.65	0.032	0.001	452.18	0.032	0.011
451.66	0.032	0.001	452.19	0.032	0.011
451.67	0.032	0.001	452.20	0.032	0.012
451.68	0.032	0.001	452.21	0.032	0.012
451.69	0.032	0.001	452.22	0.032	0.012
451.70	0.032	0.001	452.23	0.032	0.012
451.71	0.032	0.001	452.24	0.032	0.013
451.72	0.032	0.001	452.25	0.032	0.013
451.73	0.032	0.002	452.26	0.032	0.013
451.74	0.032	0.002	452.27	0.032	0.013
451.75	0.032	0.002	452.28	0.032	0.013
451.76	0.032	0.002	452.29	0.032	0.014
451.77	0.032	0.002	452.30	0.032	0.014
451.78	0.032	0.002	452.31	0.032	0.014
451.79	0.032	0.002	452.32	0.032	0.014
451.80	0.032	0.002	452.33	0.032	0.015
451.81	0.032	0.002	452.34	0.032	0.015
451.82	0.032	0.003	452.35	0.032	0.015
451.83	0.032	0.003	452.36	0.032	0.015
451.84	0.032	0.003	452.37	0.032	0.015
451.85	0.032	0.003	452.38	0.032	0.016
451.86	0.032	0.003	452.39	0.032	0.016
451.87	0.032	0.004	452.40	0.032	0.016
451.88	0.032	0.004	452.41	0.032	0.016
451.89	0.032	0.004	452.42	0.032	0.017
451.90	0.032	0.004	452.43	0.032	0.017
451.91	0.032	0.005	452.44	0.032	0.017
451.92	0.032	0.005	452.45	0.032	0.017
451.93	0.032	0.005	452.46	0.032	0.017
451.94	0.032	0.005	452.47	0.032	0.018
451.95	0.032	0.006	452.48	0.032	0.018
451.96	0.032	0.006	452.49	0.032	0.018
451.97	0.032	0.006	452.50	0.032	0.018
451.98	0.032	0.006	452.51	0.032	0.018
451.99	0.032	0.007	452.52	0.032	0.019
452.00	0.032	0.007	452.53	0.032	0.019
452.01	0.032	0.007	452.54	0.032	0.019
452.02	0.032	0.007	452.55	0.032	0.019
452.03	0.032	0.008	452.56	0.032	0.019
452.04	0.032	0.008	452.57	0.032	0.020
452.05	0.032	0.008	452.58	0.032	0.020
452.06	0.032	0.008	452.59	0.032	0.020
452.07	0.032	0.009	452.60	0.032	0.020
452.08	0.032	0.009	452.61	0.032	0.020
452.09	0.032	0.009	452.62	0.032	0.020
452.10	0.032	0.009	452.63	0.032	0.021

Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
452.64	0.032	0.021	453.17	0.032	0.027
452.65	0.032	0.021	453.18	0.032	0.027
452.66	0.032	0.021	453.19	0.032	0.027
452.67	0.032	0.021	453.20	0.032	0.027
452.68	0.032	0.022			
452.69	0.032	0.022			
452.70	0.032	0.022			
452.71	0.032	0.022			
452.72	0.032	0.022			
452.73	0.032	0.022			
452.74	0.032	0.022			
452.75	0.032	0.023			
452.76	0.032	0.023			
452.77	0.032	0.023			
452.78	0.032	0.023			
452.79	0.032	0.023			
452.80	0.032	0.023			
452.81	0.032	0.023			
452.82	0.032	0.023			
452.83	0.032	0.023			
452.84	0.032	0.024			
452.85	0.032	0.024			
452.86	0.032	0.024			
452.87	0.032	0.024			
452.88	0.032	0.024			
452.89	0.032	0.024			
452.90	0.032	0.024			
452.91	0.032	0.024			
452.92	0.032	0.024			
452.93	0.032	0.025			
452.94	0.032	0.025			
452.95	0.032	0.025			
452.96	0.032	0.025			
452.97	0.032	0.025			
452.98	0.032	0.025			
452.99	0.032	0.025			
453.00	0.032	0.025			
453.01	0.032	0.025			
453.02	0.032	0.025			
453.03	0.032	0.026			
453.04	0.032	0.026			
453.05	0.032	0.026			
453.06	0.032	0.026			
453.07	0.032	0.026			
453.08	0.032	0.026			
453.09	0.032	0.026			
453.10	0.032	0.026			
453.11	0.032	0.026			
453.12	0.032	0.027			
453.13	0.032	0.027			
453.14	0.032	0.027			
453.15	0.032	0.027			
453.16	0.032	0.027			

Summary for Pond S-20: Underground Infiltration (Sub-Lot 20)

Inflow Area = 0.409 ac, 33.25% Impervious, Inflow Depth = 1.87" for 2 Year - North Salem event
 Inflow = 0.71 cfs @ 12.18 hrs, Volume= 0.064 af
 Outflow = 0.71 cfs @ 12.18 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.71 cfs @ 12.18 hrs, Volume= 0.064 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 470.01' @ 12.18 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.064 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (838.8 - 838.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	470.00'	0.012 af	18.33'W x 54.50'L x 2.04'H Field A 0.047 af Overall - 0.011 af Embedded = 0.036 af x 33.3% Voids
#2A	470.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

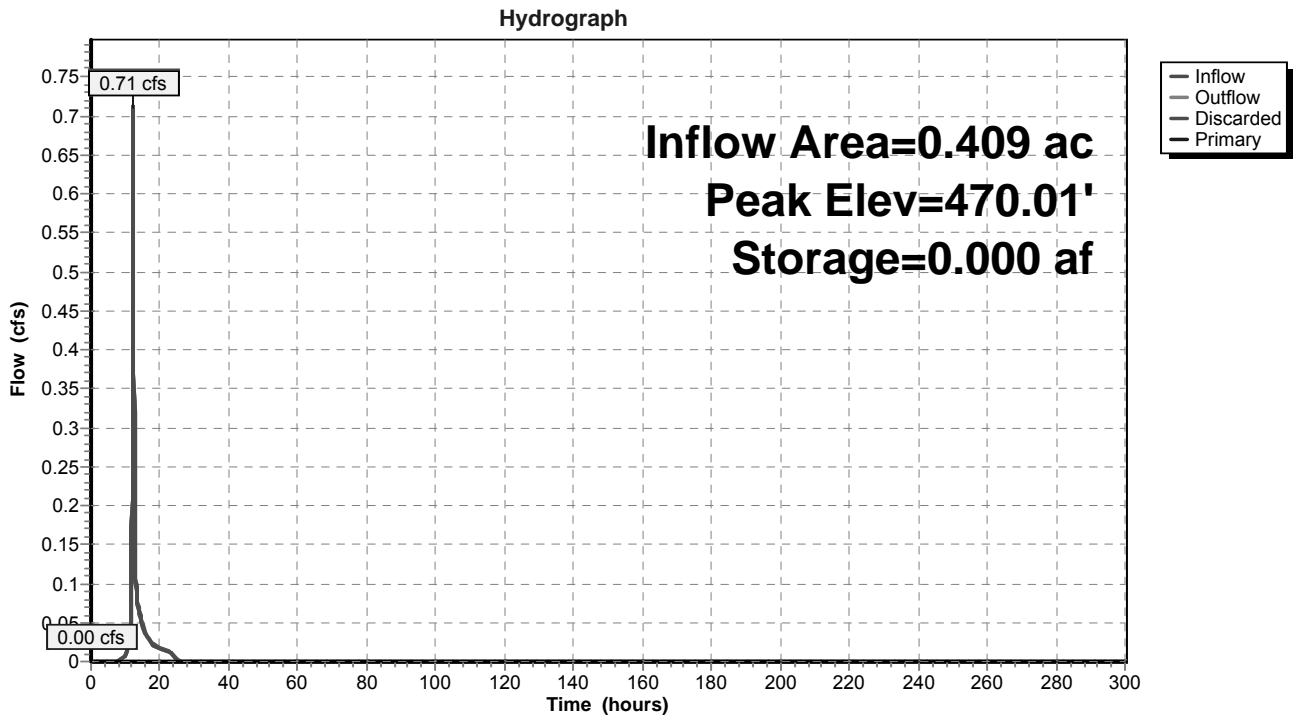
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	470.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	471.33'	3.0" Vert. Orifice/Grate X 2.00 C= 0.600

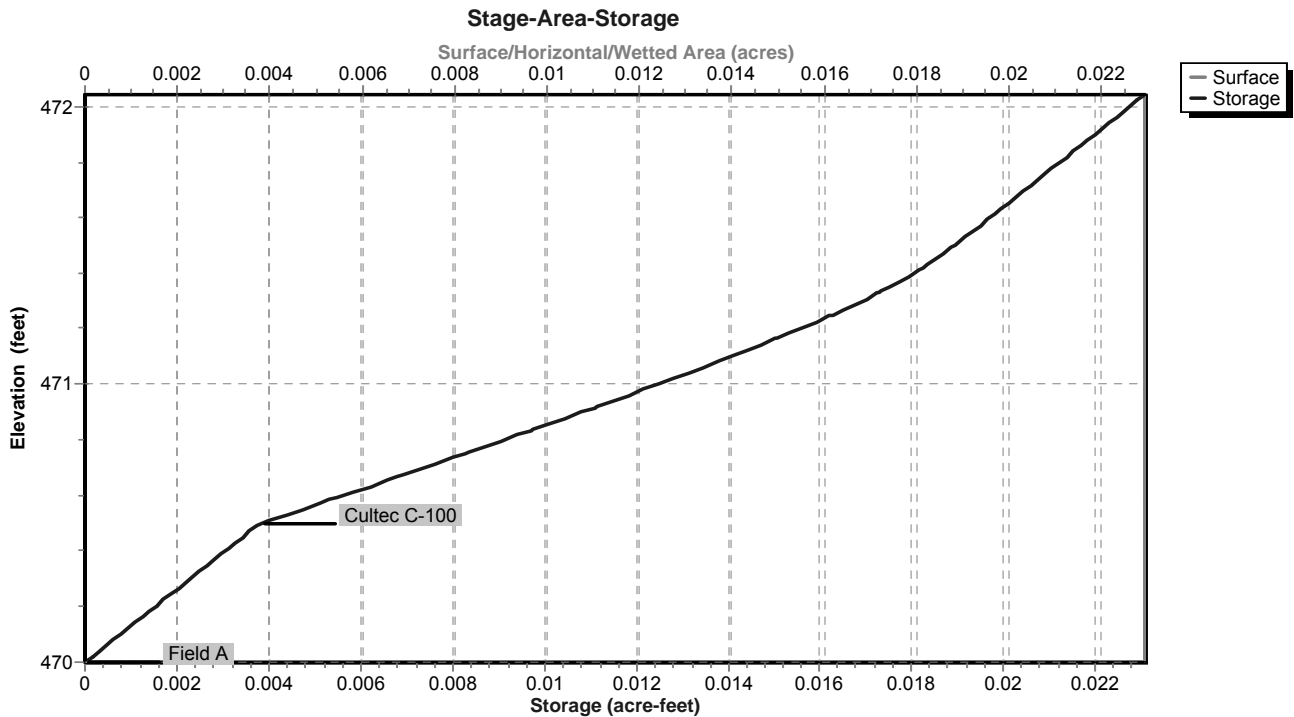
Discarded OutFlow Max=1.39 cfs @ 12.18 hrs HW=470.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.39 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=470.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-20: Underground Infiltration (Sub-Lot 20)



Pond S-20: Underground Infiltration (Sub-Lot 20)



Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
470.00	0.023	0.000	470.53	0.023	0.004
470.01	0.023	0.000	470.54	0.023	0.005
470.02	0.023	0.000	470.55	0.023	0.005
470.03	0.023	0.000	470.56	0.023	0.005
470.04	0.023	0.000	470.57	0.023	0.005
470.05	0.023	0.000	470.58	0.023	0.005
470.06	0.023	0.000	470.59	0.023	0.005
470.07	0.023	0.001	470.60	0.023	0.006
470.08	0.023	0.001	470.61	0.023	0.006
470.09	0.023	0.001	470.62	0.023	0.006
470.10	0.023	0.001	470.63	0.023	0.006
470.11	0.023	0.001	470.64	0.023	0.006
470.12	0.023	0.001	470.65	0.023	0.007
470.13	0.023	0.001	470.66	0.023	0.007
470.14	0.023	0.001	470.67	0.023	0.007
470.15	0.023	0.001	470.68	0.023	0.007
470.16	0.023	0.001	470.69	0.023	0.007
470.17	0.023	0.001	470.70	0.023	0.007
470.18	0.023	0.001	470.71	0.023	0.008
470.19	0.023	0.001	470.72	0.023	0.008
470.20	0.023	0.002	470.73	0.023	0.008
470.21	0.023	0.002	470.74	0.023	0.008
470.22	0.023	0.002	470.75	0.023	0.008
470.23	0.023	0.002	470.76	0.023	0.008
470.24	0.023	0.002	470.77	0.023	0.009
470.25	0.023	0.002	470.78	0.023	0.009
470.26	0.023	0.002	470.79	0.023	0.009
470.27	0.023	0.002	470.80	0.023	0.009
470.28	0.023	0.002	470.81	0.023	0.009
470.29	0.023	0.002	470.82	0.023	0.009
470.30	0.023	0.002	470.83	0.023	0.010
470.31	0.023	0.002	470.84	0.023	0.010
470.32	0.023	0.002	470.85	0.023	0.010
470.33	0.023	0.003	470.86	0.023	0.010
470.34	0.023	0.003	470.87	0.023	0.010
470.35	0.023	0.003	470.88	0.023	0.010
470.36	0.023	0.003	470.89	0.023	0.011
470.37	0.023	0.003	470.90	0.023	0.011
470.38	0.023	0.003	470.91	0.023	0.011
470.39	0.023	0.003	470.92	0.023	0.011
470.40	0.023	0.003	470.93	0.023	0.011
470.41	0.023	0.003	470.94	0.023	0.011
470.42	0.023	0.003	470.95	0.023	0.012
470.43	0.023	0.003	470.96	0.023	0.012
470.44	0.023	0.003	470.97	0.023	0.012
470.45	0.023	0.003	470.98	0.023	0.012
470.46	0.023	0.004	470.99	0.023	0.012
470.47	0.023	0.004	471.00	0.023	0.012
470.48	0.023	0.004	471.01	0.023	0.013
470.49	0.023	0.004	471.02	0.023	0.013
470.50	0.023	0.004	471.03	0.023	0.013
470.51	0.023	0.004	471.04	0.023	0.013
470.52	0.023	0.004	471.05	0.023	0.013

Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
471.06	0.023	0.013	471.59	0.023	0.020
471.07	0.023	0.014	471.60	0.023	0.020
471.08	0.023	0.014	471.61	0.023	0.020
471.09	0.023	0.014	471.62	0.023	0.020
471.10	0.023	0.014	471.63	0.023	0.020
471.11	0.023	0.014	471.64	0.023	0.020
471.12	0.023	0.014	471.65	0.023	0.020
471.13	0.023	0.015	471.66	0.023	0.020
471.14	0.023	0.015	471.67	0.023	0.020
471.15	0.023	0.015	471.68	0.023	0.020
471.16	0.023	0.015	471.69	0.023	0.020
471.17	0.023	0.015	471.70	0.023	0.020
471.18	0.023	0.015	471.71	0.023	0.021
471.19	0.023	0.015	471.72	0.023	0.021
471.20	0.023	0.016	471.73	0.023	0.021
471.21	0.023	0.016	471.74	0.023	0.021
471.22	0.023	0.016	471.75	0.023	0.021
471.23	0.023	0.016	471.76	0.023	0.021
471.24	0.023	0.016	471.77	0.023	0.021
471.25	0.023	0.016	471.78	0.023	0.021
471.26	0.023	0.016	471.79	0.023	0.021
471.27	0.023	0.017	471.80	0.023	0.021
471.28	0.023	0.017	471.81	0.023	0.021
471.29	0.023	0.017	471.82	0.023	0.021
471.30	0.023	0.017	471.83	0.023	0.021
471.31	0.023	0.017	471.84	0.023	0.022
471.32	0.023	0.017	471.85	0.023	0.022
471.33	0.023	0.017	471.86	0.023	0.022
471.34	0.023	0.017	471.87	0.023	0.022
471.35	0.023	0.018	471.88	0.023	0.022
471.36	0.023	0.018	471.89	0.023	0.022
471.37	0.023	0.018	471.90	0.023	0.022
471.38	0.023	0.018	471.91	0.023	0.022
471.39	0.023	0.018	471.92	0.023	0.022
471.40	0.023	0.018	471.93	0.023	0.022
471.41	0.023	0.018	471.94	0.023	0.022
471.42	0.023	0.018	471.95	0.023	0.022
471.43	0.023	0.018	471.96	0.023	0.022
471.44	0.023	0.018	471.97	0.023	0.023
471.45	0.023	0.019	471.98	0.023	0.023
471.46	0.023	0.019	471.99	0.023	0.023
471.47	0.023	0.019	472.00	0.023	0.023
471.48	0.023	0.019	472.01	0.023	0.023
471.49	0.023	0.019	472.02	0.023	0.023
471.50	0.023	0.019	472.03	0.023	0.023
471.51	0.023	0.019	472.04	0.023	0.023
471.52	0.023	0.019			
471.53	0.023	0.019			
471.54	0.023	0.019			
471.55	0.023	0.019			
471.56	0.023	0.019			
471.57	0.023	0.019			
471.58	0.023	0.020			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H1: Post-DevelopmentH1 Runoff Area=8.063 ac 0.00% Impervious Runoff Depth=2.41"
Flow Length=857' Tc=12.4 min CN=70 Runoff=18.06 cfs 1.622 af

Subcatchment H2: Post-DevelopmentH2 Runoff Area=0.349 ac 38.11% Impervious Runoff Depth=3.63"
Flow Length=252' Tc=7.2 min CN=83 Runoff=1.40 cfs 0.106 af

Subcatchment H3: Post-DevelopmentH3 Runoff Area=0.289 ac 41.87% Impervious Runoff Depth=3.63"
Flow Length=223' Tc=8.7 min CN=83 Runoff=1.10 cfs 0.087 af

Subcatchment H4: Post-DevelopmentH4 Runoff Area=0.409 ac 33.25% Impervious Runoff Depth=3.43"
Flow Length=314' Tc=12.7 min CN=81 Runoff=1.31 cfs 0.117 af

Pond DP 8: Design Point 8 Inflow=18.55 cfs 1.635 af
Primary=18.55 cfs 1.635 af

Pond S-18: Underground Infiltration (Sub-Lot Peak Elev=444.79' Storage=0.021 af Inflow=1.40 cfs 0.106 af
Discarded=0.20 cfs 0.092 af Primary=0.63 cfs 0.013 af Outflow=0.84 cfs 0.106 af

Pond S-19: Underground Infiltration Peak Elev=451.59' Storage=0.000 af Inflow=1.10 cfs 0.087 af
Discarded=1.09 cfs 0.087 af Primary=0.00 cfs 0.000 af Outflow=1.09 cfs 0.087 af

Pond S-20: Underground Infiltration Peak Elev=470.02' Storage=0.000 af Inflow=1.31 cfs 0.117 af
Discarded=1.30 cfs 0.117 af Primary=0.00 cfs 0.000 af Outflow=1.30 cfs 0.117 af

Total Runoff Area = 9.110 ac Runoff Volume = 1.932 af Average Runoff Depth = 2.55"
95.72% Pervious = 8.720 ac 4.28% Impervious = 0.390 ac

Summary for Subcatchment H1: Post-Development H1

Runoff = 18.06 cfs @ 12.18 hrs, Volume= 1.622 af, Depth= 2.41"

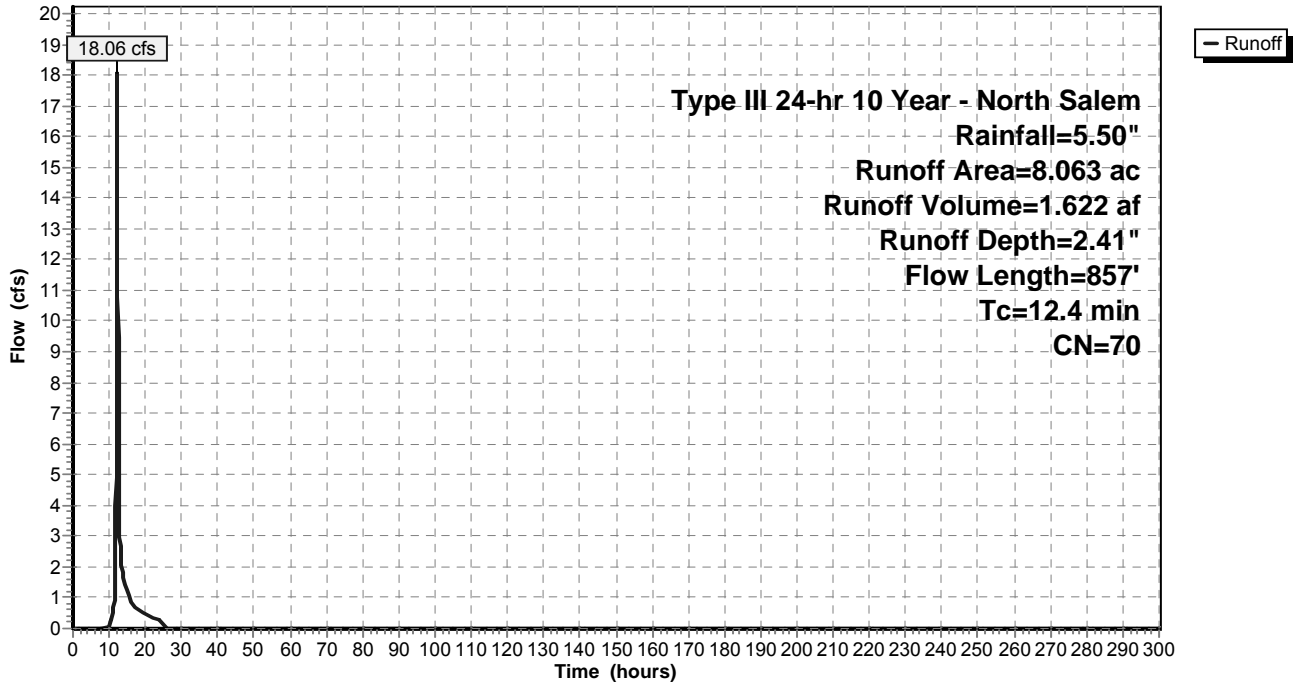
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 4.880	70	Woods, Good, HSG C, CtC Soils
2.436	74	>75% Grass cover, Good, HSG C
* 0.634	55	Woods, Good, HSG B, CrC Soils
0.113	61	>75% Grass cover, Good, HSG B
8.063	70	Weighted Average
8.063		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	60	0.1000	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	84	0.0417	3.29		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	321	0.2118	7.41		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.8	327	0.1651	6.54		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
12.4	857	Total			

Subcatchment H1: Post-Development H1

Hydrograph



Summary for Subcatchment H2: Post-Development H2

Runoff = 1.40 cfs @ 12.10 hrs, Volume= 0.106 af, Depth= 3.63"

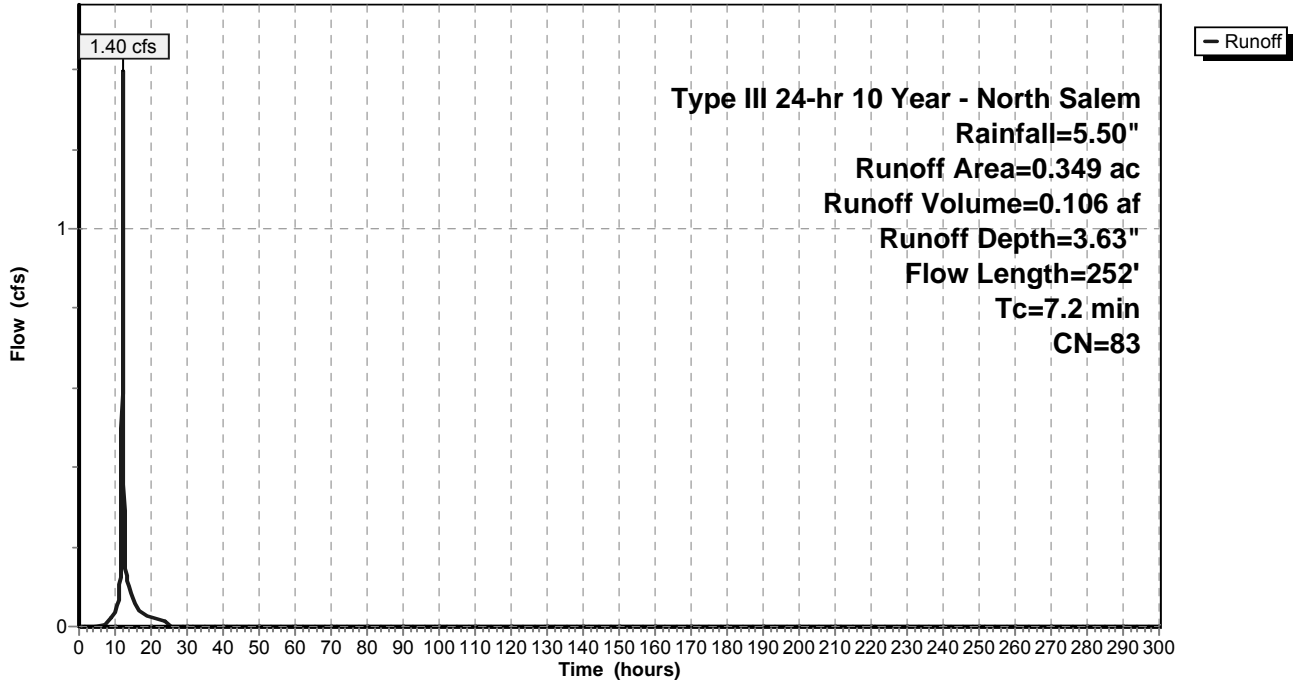
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.069	98	Driveway
0.177	74	>75% Grass cover, Good, HSG C
0.039	70	Woods, Good, HSG C
0.349	83	Weighted Average
0.216		61.89% Pervious Area
0.133		38.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	44	0.1818	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.1	44	0.4091	0.36		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	138	0.0326	2.91		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	26	0.1587	17.93	6.26	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
7.2	252	Total			

Subcatchment H2: Post-Development H2

Hydrograph



Summary for Subcatchment H3: Post-Development H3

Runoff = 1.10 cfs @ 12.12 hrs, Volume= 0.087 af, Depth= 3.63"

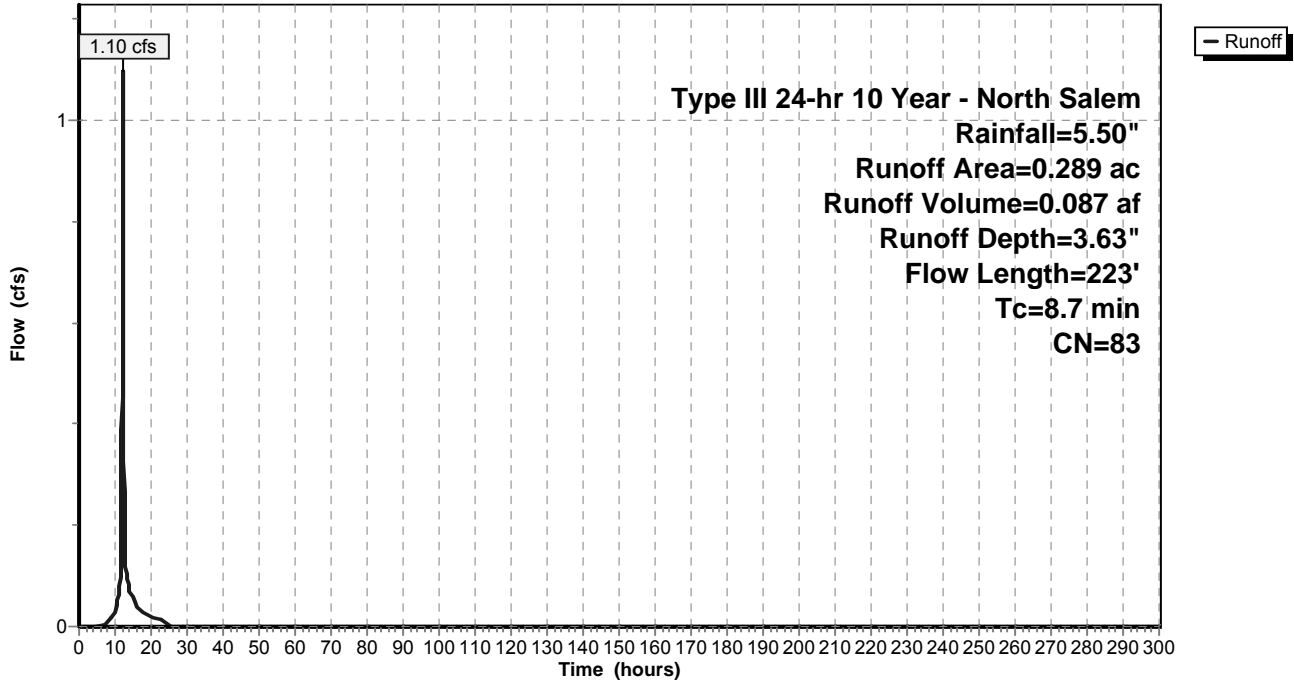
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.057	98	Driveway
0.101	74	>75% Grass cover, Good, HSG C
0.067	70	Woods, Good, HSG C
0.289	83	Weighted Average
0.168		58.13% Pervious Area
0.121		41.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	89	0.1685	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	11	0.5454	0.30		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.0	16	0.3125	9.00		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	25	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	42	0.0100	4.50	1.57	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
0.0	40	0.2000	20.13	7.03	Pipe Channel, F-G 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
8.7	223	Total			

Subcatchment H3: Post-Development H3

Hydrograph



Summary for Subcatchment H4: Post-Development H4

Runoff = 1.31 cfs @ 12.17 hrs, Volume= 0.117 af, Depth= 3.43"

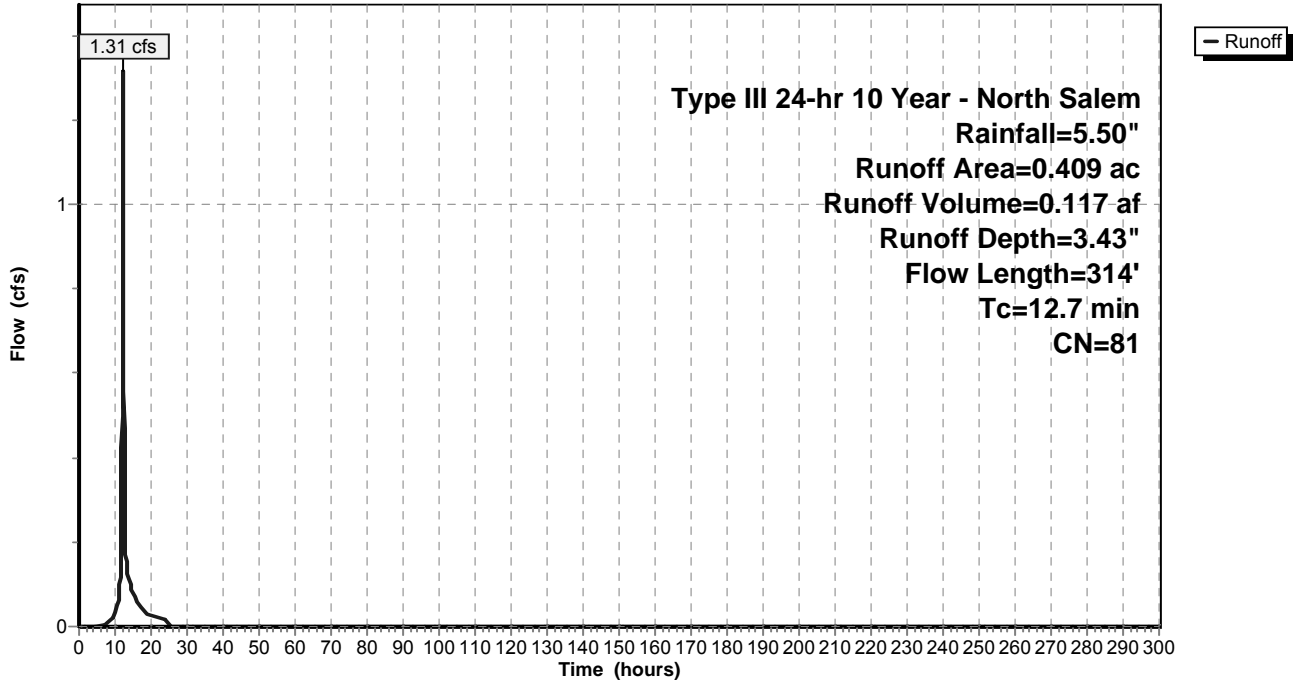
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.072	98	Driveway
0.200	74	>75% Grass cover, Good, HSG C
0.073	70	Woods, Good, HSG C
0.409	81	Weighted Average
0.273		66.75% Pervious Area
0.136		33.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	36	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	80	0.0100	4.50	1.57	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.2	56	0.0100	4.50	1.57	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.0	42	0.2000	20.13	7.03	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
12.7	314	Total			

Subcatchment H4: Post-Development H4

Hydrograph



Summary for Pond DP 8: Design Point 8

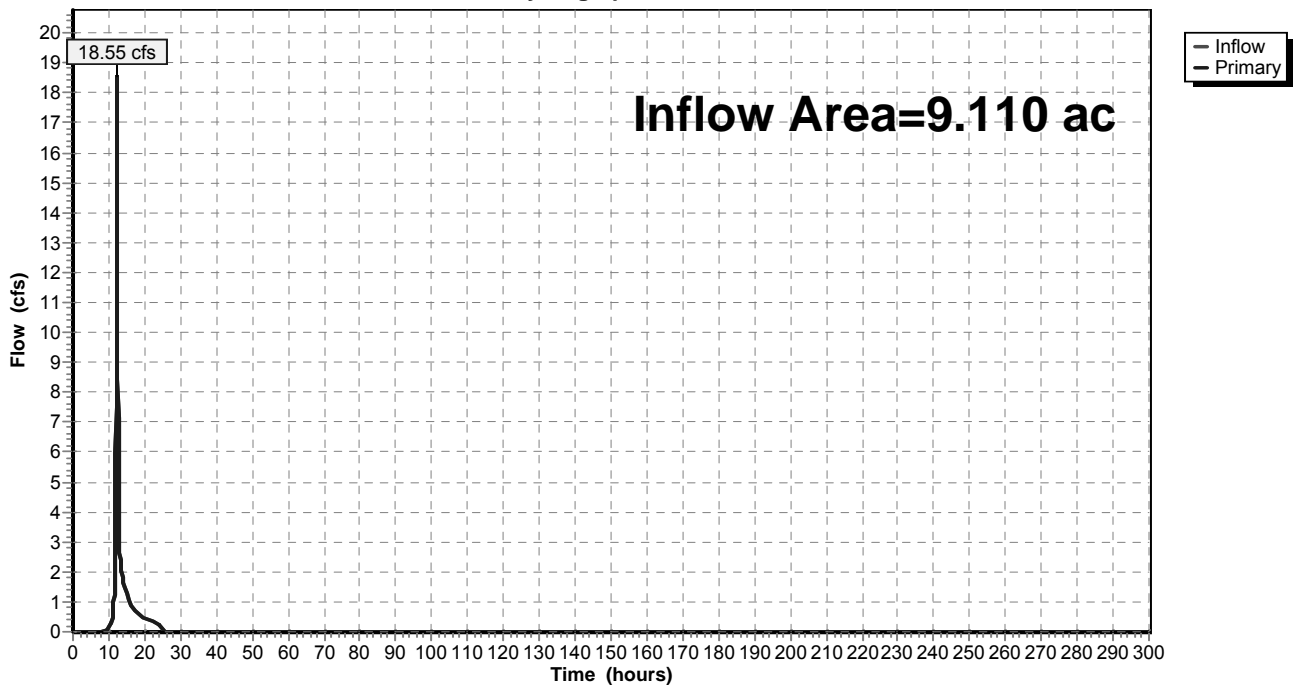
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.110 ac, 4.28% Impervious, Inflow Depth = 2.15" for 10 Year - North Salem event
Inflow = 18.55 cfs @ 12.19 hrs, Volume= 1.635 af
Primary = 18.55 cfs @ 12.19 hrs, Volume= 1.635 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Summary for Pond S-18: Underground Infiltration (Sub-Lot 18)

Inflow Area = 0.349 ac, 38.11% Impervious, Inflow Depth = 3.63" for 10 Year - North Salem event
 Inflow = 1.40 cfs @ 12.10 hrs, Volume= 0.106 af
 Outflow = 0.84 cfs @ 12.23 hrs, Volume= 0.106 af, Atten= 40%, Lag= 7.5 min
 Discarded = 0.20 cfs @ 11.70 hrs, Volume= 0.092 af
 Primary = 0.63 cfs @ 12.23 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 444.79' @ 12.23 hrs Surf.Area= 0.027 ac Storage= 0.021 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 22.9 min (833.7 - 810.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	443.42'	0.010 af	25.00'W x 47.00'L x 1.63'H Field A 0.044 af Overall - 0.013 af Embedded = 0.030 af x 33.3% Voids
#2A	443.67'	0.013 af	Cultec C-100 x 42 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.024 af	Total Available Storage

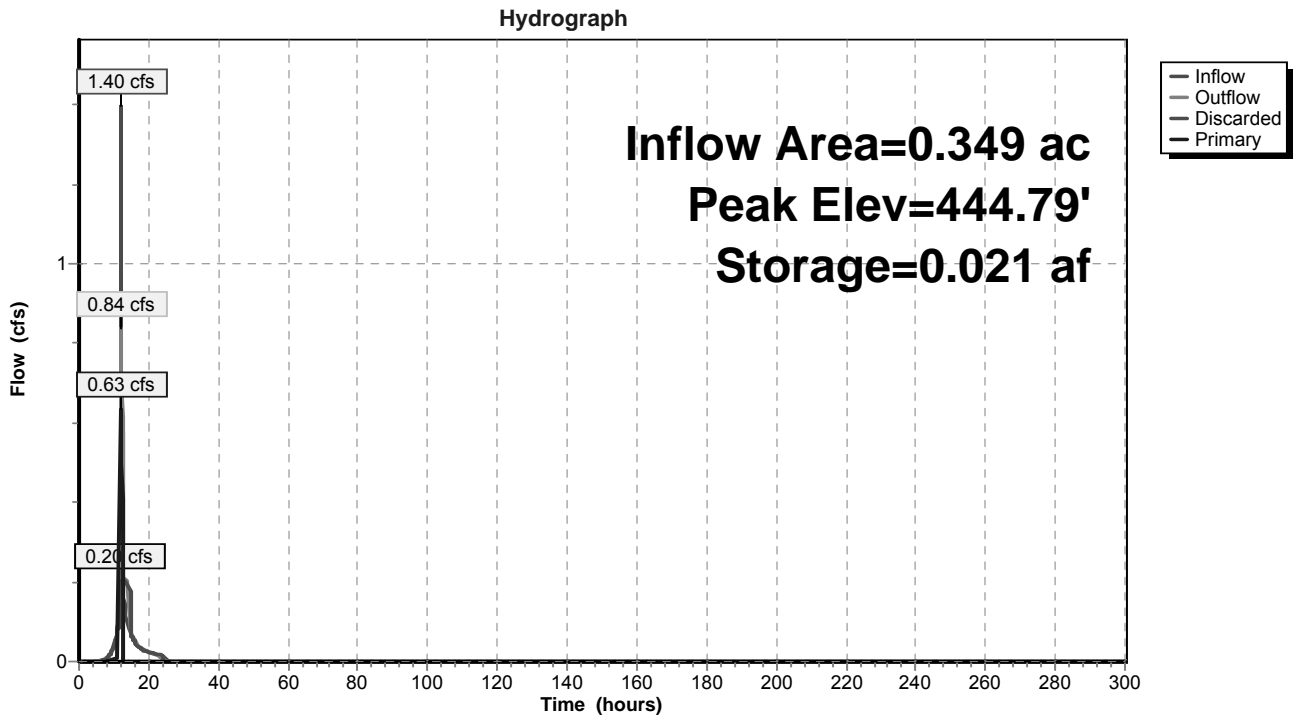
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	443.42'	7.500 in/hr Exfiltration over Surface area
#2	Primary	444.60'	6.0" Vert. Orifice/Grate X 6.00 C= 0.600

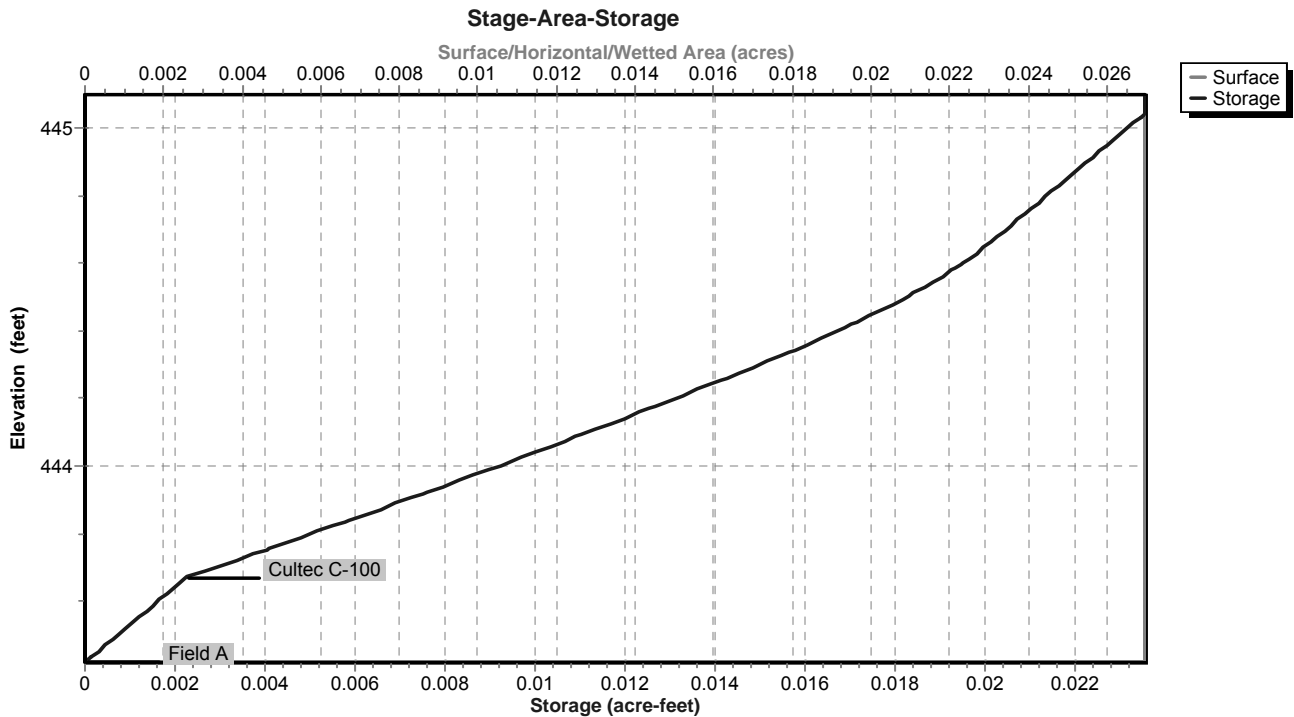
Discarded OutFlow Max=0.20 cfs @ 11.70 hrs HW=443.44' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=0.62 cfs @ 12.23 hrs HW=444.79' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 0.62 cfs @ 1.49 fps)

Pond S-18: Underground Infiltration (Sub-Lot 18)



Pond S-18: Underground Infiltration (Sub-Lot 18)



Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
443.42	0.027	0.000	443.95	0.027	0.008
443.43	0.027	0.000	443.96	0.027	0.008
443.44	0.027	0.000	443.97	0.027	0.009
443.45	0.027	0.000	443.98	0.027	0.009
443.46	0.027	0.000	443.99	0.027	0.009
443.47	0.027	0.000	444.00	0.027	0.009
443.48	0.027	0.001	444.01	0.027	0.009
443.49	0.027	0.001	444.02	0.027	0.010
443.50	0.027	0.001	444.03	0.027	0.010
443.51	0.027	0.001	444.04	0.027	0.010
443.52	0.027	0.001	444.05	0.027	0.010
443.53	0.027	0.001	444.06	0.027	0.010
443.54	0.027	0.001	444.07	0.027	0.011
443.55	0.027	0.001	444.08	0.027	0.011
443.56	0.027	0.001	444.09	0.027	0.011
443.57	0.027	0.001	444.10	0.027	0.011
443.58	0.027	0.001	444.11	0.027	0.011
443.59	0.027	0.002	444.12	0.027	0.012
443.60	0.027	0.002	444.13	0.027	0.012
443.61	0.027	0.002	444.14	0.027	0.012
443.62	0.027	0.002	444.15	0.027	0.012
443.63	0.027	0.002	444.16	0.027	0.012
443.64	0.027	0.002	444.17	0.027	0.013
443.65	0.027	0.002	444.18	0.027	0.013
443.66	0.027	0.002	444.19	0.027	0.013
443.67	0.027	0.002	444.20	0.027	0.013
443.68	0.027	0.002	444.21	0.027	0.013
443.69	0.027	0.003	444.22	0.027	0.014
443.70	0.027	0.003	444.23	0.027	0.014
443.71	0.027	0.003	444.24	0.027	0.014
443.72	0.027	0.003	444.25	0.027	0.014
443.73	0.027	0.004	444.26	0.027	0.014
443.74	0.027	0.004	444.27	0.027	0.014
443.75	0.027	0.004	444.28	0.027	0.015
443.76	0.027	0.004	444.29	0.027	0.015
443.77	0.027	0.004	444.30	0.027	0.015
443.78	0.027	0.005	444.31	0.027	0.015
443.79	0.027	0.005	444.32	0.027	0.015
443.80	0.027	0.005	444.33	0.027	0.016
443.81	0.027	0.005	444.34	0.027	0.016
443.82	0.027	0.005	444.35	0.027	0.016
443.83	0.027	0.006	444.36	0.027	0.016
443.84	0.027	0.006	444.37	0.027	0.016
443.85	0.027	0.006	444.38	0.027	0.016
443.86	0.027	0.006	444.39	0.027	0.017
443.87	0.027	0.006	444.40	0.027	0.017
443.88	0.027	0.007	444.41	0.027	0.017
443.89	0.027	0.007	444.42	0.027	0.017
443.90	0.027	0.007	444.43	0.027	0.017
443.91	0.027	0.007	444.44	0.027	0.017
443.92	0.027	0.008	444.45	0.027	0.018
443.93	0.027	0.008	444.46	0.027	0.018
443.94	0.027	0.008	444.47	0.027	0.018

Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
444.48	0.027	0.018	445.01	0.027	0.023
444.49	0.027	0.018	445.02	0.027	0.023
444.50	0.027	0.018	445.03	0.027	0.023
444.51	0.027	0.018	445.04	0.027	0.024
444.52	0.027	0.019	445.05	0.027	0.024
444.53	0.027	0.019	445.06	0.027	0.024
444.54	0.027	0.019	445.07	0.027	0.024
444.55	0.027	0.019	445.08	0.027	0.024
444.56	0.027	0.019	445.09	0.027	0.024
444.57	0.027	0.019	445.10	0.027	0.024
444.58	0.027	0.019			
444.59	0.027	0.019			
444.60	0.027	0.020			
444.61	0.027	0.020			
444.62	0.027	0.020			
444.63	0.027	0.020			
444.64	0.027	0.020			
444.65	0.027	0.020			
444.66	0.027	0.020			
444.67	0.027	0.020			
444.68	0.027	0.020			
444.69	0.027	0.020			
444.70	0.027	0.020			
444.71	0.027	0.021			
444.72	0.027	0.021			
444.73	0.027	0.021			
444.74	0.027	0.021			
444.75	0.027	0.021			
444.76	0.027	0.021			
444.77	0.027	0.021			
444.78	0.027	0.021			
444.79	0.027	0.021			
444.80	0.027	0.021			
444.81	0.027	0.021			
444.82	0.027	0.022			
444.83	0.027	0.022			
444.84	0.027	0.022			
444.85	0.027	0.022			
444.86	0.027	0.022			
444.87	0.027	0.022			
444.88	0.027	0.022			
444.89	0.027	0.022			
444.90	0.027	0.022			
444.91	0.027	0.022			
444.92	0.027	0.022			
444.93	0.027	0.023			
444.94	0.027	0.023			
444.95	0.027	0.023			
444.96	0.027	0.023			
444.97	0.027	0.023			
444.98	0.027	0.023			
444.99	0.027	0.023			
445.00	0.027	0.023			

Summary for Pond S-19: Underground Infiltration (Sub-Lot 19)

Inflow Area = 0.289 ac, 41.87% Impervious, Inflow Depth = 3.63" for 10 Year - North Salem event
 Inflow = 1.10 cfs @ 12.12 hrs, Volume= 0.087 af
 Outflow = 1.09 cfs @ 12.12 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min
 Discarded = 1.09 cfs @ 12.12 hrs, Volume= 0.087 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 451.59' @ 12.12 hrs Surf.Area= 0.032 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.087 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (812.2 - 812.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	451.58'	0.012 af	15.00'W x 92.00'L x 1.63'H Field A 0.051 af Overall - 0.015 af Embedded = 0.036 af x 33.3% Voids
#2A	451.83'	0.015 af	Cultec C-100 x 48 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.027 af	Total Available Storage

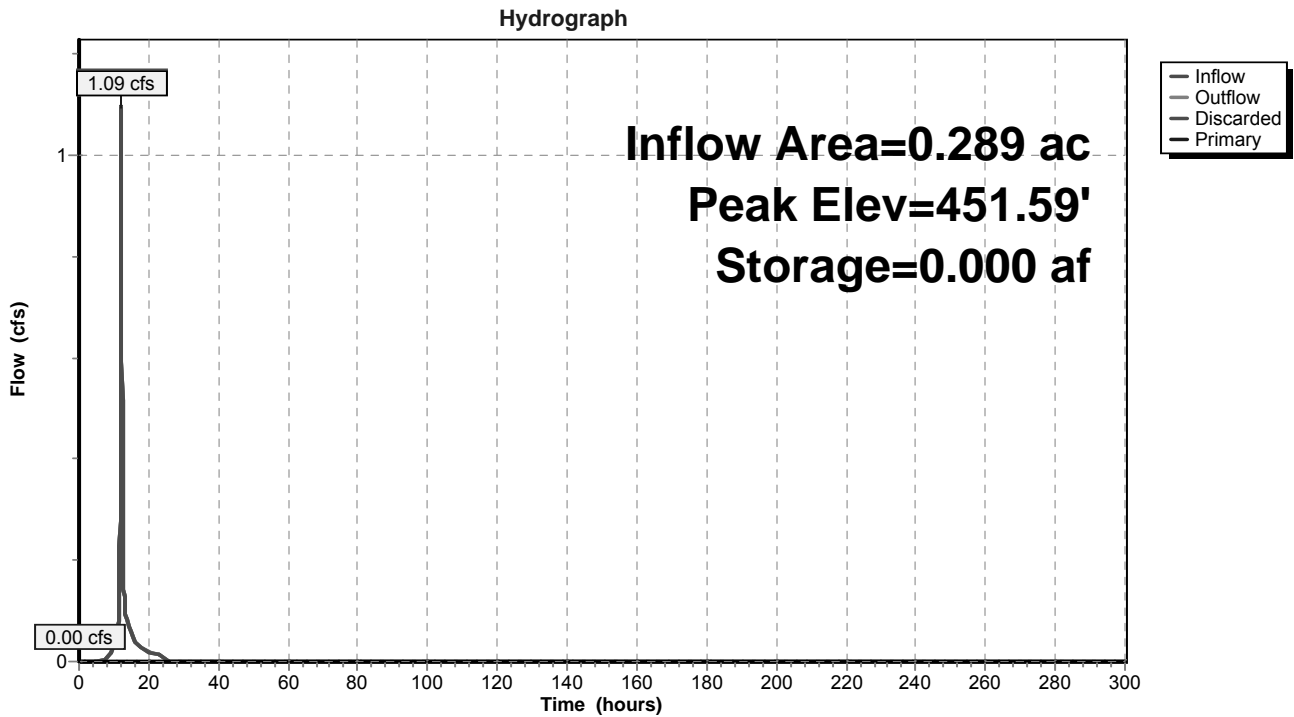
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	451.58'	60.000 in/hr Exfiltration over Surface area
#2	Primary	452.91'	3.0" Vert. Orifice/Grate C= 0.600

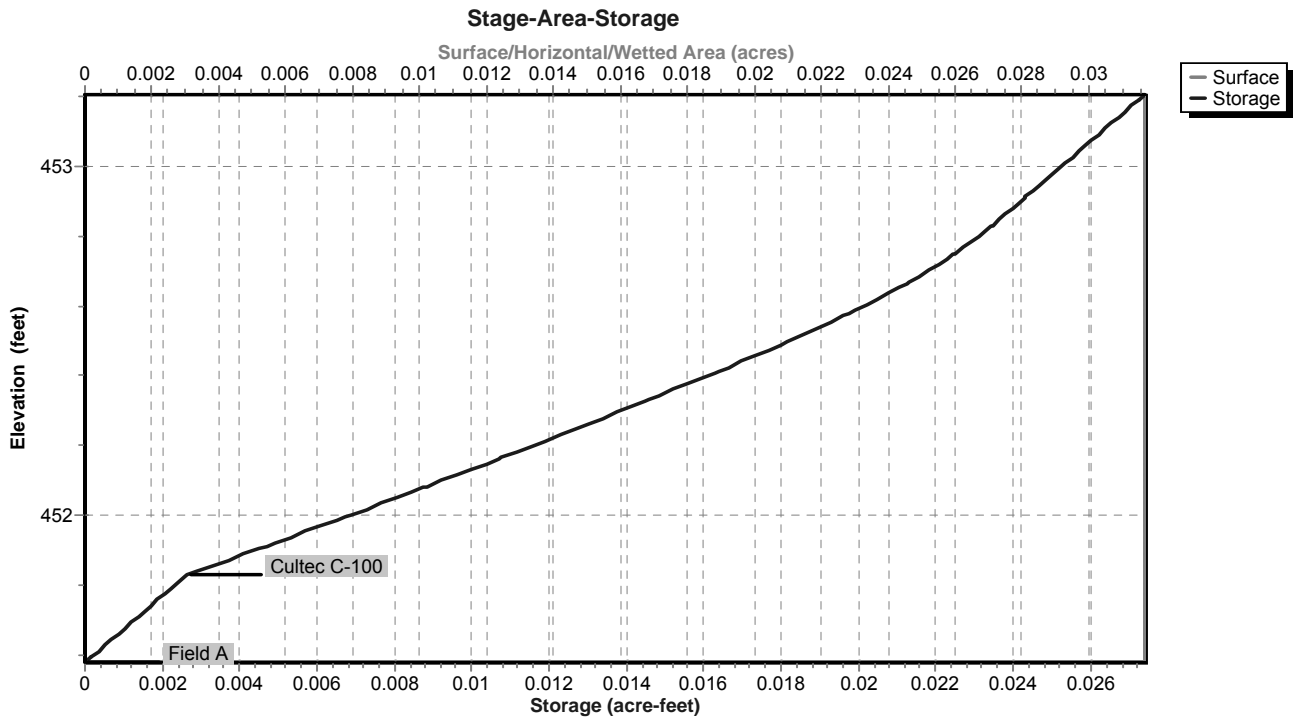
Discarded OutFlow Max=1.92 cfs @ 12.12 hrs HW=451.59' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.92 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=451.58' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-19: Underground Infiltration (Sub-Lot 19)



Pond S-19: Underground Infiltration (Sub-Lot 19)



Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
451.58	0.032	0.000	452.11	0.032	0.009
451.59	0.032	0.000	452.12	0.032	0.010
451.60	0.032	0.000	452.13	0.032	0.010
451.61	0.032	0.000	452.14	0.032	0.010
451.62	0.032	0.000	452.15	0.032	0.010
451.63	0.032	0.001	452.16	0.032	0.011
451.64	0.032	0.001	452.17	0.032	0.011
451.65	0.032	0.001	452.18	0.032	0.011
451.66	0.032	0.001	452.19	0.032	0.011
451.67	0.032	0.001	452.20	0.032	0.012
451.68	0.032	0.001	452.21	0.032	0.012
451.69	0.032	0.001	452.22	0.032	0.012
451.70	0.032	0.001	452.23	0.032	0.012
451.71	0.032	0.001	452.24	0.032	0.013
451.72	0.032	0.001	452.25	0.032	0.013
451.73	0.032	0.002	452.26	0.032	0.013
451.74	0.032	0.002	452.27	0.032	0.013
451.75	0.032	0.002	452.28	0.032	0.013
451.76	0.032	0.002	452.29	0.032	0.014
451.77	0.032	0.002	452.30	0.032	0.014
451.78	0.032	0.002	452.31	0.032	0.014
451.79	0.032	0.002	452.32	0.032	0.014
451.80	0.032	0.002	452.33	0.032	0.015
451.81	0.032	0.002	452.34	0.032	0.015
451.82	0.032	0.003	452.35	0.032	0.015
451.83	0.032	0.003	452.36	0.032	0.015
451.84	0.032	0.003	452.37	0.032	0.015
451.85	0.032	0.003	452.38	0.032	0.016
451.86	0.032	0.003	452.39	0.032	0.016
451.87	0.032	0.004	452.40	0.032	0.016
451.88	0.032	0.004	452.41	0.032	0.016
451.89	0.032	0.004	452.42	0.032	0.017
451.90	0.032	0.004	452.43	0.032	0.017
451.91	0.032	0.005	452.44	0.032	0.017
451.92	0.032	0.005	452.45	0.032	0.017
451.93	0.032	0.005	452.46	0.032	0.017
451.94	0.032	0.005	452.47	0.032	0.018
451.95	0.032	0.006	452.48	0.032	0.018
451.96	0.032	0.006	452.49	0.032	0.018
451.97	0.032	0.006	452.50	0.032	0.018
451.98	0.032	0.006	452.51	0.032	0.018
451.99	0.032	0.007	452.52	0.032	0.019
452.00	0.032	0.007	452.53	0.032	0.019
452.01	0.032	0.007	452.54	0.032	0.019
452.02	0.032	0.007	452.55	0.032	0.019
452.03	0.032	0.008	452.56	0.032	0.019
452.04	0.032	0.008	452.57	0.032	0.020
452.05	0.032	0.008	452.58	0.032	0.020
452.06	0.032	0.008	452.59	0.032	0.020
452.07	0.032	0.009	452.60	0.032	0.020
452.08	0.032	0.009	452.61	0.032	0.020
452.09	0.032	0.009	452.62	0.032	0.020
452.10	0.032	0.009	452.63	0.032	0.021

Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
452.64	0.032	0.021	453.17	0.032	0.027
452.65	0.032	0.021	453.18	0.032	0.027
452.66	0.032	0.021	453.19	0.032	0.027
452.67	0.032	0.021	453.20	0.032	0.027
452.68	0.032	0.022			
452.69	0.032	0.022			
452.70	0.032	0.022			
452.71	0.032	0.022			
452.72	0.032	0.022			
452.73	0.032	0.022			
452.74	0.032	0.022			
452.75	0.032	0.023			
452.76	0.032	0.023			
452.77	0.032	0.023			
452.78	0.032	0.023			
452.79	0.032	0.023			
452.80	0.032	0.023			
452.81	0.032	0.023			
452.82	0.032	0.023			
452.83	0.032	0.023			
452.84	0.032	0.024			
452.85	0.032	0.024			
452.86	0.032	0.024			
452.87	0.032	0.024			
452.88	0.032	0.024			
452.89	0.032	0.024			
452.90	0.032	0.024			
452.91	0.032	0.024			
452.92	0.032	0.024			
452.93	0.032	0.025			
452.94	0.032	0.025			
452.95	0.032	0.025			
452.96	0.032	0.025			
452.97	0.032	0.025			
452.98	0.032	0.025			
452.99	0.032	0.025			
453.00	0.032	0.025			
453.01	0.032	0.025			
453.02	0.032	0.025			
453.03	0.032	0.026			
453.04	0.032	0.026			
453.05	0.032	0.026			
453.06	0.032	0.026			
453.07	0.032	0.026			
453.08	0.032	0.026			
453.09	0.032	0.026			
453.10	0.032	0.026			
453.11	0.032	0.026			
453.12	0.032	0.027			
453.13	0.032	0.027			
453.14	0.032	0.027			
453.15	0.032	0.027			
453.16	0.032	0.027			

Summary for Pond S-20: Underground Infiltration (Sub-Lot 20)

Inflow Area = 0.409 ac, 33.25% Impervious, Inflow Depth = 3.43" for 10 Year - North Salem event
 Inflow = 1.31 cfs @ 12.17 hrs, Volume= 0.117 af
 Outflow = 1.30 cfs @ 12.18 hrs, Volume= 0.117 af, Atten= 1%, Lag= 0.0 min
 Discarded = 1.30 cfs @ 12.18 hrs, Volume= 0.117 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 470.02' @ 12.18 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.117 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (821.4 - 821.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	470.00'	0.012 af	18.33'W x 54.50'L x 2.04'H Field A 0.047 af Overall - 0.011 af Embedded = 0.036 af x 33.3% Voids
#2A	470.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

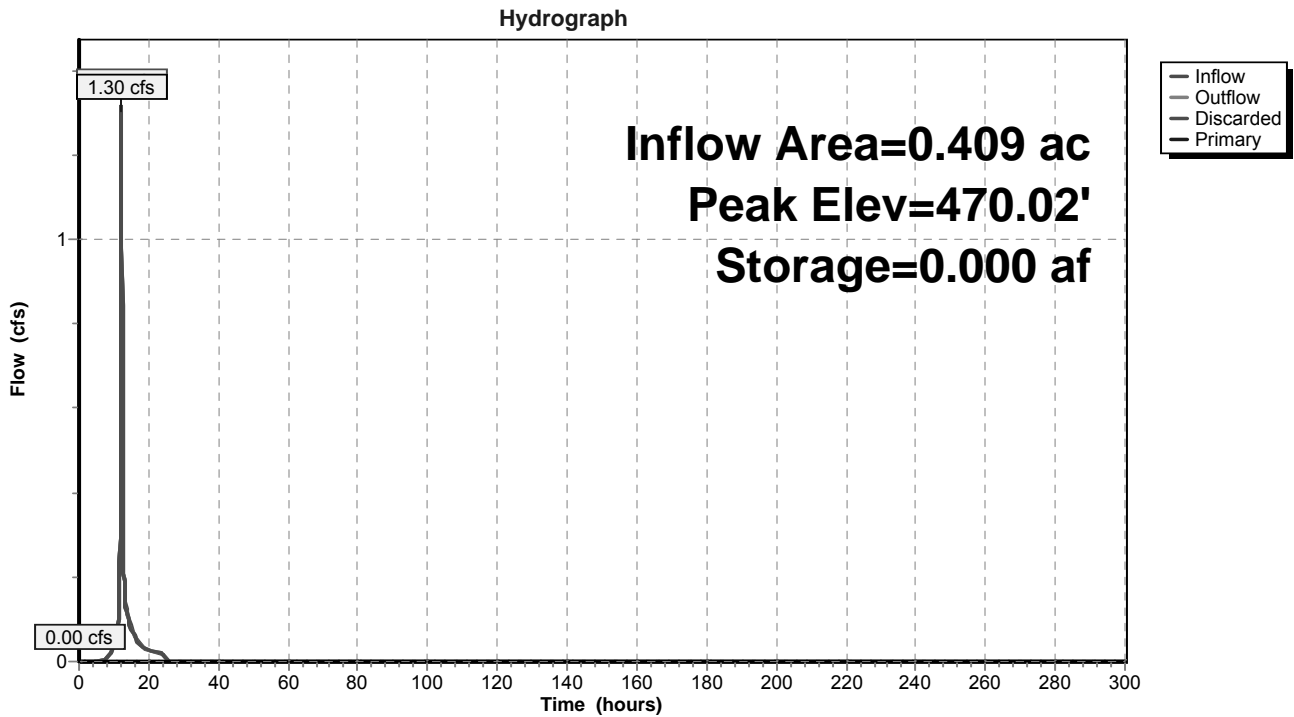
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	470.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	471.33'	3.0" Vert. Orifice/Grate X 2.00 C= 0.600

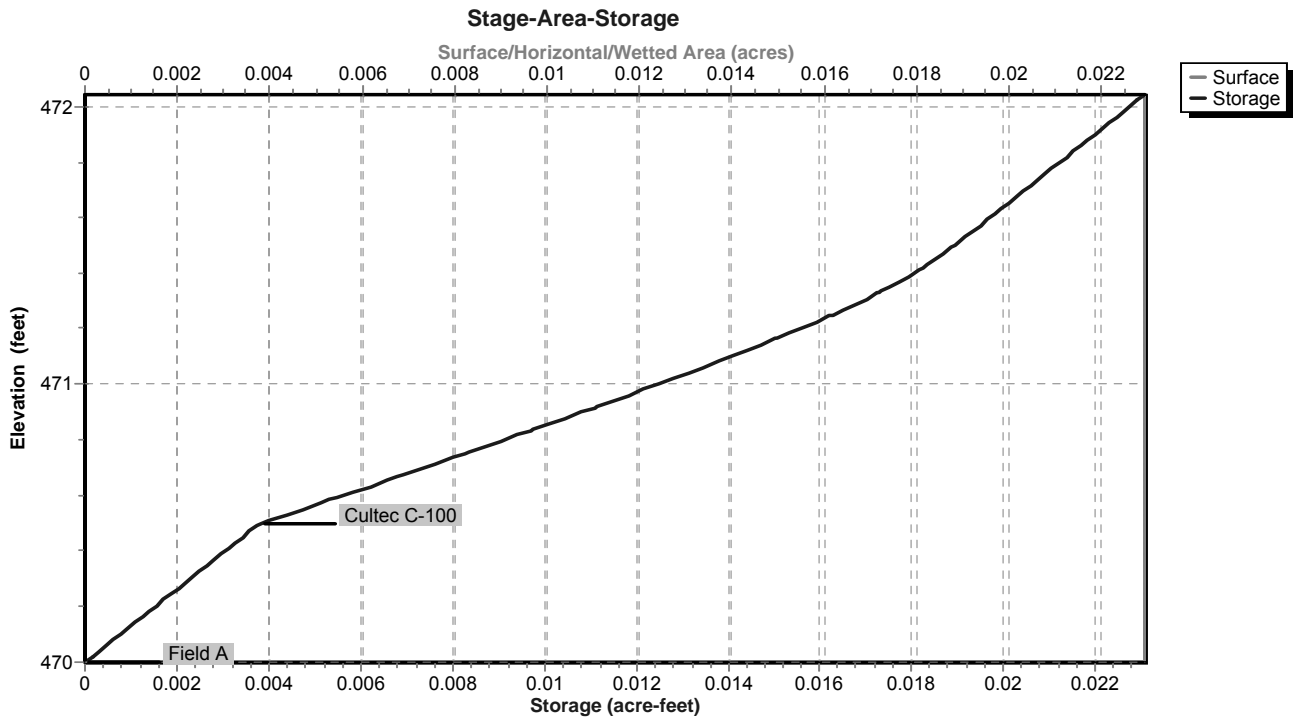
Discarded OutFlow Max=1.39 cfs @ 12.18 hrs HW=470.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.39 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=470.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-20: Underground Infiltration (Sub-Lot 20)



Pond S-20: Underground Infiltration (Sub-Lot 20)



Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
470.00	0.023	0.000	470.53	0.023	0.004
470.01	0.023	0.000	470.54	0.023	0.005
470.02	0.023	0.000	470.55	0.023	0.005
470.03	0.023	0.000	470.56	0.023	0.005
470.04	0.023	0.000	470.57	0.023	0.005
470.05	0.023	0.000	470.58	0.023	0.005
470.06	0.023	0.000	470.59	0.023	0.005
470.07	0.023	0.001	470.60	0.023	0.006
470.08	0.023	0.001	470.61	0.023	0.006
470.09	0.023	0.001	470.62	0.023	0.006
470.10	0.023	0.001	470.63	0.023	0.006
470.11	0.023	0.001	470.64	0.023	0.006
470.12	0.023	0.001	470.65	0.023	0.007
470.13	0.023	0.001	470.66	0.023	0.007
470.14	0.023	0.001	470.67	0.023	0.007
470.15	0.023	0.001	470.68	0.023	0.007
470.16	0.023	0.001	470.69	0.023	0.007
470.17	0.023	0.001	470.70	0.023	0.007
470.18	0.023	0.001	470.71	0.023	0.008
470.19	0.023	0.001	470.72	0.023	0.008
470.20	0.023	0.002	470.73	0.023	0.008
470.21	0.023	0.002	470.74	0.023	0.008
470.22	0.023	0.002	470.75	0.023	0.008
470.23	0.023	0.002	470.76	0.023	0.008
470.24	0.023	0.002	470.77	0.023	0.009
470.25	0.023	0.002	470.78	0.023	0.009
470.26	0.023	0.002	470.79	0.023	0.009
470.27	0.023	0.002	470.80	0.023	0.009
470.28	0.023	0.002	470.81	0.023	0.009
470.29	0.023	0.002	470.82	0.023	0.009
470.30	0.023	0.002	470.83	0.023	0.010
470.31	0.023	0.002	470.84	0.023	0.010
470.32	0.023	0.002	470.85	0.023	0.010
470.33	0.023	0.003	470.86	0.023	0.010
470.34	0.023	0.003	470.87	0.023	0.010
470.35	0.023	0.003	470.88	0.023	0.010
470.36	0.023	0.003	470.89	0.023	0.011
470.37	0.023	0.003	470.90	0.023	0.011
470.38	0.023	0.003	470.91	0.023	0.011
470.39	0.023	0.003	470.92	0.023	0.011
470.40	0.023	0.003	470.93	0.023	0.011
470.41	0.023	0.003	470.94	0.023	0.011
470.42	0.023	0.003	470.95	0.023	0.012
470.43	0.023	0.003	470.96	0.023	0.012
470.44	0.023	0.003	470.97	0.023	0.012
470.45	0.023	0.003	470.98	0.023	0.012
470.46	0.023	0.004	470.99	0.023	0.012
470.47	0.023	0.004	471.00	0.023	0.012
470.48	0.023	0.004	471.01	0.023	0.013
470.49	0.023	0.004	471.02	0.023	0.013
470.50	0.023	0.004	471.03	0.023	0.013
470.51	0.023	0.004	471.04	0.023	0.013
470.52	0.023	0.004	471.05	0.023	0.013

Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
471.06	0.023	0.013	471.59	0.023	0.020
471.07	0.023	0.014	471.60	0.023	0.020
471.08	0.023	0.014	471.61	0.023	0.020
471.09	0.023	0.014	471.62	0.023	0.020
471.10	0.023	0.014	471.63	0.023	0.020
471.11	0.023	0.014	471.64	0.023	0.020
471.12	0.023	0.014	471.65	0.023	0.020
471.13	0.023	0.015	471.66	0.023	0.020
471.14	0.023	0.015	471.67	0.023	0.020
471.15	0.023	0.015	471.68	0.023	0.020
471.16	0.023	0.015	471.69	0.023	0.020
471.17	0.023	0.015	471.70	0.023	0.020
471.18	0.023	0.015	471.71	0.023	0.021
471.19	0.023	0.015	471.72	0.023	0.021
471.20	0.023	0.016	471.73	0.023	0.021
471.21	0.023	0.016	471.74	0.023	0.021
471.22	0.023	0.016	471.75	0.023	0.021
471.23	0.023	0.016	471.76	0.023	0.021
471.24	0.023	0.016	471.77	0.023	0.021
471.25	0.023	0.016	471.78	0.023	0.021
471.26	0.023	0.016	471.79	0.023	0.021
471.27	0.023	0.017	471.80	0.023	0.021
471.28	0.023	0.017	471.81	0.023	0.021
471.29	0.023	0.017	471.82	0.023	0.021
471.30	0.023	0.017	471.83	0.023	0.021
471.31	0.023	0.017	471.84	0.023	0.022
471.32	0.023	0.017	471.85	0.023	0.022
471.33	0.023	0.017	471.86	0.023	0.022
471.34	0.023	0.017	471.87	0.023	0.022
471.35	0.023	0.018	471.88	0.023	0.022
471.36	0.023	0.018	471.89	0.023	0.022
471.37	0.023	0.018	471.90	0.023	0.022
471.38	0.023	0.018	471.91	0.023	0.022
471.39	0.023	0.018	471.92	0.023	0.022
471.40	0.023	0.018	471.93	0.023	0.022
471.41	0.023	0.018	471.94	0.023	0.022
471.42	0.023	0.018	471.95	0.023	0.022
471.43	0.023	0.018	471.96	0.023	0.022
471.44	0.023	0.018	471.97	0.023	0.023
471.45	0.023	0.019	471.98	0.023	0.023
471.46	0.023	0.019	471.99	0.023	0.023
471.47	0.023	0.019	472.00	0.023	0.023
471.48	0.023	0.019	472.01	0.023	0.023
471.49	0.023	0.019	472.02	0.023	0.023
471.50	0.023	0.019	472.03	0.023	0.023
471.51	0.023	0.019	472.04	0.023	0.023
471.52	0.023	0.019			
471.53	0.023	0.019			
471.54	0.023	0.019			
471.55	0.023	0.019			
471.56	0.023	0.019			
471.57	0.023	0.019			
471.58	0.023	0.020			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H1: Post-DevelopmentH1 Runoff Area=8.063 ac 0.00% Impervious Runoff Depth=3.62"
Flow Length=857' Tc=12.4 min CN=70 Runoff=27.56 cfs 2.431 af

Subcatchment H2: Post-DevelopmentH2 Runoff Area=0.349 ac 38.11% Impervious Runoff Depth=5.03"
Flow Length=252' Tc=7.2 min CN=83 Runoff=1.91 cfs 0.146 af

Subcatchment H3: Post-DevelopmentH3 Runoff Area=0.289 ac 41.87% Impervious Runoff Depth=5.03"
Flow Length=223' Tc=8.7 min CN=83 Runoff=1.50 cfs 0.121 af

Subcatchment H4: Post-DevelopmentH4 Runoff Area=0.409 ac 33.25% Impervious Runoff Depth=4.81"
Flow Length=314' Tc=12.7 min CN=81 Runoff=1.82 cfs 0.164 af

Pond DP 8: Design Point 8 Inflow=29.05 cfs 2.464 af
Primary=29.05 cfs 2.464 af

Pond S-18: Underground Infiltration (Sub-Lot Peak Elev=444.92' Storage=0.022 af Inflow=1.91 cfs 0.146 af
Discarded=0.20 cfs 0.114 af Primary=1.55 cfs 0.033 af Outflow=1.75 cfs 0.147 af

Pond S-19: Underground Infiltration Peak Elev=451.59' Storage=0.000 af Inflow=1.50 cfs 0.121 af
Discarded=1.50 cfs 0.121 af Primary=0.00 cfs 0.000 af Outflow=1.50 cfs 0.121 af

Pond S-20: Underground Infiltration Peak Elev=470.54' Storage=0.005 af Inflow=1.82 cfs 0.164 af
Discarded=1.39 cfs 0.162 af Primary=0.00 cfs 0.000 af Outflow=1.39 cfs 0.162 af

Total Runoff Area = 9.110 ac Runoff Volume = 2.862 af Average Runoff Depth = 3.77"
95.72% Pervious = 8.720 ac 4.28% Impervious = 0.390 ac

Summary for Subcatchment H1: Post-Development H1

Runoff = 27.56 cfs @ 12.17 hrs, Volume= 2.431 af, Depth= 3.62"

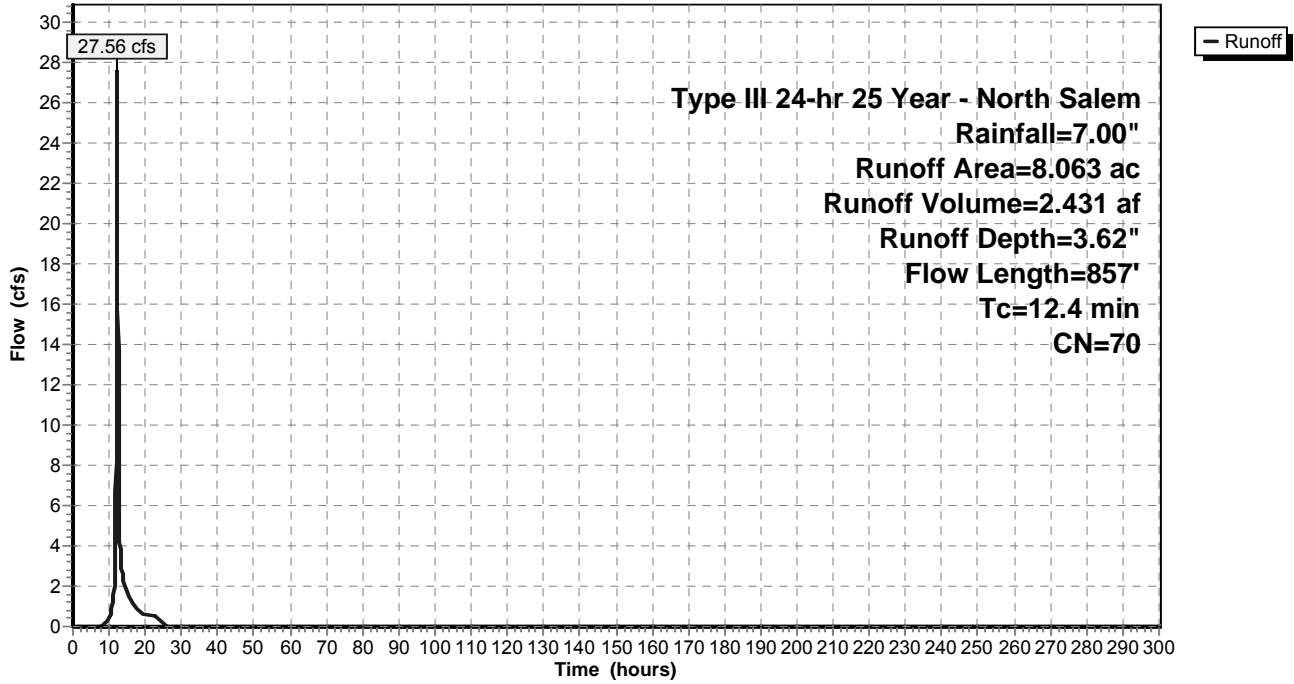
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 4.880	70	Woods, Good, HSG C, CtC Soils
2.436	74	>75% Grass cover, Good, HSG C
* 0.634	55	Woods, Good, HSG B, CrC Soils
0.113	61	>75% Grass cover, Good, HSG B
8.063	70	Weighted Average
8.063		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	60	0.1000	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	84	0.0417	3.29		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	321	0.2118	7.41		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.8	327	0.1651	6.54		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
12.4	857	Total			

Subcatchment H1: Post-Development H1

Hydrograph



Summary for Subcatchment H2: Post-Development H2

Runoff = 1.91 cfs @ 12.10 hrs, Volume= 0.146 af, Depth= 5.03"

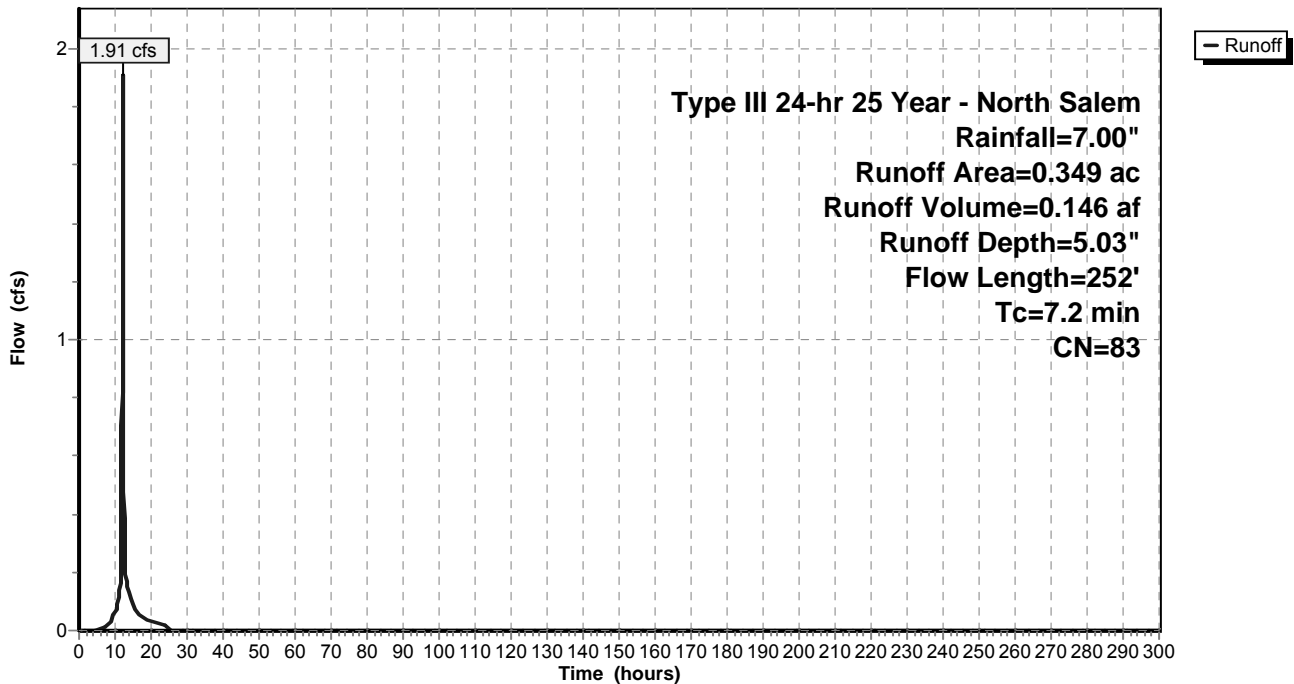
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.069	98	Driveway
0.177	74	>75% Grass cover, Good, HSG C
0.039	70	Woods, Good, HSG C
0.349	83	Weighted Average
0.216		61.89% Pervious Area
0.133		38.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	44	0.1818	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.1	44	0.4091	0.36		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	138	0.0326	2.91		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	26	0.1587	17.93	6.26	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
7.2	252	Total			

Subcatchment H2: Post-Development H2

Hydrograph



Summary for Subcatchment H3: Post-Development H3

Runoff = 1.50 cfs @ 12.12 hrs, Volume= 0.121 af, Depth= 5.03"

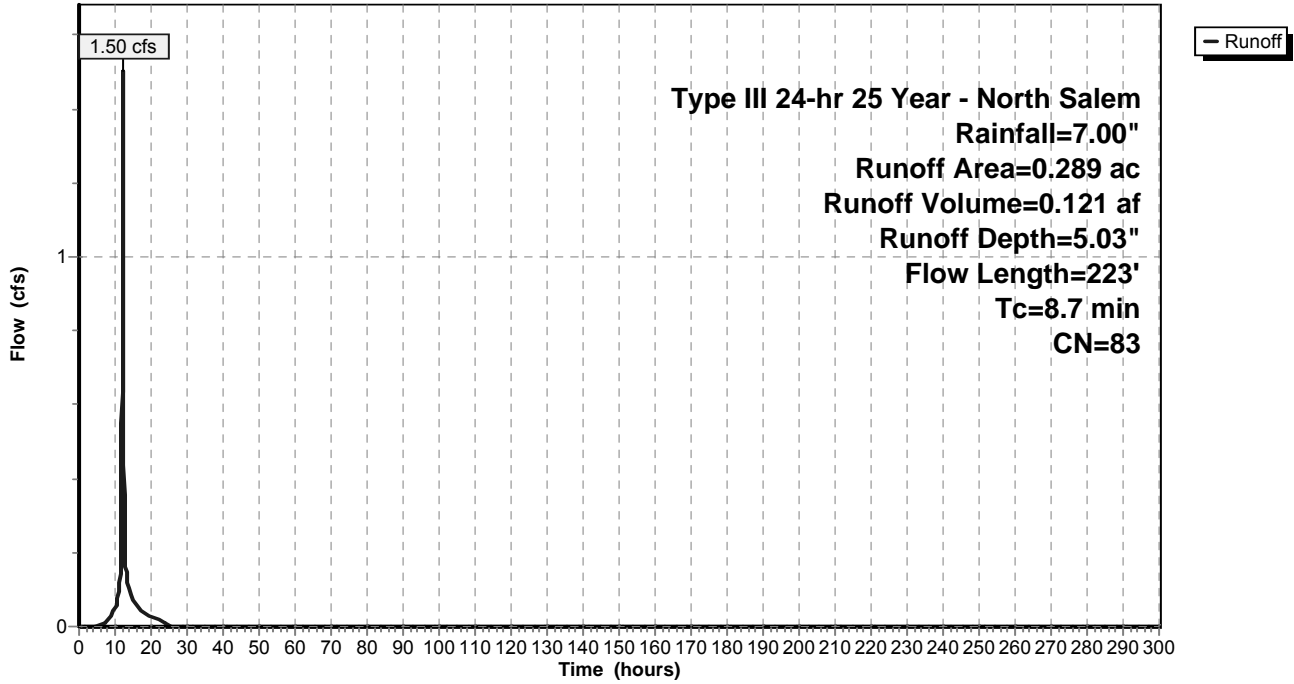
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.057	98	Driveway
0.101	74	>75% Grass cover, Good, HSG C
0.067	70	Woods, Good, HSG C
0.289	83	Weighted Average
0.168		58.13% Pervious Area
0.121		41.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	89	0.1685	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	11	0.5454	0.30		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.0	16	0.3125	9.00		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	25	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	42	0.0100	4.50	1.57	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
0.0	40	0.2000	20.13	7.03	Pipe Channel, F-G 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
8.7	223	Total			

Subcatchment H3: Post-Development H3

Hydrograph



Summary for Subcatchment H4: Post-Development H4

Runoff = 1.82 cfs @ 12.17 hrs, Volume= 0.164 af, Depth= 4.81"

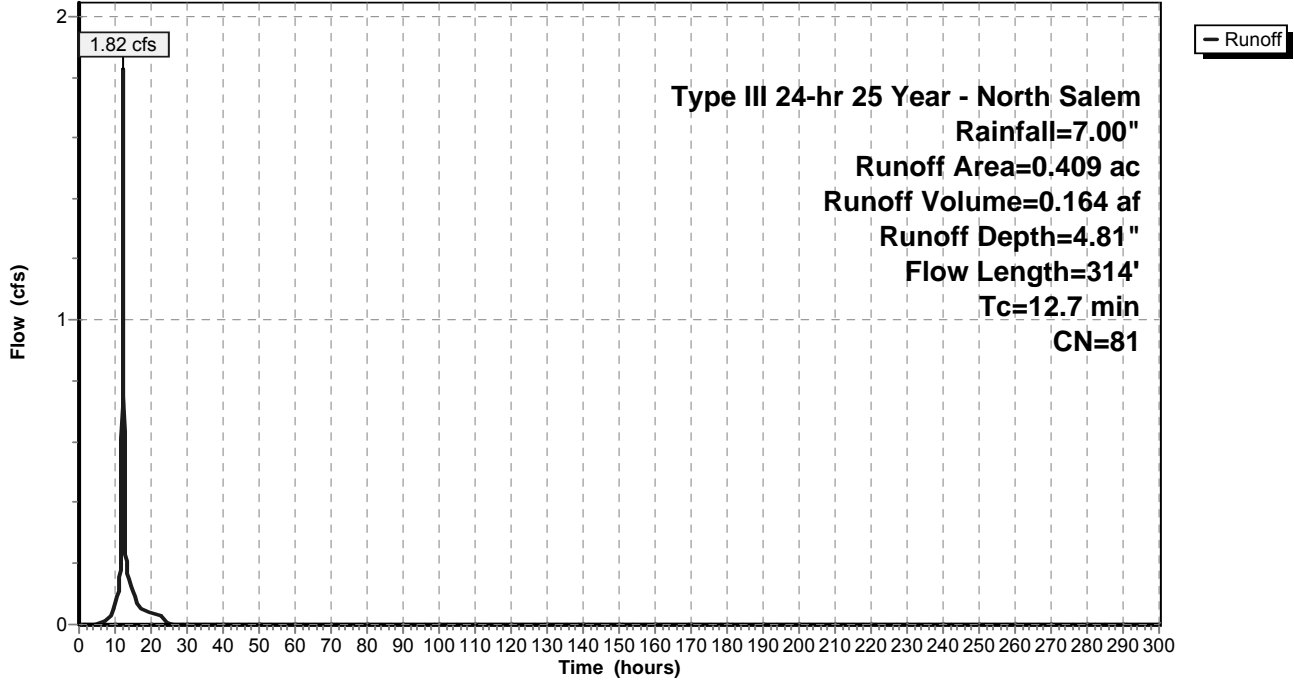
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.072	98	Driveway
0.200	74	>75% Grass cover, Good, HSG C
0.073	70	Woods, Good, HSG C
0.409	81	Weighted Average
0.273		66.75% Pervious Area
0.136		33.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	36	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	80	0.0100	4.50	1.57	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.2	56	0.0100	4.50	1.57	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.0	42	0.2000	20.13	7.03	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
12.7	314	Total			

Subcatchment H4: Post-Development H4

Hydrograph



Summary for Pond DP 8: Design Point 8

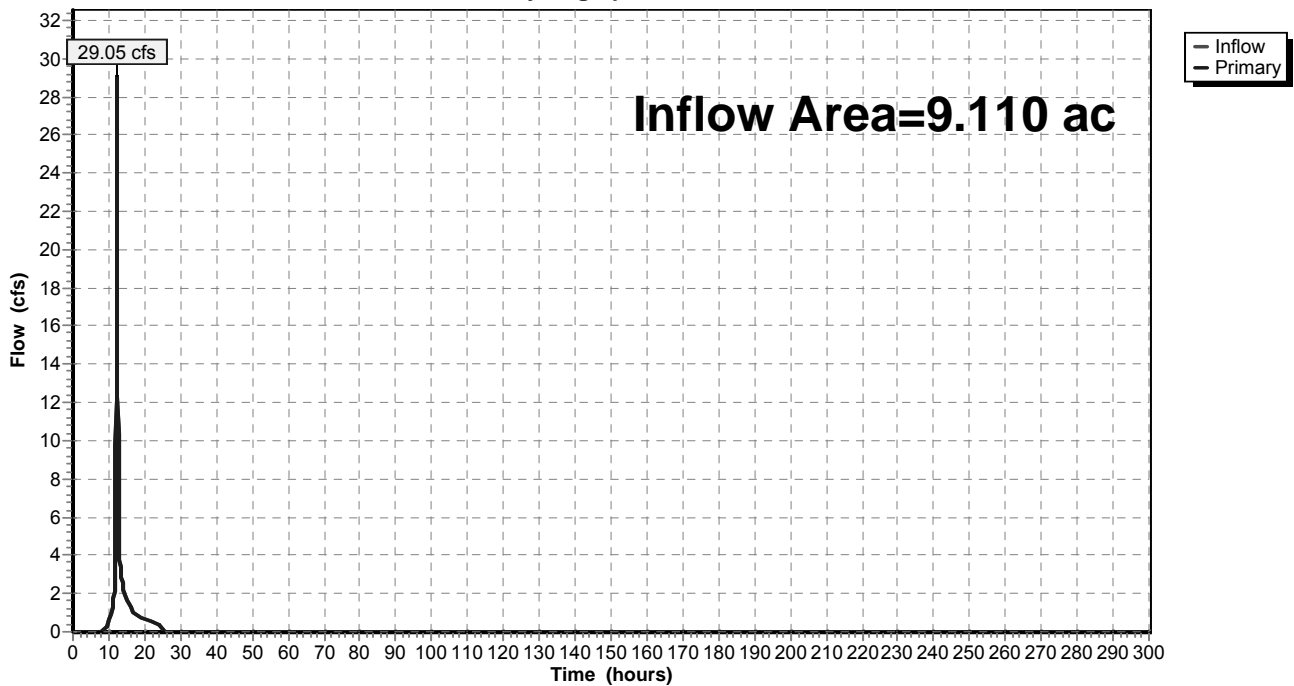
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.110 ac, 4.28% Impervious, Inflow Depth = 3.25" for 25 Year - North Salem event
Inflow = 29.05 cfs @ 12.17 hrs, Volume= 2.464 af
Primary = 29.05 cfs @ 12.17 hrs, Volume= 2.464 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Summary for Pond S-18: Underground Infiltration (Sub-Lot 18)

Inflow Area = 0.349 ac, 38.11% Impervious, Inflow Depth = 5.03" for 25 Year - North Salem event
 Inflow = 1.91 cfs @ 12.10 hrs, Volume= 0.146 af
 Outflow = 1.75 cfs @ 12.16 hrs, Volume= 0.147 af, Atten= 8%, Lag= 3.2 min
 Discarded = 0.20 cfs @ 11.60 hrs, Volume= 0.114 af
 Primary = 1.55 cfs @ 12.16 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 444.92' @ 12.16 hrs Surf.Area= 0.027 ac Storage= 0.022 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 21.5 min (823.0 - 801.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	443.42'	0.010 af	25.00'W x 47.00'L x 1.63'H Field A 0.044 af Overall - 0.013 af Embedded = 0.030 af x 33.3% Voids
#2A	443.67'	0.013 af	Cultec C-100 x 42 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.024 af	Total Available Storage

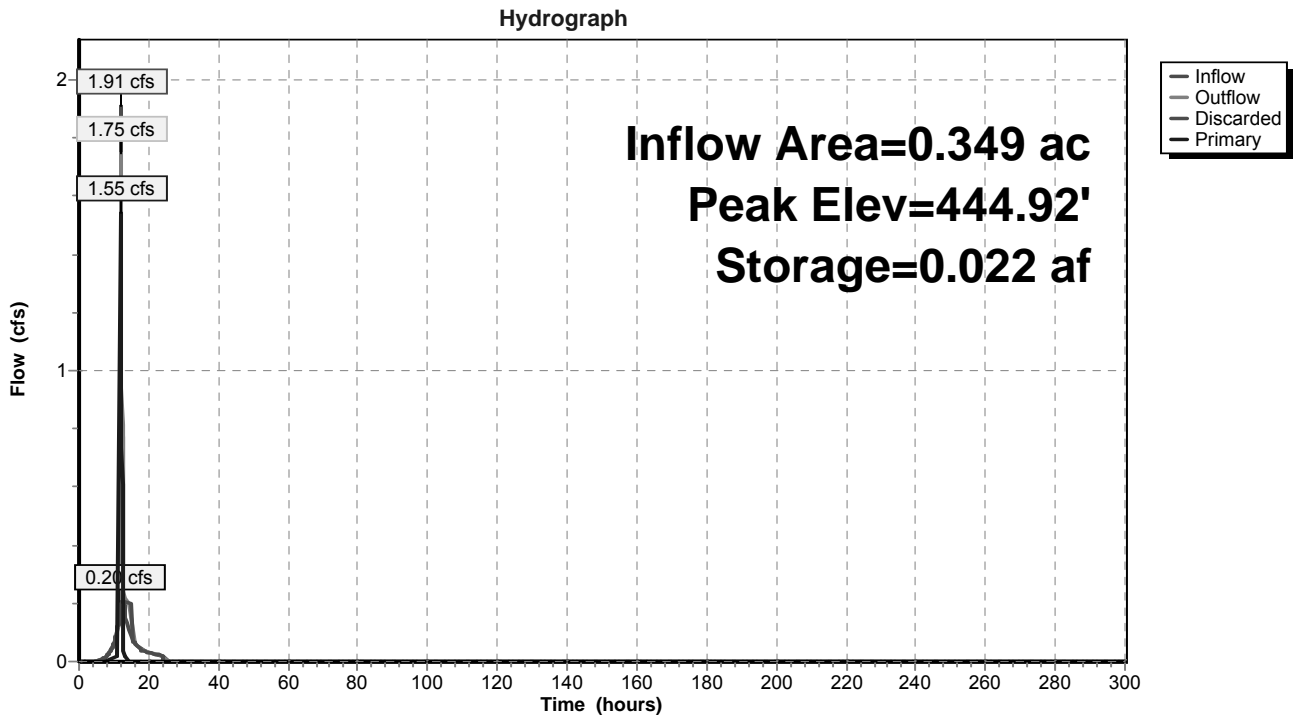
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	443.42'	7.500 in/hr Exfiltration over Surface area
#2	Primary	444.60'	6.0" Vert. Orifice/Grate X 6.00 C= 0.600

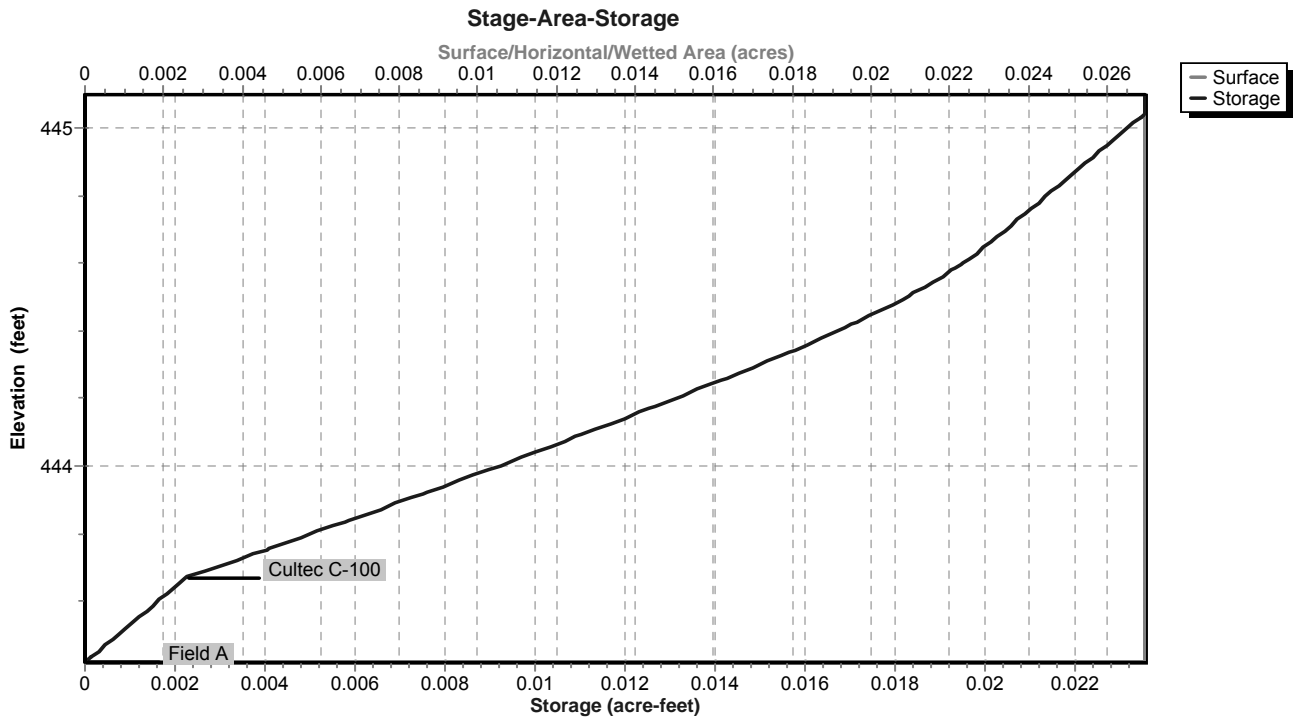
Discarded OutFlow Max=0.20 cfs @ 11.60 hrs HW=443.44' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=1.49 cfs @ 12.16 hrs HW=444.91' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 1.49 cfs @ 1.91 fps)

Pond S-18: Underground Infiltration (Sub-Lot 18)



Pond S-18: Underground Infiltration (Sub-Lot 18)



Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
443.42	0.027	0.000	443.95	0.027	0.008
443.43	0.027	0.000	443.96	0.027	0.008
443.44	0.027	0.000	443.97	0.027	0.009
443.45	0.027	0.000	443.98	0.027	0.009
443.46	0.027	0.000	443.99	0.027	0.009
443.47	0.027	0.000	444.00	0.027	0.009
443.48	0.027	0.001	444.01	0.027	0.009
443.49	0.027	0.001	444.02	0.027	0.010
443.50	0.027	0.001	444.03	0.027	0.010
443.51	0.027	0.001	444.04	0.027	0.010
443.52	0.027	0.001	444.05	0.027	0.010
443.53	0.027	0.001	444.06	0.027	0.010
443.54	0.027	0.001	444.07	0.027	0.011
443.55	0.027	0.001	444.08	0.027	0.011
443.56	0.027	0.001	444.09	0.027	0.011
443.57	0.027	0.001	444.10	0.027	0.011
443.58	0.027	0.001	444.11	0.027	0.011
443.59	0.027	0.002	444.12	0.027	0.012
443.60	0.027	0.002	444.13	0.027	0.012
443.61	0.027	0.002	444.14	0.027	0.012
443.62	0.027	0.002	444.15	0.027	0.012
443.63	0.027	0.002	444.16	0.027	0.012
443.64	0.027	0.002	444.17	0.027	0.013
443.65	0.027	0.002	444.18	0.027	0.013
443.66	0.027	0.002	444.19	0.027	0.013
443.67	0.027	0.002	444.20	0.027	0.013
443.68	0.027	0.002	444.21	0.027	0.013
443.69	0.027	0.003	444.22	0.027	0.014
443.70	0.027	0.003	444.23	0.027	0.014
443.71	0.027	0.003	444.24	0.027	0.014
443.72	0.027	0.003	444.25	0.027	0.014
443.73	0.027	0.004	444.26	0.027	0.014
443.74	0.027	0.004	444.27	0.027	0.014
443.75	0.027	0.004	444.28	0.027	0.015
443.76	0.027	0.004	444.29	0.027	0.015
443.77	0.027	0.004	444.30	0.027	0.015
443.78	0.027	0.005	444.31	0.027	0.015
443.79	0.027	0.005	444.32	0.027	0.015
443.80	0.027	0.005	444.33	0.027	0.016
443.81	0.027	0.005	444.34	0.027	0.016
443.82	0.027	0.005	444.35	0.027	0.016
443.83	0.027	0.006	444.36	0.027	0.016
443.84	0.027	0.006	444.37	0.027	0.016
443.85	0.027	0.006	444.38	0.027	0.016
443.86	0.027	0.006	444.39	0.027	0.017
443.87	0.027	0.006	444.40	0.027	0.017
443.88	0.027	0.007	444.41	0.027	0.017
443.89	0.027	0.007	444.42	0.027	0.017
443.90	0.027	0.007	444.43	0.027	0.017
443.91	0.027	0.007	444.44	0.027	0.017
443.92	0.027	0.008	444.45	0.027	0.018
443.93	0.027	0.008	444.46	0.027	0.018
443.94	0.027	0.008	444.47	0.027	0.018

Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
444.48	0.027	0.018	445.01	0.027	0.023
444.49	0.027	0.018	445.02	0.027	0.023
444.50	0.027	0.018	445.03	0.027	0.023
444.51	0.027	0.018	445.04	0.027	0.024
444.52	0.027	0.019	445.05	0.027	0.024
444.53	0.027	0.019	445.06	0.027	0.024
444.54	0.027	0.019	445.07	0.027	0.024
444.55	0.027	0.019	445.08	0.027	0.024
444.56	0.027	0.019	445.09	0.027	0.024
444.57	0.027	0.019	445.10	0.027	0.024
444.58	0.027	0.019			
444.59	0.027	0.019			
444.60	0.027	0.020			
444.61	0.027	0.020			
444.62	0.027	0.020			
444.63	0.027	0.020			
444.64	0.027	0.020			
444.65	0.027	0.020			
444.66	0.027	0.020			
444.67	0.027	0.020			
444.68	0.027	0.020			
444.69	0.027	0.020			
444.70	0.027	0.020			
444.71	0.027	0.021			
444.72	0.027	0.021			
444.73	0.027	0.021			
444.74	0.027	0.021			
444.75	0.027	0.021			
444.76	0.027	0.021			
444.77	0.027	0.021			
444.78	0.027	0.021			
444.79	0.027	0.021			
444.80	0.027	0.021			
444.81	0.027	0.021			
444.82	0.027	0.022			
444.83	0.027	0.022			
444.84	0.027	0.022			
444.85	0.027	0.022			
444.86	0.027	0.022			
444.87	0.027	0.022			
444.88	0.027	0.022			
444.89	0.027	0.022			
444.90	0.027	0.022			
444.91	0.027	0.022			
444.92	0.027	0.022			
444.93	0.027	0.023			
444.94	0.027	0.023			
444.95	0.027	0.023			
444.96	0.027	0.023			
444.97	0.027	0.023			
444.98	0.027	0.023			
444.99	0.027	0.023			
445.00	0.027	0.023			

Summary for Pond S-19: Underground Infiltration (Sub-Lot 19)

Inflow Area = 0.289 ac, 41.87% Impervious, Inflow Depth = 5.03" for 25 Year - North Salem event
 Inflow = 1.50 cfs @ 12.12 hrs, Volume= 0.121 af
 Outflow = 1.50 cfs @ 12.12 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min
 Discarded = 1.50 cfs @ 12.12 hrs, Volume= 0.121 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 451.59' @ 12.12 hrs Surf.Area= 0.032 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.121 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (803.0 - 803.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	451.58'	0.012 af	15.00'W x 92.00'L x 1.63'H Field A 0.051 af Overall - 0.015 af Embedded = 0.036 af x 33.3% Voids
#2A	451.83'	0.015 af	Cultec C-100 x 48 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.027 af	Total Available Storage

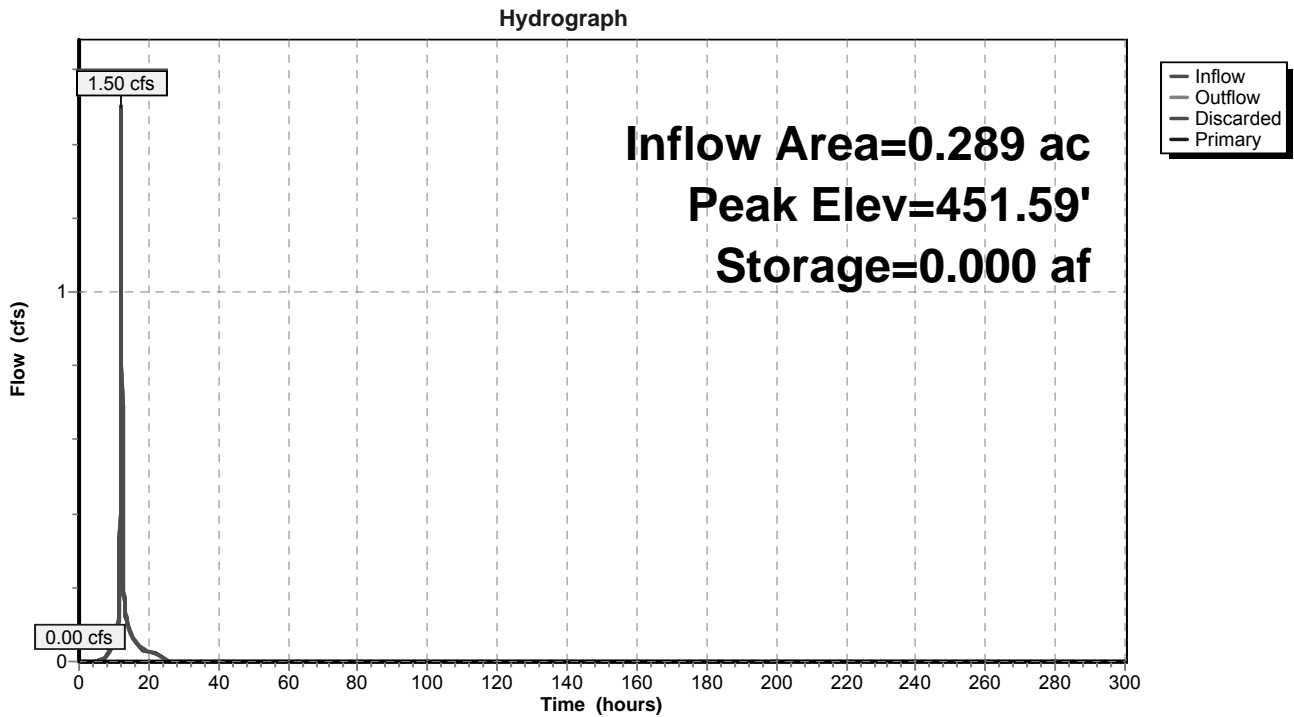
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	451.58'	60.000 in/hr Exfiltration over Surface area
#2	Primary	452.91'	3.0" Vert. Orifice/Grate C= 0.600

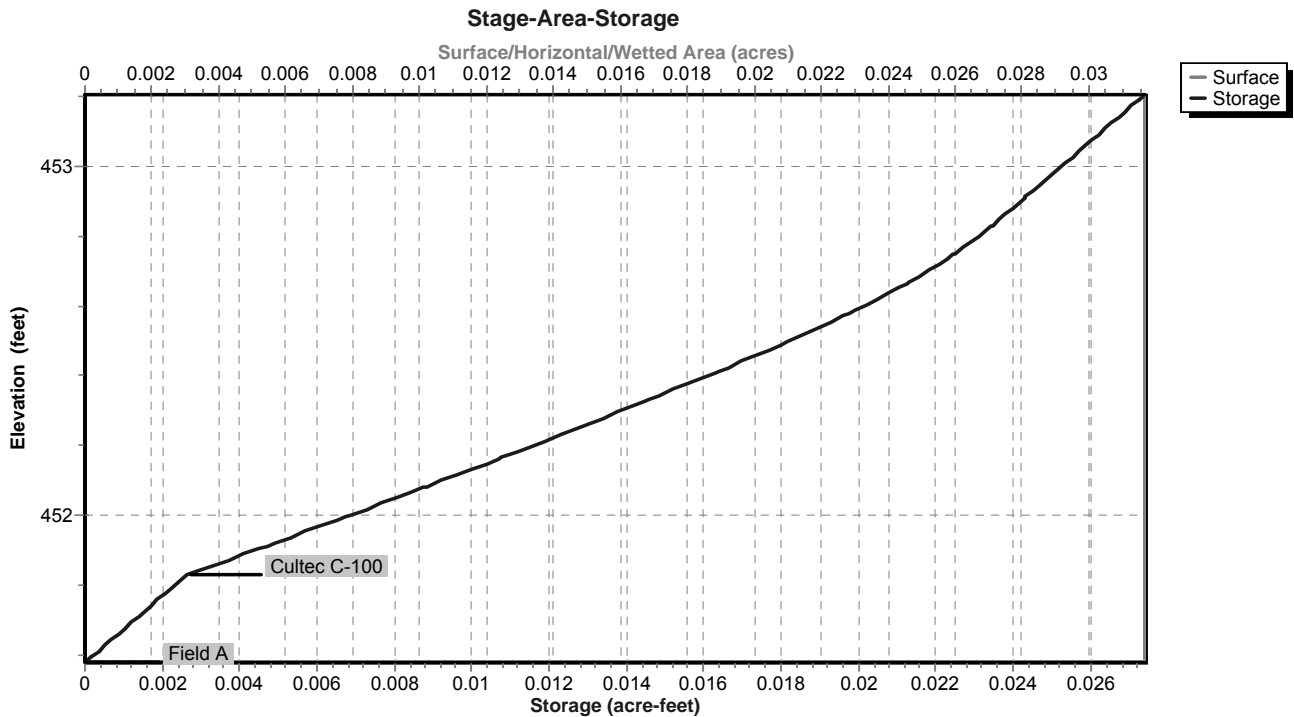
Discarded OutFlow Max=1.92 cfs @ 12.12 hrs HW=451.59' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.92 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=451.58' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-19: Underground Infiltration (Sub-Lot 19)



Pond S-19: Underground Infiltration (Sub-Lot 19)



Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
451.58	0.032	0.000	452.11	0.032	0.009
451.59	0.032	0.000	452.12	0.032	0.010
451.60	0.032	0.000	452.13	0.032	0.010
451.61	0.032	0.000	452.14	0.032	0.010
451.62	0.032	0.000	452.15	0.032	0.010
451.63	0.032	0.001	452.16	0.032	0.011
451.64	0.032	0.001	452.17	0.032	0.011
451.65	0.032	0.001	452.18	0.032	0.011
451.66	0.032	0.001	452.19	0.032	0.011
451.67	0.032	0.001	452.20	0.032	0.012
451.68	0.032	0.001	452.21	0.032	0.012
451.69	0.032	0.001	452.22	0.032	0.012
451.70	0.032	0.001	452.23	0.032	0.012
451.71	0.032	0.001	452.24	0.032	0.013
451.72	0.032	0.001	452.25	0.032	0.013
451.73	0.032	0.002	452.26	0.032	0.013
451.74	0.032	0.002	452.27	0.032	0.013
451.75	0.032	0.002	452.28	0.032	0.013
451.76	0.032	0.002	452.29	0.032	0.014
451.77	0.032	0.002	452.30	0.032	0.014
451.78	0.032	0.002	452.31	0.032	0.014
451.79	0.032	0.002	452.32	0.032	0.014
451.80	0.032	0.002	452.33	0.032	0.015
451.81	0.032	0.002	452.34	0.032	0.015
451.82	0.032	0.003	452.35	0.032	0.015
451.83	0.032	0.003	452.36	0.032	0.015
451.84	0.032	0.003	452.37	0.032	0.015
451.85	0.032	0.003	452.38	0.032	0.016
451.86	0.032	0.003	452.39	0.032	0.016
451.87	0.032	0.004	452.40	0.032	0.016
451.88	0.032	0.004	452.41	0.032	0.016
451.89	0.032	0.004	452.42	0.032	0.017
451.90	0.032	0.004	452.43	0.032	0.017
451.91	0.032	0.005	452.44	0.032	0.017
451.92	0.032	0.005	452.45	0.032	0.017
451.93	0.032	0.005	452.46	0.032	0.017
451.94	0.032	0.005	452.47	0.032	0.018
451.95	0.032	0.006	452.48	0.032	0.018
451.96	0.032	0.006	452.49	0.032	0.018
451.97	0.032	0.006	452.50	0.032	0.018
451.98	0.032	0.006	452.51	0.032	0.018
451.99	0.032	0.007	452.52	0.032	0.019
452.00	0.032	0.007	452.53	0.032	0.019
452.01	0.032	0.007	452.54	0.032	0.019
452.02	0.032	0.007	452.55	0.032	0.019
452.03	0.032	0.008	452.56	0.032	0.019
452.04	0.032	0.008	452.57	0.032	0.020
452.05	0.032	0.008	452.58	0.032	0.020
452.06	0.032	0.008	452.59	0.032	0.020
452.07	0.032	0.009	452.60	0.032	0.020
452.08	0.032	0.009	452.61	0.032	0.020
452.09	0.032	0.009	452.62	0.032	0.020
452.10	0.032	0.009	452.63	0.032	0.021

Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
452.64	0.032	0.021	453.17	0.032	0.027
452.65	0.032	0.021	453.18	0.032	0.027
452.66	0.032	0.021	453.19	0.032	0.027
452.67	0.032	0.021	453.20	0.032	0.027
452.68	0.032	0.022			
452.69	0.032	0.022			
452.70	0.032	0.022			
452.71	0.032	0.022			
452.72	0.032	0.022			
452.73	0.032	0.022			
452.74	0.032	0.022			
452.75	0.032	0.023			
452.76	0.032	0.023			
452.77	0.032	0.023			
452.78	0.032	0.023			
452.79	0.032	0.023			
452.80	0.032	0.023			
452.81	0.032	0.023			
452.82	0.032	0.023			
452.83	0.032	0.023			
452.84	0.032	0.024			
452.85	0.032	0.024			
452.86	0.032	0.024			
452.87	0.032	0.024			
452.88	0.032	0.024			
452.89	0.032	0.024			
452.90	0.032	0.024			
452.91	0.032	0.024			
452.92	0.032	0.024			
452.93	0.032	0.025			
452.94	0.032	0.025			
452.95	0.032	0.025			
452.96	0.032	0.025			
452.97	0.032	0.025			
452.98	0.032	0.025			
452.99	0.032	0.025			
453.00	0.032	0.025			
453.01	0.032	0.025			
453.02	0.032	0.025			
453.03	0.032	0.026			
453.04	0.032	0.026			
453.05	0.032	0.026			
453.06	0.032	0.026			
453.07	0.032	0.026			
453.08	0.032	0.026			
453.09	0.032	0.026			
453.10	0.032	0.026			
453.11	0.032	0.026			
453.12	0.032	0.027			
453.13	0.032	0.027			
453.14	0.032	0.027			
453.15	0.032	0.027			
453.16	0.032	0.027			

Summary for Pond S-20: Underground Infiltration (Sub-Lot 20)

Inflow Area = 0.409 ac, 33.25% Impervious, Inflow Depth = 4.81" for 25 Year - North Salem event
 Inflow = 1.82 cfs @ 12.17 hrs, Volume= 0.164 af
 Outflow = 1.39 cfs @ 12.10 hrs, Volume= 0.162 af, Atten= 24%, Lag= 0.0 min
 Discarded = 1.39 cfs @ 12.10 hrs, Volume= 0.162 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 470.54' @ 12.29 hrs Surf.Area= 0.023 ac Storage= 0.005 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 1.0 min (812.7 - 811.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	470.00'	0.012 af	18.33'W x 54.50'L x 2.04'H Field A 0.047 af Overall - 0.011 af Embedded = 0.036 af x 33.3% Voids
#2A	470.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

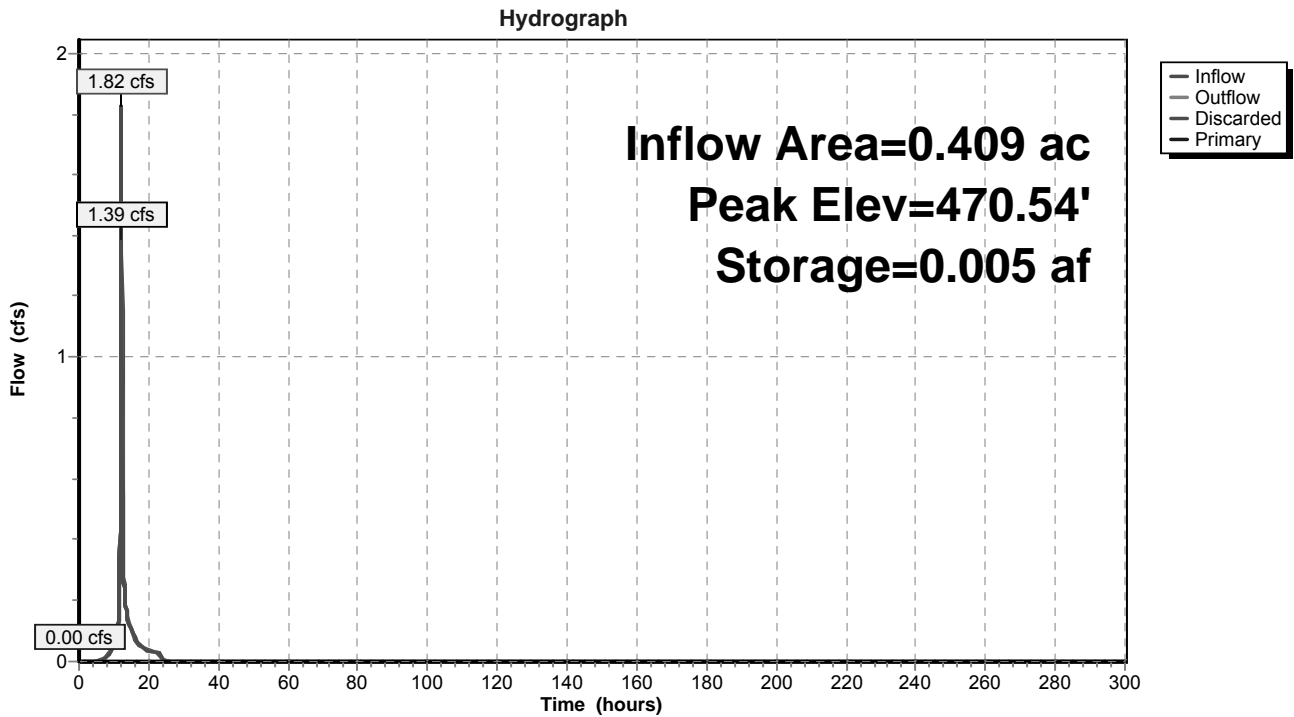
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	470.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	471.33'	3.0" Vert. Orifice/Grate X 2.00 C= 0.600

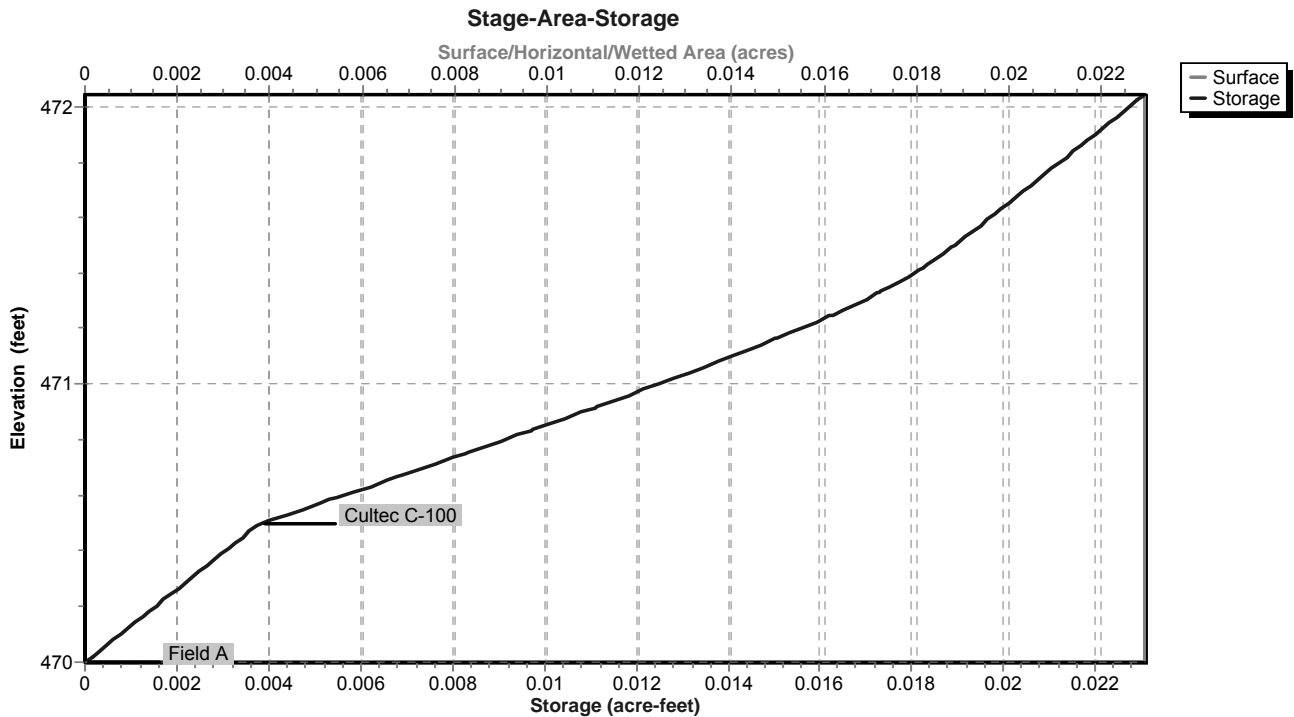
Discarded OutFlow Max=1.39 cfs @ 12.10 hrs HW=470.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.39 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=470.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-20: Underground Infiltration (Sub-Lot 20)



Pond S-20: Underground Infiltration (Sub-Lot 20)



Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
470.00	0.023	0.000	470.53	0.023	0.004
470.01	0.023	0.000	470.54	0.023	0.005
470.02	0.023	0.000	470.55	0.023	0.005
470.03	0.023	0.000	470.56	0.023	0.005
470.04	0.023	0.000	470.57	0.023	0.005
470.05	0.023	0.000	470.58	0.023	0.005
470.06	0.023	0.000	470.59	0.023	0.005
470.07	0.023	0.001	470.60	0.023	0.006
470.08	0.023	0.001	470.61	0.023	0.006
470.09	0.023	0.001	470.62	0.023	0.006
470.10	0.023	0.001	470.63	0.023	0.006
470.11	0.023	0.001	470.64	0.023	0.006
470.12	0.023	0.001	470.65	0.023	0.007
470.13	0.023	0.001	470.66	0.023	0.007
470.14	0.023	0.001	470.67	0.023	0.007
470.15	0.023	0.001	470.68	0.023	0.007
470.16	0.023	0.001	470.69	0.023	0.007
470.17	0.023	0.001	470.70	0.023	0.007
470.18	0.023	0.001	470.71	0.023	0.008
470.19	0.023	0.001	470.72	0.023	0.008
470.20	0.023	0.002	470.73	0.023	0.008
470.21	0.023	0.002	470.74	0.023	0.008
470.22	0.023	0.002	470.75	0.023	0.008
470.23	0.023	0.002	470.76	0.023	0.008
470.24	0.023	0.002	470.77	0.023	0.009
470.25	0.023	0.002	470.78	0.023	0.009
470.26	0.023	0.002	470.79	0.023	0.009
470.27	0.023	0.002	470.80	0.023	0.009
470.28	0.023	0.002	470.81	0.023	0.009
470.29	0.023	0.002	470.82	0.023	0.009
470.30	0.023	0.002	470.83	0.023	0.010
470.31	0.023	0.002	470.84	0.023	0.010
470.32	0.023	0.002	470.85	0.023	0.010
470.33	0.023	0.003	470.86	0.023	0.010
470.34	0.023	0.003	470.87	0.023	0.010
470.35	0.023	0.003	470.88	0.023	0.010
470.36	0.023	0.003	470.89	0.023	0.011
470.37	0.023	0.003	470.90	0.023	0.011
470.38	0.023	0.003	470.91	0.023	0.011
470.39	0.023	0.003	470.92	0.023	0.011
470.40	0.023	0.003	470.93	0.023	0.011
470.41	0.023	0.003	470.94	0.023	0.011
470.42	0.023	0.003	470.95	0.023	0.012
470.43	0.023	0.003	470.96	0.023	0.012
470.44	0.023	0.003	470.97	0.023	0.012
470.45	0.023	0.003	470.98	0.023	0.012
470.46	0.023	0.004	470.99	0.023	0.012
470.47	0.023	0.004	471.00	0.023	0.012
470.48	0.023	0.004	471.01	0.023	0.013
470.49	0.023	0.004	471.02	0.023	0.013
470.50	0.023	0.004	471.03	0.023	0.013
470.51	0.023	0.004	471.04	0.023	0.013
470.52	0.023	0.004	471.05	0.023	0.013

Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
471.06	0.023	0.013	471.59	0.023	0.020
471.07	0.023	0.014	471.60	0.023	0.020
471.08	0.023	0.014	471.61	0.023	0.020
471.09	0.023	0.014	471.62	0.023	0.020
471.10	0.023	0.014	471.63	0.023	0.020
471.11	0.023	0.014	471.64	0.023	0.020
471.12	0.023	0.014	471.65	0.023	0.020
471.13	0.023	0.015	471.66	0.023	0.020
471.14	0.023	0.015	471.67	0.023	0.020
471.15	0.023	0.015	471.68	0.023	0.020
471.16	0.023	0.015	471.69	0.023	0.020
471.17	0.023	0.015	471.70	0.023	0.020
471.18	0.023	0.015	471.71	0.023	0.021
471.19	0.023	0.015	471.72	0.023	0.021
471.20	0.023	0.016	471.73	0.023	0.021
471.21	0.023	0.016	471.74	0.023	0.021
471.22	0.023	0.016	471.75	0.023	0.021
471.23	0.023	0.016	471.76	0.023	0.021
471.24	0.023	0.016	471.77	0.023	0.021
471.25	0.023	0.016	471.78	0.023	0.021
471.26	0.023	0.016	471.79	0.023	0.021
471.27	0.023	0.017	471.80	0.023	0.021
471.28	0.023	0.017	471.81	0.023	0.021
471.29	0.023	0.017	471.82	0.023	0.021
471.30	0.023	0.017	471.83	0.023	0.021
471.31	0.023	0.017	471.84	0.023	0.022
471.32	0.023	0.017	471.85	0.023	0.022
471.33	0.023	0.017	471.86	0.023	0.022
471.34	0.023	0.017	471.87	0.023	0.022
471.35	0.023	0.018	471.88	0.023	0.022
471.36	0.023	0.018	471.89	0.023	0.022
471.37	0.023	0.018	471.90	0.023	0.022
471.38	0.023	0.018	471.91	0.023	0.022
471.39	0.023	0.018	471.92	0.023	0.022
471.40	0.023	0.018	471.93	0.023	0.022
471.41	0.023	0.018	471.94	0.023	0.022
471.42	0.023	0.018	471.95	0.023	0.022
471.43	0.023	0.018	471.96	0.023	0.022
471.44	0.023	0.018	471.97	0.023	0.023
471.45	0.023	0.019	471.98	0.023	0.023
471.46	0.023	0.019	471.99	0.023	0.023
471.47	0.023	0.019	472.00	0.023	0.023
471.48	0.023	0.019	472.01	0.023	0.023
471.49	0.023	0.019	472.02	0.023	0.023
471.50	0.023	0.019	472.03	0.023	0.023
471.51	0.023	0.019	472.04	0.023	0.023
471.52	0.023	0.019			
471.53	0.023	0.019			
471.54	0.023	0.019			
471.55	0.023	0.019			
471.56	0.023	0.019			
471.57	0.023	0.019			
471.58	0.023	0.020			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment H1: Post-DevelopmentH1 Runoff Area=8.063 ac 0.00% Impervious Runoff Depth=5.33"
Flow Length=857' Tc=12.4 min CN=70 Runoff=40.69 cfs 3.585 af

Subcatchment H2: Post-DevelopmentH2 Runoff Area=0.349 ac 38.11% Impervious Runoff Depth=6.94"
Flow Length=252' Tc=7.2 min CN=83 Runoff=2.60 cfs 0.202 af

Subcatchment H3: Post-DevelopmentH3 Runoff Area=0.289 ac 41.87% Impervious Runoff Depth=6.94"
Flow Length=223' Tc=8.7 min CN=83 Runoff=2.05 cfs 0.167 af

Subcatchment H4: Post-DevelopmentH4 Runoff Area=0.409 ac 33.25% Impervious Runoff Depth=6.69"
Flow Length=314' Tc=12.7 min CN=81 Runoff=2.51 cfs 0.228 af

Pond DP 8: Design Point 8 Inflow=42.70 cfs 3.645 af
Primary=42.70 cfs 3.645 af

Pond S-18: Underground Infiltration (Sub-Lot Peak Elev=445.02' Storage=0.023 af Inflow=2.60 cfs 0.202 af
Discarded=0.20 cfs 0.141 af Primary=2.31 cfs 0.061 af Outflow=2.52 cfs 0.201 af

Pond S-19: Underground Infiltration Peak Elev=451.63' Storage=0.001 af Inflow=2.05 cfs 0.167 af
Discarded=1.96 cfs 0.169 af Primary=0.00 cfs 0.000 af Outflow=1.96 cfs 0.169 af

Pond S-20: Underground Infiltration Peak Elev=471.41' Storage=0.018 af Inflow=2.51 cfs 0.228 af
Discarded=1.39 cfs 0.223 af Primary=0.03 cfs 0.000 af Outflow=1.42 cfs 0.224 af

Total Runoff Area = 9.110 ac Runoff Volume = 4.182 af Average Runoff Depth = 5.51"
95.72% Pervious = 8.720 ac 4.28% Impervious = 0.390 ac

Summary for Subcatchment H1: Post-Development H1

Runoff = 40.69 cfs @ 12.17 hrs, Volume= 3.585 af, Depth= 5.33"

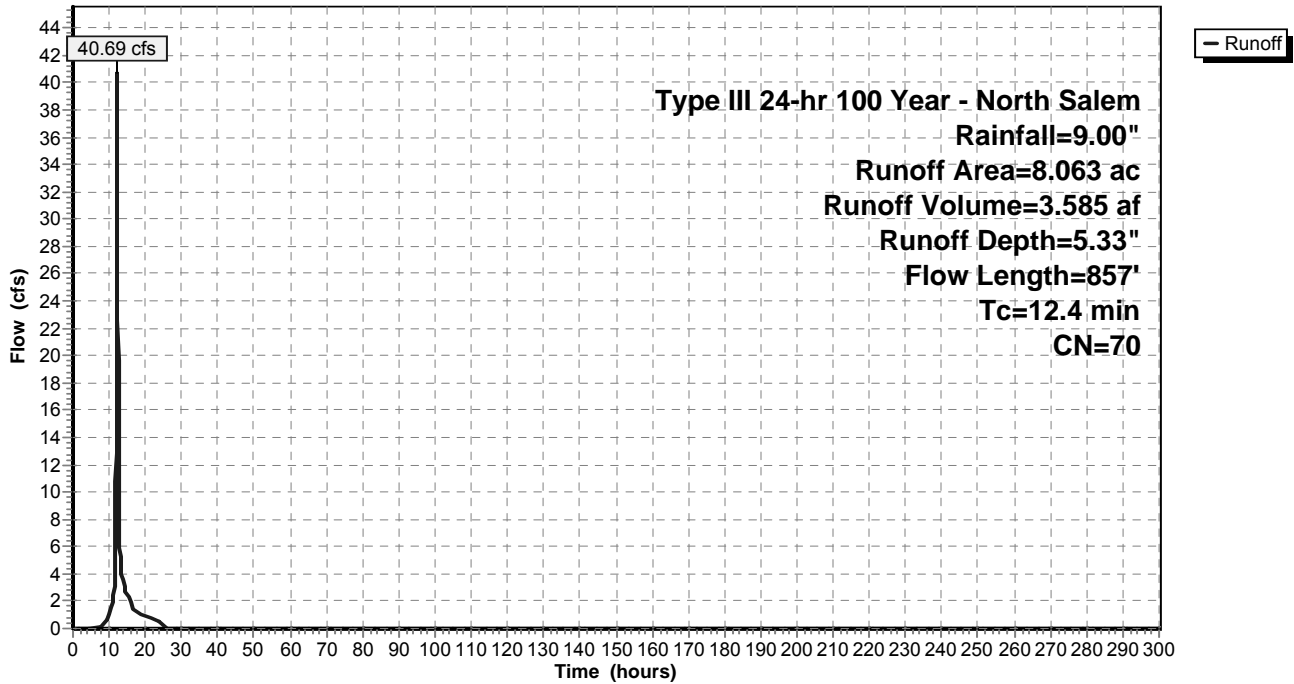
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 4.880	70	Woods, Good, HSG C, CtC Soils
2.436	74	>75% Grass cover, Good, HSG C
* 0.634	55	Woods, Good, HSG B, CrC Soils
0.113	61	>75% Grass cover, Good, HSG B
8.063	70	Weighted Average
8.063		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	60	0.1000	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
3.5	40	0.2500	0.19		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	84	0.0417	3.29		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.7	321	0.2118	7.41		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.8	327	0.1651	6.54		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
12.4	857	Total			

Subcatchment H1: Post-Development H1

Hydrograph



Summary for Subcatchment H2: Post-Development H2

Runoff = 2.60 cfs @ 12.10 hrs, Volume= 0.202 af, Depth= 6.94"

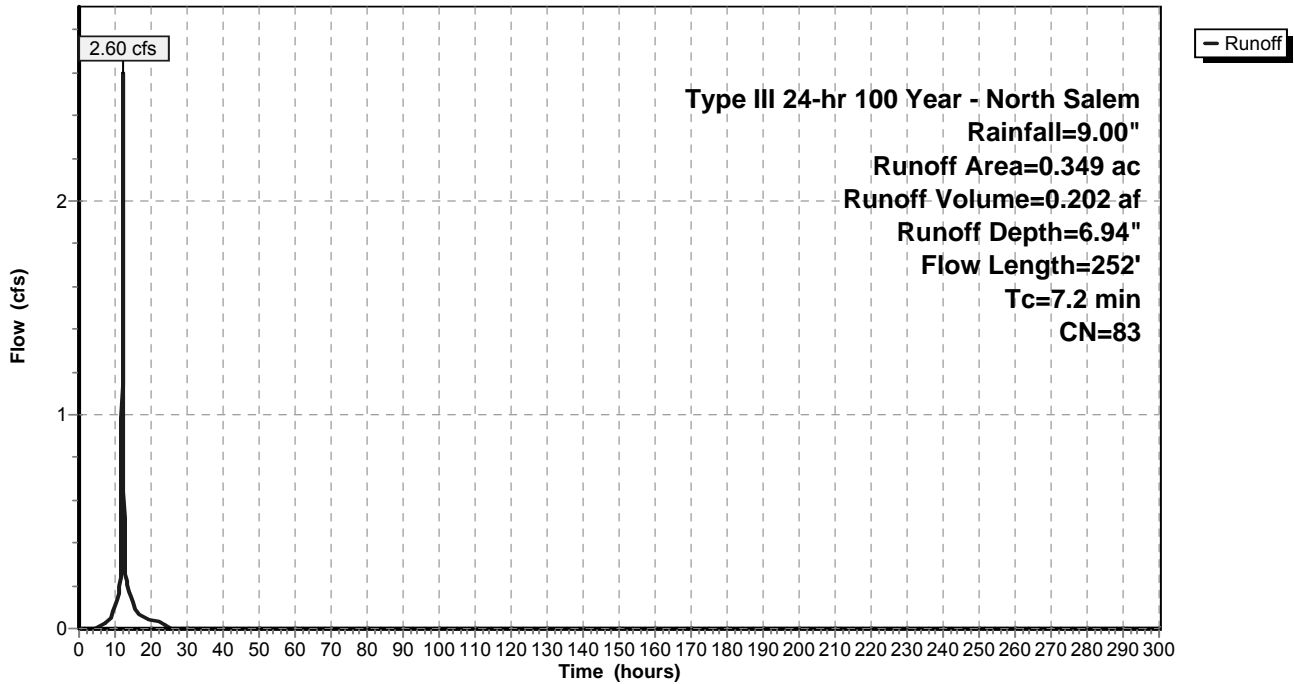
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.069	98	Driveway
0.177	74	>75% Grass cover, Good, HSG C
0.039	70	Woods, Good, HSG C
0.349	83	Weighted Average
0.216		61.89% Pervious Area
0.133		38.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	44	0.1818	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.1	44	0.4091	0.36		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	138	0.0326	2.91		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	26	0.1587	17.93	6.26	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
7.2	252	Total			

Subcatchment H2: Post-Development H2

Hydrograph



Summary for Subcatchment H3: Post-Development H3

Runoff = 2.05 cfs @ 12.12 hrs, Volume= 0.167 af, Depth= 6.94"

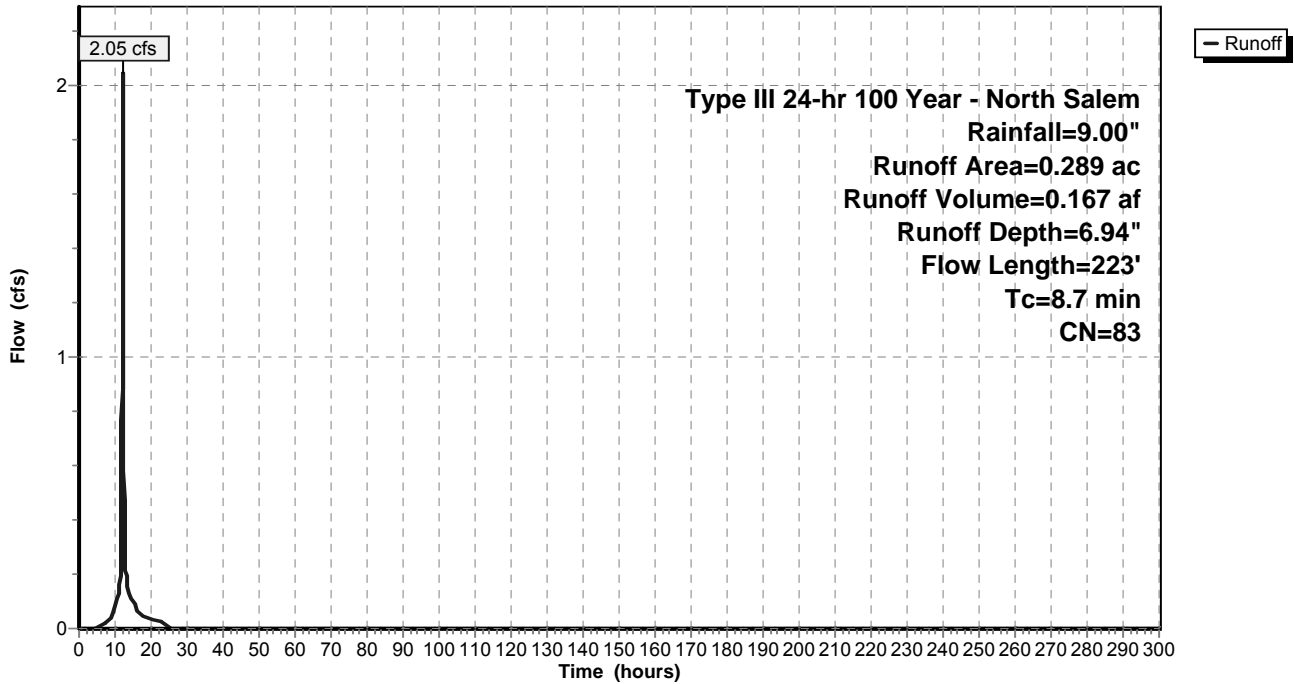
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.057	98	Driveway
0.101	74	>75% Grass cover, Good, HSG C
0.067	70	Woods, Good, HSG C
0.289	83	Weighted Average
0.168		58.13% Pervious Area
0.121		41.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	89	0.1685	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	11	0.5454	0.30		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.0	16	0.3125	9.00		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	25	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	42	0.0100	4.50	1.57	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
0.0	40	0.2000	20.13	7.03	Pipe Channel, F-G 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010 PVC, smooth interior
8.7	223	Total			

Subcatchment H3: Post-Development H3

Hydrograph



Summary for Subcatchment H4: Post-Development H4

Runoff = 2.51 cfs @ 12.17 hrs, Volume= 0.228 af, Depth= 6.69"

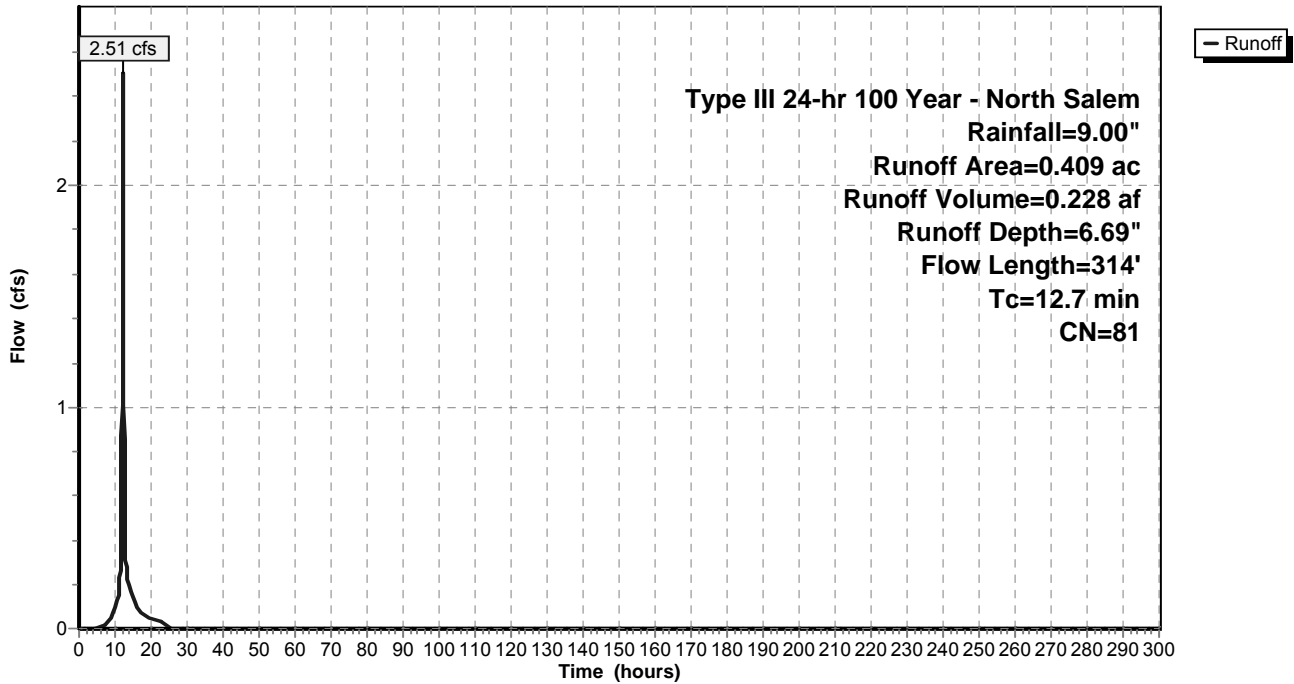
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.072	98	Driveway
0.200	74	>75% Grass cover, Good, HSG C
0.073	70	Woods, Good, HSG C
0.409	81	Weighted Average
0.273		66.75% Pervious Area
0.136		33.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	36	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	80	0.0100	4.50	1.57	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.2	56	0.0100	4.50	1.57	Pipe Channel, D-E 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
0.0	42	0.2000	20.13	7.03	Pipe Channel, E-F 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.010
12.7	314	Total			

Subcatchment H4: Post-Development H4

Hydrograph



Summary for Pond DP 8: Design Point 8

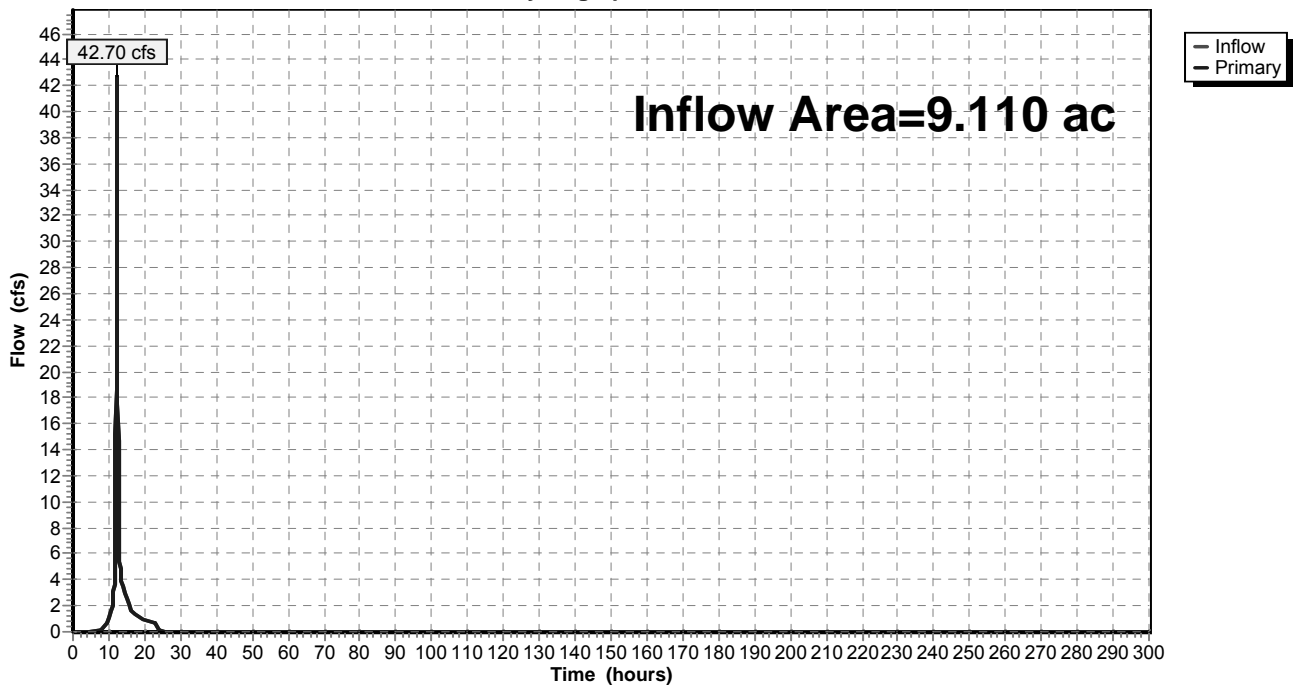
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.110 ac, 4.28% Impervious, Inflow Depth = 4.80" for 100 Year - North Salem event
Inflow = 42.70 cfs @ 12.17 hrs, Volume= 3.645 af
Primary = 42.70 cfs @ 12.17 hrs, Volume= 3.645 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 8: Design Point 8

Hydrograph



Summary for Pond S-18: Underground Infiltration (Sub-Lot 18)

Inflow Area = 0.349 ac, 38.11% Impervious, Inflow Depth = 6.94" for 100 Year - North Salem event
 Inflow = 2.60 cfs @ 12.10 hrs, Volume= 0.202 af
 Outflow = 2.52 cfs @ 12.12 hrs, Volume= 0.201 af, Atten= 3%, Lag= 0.8 min
 Discarded = 0.20 cfs @ 11.30 hrs, Volume= 0.141 af
 Primary = 2.31 cfs @ 12.12 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 445.02' @ 12.11 hrs Surf.Area= 0.027 ac Storage= 0.023 af

Plug-Flow detention time= 22.2 min calculated for 0.201 af (100% of inflow)
 Center-of-Mass det. time= 20.9 min (813.5 - 792.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	443.42'	0.010 af	25.00'W x 47.00'L x 1.63'H Field A 0.044 af Overall - 0.013 af Embedded = 0.030 af x 33.3% Voids
#2A	443.67'	0.013 af	Cultec C-100 x 42 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.024 af	Total Available Storage

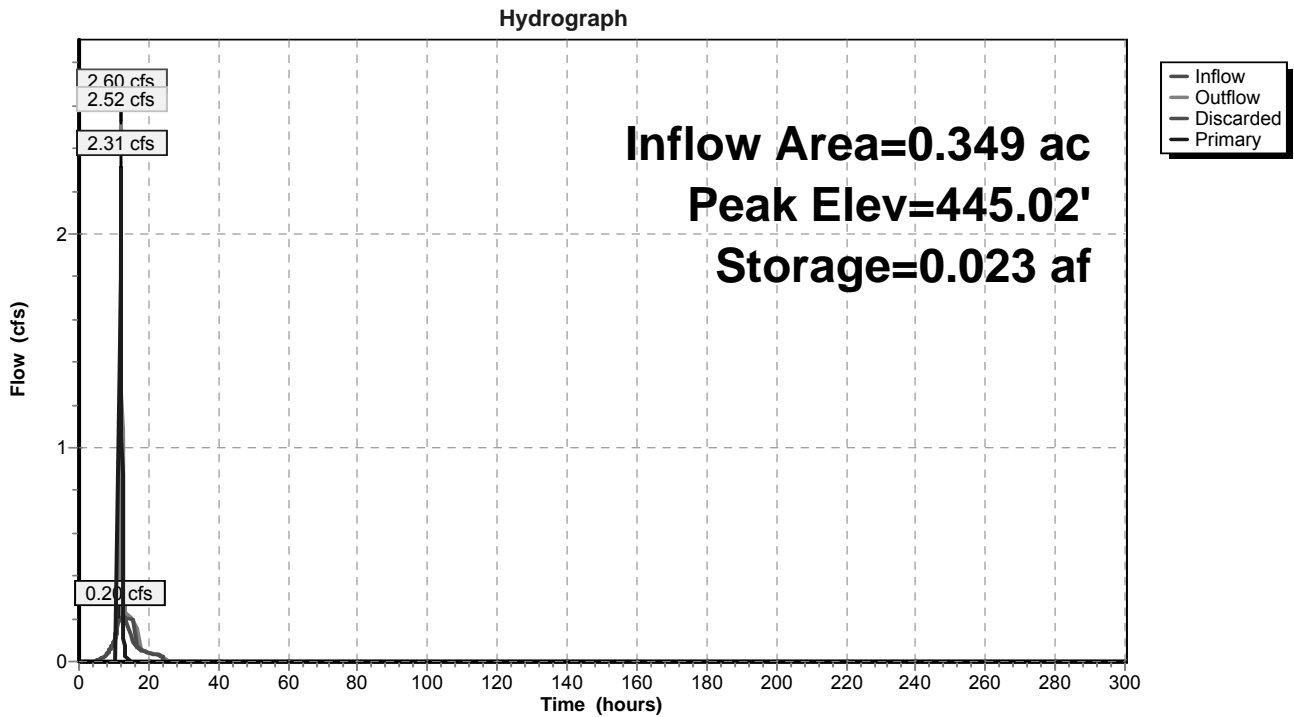
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	443.42'	7.500 in/hr Exfiltration over Surface area
#2	Primary	444.60'	6.0" Vert. Orifice/Grate X 6.00 C= 0.600

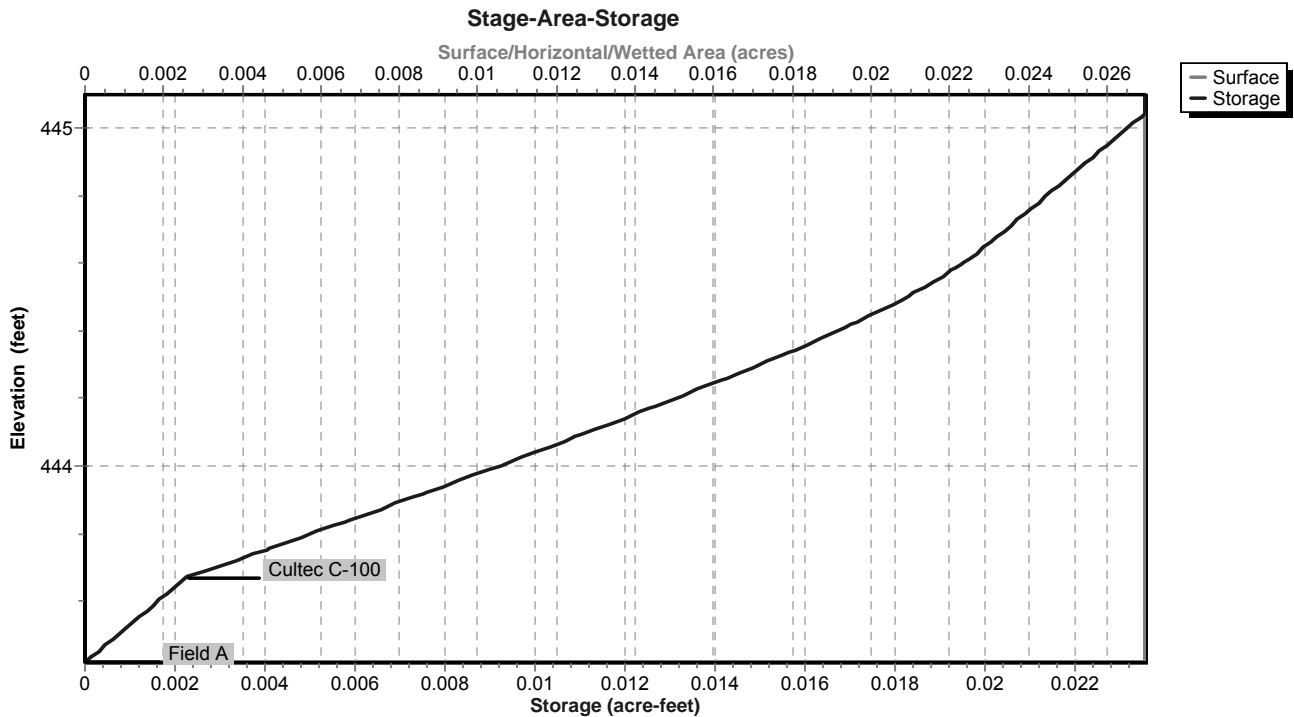
Discarded OutFlow Max=0.20 cfs @ 11.30 hrs HW=443.44' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.20 cfs)

Primary OutFlow Max=2.25 cfs @ 12.12 hrs HW=445.01' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 2.25 cfs @ 2.18 fps)

Pond S-18: Underground Infiltration (Sub-Lot 18)



Pond S-18: Underground Infiltration (Sub-Lot 18)



Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
443.42	0.027	0.000	443.95	0.027	0.008
443.43	0.027	0.000	443.96	0.027	0.008
443.44	0.027	0.000	443.97	0.027	0.009
443.45	0.027	0.000	443.98	0.027	0.009
443.46	0.027	0.000	443.99	0.027	0.009
443.47	0.027	0.000	444.00	0.027	0.009
443.48	0.027	0.001	444.01	0.027	0.009
443.49	0.027	0.001	444.02	0.027	0.010
443.50	0.027	0.001	444.03	0.027	0.010
443.51	0.027	0.001	444.04	0.027	0.010
443.52	0.027	0.001	444.05	0.027	0.010
443.53	0.027	0.001	444.06	0.027	0.010
443.54	0.027	0.001	444.07	0.027	0.011
443.55	0.027	0.001	444.08	0.027	0.011
443.56	0.027	0.001	444.09	0.027	0.011
443.57	0.027	0.001	444.10	0.027	0.011
443.58	0.027	0.001	444.11	0.027	0.011
443.59	0.027	0.002	444.12	0.027	0.012
443.60	0.027	0.002	444.13	0.027	0.012
443.61	0.027	0.002	444.14	0.027	0.012
443.62	0.027	0.002	444.15	0.027	0.012
443.63	0.027	0.002	444.16	0.027	0.012
443.64	0.027	0.002	444.17	0.027	0.013
443.65	0.027	0.002	444.18	0.027	0.013
443.66	0.027	0.002	444.19	0.027	0.013
443.67	0.027	0.002	444.20	0.027	0.013
443.68	0.027	0.002	444.21	0.027	0.013
443.69	0.027	0.003	444.22	0.027	0.014
443.70	0.027	0.003	444.23	0.027	0.014
443.71	0.027	0.003	444.24	0.027	0.014
443.72	0.027	0.003	444.25	0.027	0.014
443.73	0.027	0.004	444.26	0.027	0.014
443.74	0.027	0.004	444.27	0.027	0.014
443.75	0.027	0.004	444.28	0.027	0.015
443.76	0.027	0.004	444.29	0.027	0.015
443.77	0.027	0.004	444.30	0.027	0.015
443.78	0.027	0.005	444.31	0.027	0.015
443.79	0.027	0.005	444.32	0.027	0.015
443.80	0.027	0.005	444.33	0.027	0.016
443.81	0.027	0.005	444.34	0.027	0.016
443.82	0.027	0.005	444.35	0.027	0.016
443.83	0.027	0.006	444.36	0.027	0.016
443.84	0.027	0.006	444.37	0.027	0.016
443.85	0.027	0.006	444.38	0.027	0.016
443.86	0.027	0.006	444.39	0.027	0.017
443.87	0.027	0.006	444.40	0.027	0.017
443.88	0.027	0.007	444.41	0.027	0.017
443.89	0.027	0.007	444.42	0.027	0.017
443.90	0.027	0.007	444.43	0.027	0.017
443.91	0.027	0.007	444.44	0.027	0.017
443.92	0.027	0.008	444.45	0.027	0.018
443.93	0.027	0.008	444.46	0.027	0.018
443.94	0.027	0.008	444.47	0.027	0.018

Stage-Area-Storage for Pond S-18: Underground Infiltration (Sub-Lot 18) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
444.48	0.027	0.018	445.01	0.027	0.023
444.49	0.027	0.018	445.02	0.027	0.023
444.50	0.027	0.018	445.03	0.027	0.023
444.51	0.027	0.018	445.04	0.027	0.024
444.52	0.027	0.019	445.05	0.027	0.024
444.53	0.027	0.019	445.06	0.027	0.024
444.54	0.027	0.019	445.07	0.027	0.024
444.55	0.027	0.019	445.08	0.027	0.024
444.56	0.027	0.019	445.09	0.027	0.024
444.57	0.027	0.019	445.10	0.027	0.024
444.58	0.027	0.019			
444.59	0.027	0.019			
444.60	0.027	0.020			
444.61	0.027	0.020			
444.62	0.027	0.020			
444.63	0.027	0.020			
444.64	0.027	0.020			
444.65	0.027	0.020			
444.66	0.027	0.020			
444.67	0.027	0.020			
444.68	0.027	0.020			
444.69	0.027	0.020			
444.70	0.027	0.020			
444.71	0.027	0.021			
444.72	0.027	0.021			
444.73	0.027	0.021			
444.74	0.027	0.021			
444.75	0.027	0.021			
444.76	0.027	0.021			
444.77	0.027	0.021			
444.78	0.027	0.021			
444.79	0.027	0.021			
444.80	0.027	0.021			
444.81	0.027	0.021			
444.82	0.027	0.022			
444.83	0.027	0.022			
444.84	0.027	0.022			
444.85	0.027	0.022			
444.86	0.027	0.022			
444.87	0.027	0.022			
444.88	0.027	0.022			
444.89	0.027	0.022			
444.90	0.027	0.022			
444.91	0.027	0.022			
444.92	0.027	0.022			
444.93	0.027	0.023			
444.94	0.027	0.023			
444.95	0.027	0.023			
444.96	0.027	0.023			
444.97	0.027	0.023			
444.98	0.027	0.023			
444.99	0.027	0.023			
445.00	0.027	0.023			

Summary for Pond S-19: Underground Infiltration (Sub-Lot 19)

Inflow Area = 0.289 ac, 41.87% Impervious, Inflow Depth = 6.94" for 100 Year - North Salem event
 Inflow = 2.05 cfs @ 12.12 hrs, Volume= 0.167 af
 Outflow = 1.96 cfs @ 12.13 hrs, Volume= 0.169 af, Atten= 4%, Lag= 0.3 min
 Discarded = 1.96 cfs @ 12.13 hrs, Volume= 0.169 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 451.63' @ 12.15 hrs Surf.Area= 0.032 ac Storage= 0.001 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= (not calculated: outflow precedes inflow)

Volume	Invert	Avail.Storage	Storage Description
#1A	451.58'	0.012 af	15.00'W x 92.00'L x 1.63'H Field A 0.051 af Overall - 0.015 af Embedded = 0.036 af x 33.3% Voids
#2A	451.83'	0.015 af	Cultec C-100 x 48 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.027 af	Total Available Storage

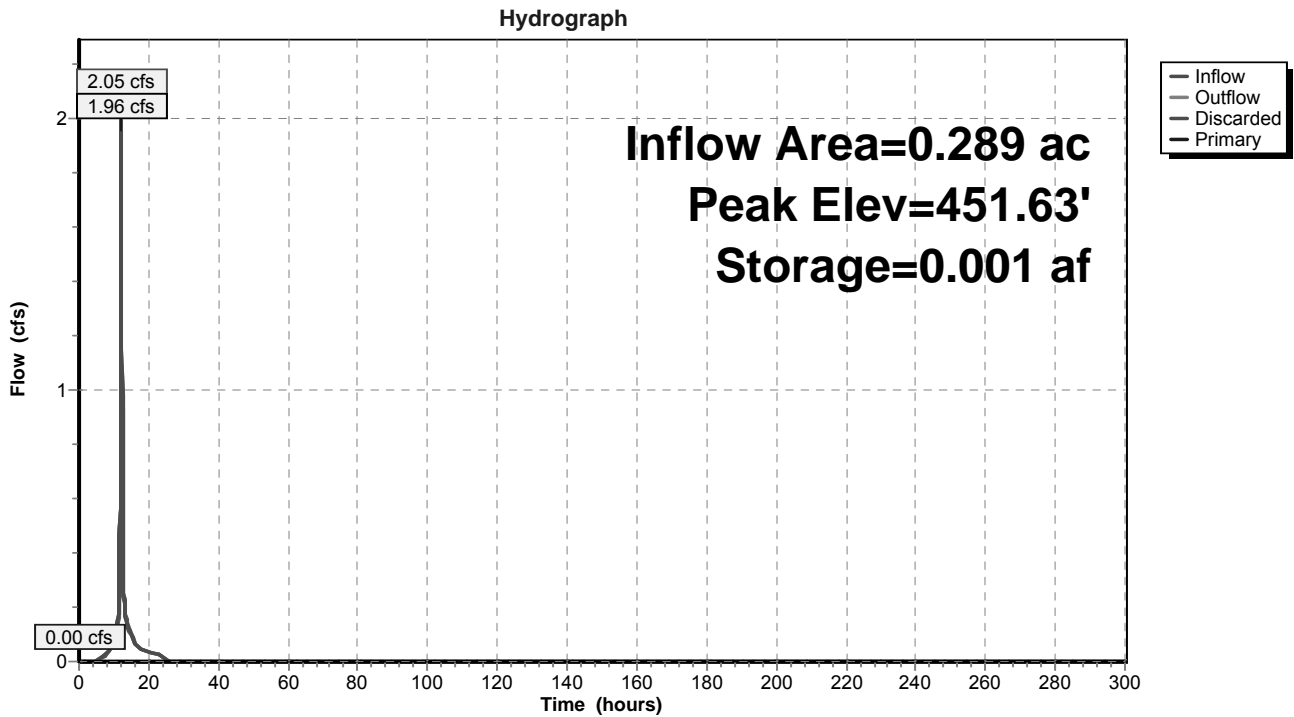
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	451.58'	60.000 in/hr Exfiltration over Surface area
#2	Primary	452.91'	3.0" Vert. Orifice/Grate C= 0.600

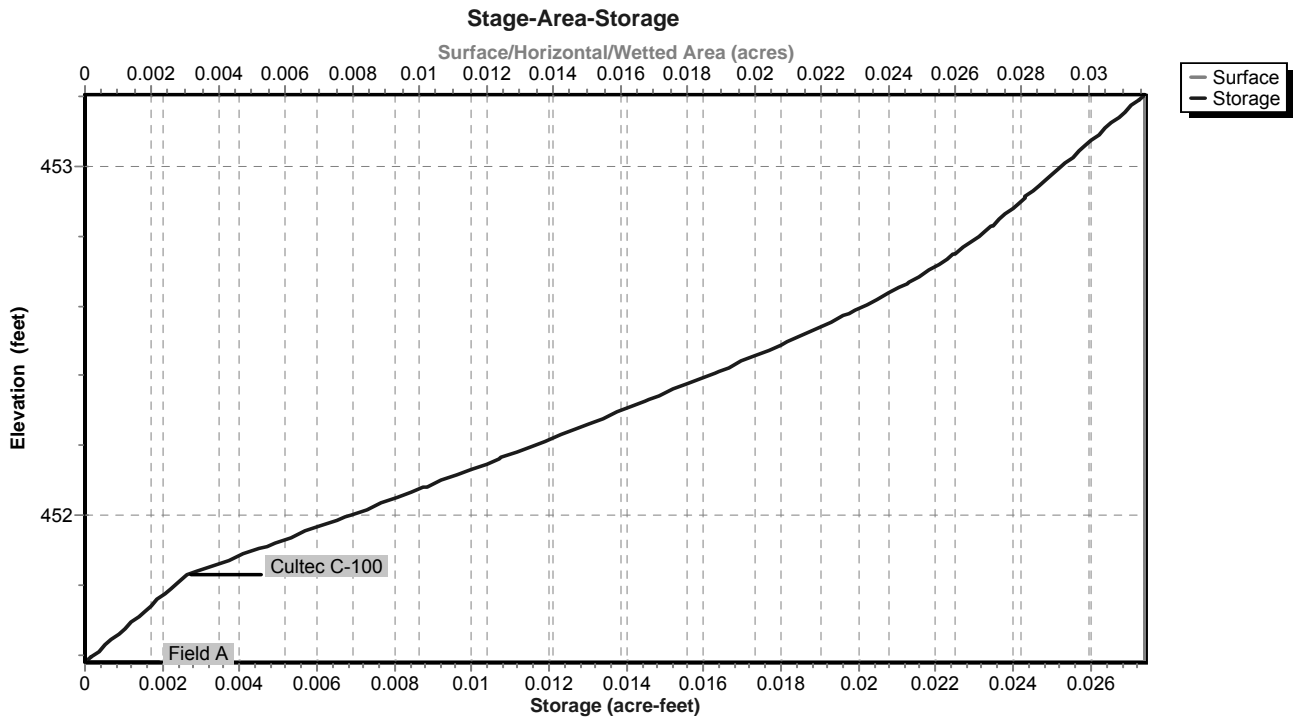
Discarded OutFlow Max=1.92 cfs @ 12.13 hrs HW=451.62' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.92 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=451.58' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-19: Underground Infiltration (Sub-Lot 19)



Pond S-19: Underground Infiltration (Sub-Lot 19)



Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
451.58	0.032	0.000	452.11	0.032	0.009
451.59	0.032	0.000	452.12	0.032	0.010
451.60	0.032	0.000	452.13	0.032	0.010
451.61	0.032	0.000	452.14	0.032	0.010
451.62	0.032	0.000	452.15	0.032	0.010
451.63	0.032	0.001	452.16	0.032	0.011
451.64	0.032	0.001	452.17	0.032	0.011
451.65	0.032	0.001	452.18	0.032	0.011
451.66	0.032	0.001	452.19	0.032	0.011
451.67	0.032	0.001	452.20	0.032	0.012
451.68	0.032	0.001	452.21	0.032	0.012
451.69	0.032	0.001	452.22	0.032	0.012
451.70	0.032	0.001	452.23	0.032	0.012
451.71	0.032	0.001	452.24	0.032	0.013
451.72	0.032	0.001	452.25	0.032	0.013
451.73	0.032	0.002	452.26	0.032	0.013
451.74	0.032	0.002	452.27	0.032	0.013
451.75	0.032	0.002	452.28	0.032	0.013
451.76	0.032	0.002	452.29	0.032	0.014
451.77	0.032	0.002	452.30	0.032	0.014
451.78	0.032	0.002	452.31	0.032	0.014
451.79	0.032	0.002	452.32	0.032	0.014
451.80	0.032	0.002	452.33	0.032	0.015
451.81	0.032	0.002	452.34	0.032	0.015
451.82	0.032	0.003	452.35	0.032	0.015
451.83	0.032	0.003	452.36	0.032	0.015
451.84	0.032	0.003	452.37	0.032	0.015
451.85	0.032	0.003	452.38	0.032	0.016
451.86	0.032	0.003	452.39	0.032	0.016
451.87	0.032	0.004	452.40	0.032	0.016
451.88	0.032	0.004	452.41	0.032	0.016
451.89	0.032	0.004	452.42	0.032	0.017
451.90	0.032	0.004	452.43	0.032	0.017
451.91	0.032	0.005	452.44	0.032	0.017
451.92	0.032	0.005	452.45	0.032	0.017
451.93	0.032	0.005	452.46	0.032	0.017
451.94	0.032	0.005	452.47	0.032	0.018
451.95	0.032	0.006	452.48	0.032	0.018
451.96	0.032	0.006	452.49	0.032	0.018
451.97	0.032	0.006	452.50	0.032	0.018
451.98	0.032	0.006	452.51	0.032	0.018
451.99	0.032	0.007	452.52	0.032	0.019
452.00	0.032	0.007	452.53	0.032	0.019
452.01	0.032	0.007	452.54	0.032	0.019
452.02	0.032	0.007	452.55	0.032	0.019
452.03	0.032	0.008	452.56	0.032	0.019
452.04	0.032	0.008	452.57	0.032	0.020
452.05	0.032	0.008	452.58	0.032	0.020
452.06	0.032	0.008	452.59	0.032	0.020
452.07	0.032	0.009	452.60	0.032	0.020
452.08	0.032	0.009	452.61	0.032	0.020
452.09	0.032	0.009	452.62	0.032	0.020
452.10	0.032	0.009	452.63	0.032	0.021

Stage-Area-Storage for Pond S-19: Underground Infiltration (Sub-Lot 19) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
452.64	0.032	0.021	453.17	0.032	0.027
452.65	0.032	0.021	453.18	0.032	0.027
452.66	0.032	0.021	453.19	0.032	0.027
452.67	0.032	0.021	453.20	0.032	0.027
452.68	0.032	0.022			
452.69	0.032	0.022			
452.70	0.032	0.022			
452.71	0.032	0.022			
452.72	0.032	0.022			
452.73	0.032	0.022			
452.74	0.032	0.022			
452.75	0.032	0.023			
452.76	0.032	0.023			
452.77	0.032	0.023			
452.78	0.032	0.023			
452.79	0.032	0.023			
452.80	0.032	0.023			
452.81	0.032	0.023			
452.82	0.032	0.023			
452.83	0.032	0.023			
452.84	0.032	0.024			
452.85	0.032	0.024			
452.86	0.032	0.024			
452.87	0.032	0.024			
452.88	0.032	0.024			
452.89	0.032	0.024			
452.90	0.032	0.024			
452.91	0.032	0.024			
452.92	0.032	0.024			
452.93	0.032	0.025			
452.94	0.032	0.025			
452.95	0.032	0.025			
452.96	0.032	0.025			
452.97	0.032	0.025			
452.98	0.032	0.025			
452.99	0.032	0.025			
453.00	0.032	0.025			
453.01	0.032	0.025			
453.02	0.032	0.025			
453.03	0.032	0.026			
453.04	0.032	0.026			
453.05	0.032	0.026			
453.06	0.032	0.026			
453.07	0.032	0.026			
453.08	0.032	0.026			
453.09	0.032	0.026			
453.10	0.032	0.026			
453.11	0.032	0.026			
453.12	0.032	0.027			
453.13	0.032	0.027			
453.14	0.032	0.027			
453.15	0.032	0.027			
453.16	0.032	0.027			

Summary for Pond S-20: Underground Infiltration (Sub-Lot 20)

Inflow Area = 0.409 ac, 33.25% Impervious, Inflow Depth = 6.69" for 100 Year - North Salem event
 Inflow = 2.51 cfs @ 12.17 hrs, Volume= 0.228 af
 Outflow = 1.42 cfs @ 12.39 hrs, Volume= 0.224 af, Atten= 44%, Lag= 13.2 min
 Discarded = 1.39 cfs @ 12.05 hrs, Volume= 0.223 af
 Primary = 0.03 cfs @ 12.39 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 471.41' @ 12.39 hrs Surf.Area= 0.023 ac Storage= 0.018 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 2.8 min (805.3 - 802.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	470.00'	0.012 af	18.33'W x 54.50'L x 2.04'H Field A 0.047 af Overall - 0.011 af Embedded = 0.036 af x 33.3% Voids
#2A	470.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

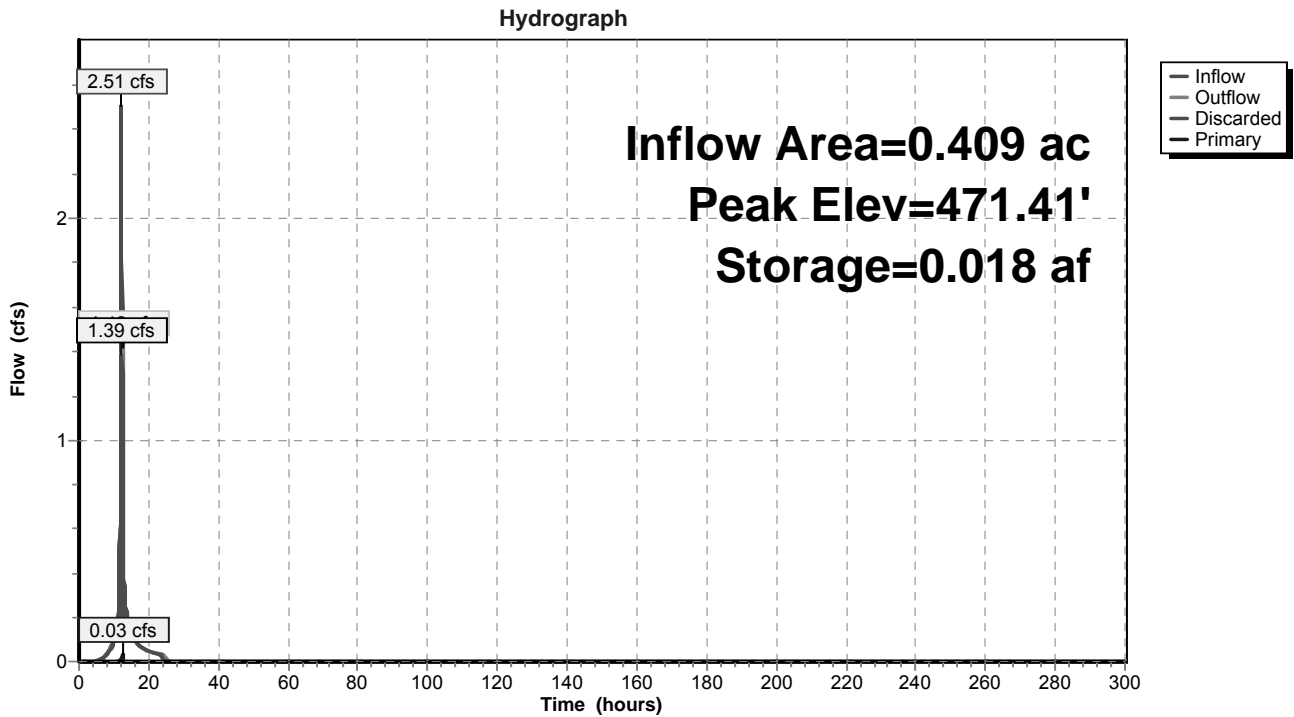
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	470.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	471.33'	3.0" Vert. Orifice/Grate X 2.00 C= 0.600

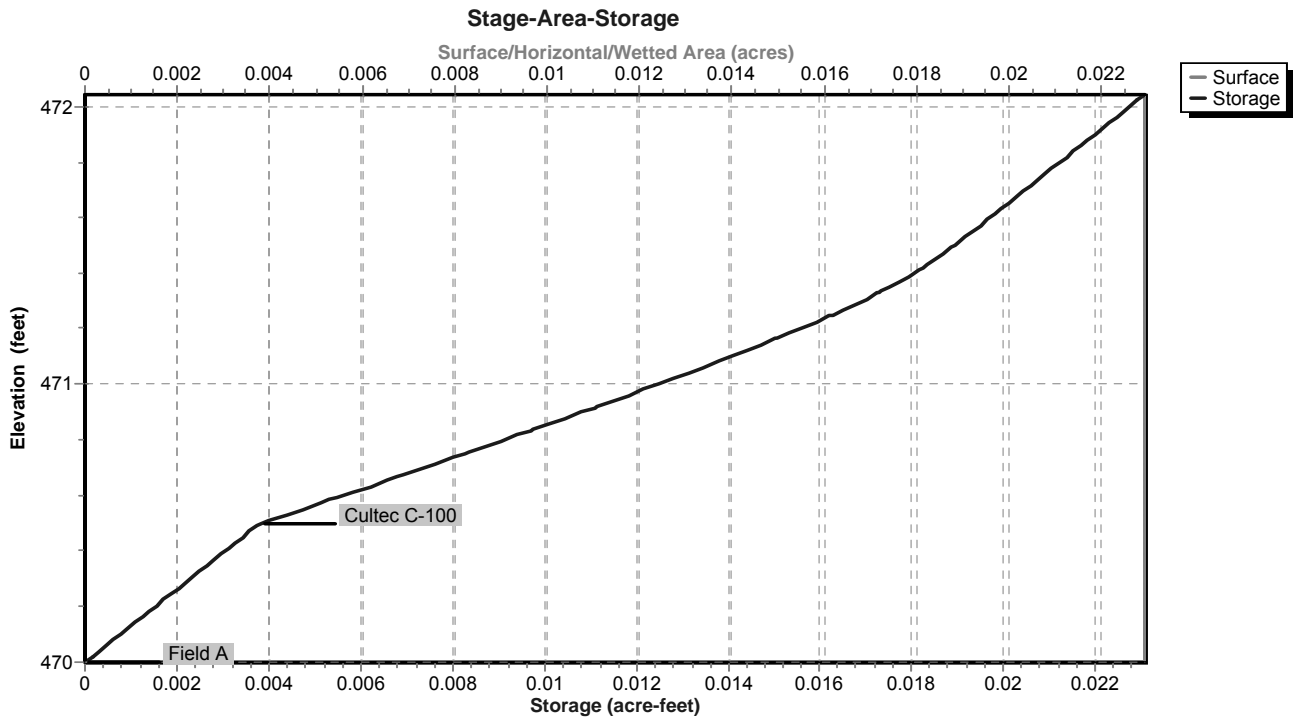
Discarded OutFlow Max=1.39 cfs @ 12.05 hrs HW=470.05' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.39 cfs)

Primary OutFlow Max=0.03 cfs @ 12.39 hrs HW=471.41' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 0.03 cfs @ 0.96 fps)

Pond S-20: Underground Infiltration (Sub-Lot 20)



Pond S-20: Underground Infiltration (Sub-Lot 20)

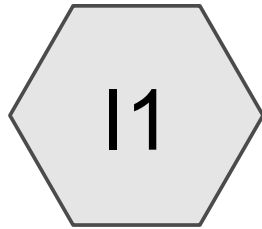


Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20)

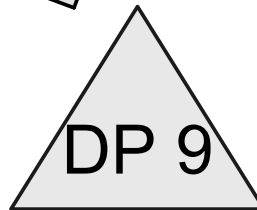
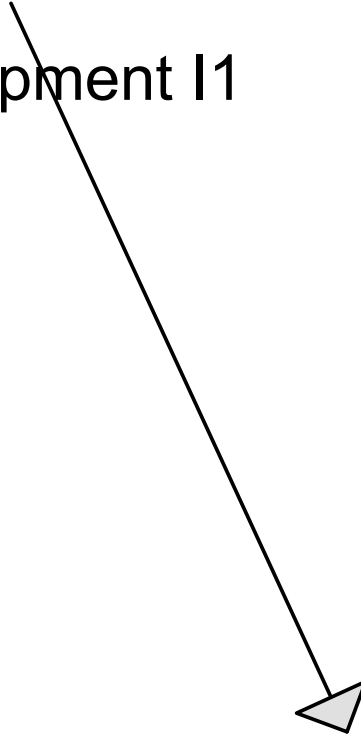
Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
470.00	0.023	0.000	470.53	0.023	0.004
470.01	0.023	0.000	470.54	0.023	0.005
470.02	0.023	0.000	470.55	0.023	0.005
470.03	0.023	0.000	470.56	0.023	0.005
470.04	0.023	0.000	470.57	0.023	0.005
470.05	0.023	0.000	470.58	0.023	0.005
470.06	0.023	0.000	470.59	0.023	0.005
470.07	0.023	0.001	470.60	0.023	0.006
470.08	0.023	0.001	470.61	0.023	0.006
470.09	0.023	0.001	470.62	0.023	0.006
470.10	0.023	0.001	470.63	0.023	0.006
470.11	0.023	0.001	470.64	0.023	0.006
470.12	0.023	0.001	470.65	0.023	0.007
470.13	0.023	0.001	470.66	0.023	0.007
470.14	0.023	0.001	470.67	0.023	0.007
470.15	0.023	0.001	470.68	0.023	0.007
470.16	0.023	0.001	470.69	0.023	0.007
470.17	0.023	0.001	470.70	0.023	0.007
470.18	0.023	0.001	470.71	0.023	0.008
470.19	0.023	0.001	470.72	0.023	0.008
470.20	0.023	0.002	470.73	0.023	0.008
470.21	0.023	0.002	470.74	0.023	0.008
470.22	0.023	0.002	470.75	0.023	0.008
470.23	0.023	0.002	470.76	0.023	0.008
470.24	0.023	0.002	470.77	0.023	0.009
470.25	0.023	0.002	470.78	0.023	0.009
470.26	0.023	0.002	470.79	0.023	0.009
470.27	0.023	0.002	470.80	0.023	0.009
470.28	0.023	0.002	470.81	0.023	0.009
470.29	0.023	0.002	470.82	0.023	0.009
470.30	0.023	0.002	470.83	0.023	0.010
470.31	0.023	0.002	470.84	0.023	0.010
470.32	0.023	0.002	470.85	0.023	0.010
470.33	0.023	0.003	470.86	0.023	0.010
470.34	0.023	0.003	470.87	0.023	0.010
470.35	0.023	0.003	470.88	0.023	0.010
470.36	0.023	0.003	470.89	0.023	0.011
470.37	0.023	0.003	470.90	0.023	0.011
470.38	0.023	0.003	470.91	0.023	0.011
470.39	0.023	0.003	470.92	0.023	0.011
470.40	0.023	0.003	470.93	0.023	0.011
470.41	0.023	0.003	470.94	0.023	0.011
470.42	0.023	0.003	470.95	0.023	0.012
470.43	0.023	0.003	470.96	0.023	0.012
470.44	0.023	0.003	470.97	0.023	0.012
470.45	0.023	0.003	470.98	0.023	0.012
470.46	0.023	0.004	470.99	0.023	0.012
470.47	0.023	0.004	471.00	0.023	0.012
470.48	0.023	0.004	471.01	0.023	0.013
470.49	0.023	0.004	471.02	0.023	0.013
470.50	0.023	0.004	471.03	0.023	0.013
470.51	0.023	0.004	471.04	0.023	0.013
470.52	0.023	0.004	471.05	0.023	0.013

Stage-Area-Storage for Pond S-20: Underground Infiltration (Sub-Lot 20) (continued)

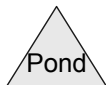
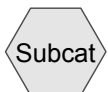
Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
471.06	0.023	0.013	471.59	0.023	0.020
471.07	0.023	0.014	471.60	0.023	0.020
471.08	0.023	0.014	471.61	0.023	0.020
471.09	0.023	0.014	471.62	0.023	0.020
471.10	0.023	0.014	471.63	0.023	0.020
471.11	0.023	0.014	471.64	0.023	0.020
471.12	0.023	0.014	471.65	0.023	0.020
471.13	0.023	0.015	471.66	0.023	0.020
471.14	0.023	0.015	471.67	0.023	0.020
471.15	0.023	0.015	471.68	0.023	0.020
471.16	0.023	0.015	471.69	0.023	0.020
471.17	0.023	0.015	471.70	0.023	0.020
471.18	0.023	0.015	471.71	0.023	0.021
471.19	0.023	0.015	471.72	0.023	0.021
471.20	0.023	0.016	471.73	0.023	0.021
471.21	0.023	0.016	471.74	0.023	0.021
471.22	0.023	0.016	471.75	0.023	0.021
471.23	0.023	0.016	471.76	0.023	0.021
471.24	0.023	0.016	471.77	0.023	0.021
471.25	0.023	0.016	471.78	0.023	0.021
471.26	0.023	0.016	471.79	0.023	0.021
471.27	0.023	0.017	471.80	0.023	0.021
471.28	0.023	0.017	471.81	0.023	0.021
471.29	0.023	0.017	471.82	0.023	0.021
471.30	0.023	0.017	471.83	0.023	0.021
471.31	0.023	0.017	471.84	0.023	0.022
471.32	0.023	0.017	471.85	0.023	0.022
471.33	0.023	0.017	471.86	0.023	0.022
471.34	0.023	0.017	471.87	0.023	0.022
471.35	0.023	0.018	471.88	0.023	0.022
471.36	0.023	0.018	471.89	0.023	0.022
471.37	0.023	0.018	471.90	0.023	0.022
471.38	0.023	0.018	471.91	0.023	0.022
471.39	0.023	0.018	471.92	0.023	0.022
471.40	0.023	0.018	471.93	0.023	0.022
471.41	0.023	0.018	471.94	0.023	0.022
471.42	0.023	0.018	471.95	0.023	0.022
471.43	0.023	0.018	471.96	0.023	0.022
471.44	0.023	0.018	471.97	0.023	0.023
471.45	0.023	0.019	471.98	0.023	0.023
471.46	0.023	0.019	471.99	0.023	0.023
471.47	0.023	0.019	472.00	0.023	0.023
471.48	0.023	0.019	472.01	0.023	0.023
471.49	0.023	0.019	472.02	0.023	0.023
471.50	0.023	0.019	472.03	0.023	0.023
471.51	0.023	0.019	472.04	0.023	0.023
471.52	0.023	0.019			
471.53	0.023	0.019			
471.54	0.023	0.019			
471.55	0.023	0.019			
471.56	0.023	0.019			
471.57	0.023	0.019			
471.58	0.023	0.020			



Post-Development I1



Design Point 9



Woodlands Post-Dev DP 9 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.712	70	Woods, Good, HSG C (I1)
0.568	74	>75% Grass cover, Good, HSG C (I1)
2.280		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I1: Post-Development I1

Runoff Area=2.280 ac 0.00% Impervious Runoff Depth=0.82"
Flow Length=738' Tc=9.9 min CN=71 Runoff=1.70 cfs 0.156 af

Pond DP 9: Design Point 9

Inflow=1.70 cfs 0.156 af
Primary=1.70 cfs 0.156 af

Total Runoff Area = 2.280 ac Runoff Volume = 0.156 af Average Runoff Depth = 0.82"
100.00% Pervious = 2.280 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I1: Post-Development I1

Runoff = 1.70 cfs @ 12.16 hrs, Volume= 0.156 af, Depth= 0.82"

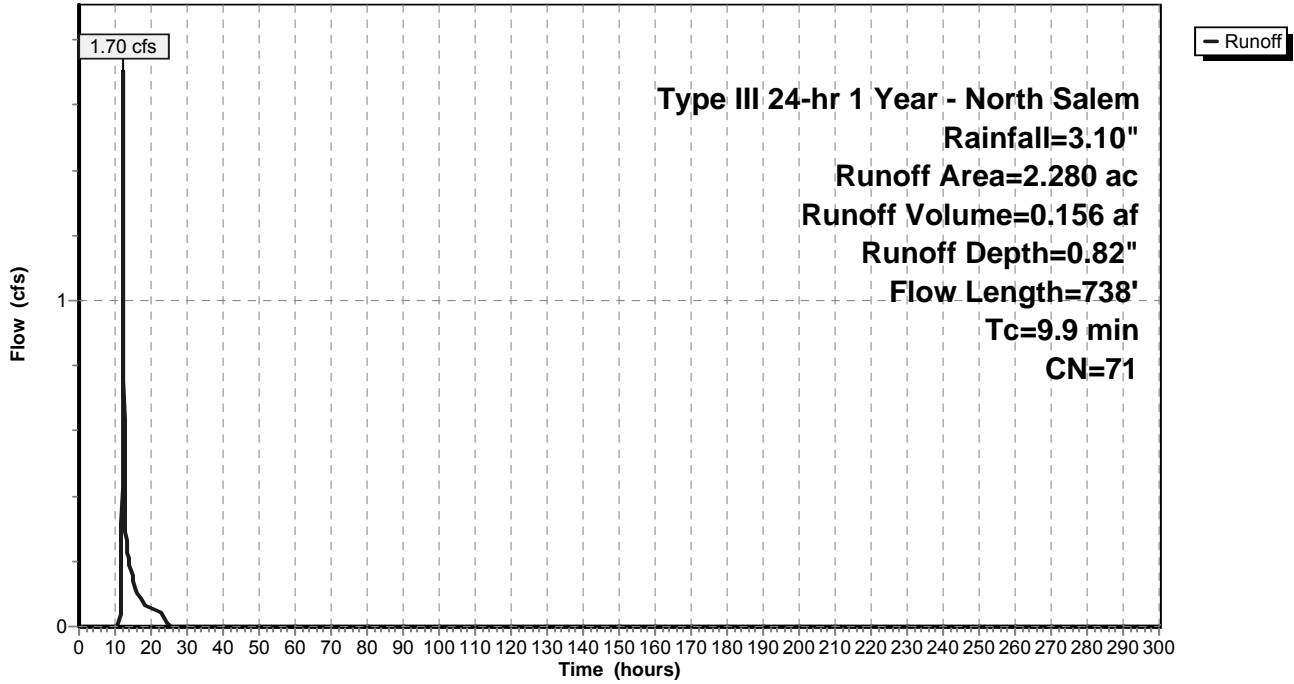
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 1.712	70	Woods, Good, HSG C
0.568	74	>75% Grass cover, Good, HSG C
2.280	71	Weighted Average
2.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	145	0.1517	6.27		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	132	0.2727	8.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.2110	7.40		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	42	0.1429	6.09		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	38	0.0789	4.52		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
9.9	738	Total			

Subcatchment I1: Post-Development I1

Hydrograph



Summary for Pond DP 9: Design Point 9

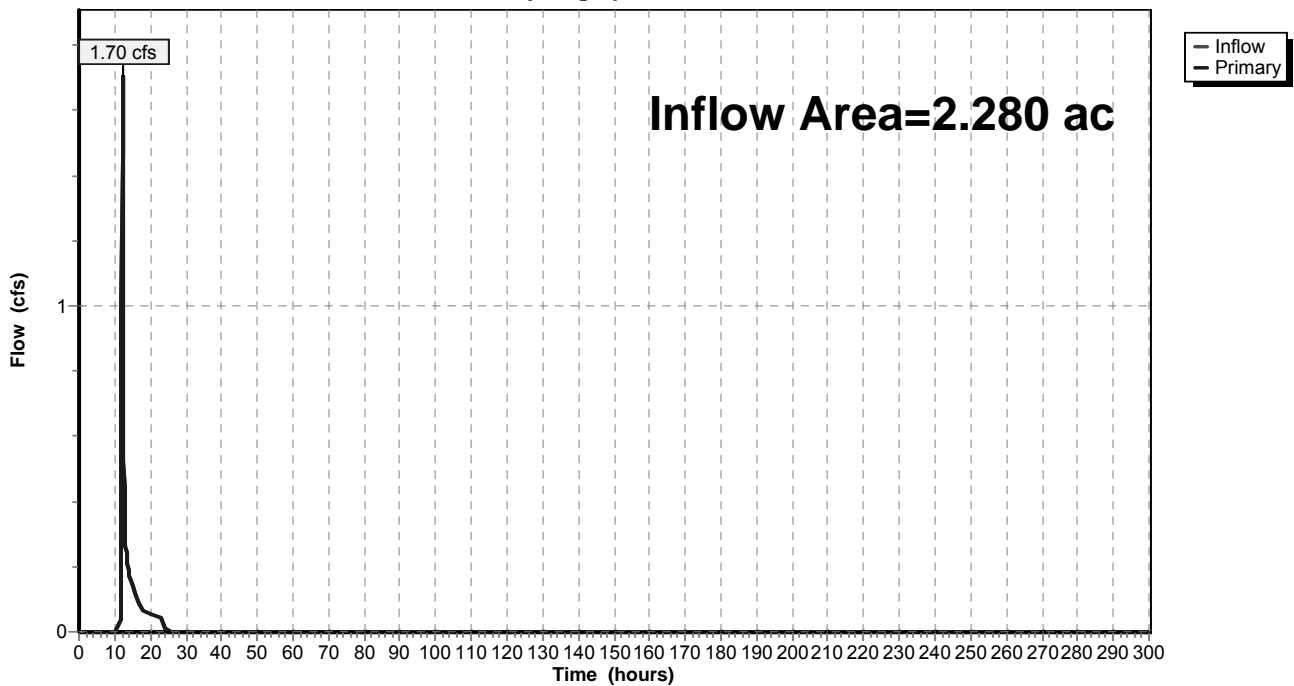
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.280 ac, 0.00% Impervious, Inflow Depth = 0.82" for 1 Year - North Salem event
Inflow = 1.70 cfs @ 12.16 hrs, Volume= 0.156 af
Primary = 1.70 cfs @ 12.16 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I1: Post-Development I1

Runoff Area=2.280 ac 0.00% Impervious Runoff Depth=1.19"
Flow Length=738' Tc=9.9 min CN=71 Runoff=2.61 cfs 0.227 af

Pond DP 9: Design Point 9

Inflow=2.61 cfs 0.227 af
Primary=2.61 cfs 0.227 af

Total Runoff Area = 2.280 ac Runoff Volume = 0.227 af Average Runoff Depth = 1.19"
100.00% Pervious = 2.280 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I1: Post-Development I1

Runoff = 2.61 cfs @ 12.15 hrs, Volume= 0.227 af, Depth= 1.19"

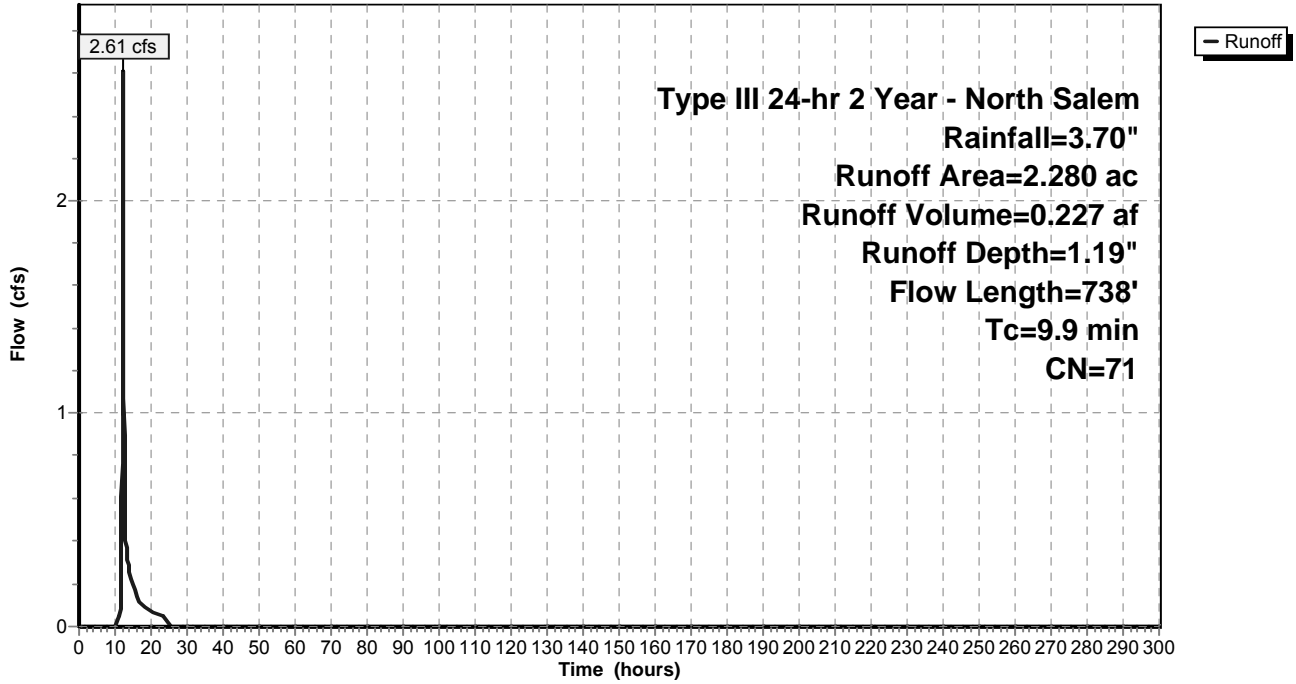
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 1.712	70	Woods, Good, HSG C
0.568	74	>75% Grass cover, Good, HSG C
2.280	71	Weighted Average
2.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	145	0.1517	6.27		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	132	0.2727	8.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.2110	7.40		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	42	0.1429	6.09		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	38	0.0789	4.52		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
9.9	738	Total			

Subcatchment I1: Post-Development I1

Hydrograph



Summary for Pond DP 9: Design Point 9

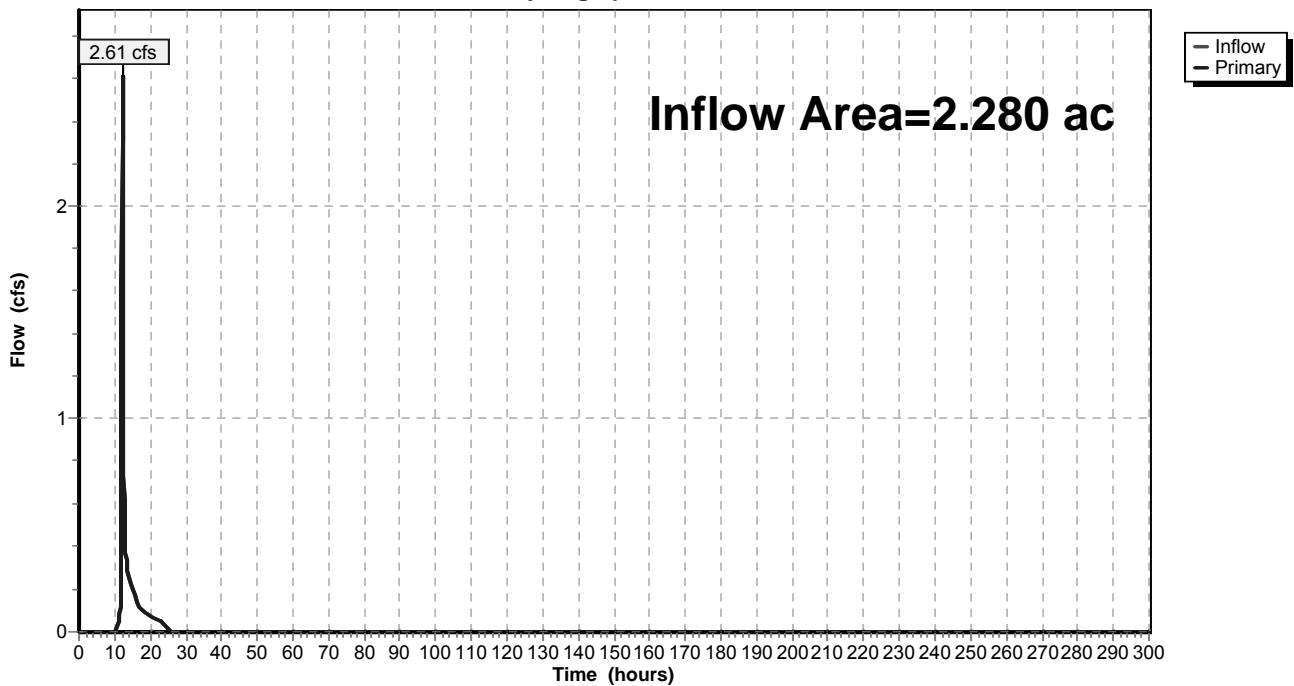
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.280 ac, 0.00% Impervious, Inflow Depth = 1.19" for 2 Year - North Salem event
Inflow = 2.61 cfs @ 12.15 hrs, Volume= 0.227 af
Primary = 2.61 cfs @ 12.15 hrs, Volume= 0.227 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I1: Post-Development I1

Runoff Area=2.280 ac 0.00% Impervious Runoff Depth=2.50"
Flow Length=738' Tc=9.9 min CN=71 Runoff=5.74 cfs 0.475 af

Pond DP 9: Design Point 9

Inflow=5.74 cfs 0.475 af
Primary=5.74 cfs 0.475 af

Total Runoff Area = 2.280 ac Runoff Volume = 0.475 af Average Runoff Depth = 2.50"
100.00% Pervious = 2.280 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I1: Post-Development I1

Runoff = 5.74 cfs @ 12.15 hrs, Volume= 0.475 af, Depth= 2.50"

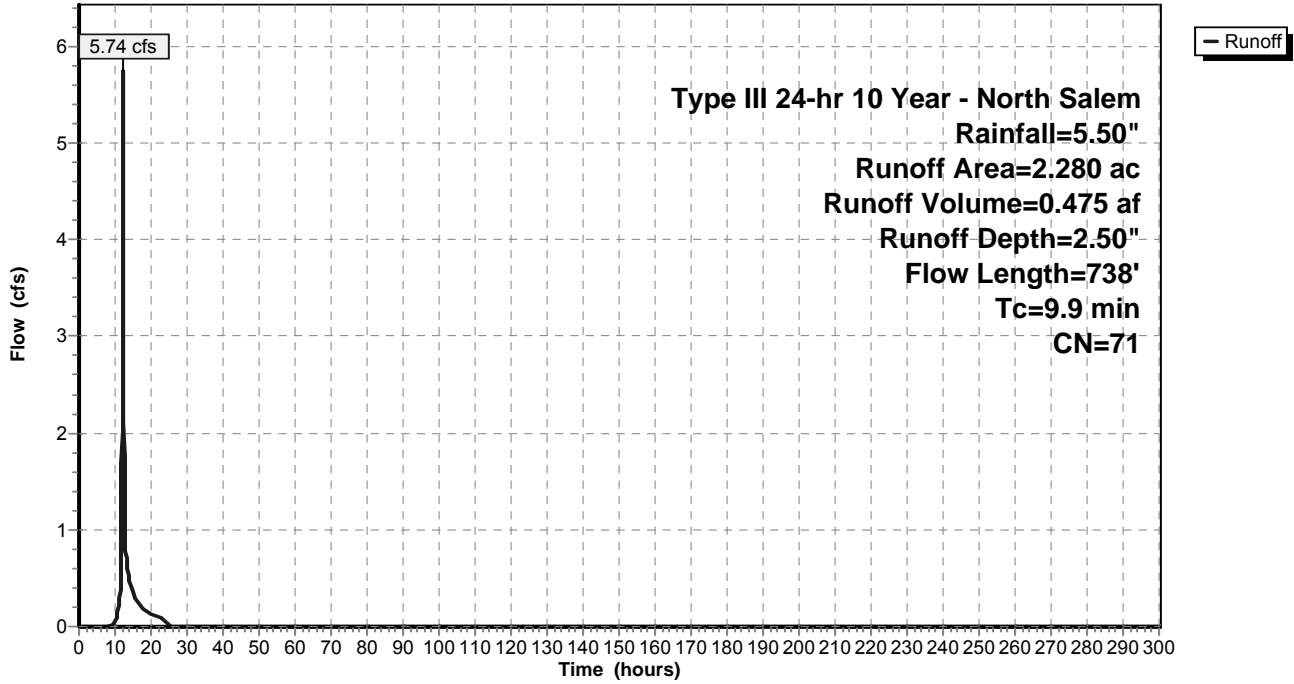
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 1.712	70	Woods, Good, HSG C
0.568	74	>75% Grass cover, Good, HSG C
2.280	71	Weighted Average
2.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	145	0.1517	6.27		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	132	0.2727	8.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.2110	7.40		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	42	0.1429	6.09		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	38	0.0789	4.52		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
9.9	738	Total			

Subcatchment I1: Post-Development I1

Hydrograph



Summary for Pond DP 9: Design Point 9

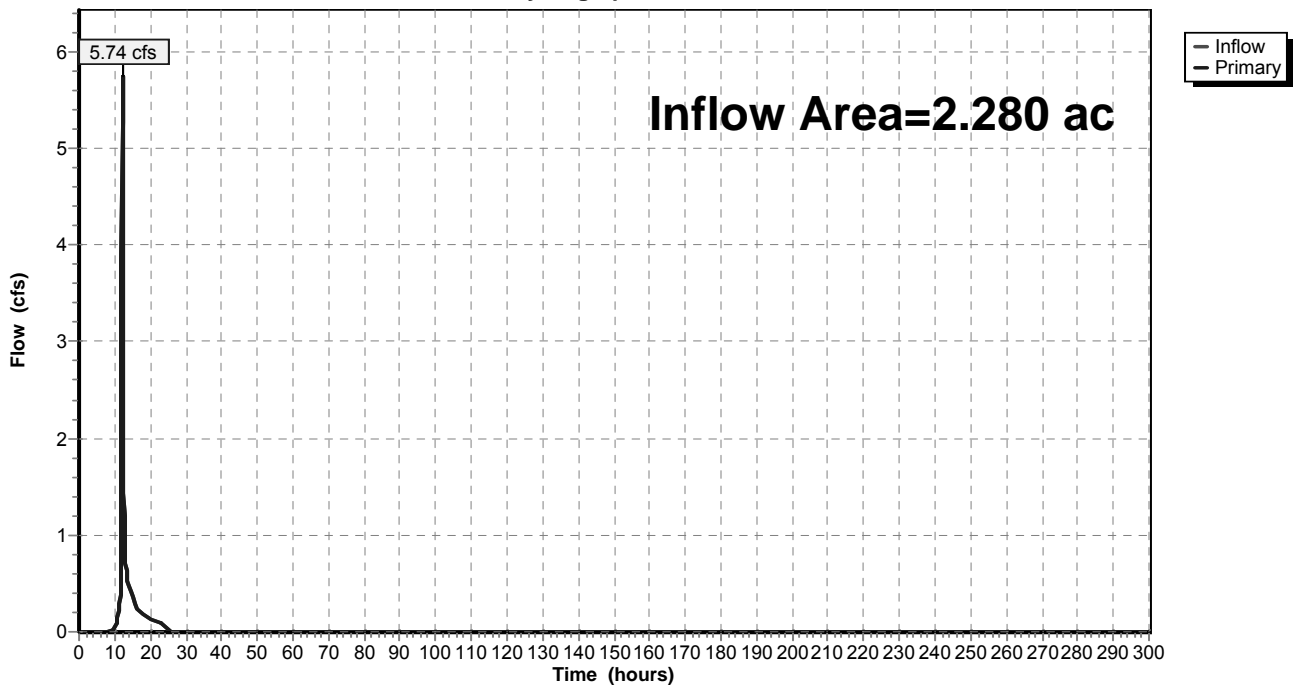
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.280 ac, 0.00% Impervious, Inflow Depth = 2.50" for 10 Year - North Salem event
Inflow = 5.74 cfs @ 12.15 hrs, Volume= 0.475 af
Primary = 5.74 cfs @ 12.15 hrs, Volume= 0.475 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I1: Post-Development I1

Runoff Area=2.280 ac 0.00% Impervious Runoff Depth=3.72"
Flow Length=738' Tc=9.9 min CN=71 Runoff=8.61 cfs 0.707 af

Pond DP 9: Design Point 9

Inflow=8.61 cfs 0.707 af
Primary=8.61 cfs 0.707 af

Total Runoff Area = 2.280 ac Runoff Volume = 0.707 af Average Runoff Depth = 3.72"
100.00% Pervious = 2.280 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I1: Post-Development I1

Runoff = 8.61 cfs @ 12.14 hrs, Volume= 0.707 af, Depth= 3.72"

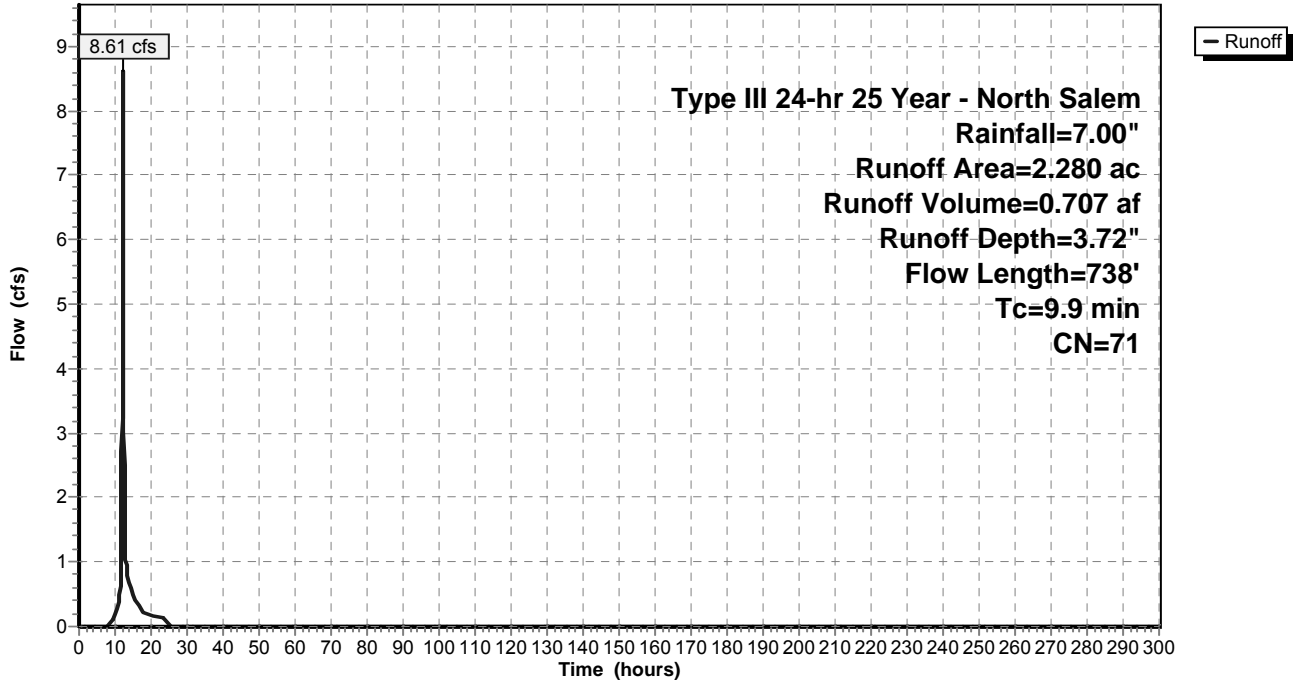
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 1.712	70	Woods, Good, HSG C
0.568	74	>75% Grass cover, Good, HSG C
2.280	71	Weighted Average
2.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	145	0.1517	6.27		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	132	0.2727	8.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.2110	7.40		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	42	0.1429	6.09		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	38	0.0789	4.52		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
9.9	738	Total			

Subcatchment I1: Post-Development I1

Hydrograph



Summary for Pond DP 9: Design Point 9

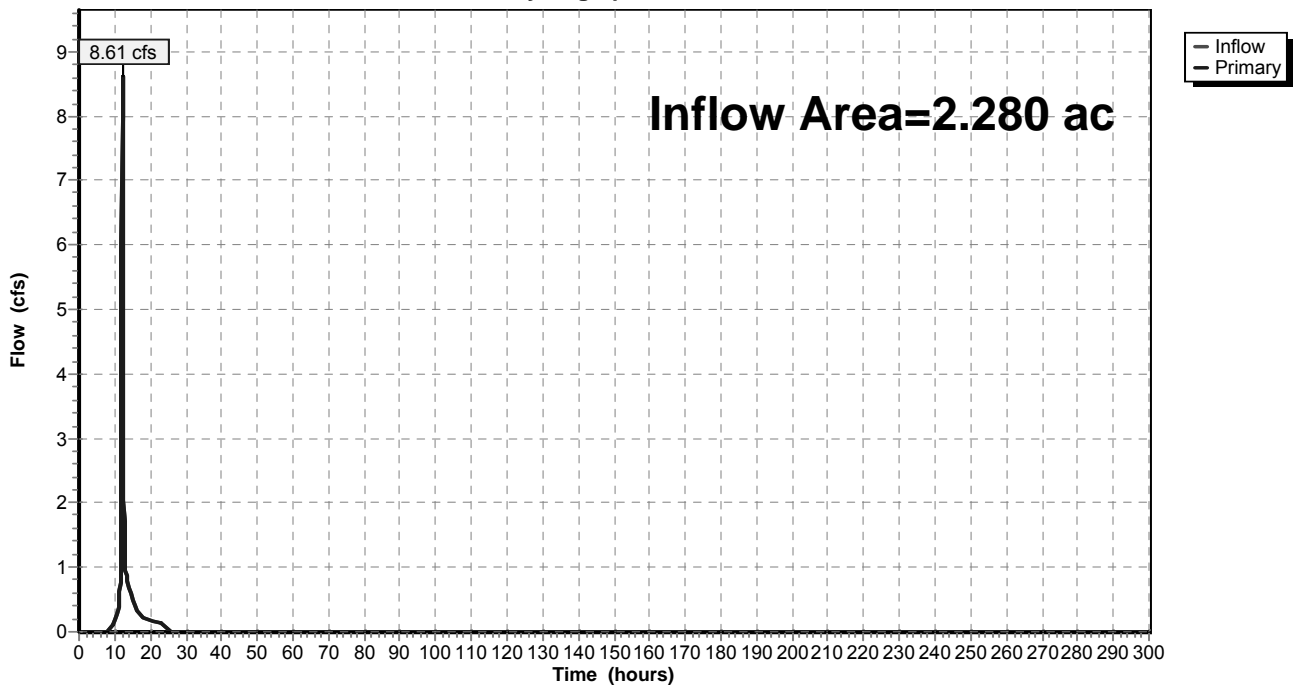
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.280 ac, 0.00% Impervious, Inflow Depth = 3.72" for 25 Year - North Salem event
Inflow = 8.61 cfs @ 12.14 hrs, Volume= 0.707 af
Primary = 8.61 cfs @ 12.14 hrs, Volume= 0.707 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 9: Design Point 9

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment I1: Post-Development I1 Runoff Area=2.280 ac 0.00% Impervious Runoff Depth=5.46"
Flow Length=738' Tc=9.9 min CN=71 Runoff=12.61 cfs 1.037 af

Pond DP 9: Design Point 9 Inflow=12.61 cfs 1.037 af
Primary=12.61 cfs 1.037 af

Total Runoff Area = 2.280 ac Runoff Volume = 1.037 af Average Runoff Depth = 5.46"
100.00% Pervious = 2.280 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment I1: Post-Development I1

Runoff = 12.61 cfs @ 12.14 hrs, Volume= 1.037 af, Depth= 5.46"

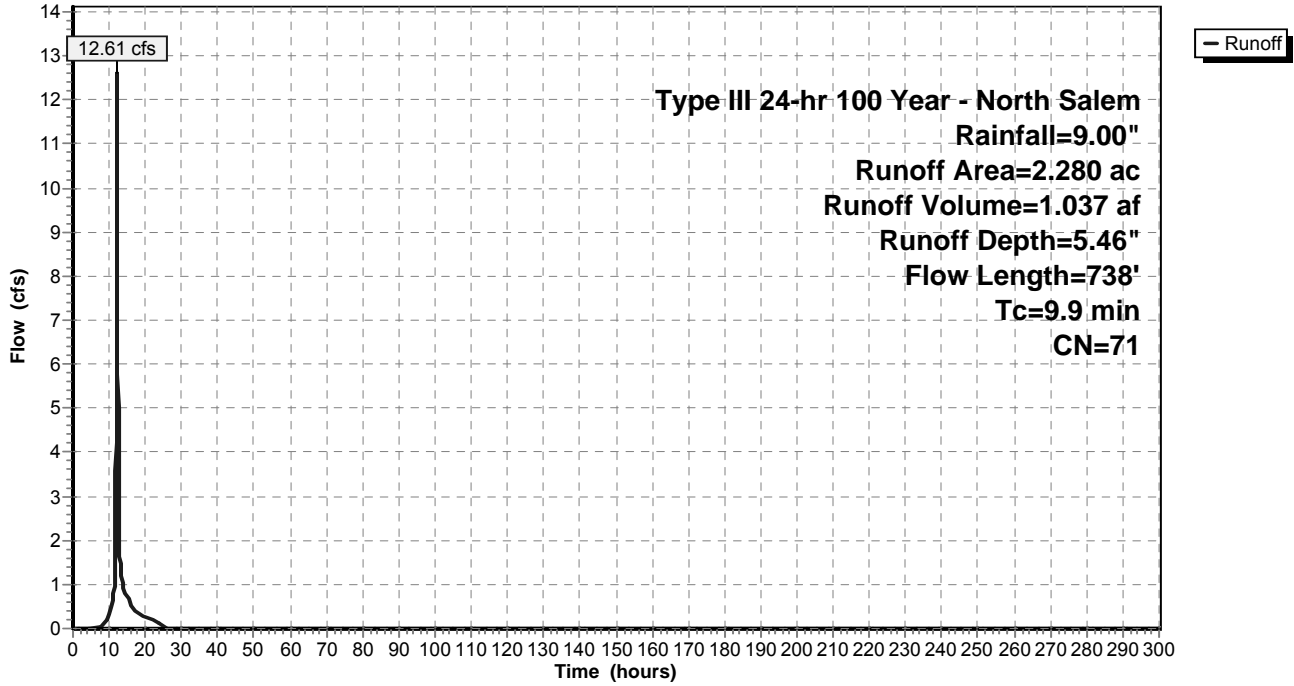
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 1.712	70	Woods, Good, HSG C
0.568	74	>75% Grass cover, Good, HSG C
2.280	71	Weighted Average
2.280		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.1800	0.20		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	185	0.2270	7.67		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	58	0.0689	4.23		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	145	0.1517	6.27		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	132	0.2727	8.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.2110	7.40		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	42	0.1429	6.09		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	38	0.0789	4.52		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
9.9	738	Total			

Subcatchment I1: Post-Development I1

Hydrograph



Summary for Pond DP 9: Design Point 9

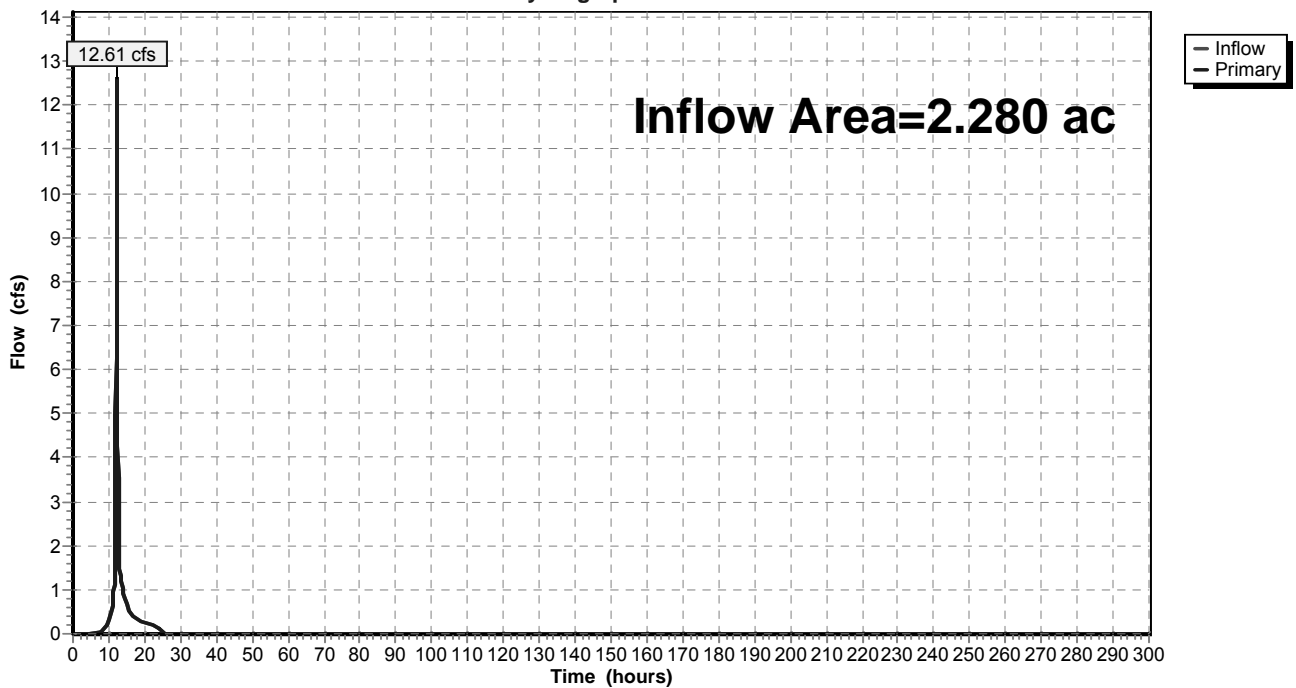
[40] Hint: Not Described (Outflow=Inflow)

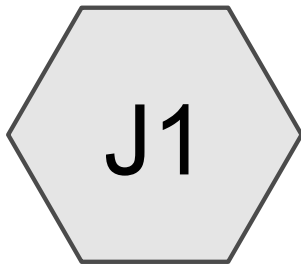
Inflow Area = 2.280 ac, 0.00% Impervious, Inflow Depth = 5.46" for 100 Year - North Salem event
Inflow = 12.61 cfs @ 12.14 hrs, Volume= 1.037 af
Primary = 12.61 cfs @ 12.14 hrs, Volume= 1.037 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

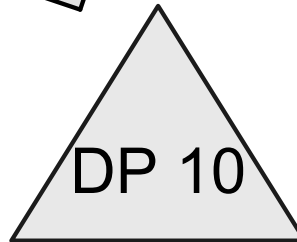
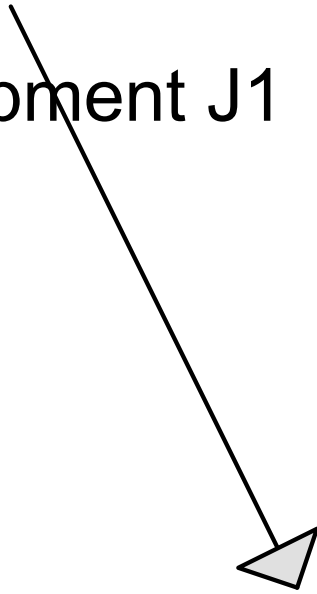
Pond DP 9: Design Point 9

Hydrograph

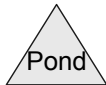
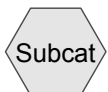




Post-Development J1



Design Point 10



Woodlands Post-Dev DP 10 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.938	55	Woods, Good, HSG B, CrC Soils (J1)
1.000	70	Woods, Good, HSG C, CuD Soils (J1)
0.970	73	Woods, Fair, HSG C, HrF Soils (J1)
2.908		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J1: Post-Development J1

Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=0.59"
Flow Length=663' Tc=8.9 min CN=66 Runoff=1.42 cfs 0.144 af

Pond DP 10: Design Point 10

Inflow=1.42 cfs 0.144 af
Primary=1.42 cfs 0.144 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.144 af Average Runoff Depth = 0.59"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J1: Post-Development J1

Runoff = 1.42 cfs @ 12.16 hrs, Volume= 0.144 af, Depth= 0.59"

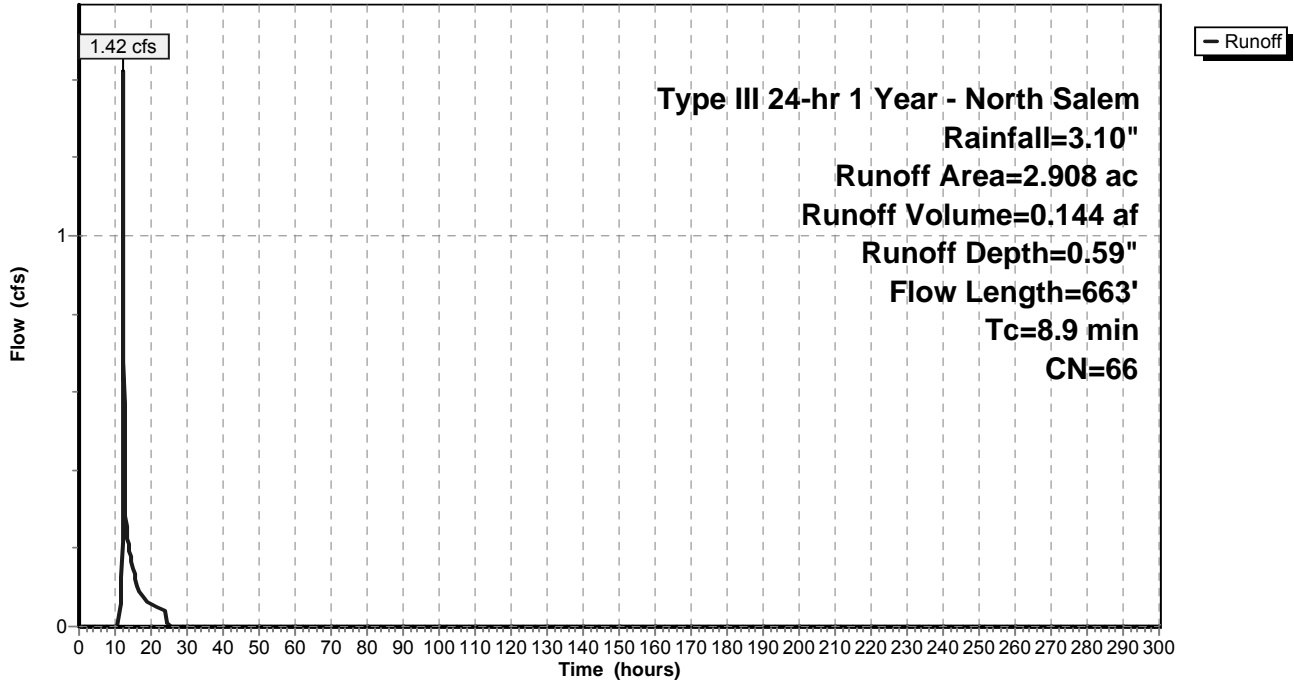
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J1: Post-Development J1

Hydrograph



Summary for Pond DP 10: Design Point 10

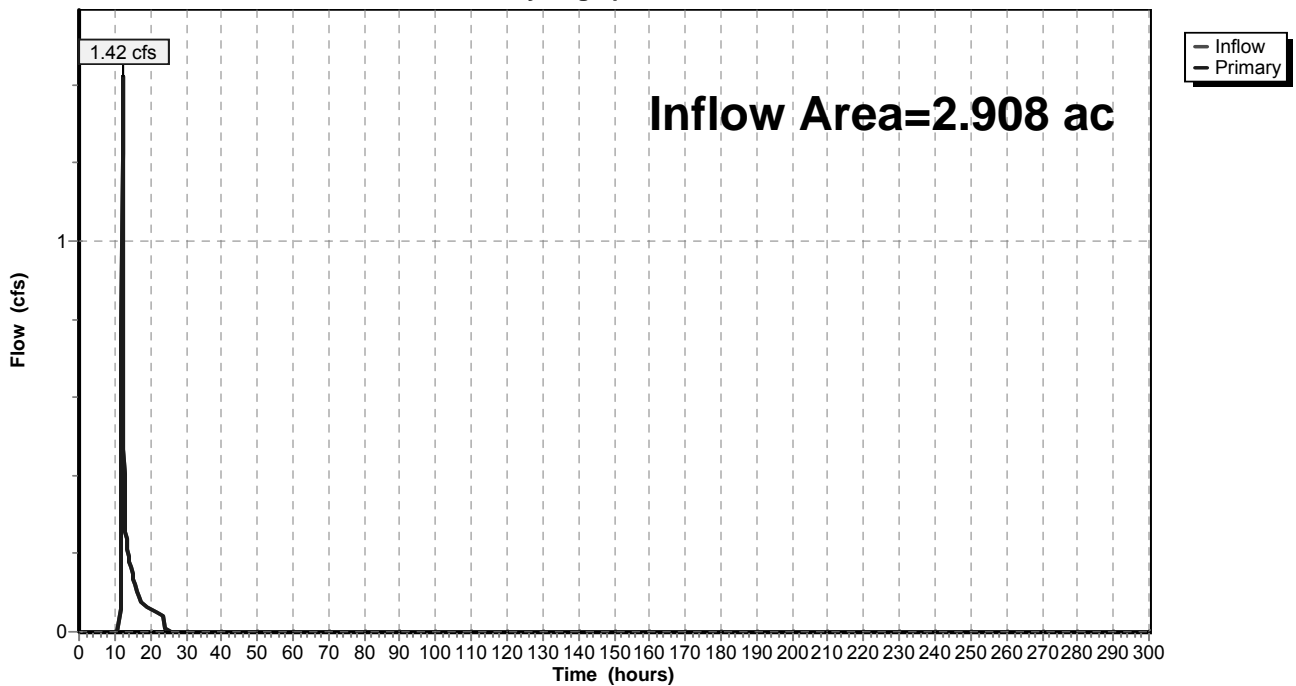
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
Inflow = 1.42 cfs @ 12.16 hrs, Volume= 0.144 af
Primary = 1.42 cfs @ 12.16 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J1: Post-Development J1

Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=0.91"
Flow Length=663' Tc=8.9 min CN=66 Runoff=2.43 cfs 0.221 af

Pond DP 10: Design Point 10

Inflow=2.43 cfs 0.221 af
Primary=2.43 cfs 0.221 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.221 af Average Runoff Depth = 0.91"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J1: Post-Development J1

Runoff = 2.43 cfs @ 12.15 hrs, Volume= 0.221 af, Depth= 0.91"

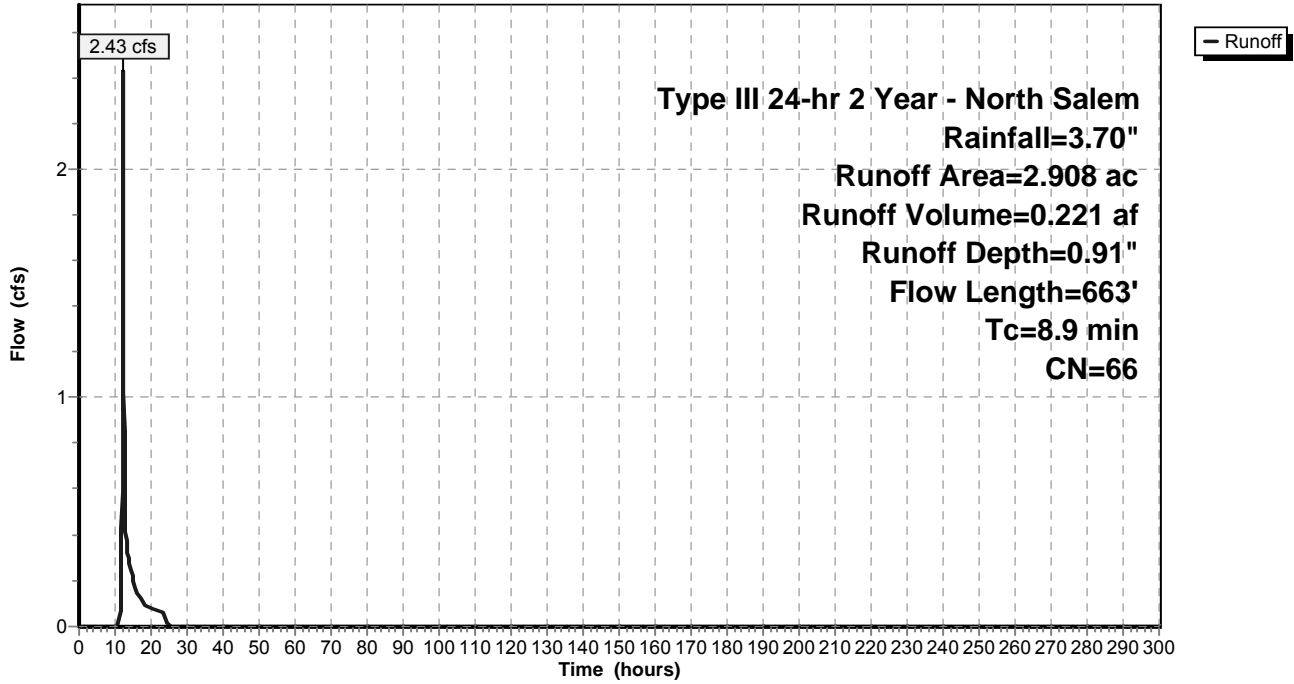
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J1: Post-Development J1

Hydrograph



Summary for Pond DP 10: Design Point 10

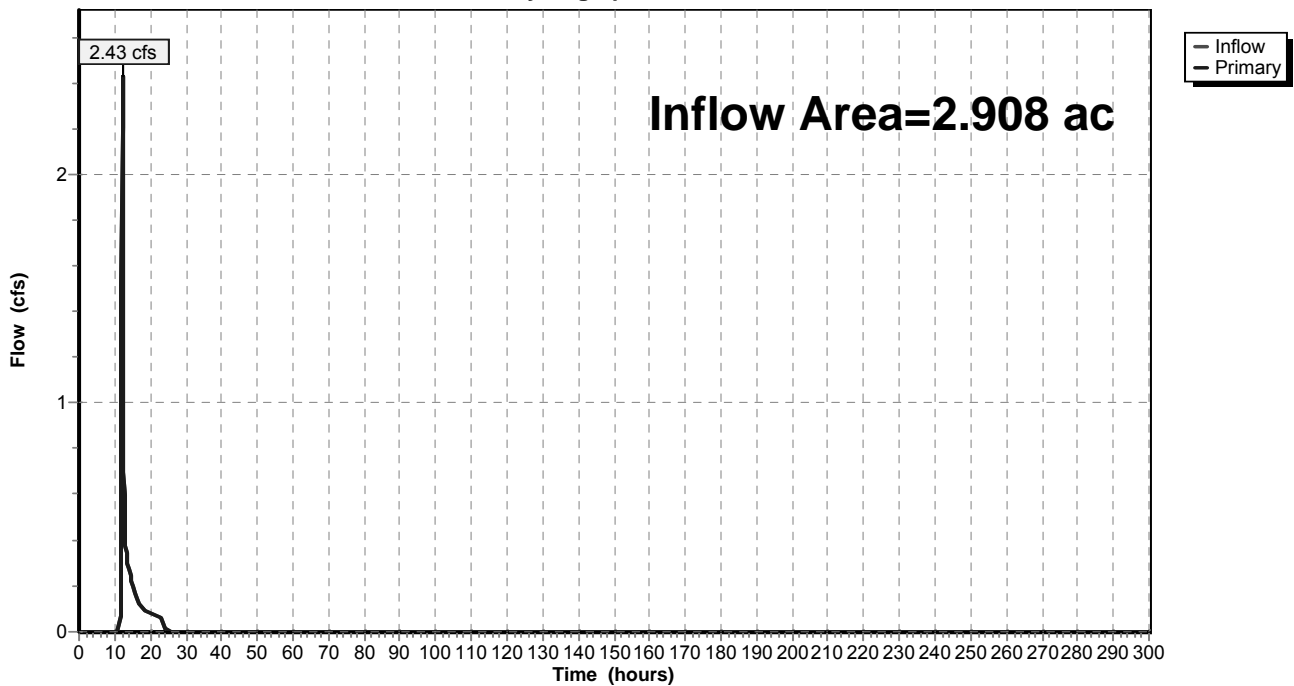
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
Inflow = 2.43 cfs @ 12.15 hrs, Volume= 0.221 af
Primary = 2.43 cfs @ 12.15 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J1: Post-Development J1 Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=2.08"
Flow Length=663' Tc=8.9 min CN=66 Runoff=6.10 cfs 0.503 af

Pond DP 10: Design Point 10 Inflow=6.10 cfs 0.503 af
Primary=6.10 cfs 0.503 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.503 af Average Runoff Depth = 2.08"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J1: Post-Development J1

Runoff = 6.10 cfs @ 12.14 hrs, Volume= 0.503 af, Depth= 2.08"

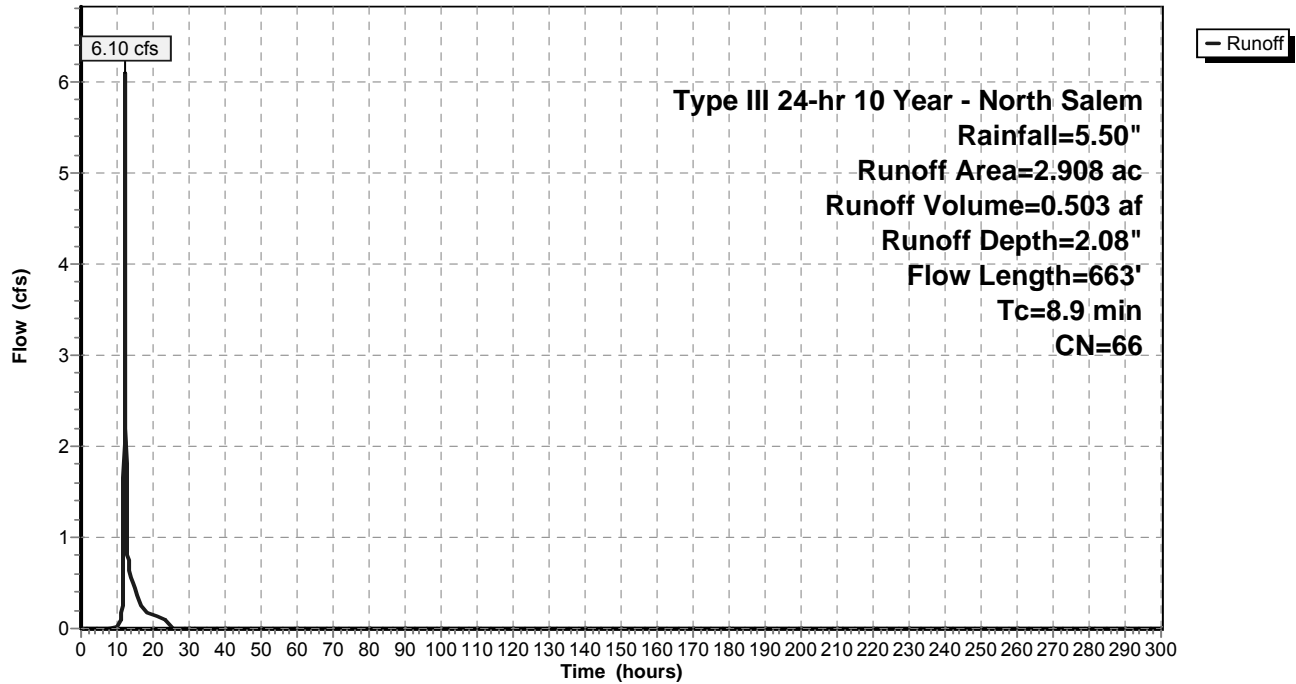
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J1: Post-Development J1

Hydrograph



Summary for Pond DP 10: Design Point 10

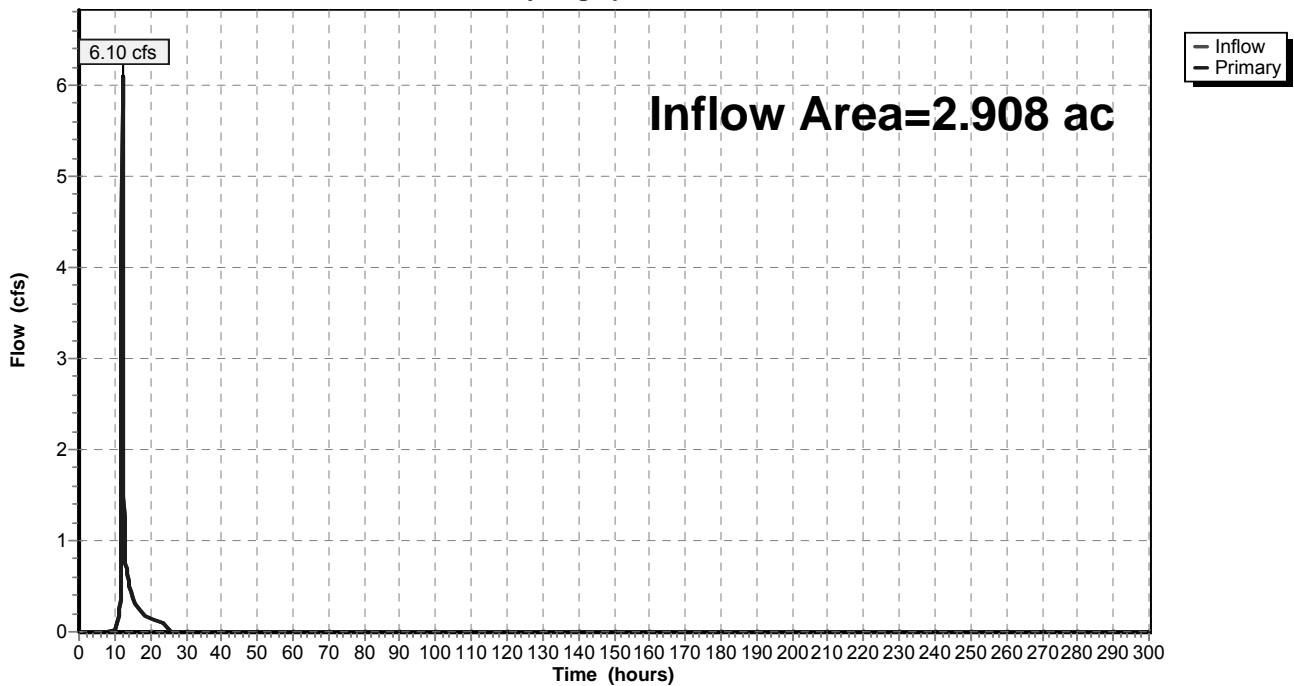
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 2.08" for 10 Year - North Salem event
Inflow = 6.10 cfs @ 12.14 hrs, Volume= 0.503 af
Primary = 6.10 cfs @ 12.14 hrs, Volume= 0.503 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J1: Post-Development J1 Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=3.20"
Flow Length=663' Tc=8.9 min CN=66 Runoff=9.62 cfs 0.777 af

Pond DP 10: Design Point 10 Inflow=9.62 cfs 0.777 af
Primary=9.62 cfs 0.777 af

Total Runoff Area = 2.908 ac Runoff Volume = 0.777 af Average Runoff Depth = 3.20"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J1: Post-Development J1

Runoff = 9.62 cfs @ 12.13 hrs, Volume= 0.777 af, Depth= 3.20"

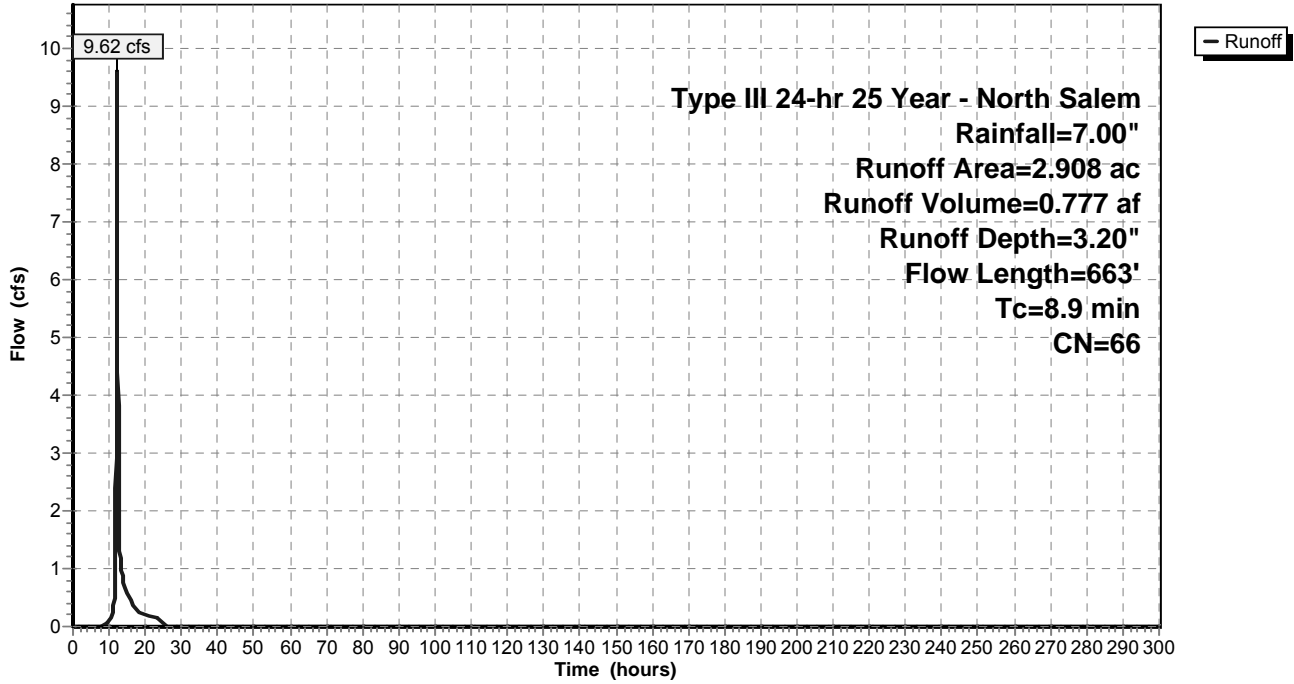
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J1: Post-Development J1

Hydrograph



Summary for Pond DP 10: Design Point 10

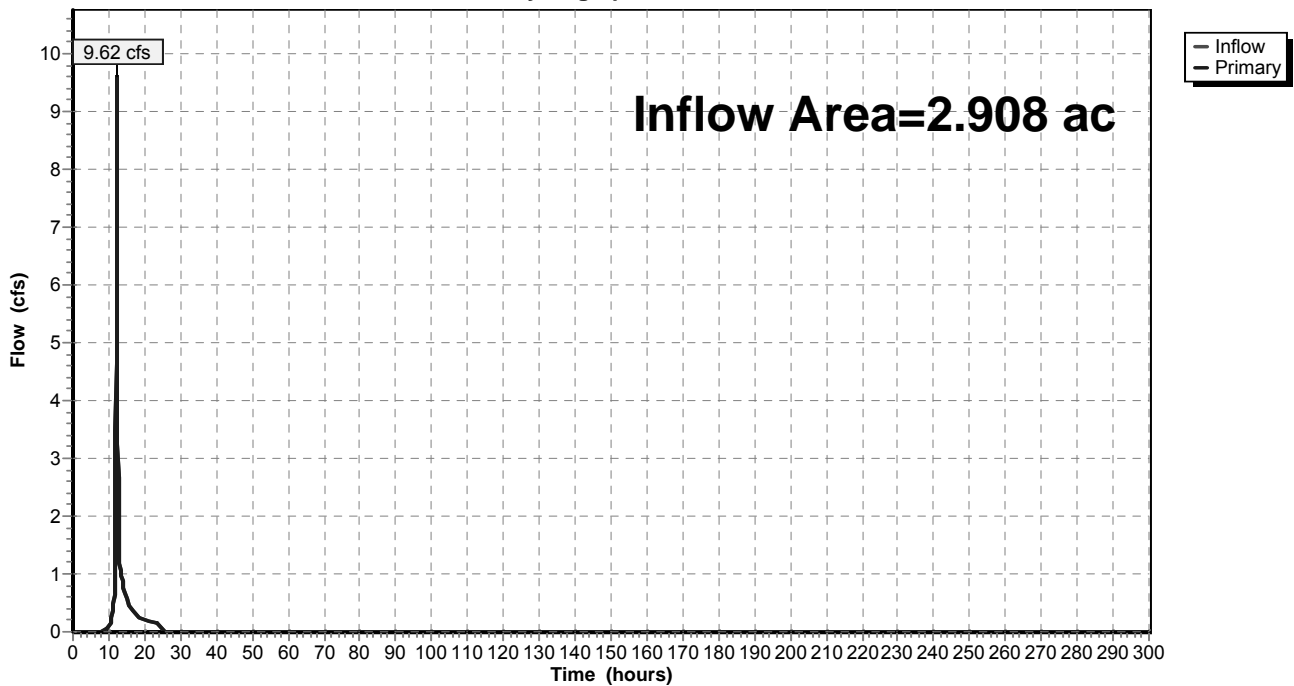
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
Inflow = 9.62 cfs @ 12.13 hrs, Volume= 0.777 af
Primary = 9.62 cfs @ 12.13 hrs, Volume= 0.777 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph



Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment J1: Post-Development J1 Runoff Area=2.908 ac 0.00% Impervious Runoff Depth=4.84"
Flow Length=663' Tc=8.9 min CN=66 Runoff=14.64 cfs 1.173 af

Pond DP 10: Design Point 10 Inflow=14.64 cfs 1.173 af
Primary=14.64 cfs 1.173 af

Total Runoff Area = 2.908 ac Runoff Volume = 1.173 af Average Runoff Depth = 4.84"
100.00% Pervious = 2.908 ac 0.00% Impervious = 0.000 ac

Summary for Subcatchment J1: Post-Development J1

Runoff = 14.64 cfs @ 12.13 hrs, Volume= 1.173 af, Depth= 4.84"

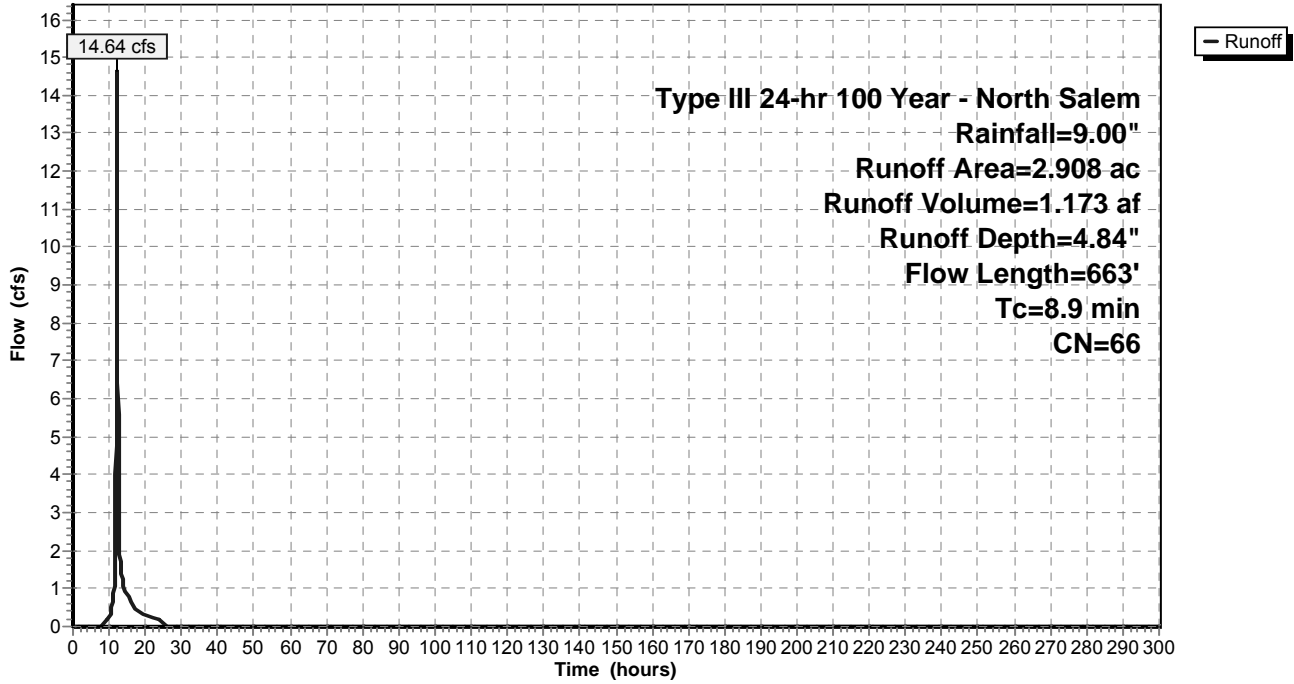
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 1.000	70	Woods, Good, HSG C, CuD Soils
* 0.938	55	Woods, Good, HSG B, CrC Soils
* 0.970	73	Woods, Fair, HSG C, HrF Soils
2.908	66	Weighted Average
2.908		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	87	0.2299	7.72		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	53	0.5670	12.12		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	93	0.2580	8.18		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	330	0.2121	7.41		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
8.9	663	Total			

Subcatchment J1: Post-Development J1

Hydrograph



Summary for Pond DP 10: Design Point 10

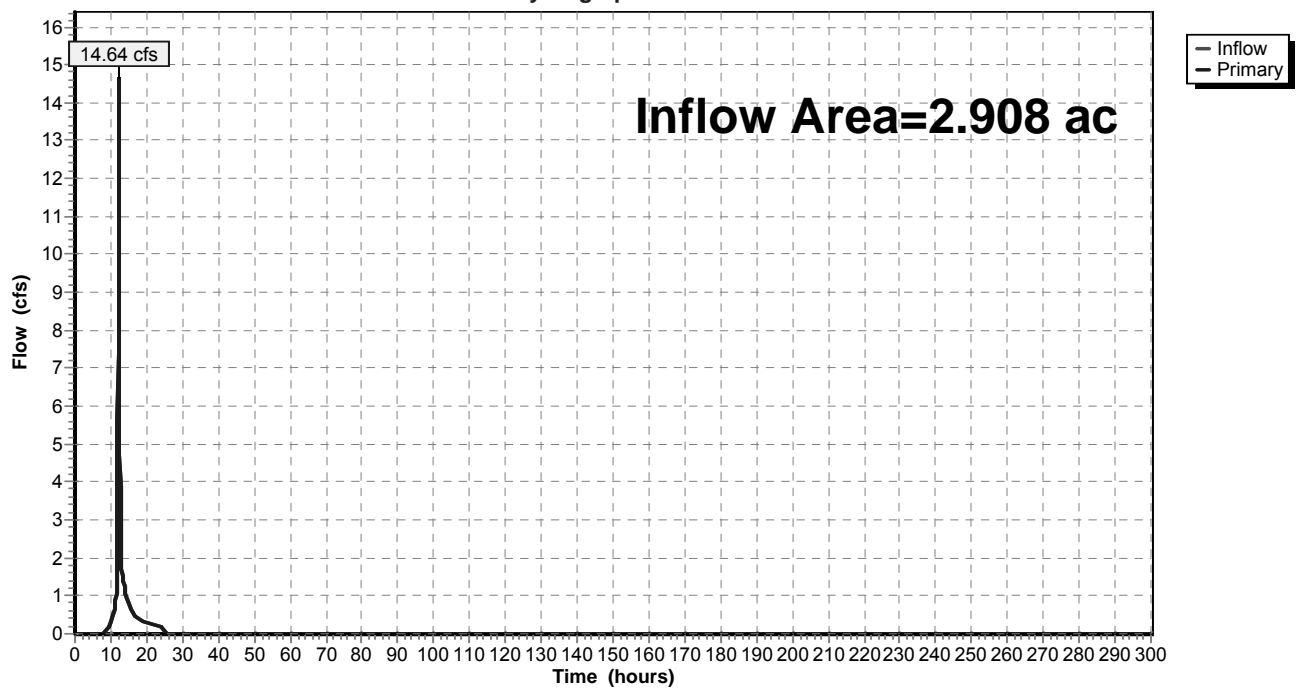
[40] Hint: Not Described (Outflow=Inflow)

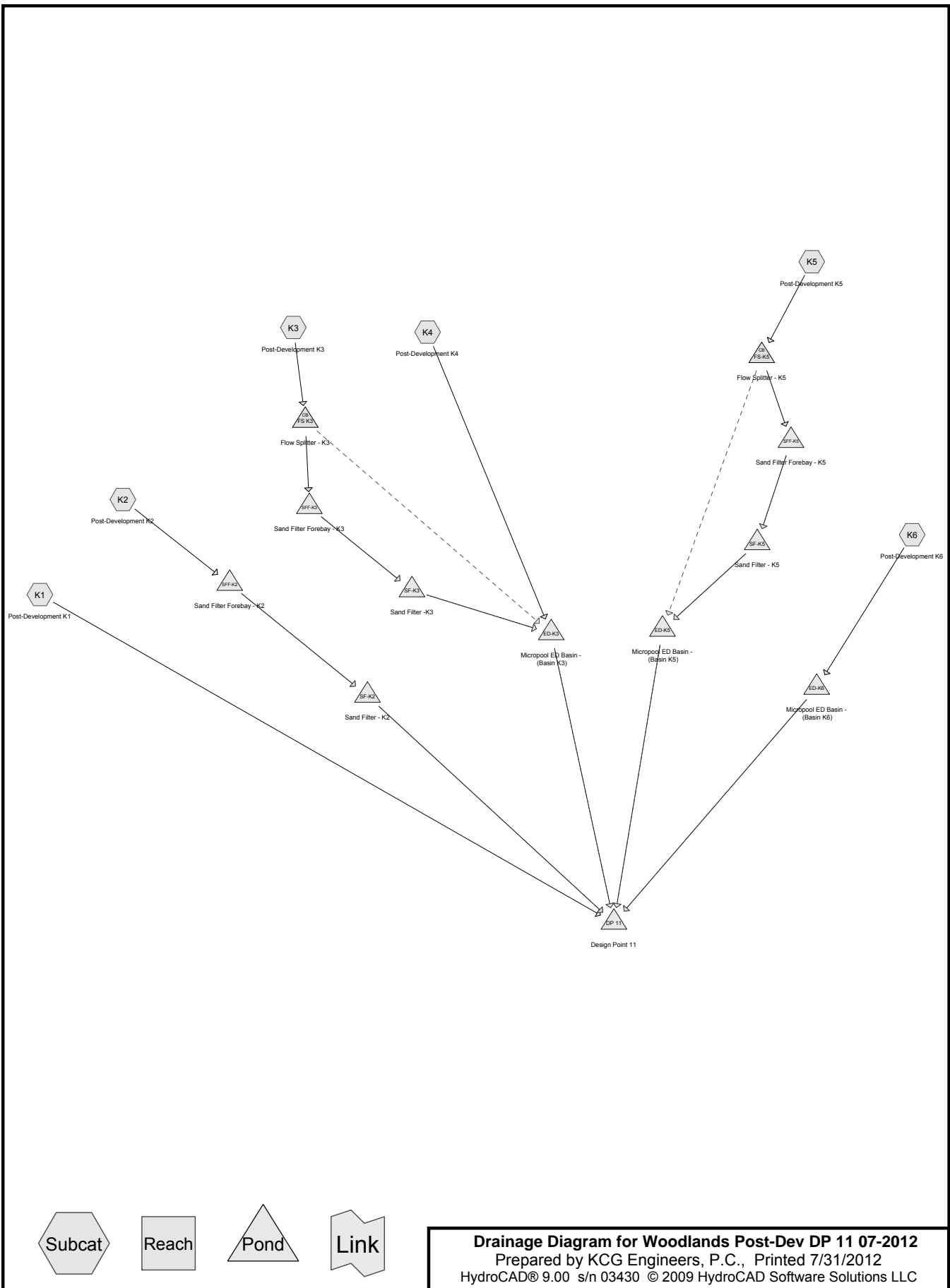
Inflow Area = 2.908 ac, 0.00% Impervious, Inflow Depth = 4.84" for 100 Year - North Salem event
Inflow = 14.64 cfs @ 12.13 hrs, Volume= 1.173 af
Primary = 14.64 cfs @ 12.13 hrs, Volume= 1.173 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 10: Design Point 10

Hydrograph





Woodlands Post-Dev DP 11 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
7.263	55	Woods, Good, HSG B (K1, K2, K4)
1.770	61	>75% Grass cover, Good, HSG B (K2, K3, K4)
0.113	61	Basin, HSG B (K2)
28.353	70	Woods, Good, HSG C (K1, K2, K3, K5, K6)
15.966	74	>75% Grass cover, Good, HSG C (K1, K2, K3, K5, K6)
1.223	74	Basin, HSG C (K3, K5, K6)
3.196	83	Woods, Poor, HSG D (K1)
0.367	85	Gravel roads, HSG B (Existing) (K1)
2.426	98	Driveway (K3, K5, K6)
0.237	98	Recreation Center (K3)
2.721	98	Road (K2, K3, K5)
0.052	98	Roof (Sewer Plant) (K2)
1.021	98	Roof/Walkway (K5, K6)
2.651	98	Roof/Walkway (MF Units) (K3)
0.079	98	Roofs (Existing) (K1)
0.174	98	Sidewalk (K3, K5)
0.115	100	Open Water (K1)
67.727		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-Development K1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=0.72"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=17.47 cfs 2.208 af

Subcatchment K2: Post-Development K2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=0.68"
Flow Length=799' Tc=13.0 min CN=68 Runoff=1.08 cfs 0.116 af

Subcatchment K3: Post-Development K3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=1.67"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=16.61 cfs 1.537 af

Subcatchment K4: Post-Development K4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=0.37"
Flow Length=281' Tc=11.3 min CN=60 Runoff=0.21 cfs 0.034 af

Subcatchment K5: Post-Development K5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=1.39"
Flow Length=542' Tc=22.2 min CN=81 Runoff=8.69 cfs 0.970 af

Subcatchment K6: Post-Development K6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=0.97"
Flow Length=981' Tc=12.4 min CN=74 Runoff=7.36 cfs 0.697 af

Pond DP 11: Design Point 11

Inflow=17.56 cfs 5.322 af
Primary=17.56 cfs 5.322 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=451.58' Storage=36,183 cf Inflow=0.45 cfs 1.413 af
Primary=0.07 cfs 1.358 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 1.358 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=483.60' Storage=18,812 cf Inflow=0.49 cfs 0.949 af
Primary=0.07 cfs 0.944 af Secondary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.944 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=518.55' Storage=28,253 cf Inflow=7.36 cfs 0.697 af
Primary=0.43 cfs 0.697 af Secondary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.697 af

Pond FS K3: Flow Splitter - K3

Peak Elev=467.78' Inflow=16.61 cfs 1.537 af
Primary=16.61 cfs 1.537 af Secondary=0.00 cfs 0.000 af Outflow=16.61 cfs 1.537 af

Pond FS-K5: Flow Splitter - K5

Peak Elev=506.52' Inflow=8.69 cfs 0.970 af
Primary=8.68 cfs 0.969 af Secondary=0.00 cfs 0.000 af Outflow=8.69 cfs 0.970 af

Pond SF-K2: Sand Filter - K2

Peak Elev=425.59' Storage=3,684 cf Inflow=0.59 cfs 0.116 af
Primary=0.04 cfs 0.116 af Secondary=0.00 cfs 0.000 af Outflow=0.04 cfs 0.116 af

Pond SF-K3: Sand Filter - K3

Peak Elev=461.04' Storage=48,743 cf Inflow=12.70 cfs 1.415 af
Primary=0.43 cfs 1.379 af Secondary=0.00 cfs 0.000 af Outflow=0.43 cfs 1.379 af

Pond SF-K5: Sand Filter - K5

Peak Elev=494.38' Storage=31,519 cf Inflow=5.61 cfs 0.969 af
Primary=0.49 cfs 0.949 af Secondary=0.00 cfs 0.000 af Outflow=0.49 cfs 0.949 af

Pond SFF-K2: Sand Filter Forebay - K2

Peak Elev=431.26' Storage=822 cf Inflow=1.08 cfs 0.116 af
Primary=0.59 cfs 0.116 af Secondary=0.00 cfs 0.000 af Outflow=0.59 cfs 0.116 af

Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=464.57' Storage=21,761 cf Inflow=16.61 cfs 1.537 af
Primary=12.70 cfs 1.415 af Secondary=0.00 cfs 0.000 af Outflow=12.70 cfs 1.415 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=503.38' Storage=12,449 cf Inflow=8.68 cfs 0.969 af
Primary=5.61 cfs 0.969 af Secondary=0.00 cfs 0.000 af Outflow=5.61 cfs 0.969 af

Total Runoff Area = 67.727 ac Runoff Volume = 5.561 af Average Runoff Depth = 0.99"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 17.47 cfs @ 12.35 hrs, Volume= 2.208 af, Depth= 0.72"

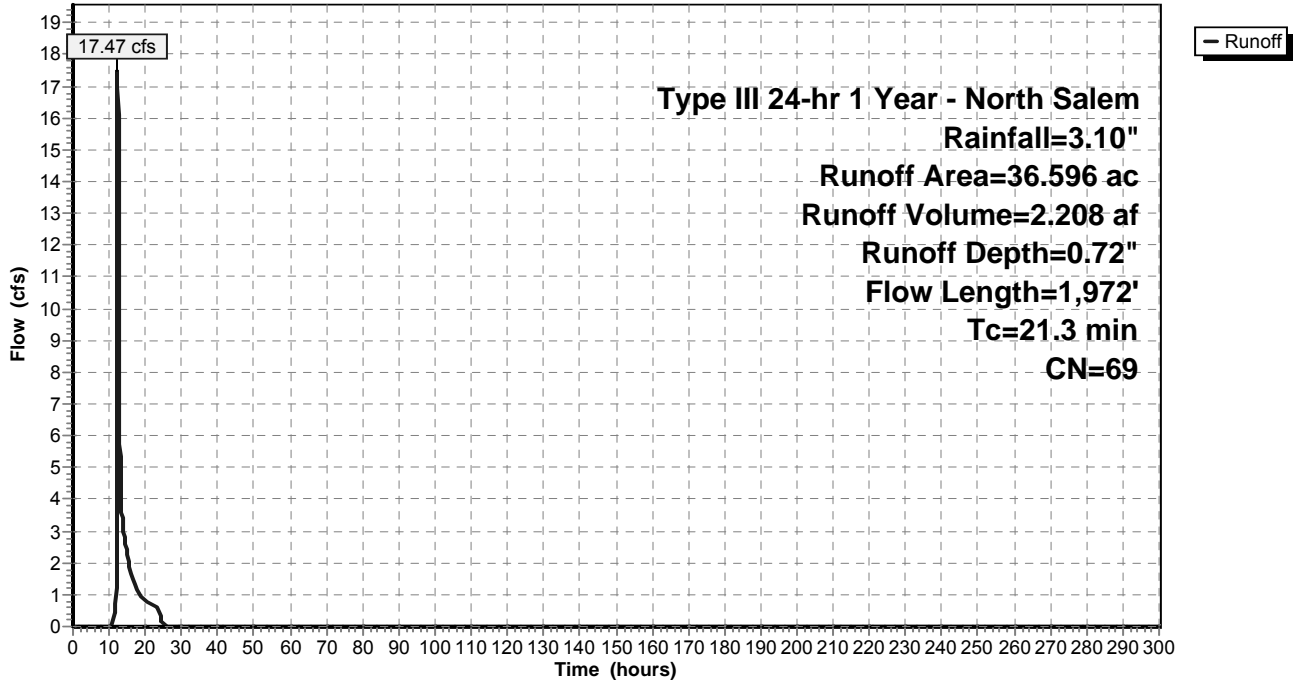
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

Runoff = 1.08 cfs @ 12.21 hrs, Volume= 0.116 af, Depth= 0.68"

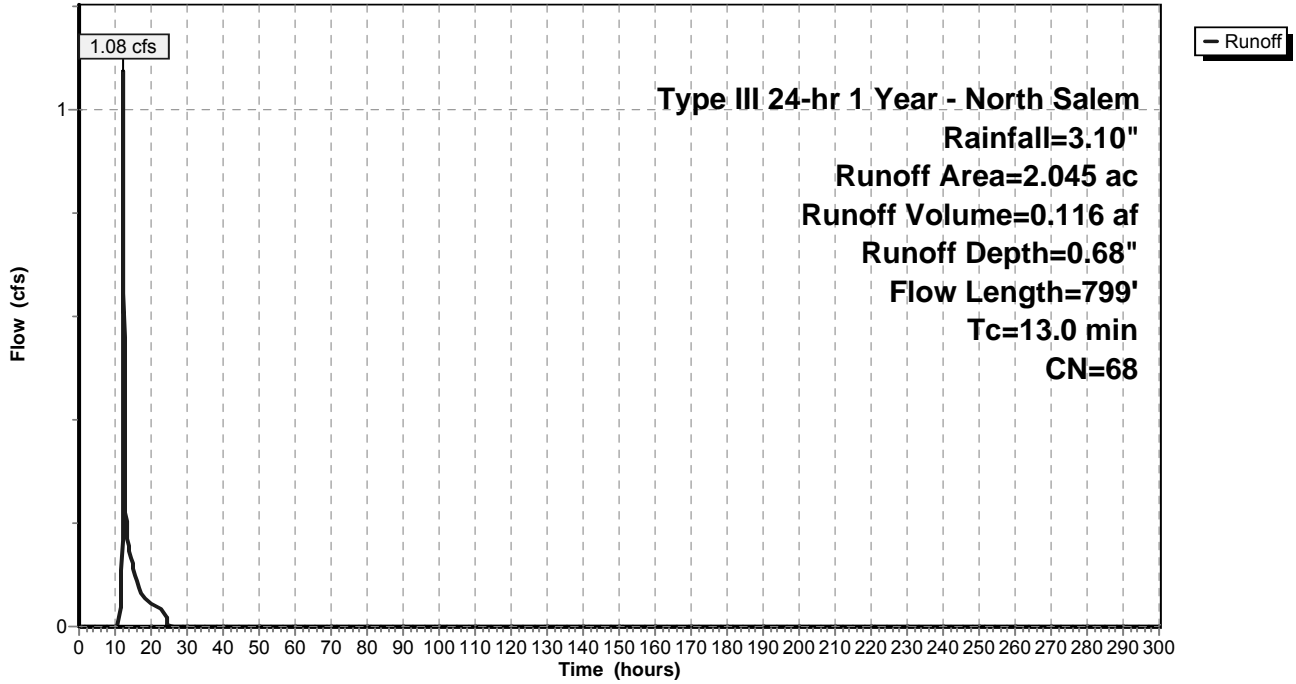
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2

Hydrograph



Summary for Subcatchment K3: Post-Development K3

Runoff = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af, Depth= 1.67"

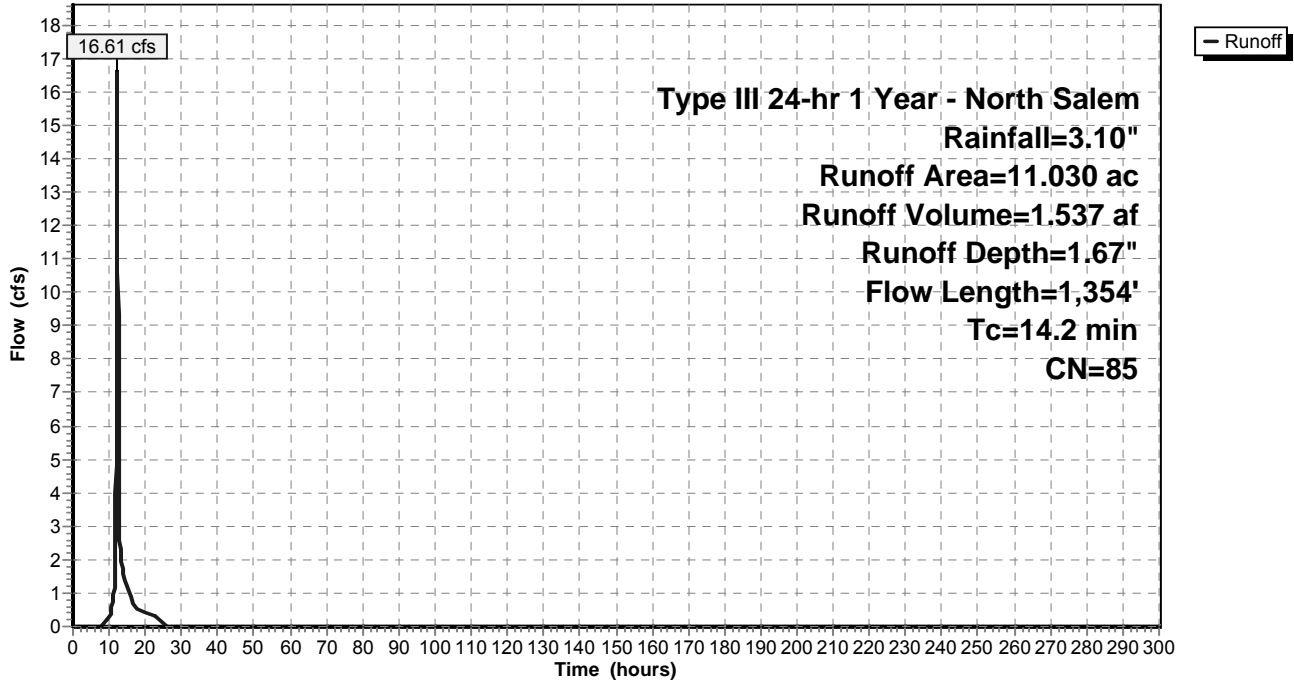
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

Runoff = 0.21 cfs @ 12.27 hrs, Volume= 0.034 af, Depth= 0.37"

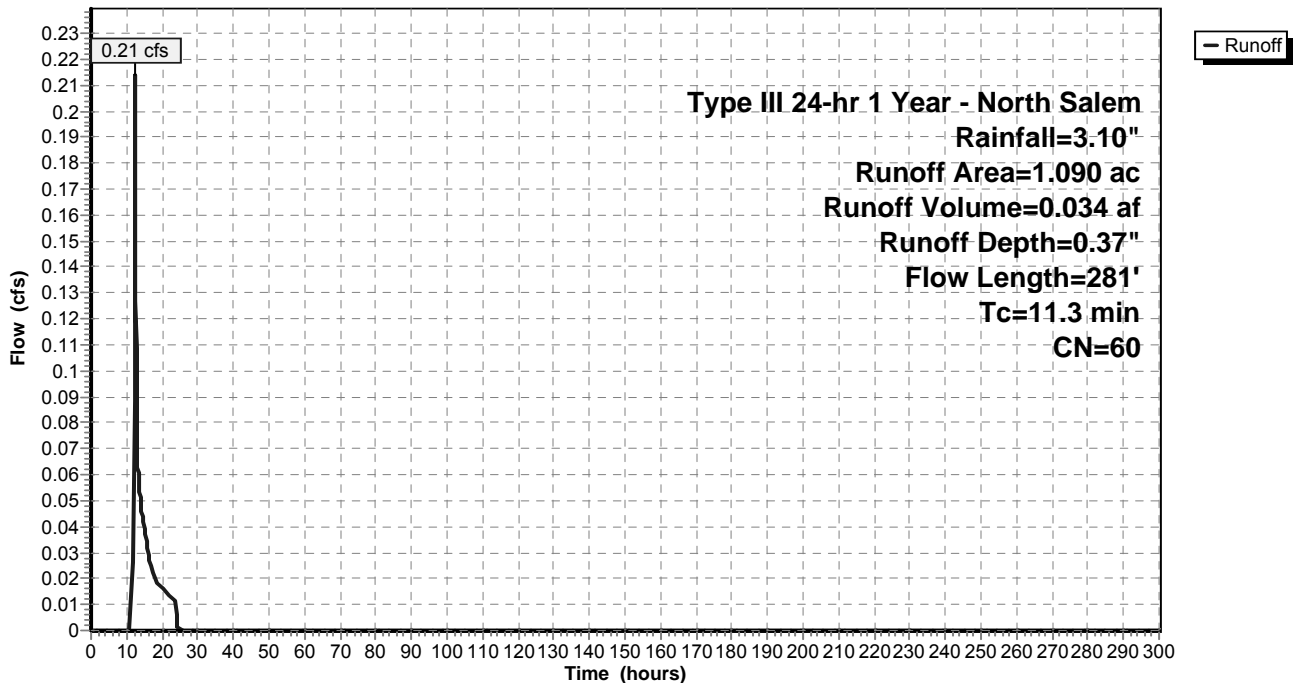
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 8.69 cfs @ 12.32 hrs, Volume= 0.970 af, Depth= 1.39"

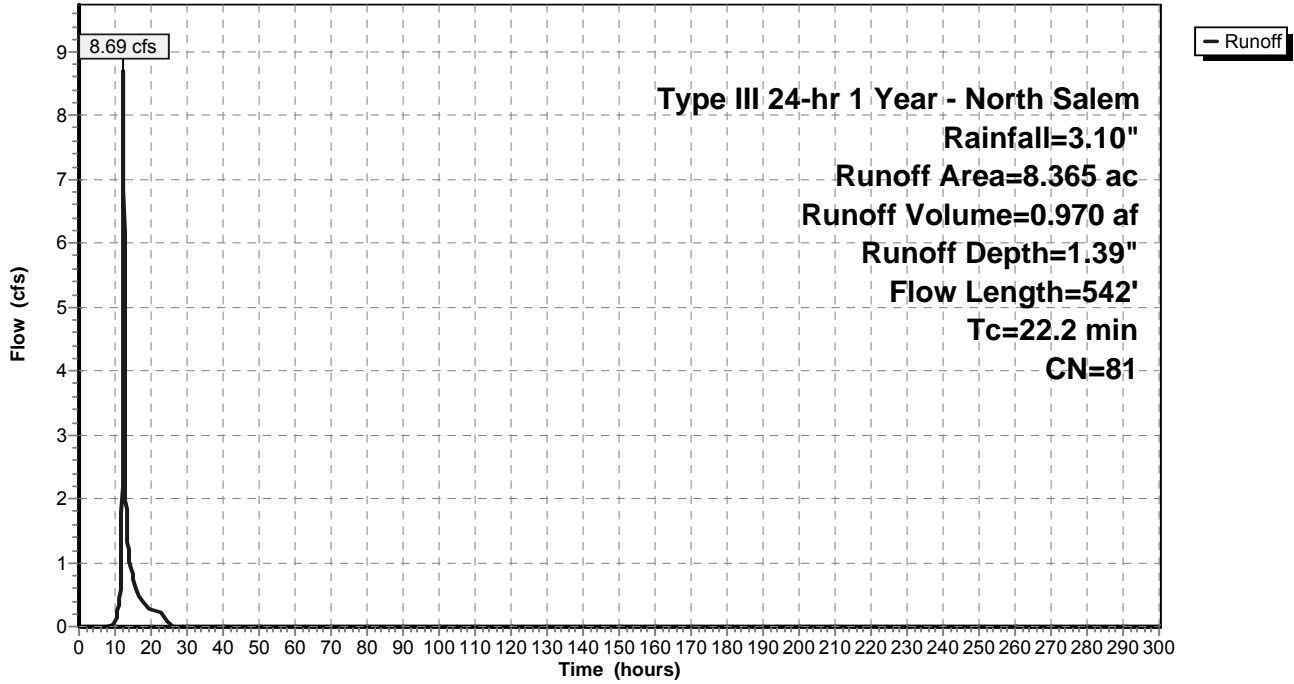
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 7.36 cfs @ 12.19 hrs, Volume= 0.697 af, Depth= 0.97"

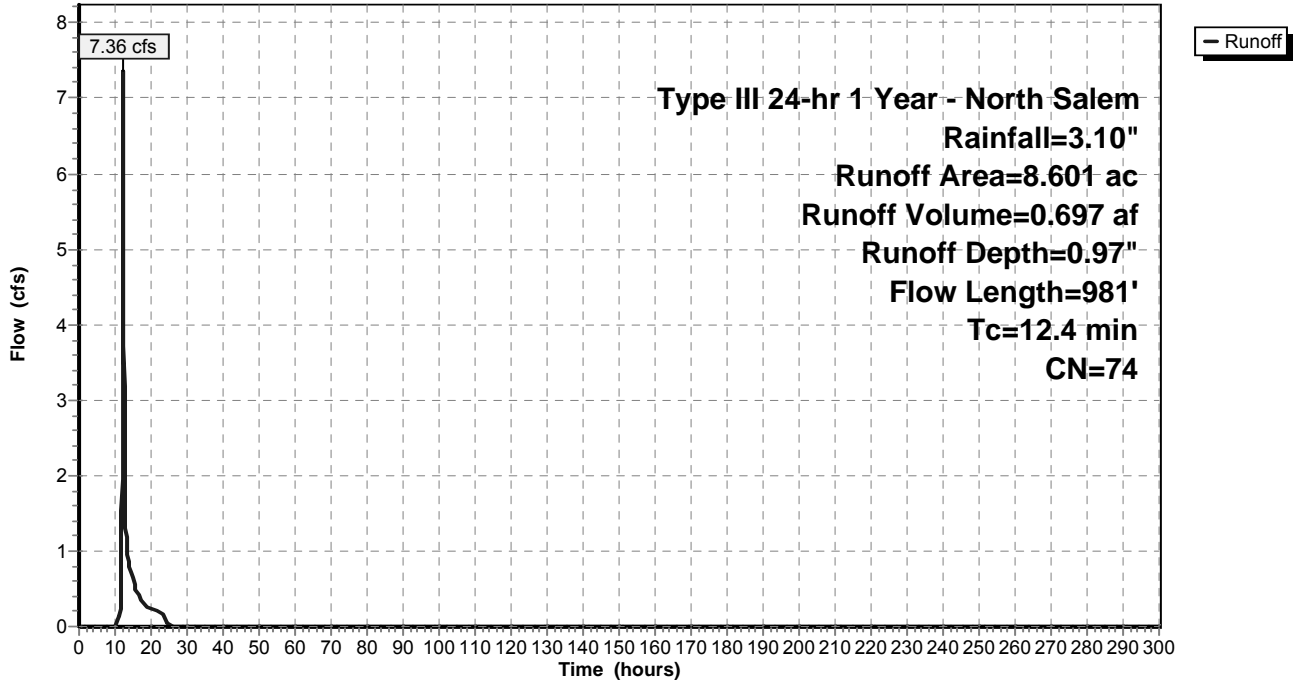
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



Summary for Pond DP 11: Design Point 11

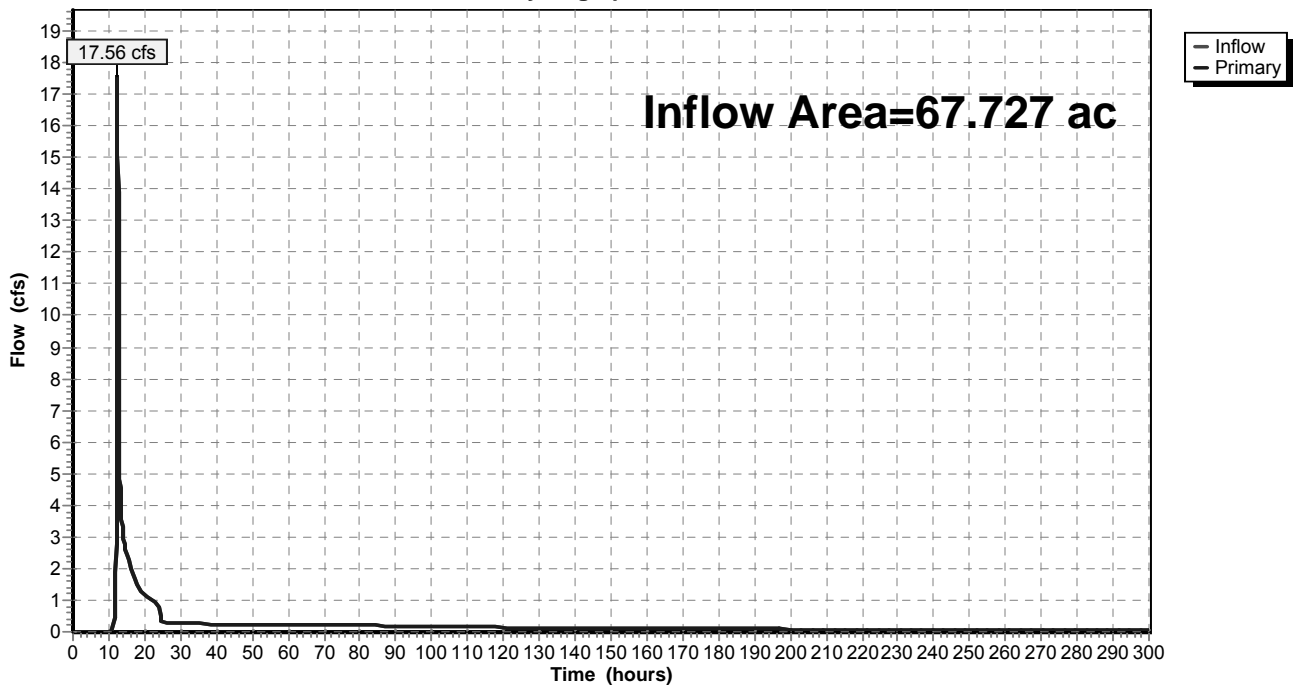
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth > 0.94" for 1 Year - North Salem event
Inflow = 17.56 cfs @ 12.35 hrs, Volume= 5.322 af
Primary = 17.56 cfs @ 12.35 hrs, Volume= 5.322 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth > 1.40" for 1 Year - North Salem event
 Inflow = 0.45 cfs @ 22.79 hrs, Volume= 1.413 af
 Outflow = 0.07 cfs @ 99.04 hrs, Volume= 1.358 af, Atten= 84%, Lag= 4,574.6 min
 Primary = 0.07 cfs @ 99.04 hrs, Volume= 1.358 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 451.58' @ 99.04 hrs Surf.Area= 12,166 sf Storage= 36,183 cf (23,348 cf above start)

Plug-Flow detention time= 7,198.9 min calculated for 1.064 af (75% of inflow)
 Center-of-Mass det. time= 3,767.2 min (8,697.4 - 4,930.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.07 cfs @ 99.04 hrs HW=451.58' (Free Discharge)

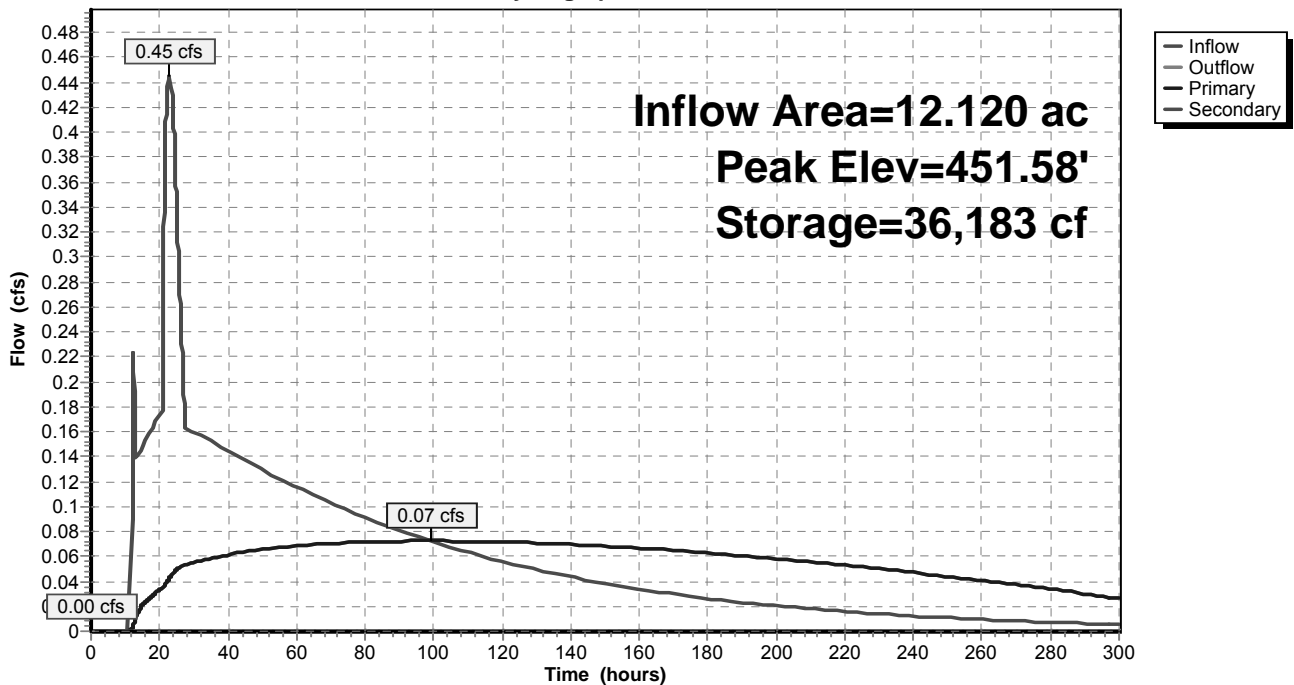
- 1=Outlet Pipe (Passes 0.07 cfs of 25.54 cfs potential flow)
- 2=Reverse Pipe Inlet (Outlet Controls 0.07 cfs @ 3.32 fps)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

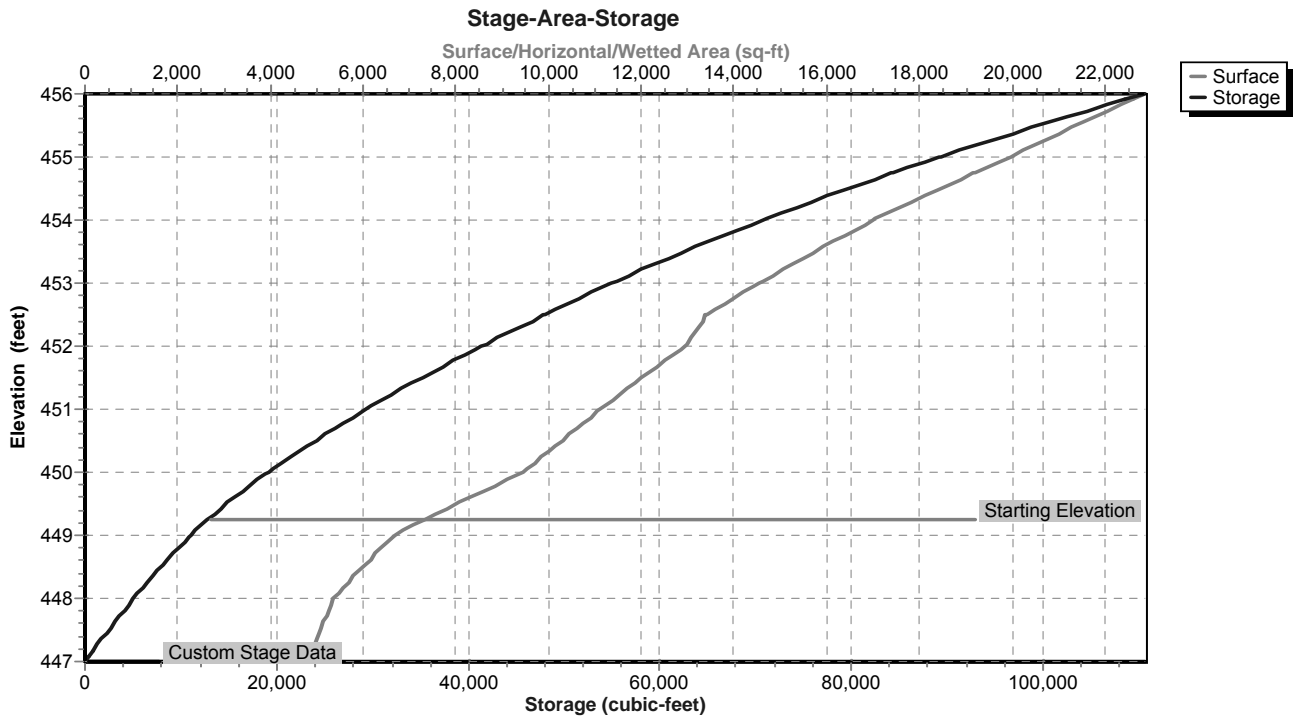
- 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)

Hydrograph



Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth > 1.36" for 1 Year - North Salem event
 Inflow = 0.49 cfs @ 18.34 hrs, Volume= 0.949 af
 Outflow = 0.07 cfs @ 62.60 hrs, Volume= 0.944 af, Atten= 85%, Lag= 2,656.0 min
 Primary = 0.07 cfs @ 62.60 hrs, Volume= 0.944 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 483.60' @ 62.60 hrs Surf.Area= 8,988 sf Storage= 18,812 cf (11,202 cf above start)

Plug-Flow detention time= 4,425.0 min calculated for 0.769 af (81% of inflow)
 Center-of-Mass det. time= 1,908.5 min (6,529.2 - 4,620.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

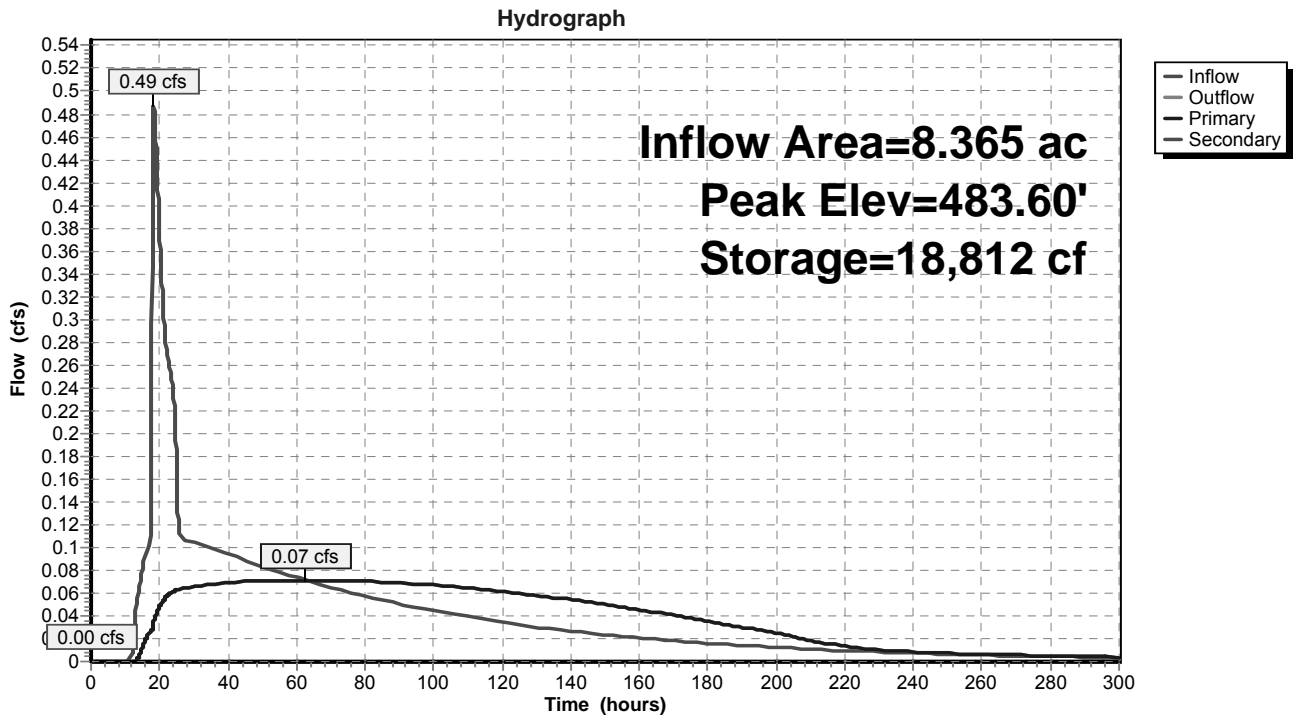
Primary OutFlow Max=0.07 cfs @ 62.60 hrs HW=483.60' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.07 cfs of 24.38 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.07 cfs @ 3.27 fps)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

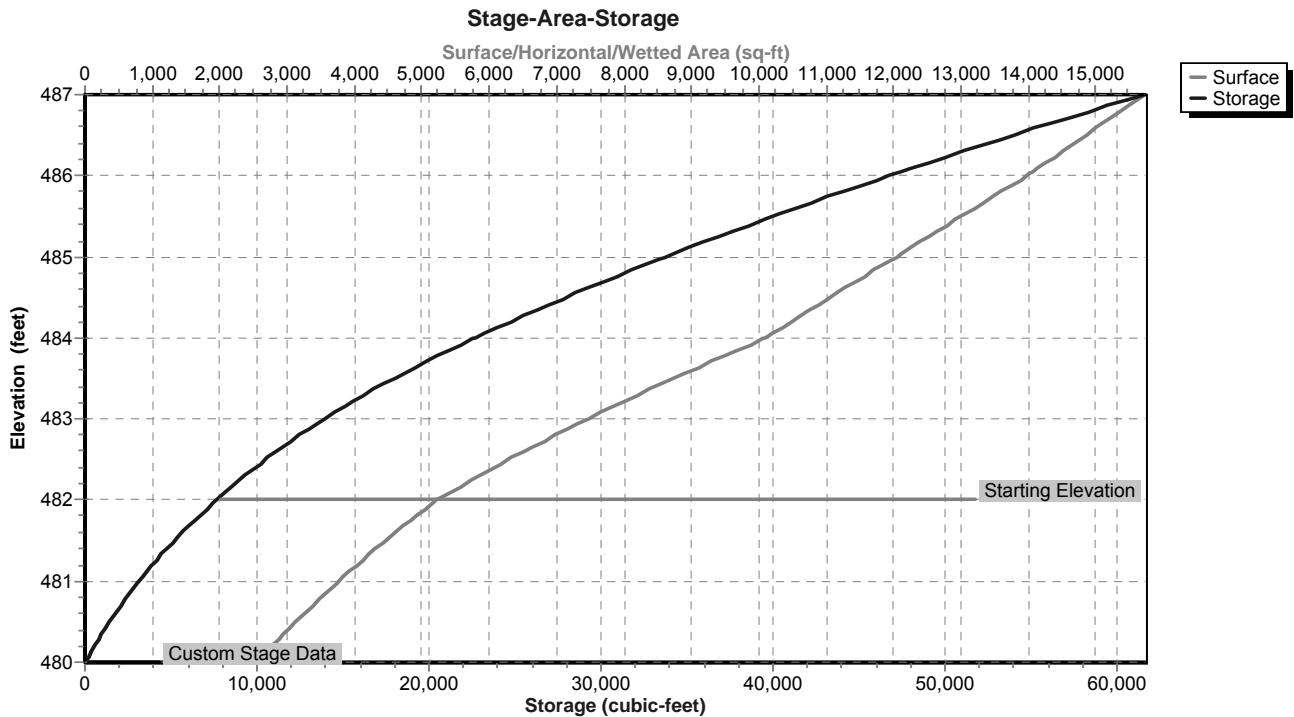
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 0.97" for 1 Year - North Salem event
 Inflow = 7.36 cfs @ 12.19 hrs, Volume= 0.697 af
 Outflow = 0.43 cfs @ 16.11 hrs, Volume= 0.697 af, Atten= 94%, Lag= 235.3 min
 Primary = 0.43 cfs @ 16.11 hrs, Volume= 0.697 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 518.55' @ 16.11 hrs Surf.Area= 8,280 sf Storage= 28,253 cf (21,200 cf above start)

Plug-Flow detention time= 2,479.7 min calculated for 0.535 af (77% of inflow)
 Center-of-Mass det. time= 1,870.2 min (2,740.2 - 870.0)

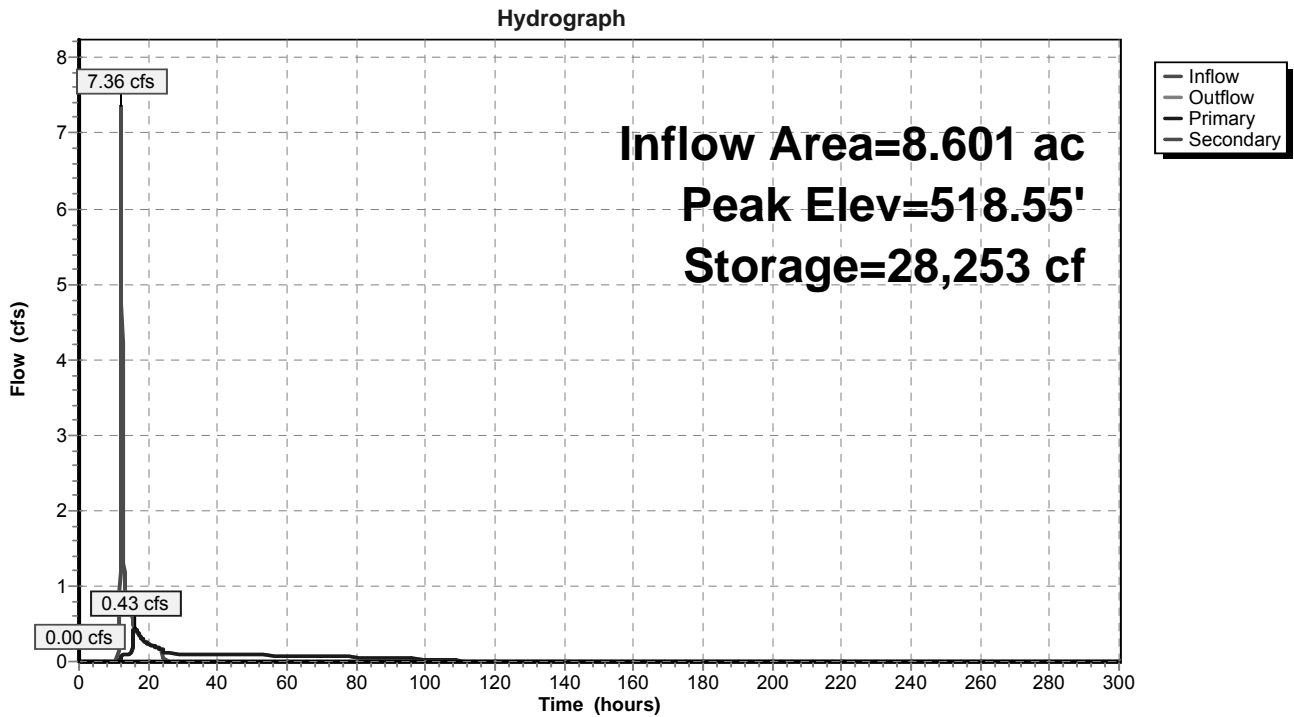
Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

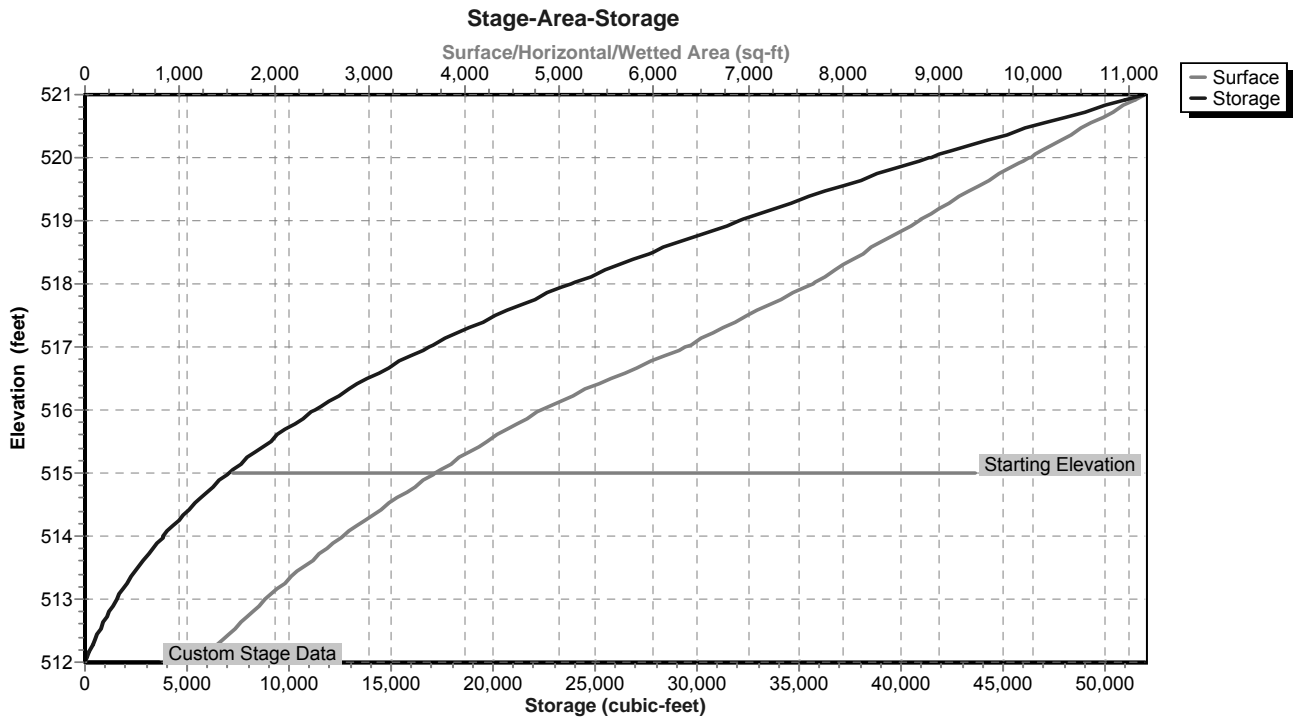
Primary OutFlow Max=0.39 cfs @ 16.11 hrs HW=518.55' (Free Discharge)
 1=Outlet Pipe (Passes 0.39 cfs of 54.43 cfs potential flow)
 2=Reverse Pipe Inlet (Outlet Controls 0.11 cfs @ 4.88 fps)
 3=Orifice #1 (Orifice Controls 0.28 cfs @ 0.74 fps)
 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K6: Micropool ED Basin - (Basin K6)



Pond ED-K6: Micropool ED Basin - (Basin K6)



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 1.67" for 1 Year - North Salem event
 Inflow = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af
 Outflow = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af, Atten= 0%, Lag= 0.0 min
 Primary = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 467.78' @ 12.20 hrs
 Flood Elev= 556.50'

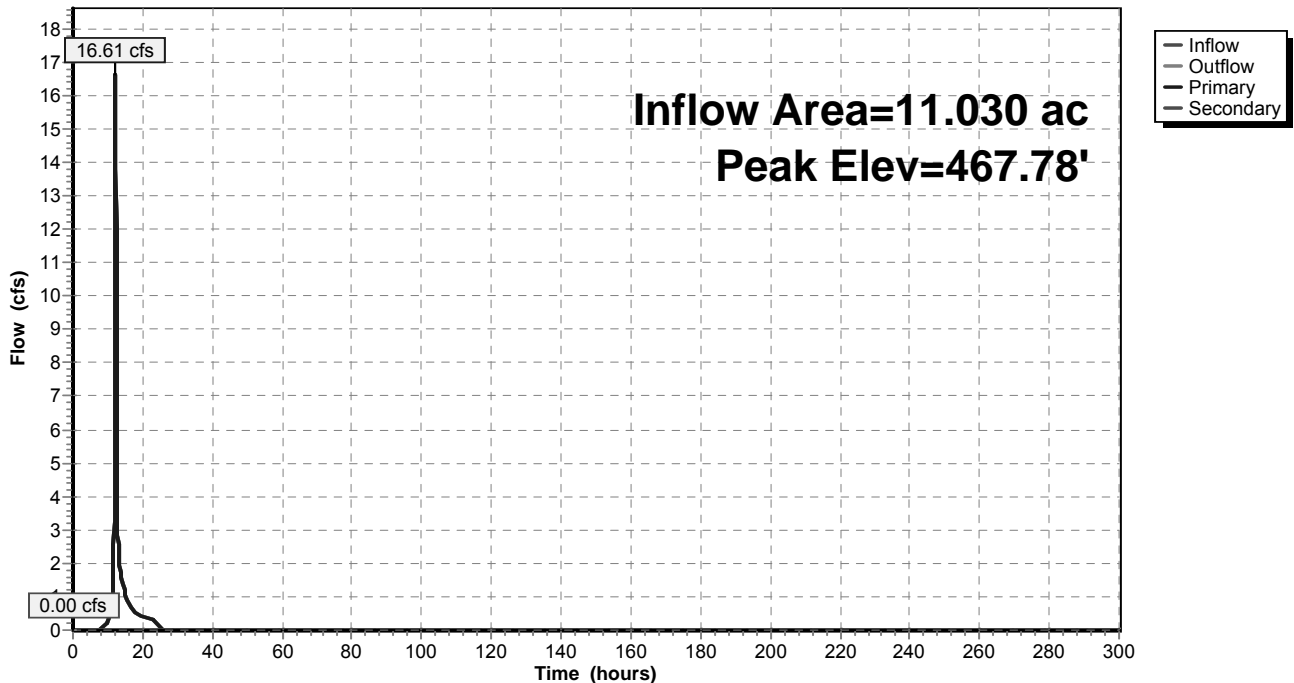
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=16.61 cfs @ 12.20 hrs HW=467.78' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 16.61 cfs @ 5.29 fps)

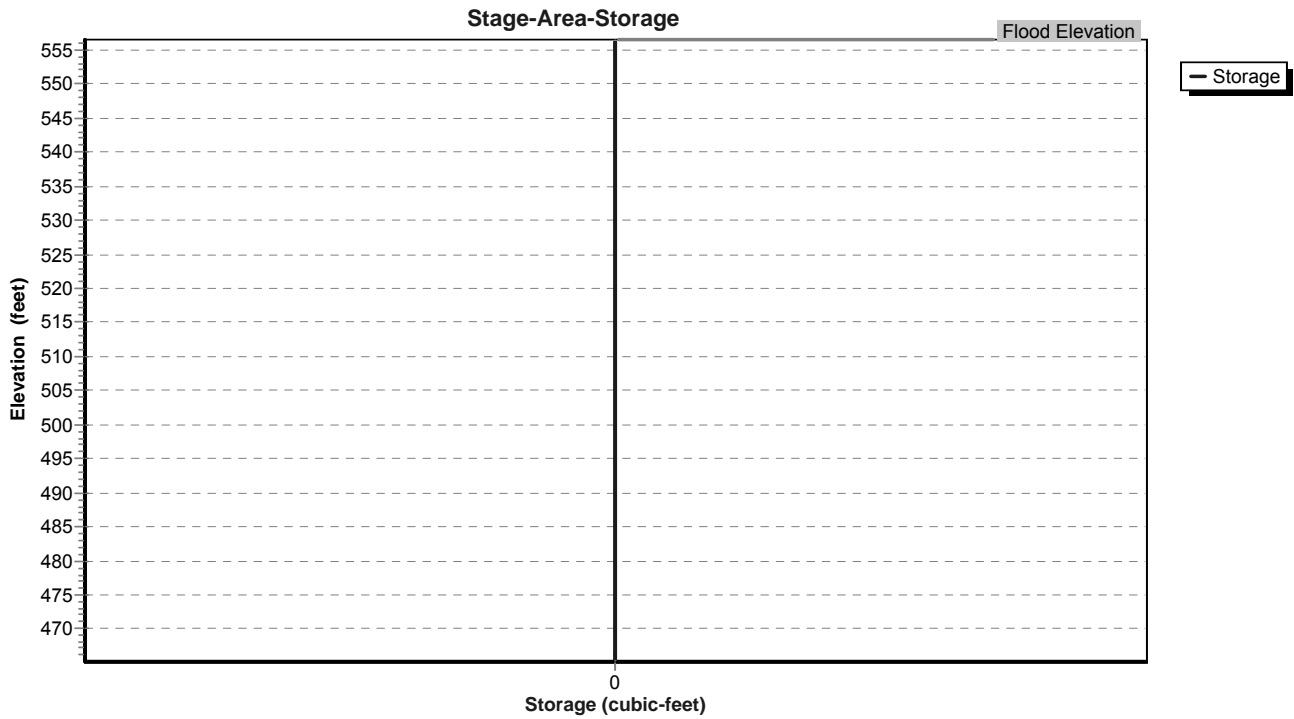
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=465.23' (Free Discharge)
 ↳2=Outlet to Basin K3 (Controls 0.00 cfs)

Pond FS K3: Flow Splitter - K3

Hydrograph



Pond FS K3: Flow Splitter - K3



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.39" for 1 Year - North Salem event
 Inflow = 8.69 cfs @ 12.32 hrs, Volume= 0.970 af
 Outflow = 8.69 cfs @ 12.32 hrs, Volume= 0.970 af, Atten= 0%, Lag= 0.0 min
 Primary = 8.68 cfs @ 12.32 hrs, Volume= 0.969 af
 Secondary = 0.00 cfs @ 12.31 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 506.52' @ 12.32 hrs
 Flood Elev= 556.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=8.62 cfs @ 12.32 hrs HW=506.51' (Free Discharge)

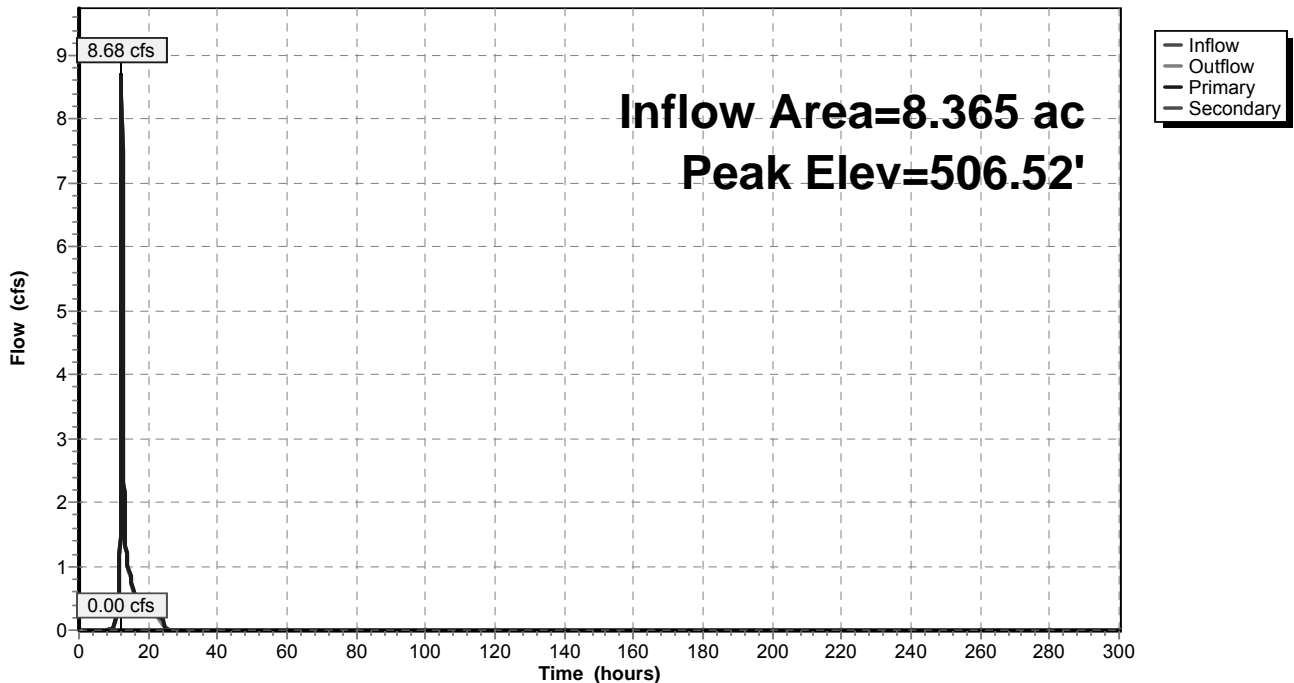
↑1=Outlet to Sand Filter (Barrel Controls 8.62 cfs @ 4.69 fps)

Secondary OutFlow Max=0.00 cfs @ 12.31 hrs HW=506.51' (Free Discharge)

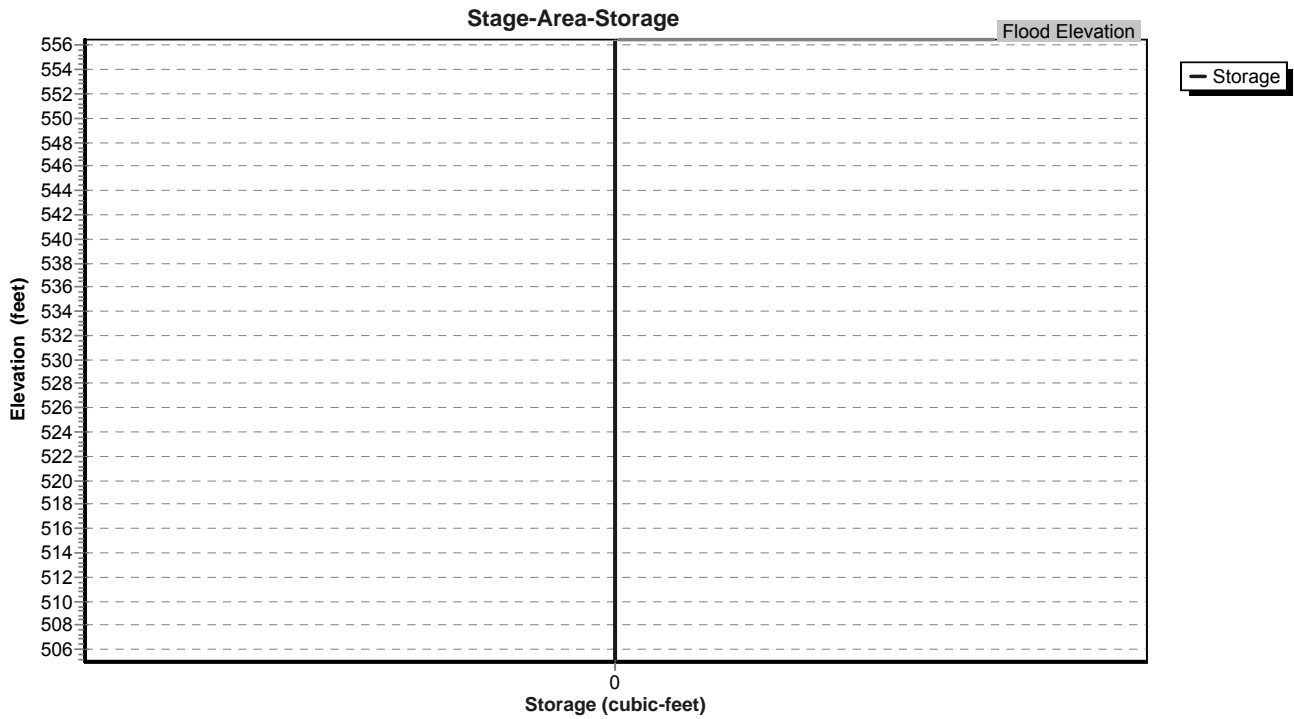
↑2=Outlet to Basin K5 (Inlet Controls 0.00 cfs @ 0.34 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Pond FS-K5: Flow Splitter - K5



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 0.68" for 1 Year - North Salem event
 Inflow = 0.59 cfs @ 12.53 hrs, Volume= 0.116 af
 Outflow = 0.04 cfs @ 22.51 hrs, Volume= 0.116 af, Atten= 94%, Lag= 598.5 min
 Primary = 0.04 cfs @ 22.51 hrs, Volume= 0.116 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 425.59' @ 22.51 hrs Surf.Area= 1,877 sf Storage= 3,684 cf

Plug-Flow detention time= 1,614.9 min calculated for 0.116 af (100% of inflow)
 Center-of-Mass det. time= 1,614.7 min (2,527.8 - 913.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.04 cfs @ 22.51 hrs HW=425.59' (Free Discharge)

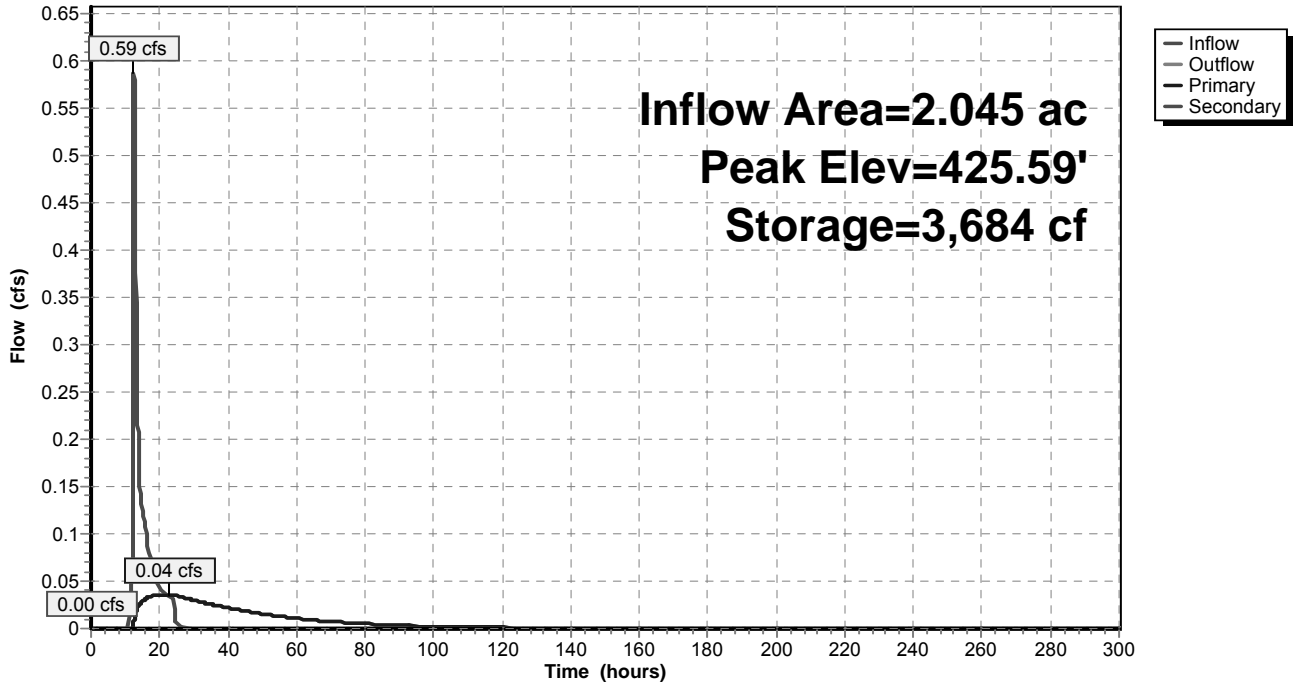
- ↑ 1=Outlet Pipe (Passes 0.04 cfs of 11.01 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.04 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

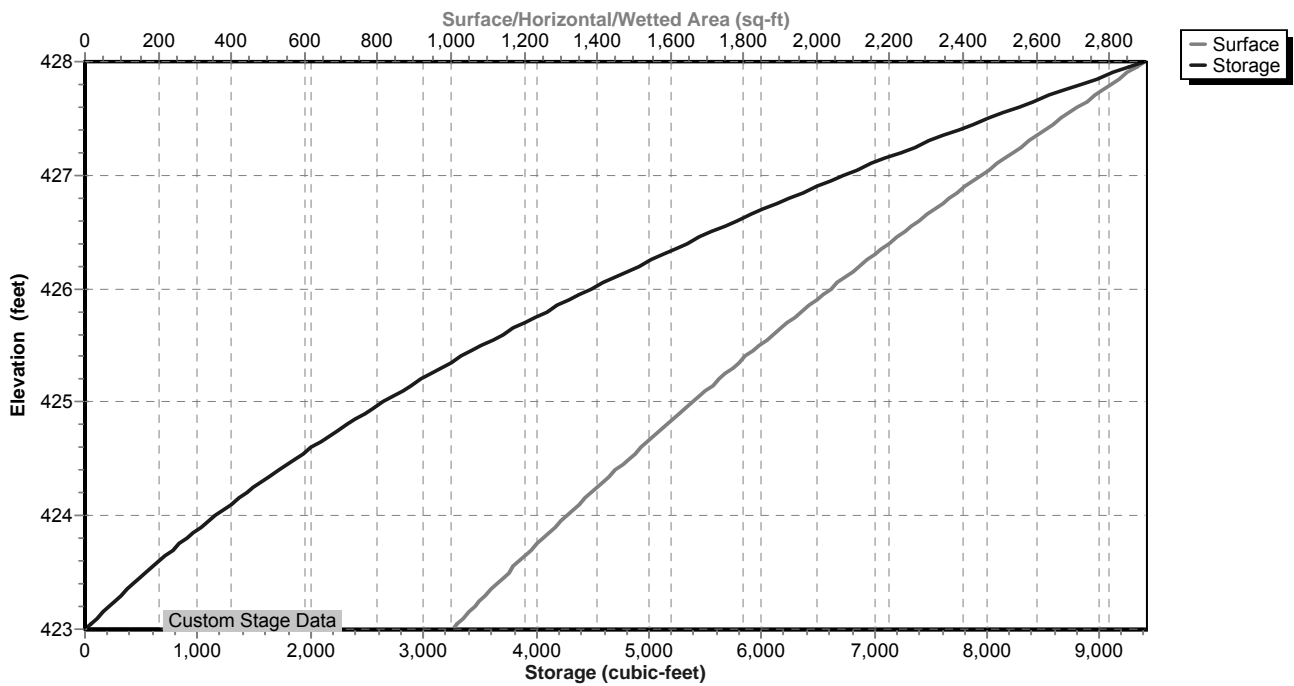
Pond SF-K2: Sand Filter - K2

Hydrograph



Pond SF-K2: Sand Filter - K2

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 OUTLET by 0.04'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 1.54" for 1 Year - North Salem event
 Inflow = 12.70 cfs @ 12.35 hrs, Volume= 1.415 af
 Outflow = 0.43 cfs @ 22.82 hrs, Volume= 1.379 af, Atten= 97%, Lag= 628.2 min
 Primary = 0.43 cfs @ 22.82 hrs, Volume= 1.379 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 461.04' @ 22.82 hrs Surf.Area= 18,055 sf Storage= 48,743 cf

Plug-Flow detention time= 4,070.4 min calculated for 1.379 af (97% of inflow)
 Center-of-Mass det. time= 4,045.8 min (5,027.7 - 981.9)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.41 cfs @ 22.82 hrs HW=461.04' (Free Discharge)

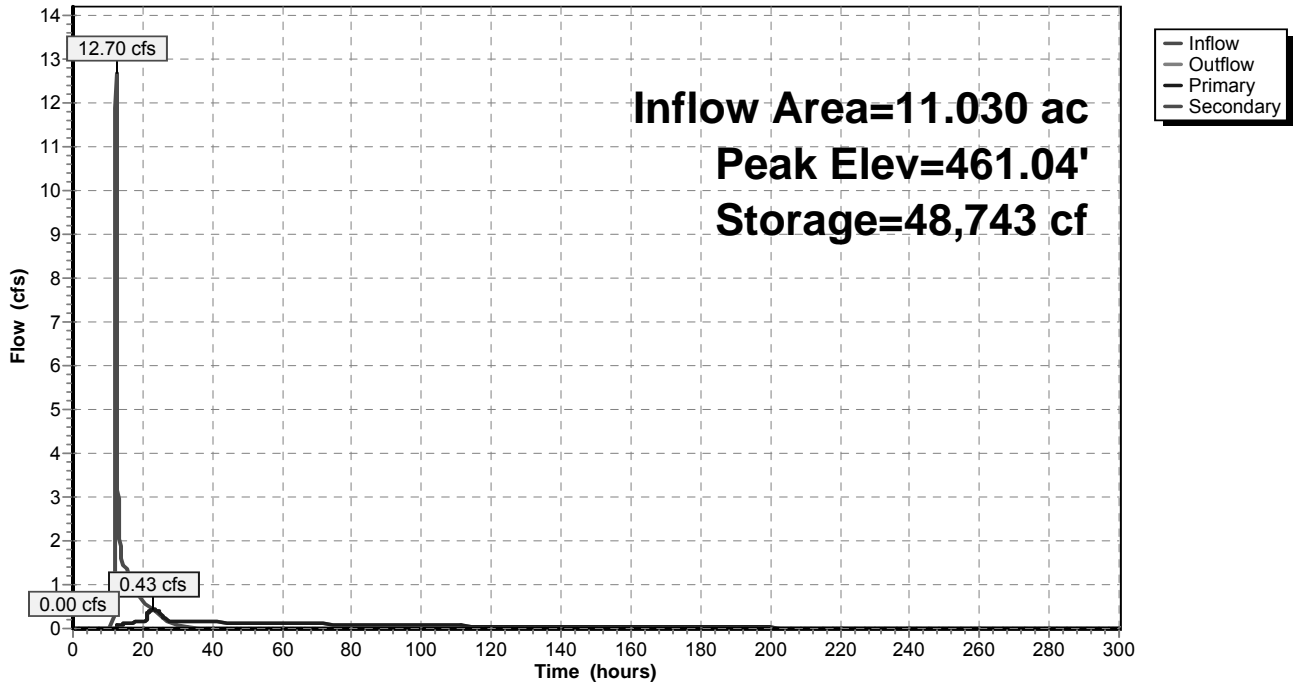
- ↑ 1=Outlet Pipe (Passes 0.41 cfs of 60.39 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.16 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.25 cfs @ 0.67 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

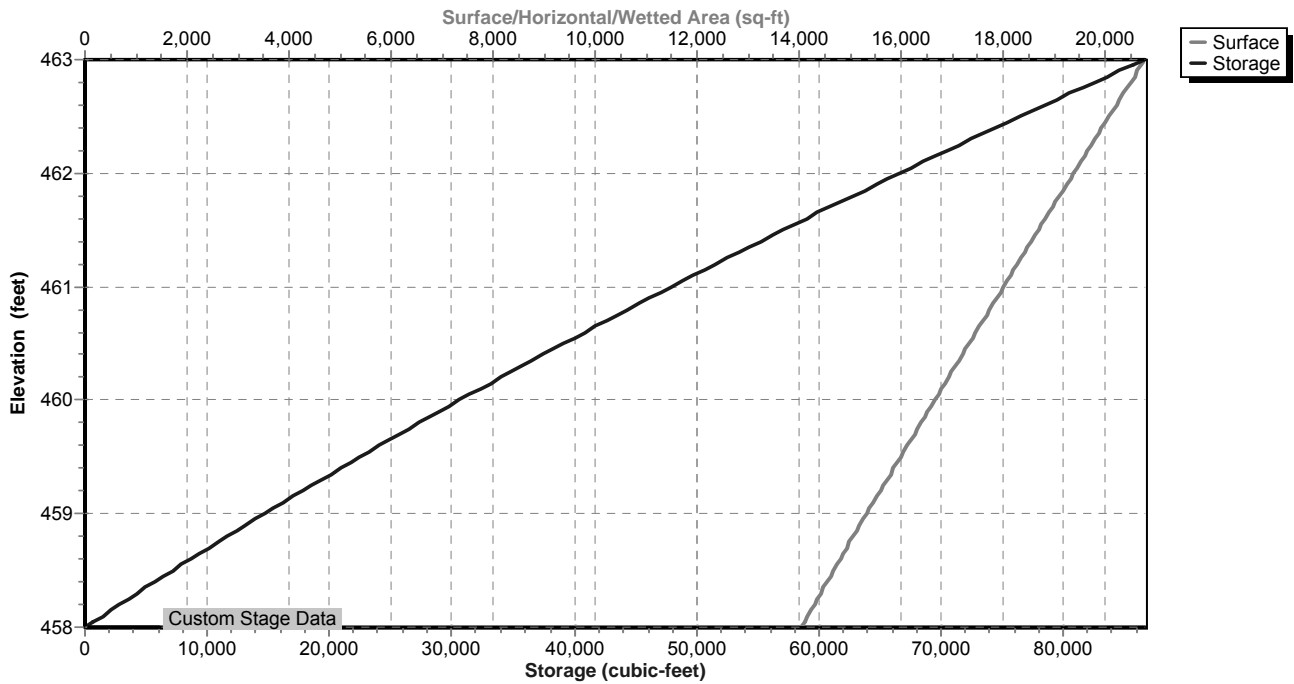
Pond SF-K3: Sand Filter -K3

Hydrograph



Pond SF-K3: Sand Filter -K3

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.39" for 1 Year - North Salem event
 Inflow = 5.61 cfs @ 12.60 hrs, Volume= 0.969 af
 Outflow = 0.49 cfs @ 18.34 hrs, Volume= 0.949 af, Atten= 91%, Lag= 344.3 min
 Primary = 0.49 cfs @ 18.34 hrs, Volume= 0.949 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 494.38' @ 18.34 hrs Surf.Area= 10,668 sf Storage= 31,519 cf

Plug-Flow detention time= 3,692.8 min calculated for 0.949 af (98% of inflow)
 Center-of-Mass det. time= 3,677.4 min (4,620.8 - 943.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

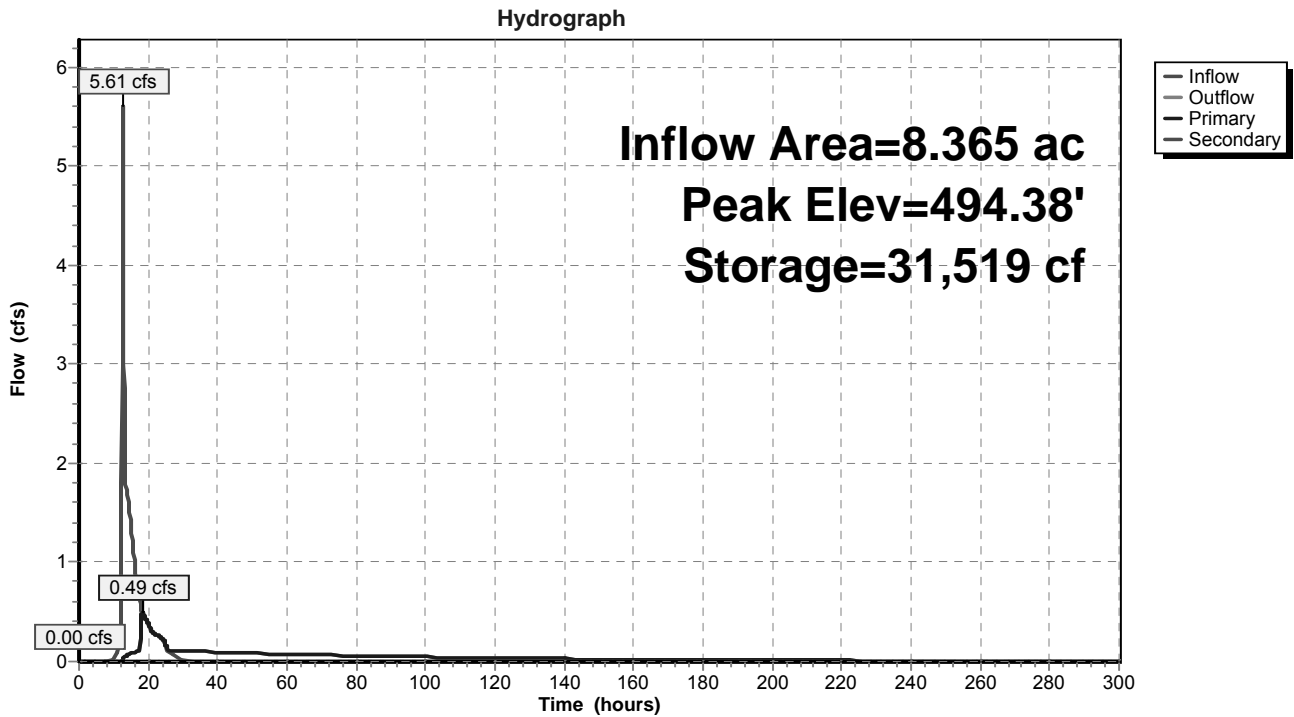
Primary OutFlow Max=0.41 cfs @ 18.34 hrs HW=494.38' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.41 cfs of 29.49 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.11 cfs)
- ↑ 3=Top of Outlet Box (Weir Controls 0.31 cfs @ 0.59 fps)

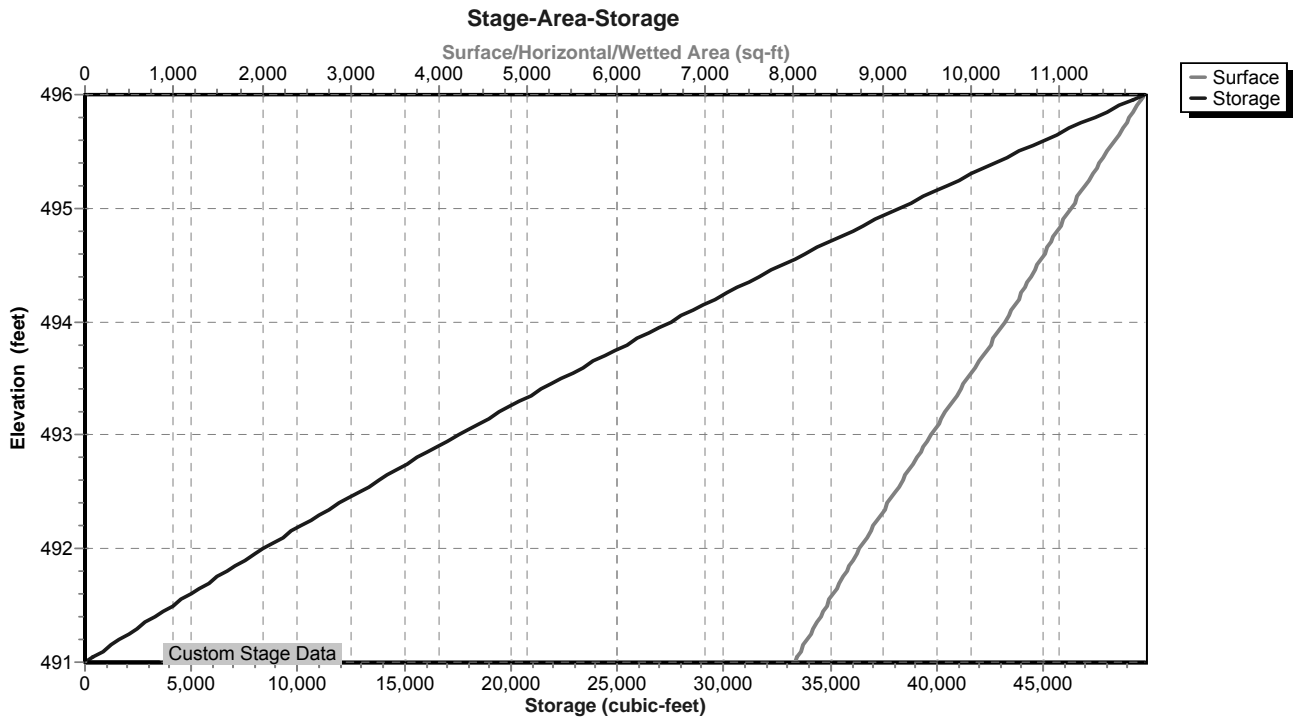
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K5: Sand Filter - K5



Pond SF-K5: Sand Filter - K5



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 0.68" for 1 Year - North Salem event
 Inflow = 1.08 cfs @ 12.21 hrs, Volume= 0.116 af
 Outflow = 0.59 cfs @ 12.53 hrs, Volume= 0.116 af, Atten= 45%, Lag= 19.3 min
 Primary = 0.59 cfs @ 12.53 hrs, Volume= 0.116 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.26' @ 12.53 hrs Surf.Area= 886 sf Storage= 822 cf

Plug-Flow detention time= 20.7 min calculated for 0.116 af (100% of inflow)
 Center-of-Mass det. time= 20.7 min (913.0 - 892.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
430.00	440	165.0	0	0	440
432.00	1,216	210.0	1,592	1,592	1,834
434.00	2,107	235.0	3,282	4,874	2,825

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

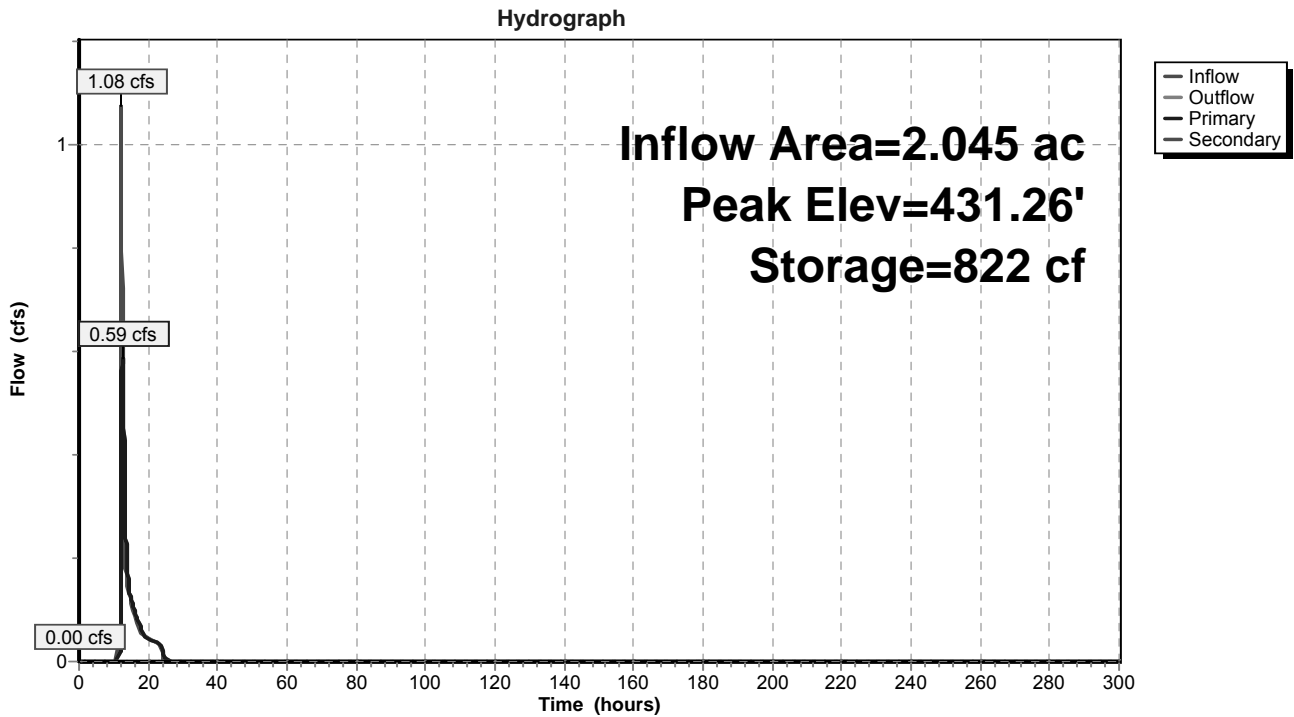
Primary OutFlow Max=0.59 cfs @ 12.53 hrs HW=431.26' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.59 cfs of 3.30 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.59 cfs @ 4.48 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

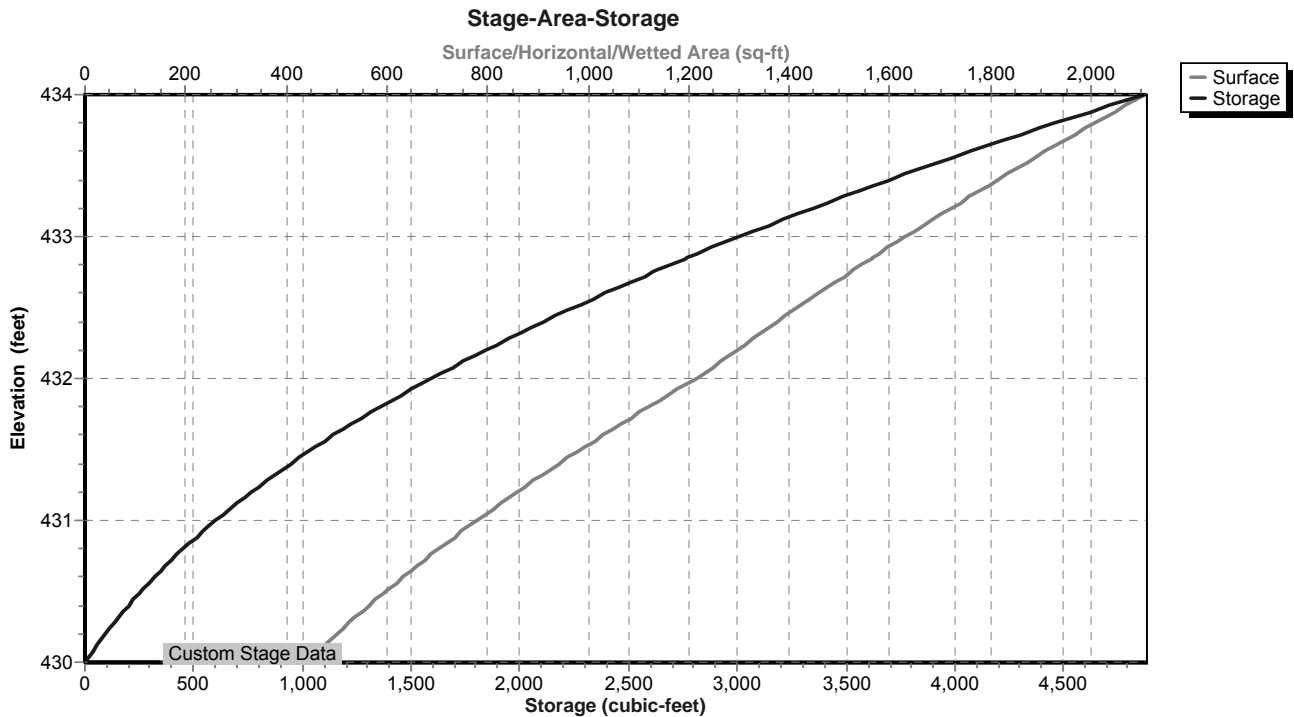
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K2: Sand Filter Forebay - K2



Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 1.67" for 1 Year - North Salem event
 Inflow = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af
 Outflow = 12.70 cfs @ 12.35 hrs, Volume= 1.415 af, Atten= 24%, Lag= 8.7 min
 Primary = 12.70 cfs @ 12.35 hrs, Volume= 1.415 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.57' @ 12.35 hrs Surf.Area= 7,172 sf Storage= 21,761 cf

Plug-Flow detention time= 187.1 min calculated for 1.415 af (92% of inflow)
 Center-of-Mass det. time= 146.7 min (981.9 - 835.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
461.00	5,065	273.0	0	0	5,065
462.00	5,623	285.0	5,342	5,342	5,666
464.00	6,813	310.0	12,417	17,759	6,991
464.50	7,126	319.0	3,484	21,243	7,468
465.00	7,447	323.0	3,643	24,886	7,728
466.00	8,104	336.0	7,773	32,659	8,486

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

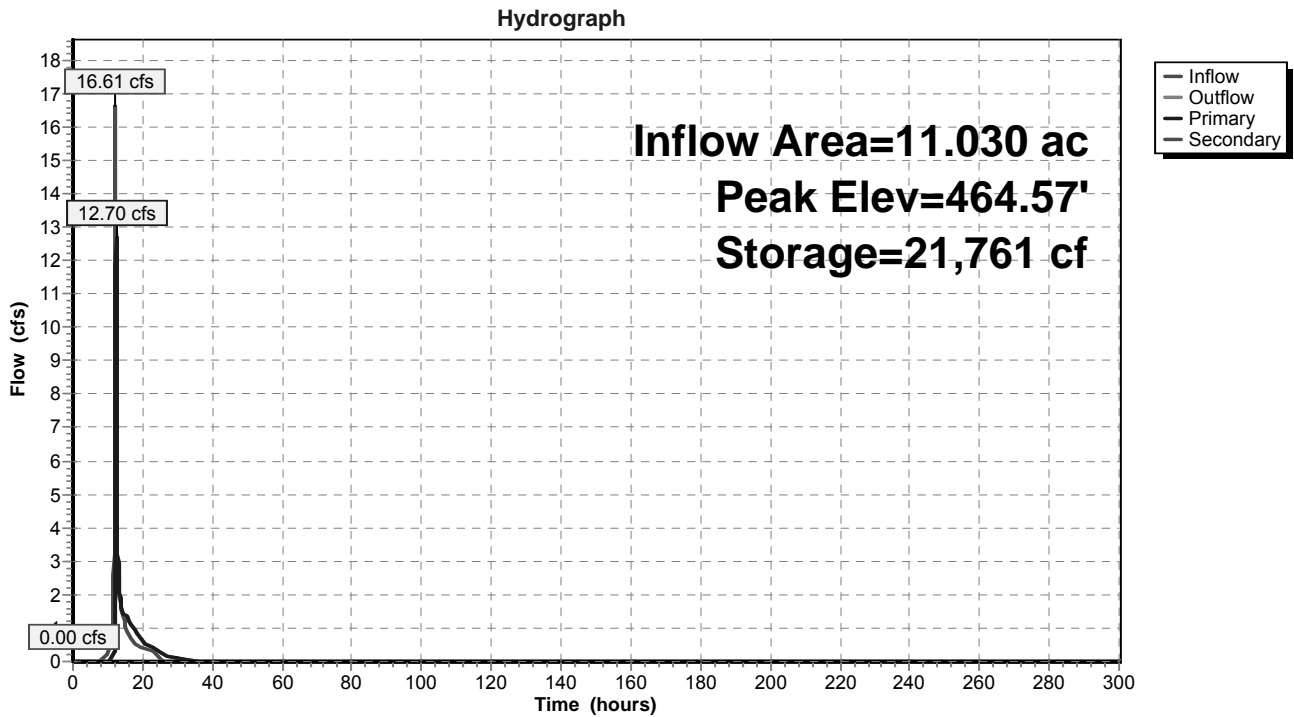
Primary OutFlow Max=12.60 cfs @ 12.35 hrs HW=464.57' (Free Discharge)

- 1=Outlet Pipe (Passes 12.60 cfs of 35.20 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 1.62 cfs @ 6.18 fps)
- 3=Top of Standpipe (Weir Controls 7.48 cfs @ 1.85 fps)
- 4=Orifice #1 (Orifice Controls 3.50 cfs @ 1.82 fps)
- 5=Top of Outlet Box (Controls 0.00 cfs)

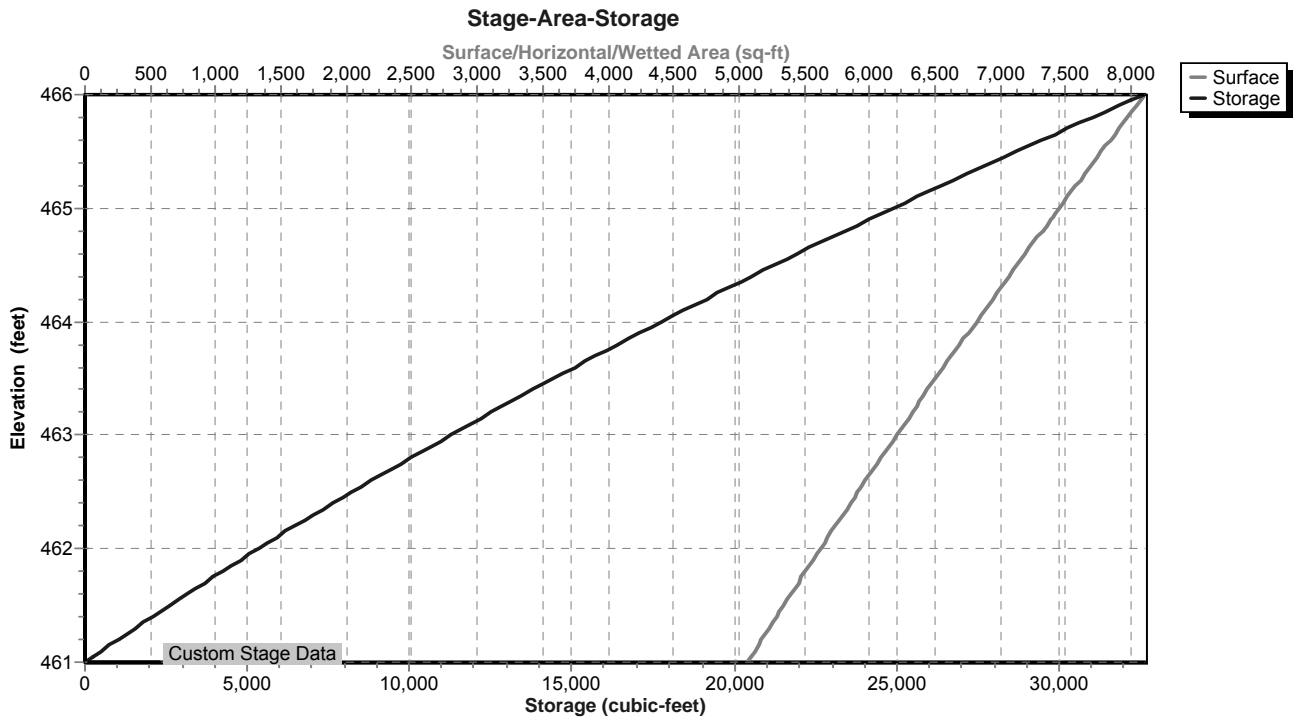
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

- 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K3: Sand Filter Forebay - K3



Pond SFF-K3: Sand Filter Forebay - K3



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.39" for 1 Year - North Salem event
 Inflow = 8.68 cfs @ 12.32 hrs, Volume= 0.969 af
 Outflow = 5.61 cfs @ 12.60 hrs, Volume= 0.969 af, Atten= 35%, Lag= 16.8 min
 Primary = 5.61 cfs @ 12.60 hrs, Volume= 0.969 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 503.38' @ 12.60 hrs Surf.Area= 4,536 sf Storage= 12,449 cf

Plug-Flow detention time= 87.5 min calculated for 0.969 af (100% of inflow)
 Center-of-Mass det. time= 87.3 min (943.4 - 856.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
500.00	2,880	224.0	0	0	2,880
502.00	3,826	250.0	6,684	6,684	3,969
504.00	4,874	275.0	8,679	15,363	5,138
505.00	5,434	287.0	5,151	20,514	5,744
506.00	6,021	300.0	5,725	26,239	6,418

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

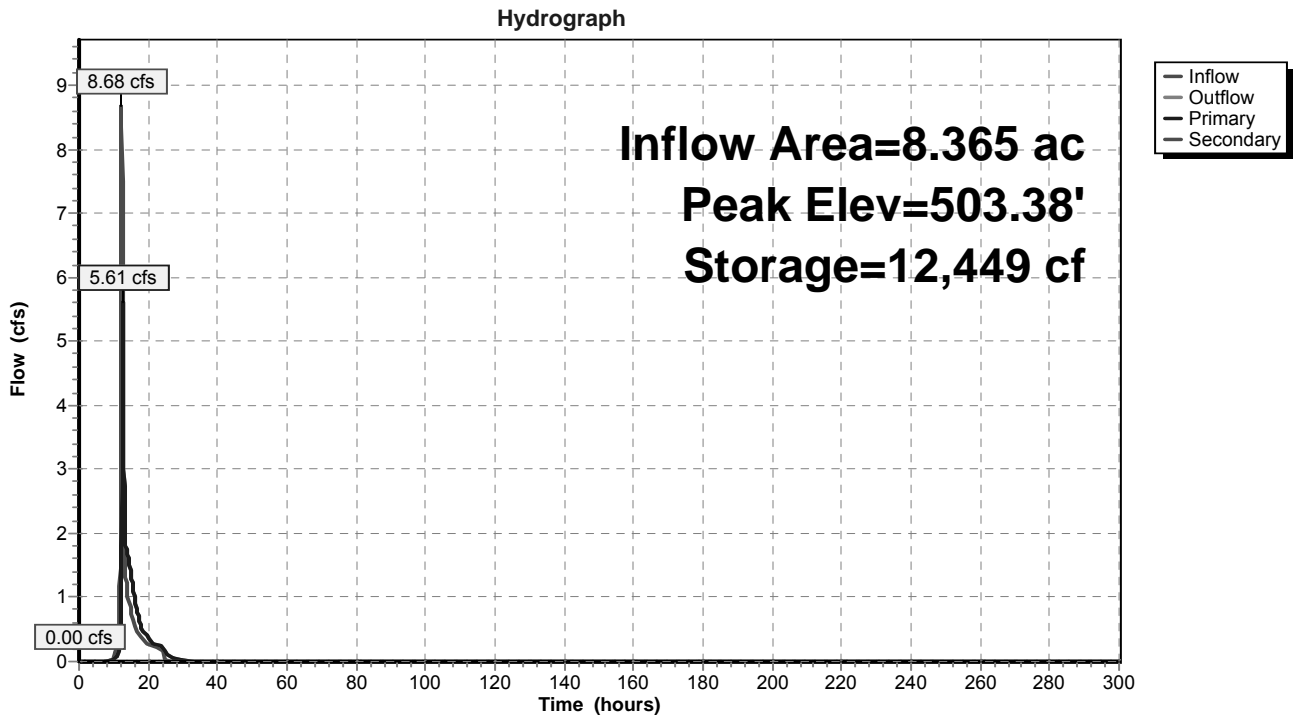
Primary OutFlow Max=5.60 cfs @ 12.60 hrs HW=503.38' (Free Discharge)

- 1=Outlet Pipe (Passes 5.60 cfs of 23.34 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 1.98 cfs @ 7.57 fps)
- 3=Top of Standpipe (Weir Controls 3.61 cfs @ 2.02 fps)
- 4=Orifice #1 (Controls 0.00 cfs)
- 5=Top of Outlet Box (Controls 0.00 cfs)

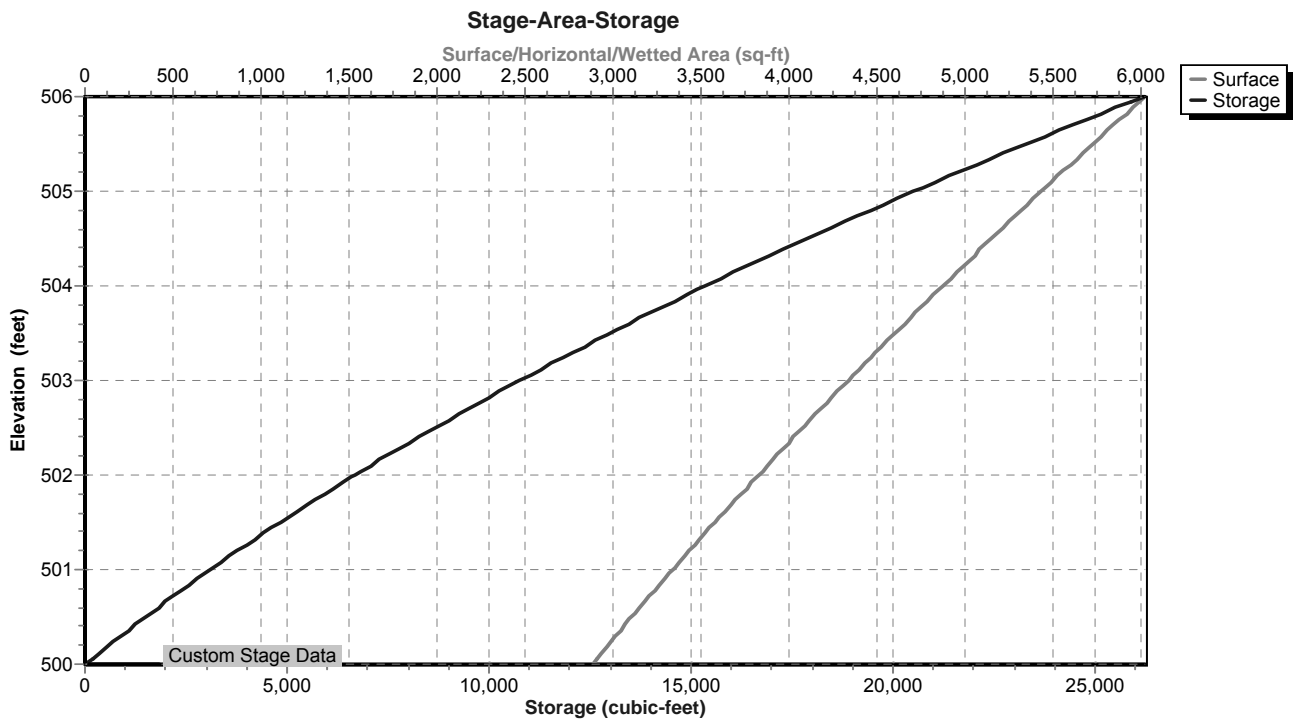
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

- 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K5: Sand Filter Forebay - K5



Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-Development K1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=1.08"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=27.73 cfs 3.281 af

Subcatchment K2: Post-Development K2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=1.02"
Flow Length=799' Tc=13.0 min CN=68 Runoff=1.75 cfs 0.174 af

Subcatchment K3: Post-Development K3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=2.19"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=21.76 cfs 2.014 af

Subcatchment K4: Post-Development K4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=0.62"
Flow Length=281' Tc=11.3 min CN=60 Runoff=0.47 cfs 0.056 af

Subcatchment K5: Post-Development K5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=1.87"
Flow Length=542' Tc=22.2 min CN=81 Runoff=11.79 cfs 1.305 af

Subcatchment K6: Post-Development K6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=1.38"
Flow Length=981' Tc=12.4 min CN=74 Runoff=10.79 cfs 0.989 af

Pond DP 11: Design Point 11 Inflow=27.86 cfs 7.482 af
Primary=27.86 cfs 7.482 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=452.77' Storage=51,684 cf Inflow=3.02 cfs 1.912 af
Primary=0.09 cfs 1.759 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 1.759 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=484.65' Storage=29,576 cf Inflow=1.48 cfs 1.284 af
Primary=0.09 cfs 1.279 af Secondary=0.00 cfs 0.000 af Outflow=0.09 cfs 1.279 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=518.65' Storage=29,042 cf Inflow=10.79 cfs 0.989 af
Primary=1.46 cfs 0.989 af Secondary=0.00 cfs 0.000 af Outflow=1.46 cfs 0.989 af

Pond FS K3: Flow Splitter - K3 Peak Elev=468.33' Inflow=21.76 cfs 2.014 af
Primary=19.23 cfs 1.988 af Secondary=2.53 cfs 0.026 af Outflow=21.76 cfs 2.014 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=506.78' Inflow=11.79 cfs 1.305 af
Primary=11.04 cfs 1.292 af Secondary=0.75 cfs 0.013 af Outflow=11.79 cfs 1.305 af

Pond SF-K2: Sand Filter - K2 Peak Elev=426.04' Storage=4,577 cf Inflow=0.79 cfs 0.174 af
Primary=0.16 cfs 0.174 af Secondary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.174 af

Pond SF-K3: Sand Filter -K3 Peak Elev=461.12' Storage=50,043 cf Inflow=18.70 cfs 1.866 af
Primary=1.27 cfs 1.830 af Secondary=0.00 cfs 0.000 af Outflow=1.27 cfs 1.830 af

Pond SF-K5: Sand Filter - K5 Peak Elev=494.44' Storage=32,098 cf Inflow=8.85 cfs 1.292 af
Primary=1.48 cfs 1.271 af Secondary=0.00 cfs 0.000 af Outflow=1.48 cfs 1.271 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=431.95' Storage=1,528 cf Inflow=1.75 cfs 0.174 af
Primary=0.79 cfs 0.174 af Secondary=0.00 cfs 0.000 af Outflow=0.79 cfs 0.174 af

Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=464.68' Storage=22,535 cf Inflow=19.23 cfs 1.988 af
Primary=18.70 cfs 1.866 af Secondary=0.00 cfs 0.000 af Outflow=18.70 cfs 1.866 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=503.63' Storage=13,615 cf Inflow=11.04 cfs 1.292 af
Primary=8.85 cfs 1.292 af Secondary=0.00 cfs 0.000 af Outflow=8.85 cfs 1.292 af

Total Runoff Area = 67.727 ac Runoff Volume = 7.820 af Average Runoff Depth = 1.39"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 27.73 cfs @ 12.33 hrs, Volume= 3.281 af, Depth= 1.08"

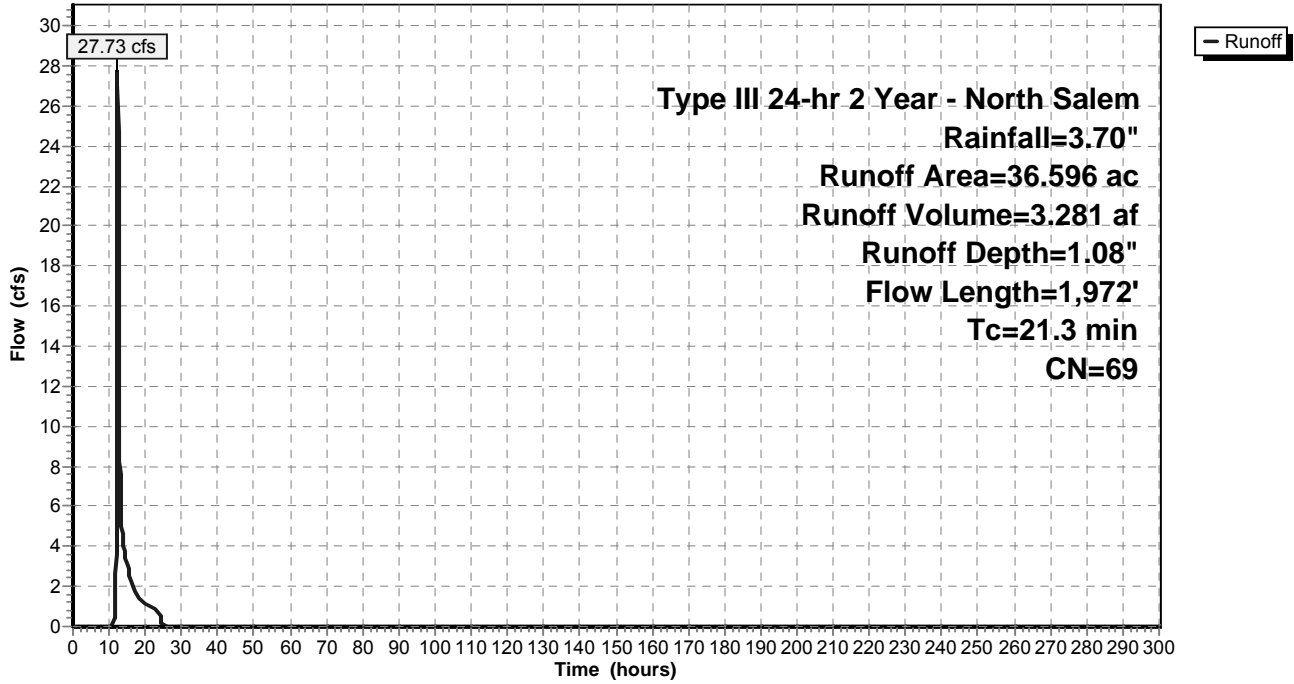
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

Runoff = 1.75 cfs @ 12.20 hrs, Volume= 0.174 af, Depth= 1.02"

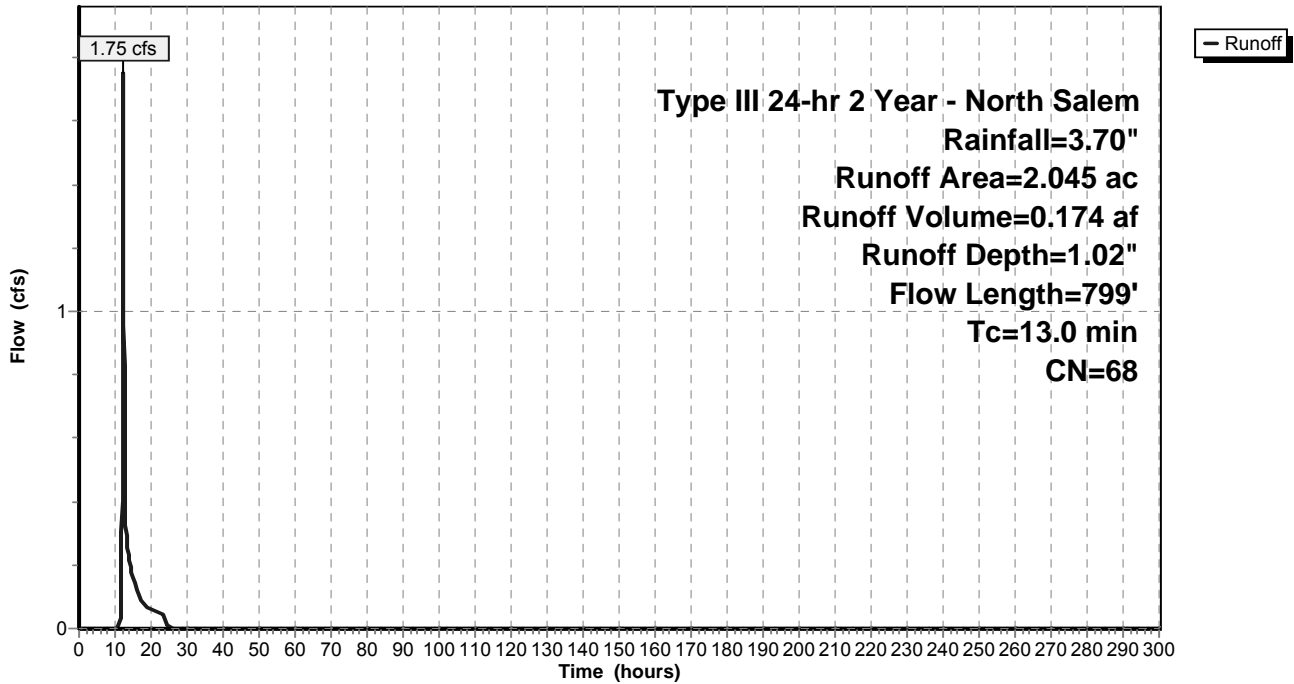
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2

Hydrograph



Summary for Subcatchment K3: Post-Development K3

Runoff = 21.76 cfs @ 12.20 hrs, Volume= 2.014 af, Depth= 2.19"

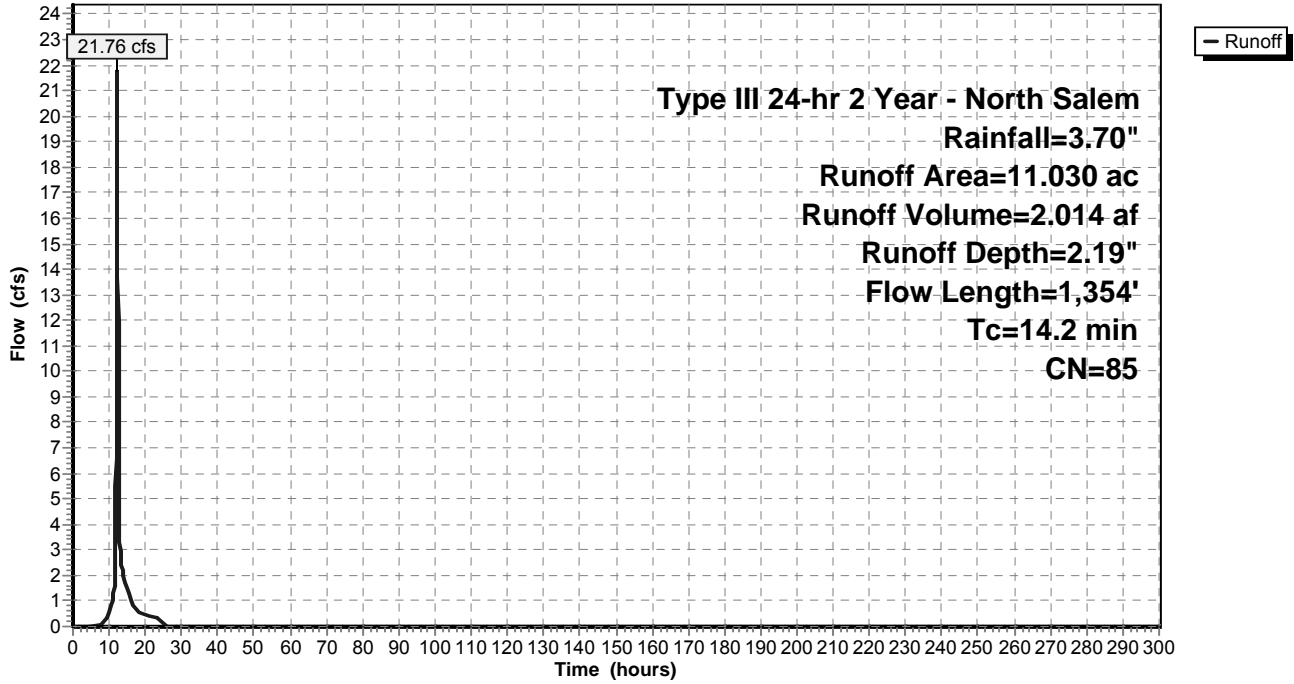
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

Runoff = 0.47 cfs @ 12.21 hrs, Volume= 0.056 af, Depth= 0.62"

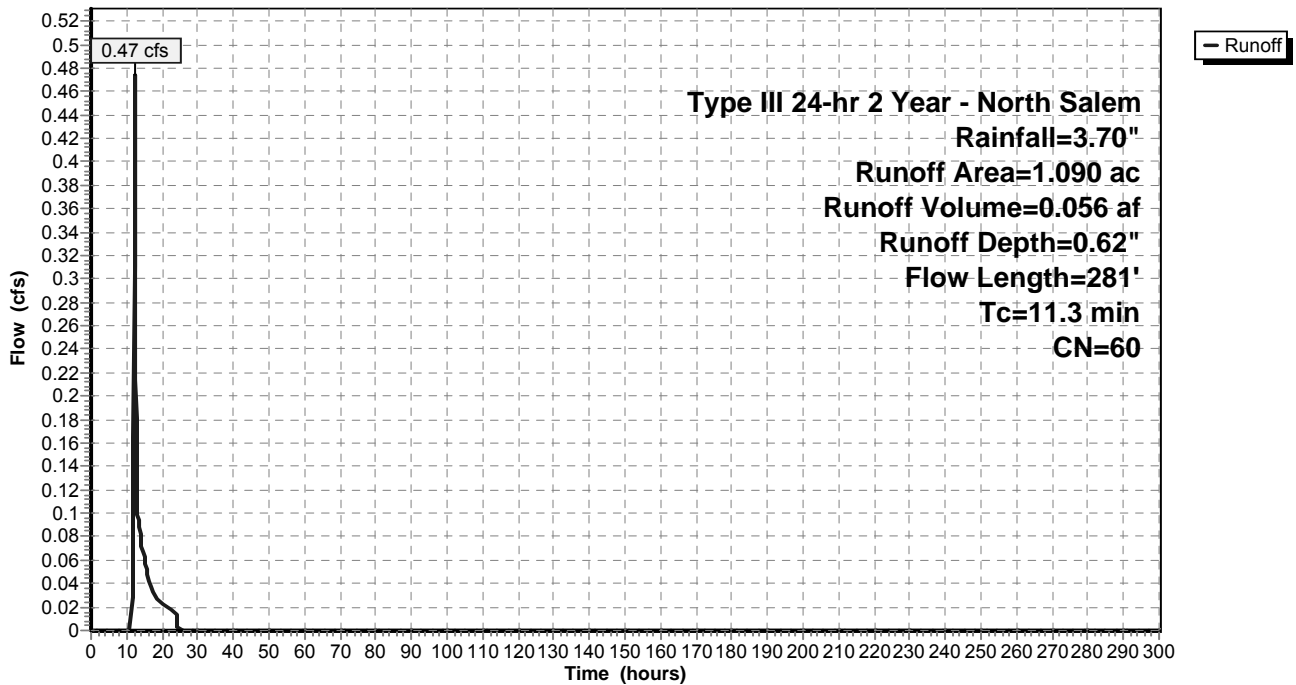
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 11.79 cfs @ 12.31 hrs, Volume= 1.305 af, Depth= 1.87"

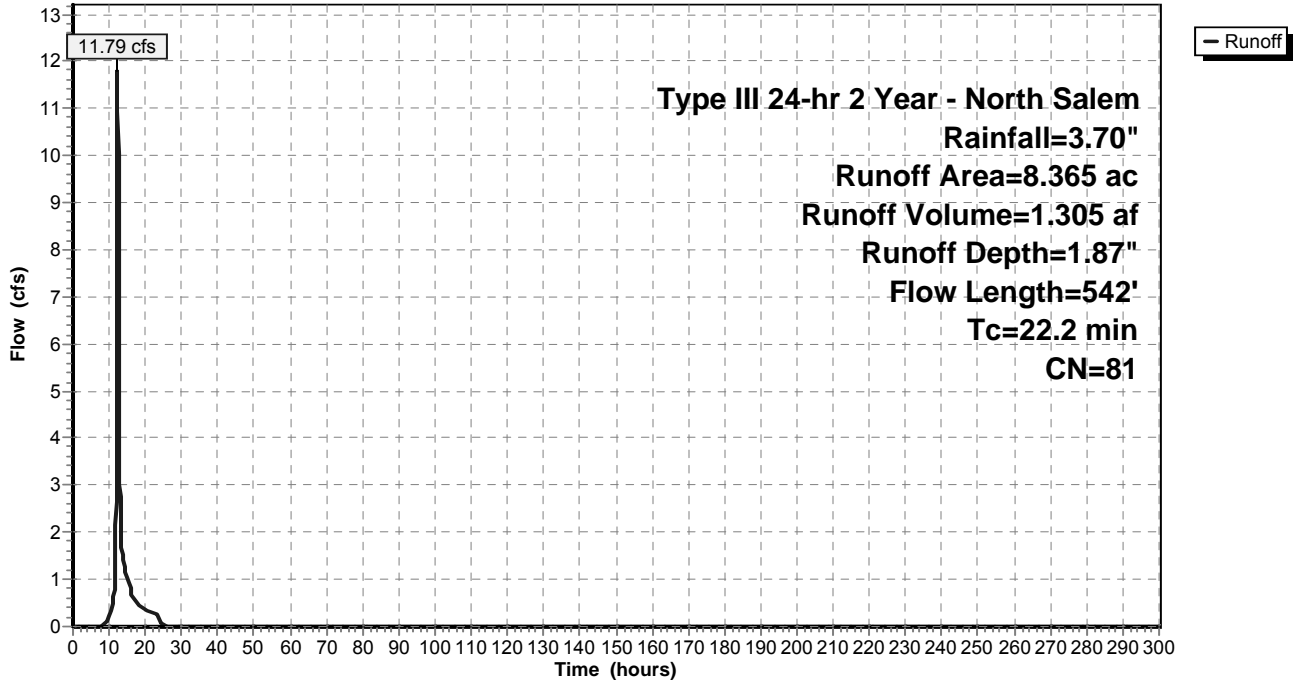
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 10.79 cfs @ 12.18 hrs, Volume= 0.989 af, Depth= 1.38"

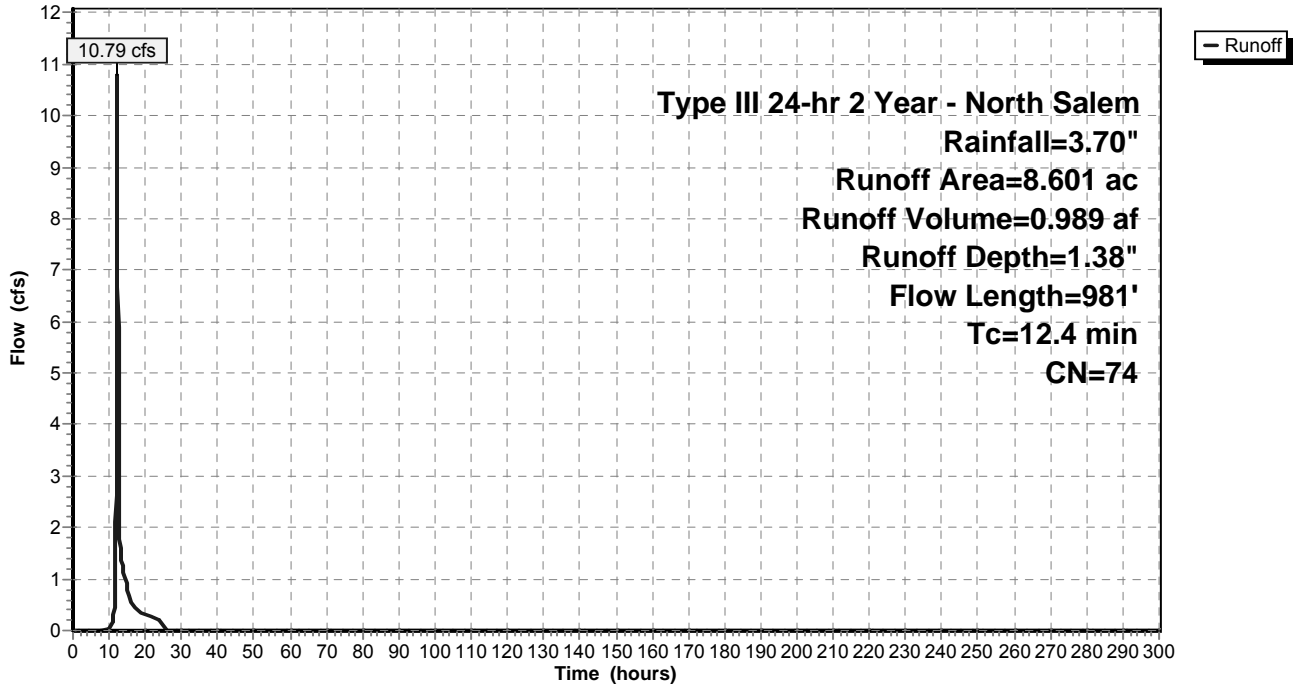
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



Summary for Pond DP 11: Design Point 11

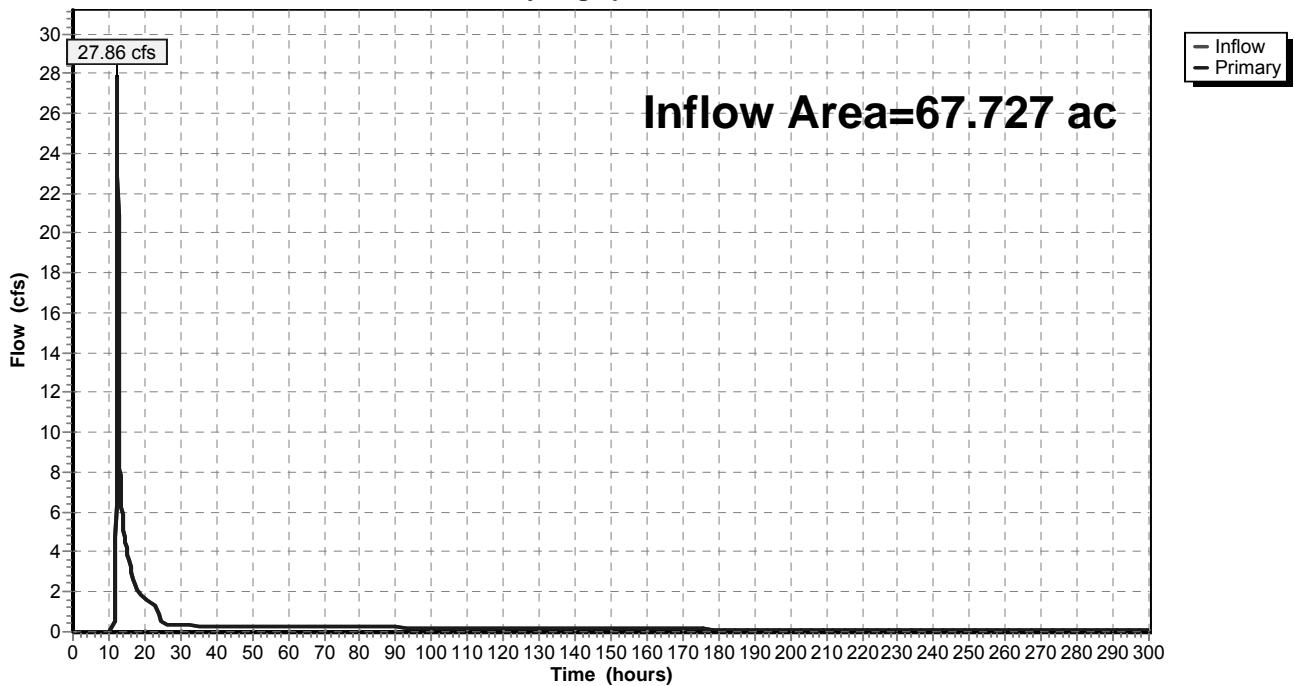
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth > 1.33" for 2 Year - North Salem event
Inflow = 27.86 cfs @ 12.33 hrs, Volume= 7.482 af
Primary = 27.86 cfs @ 12.33 hrs, Volume= 7.482 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth > 1.89" for 2 Year - North Salem event
 Inflow = 3.02 cfs @ 12.20 hrs, Volume= 1.912 af
 Outflow = 0.09 cfs @ 82.73 hrs, Volume= 1.759 af, Atten= 97%, Lag= 4,231.9 min
 Primary = 0.09 cfs @ 82.73 hrs, Volume= 1.759 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 452.77' @ 82.73 hrs Surf.Area= 14,021 sf Storage= 51,684 cf (38,849 cf above start)

Plug-Flow detention time= 7,756.7 min calculated for 1.465 af (77% of inflow)
 Center-of-Mass det. time= 4,738.1 min (8,682.1 - 3,944.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

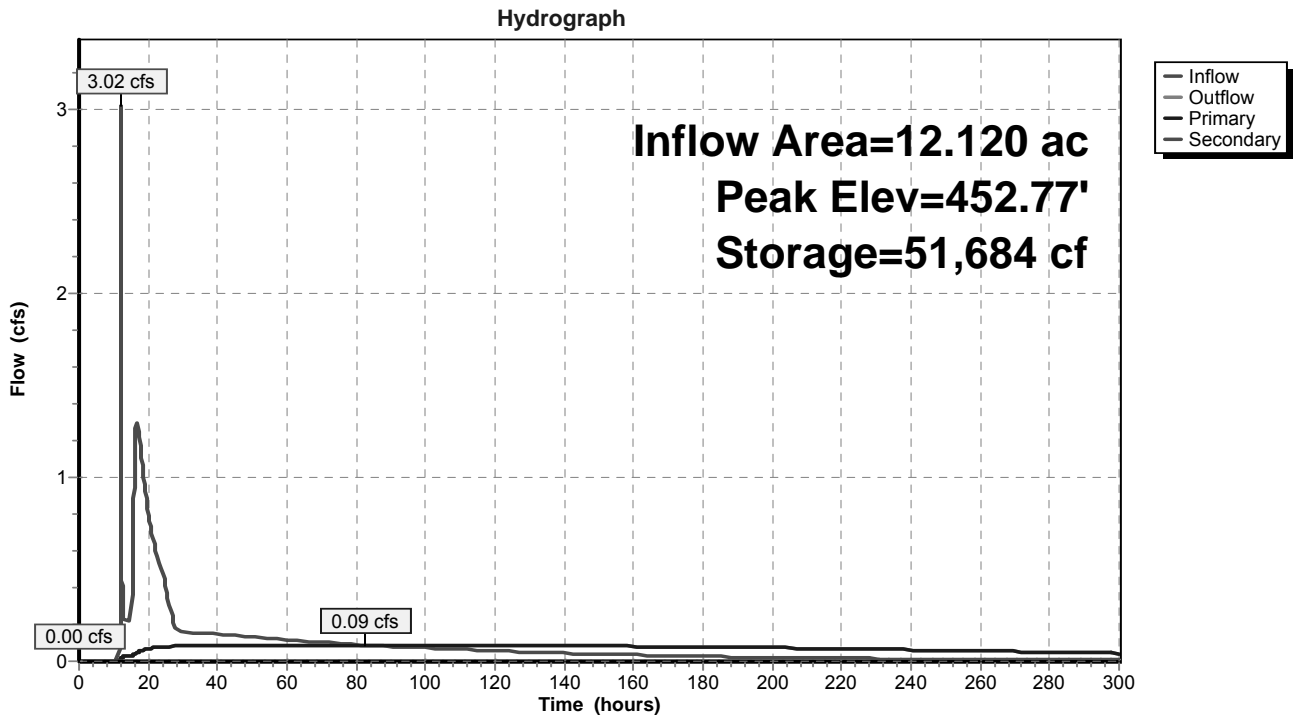
Primary OutFlow Max=0.09 cfs @ 82.73 hrs HW=452.77' (Free Discharge)

- 1=Outlet Pipe (Passes 0.09 cfs of 29.02 cfs potential flow)
- 2=Reverse Pipe Inlet (Outlet Controls 0.09 cfs @ 4.08 fps)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

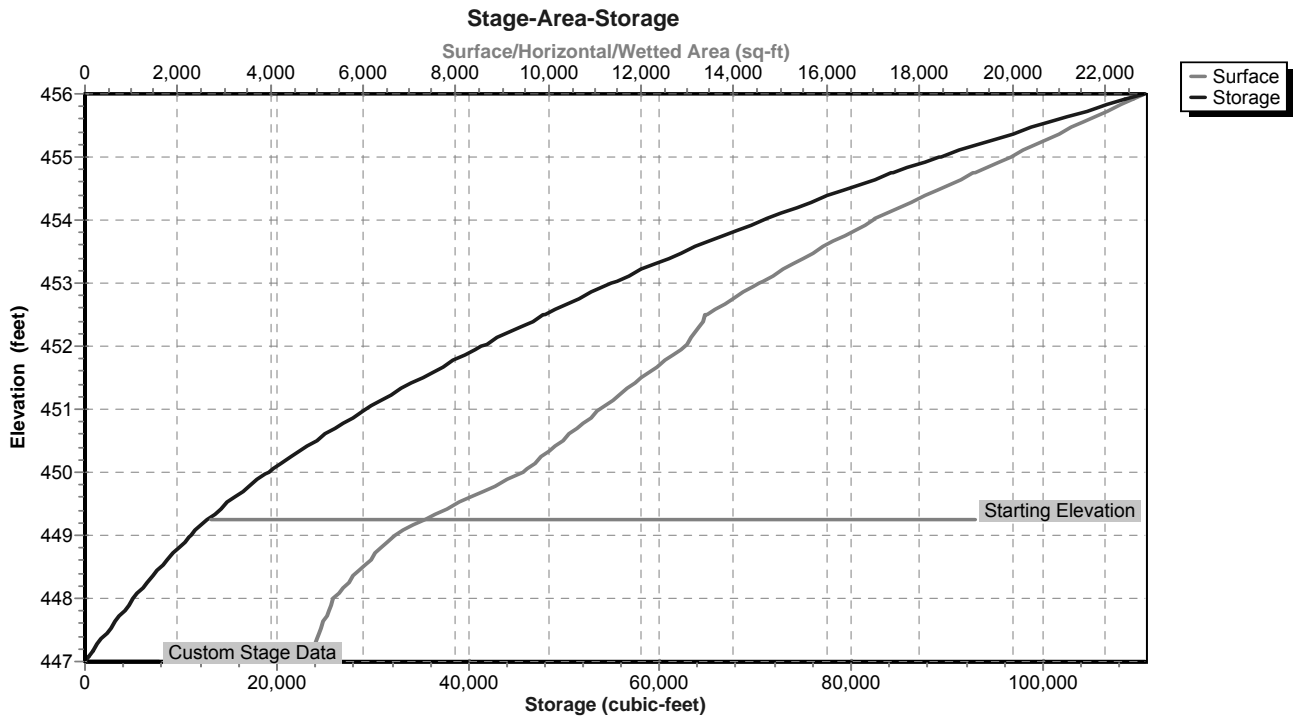
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)



Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth > 1.84" for 2 Year - North Salem event
 Inflow = 1.48 cfs @ 15.30 hrs, Volume= 1.284 af
 Outflow = 0.09 cfs @ 42.36 hrs, Volume= 1.279 af, Atten= 94%, Lag= 1,623.9 min
 Primary = 0.09 cfs @ 42.36 hrs, Volume= 1.279 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 484.65' @ 42.36 hrs Surf.Area= 11,337 sf Storage= 29,576 cf (21,966 cf above start)

Plug-Flow detention time= 4,859.9 min calculated for 1.104 af (86% of inflow)
 Center-of-Mass det. time= 2,881.7 min (6,571.5 - 3,689.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

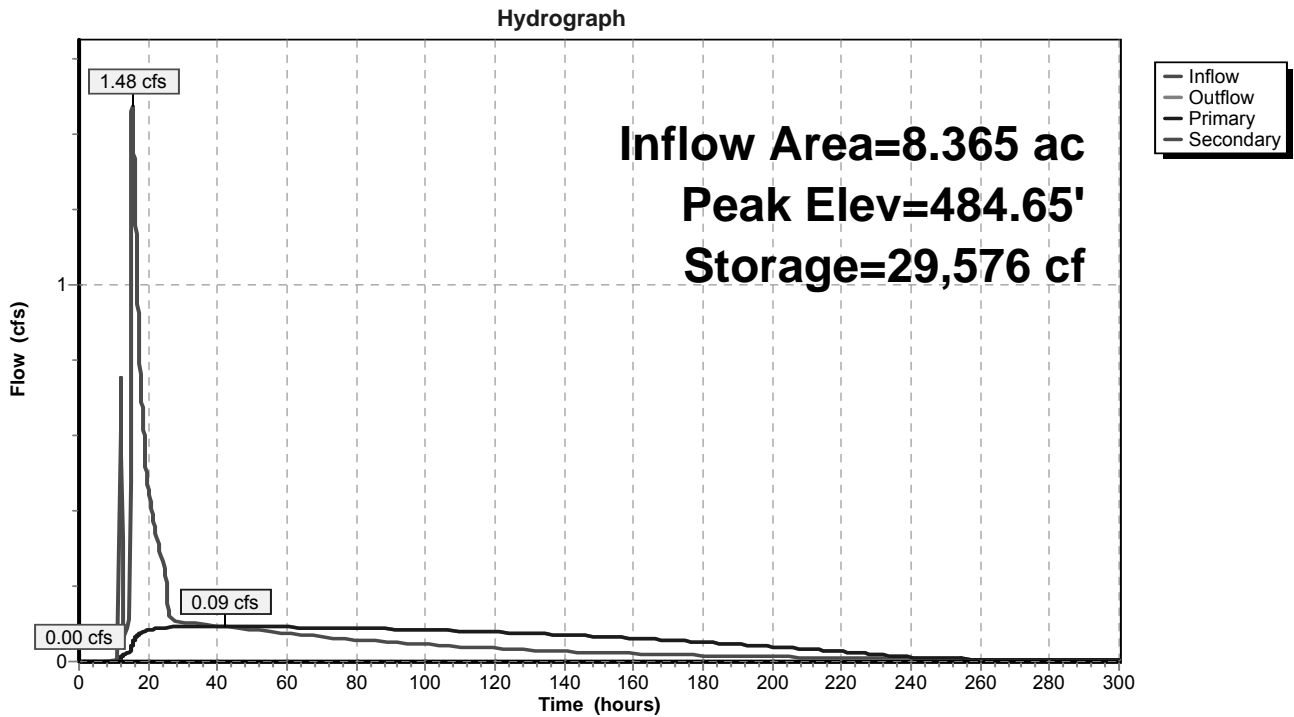
Primary OutFlow Max=0.09 cfs @ 42.36 hrs HW=484.65' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.09 cfs of 28.88 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.09 cfs @ 4.21 fps)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

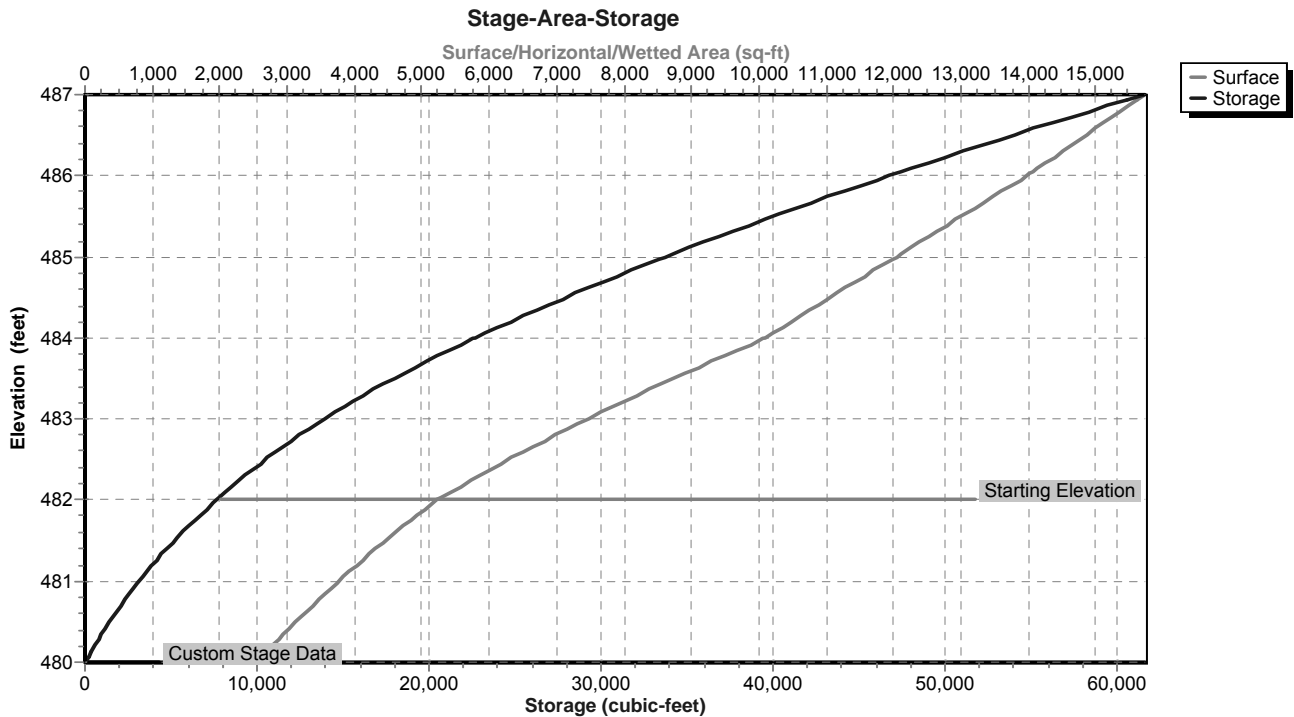
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 1.38" for 2 Year - North Salem event
 Inflow = 10.79 cfs @ 12.18 hrs, Volume= 0.989 af
 Outflow = 1.46 cfs @ 13.19 hrs, Volume= 0.989 af, Atten= 86%, Lag= 60.6 min
 Primary = 1.46 cfs @ 13.19 hrs, Volume= 0.989 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 518.65' @ 13.19 hrs Surf.Area= 8,386 sf Storage= 29,042 cf (21,989 cf above start)

Plug-Flow detention time= 1,686.8 min calculated for 0.827 af (84% of inflow)
 Center-of-Mass det. time= 1,342.7 min (2,202.0 - 859.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

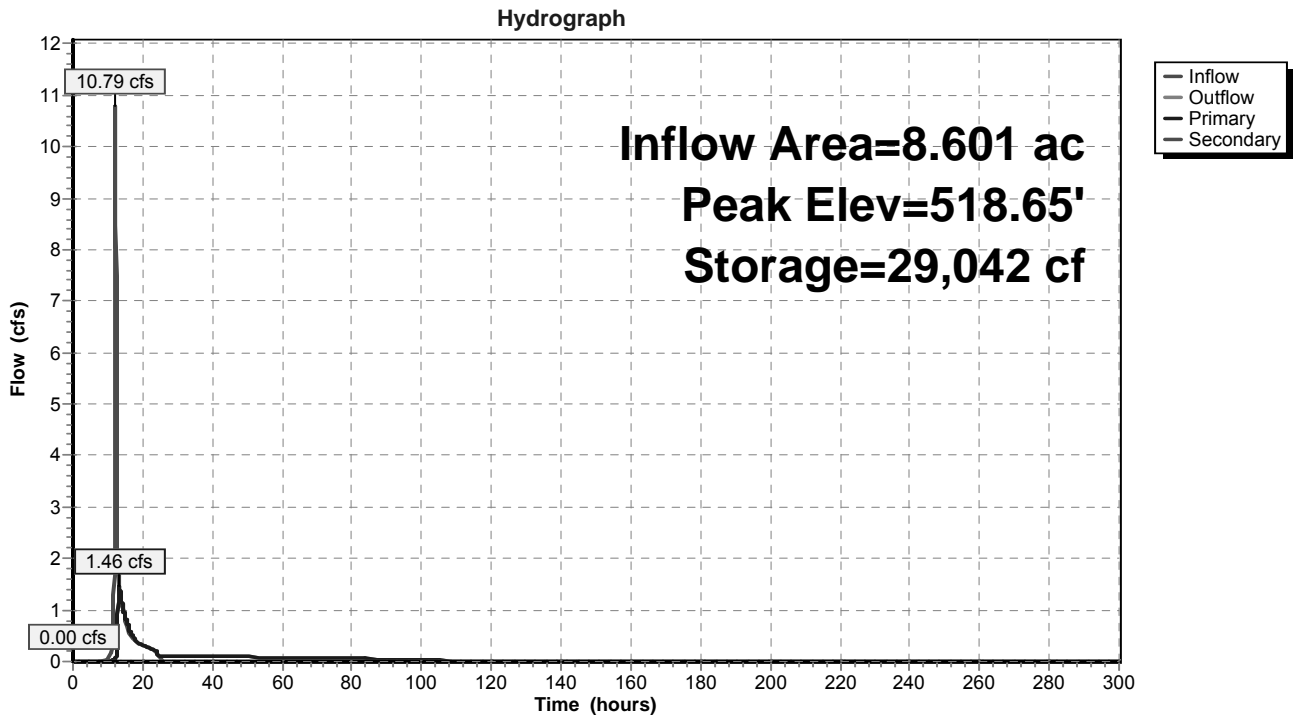
Primary OutFlow Max=1.44 cfs @ 13.19 hrs HW=518.65' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.44 cfs of 54.91 cfs potential flow)
- ↑ 2=Reverse Pipe Inlet (Outlet Controls 0.11 cfs @ 4.95 fps)
- ↑ 3=Orifice #1 (Orifice Controls 1.33 cfs @ 1.23 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

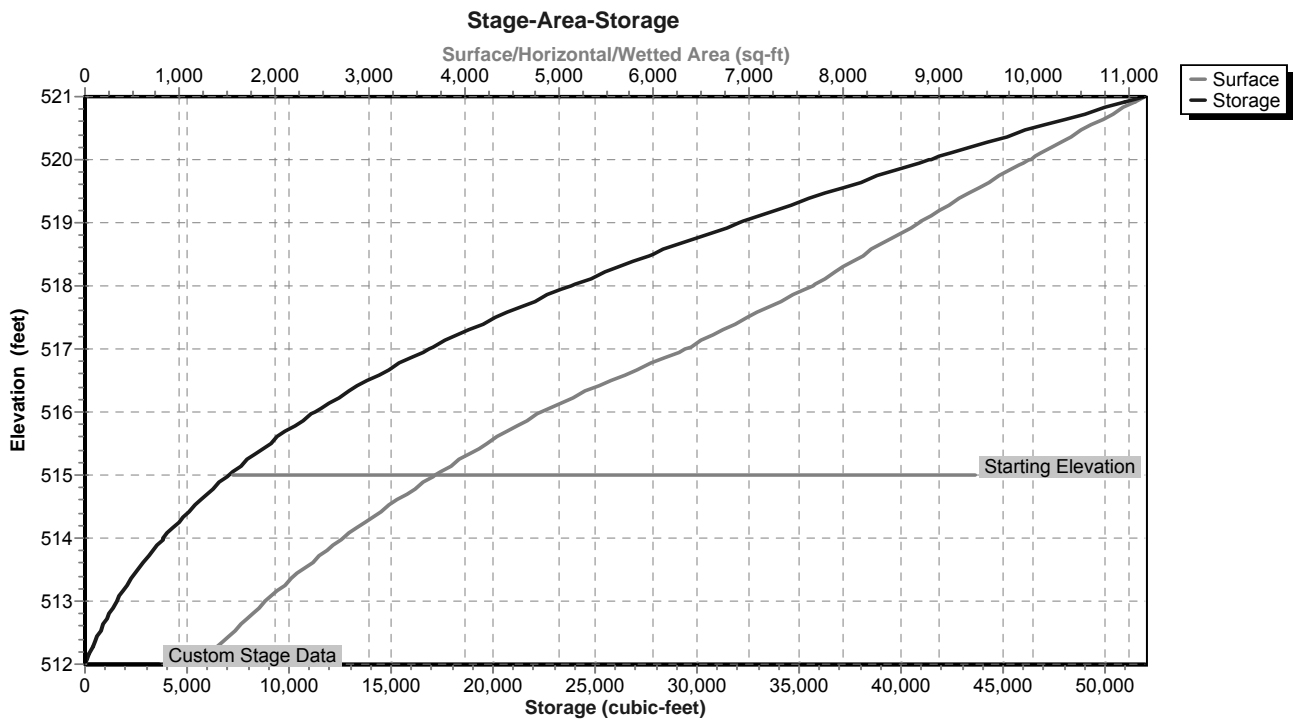
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K6: Micropool ED Basin - (Basin K6)



Pond ED-K6: Micropool ED Basin - (Basin K6)



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 2.19" for 2 Year - North Salem event
 Inflow = 21.76 cfs @ 12.20 hrs, Volume= 2.014 af
 Outflow = 21.76 cfs @ 12.20 hrs, Volume= 2.014 af, Atten= 0%, Lag= 0.0 min
 Primary = 19.23 cfs @ 12.20 hrs, Volume= 1.988 af
 Secondary = 2.53 cfs @ 12.20 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 468.33' @ 12.20 hrs
 Flood Elev= 556.50'

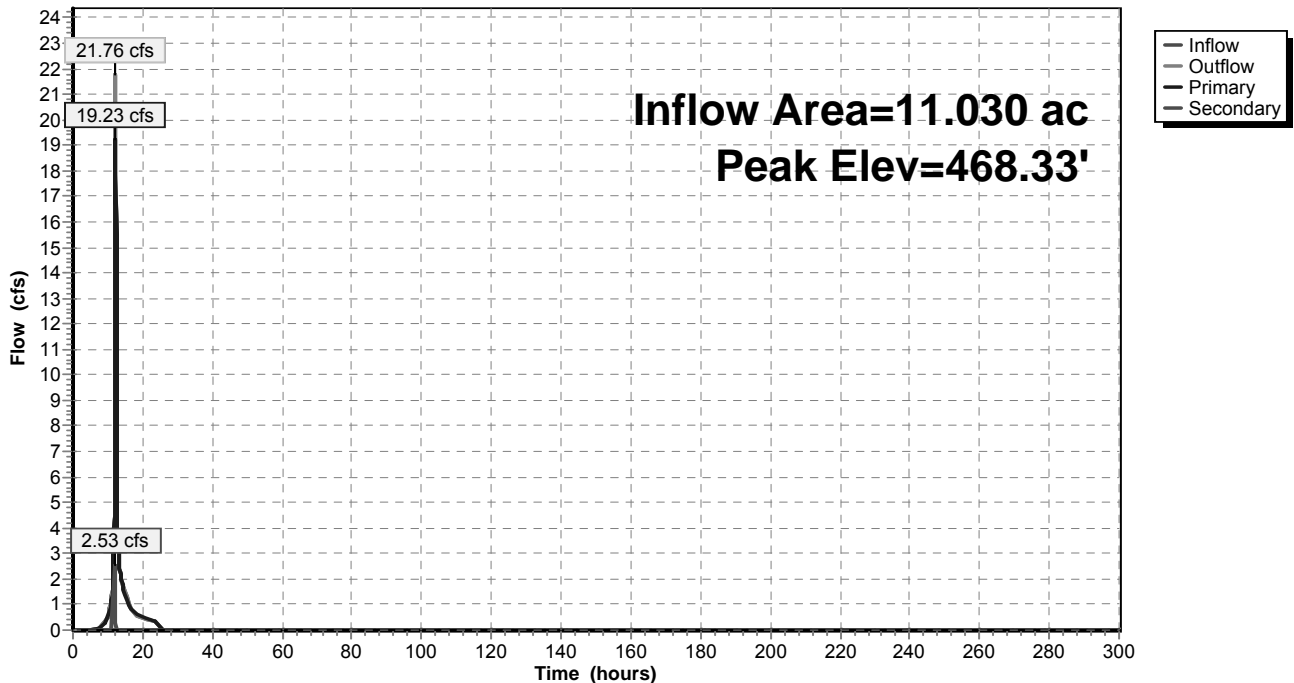
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=19.32 cfs @ 12.20 hrs HW=468.32' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 19.32 cfs @ 6.15 fps)

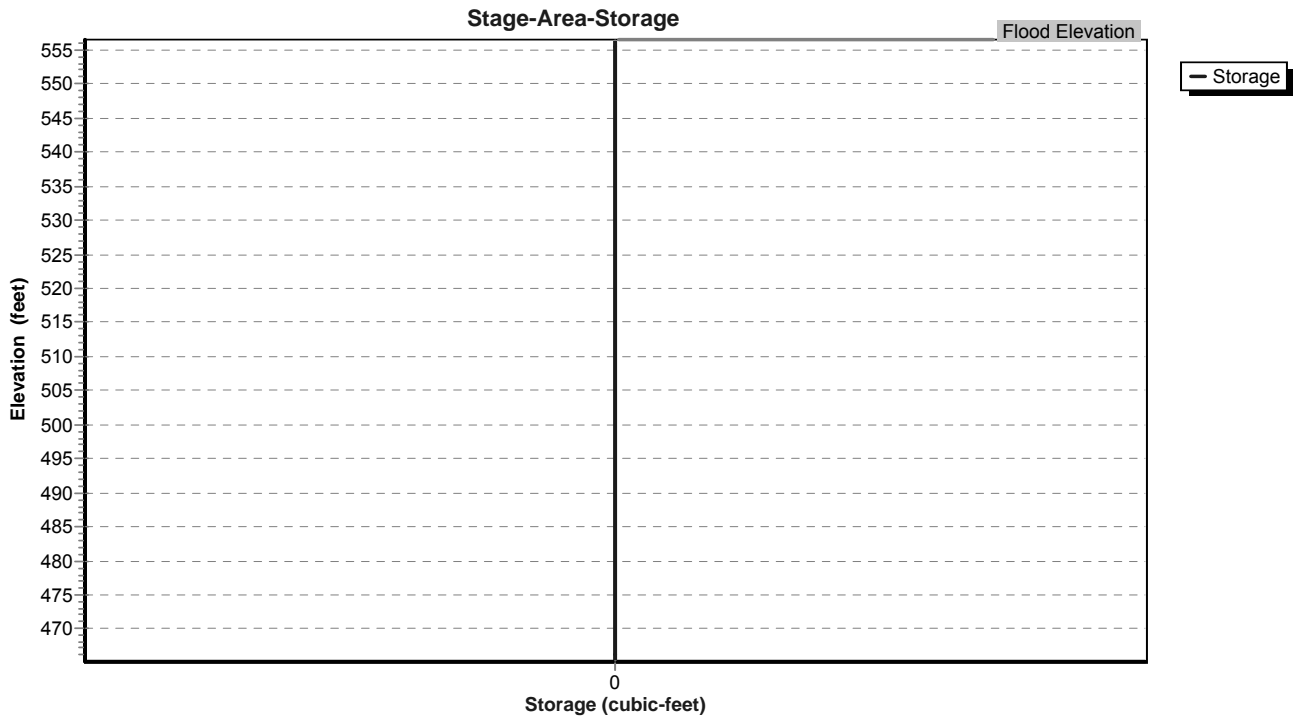
Secondary OutFlow Max=1.65 cfs @ 12.20 hrs HW=468.32' (Free Discharge)
 ↳2=Outlet to Basin K3 (Inlet Controls 1.65 cfs @ 2.22 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Pond FS K3: Flow Splitter - K3



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.87" for 2 Year - North Salem event
 Inflow = 11.79 cfs @ 12.31 hrs, Volume= 1.305 af
 Outflow = 11.79 cfs @ 12.31 hrs, Volume= 1.305 af, Atten= 0%, Lag= 0.0 min
 Primary = 11.04 cfs @ 12.31 hrs, Volume= 1.292 af
 Secondary = 0.75 cfs @ 12.31 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 506.78' @ 12.31 hrs
 Flood Elev= 556.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=11.00 cfs @ 12.31 hrs HW=506.78' (Free Discharge)

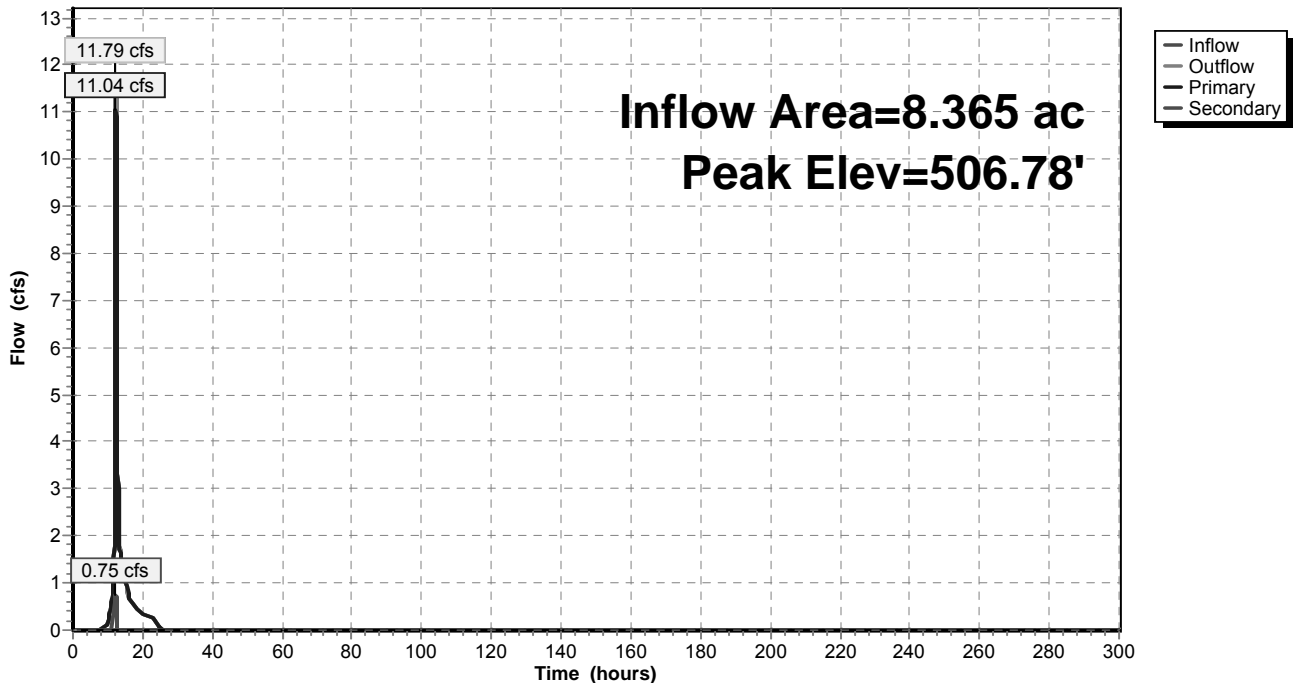
↳ **1=Outlet to Sand Filter** (Barrel Controls 11.00 cfs @ 4.95 fps)

Secondary OutFlow Max=0.41 cfs @ 12.31 hrs HW=506.78' (Free Discharge)

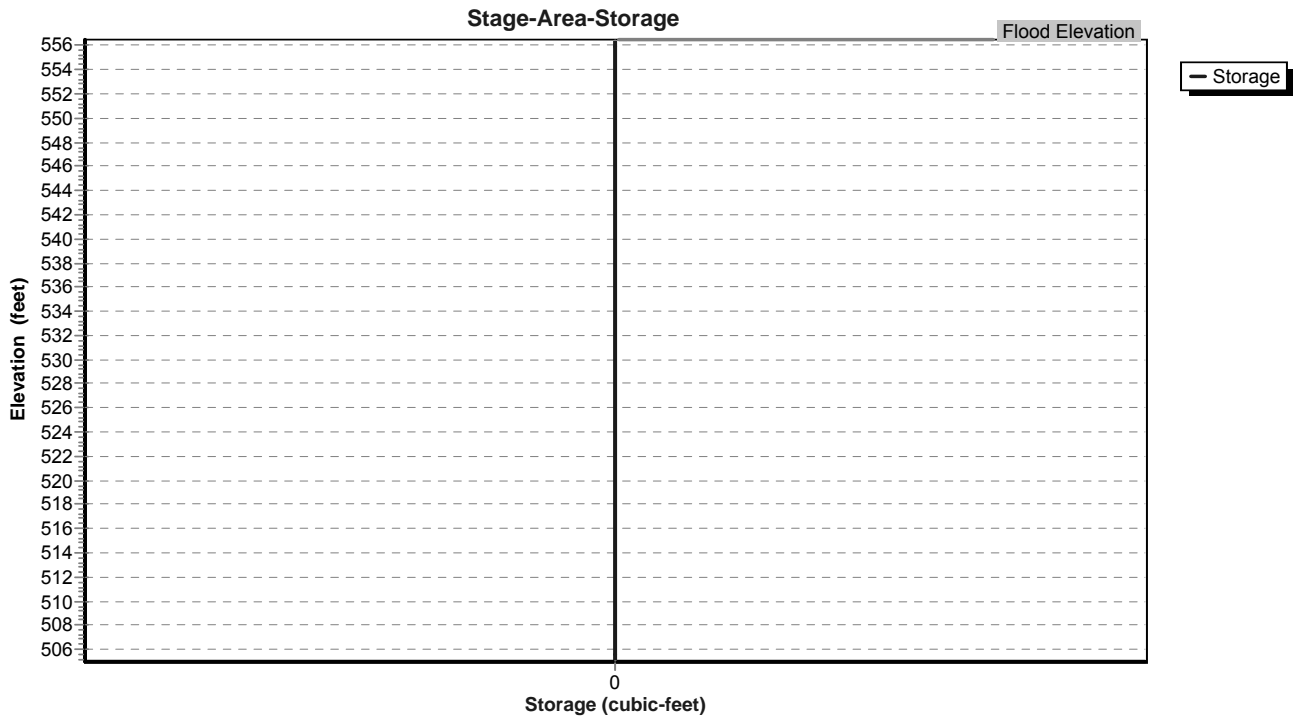
↳ **2=Outlet to Basin K5** (Inlet Controls 0.41 cfs @ 1.58 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Pond FS-K5: Flow Splitter - K5



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 1.02" for 2 Year - North Salem event
 Inflow = 0.79 cfs @ 12.57 hrs, Volume= 0.174 af
 Outflow = 0.16 cfs @ 15.24 hrs, Volume= 0.174 af, Atten= 79%, Lag= 160.5 min
 Primary = 0.16 cfs @ 15.24 hrs, Volume= 0.174 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 426.04' @ 15.24 hrs Surf.Area= 2,055 sf Storage= 4,577 cf

Plug-Flow detention time= 1,366.6 min calculated for 0.174 af (100% of inflow)
 Center-of-Mass det. time= 1,366.4 min (2,268.1 - 901.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.15 cfs @ 15.24 hrs HW=426.04' (Free Discharge)

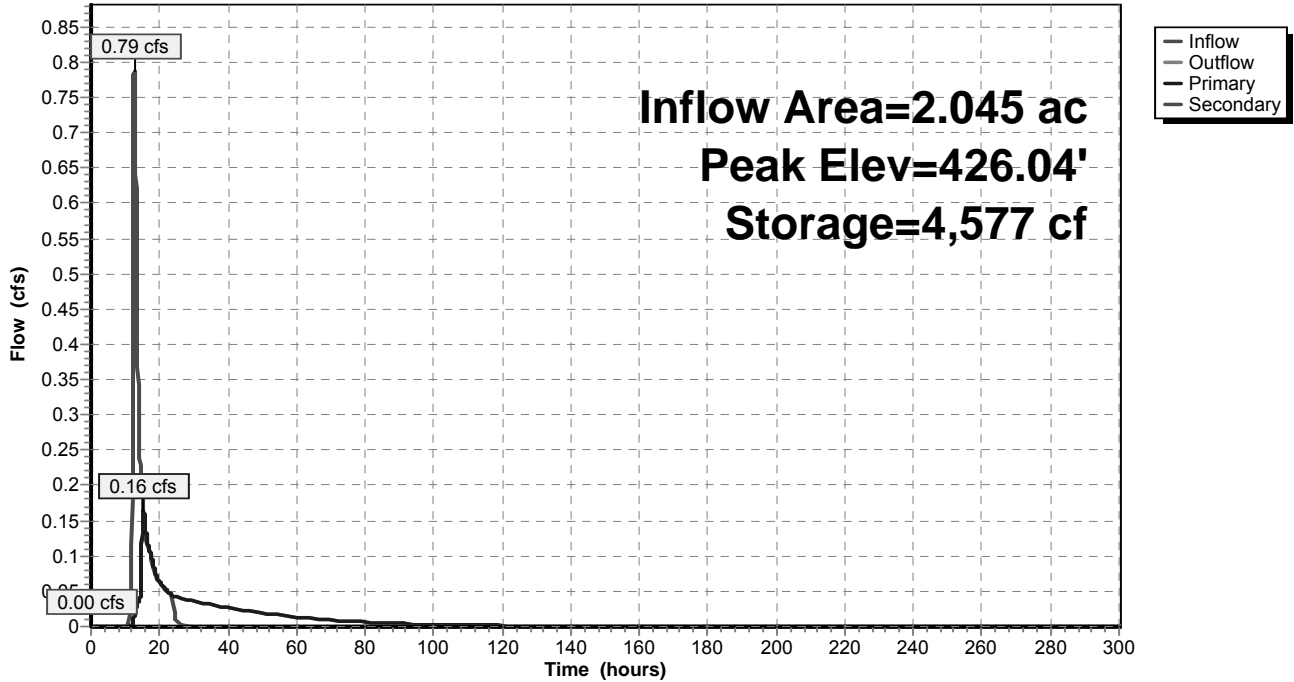
- ↑ 1=Outlet Pipe (Passes 0.15 cfs of 11.56 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.04 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 0.11 cfs @ 0.66 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

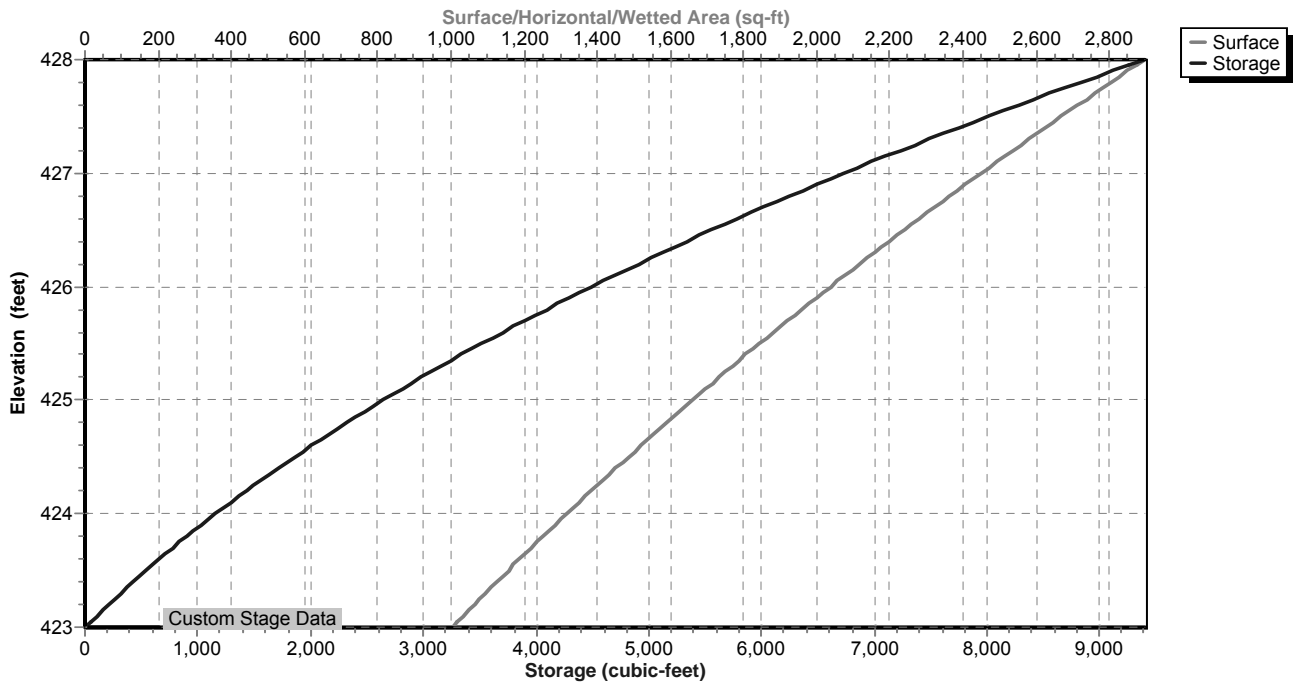
Pond SF-K2: Sand Filter - K2

Hydrograph



Pond SF-K2: Sand Filter - K2

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 OUTLET by 0.12'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 2.03" for 2 Year - North Salem event
 Inflow = 18.70 cfs @ 12.27 hrs, Volume= 1.866 af
 Outflow = 1.27 cfs @ 16.73 hrs, Volume= 1.830 af, Atten= 93%, Lag= 267.9 min
 Primary = 1.27 cfs @ 16.73 hrs, Volume= 1.830 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 461.12' @ 16.73 hrs Surf.Area= 18,152 sf Storage= 50,043 cf

Plug-Flow detention time= 3,149.5 min calculated for 1.830 af (98% of inflow)
 Center-of-Mass det. time= 3,129.8 min (4,083.2 - 953.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	14,031	642.0	0	0	14,031
460.00	16,650	667.0	30,644	30,644	16,946
461.00	17,997	680.0	17,319	47,963	18,493
462.00	19,370	693.0	18,679	66,642	20,071
463.00	20,767	705.0	20,064	86,707	21,578

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=1.25 cfs @ 16.73 hrs HW=461.12' (Free Discharge)

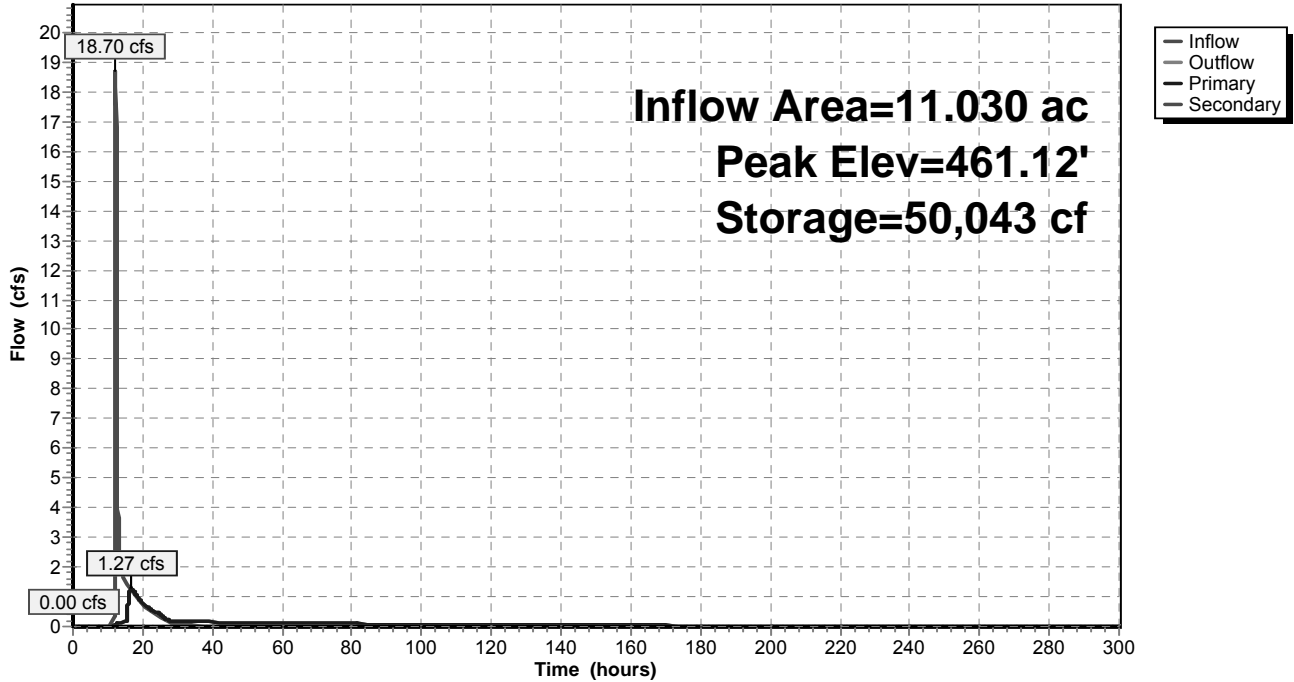
- ↑ 1=Outlet Pipe (Passes 1.25 cfs of 60.92 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.17 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 1.09 cfs @ 1.09 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

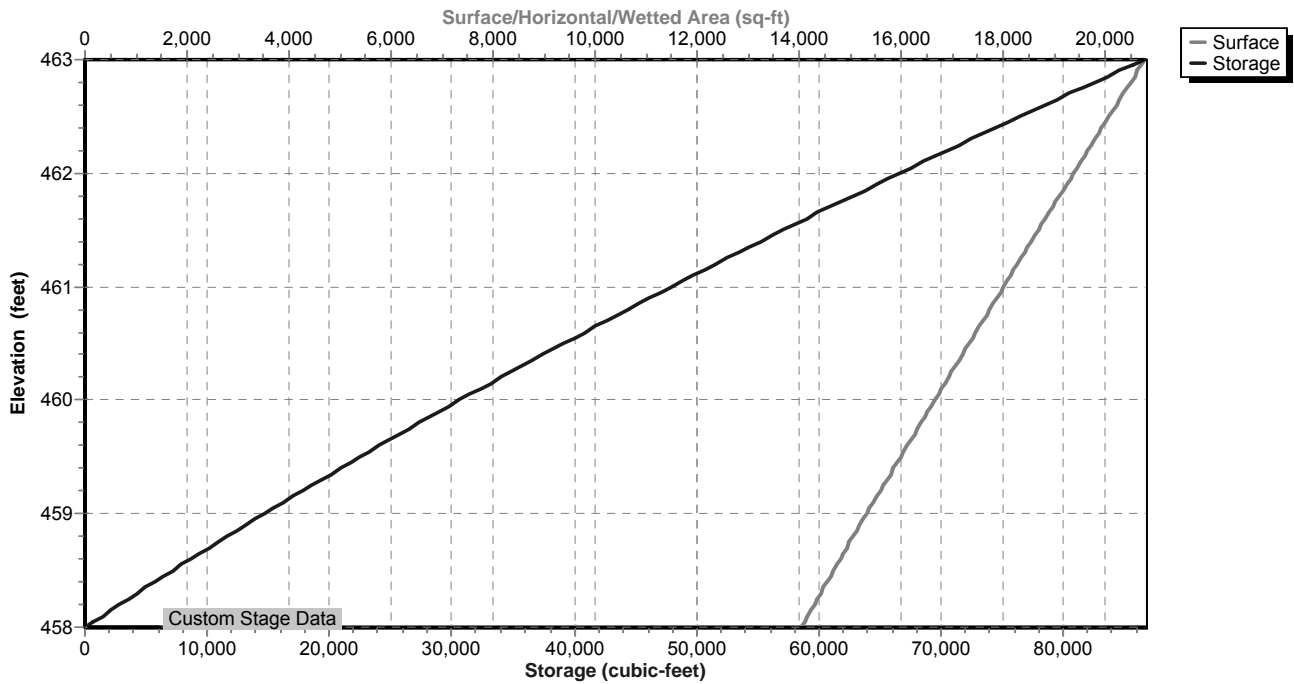
Pond SF-K3: Sand Filter -K3

Hydrograph



Pond SF-K3: Sand Filter -K3

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.85" for 2 Year - North Salem event
 Inflow = 8.85 cfs @ 12.51 hrs, Volume= 1.292 af
 Outflow = 1.48 cfs @ 15.30 hrs, Volume= 1.271 af, Atten= 83%, Lag= 167.3 min
 Primary = 1.48 cfs @ 15.30 hrs, Volume= 1.271 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 494.44' @ 15.30 hrs Surf.Area= 10,708 sf Storage= 32,098 cf

Plug-Flow detention time= 2,804.7 min calculated for 1.270 af (98% of inflow)
 Center-of-Mass det. time= 2,794.7 min (3,720.5 - 925.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=1.44 cfs @ 15.30 hrs HW=494.44' (Free Discharge)

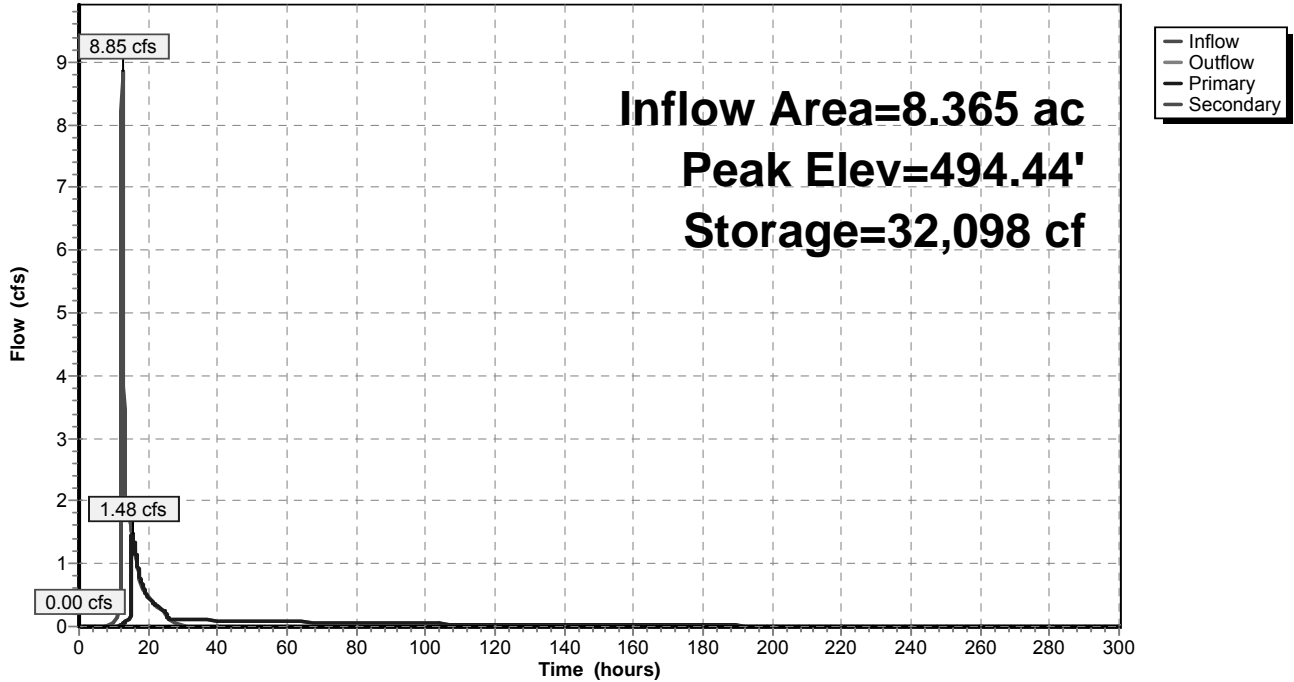
- ↑ 1=Outlet Pipe (Passes 1.44 cfs of 29.65 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.11 cfs)
- ↑ 3=Top of Outlet Box (Weir Controls 1.33 cfs @ 0.96 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

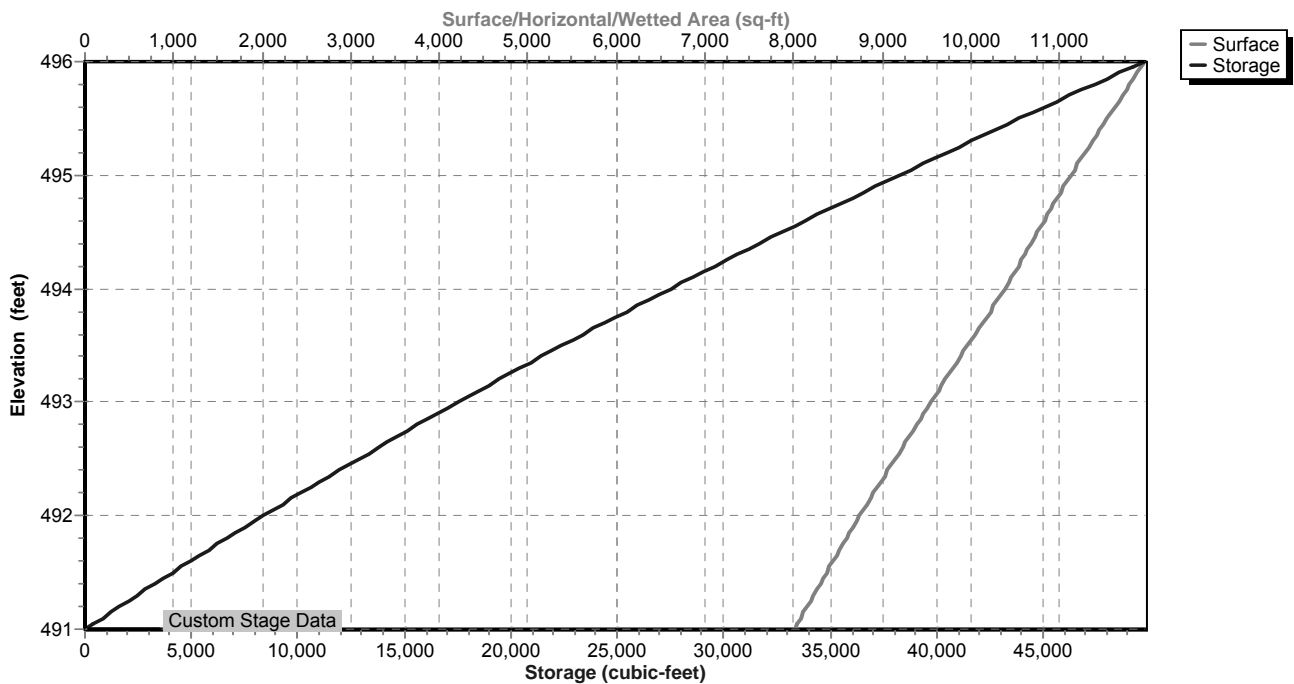
Pond SF-K5: Sand Filter - K5

Hydrograph



Pond SF-K5: Sand Filter - K5

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 1.02" for 2 Year - North Salem event
 Inflow = 1.75 cfs @ 12.20 hrs, Volume= 0.174 af
 Outflow = 0.79 cfs @ 12.57 hrs, Volume= 0.174 af, Atten= 55%, Lag= 21.8 min
 Primary = 0.79 cfs @ 12.57 hrs, Volume= 0.174 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.95' @ 12.57 hrs Surf.Area= 1,191 sf Storage= 1,528 cf

Plug-Flow detention time= 23.2 min calculated for 0.174 af (100% of inflow)
 Center-of-Mass det. time= 23.3 min (901.7 - 878.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
430.00	440	165.0	0	0	440
432.00	1,216	210.0	1,592	1,592	1,834
434.00	2,107	235.0	3,282	4,874	2,825

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

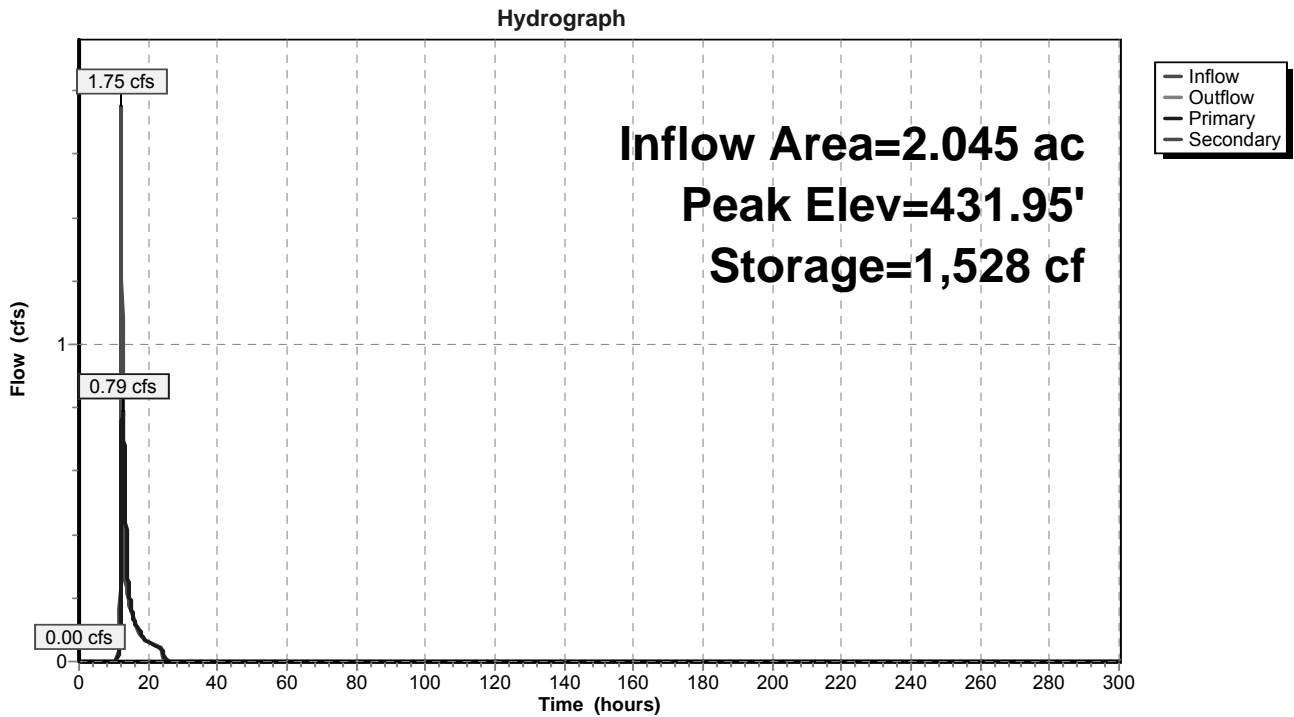
Primary OutFlow Max=0.79 cfs @ 12.57 hrs HW=431.95' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 0.79 cfs of 4.55 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 0.79 cfs @ 6.01 fps)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

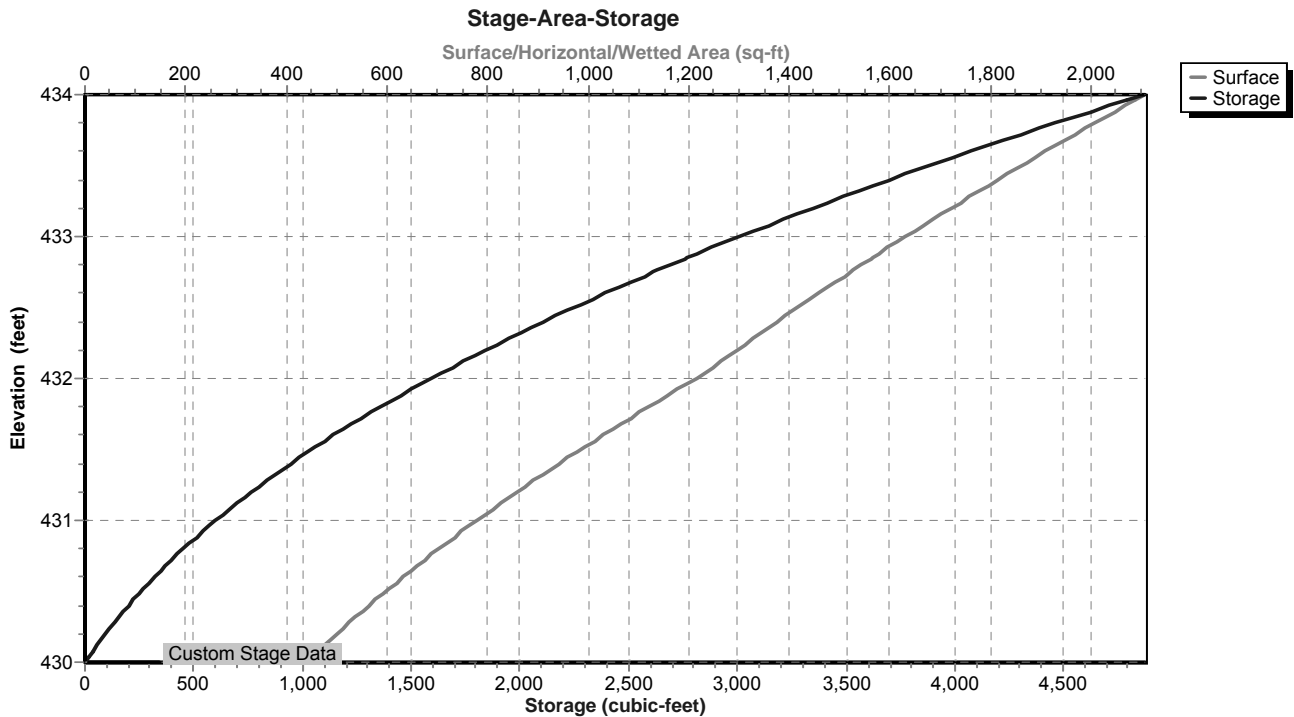
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K2: Sand Filter Forebay - K2



Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 2.16" for 2 Year - North Salem event
 Inflow = 19.23 cfs @ 12.20 hrs, Volume= 1.988 af
 Outflow = 18.70 cfs @ 12.27 hrs, Volume= 1.866 af, Atten= 3%, Lag= 4.2 min
 Primary = 18.70 cfs @ 12.27 hrs, Volume= 1.866 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.68' @ 12.27 hrs Surf.Area= 7,241 sf Storage= 22,535 cf

Plug-Flow detention time= 158.1 min calculated for 1.866 af (94% of inflow)
 Center-of-Mass det. time= 124.8 min (953.4 - 828.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
461.00	5,065	273.0	0	0	5,065
462.00	5,623	285.0	5,342	5,342	5,666
464.00	6,813	310.0	12,417	17,759	6,991
464.50	7,126	319.0	3,484	21,243	7,468
465.00	7,447	323.0	3,643	24,886	7,728
466.00	8,104	336.0	7,773	32,659	8,486

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=18.38 cfs @ 12.27 hrs HW=464.67' (Free Discharge)

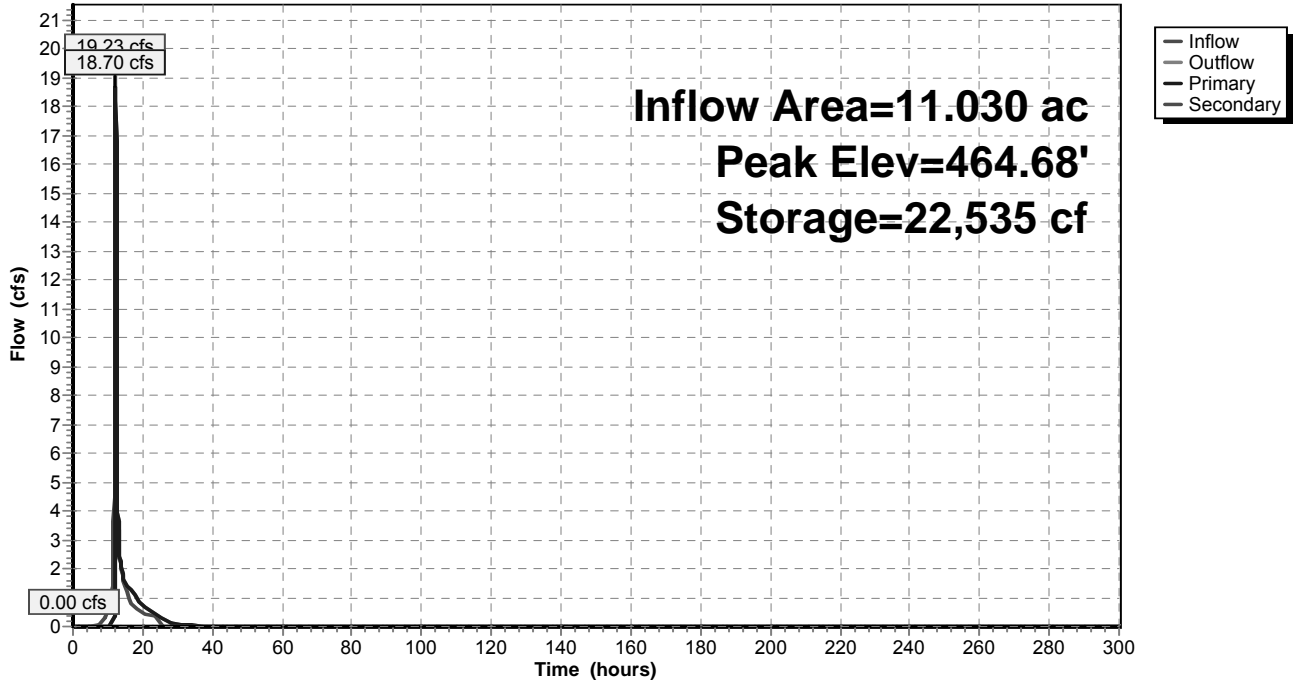
- 1=Outlet Pipe (Passes 18.38 cfs of 37.06 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 1.67 cfs @ 6.37 fps)
- 3=Top of Standpipe (Weir Controls 11.38 cfs @ 2.13 fps)
- 4=Orifice #1 (Orifice Controls 5.33 cfs @ 2.09 fps)
- 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

- 6=Emergency Overflow (Controls 0.00 cfs)

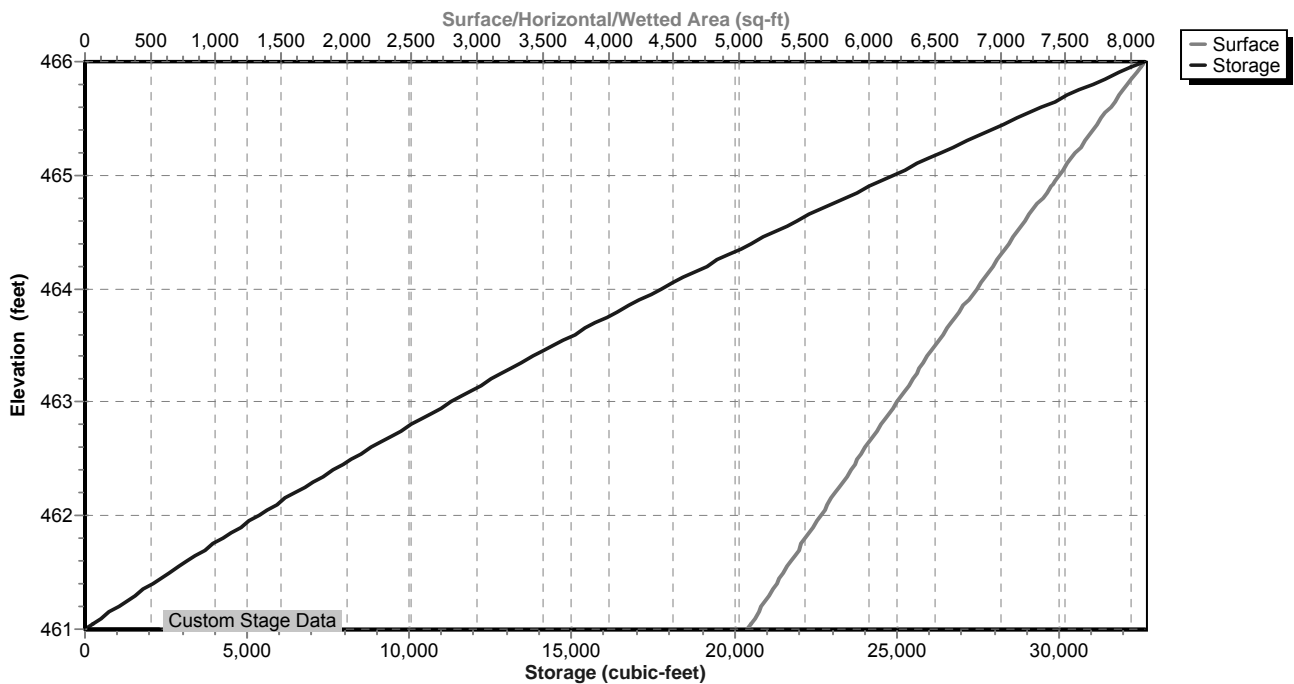
Pond SFF-K3: Sand Filter Forebay - K3

Hydrograph



Pond SFF-K3: Sand Filter Forebay - K3

Stage-Area-Storage



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.85" for 2 Year - North Salem event
 Inflow = 11.04 cfs @ 12.31 hrs, Volume= 1.292 af
 Outflow = 8.85 cfs @ 12.51 hrs, Volume= 1.292 af, Atten= 20%, Lag= 11.9 min
 Primary = 8.85 cfs @ 12.51 hrs, Volume= 1.292 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 503.63' @ 12.51 hrs Surf.Area= 4,673 sf Storage= 13,615 cf

Plug-Flow detention time= 77.1 min calculated for 1.291 af (100% of inflow)
 Center-of-Mass det. time= 77.2 min (925.8 - 848.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
500.00	2,880	224.0	0	0	2,880
502.00	3,826	250.0	6,684	6,684	3,969
504.00	4,874	275.0	8,679	15,363	5,138
505.00	5,434	287.0	5,151	20,514	5,744
506.00	6,021	300.0	5,725	26,239	6,418

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

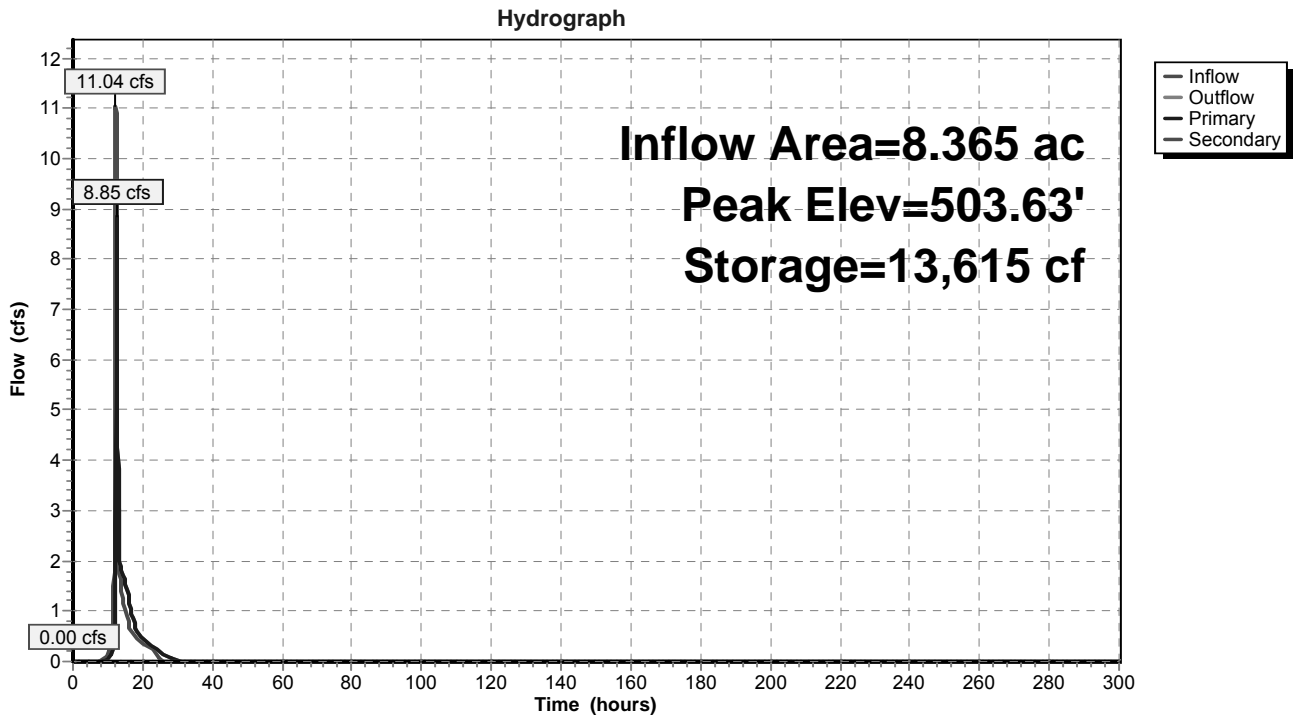
Primary OutFlow Max=8.84 cfs @ 12.51 hrs HW=503.63' (Free Discharge)

- 1=Outlet Pipe (Passes 8.84 cfs of 24.54 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 2.08 cfs @ 7.95 fps)
- 3=Top of Standpipe (Orifice Controls 6.76 cfs @ 3.82 fps)
- 4=Orifice #1 (Controls 0.00 cfs)
- 5=Top of Outlet Box (Controls 0.00 cfs)

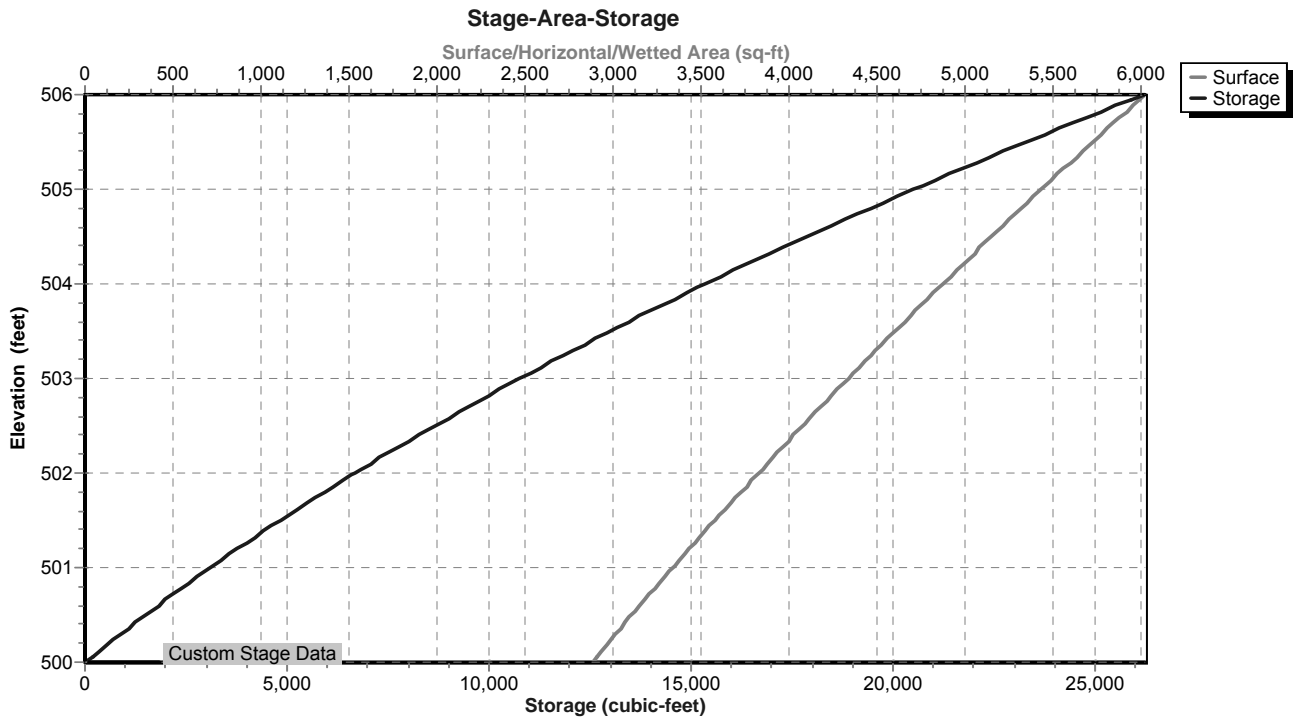
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

- 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K5: Sand Filter Forebay - K5



Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-DevelopmentK1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=2.33"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=64.29 cfs 7.100 af

Subcatchment K2: Post-DevelopmentK2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=2.24"
Flow Length=799' Tc=13.0 min CN=68 Runoff=4.16 cfs 0.382 af

Subcatchment K3: Post-DevelopmentK3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=3.83"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=37.62 cfs 3.523 af

Subcatchment K4: Post-DevelopmentK4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=1.60"
Flow Length=281' Tc=11.3 min CN=60 Runoff=1.57 cfs 0.146 af

Subcatchment K5: Post-DevelopmentK5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=3.43"
Flow Length=542' Tc=22.2 min CN=81 Runoff=21.64 cfs 2.392 af

Subcatchment K6: Post-DevelopmentK6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=2.77"
Flow Length=981' Tc=12.4 min CN=74 Runoff=22.47 cfs 1.985 af

Pond DP 11: Design Point 11 Inflow=79.54 cfs 15.160 af
Primary=79.54 cfs 15.160 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=453.34' Storage=60,035 cf Inflow=14.97 cfs 3.510 af
Primary=2.63 cfs 3.327 af Secondary=0.00 cfs 0.000 af Outflow=2.63 cfs 3.327 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=485.39' Storage=38,512 cf Inflow=9.56 cfs 2.371 af
Primary=2.05 cfs 2.366 af Secondary=0.00 cfs 0.000 af Outflow=2.05 cfs 2.366 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=519.24' Storage=34,240 cf Inflow=22.47 cfs 1.985 af
Primary=15.22 cfs 1.985 af Secondary=0.00 cfs 0.000 af Outflow=15.22 cfs 1.985 af

Pond FS K3: Flow Splitter - K3 Peak Elev=469.55' Inflow=37.62 cfs 3.523 af
Primary=24.27 cfs 3.255 af Secondary=13.35 cfs 0.268 af Outflow=37.62 cfs 3.523 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=507.54' Inflow=21.64 cfs 2.392 af
Primary=16.53 cfs 2.252 af Secondary=5.11 cfs 0.139 af Outflow=21.64 cfs 2.392 af

Pond SF-K2: Sand Filter - K2 Peak Elev=426.21' Storage=4,925 cf Inflow=3.71 cfs 0.382 af
Primary=1.28 cfs 0.382 af Secondary=0.00 cfs 0.000 af Outflow=1.28 cfs 0.382 af

Pond SF-K3: Sand Filter -K3 Peak Elev=461.43' Storage=55,858 cf Inflow=24.00 cfs 3.132 af
Primary=8.08 cfs 3.096 af Secondary=0.00 cfs 0.000 af Outflow=8.08 cfs 3.096 af

Pond SF-K5: Sand Filter - K5 Peak Elev=494.67' Storage=34,605 cf Inflow=15.35 cfs 2.252 af
Primary=9.56 cfs 2.231 af Secondary=0.00 cfs 0.000 af Outflow=9.56 cfs 2.231 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=432.94' Storage=2,909 cf Inflow=4.16 cfs 0.382 af
Primary=3.71 cfs 0.382 af Secondary=0.00 cfs 0.000 af Outflow=3.71 cfs 0.382 af

Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=464.76' Storage=23,150 cf Inflow=24.27 cfs 3.255 af
Primary=24.00 cfs 3.132 af Secondary=0.00 cfs 0.000 af Outflow=24.00 cfs 3.132 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=504.31' Storage=16,889 cf Inflow=16.53 cfs 2.252 af
Primary=15.35 cfs 2.252 af Secondary=0.00 cfs 0.000 af Outflow=15.35 cfs 2.252 af

Total Runoff Area = 67.727 ac Runoff Volume = 15.528 af Average Runoff Depth = 2.75"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 64.29 cfs @ 12.31 hrs, Volume= 7.100 af, Depth= 2.33"

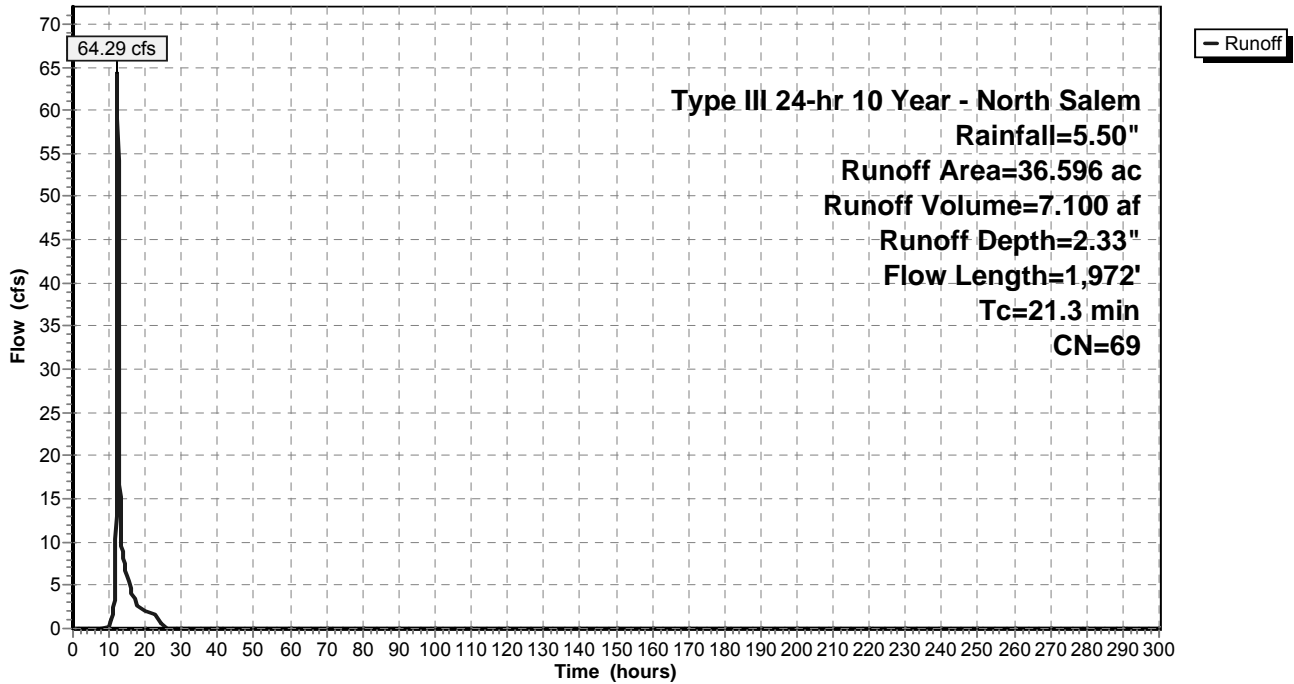
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

Runoff = 4.16 cfs @ 12.19 hrs, Volume= 0.382 af, Depth= 2.24"

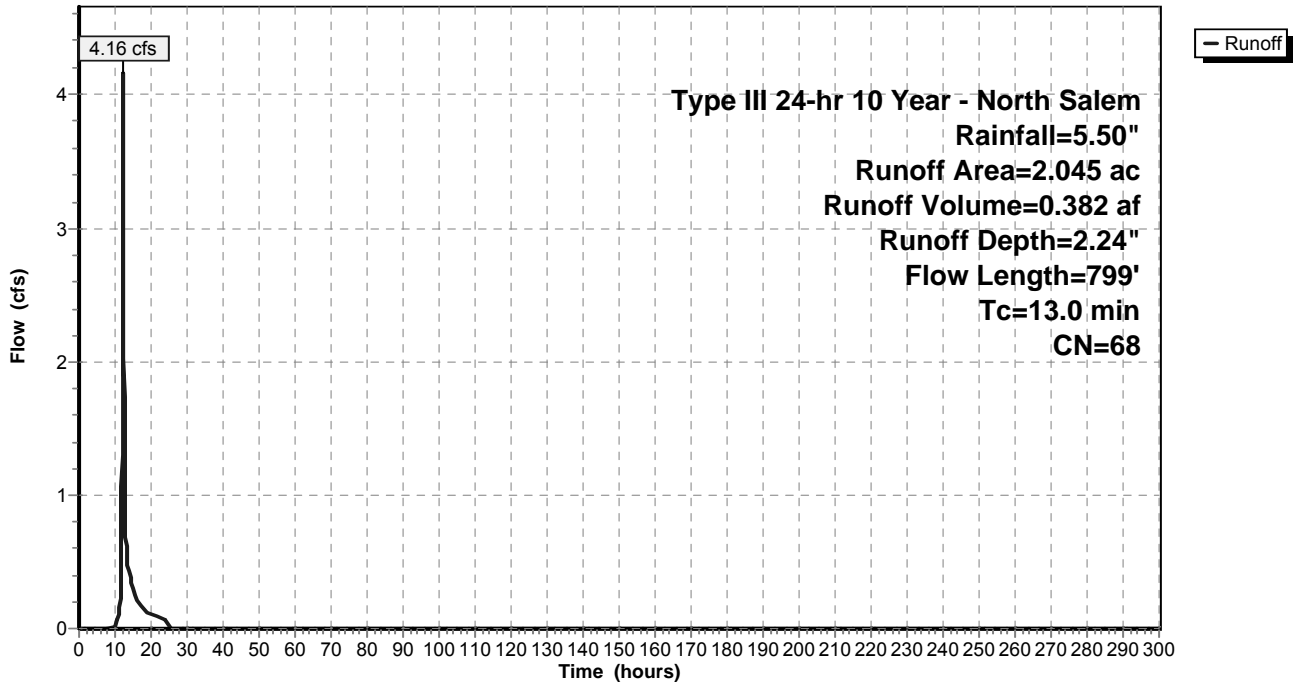
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2

Hydrograph



Summary for Subcatchment K3: Post-Development K3

Runoff = 37.62 cfs @ 12.19 hrs, Volume= 3.523 af, Depth= 3.83"

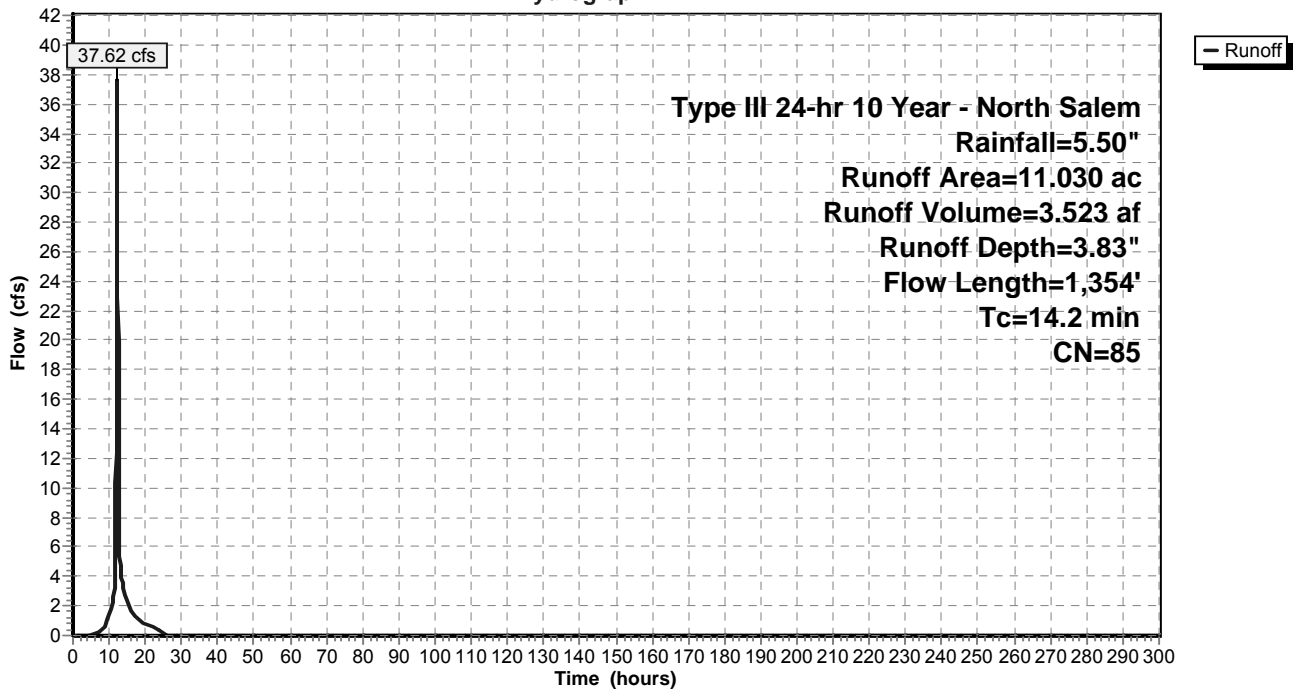
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

Runoff = 1.57 cfs @ 12.17 hrs, Volume= 0.146 af, Depth= 1.60"

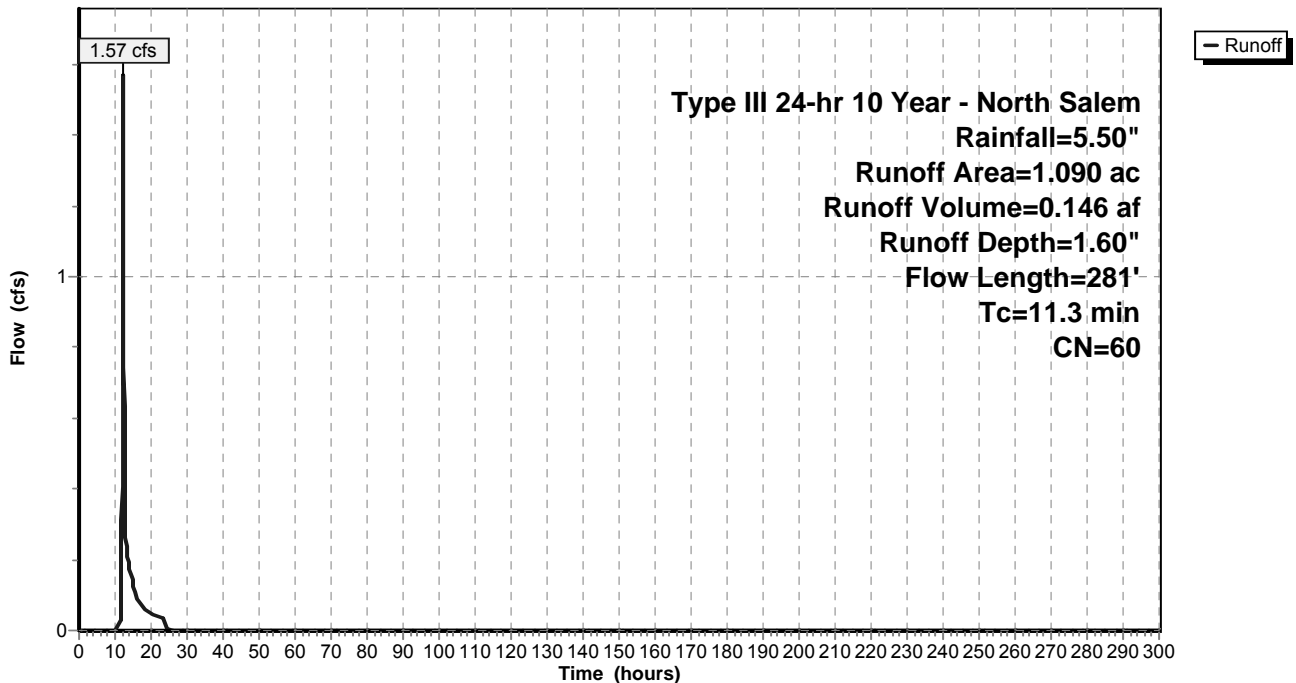
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 21.64 cfs @ 12.31 hrs, Volume= 2.392 af, Depth= 3.43"

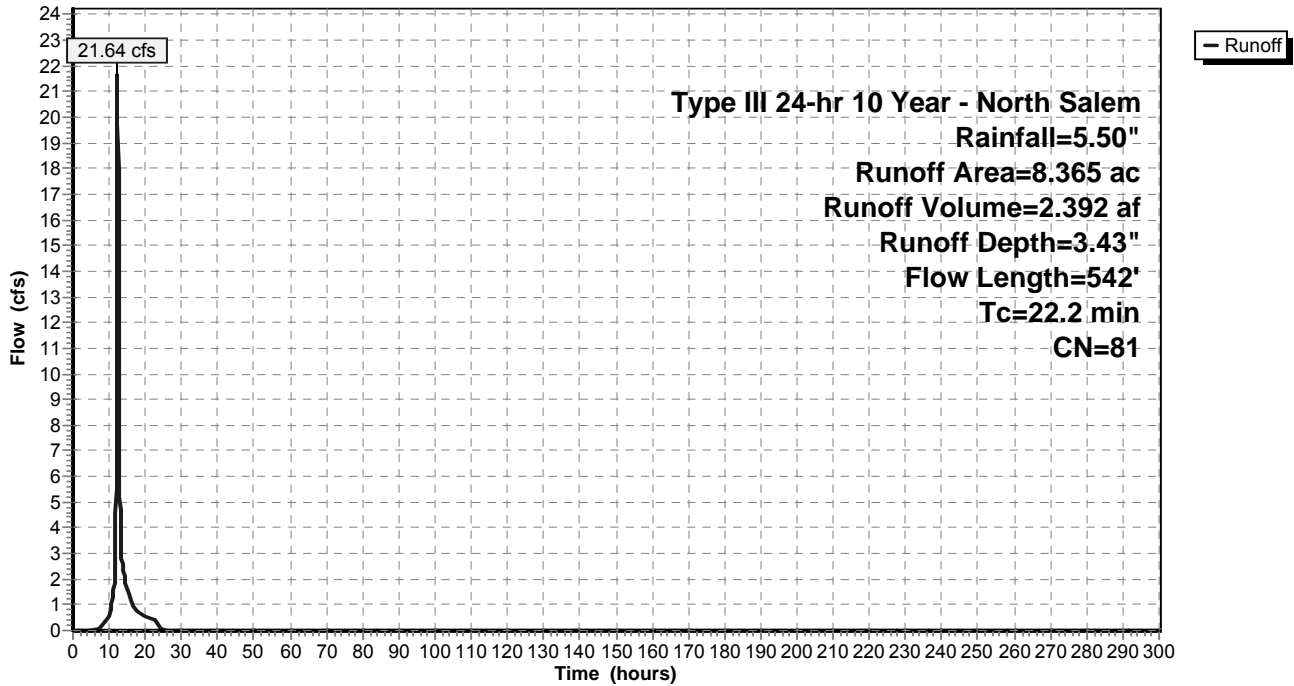
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 22.47 cfs @ 12.17 hrs, Volume= 1.985 af, Depth= 2.77"

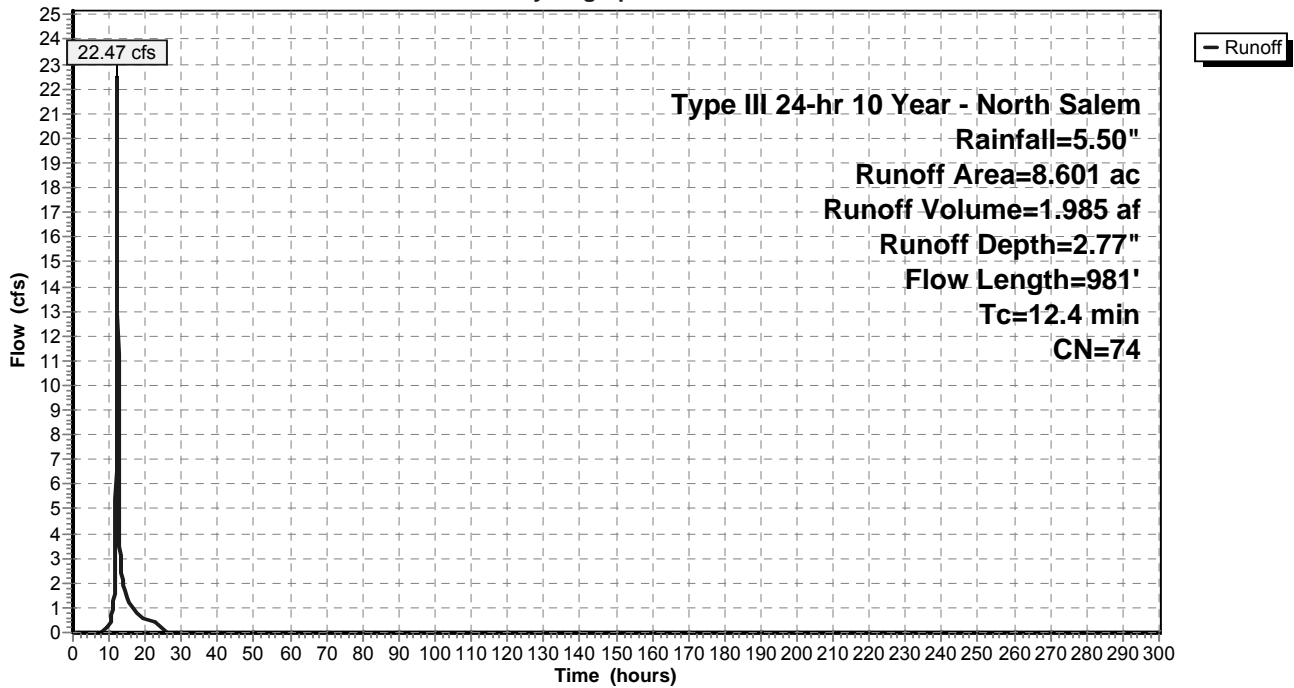
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



Summary for Pond DP 11: Design Point 11

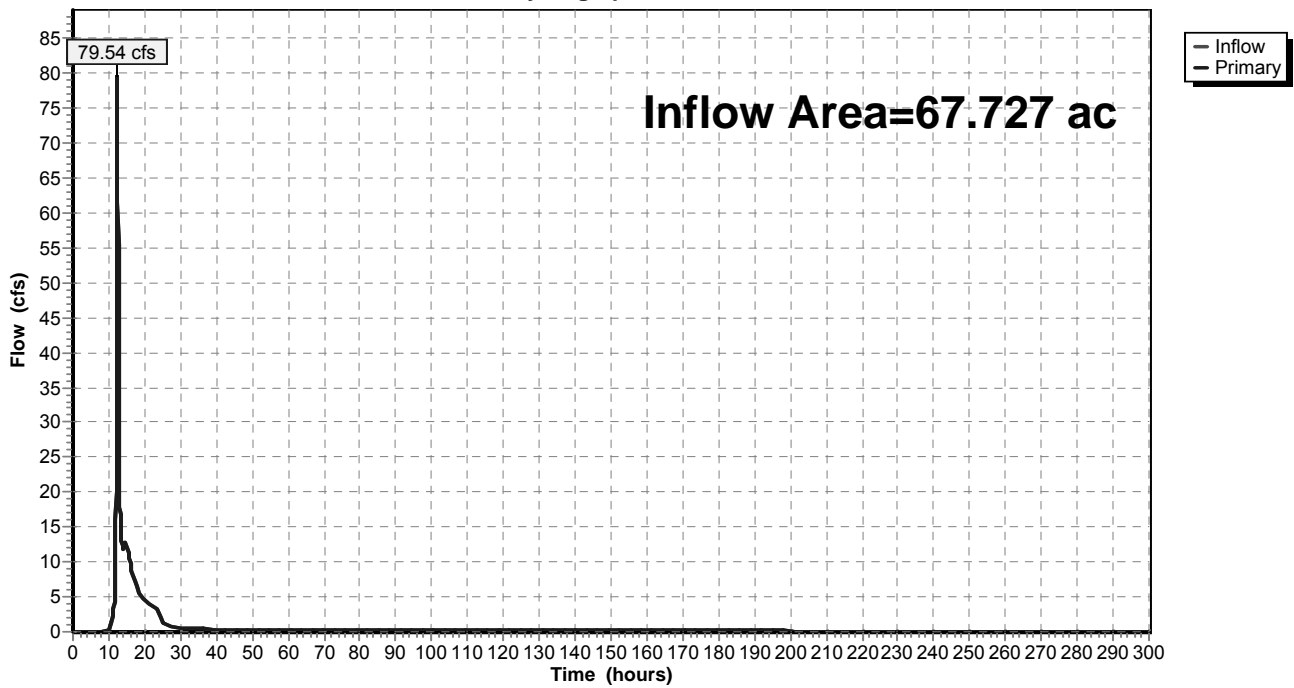
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth > 2.69" for 10 Year - North Salem event
Inflow = 79.54 cfs @ 12.32 hrs, Volume= 15.160 af
Primary = 79.54 cfs @ 12.32 hrs, Volume= 15.160 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth > 3.47" for 10 Year - North Salem event
 Inflow = 14.97 cfs @ 12.19 hrs, Volume= 3.510 af
 Outflow = 2.63 cfs @ 14.97 hrs, Volume= 3.327 af, Atten= 82%, Lag= 166.7 min
 Primary = 2.63 cfs @ 14.97 hrs, Volume= 3.327 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 453.34' @ 14.97 hrs Surf.Area= 15,364 sf Storage= 60,035 cf (47,200 cf above start)

Plug-Flow detention time= 4,328.4 min calculated for 3.032 af (86% of inflow)
 Center-of-Mass det. time= 2,817.3 min (5,386.0 - 2,568.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

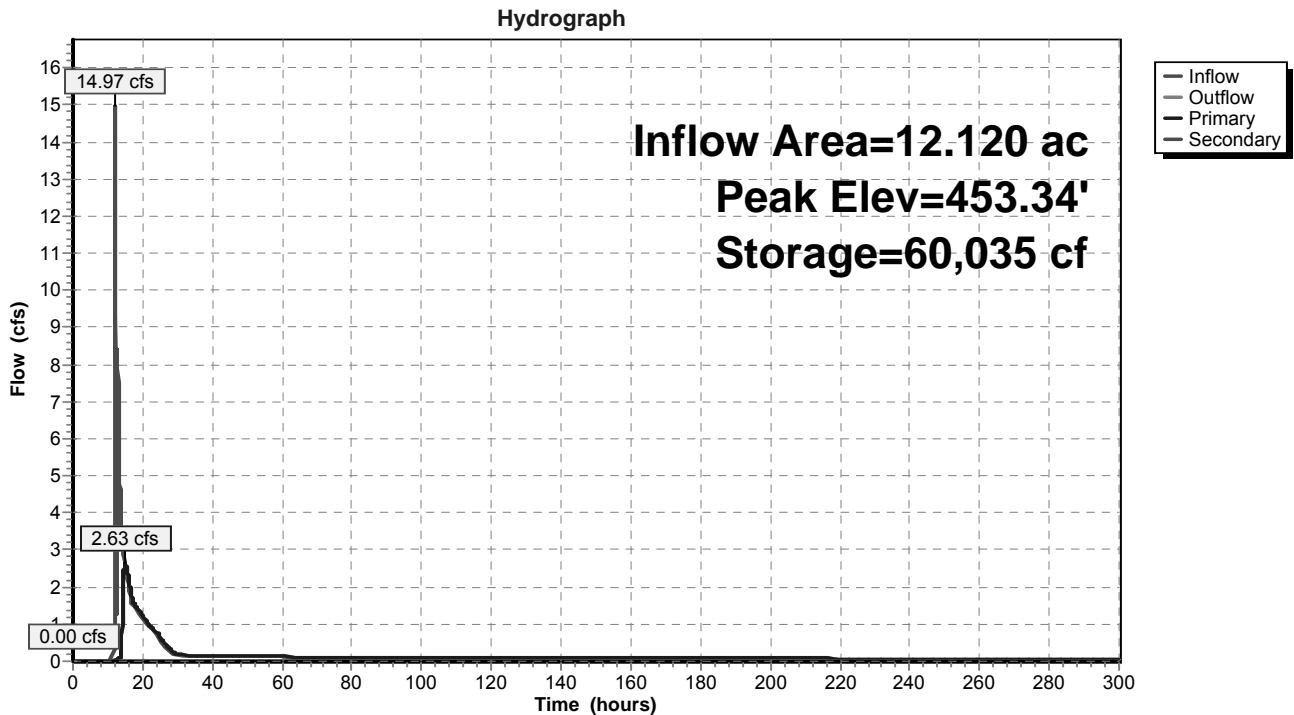
Primary OutFlow Max=2.61 cfs @ 14.97 hrs HW=453.34' (Free Discharge)

- 1=Outlet Pipe (Passes 2.61 cfs of 30.54 cfs potential flow)
- 2=Reverse Pipe Inlet (Outlet Controls 0.10 cfs @ 4.39 fps)
- 3=Orifice #1 (Orifice Controls 2.52 cfs @ 1.86 fps)
- 4=Top of Outlet Box (Controls 0.00 cfs)

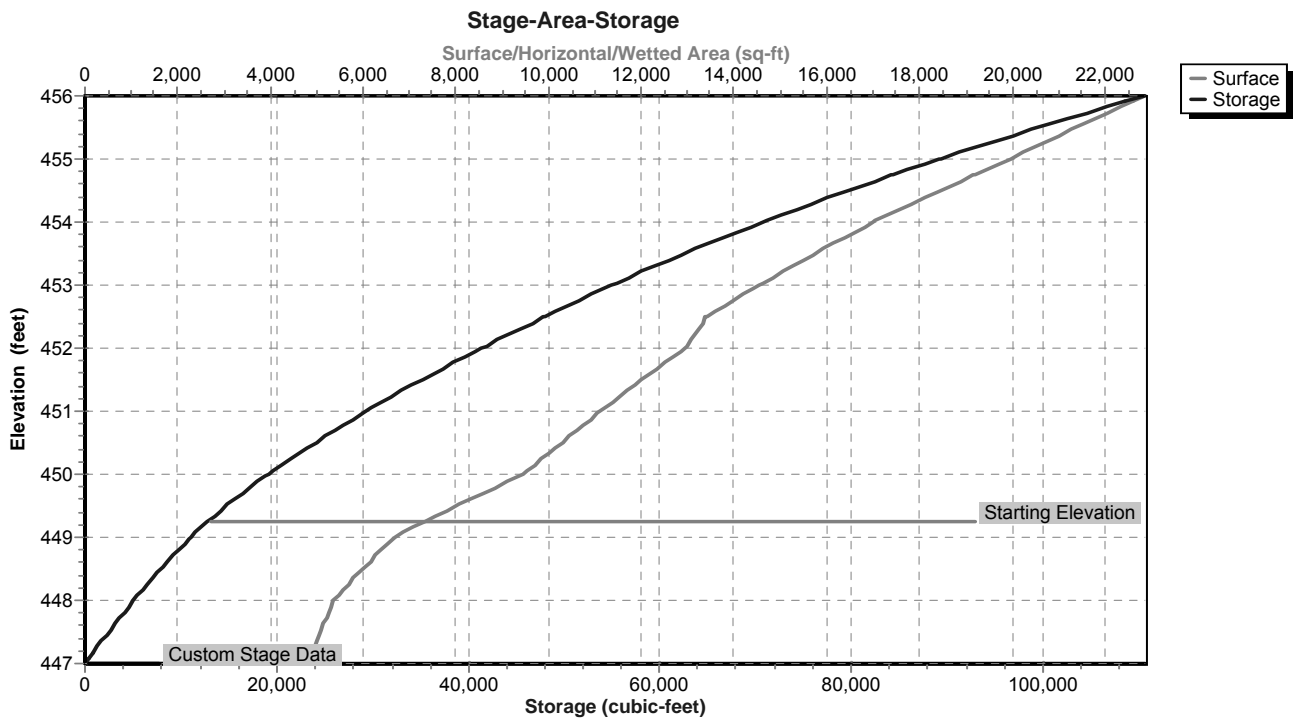
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)



Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth > 3.40" for 10 Year - North Salem event
 Inflow = 9.56 cfs @ 12.87 hrs, Volume= 2.371 af
 Outflow = 2.05 cfs @ 14.59 hrs, Volume= 2.366 af, Atten= 79%, Lag= 103.3 min
 Primary = 2.05 cfs @ 14.59 hrs, Volume= 2.366 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 485.39' @ 14.59 hrs Surf.Area= 12,778 sf Storage= 38,512 cf (30,901 cf above start)

Plug-Flow detention time= 3,213.7 min calculated for 2.191 af (92% of inflow)
 Center-of-Mass det. time= 2,204.5 min (4,620.5 - 2,416.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

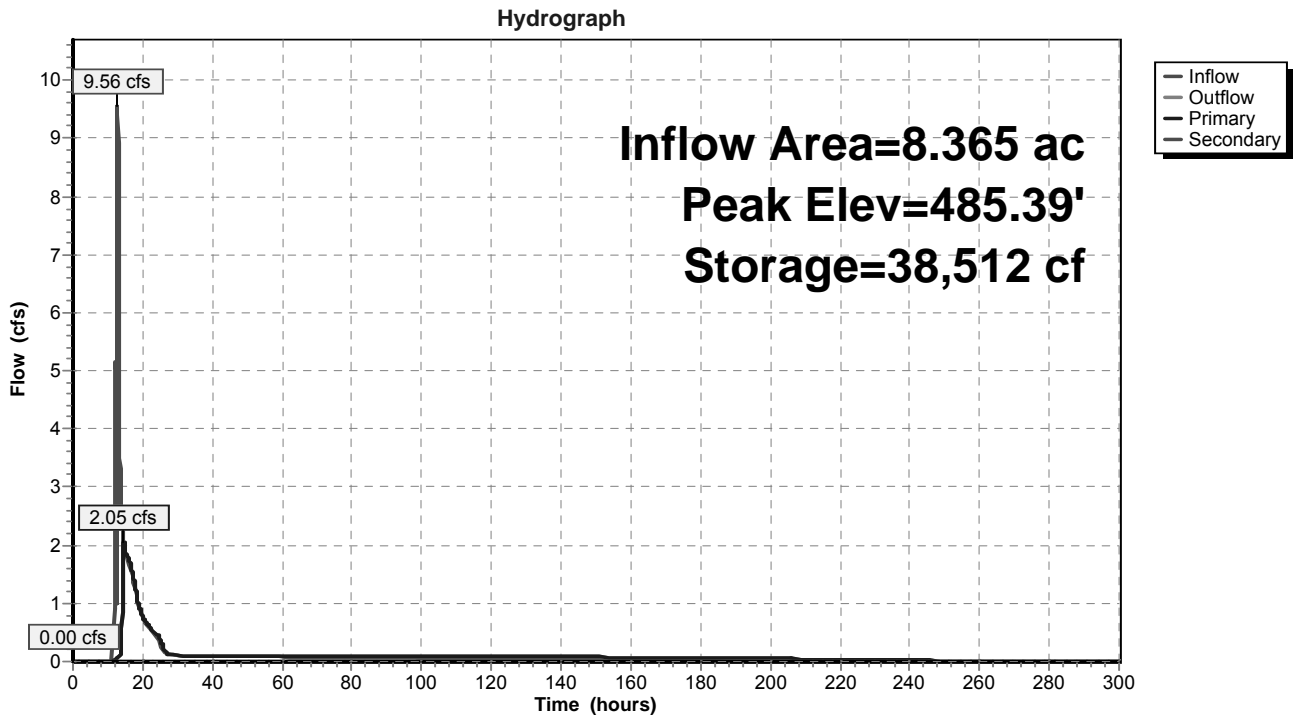
Primary OutFlow Max=2.04 cfs @ 14.59 hrs HW=485.39' (Free Discharge)

- 1=Outlet Pipe (Passes 2.04 cfs of 31.68 cfs potential flow)
- 2=Reverse Pipe Inlet (Outlet Controls 0.10 cfs @ 4.77 fps)
- 3=Orifice #1 (Orifice Controls 1.94 cfs @ 1.18 fps)
- 4=Top of Outlet Box (Controls 0.00 cfs)

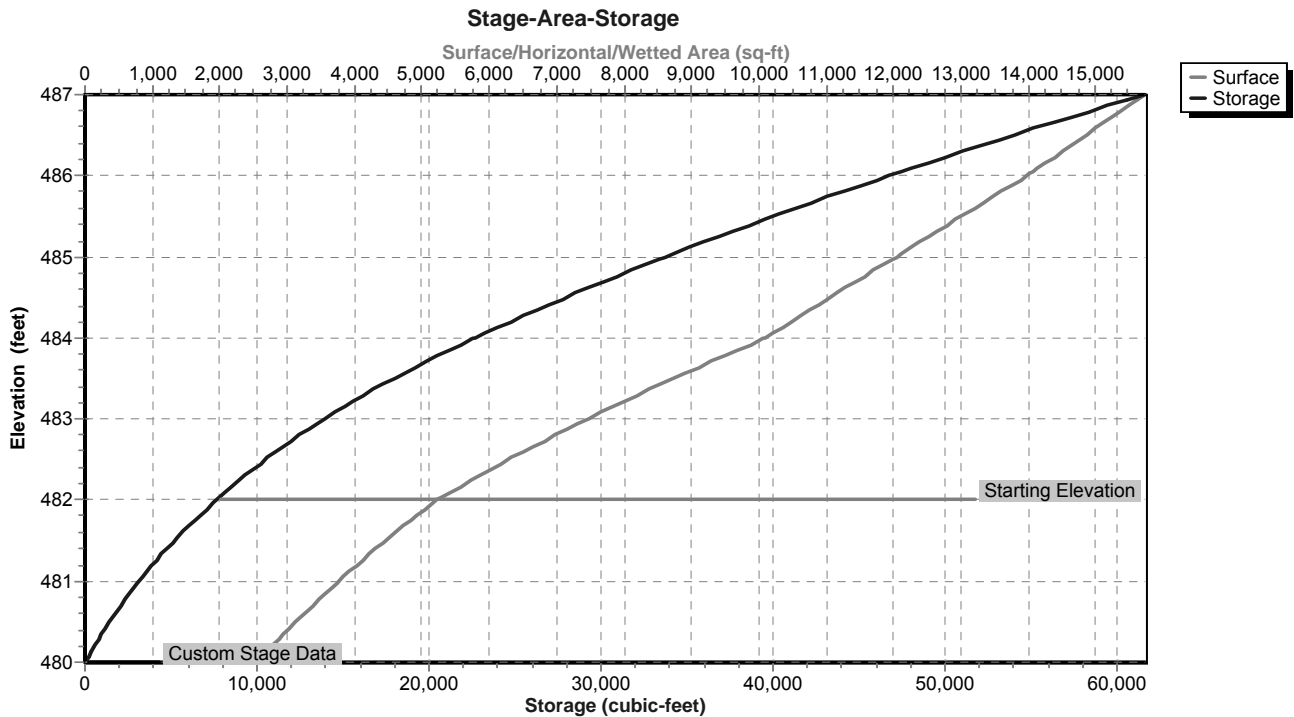
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
884.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 2.77" for 10 Year - North Salem event
 Inflow = 22.47 cfs @ 12.17 hrs, Volume= 1.985 af
 Outflow = 15.22 cfs @ 12.35 hrs, Volume= 1.985 af, Atten= 32%, Lag= 10.2 min
 Primary = 15.22 cfs @ 12.35 hrs, Volume= 1.985 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 519.24' @ 12.35 hrs Surf.Area= 9,064 sf Storage= 34,240 cf (27,187 cf above start)

Plug-Flow detention time= 794.7 min calculated for 1.823 af (92% of inflow)
 Center-of-Mass det. time= 684.2 min (1,523.0 - 838.8)

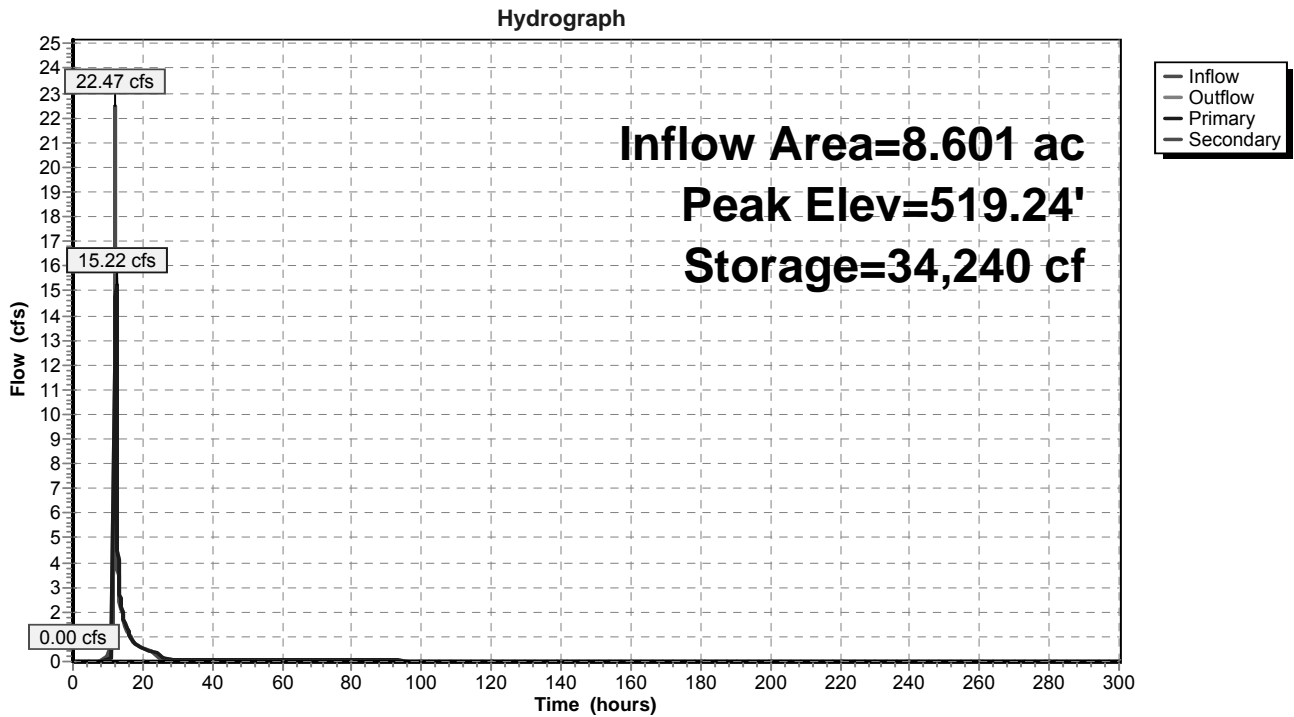
Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

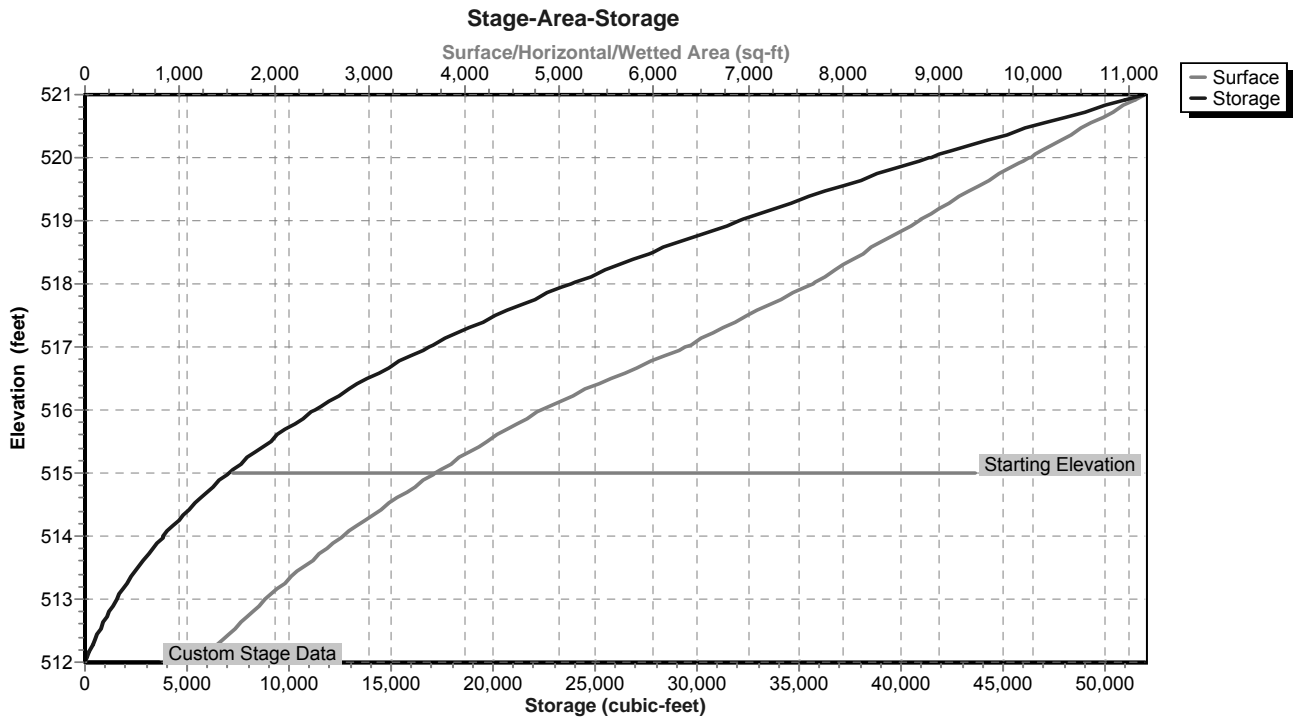
Primary OutFlow Max=15.15 cfs @ 12.35 hrs HW=519.24' (Free Discharge)
 1=Outlet Pipe (Passes 15.15 cfs of 57.85 cfs potential flow)
 2=Reverse Pipe Inlet (Outlet Controls 0.12 cfs @ 5.33 fps)
 3=Orifice #1 (Orifice Controls 15.03 cfs @ 2.76 fps)
 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K6: Micropool ED Basin - (Basin K6)



Pond ED-K6: Micropool ED Basin - (Basin K6)



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 3.83" for 10 Year - North Salem event
 Inflow = 37.62 cfs @ 12.19 hrs, Volume= 3.523 af
 Outflow = 37.62 cfs @ 12.19 hrs, Volume= 3.523 af, Atten= 0%, Lag= 0.0 min
 Primary = 24.27 cfs @ 12.19 hrs, Volume= 3.255 af
 Secondary = 13.35 cfs @ 12.19 hrs, Volume= 0.268 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 469.55' @ 12.19 hrs
 Flood Elev= 556.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=24.26 cfs @ 12.19 hrs HW=469.53' (Free Discharge)

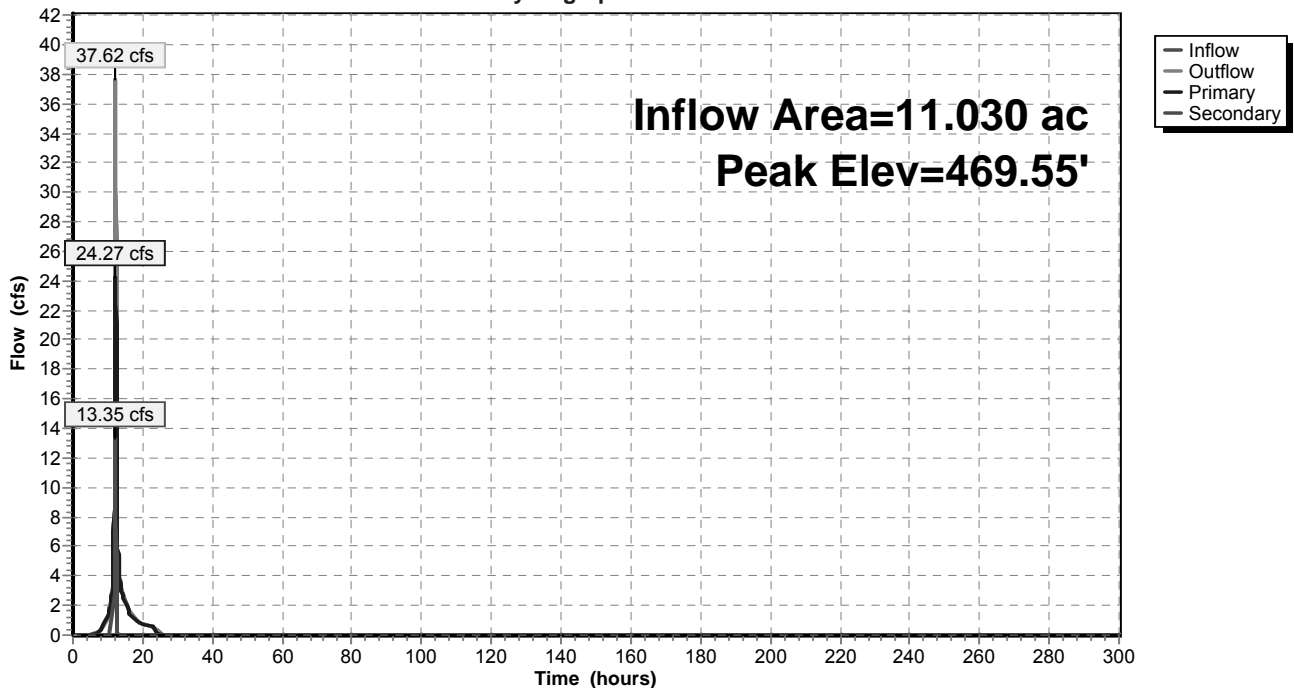
↳ **1=Outlet to Sand Filter** (Inlet Controls 24.26 cfs @ 7.72 fps)

Secondary OutFlow Max=13.23 cfs @ 12.19 hrs HW=469.53' (Free Discharge)

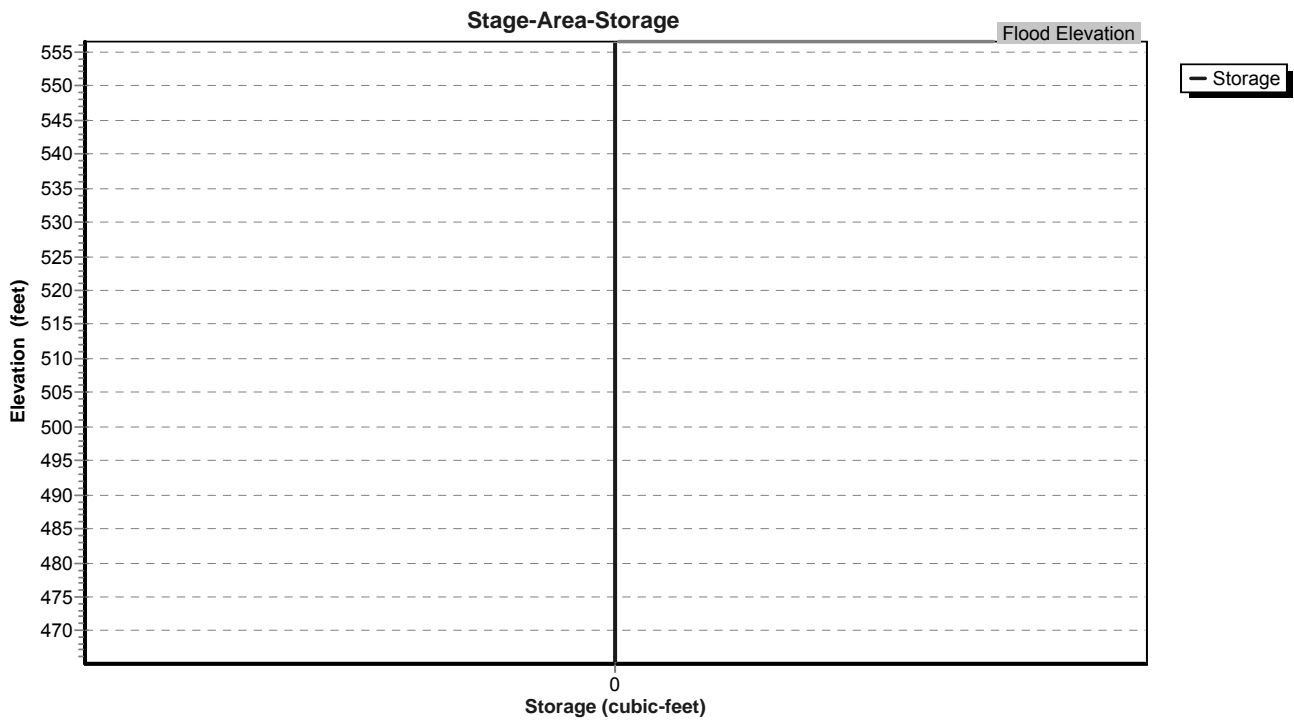
↳ **2=Outlet to Basin K3** (Inlet Controls 13.23 cfs @ 3.98 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Pond FS K3: Flow Splitter - K3



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 3.43" for 10 Year - North Salem event
 Inflow = 21.64 cfs @ 12.31 hrs, Volume= 2.392 af
 Outflow = 21.64 cfs @ 12.31 hrs, Volume= 2.392 af, Atten= 0%, Lag= 0.0 min
 Primary = 16.53 cfs @ 12.31 hrs, Volume= 2.252 af
 Secondary = 5.11 cfs @ 12.31 hrs, Volume= 0.139 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 507.54' @ 12.31 hrs
 Flood Elev= 556.50'

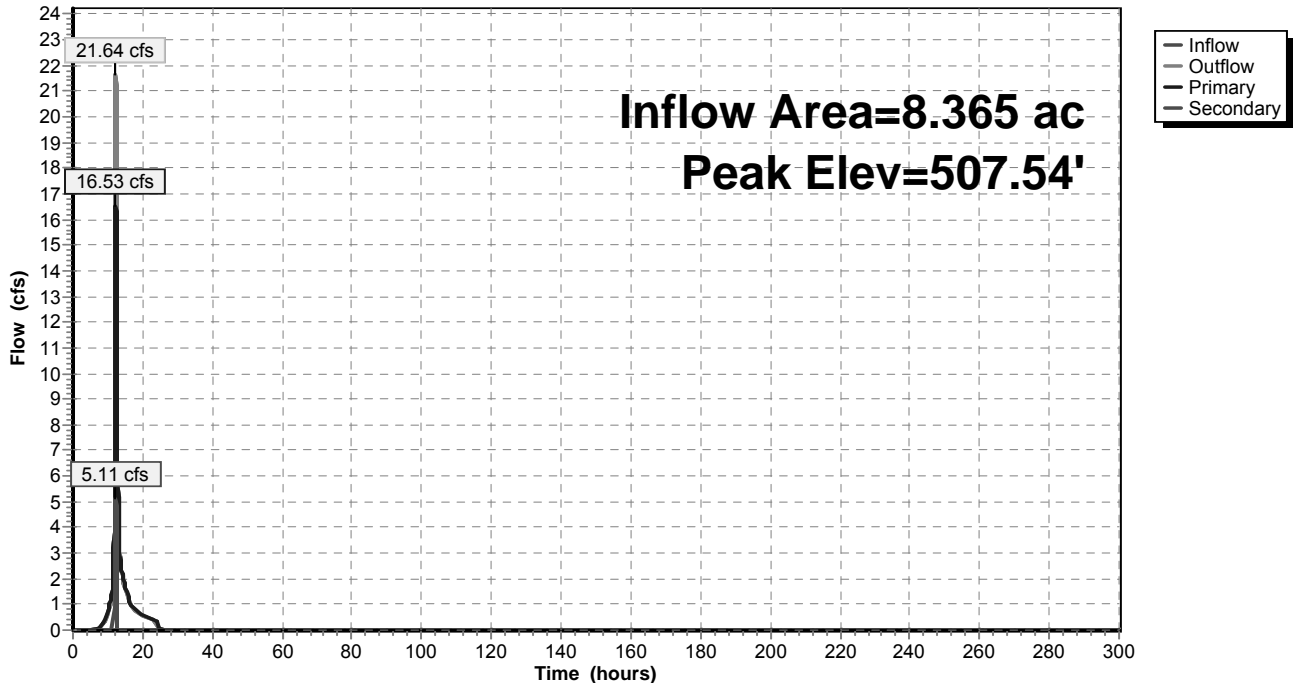
Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=16.54 cfs @ 12.31 hrs HW=507.54' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 16.54 cfs @ 5.27 fps)

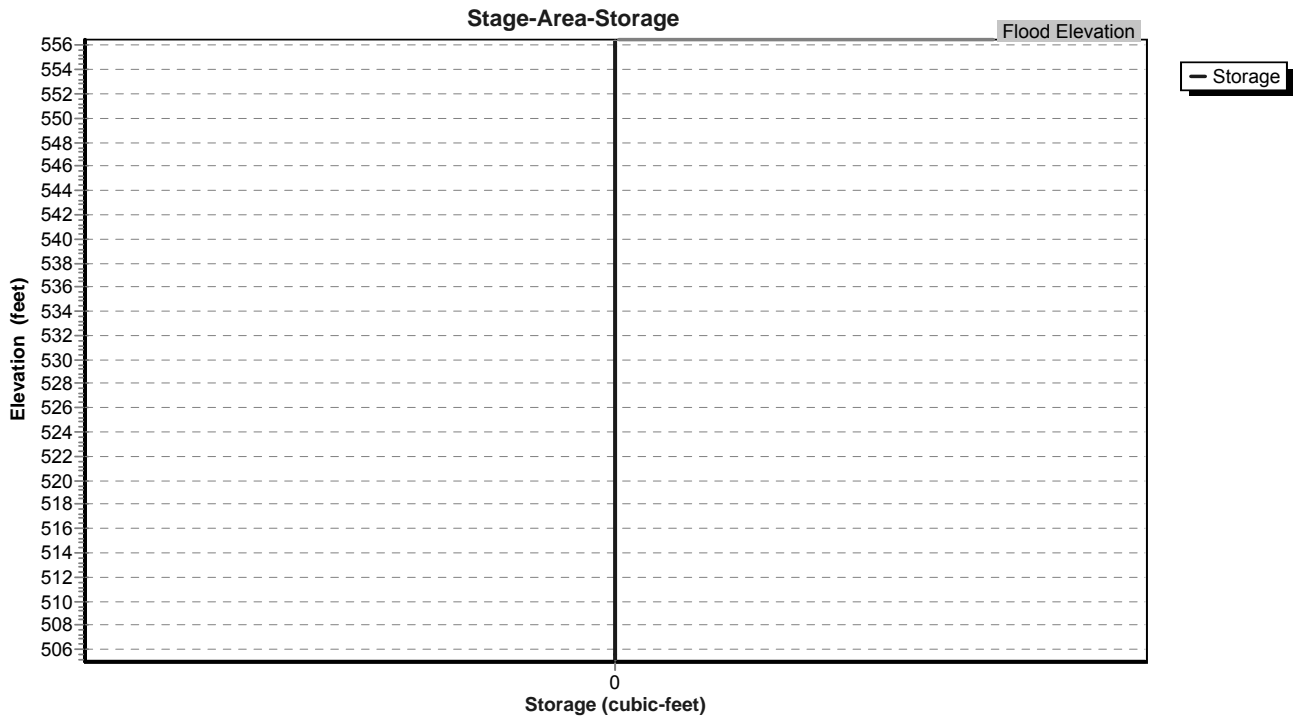
Secondary OutFlow Max=5.02 cfs @ 12.31 hrs HW=507.54' (Free Discharge)
 ↳2=Outlet to Basin K5 (Inlet Controls 5.02 cfs @ 3.06 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Pond FS-K5: Flow Splitter - K5



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 2.24" for 10 Year - North Salem event
 Inflow = 3.71 cfs @ 12.30 hrs, Volume= 0.382 af
 Outflow = 1.28 cfs @ 12.70 hrs, Volume= 0.382 af, Atten= 66%, Lag= 24.0 min
 Primary = 1.28 cfs @ 12.70 hrs, Volume= 0.382 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 426.21' @ 12.70 hrs Surf.Area= 2,121 sf Storage= 4,925 cf

Plug-Flow detention time= 643.2 min calculated for 0.382 af (100% of inflow)
 Center-of-Mass det. time= 643.0 min (1,522.9 - 879.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

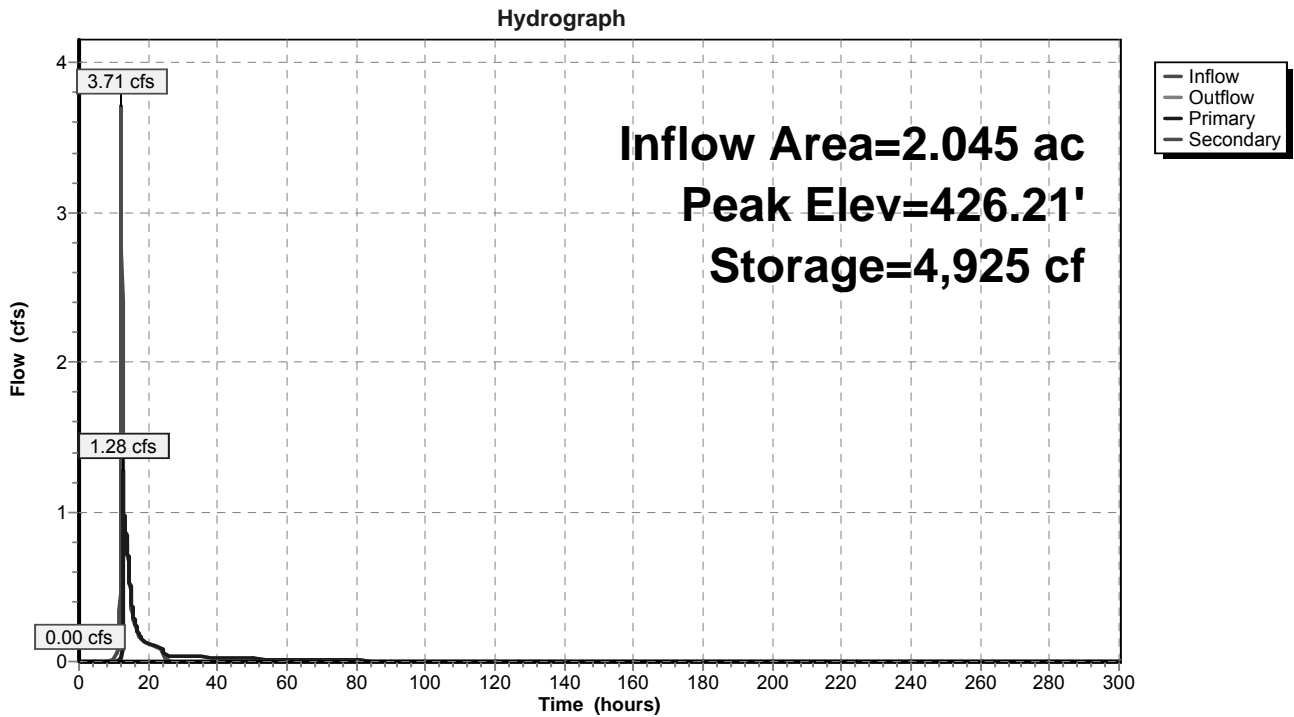
Primary OutFlow Max=1.27 cfs @ 12.70 hrs HW=426.21' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 1.27 cfs of 11.76 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.05 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 1.23 cfs @ 1.47 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

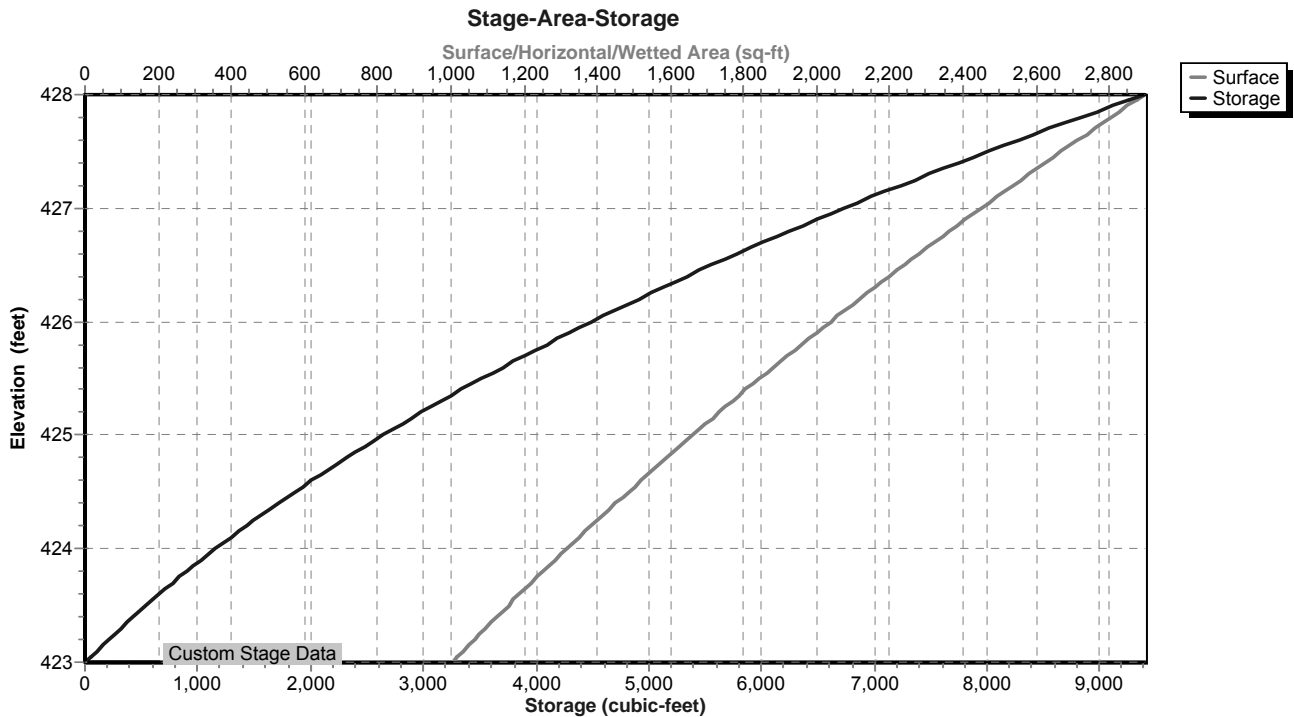
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K2: Sand Filter - K2



Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 OUTLET by 0.43'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 3.41" for 10 Year - North Salem event
 Inflow = 24.00 cfs @ 12.23 hrs, Volume= 3.132 af
 Outflow = 8.08 cfs @ 12.78 hrs, Volume= 3.096 af, Atten= 66%, Lag= 33.3 min
 Primary = 8.08 cfs @ 12.78 hrs, Volume= 3.096 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 461.43' @ 12.78 hrs Surf.Area= 18,584 sf Storage= 55,858 cf

Plug-Flow detention time= 1,905.1 min calculated for 3.095 af (99% of inflow)
 Center-of-Mass det. time= 1,894.4 min (2,807.6 - 913.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=8.05 cfs @ 12.78 hrs HW=461.43' (Free Discharge)

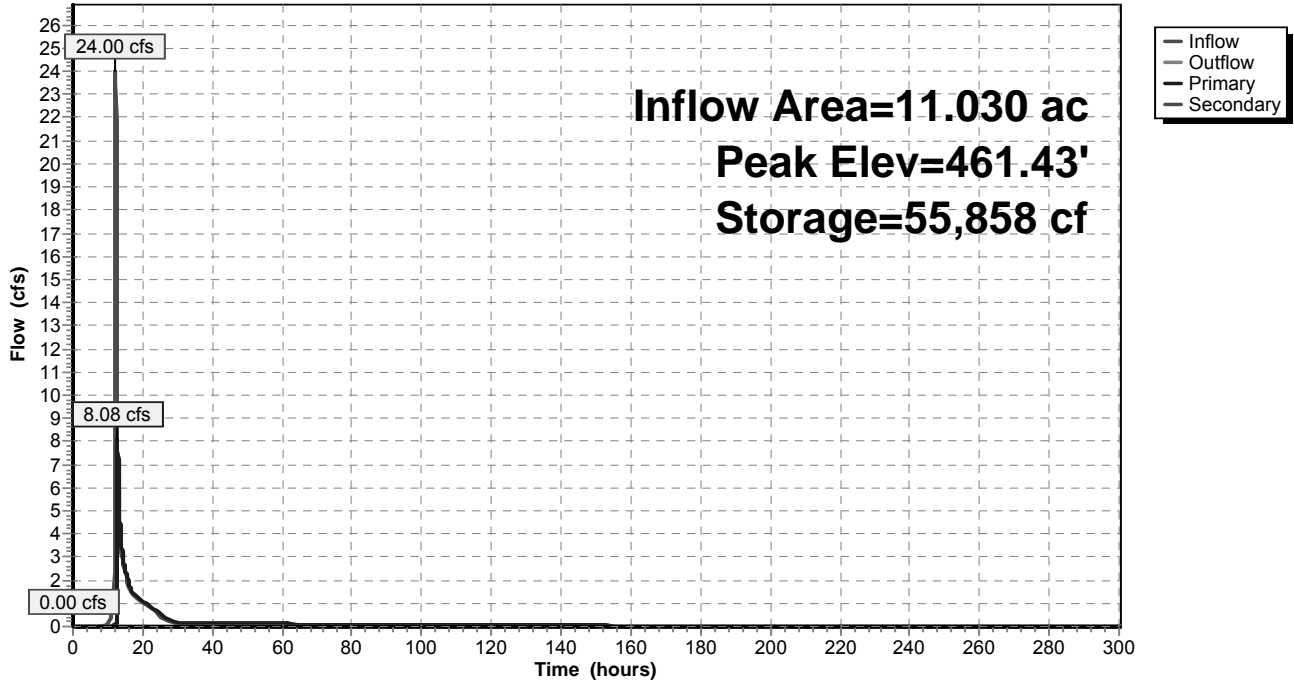
- 1=Outlet Pipe (Passes 8.05 cfs of 63.21 cfs potential flow)
- 2=Exfiltration (Exfiltration Controls 0.18 cfs)
- 3=Orifice #1 (Orifice Controls 7.86 cfs @ 2.11 fps)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

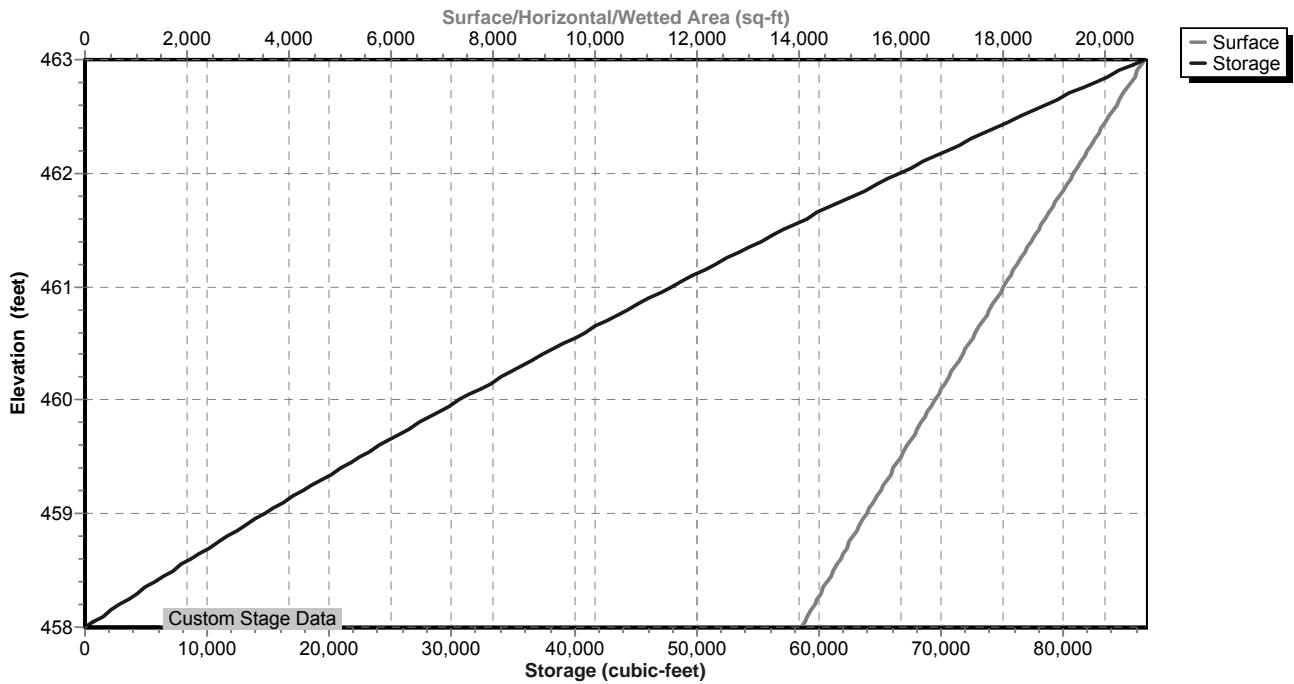
Pond SF-K3: Sand Filter -K3

Hydrograph



Pond SF-K3: Sand Filter -K3

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 3.23" for 10 Year - North Salem event
 Inflow = 15.35 cfs @ 12.42 hrs, Volume= 2.252 af
 Outflow = 9.56 cfs @ 12.87 hrs, Volume= 2.231 af, Atten= 38%, Lag= 26.4 min
 Primary = 9.56 cfs @ 12.87 hrs, Volume= 2.231 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 494.67' @ 12.87 hrs Surf.Area= 10,879 sf Storage= 34,605 cf

Plug-Flow detention time= 1,627.6 min calculated for 2.231 af (99% of inflow)
 Center-of-Mass det. time= 1,622.4 min (2,520.7 - 898.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

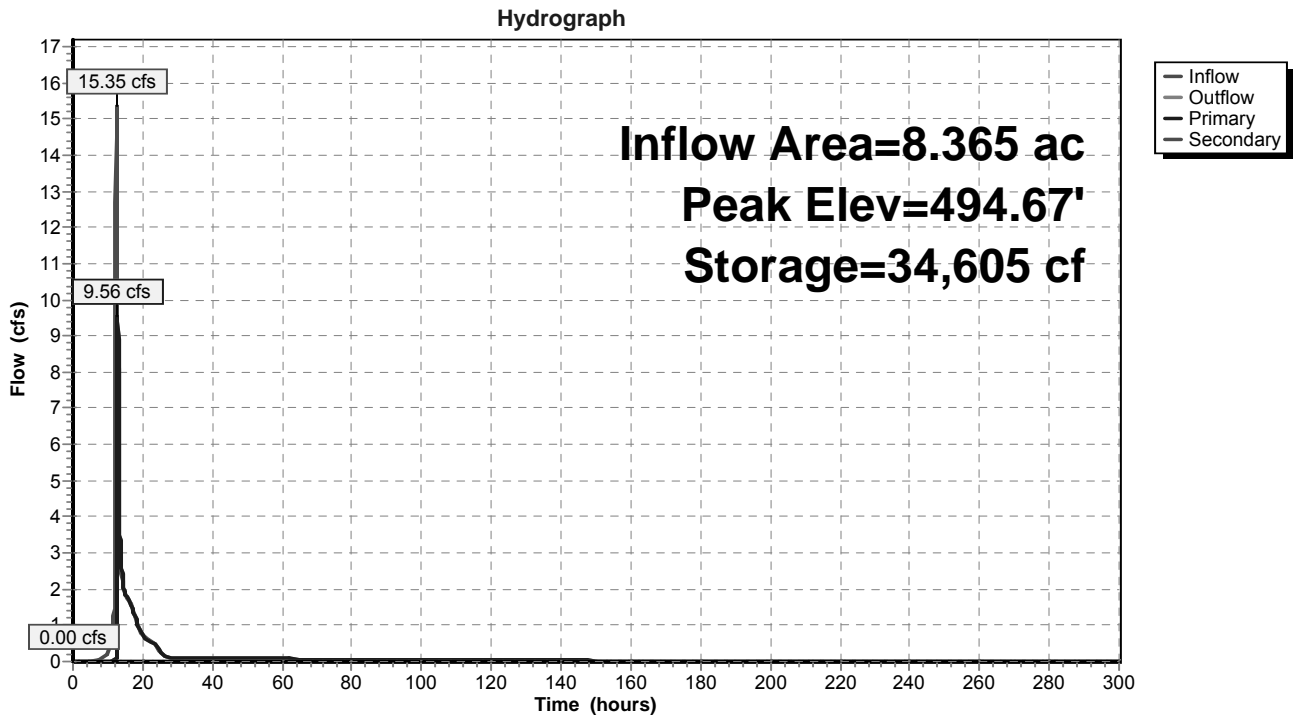
Primary OutFlow Max=9.47 cfs @ 12.87 hrs HW=494.67' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 9.47 cfs of 30.34 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.12 cfs)
- ↑ 3=Top of Outlet Box (Weir Controls 9.36 cfs @ 1.84 fps)

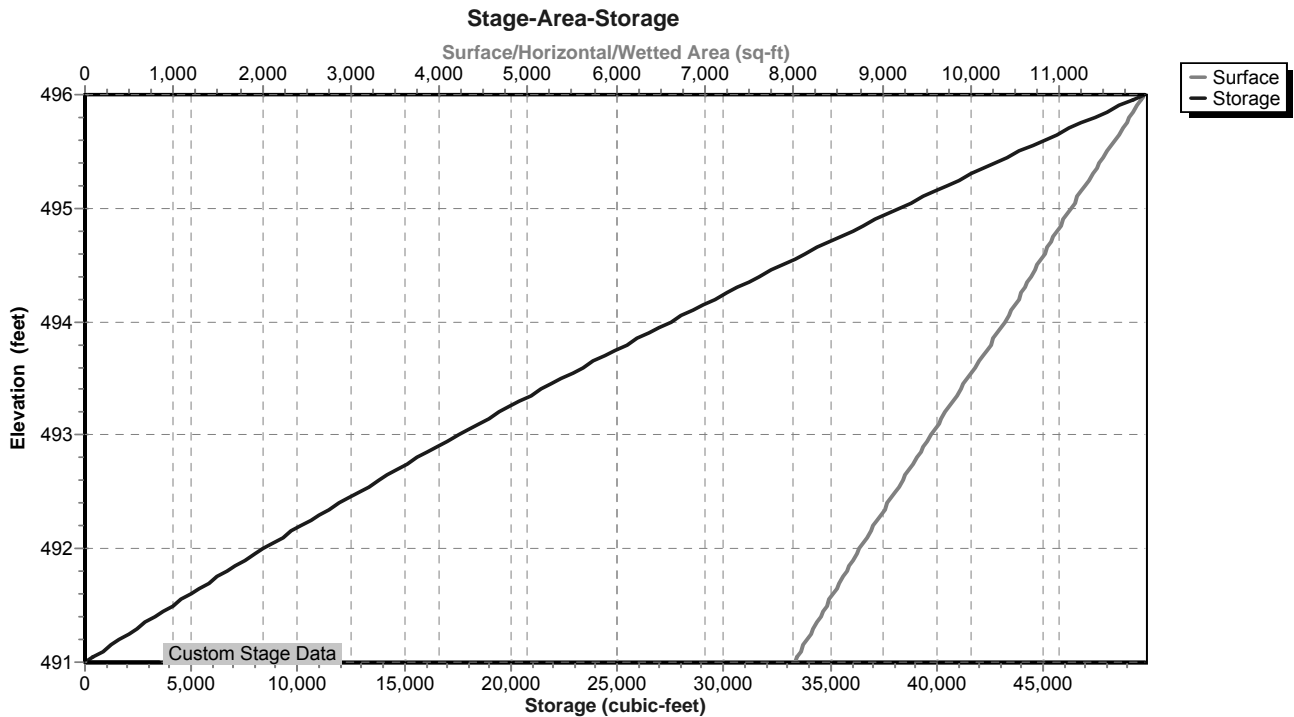
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K5: Sand Filter - K5



Pond SF-K5: Sand Filter - K5



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 2.24" for 10 Year - North Salem event
 Inflow = 4.16 cfs @ 12.19 hrs, Volume= 0.382 af
 Outflow = 3.71 cfs @ 12.30 hrs, Volume= 0.382 af, Atten= 11%, Lag= 6.5 min
 Primary = 3.71 cfs @ 12.30 hrs, Volume= 0.382 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 432.94' @ 12.30 hrs Surf.Area= 1,603 sf Storage= 2,909 cf

Plug-Flow detention time= 25.9 min calculated for 0.382 af (100% of inflow)
 Center-of-Mass det. time= 25.8 min (879.9 - 854.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
430.00	440	165.0	0	0	440
432.00	1,216	210.0	1,592	1,592	1,834
434.00	2,107	235.0	3,282	4,874	2,825

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

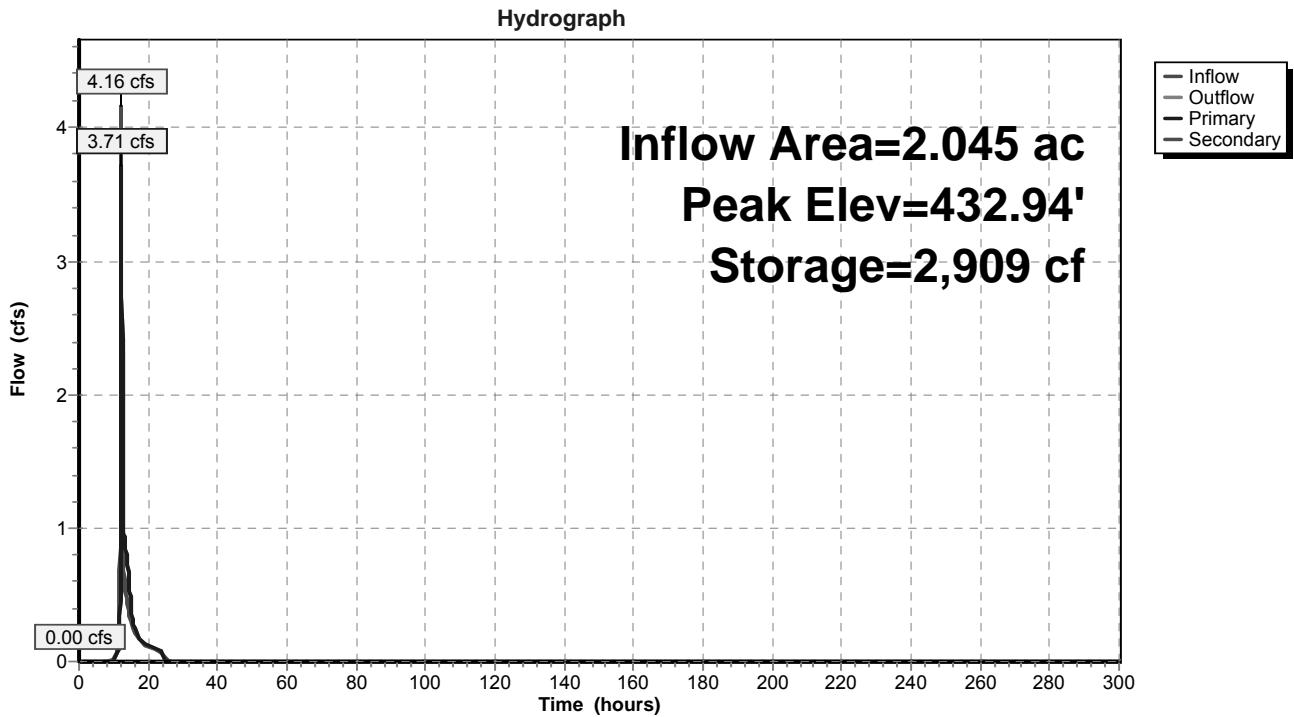
Primary OutFlow Max=3.68 cfs @ 12.30 hrs HW=432.94' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 3.68 cfs of 5.90 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 1.01 cfs @ 7.70 fps)
- ↑ 3=Top of Standpipe (Weir Controls 1.66 cfs @ 1.41 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 1.01 cfs @ 0.97 fps)

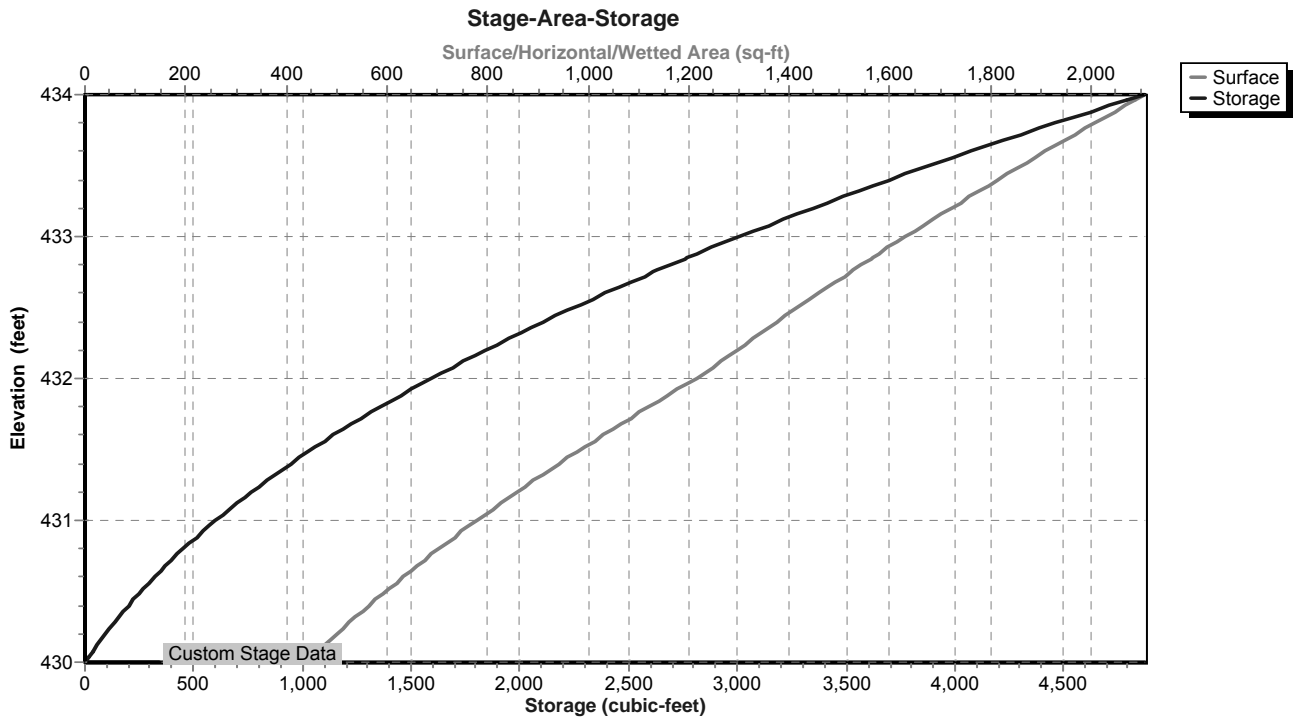
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K2: Sand Filter Forebay - K2



Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 3.54" for 10 Year - North Salem event
 Inflow = 24.27 cfs @ 12.19 hrs, Volume= 3.255 af
 Outflow = 24.00 cfs @ 12.23 hrs, Volume= 3.132 af, Atten= 1%, Lag= 1.9 min
 Primary = 24.00 cfs @ 12.23 hrs, Volume= 3.132 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.76' @ 12.23 hrs Surf.Area= 7,295 sf Storage= 23,150 cf

Plug-Flow detention time= 116.6 min calculated for 3.131 af (96% of inflow)
 Center-of-Mass det. time= 95.2 min (913.2 - 817.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
461.00	5,065	273.0	0	0	5,065
462.00	5,623	285.0	5,342	5,342	5,666
464.00	6,813	310.0	12,417	17,759	6,991
464.50	7,126	319.0	3,484	21,243	7,468
465.00	7,447	323.0	3,643	24,886	7,728
466.00	8,104	336.0	7,773	32,659	8,486

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

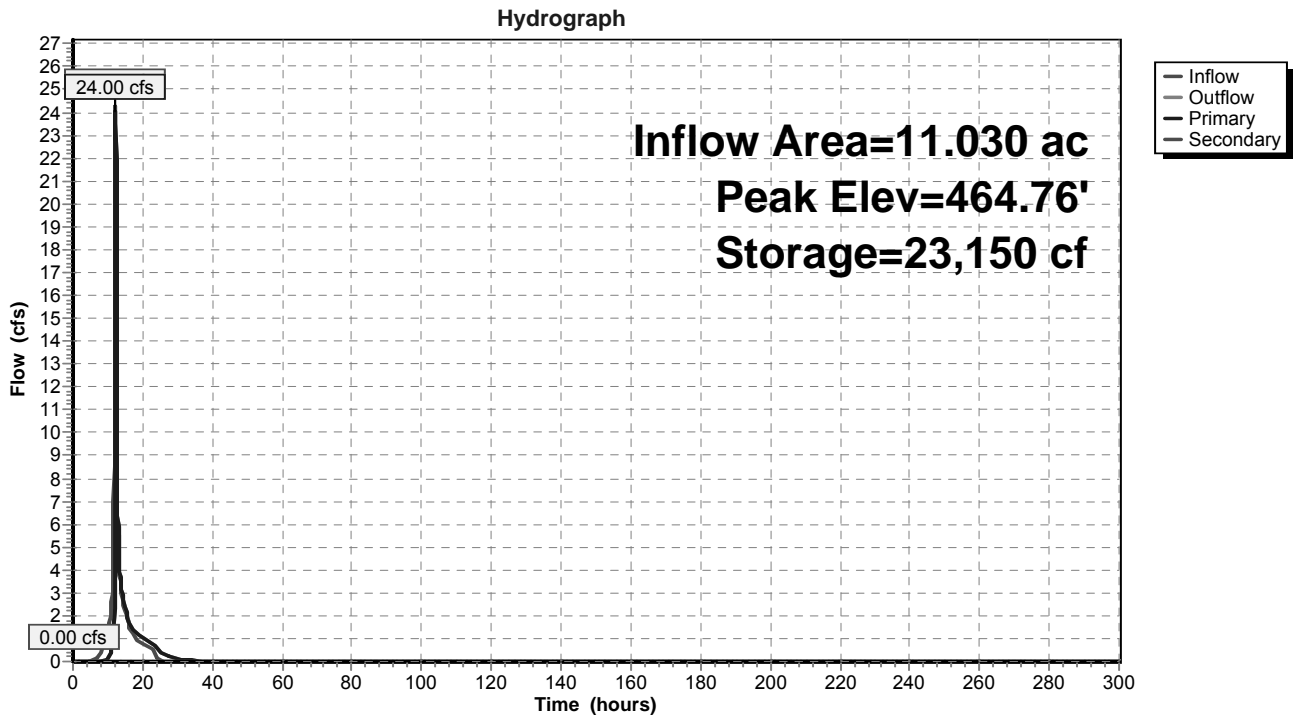
Primary OutFlow Max=23.88 cfs @ 12.23 hrs HW=464.76' (Free Discharge)

- 1=Outlet Pipe (Passes 23.88 cfs of 38.53 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 1.71 cfs @ 6.54 fps)
- 3=Top of Standpipe (Weir Controls 15.10 cfs @ 2.34 fps)
- 4=Orifice #1 (Orifice Controls 7.08 cfs @ 2.30 fps)
- 5=Top of Outlet Box (Controls 0.00 cfs)

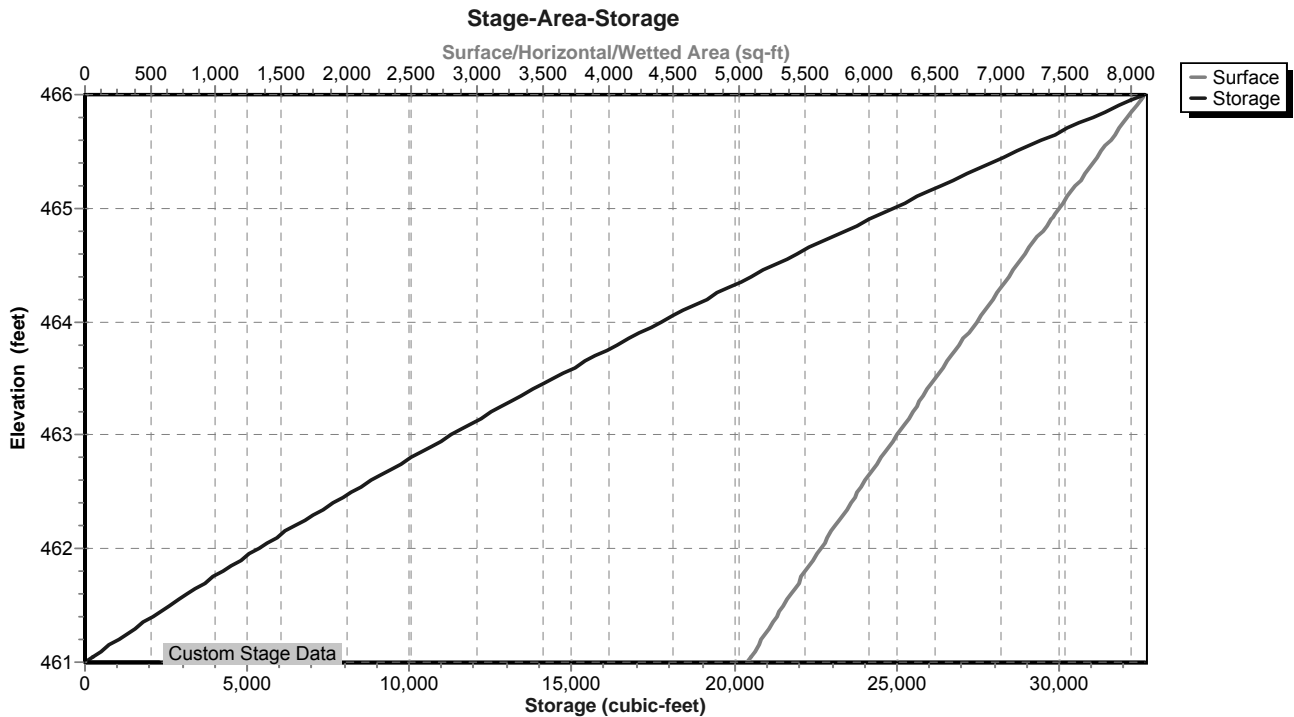
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

- 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K3: Sand Filter Forebay - K3



Pond SFF-K3: Sand Filter Forebay - K3



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 3.23" for 10 Year - North Salem event
 Inflow = 16.53 cfs @ 12.31 hrs, Volume= 2.252 af
 Outflow = 15.35 cfs @ 12.42 hrs, Volume= 2.252 af, Atten= 7%, Lag= 7.2 min
 Primary = 15.35 cfs @ 12.42 hrs, Volume= 2.252 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 504.31' @ 12.42 hrs Surf.Area= 5,043 sf Storage= 16,889 cf

Plug-Flow detention time= 62.6 min calculated for 2.252 af (100% of inflow)
 Center-of-Mass det. time= 62.7 min (898.4 - 835.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
500.00	2,880	224.0	0	0	2,880
502.00	3,826	250.0	6,684	6,684	3,969
504.00	4,874	275.0	8,679	15,363	5,138
505.00	5,434	287.0	5,151	20,514	5,744
506.00	6,021	300.0	5,725	26,239	6,418

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

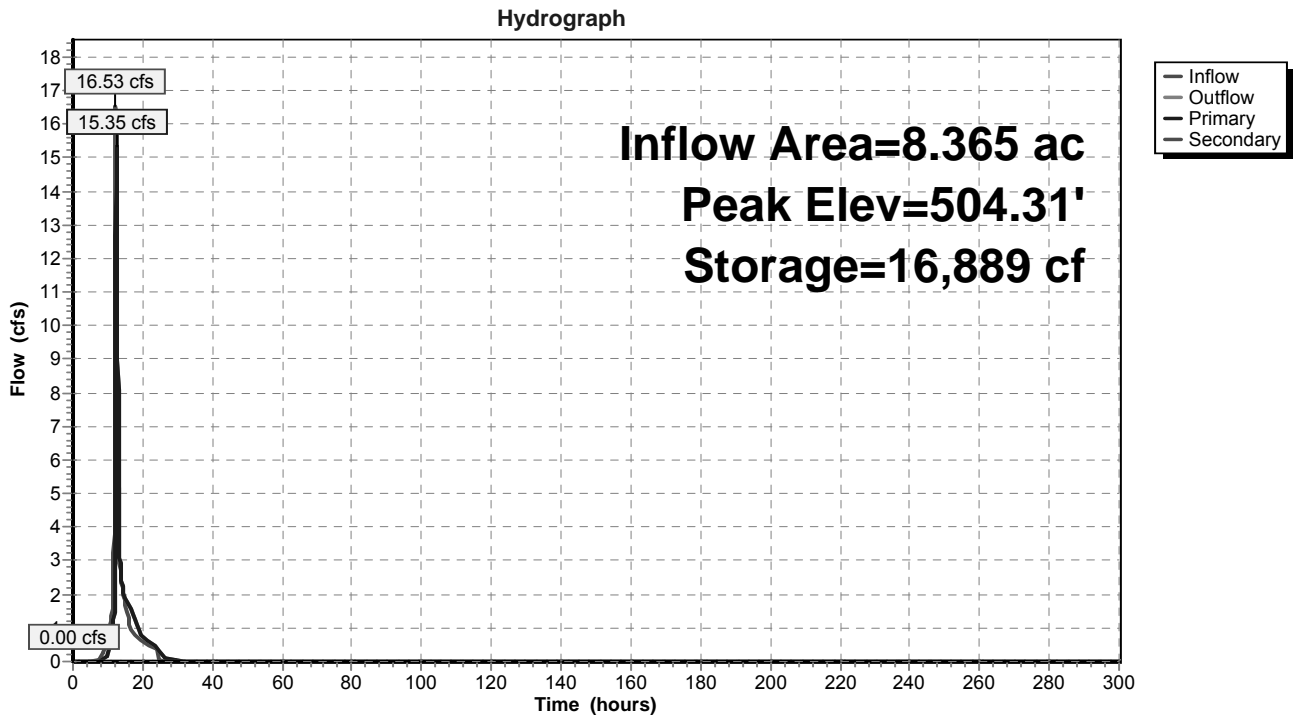
Primary OutFlow Max=15.25 cfs @ 12.42 hrs HW=504.30' (Free Discharge)

- 1=Outlet Pipe (Passes 15.25 cfs of 27.49 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 2.33 cfs @ 8.88 fps)
- 3=Top of Standpipe (Orifice Controls 9.71 cfs @ 5.50 fps)
- 4=Orifice #1 (Orifice Controls 3.21 cfs @ 1.77 fps)
- 5=Top of Outlet Box (Controls 0.00 cfs)

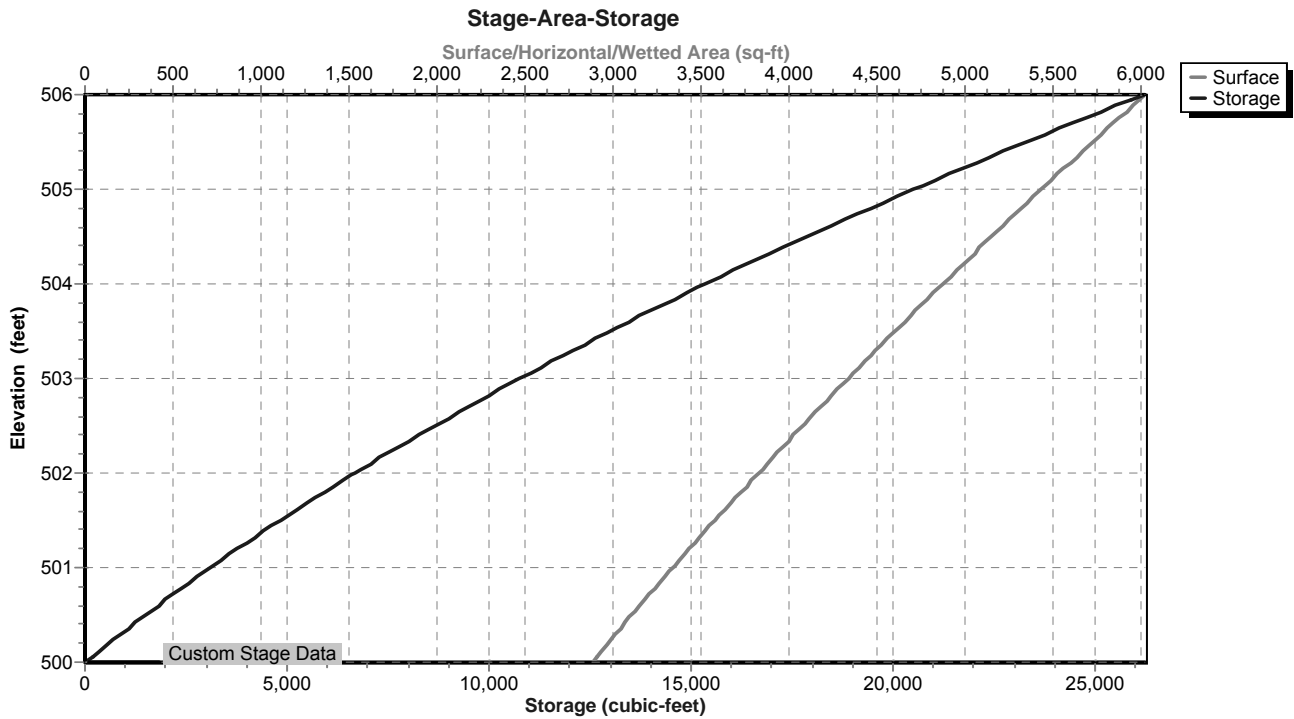
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

- 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K5: Sand Filter Forebay - K5



Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-DevelopmentK1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=3.51"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=98.40 cfs 10.716 af

Subcatchment K2: Post-DevelopmentK2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=3.41"
Flow Length=799' Tc=13.0 min CN=68 Runoff=6.43 cfs 0.581 af

Subcatchment K3: Post-DevelopmentK3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=5.25"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=50.92 cfs 4.828 af

Subcatchment K4: Post-DevelopmentK4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=281' Tc=11.3 min CN=60 Runoff=2.68 cfs 0.236 af

Subcatchment K5: Post-DevelopmentK5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=4.81"
Flow Length=542' Tc=22.2 min CN=81 Runoff=30.09 cfs 3.350 af

Subcatchment K6: Post-DevelopmentK6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=4.04"
Flow Length=981' Tc=12.4 min CN=74 Runoff=32.90 cfs 2.897 af

Pond DP 11: Design Point 11 Inflow=129.72 cfs 22.239 af
Primary=129.72 cfs 22.239 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=453.86' Storage=68,391 cf Inflow=25.41 cfs 4.905 af
Primary=10.34 cfs 4.721 af Secondary=0.00 cfs 0.000 af Outflow=10.34 cfs 4.721 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=485.66' Storage=42,086 cf Inflow=20.04 cfs 3.328 af
Primary=10.24 cfs 3.323 af Secondary=0.00 cfs 0.000 af Outflow=10.24 cfs 3.323 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=519.63' Storage=37,870 cf Inflow=32.90 cfs 2.897 af
Primary=28.56 cfs 2.897 af Secondary=0.00 cfs 0.000 af Outflow=28.56 cfs 2.897 af

Pond FS K3: Flow Splitter - K3 Peak Elev=470.71' Inflow=50.92 cfs 4.828 af
Primary=28.24 cfs 4.256 af Secondary=22.68 cfs 0.572 af Outflow=50.92 cfs 4.828 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=508.14' Inflow=30.09 cfs 3.350 af
Primary=19.53 cfs 3.015 af Secondary=10.55 cfs 0.334 af Outflow=30.09 cfs 3.350 af

Pond SF-K2: Sand Filter - K2 Peak Elev=426.50' Storage=5,570 cf Inflow=6.23 cfs 0.581 af
Primary=4.66 cfs 0.581 af Secondary=0.00 cfs 0.000 af Outflow=4.66 cfs 0.581 af

Pond SF-K3: Sand Filter -K3 Peak Elev=461.74' Storage=61,581 cf Inflow=27.91 cfs 4.134 af
Primary=18.61 cfs 4.097 af Secondary=0.00 cfs 0.000 af Outflow=18.61 cfs 4.097 af

Pond SF-K5: Sand Filter - K5 Peak Elev=494.81' Storage=36,102 cf Inflow=18.89 cfs 3.015 af
Primary=16.23 cfs 2.994 af Secondary=0.00 cfs 0.000 af Outflow=16.23 cfs 2.994 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=433.03' Storage=3,067 cf Inflow=6.43 cfs 0.581 af
Primary=6.00 cfs 0.579 af Secondary=0.23 cfs 0.002 af Outflow=6.23 cfs 0.581 af

Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=464.82' Storage=23,575 cf Inflow=28.24 cfs 4.256 af
Primary=27.91 cfs 4.134 af Secondary=0.00 cfs 0.000 af Outflow=27.91 cfs 4.134 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=504.47' Storage=17,708 cf Inflow=19.53 cfs 3.015 af
Primary=18.89 cfs 3.015 af Secondary=0.00 cfs 0.000 af Outflow=18.89 cfs 3.015 af

Total Runoff Area = 67.727 ac Runoff Volume = 22.609 af Average Runoff Depth = 4.01"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 98.40 cfs @ 12.30 hrs, Volume= 10.716 af, Depth= 3.51"

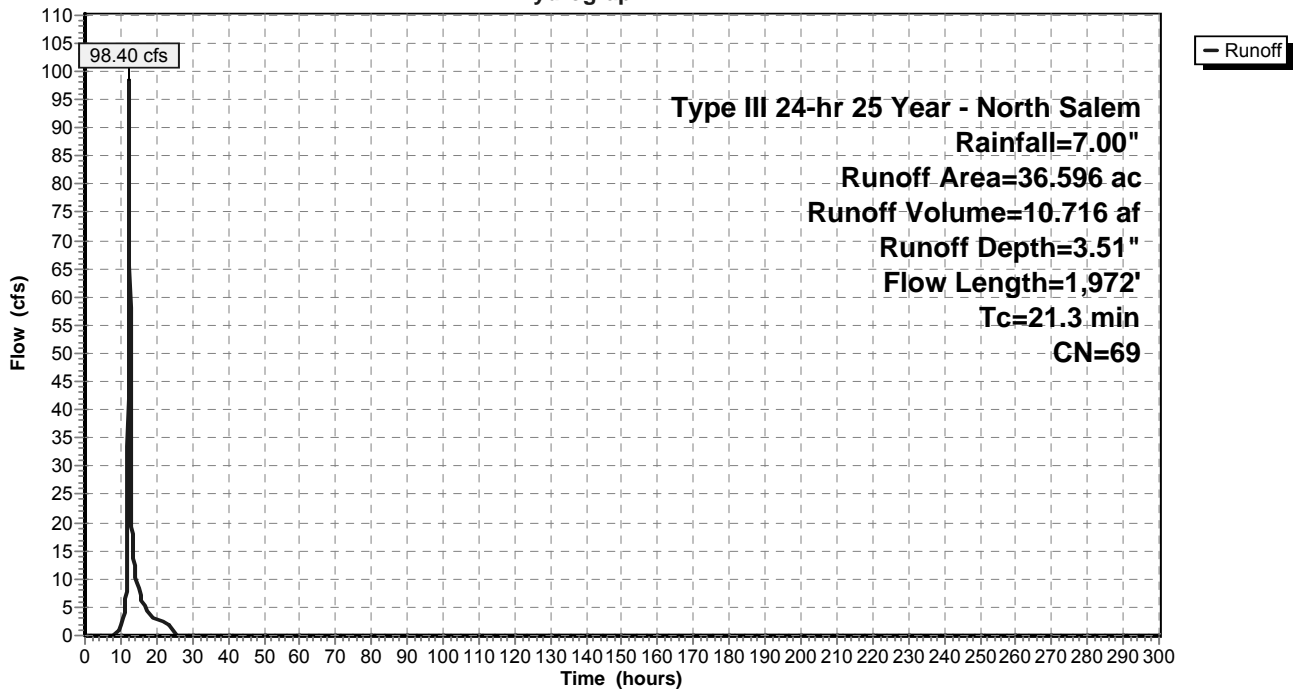
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

Runoff = 6.43 cfs @ 12.19 hrs, Volume= 0.581 af, Depth= 3.41"

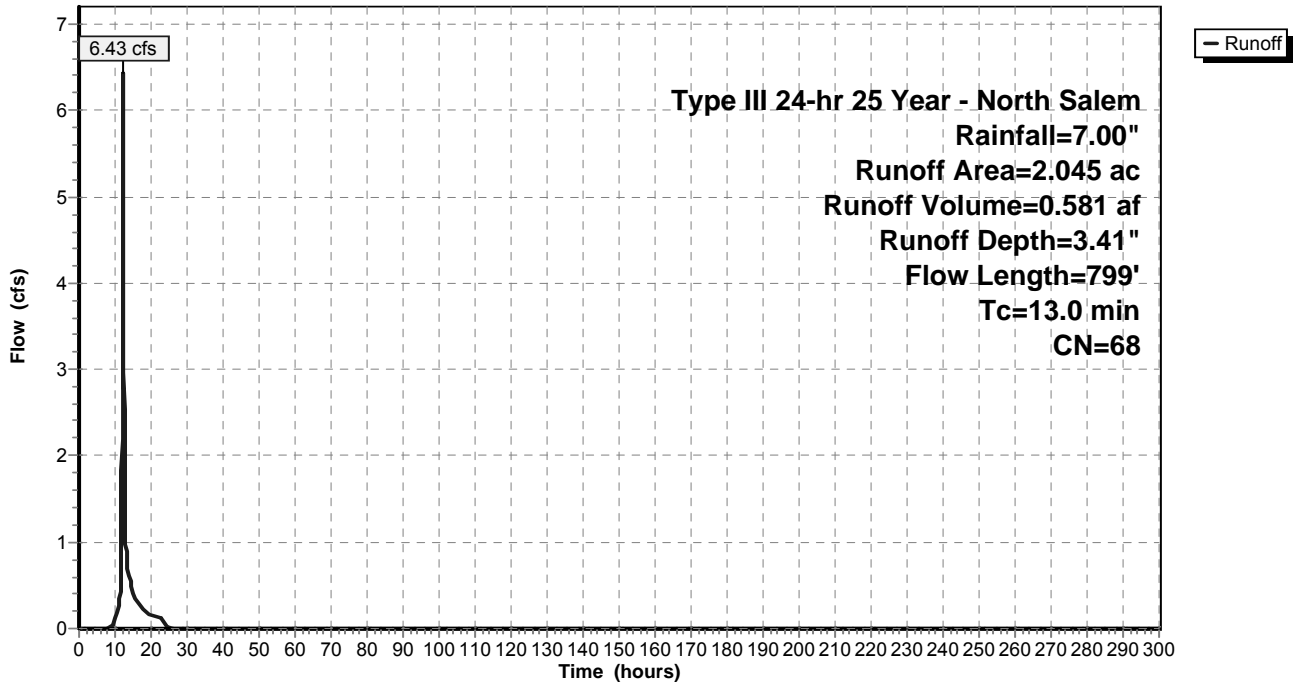
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2

Hydrograph



Summary for Subcatchment K3: Post-Development K3

Runoff = 50.92 cfs @ 12.19 hrs, Volume= 4.828 af, Depth= 5.25"

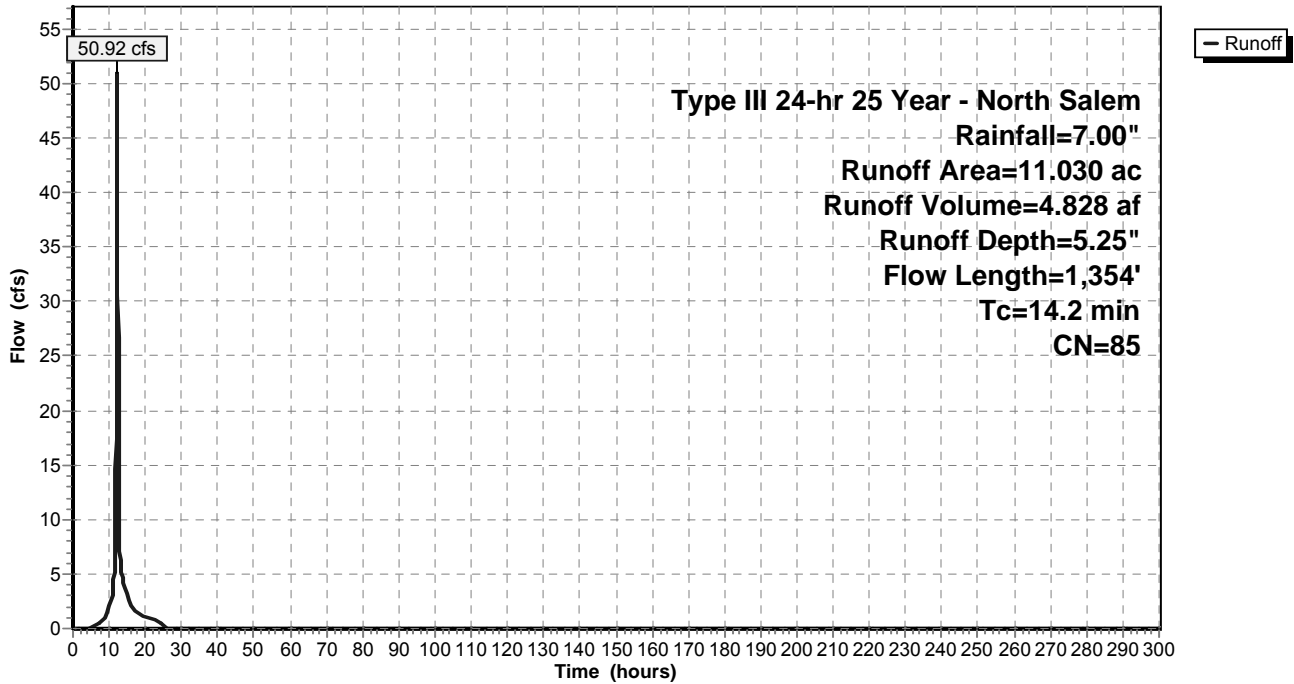
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

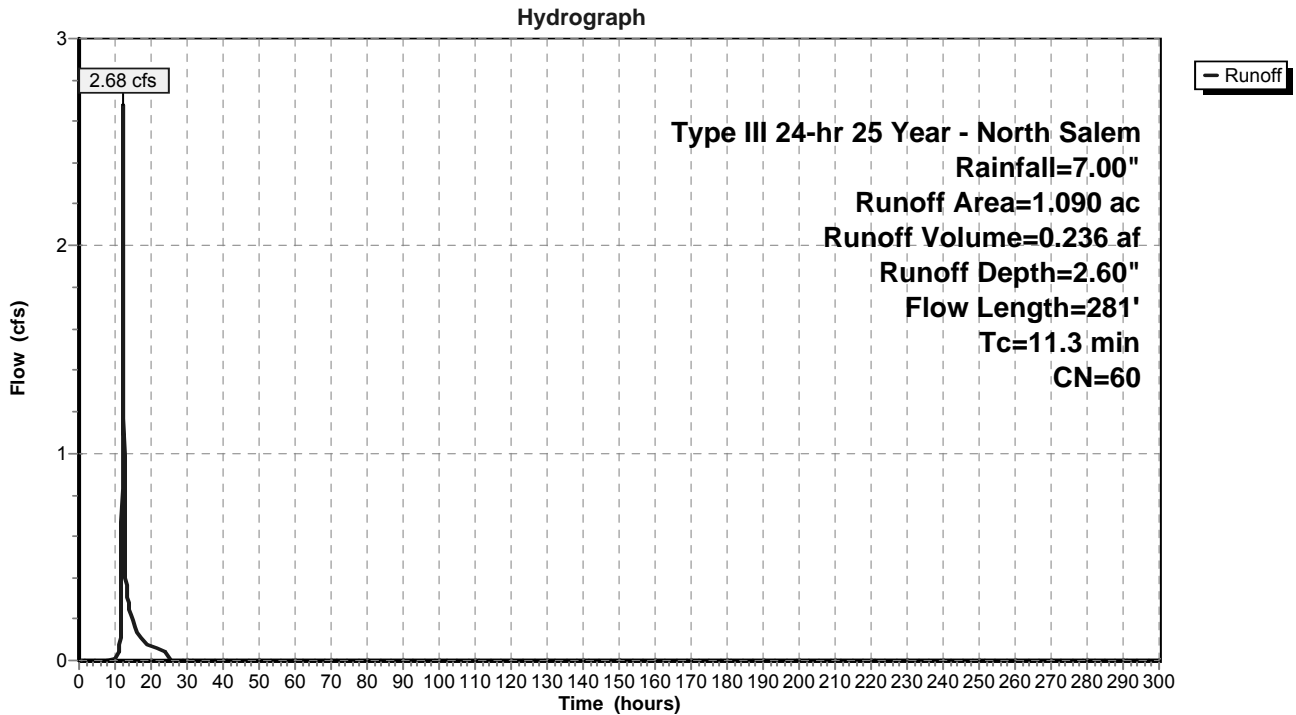
Runoff = 2.68 cfs @ 12.17 hrs, Volume= 0.236 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4



Summary for Subcatchment K5: Post-Development K5

Runoff = 30.09 cfs @ 12.30 hrs, Volume= 3.350 af, Depth= 4.81"

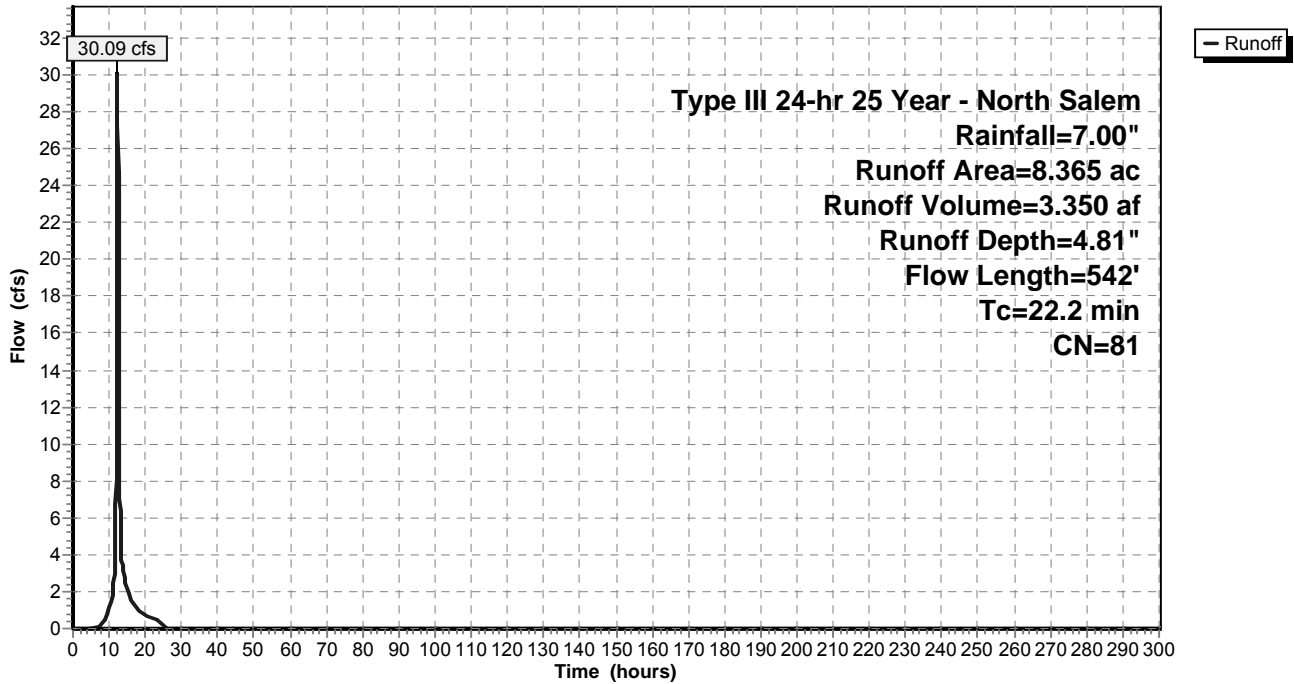
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 32.90 cfs @ 12.17 hrs, Volume= 2.897 af, Depth= 4.04"

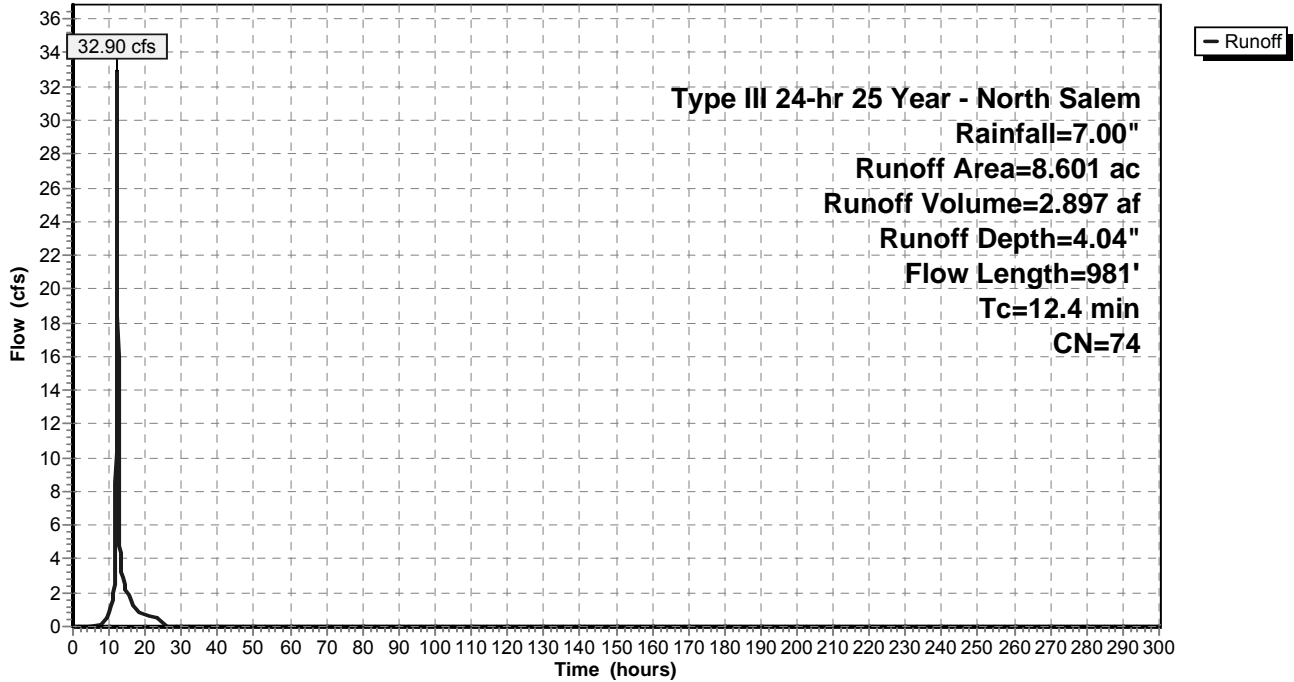
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



Summary for Pond DP 11: Design Point 11

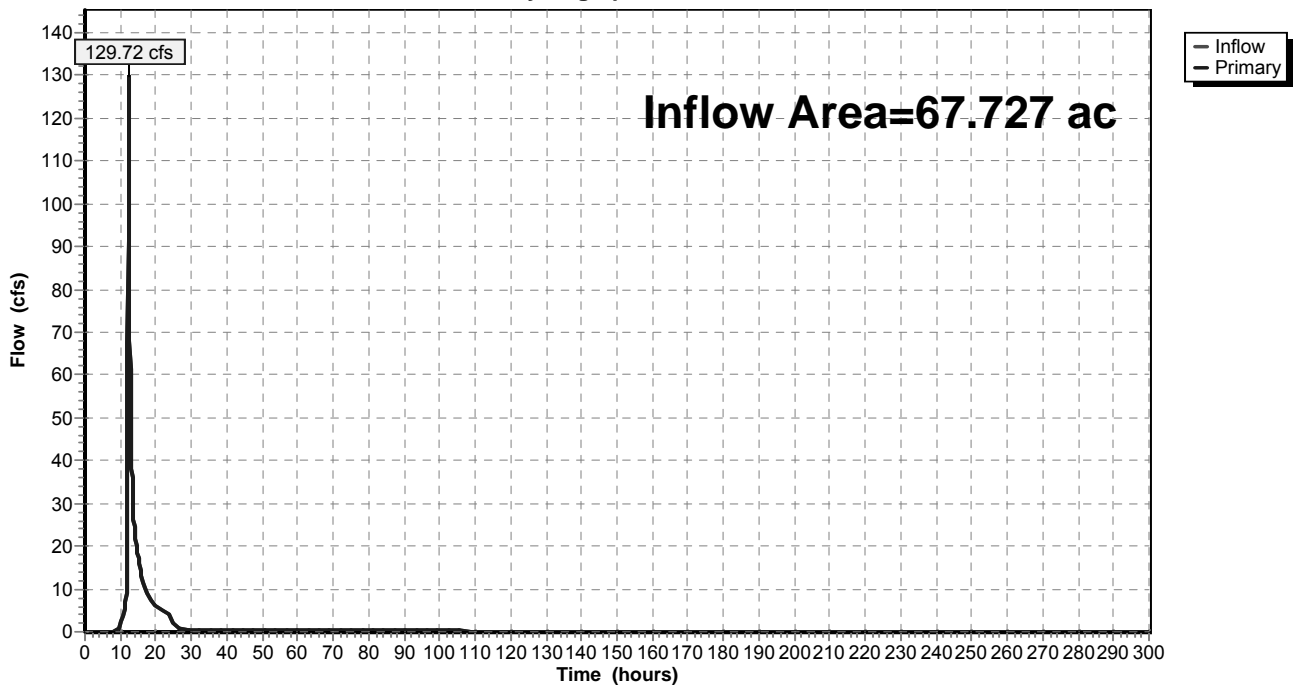
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth > 3.94" for 25 Year - North Salem event
Inflow = 129.72 cfs @ 12.30 hrs, Volume= 22.239 af
Primary = 129.72 cfs @ 12.30 hrs, Volume= 22.239 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth > 4.86" for 25 Year - North Salem event
 Inflow = 25.41 cfs @ 12.19 hrs, Volume= 4.905 af
 Outflow = 10.34 cfs @ 13.00 hrs, Volume= 4.721 af, Atten= 59%, Lag= 48.4 min
 Primary = 10.34 cfs @ 13.00 hrs, Volume= 4.721 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 453.86' @ 13.00 hrs Surf.Area= 16,652 sf Storage= 68,391 cf (55,555 cf above start)

Plug-Flow detention time= 2,992.5 min calculated for 4.426 af (90% of inflow)
 Center-of-Mass det. time= 1,980.0 min (4,063.9 - 2,083.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

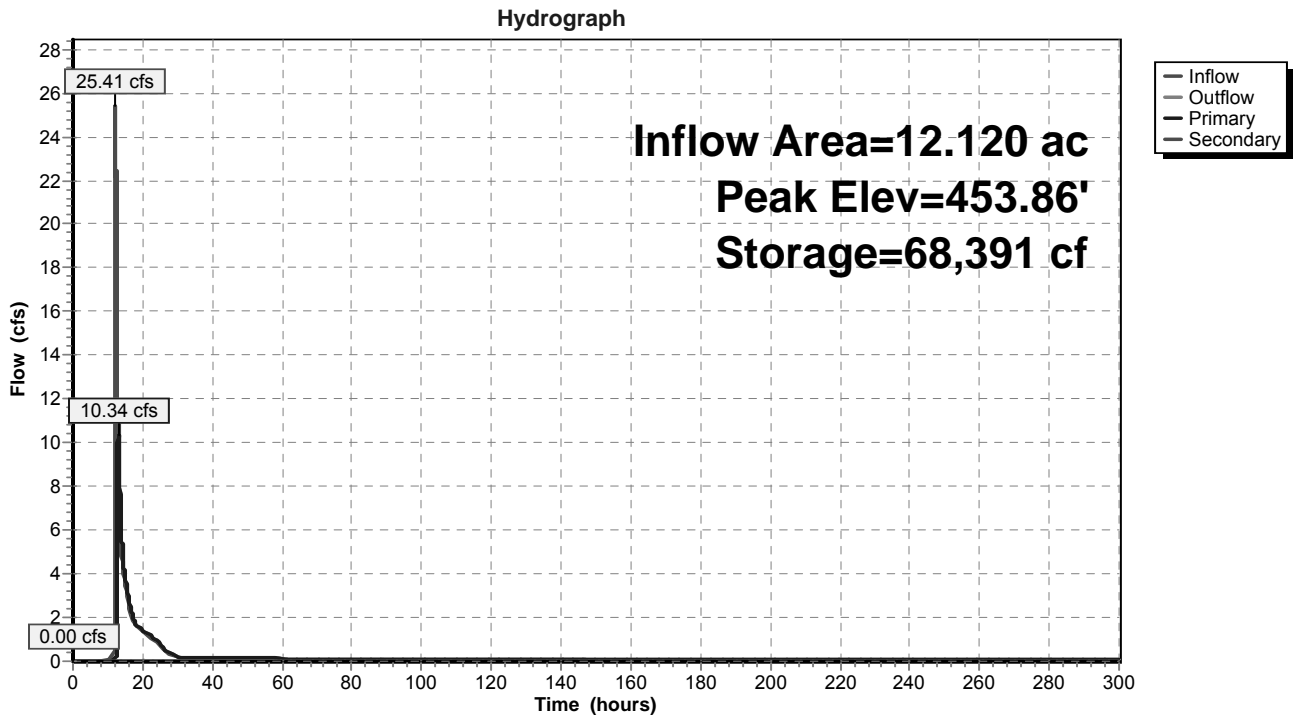
Primary OutFlow Max=10.33 cfs @ 13.00 hrs HW=453.86' (Free Discharge)

- 1=Outlet Pipe (Passes 10.33 cfs of 31.88 cfs potential flow)
- 2=Reverse Pipe Inlet (Outlet Controls 0.10 cfs @ 4.66 fps)
- 3=Orifice #1 (Orifice Controls 10.23 cfs @ 2.98 fps)
- 4=Top of Outlet Box (Controls 0.00 cfs)

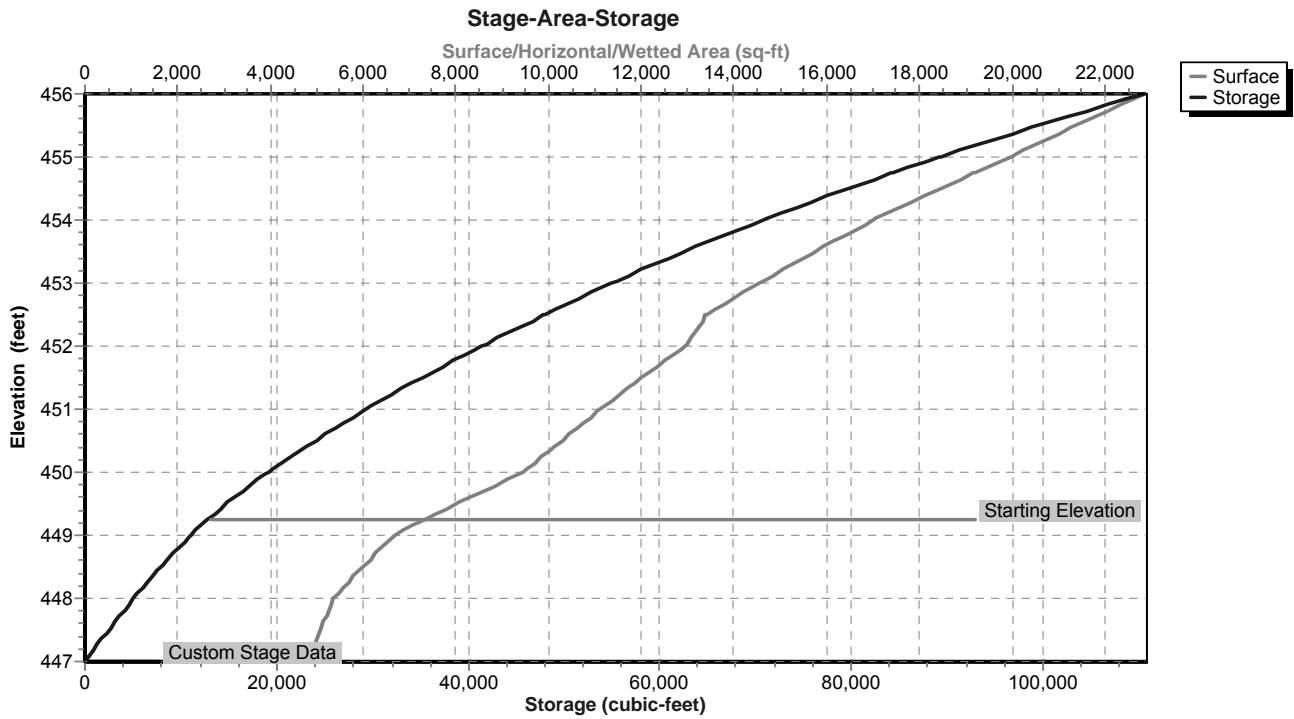
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)



Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth > 4.77" for 25 Year - North Salem event
 Inflow = 20.04 cfs @ 12.55 hrs, Volume= 3.328 af
 Outflow = 10.24 cfs @ 12.99 hrs, Volume= 3.323 af, Atten= 49%, Lag= 26.4 min
 Primary = 10.24 cfs @ 12.99 hrs, Volume= 3.323 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 485.66' @ 12.99 hrs Surf.Area= 13,311 sf Storage= 42,086 cf (34,475 cf above start)

Plug-Flow detention time= 2,257.3 min calculated for 3.148 af (95% of inflow)
 Center-of-Mass det. time= 1,582.5 min (3,551.8 - 1,969.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

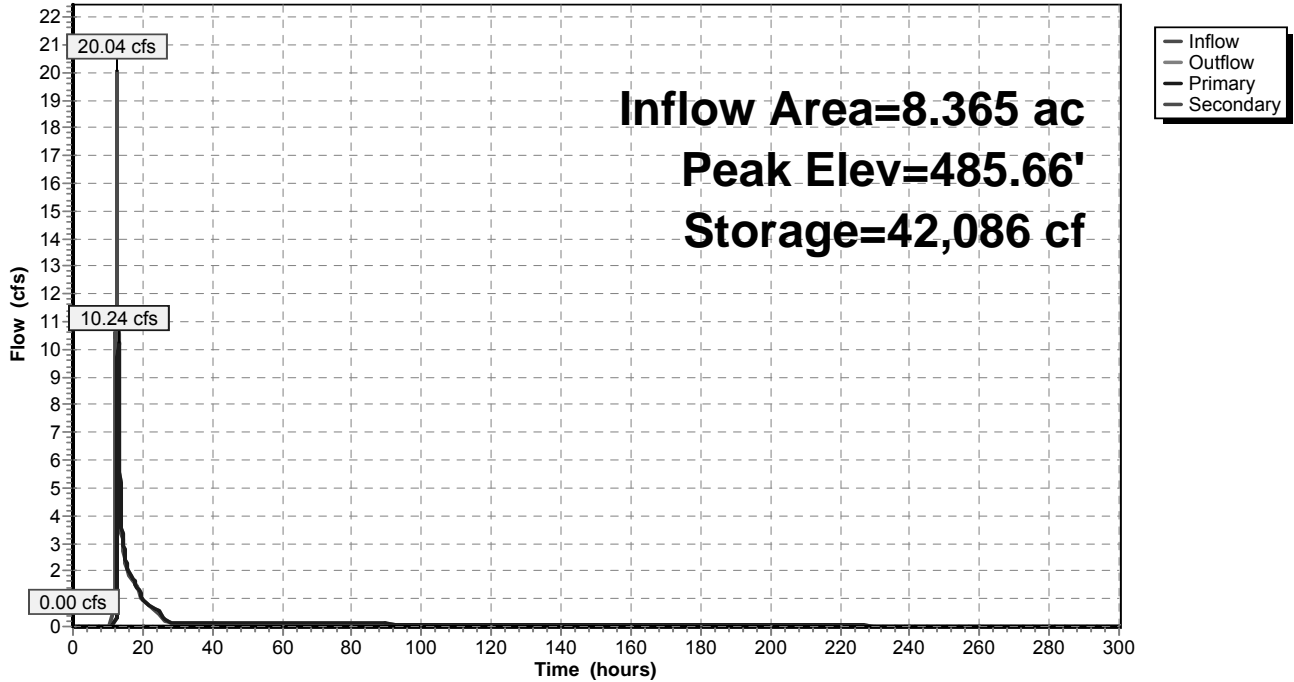
Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=10.20 cfs @ 12.99 hrs HW=485.66' (Free Discharge)
 1=Outlet Pipe (Passes 10.20 cfs of 32.65 cfs potential flow)
 2=Reverse Pipe Inlet (Outlet Controls 0.11 cfs @ 4.96 fps)
 3=Orifice #1 (Orifice Controls 10.09 cfs @ 2.05 fps)
 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)
 5=Emergency Overflow Weir (Controls 0.00 cfs)

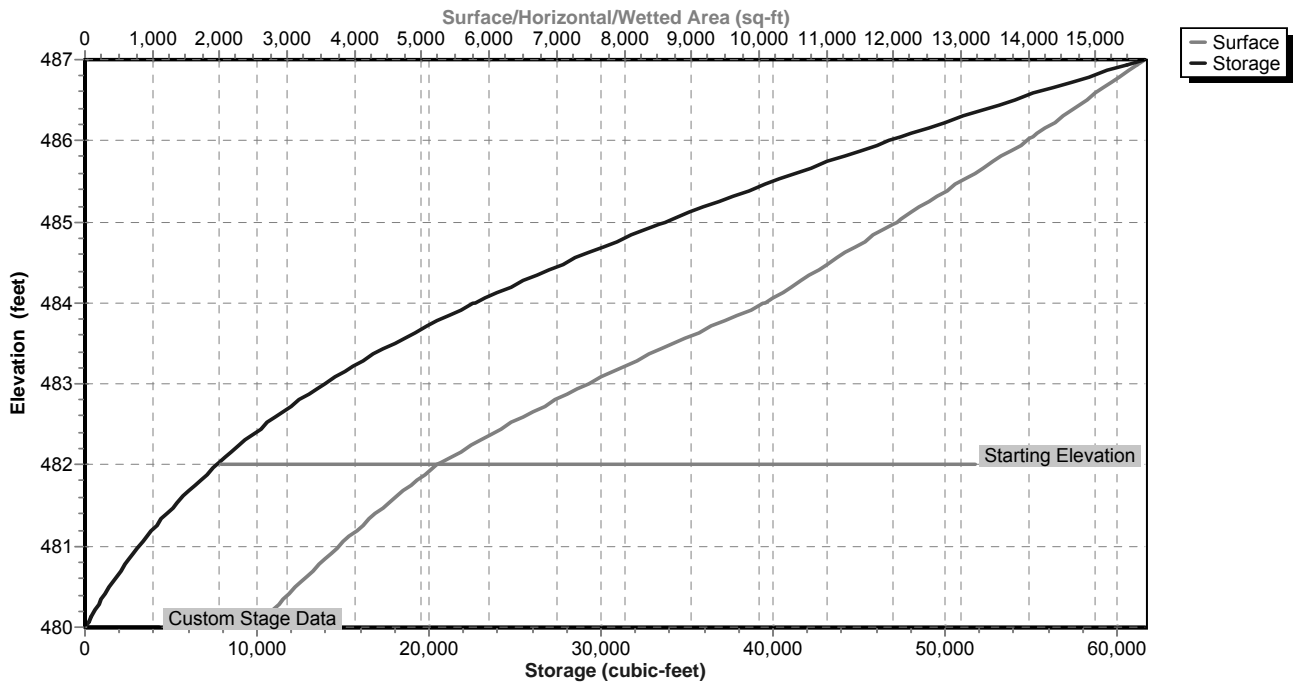
Pond ED-K5: Micropool ED Basin - (Basin K5)

Hydrograph



Pond ED-K5: Micropool ED Basin - (Basin K5)

Stage-Area-Storage



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 4.04" for 25 Year - North Salem event
 Inflow = 32.90 cfs @ 12.17 hrs, Volume= 2.897 af
 Outflow = 28.56 cfs @ 12.25 hrs, Volume= 2.897 af, Atten= 13%, Lag= 4.9 min
 Primary = 28.56 cfs @ 12.25 hrs, Volume= 2.897 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 519.63' @ 12.25 hrs Surf.Area= 9,519 sf Storage= 37,870 cf (30,818 cf above start)

Plug-Flow detention time= 542.5 min calculated for 2.735 af (94% of inflow)
 Center-of-Mass det. time= 476.9 min (1,304.8 - 827.9)

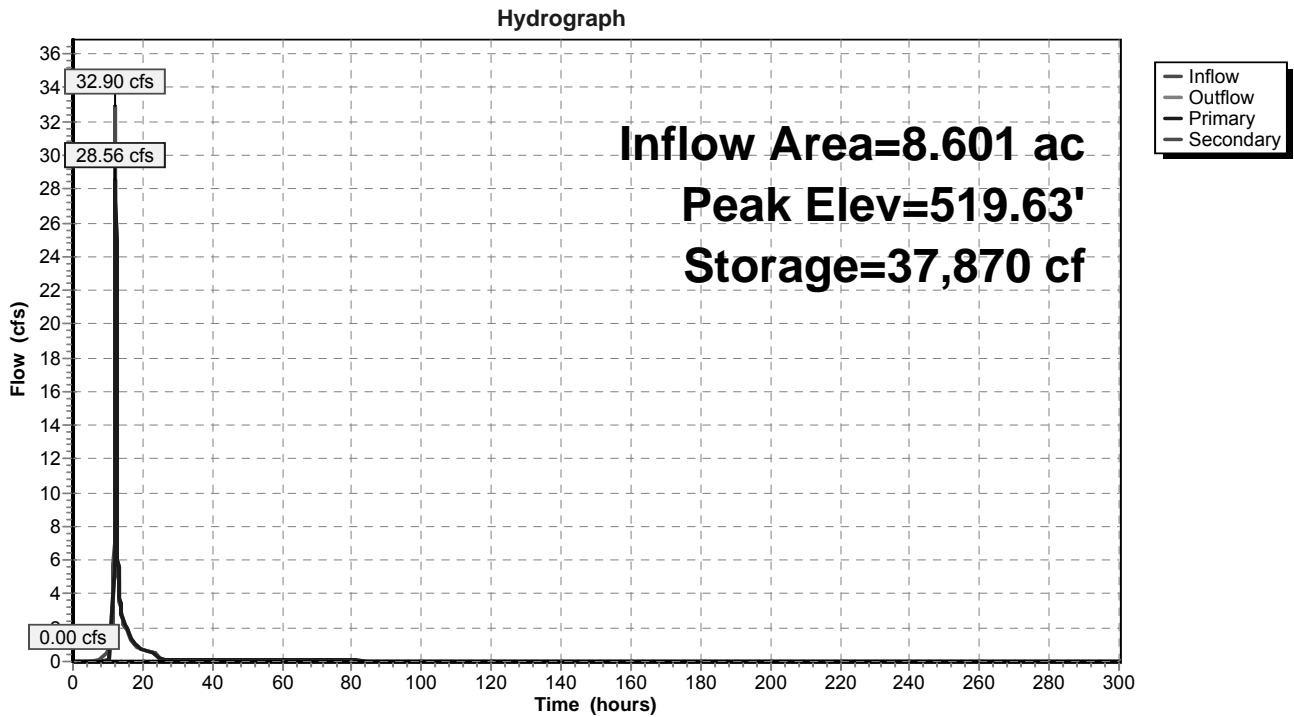
Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

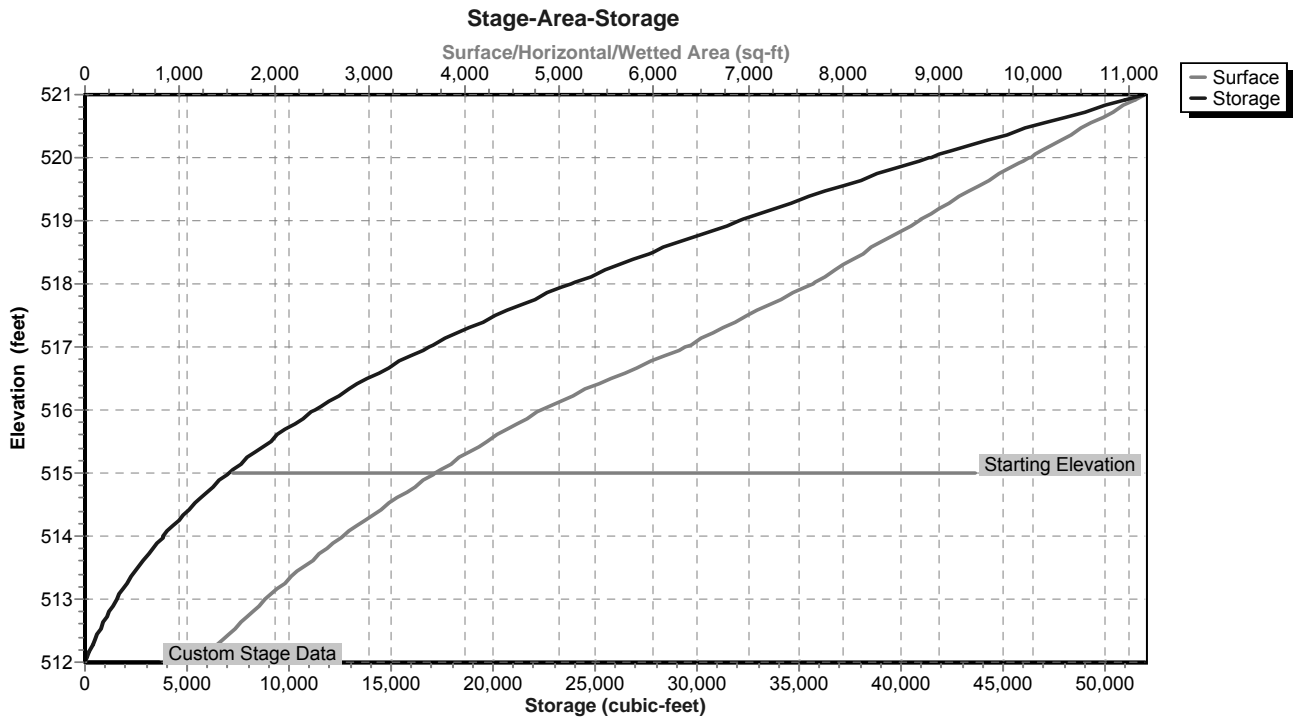
Primary OutFlow Max=28.42 cfs @ 12.25 hrs HW=519.63' (Free Discharge)
 1=Outlet Pipe (Passes 28.42 cfs of 59.70 cfs potential flow)
 2=Reverse Pipe Inlet (Outlet Controls 0.12 cfs @ 5.57 fps)
 3=Orifice #1 (Orifice Controls 28.29 cfs @ 3.41 fps)
 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K6: Micropool ED Basin - (Basin K6)



Pond ED-K6: Micropool ED Basin - (Basin K6)



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 5.25" for 25 Year - North Salem event
 Inflow = 50.92 cfs @ 12.19 hrs, Volume= 4.828 af
 Outflow = 50.92 cfs @ 12.19 hrs, Volume= 4.828 af, Atten= 0%, Lag= 0.0 min
 Primary = 28.24 cfs @ 12.19 hrs, Volume= 4.256 af
 Secondary = 22.68 cfs @ 12.19 hrs, Volume= 0.572 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 470.71' @ 12.19 hrs
 Flood Elev= 556.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=28.13 cfs @ 12.19 hrs HW=470.67' (Free Discharge)

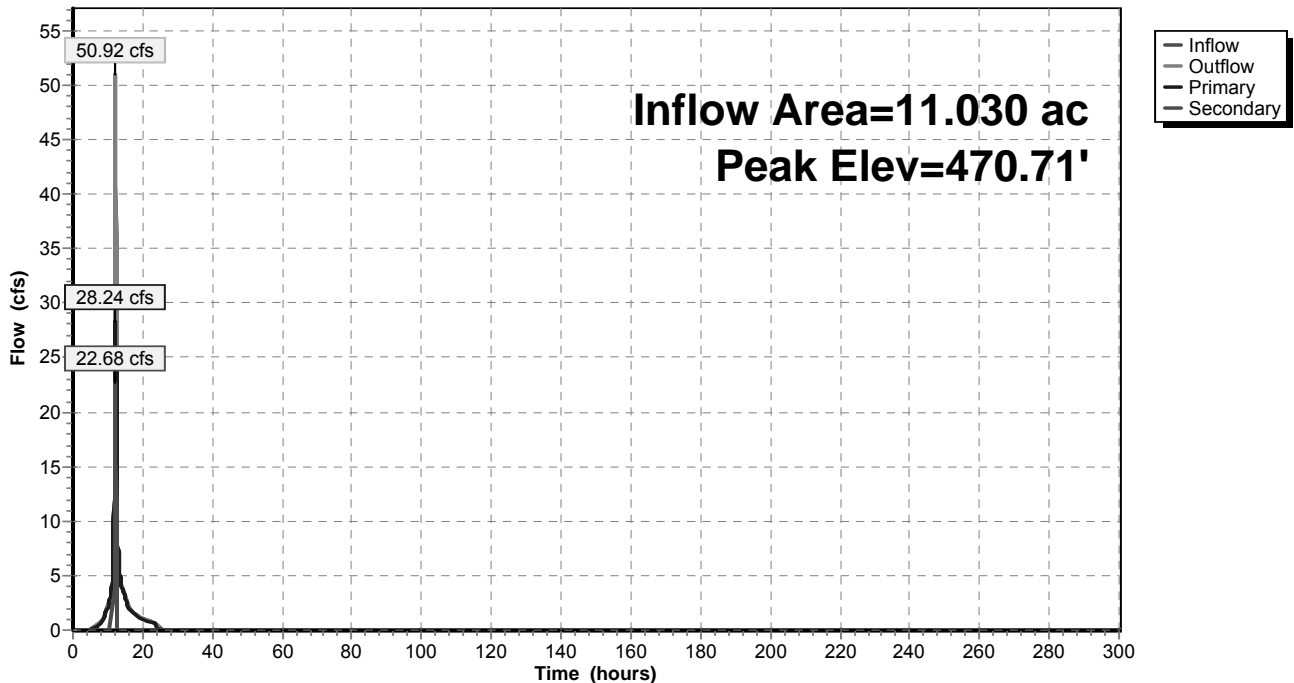
↳ **1=Outlet to Sand Filter** (Inlet Controls 28.13 cfs @ 8.95 fps)

Secondary OutFlow Max=22.46 cfs @ 12.19 hrs HW=470.67' (Free Discharge)

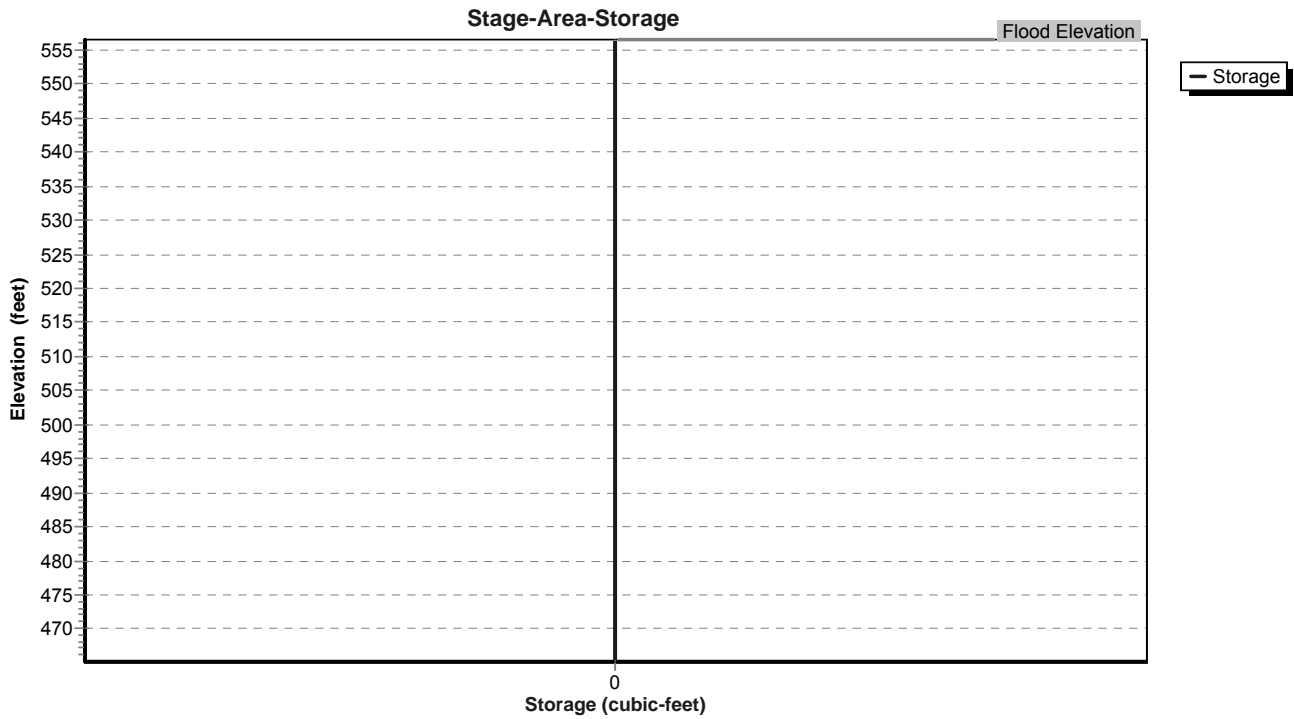
↳ **2=Outlet to Basin K3** (Inlet Controls 22.46 cfs @ 5.65 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Pond FS K3: Flow Splitter - K3



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 4.81" for 25 Year - North Salem event
 Inflow = 30.09 cfs @ 12.30 hrs, Volume= 3.350 af
 Outflow = 30.09 cfs @ 12.30 hrs, Volume= 3.350 af, Atten= 0%, Lag= 0.0 min
 Primary = 19.53 cfs @ 12.30 hrs, Volume= 3.015 af
 Secondary = 10.55 cfs @ 12.30 hrs, Volume= 0.334 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 508.14' @ 12.30 hrs
 Flood Elev= 556.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=19.54 cfs @ 12.30 hrs HW=508.14' (Free Discharge)

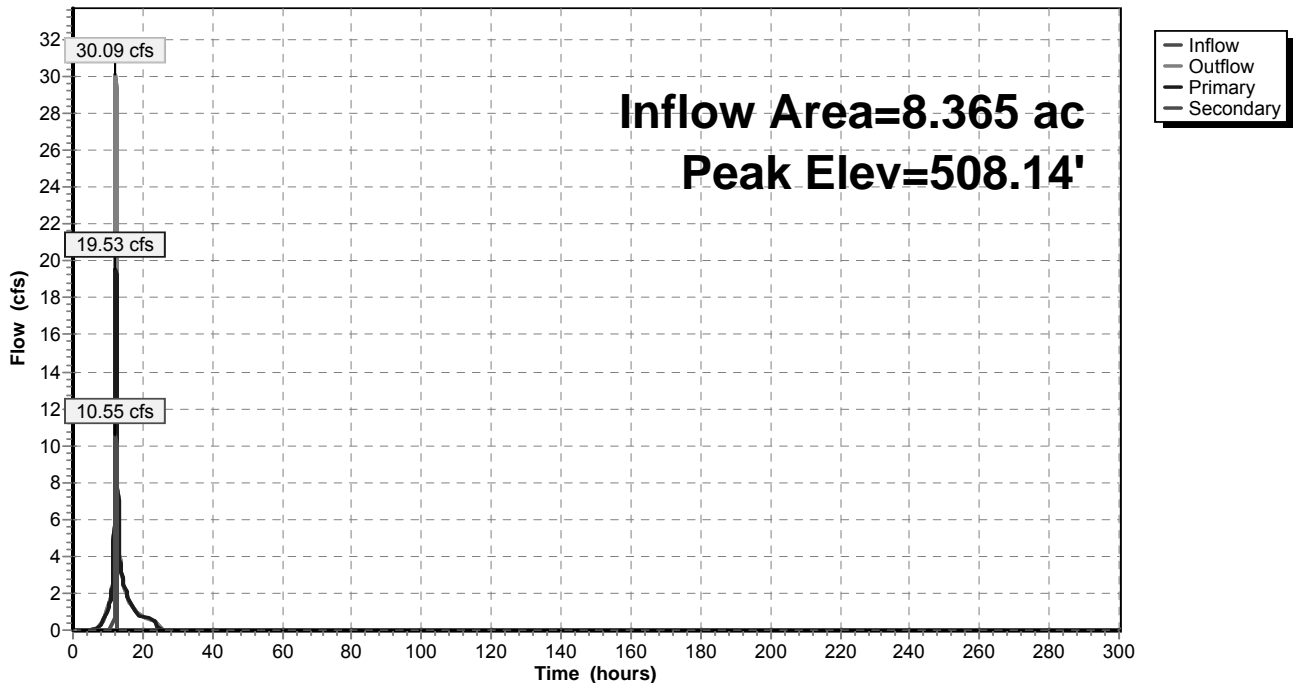
↳ **1=Outlet to Sand Filter** (Inlet Controls 19.54 cfs @ 6.22 fps)

Secondary OutFlow Max=10.63 cfs @ 12.30 hrs HW=508.14' (Free Discharge)

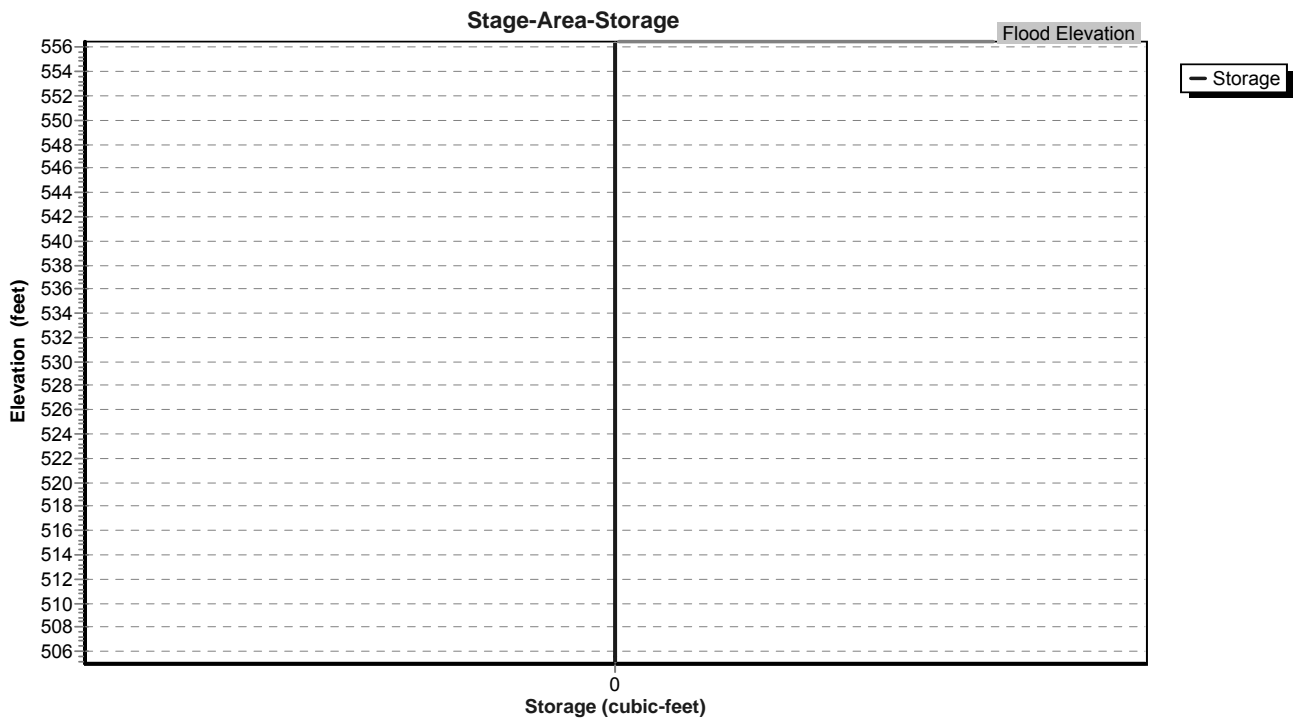
↳ **2=Outlet to Basin K5** (Inlet Controls 10.63 cfs @ 3.85 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Pond FS-K5: Flow Splitter - K5



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 3.41" for 25 Year - North Salem event
 Inflow = 6.23 cfs @ 12.21 hrs, Volume= 0.581 af
 Outflow = 4.66 cfs @ 12.36 hrs, Volume= 0.581 af, Atten= 25%, Lag= 9.0 min
 Primary = 4.66 cfs @ 12.36 hrs, Volume= 0.581 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 426.50' @ 12.36 hrs Surf.Area= 2,241 sf Storage= 5,570 cf

Plug-Flow detention time= 428.9 min calculated for 0.581 af (100% of inflow)
 Center-of-Mass det. time= 430.7 min (1,295.6 - 864.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

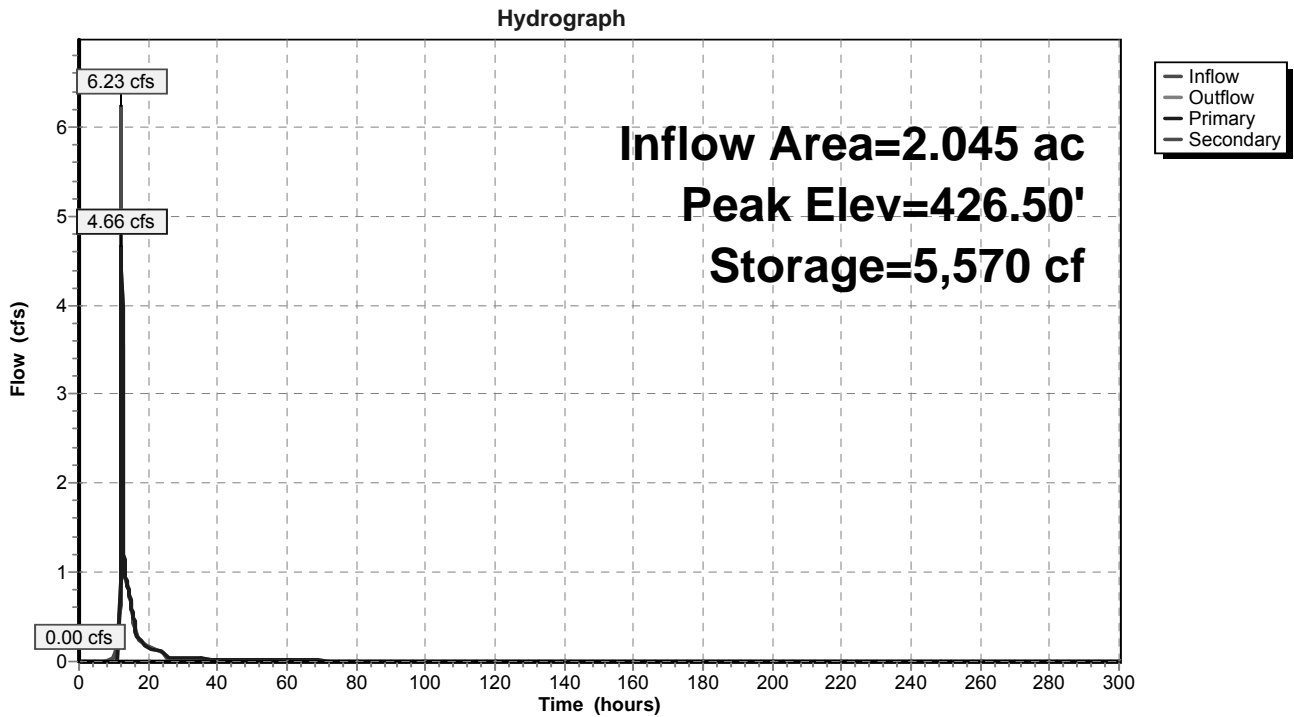
Primary OutFlow Max=4.56 cfs @ 12.36 hrs HW=426.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 4.56 cfs of 12.08 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.05 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 4.51 cfs @ 2.26 fps)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

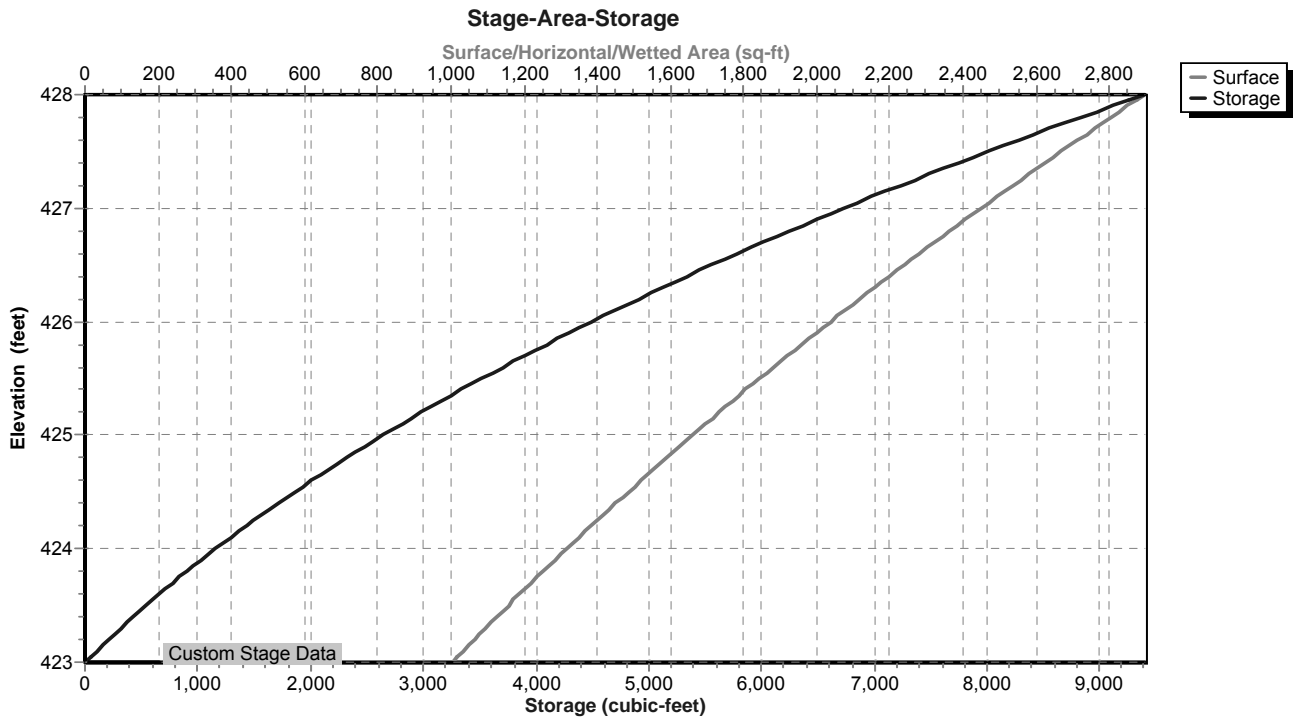
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K2: Sand Filter - K2



Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 OUTLET by 0.73'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 4.50" for 25 Year - North Salem event
 Inflow = 27.91 cfs @ 12.22 hrs, Volume= 4.134 af
 Outflow = 18.61 cfs @ 12.57 hrs, Volume= 4.097 af, Atten= 33%, Lag= 21.1 min
 Primary = 18.61 cfs @ 12.57 hrs, Volume= 4.097 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 461.74' @ 12.57 hrs Surf.Area= 19,003 sf Storage= 61,581 cf

Plug-Flow detention time= 1,455.5 min calculated for 4.096 af (99% of inflow)
 Center-of-Mass det. time= 1,447.7 min (2,343.0 - 895.3)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=18.48 cfs @ 12.57 hrs HW=461.73' (Free Discharge)

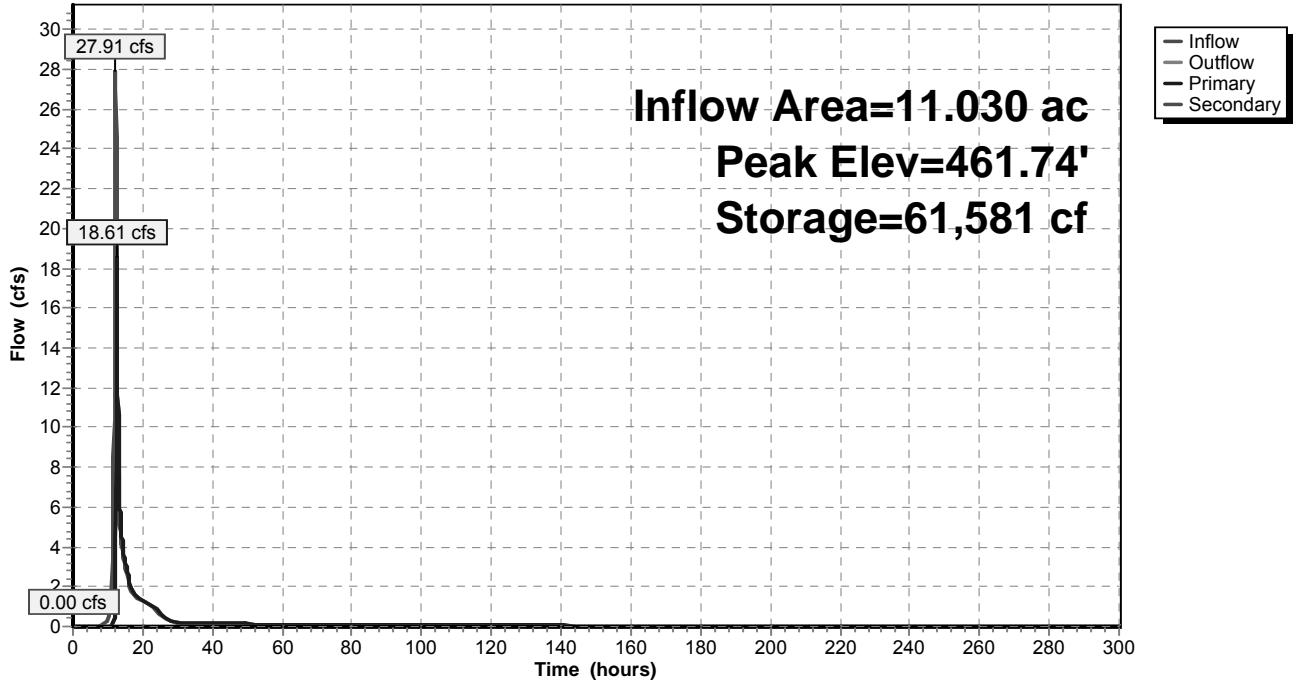
- 1=Outlet Pipe (Passes 18.48 cfs of 65.34 cfs potential flow)
- 2=Exfiltration (Exfiltration Controls 0.20 cfs)
- 3=Orifice #1 (Orifice Controls 17.01 cfs @ 2.94 fps)
- 4=Top of Outlet Box (Weir Controls 1.27 cfs @ 0.95 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

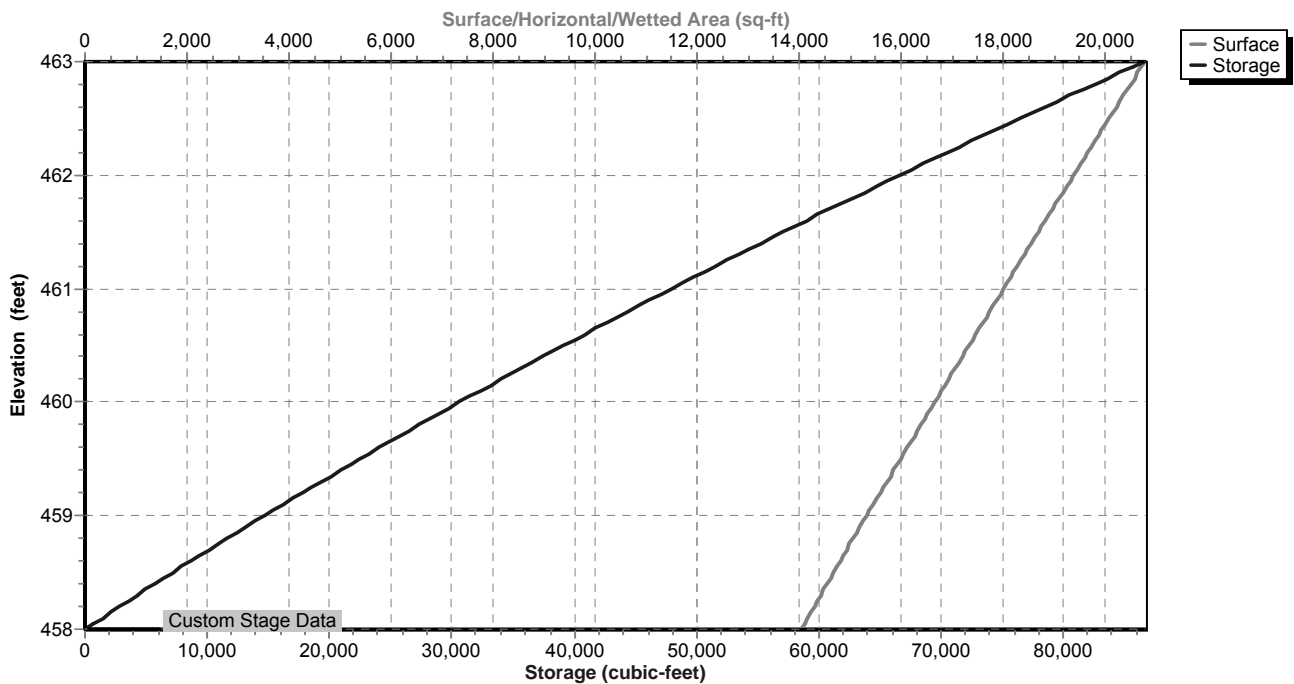
Pond SF-K3: Sand Filter -K3

Hydrograph



Pond SF-K3: Sand Filter -K3

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 4.33" for 25 Year - North Salem event
 Inflow = 18.89 cfs @ 12.38 hrs, Volume= 3.015 af
 Outflow = 16.23 cfs @ 12.59 hrs, Volume= 2.994 af, Atten= 14%, Lag= 12.8 min
 Primary = 16.23 cfs @ 12.59 hrs, Volume= 2.994 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 494.81' @ 12.59 hrs Surf.Area= 10,981 sf Storage= 36,102 cf

Plug-Flow detention time= 1,226.7 min calculated for 2.994 af (99% of inflow)
 Center-of-Mass det. time= 1,220.7 min (2,106.4 - 885.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=16.18 cfs @ 12.59 hrs HW=494.81' (Free Discharge)

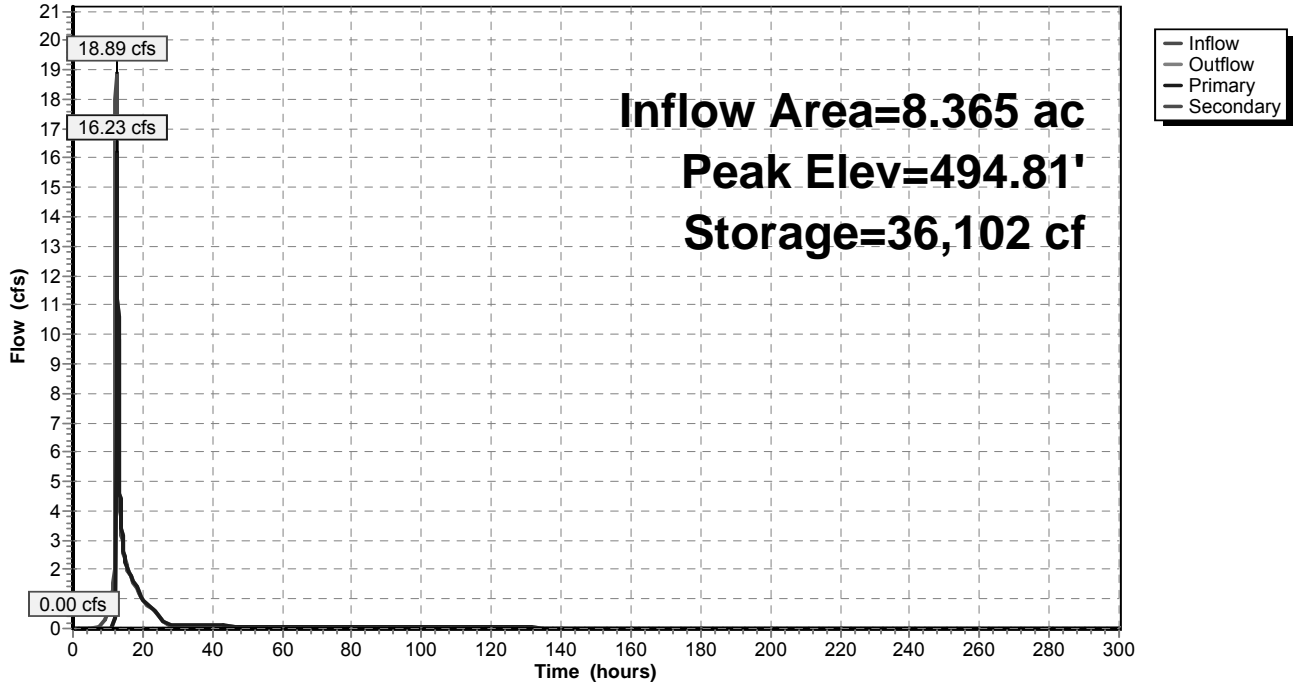
- ↑ 1=Outlet Pipe (Passes 16.18 cfs of 30.74 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.12 cfs)
- ↑ 3=Top of Outlet Box (Weir Controls 16.06 cfs @ 2.21 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

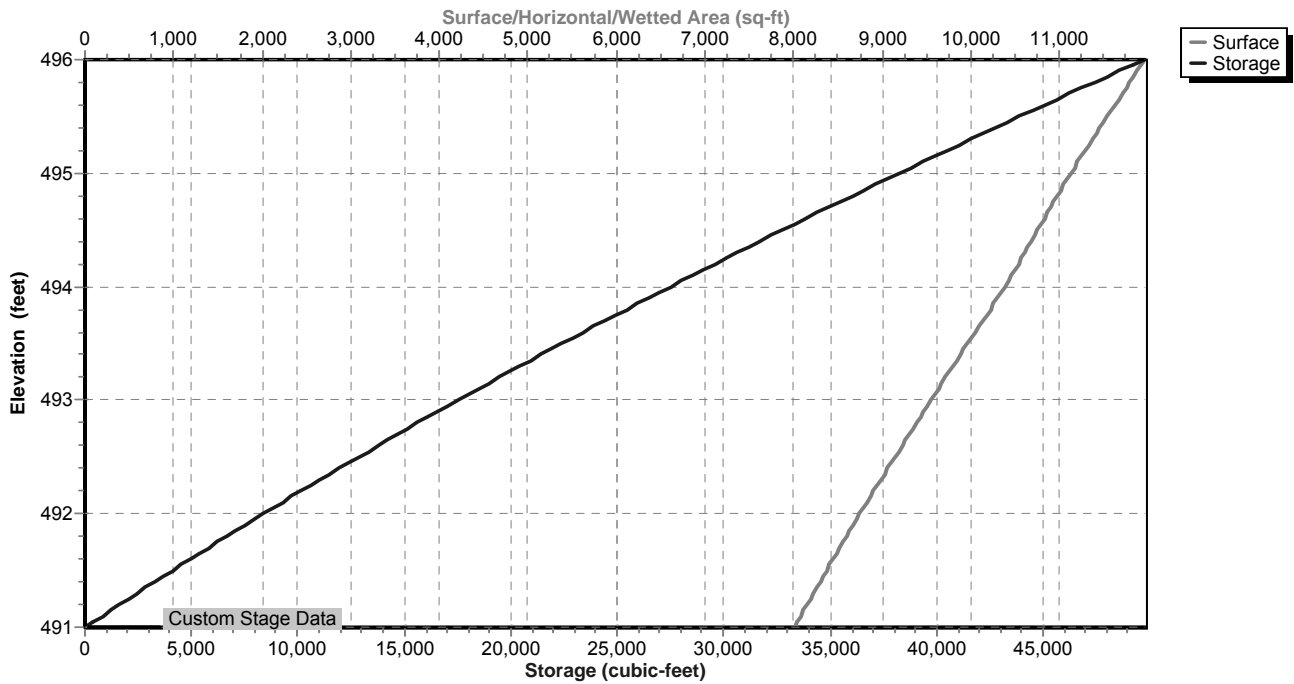
Pond SF-K5: Sand Filter - K5

Hydrograph



Pond SF-K5: Sand Filter - K5

Stage-Area-Storage



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 3.41" for 25 Year - North Salem event
 Inflow = 6.43 cfs @ 12.19 hrs, Volume= 0.581 af
 Outflow = 6.23 cfs @ 12.21 hrs, Volume= 0.581 af, Atten= 3%, Lag= 1.6 min
 Primary = 6.00 cfs @ 12.21 hrs, Volume= 0.579 af
 Secondary = 0.23 cfs @ 12.21 hrs, Volume= 0.002 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.03' @ 12.21 hrs Surf.Area= 1,646 sf Storage= 3,067 cf

Plug-Flow detention time= 23.1 min calculated for 0.581 af (100% of inflow)
 Center-of-Mass det. time= 23.1 min (864.9 - 841.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
430.00	440	165.0	0	0	440	
432.00	1,216	210.0	1,592	1,592	1,834	
434.00	2,107	235.0	3,282	4,874	2,825	

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

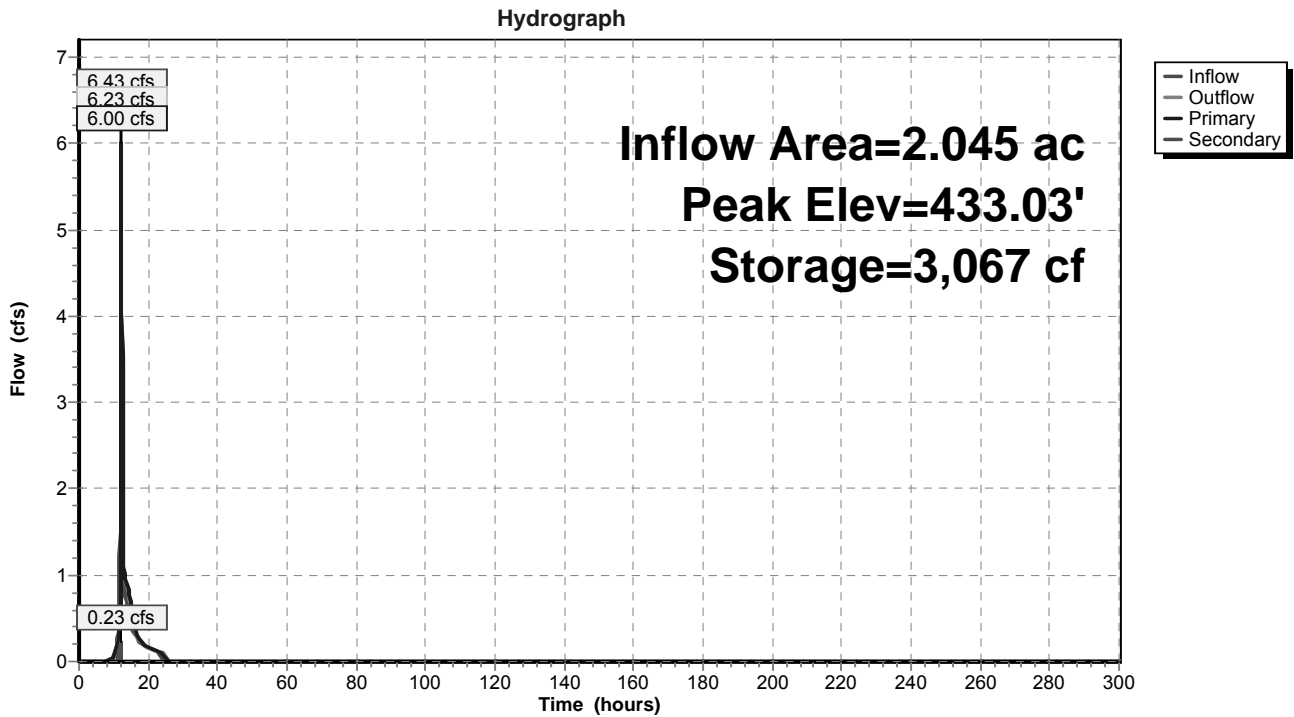
Primary OutFlow Max=6.02 cfs @ 12.21 hrs HW=433.03' (Free Discharge)

- ↑ 1=Outlet Pipe (Inlet Controls 6.02 cfs @ 7.66 fps)
- ↑ 2=Standpipe Openings (Passes < 1.03 cfs potential flow)
- ↑ 3=Top of Standpipe (Passes < 3.06 cfs potential flow)
- ↑ 4=Top of Outlet Box (Passes < 3.03 cfs potential flow)

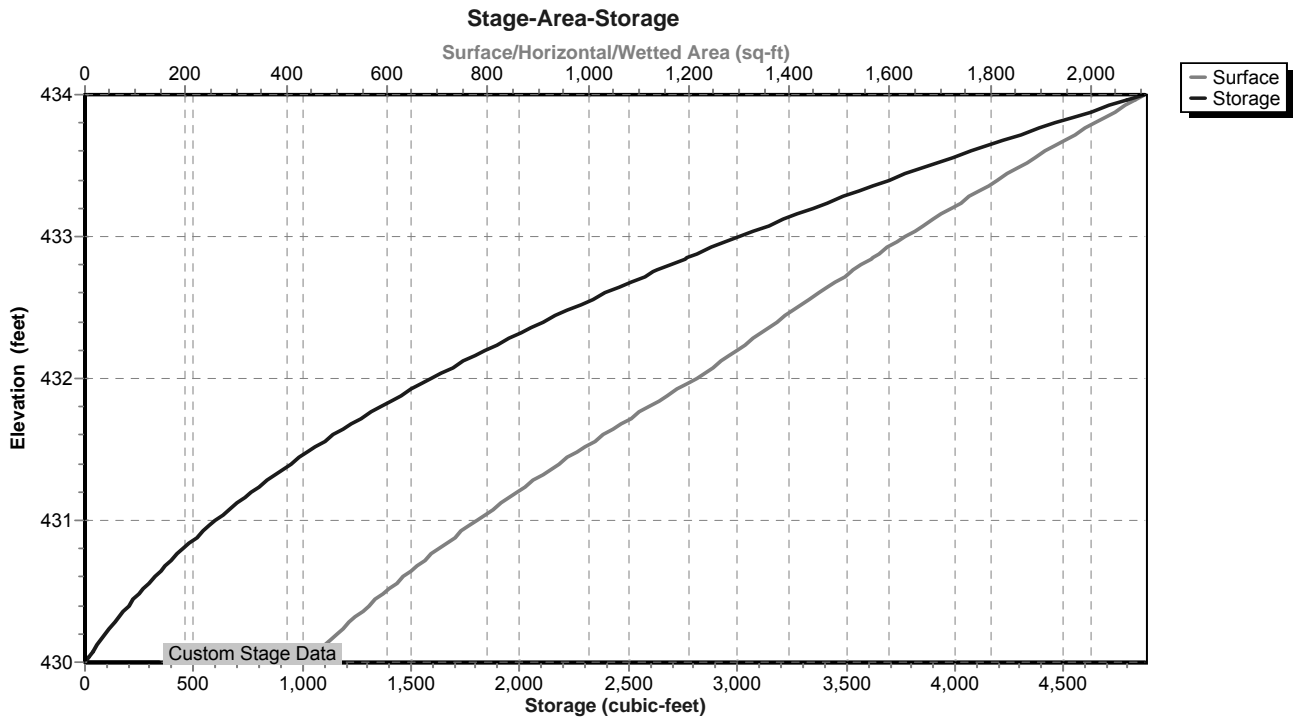
Secondary OutFlow Max=0.18 cfs @ 12.21 hrs HW=433.03' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.18 cfs @ 0.58 fps)

Pond SFF-K2: Sand Filter Forebay - K2



Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

[79] Warning: Submerged Pond FS K3 Primary device # 1 OUTLET by 0.02'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 4.63" for 25 Year - North Salem event
 Inflow = 28.24 cfs @ 12.19 hrs, Volume= 4.256 af
 Outflow = 27.91 cfs @ 12.22 hrs, Volume= 4.134 af, Atten= 1%, Lag= 1.8 min
 Primary = 27.91 cfs @ 12.22 hrs, Volume= 4.134 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.82' @ 12.22 hrs Surf.Area= 7,332 sf Storage= 23,575 cf

Plug-Flow detention time= 100.8 min calculated for 4.134 af (97% of inflow)
 Center-of-Mass det. time= 83.3 min (895.3 - 812.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
461.00	5,065	273.0	0	0	5,065	
462.00	5,623	285.0	5,342	5,342	5,666	
464.00	6,813	310.0	12,417	17,759	6,991	
464.50	7,126	319.0	3,484	21,243	7,468	
465.00	7,447	323.0	3,643	24,886	7,728	
466.00	8,104	336.0	7,773	32,659	8,486	

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

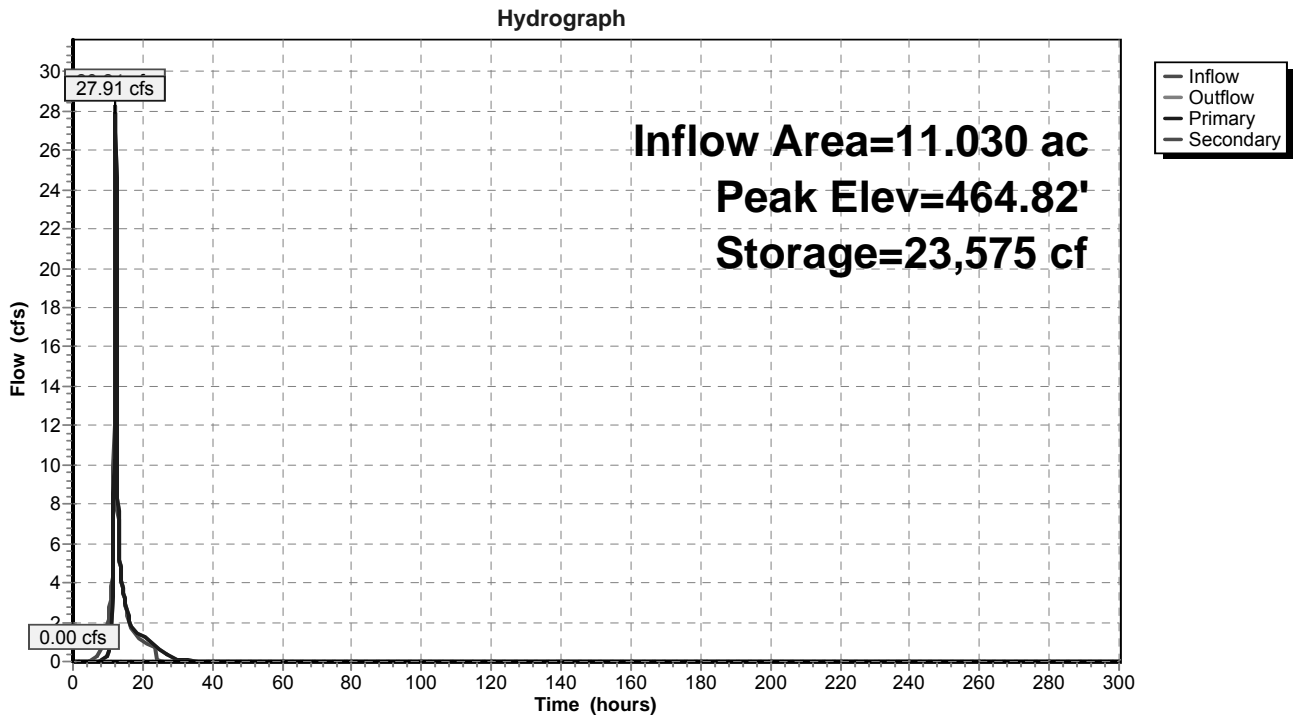
Primary OutFlow Max=27.66 cfs @ 12.22 hrs HW=464.82' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 27.66 cfs of 39.41 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 1.74 cfs @ 6.64 fps)
- ↑ 3=Top of Standpipe (Weir Controls 17.65 cfs @ 2.47 fps)
- ↑ 4=Orifice #1 (Orifice Controls 8.27 cfs @ 2.42 fps)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

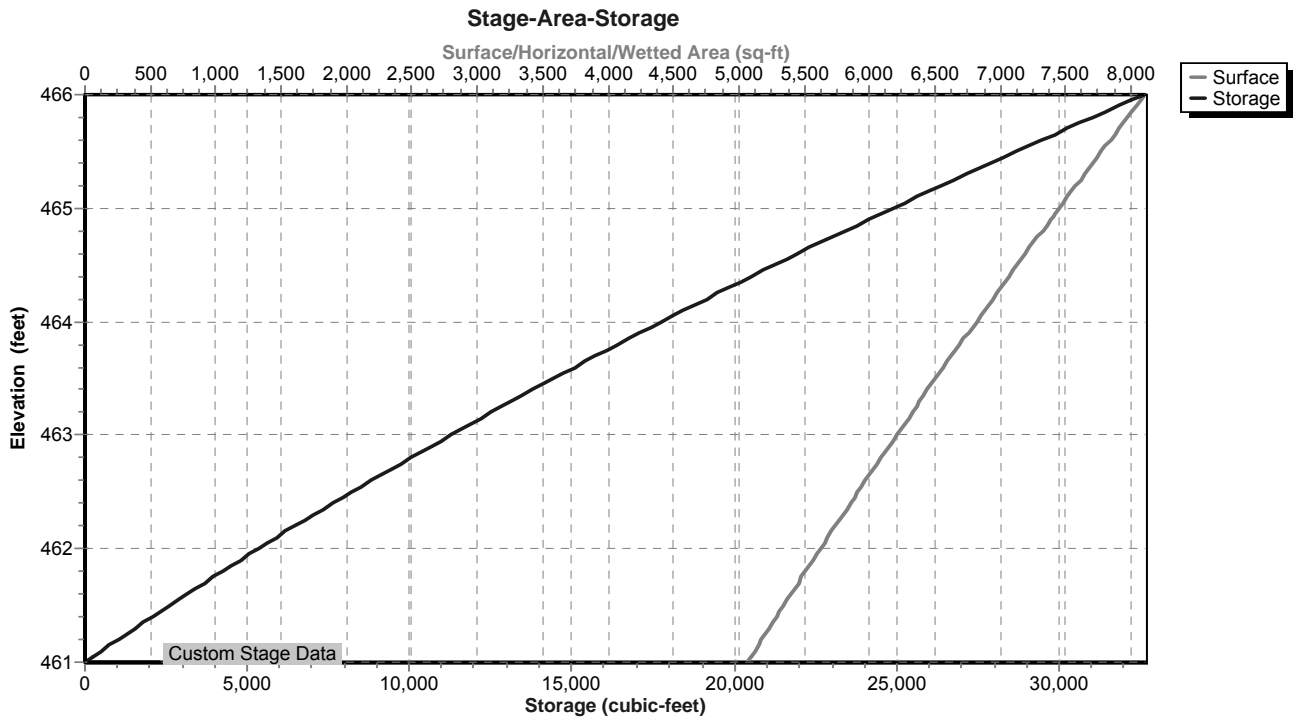
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

- ↑ 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K3: Sand Filter Forebay - K3



Pond SFF-K3: Sand Filter Forebay - K3



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 4.33" for 25 Year - North Salem event
 Inflow = 19.53 cfs @ 12.30 hrs, Volume= 3.015 af
 Outflow = 18.89 cfs @ 12.38 hrs, Volume= 3.015 af, Atten= 3%, Lag= 4.8 min
 Primary = 18.89 cfs @ 12.38 hrs, Volume= 3.015 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 504.47' @ 12.38 hrs Surf.Area= 5,133 sf Storage= 17,708 cf

Plug-Flow detention time= 56.2 min calculated for 3.015 af (100% of inflow)
 Center-of-Mass det. time= 56.3 min (885.7 - 829.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
500.00	2,880	224.0	0	0	2,880
502.00	3,826	250.0	6,684	6,684	3,969
504.00	4,874	275.0	8,679	15,363	5,138
505.00	5,434	287.0	5,151	20,514	5,744
506.00	6,021	300.0	5,725	26,239	6,418

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

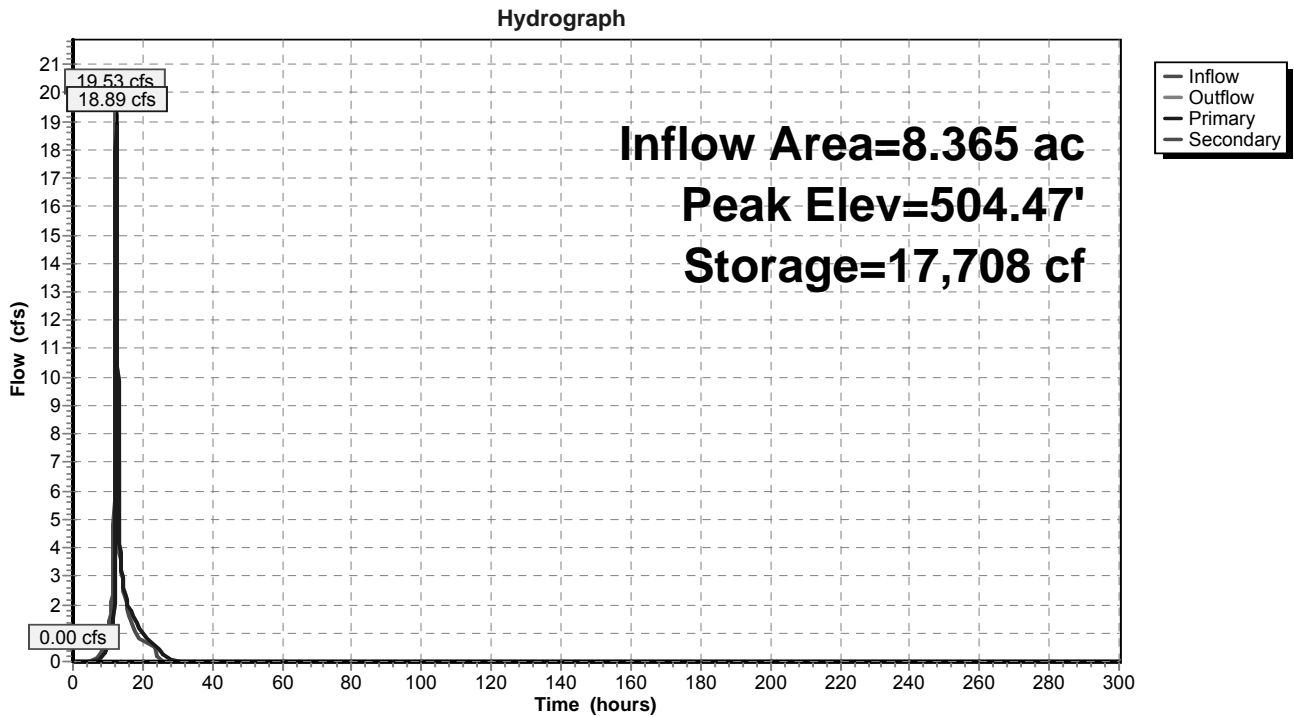
Primary OutFlow Max=18.82 cfs @ 12.38 hrs HW=504.47' (Free Discharge)

- 1=Outlet Pipe (Passes 18.82 cfs of 28.16 cfs potential flow)
- 2=Standpipe Openings (Orifice Controls 2.38 cfs @ 9.10 fps)
- 3=Top of Standpipe (Orifice Controls 10.30 cfs @ 5.83 fps)
- 4=Orifice #1 (Orifice Controls 6.13 cfs @ 2.19 fps)
- 5=Top of Outlet Box (Controls 0.00 cfs)

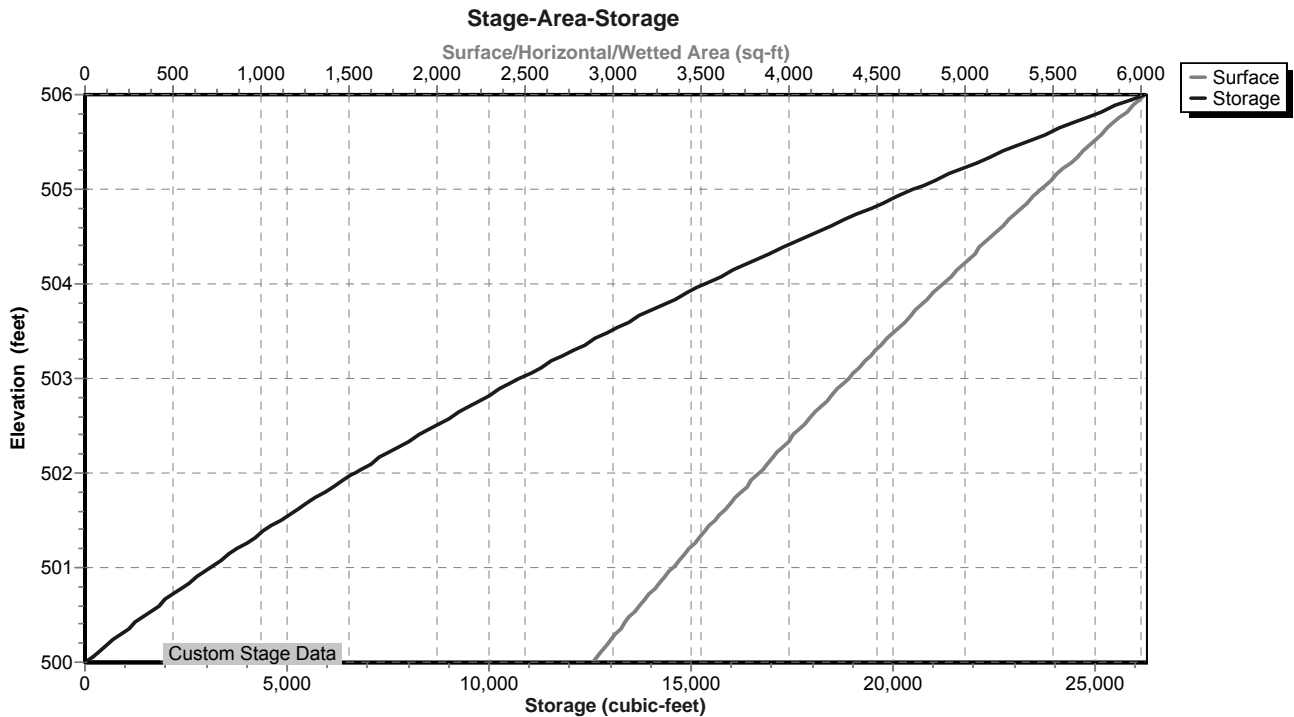
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

- 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K5: Sand Filter Forebay - K5



Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-Development K1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=5.21"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=146.44 cfs 15.893 af

Subcatchment K2: Post-Development K2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=5.09"
Flow Length=799' Tc=13.0 min CN=68 Runoff=9.64 cfs 0.867 af

Subcatchment K3: Post-Development K3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=7.18"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=68.58 cfs 6.601 af

Subcatchment K4: Post-Development K4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=4.10"
Flow Length=281' Tc=11.3 min CN=60 Runoff=4.33 cfs 0.372 af

Subcatchment K5: Post-Development K5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=6.69"
Flow Length=542' Tc=22.2 min CN=81 Runoff=41.41 cfs 4.664 af

Subcatchment K6: Post-Development K6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=5.83"
Flow Length=981' Tc=12.4 min CN=74 Runoff=47.24 cfs 4.178 af

Pond DP 11: Design Point 11 Inflow=202.08 cfs 32.204 af
Primary=202.08 cfs 32.204 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=454.79' Storage=85,164 cf Inflow=59.85 cfs 6.814 af
Primary=28.62 cfs 6.628 af Secondary=0.00 cfs 0.000 af Outflow=28.62 cfs 6.628 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=486.05' Storage=47,434 cf Inflow=38.36 cfs 4.643 af
Primary=27.87 cfs 4.638 af Secondary=0.00 cfs 0.000 af Outflow=27.87 cfs 4.638 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=520.00' Storage=41,397 cf Inflow=47.24 cfs 4.178 af
Primary=42.18 cfs 4.178 af Secondary=0.00 cfs 0.000 af Outflow=42.18 cfs 4.178 af

Pond FS K3: Flow Splitter - K3 Peak Elev=472.96' Inflow=68.58 cfs 6.601 af
Primary=34.61 cfs 5.574 af Secondary=33.97 cfs 1.027 af Outflow=68.58 cfs 6.601 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=509.22' Inflow=41.41 cfs 4.664 af
Primary=23.94 cfs 4.014 af Secondary=17.47 cfs 0.650 af Outflow=41.41 cfs 4.664 af

Pond SF-K2: Sand Filter - K2 Peak Elev=426.78' Storage=6,211 cf Inflow=9.60 cfs 0.867 af
Primary=9.26 cfs 0.867 af Secondary=0.00 cfs 0.000 af Outflow=9.26 cfs 0.867 af

Pond SF-K3: Sand Filter -K3 Peak Elev=461.93' Storage=65,278 cf Inflow=34.12 cfs 5.451 af
Primary=29.14 cfs 5.415 af Secondary=0.00 cfs 0.000 af Outflow=29.14 cfs 5.415 af

Pond SF-K5: Sand Filter - K5 Peak Elev=494.92' Storage=37,373 cf Inflow=23.33 cfs 4.014 af
Primary=22.72 cfs 3.993 af Secondary=0.00 cfs 0.000 af Outflow=22.72 cfs 3.993 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=433.22' Storage=3,373 cf Inflow=9.64 cfs 0.867 af
Primary=6.23 cfs 0.818 af Secondary=3.36 cfs 0.049 af Outflow=9.60 cfs 0.867 af

Woodlands Post-Dev DP 11 07-2012 *Type III 24-hr 100 Year - North Salem Rainfall=9.00"*

Prepared by KCG Engineers, P.C.

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Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=464.91' Storage=24,217 cf Inflow=34.61 cfs 5.574 af
Primary=34.12 cfs 5.451 af Secondary=0.00 cfs 0.000 af Outflow=34.12 cfs 5.451 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=504.64' Storage=18,619 cf Inflow=23.94 cfs 4.014 af
Primary=23.33 cfs 4.014 af Secondary=0.00 cfs 0.000 af Outflow=23.33 cfs 4.014 af

Total Runoff Area = 67.727 ac Runoff Volume = 32.576 af Average Runoff Depth = 5.77"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 146.44 cfs @ 12.30 hrs, Volume= 15.893 af, Depth= 5.21"

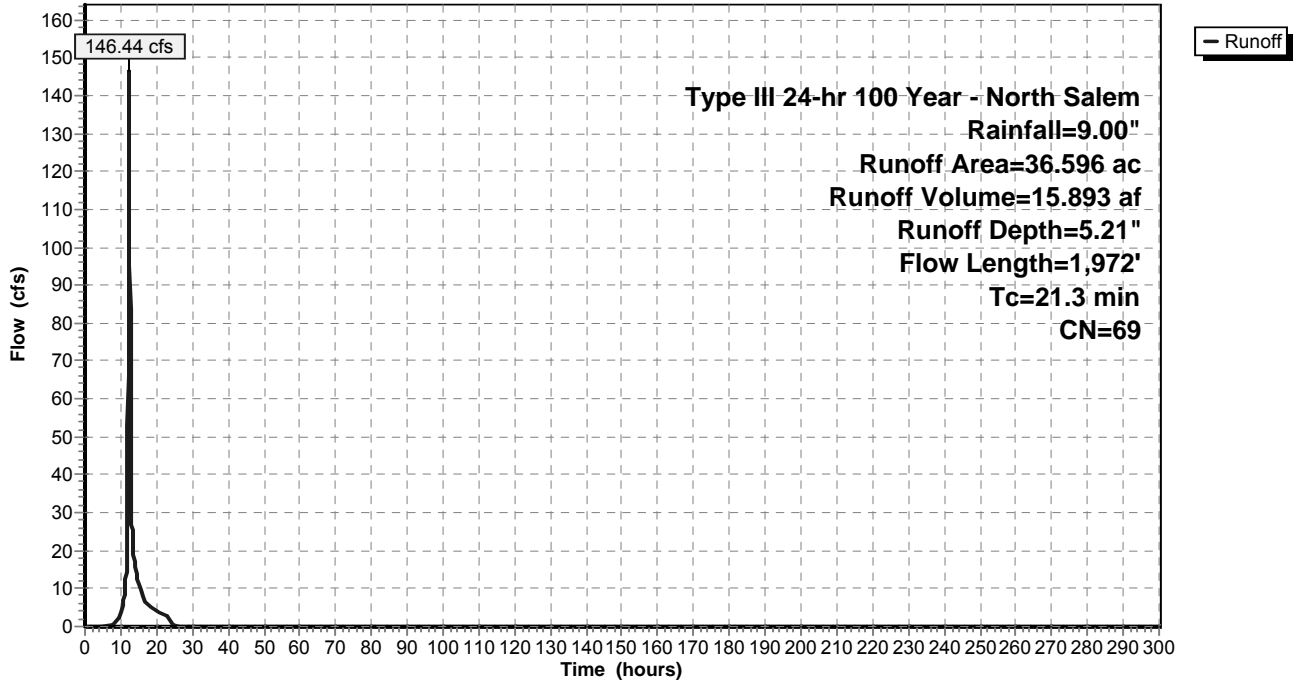
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

Runoff = 9.64 cfs @ 12.18 hrs, Volume= 0.867 af, Depth= 5.09"

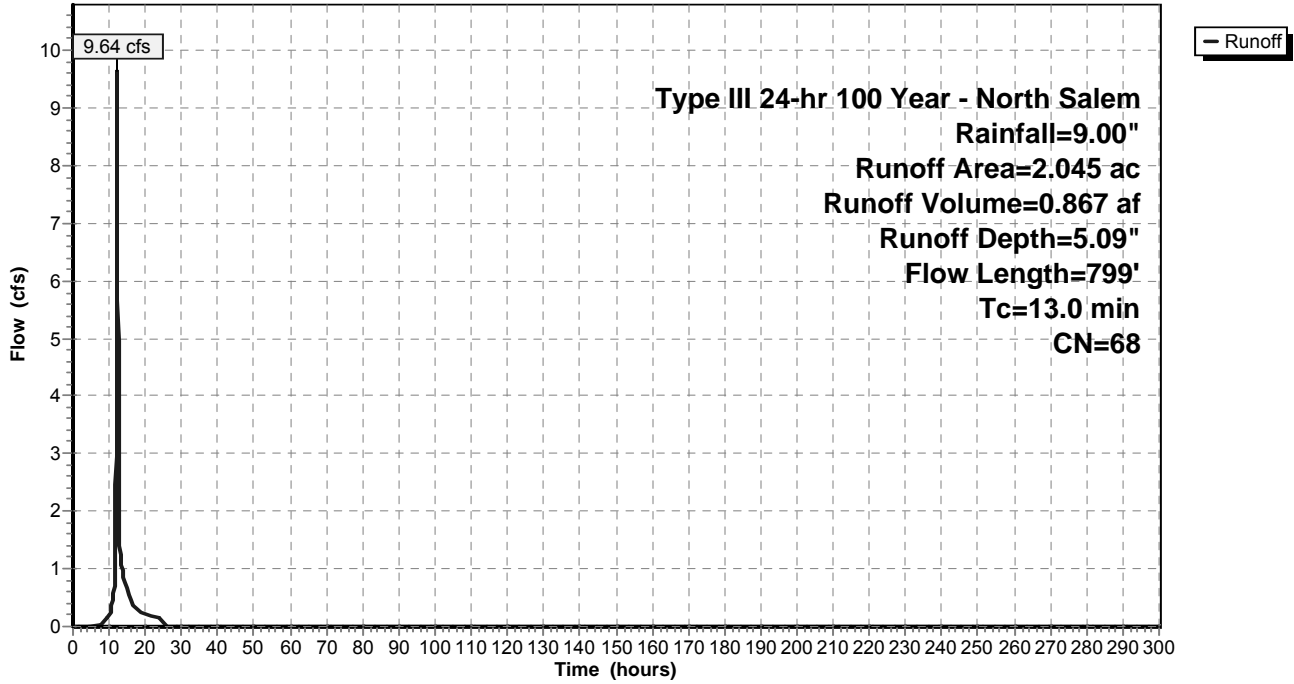
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2

Hydrograph



Summary for Subcatchment K3: Post-Development K3

Runoff = 68.58 cfs @ 12.19 hrs, Volume= 6.601 af, Depth= 7.18"

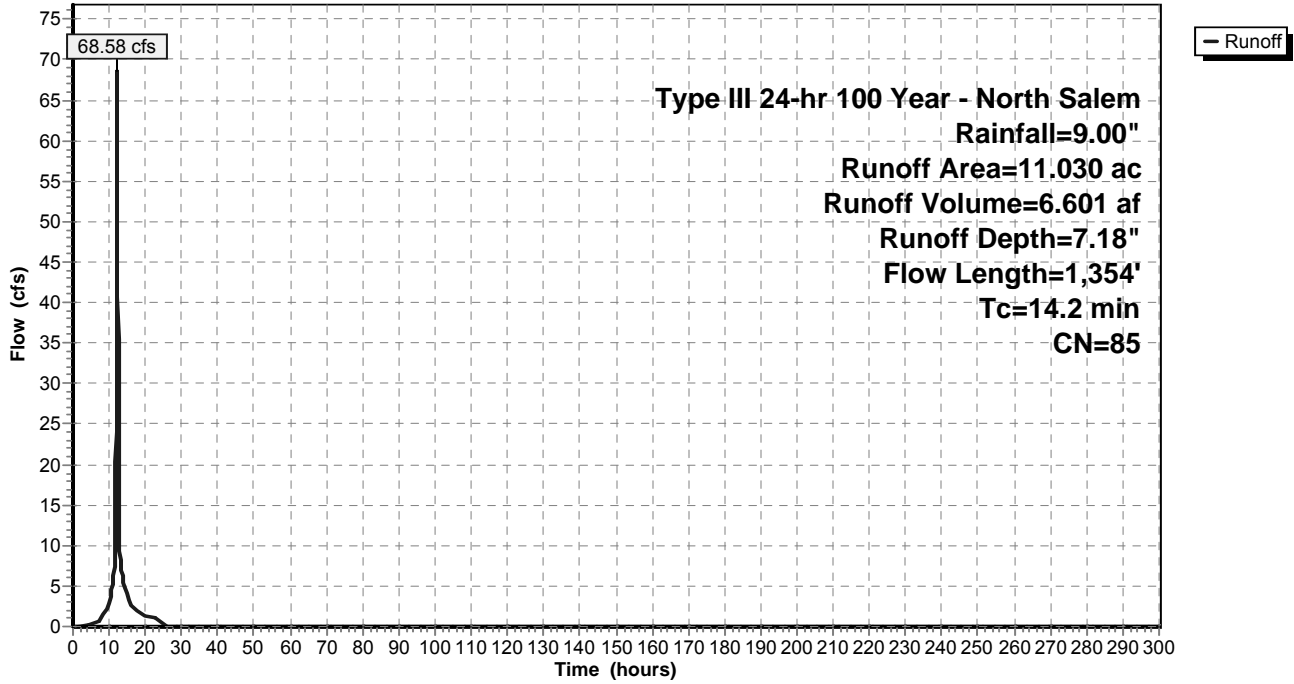
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

Runoff = 4.33 cfs @ 12.16 hrs, Volume= 0.372 af, Depth= 4.10"

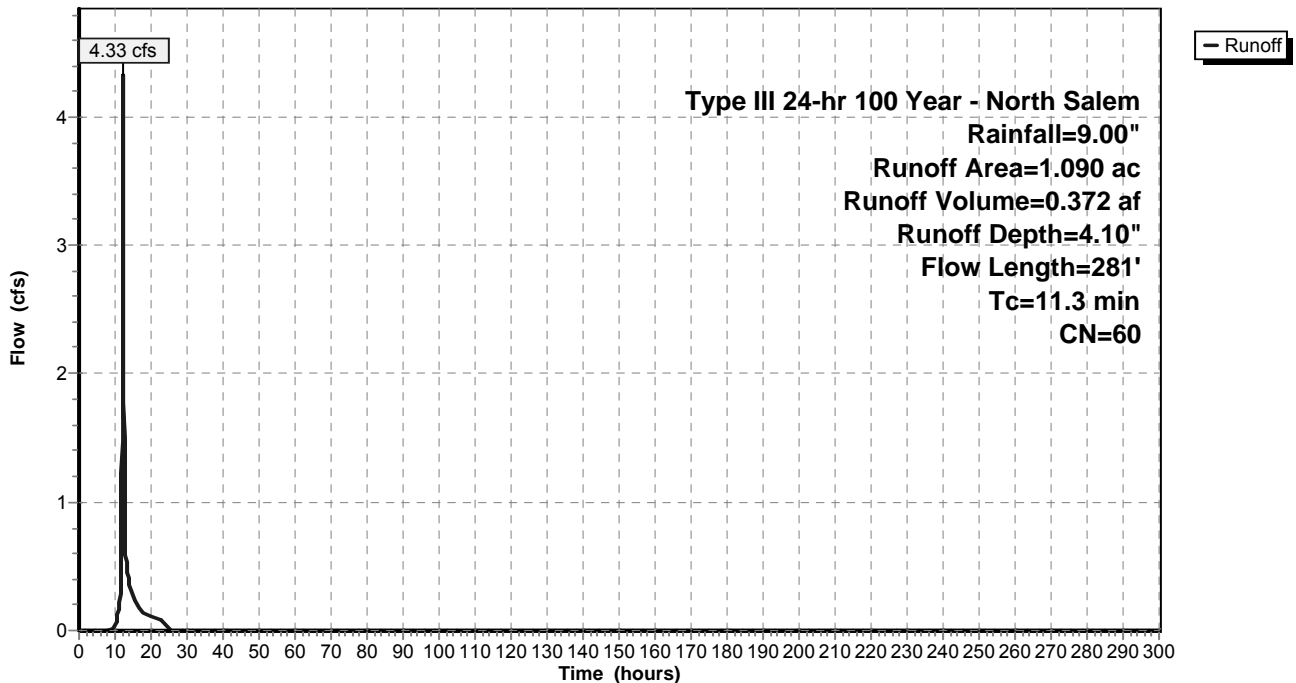
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 41.41 cfs @ 12.30 hrs, Volume= 4.664 af, Depth= 6.69"

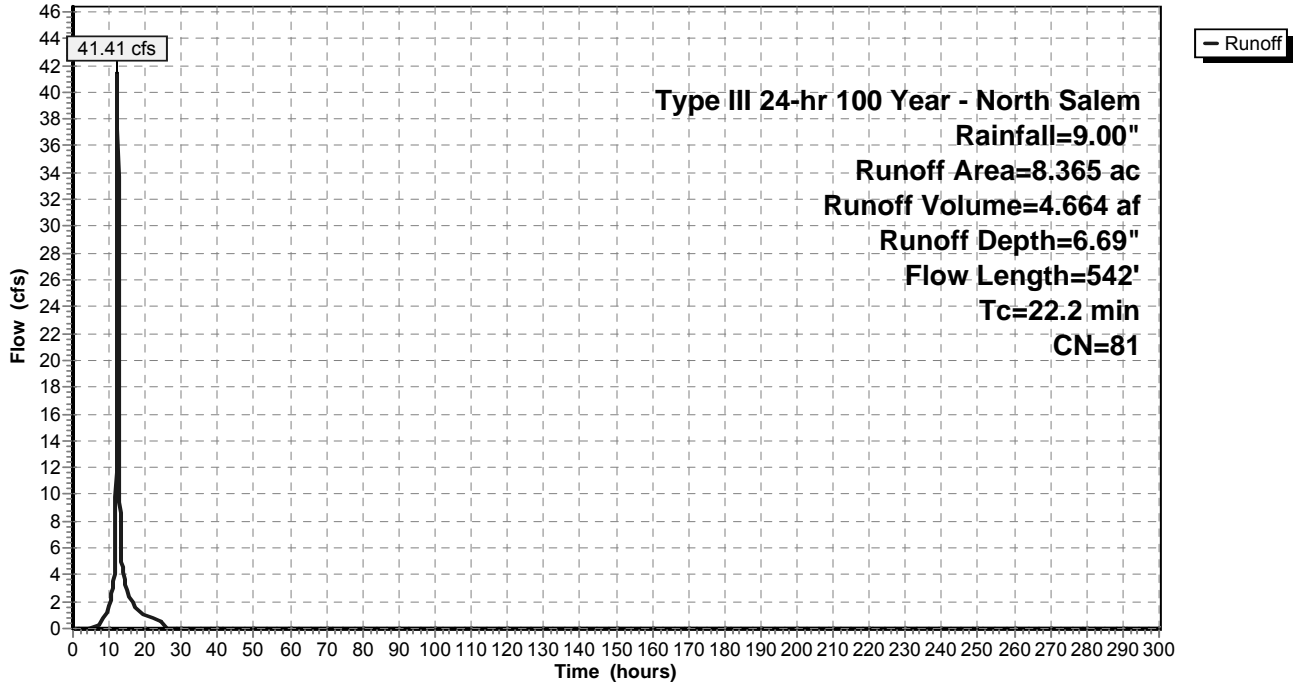
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 47.24 cfs @ 12.17 hrs, Volume= 4.178 af, Depth= 5.83"

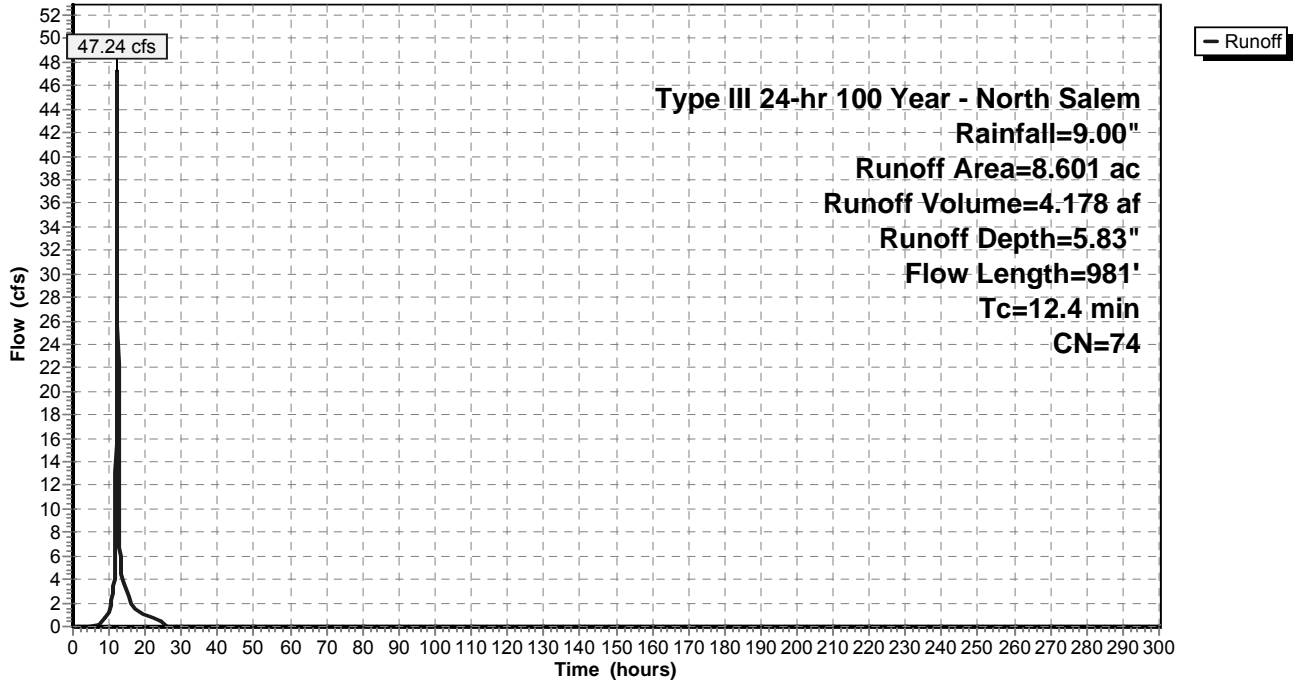
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



Summary for Pond DP 11: Design Point 11

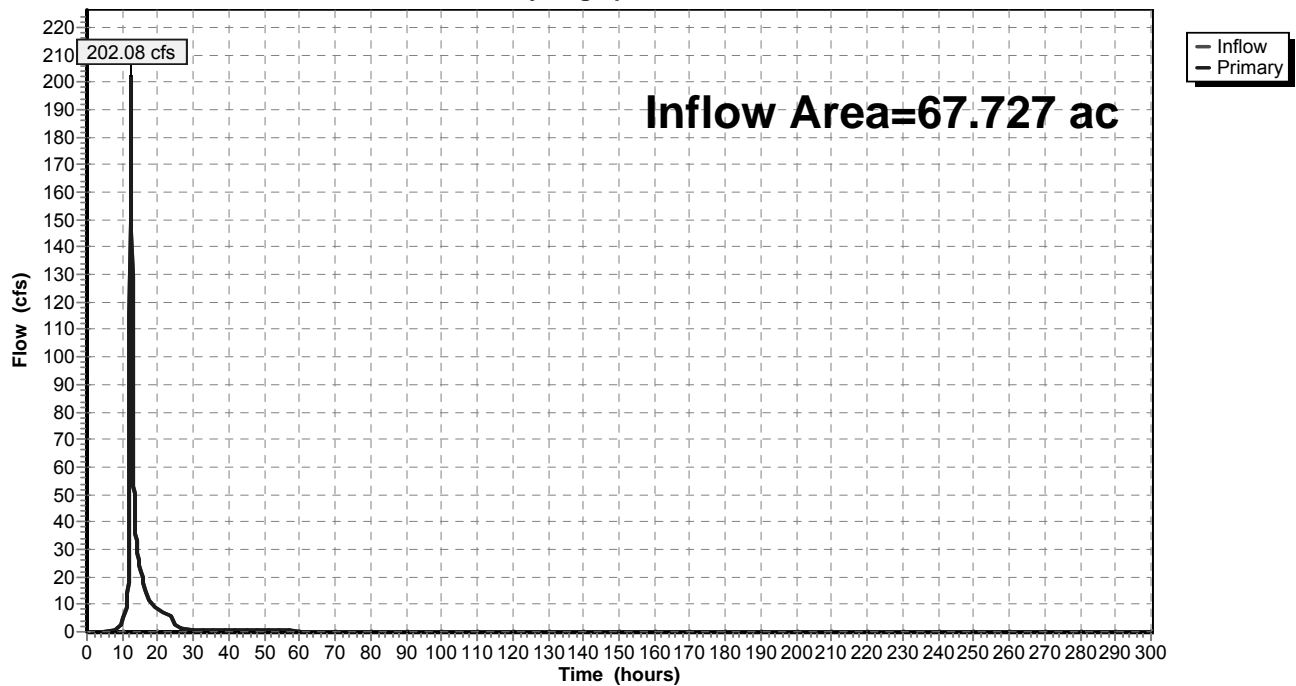
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth > 5.71" for 100 Year - North Salem event
Inflow = 202.08 cfs @ 12.32 hrs, Volume= 32.204 af
Primary = 202.08 cfs @ 12.32 hrs, Volume= 32.204 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth = 6.75" for 100 Year - North Salem event
 Inflow = 59.85 cfs @ 12.24 hrs, Volume= 6.814 af
 Outflow = 28.62 cfs @ 12.58 hrs, Volume= 6.628 af, Atten= 52%, Lag= 20.3 min
 Primary = 28.62 cfs @ 12.58 hrs, Volume= 6.628 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 454.79' @ 12.58 hrs Surf.Area= 19,337 sf Storage= 85,164 cf (72,329 cf above start)

Plug-Flow detention time= 2,100.8 min calculated for 6.332 af (93% of inflow)
 Center-of-Mass det. time= 1,407.1 min (3,144.1 - 1,737.0)

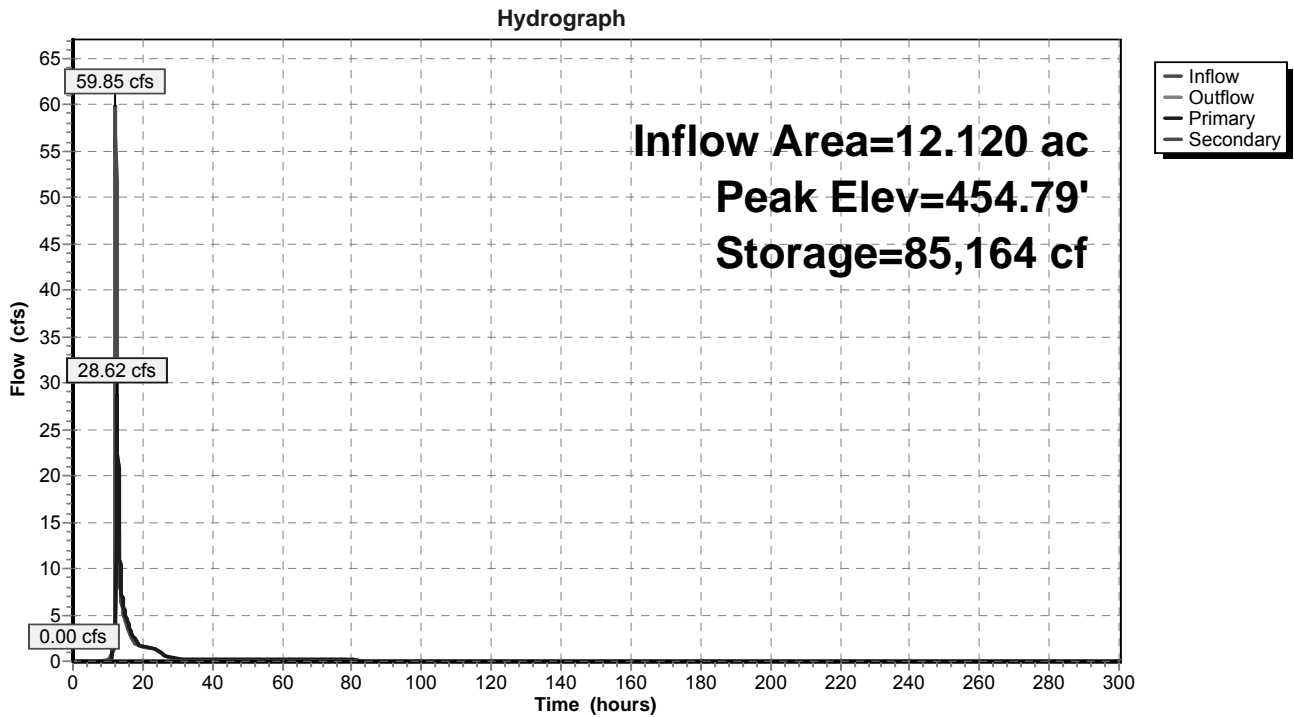
Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

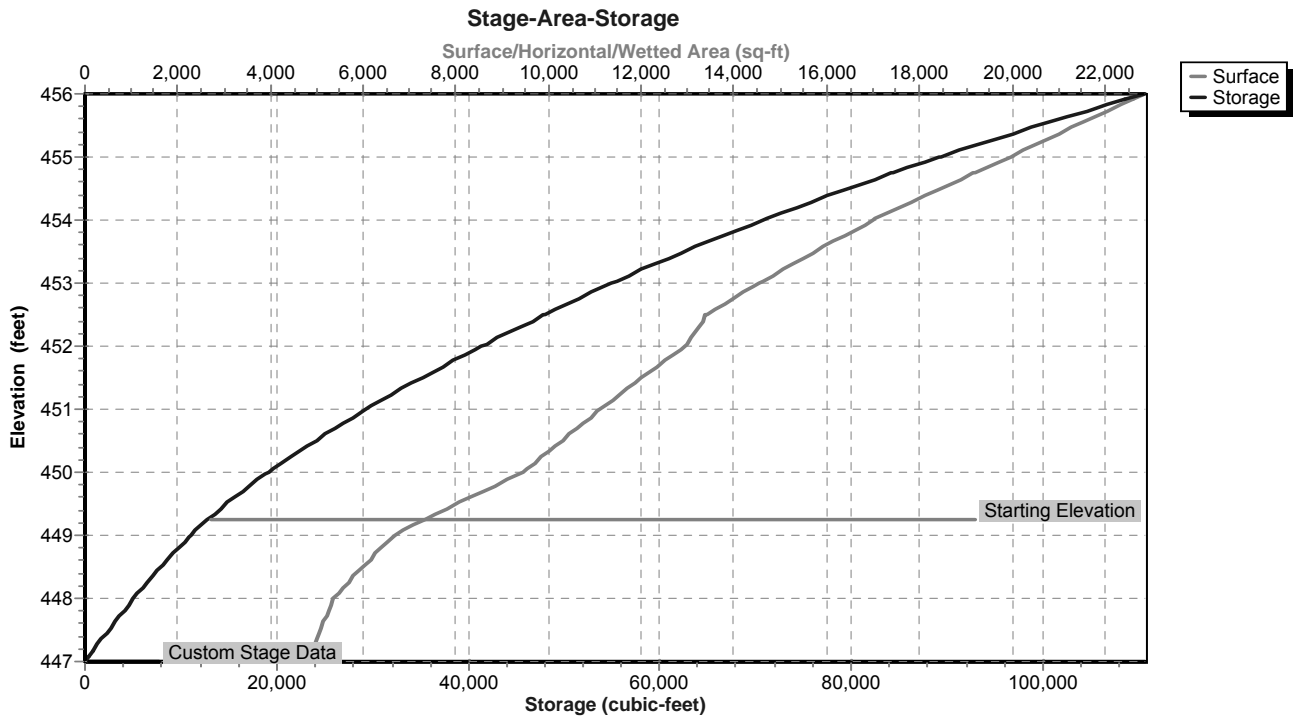
Primary OutFlow Max=28.34 cfs @ 12.58 hrs HW=454.79' (Free Discharge)
 ↳ 1=Outlet Pipe (Passes 28.34 cfs of 34.13 cfs potential flow)
 ↳ 2=Reverse Pipe Inlet (Outlet Controls 0.11 cfs @ 5.11 fps)
 ↳ 3=Orifice #1 (Orifice Controls 27.82 cfs @ 4.91 fps)
 ↳ 4=Top of Outlet Box (Weir Controls 0.41 cfs @ 0.65 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)
 ↳ 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)



Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 6.66" for 100 Year - North Salem event
 Inflow = 38.36 cfs @ 12.36 hrs, Volume= 4.643 af
 Outflow = 27.87 cfs @ 12.58 hrs, Volume= 4.638 af, Atten= 27%, Lag= 12.9 min
 Primary = 27.87 cfs @ 12.58 hrs, Volume= 4.638 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 486.05' @ 12.58 hrs Surf.Area= 14,074 sf Storage= 47,434 cf (39,824 cf above start)

Plug-Flow detention time= 1,601.5 min calculated for 4.463 af (96% of inflow)
 Center-of-Mass det. time= 1,140.7 min (2,792.3 - 1,651.6)

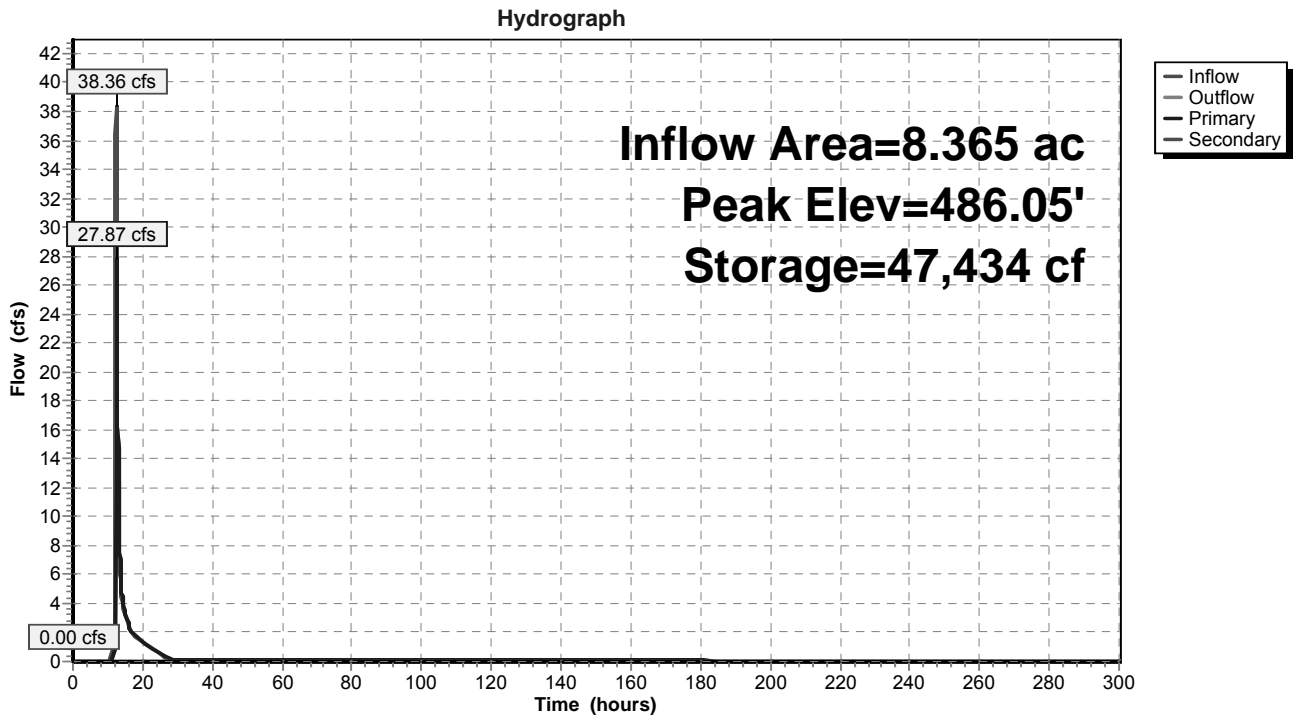
Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

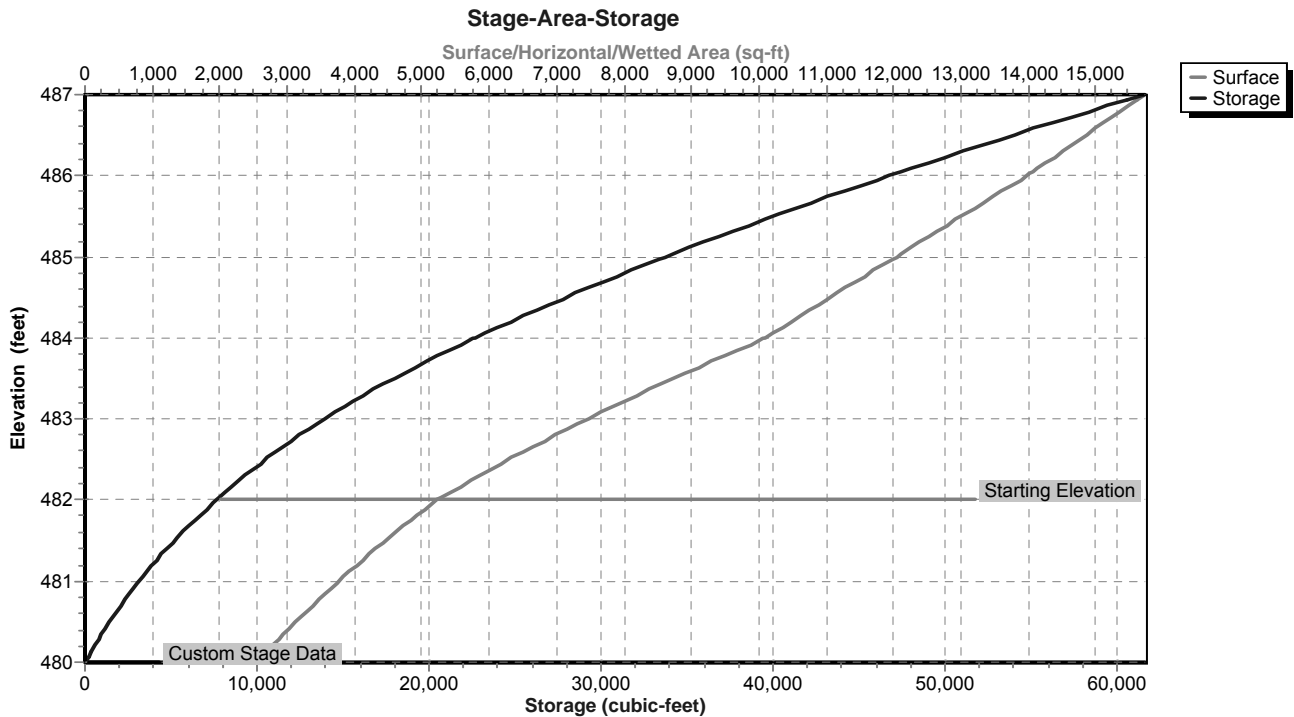
Primary OutFlow Max=27.66 cfs @ 12.58 hrs HW=486.05' (Free Discharge)
 1=Outlet Pipe (Passes 27.66 cfs of 33.98 cfs potential flow)
 2=Reverse Pipe Inlet (Outlet Controls 0.11 cfs @ 5.21 fps)
 3=Orifice #1 (Orifice Controls 27.01 cfs @ 3.00 fps)
 4=Top of Outlet Box (Weir Controls 0.53 cfs @ 0.71 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)
 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
884.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 5.83" for 100 Year - North Salem event
 Inflow = 47.24 cfs @ 12.17 hrs, Volume= 4.178 af
 Outflow = 42.18 cfs @ 12.24 hrs, Volume= 4.178 af, Atten= 11%, Lag= 4.2 min
 Primary = 42.18 cfs @ 12.24 hrs, Volume= 4.178 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 520.00' @ 12.24 hrs Surf.Area= 9,951 sf Storage= 41,397 cf (34,345 cf above start)

Plug-Flow detention time= 377.8 min calculated for 4.015 af (96% of inflow)
 Center-of-Mass det. time= 338.4 min (1,155.8 - 817.4)

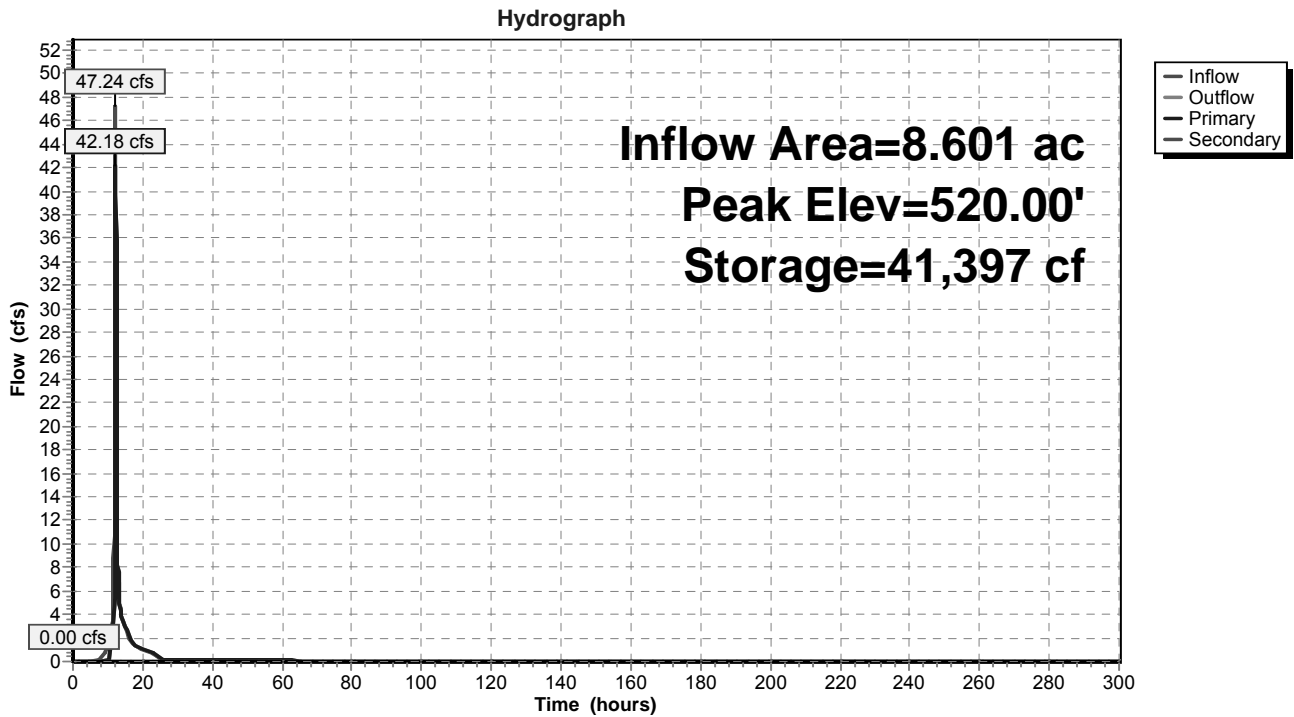
Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

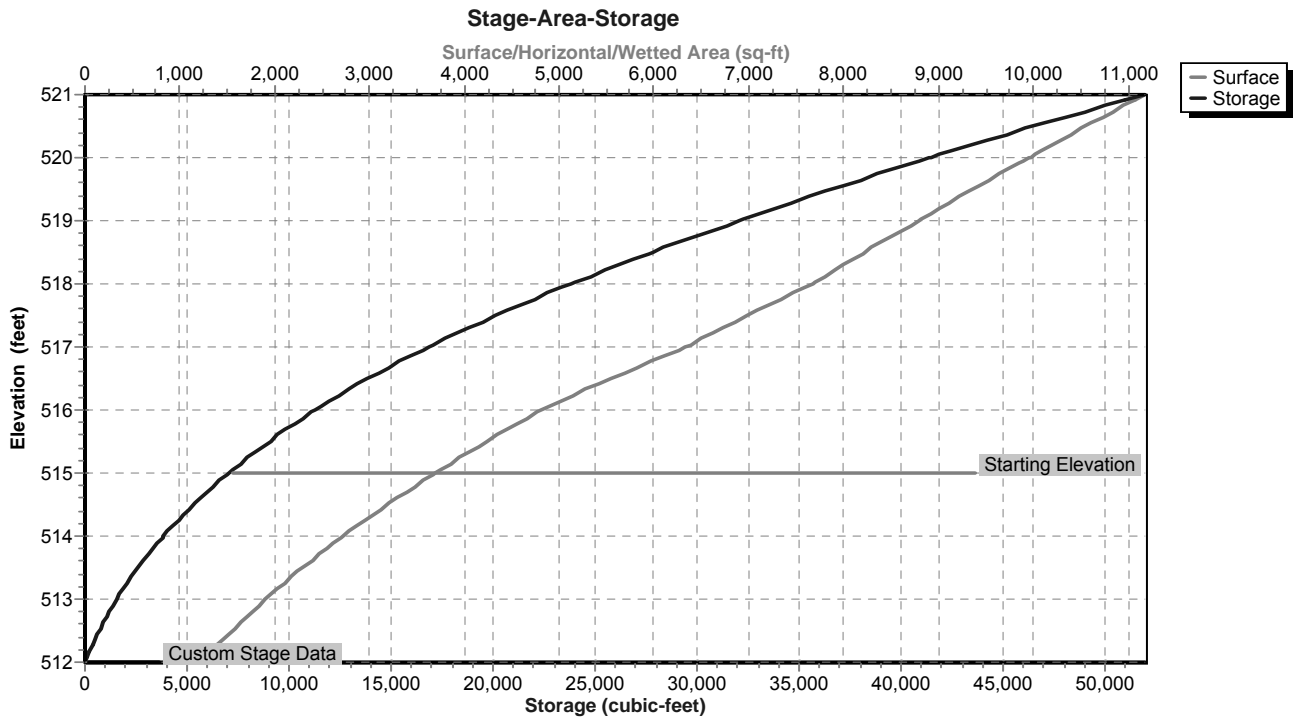
Primary OutFlow Max=41.85 cfs @ 12.24 hrs HW=519.99' (Free Discharge)
 1=Outlet Pipe (Passes 41.85 cfs of 61.36 cfs potential flow)
 2=Reverse Pipe Inlet (Outlet Controls 0.13 cfs @ 5.79 fps)
 3=Orifice #1 (Orifice Controls 41.32 cfs @ 4.23 fps)
 4=Top of Outlet Box (Weir Controls 0.40 cfs @ 0.65 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K6: Micropool ED Basin - (Basin K6)



Pond ED-K6: Micropool ED Basin - (Basin K6)



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 7.18" for 100 Year - North Salem event
 Inflow = 68.58 cfs @ 12.19 hrs, Volume= 6.601 af
 Outflow = 68.58 cfs @ 12.19 hrs, Volume= 6.601 af, Atten= 0%, Lag= 0.0 min
 Primary = 34.61 cfs @ 12.19 hrs, Volume= 5.574 af
 Secondary = 33.97 cfs @ 12.19 hrs, Volume= 1.027 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 472.96' @ 12.19 hrs
 Flood Elev= 556.50'

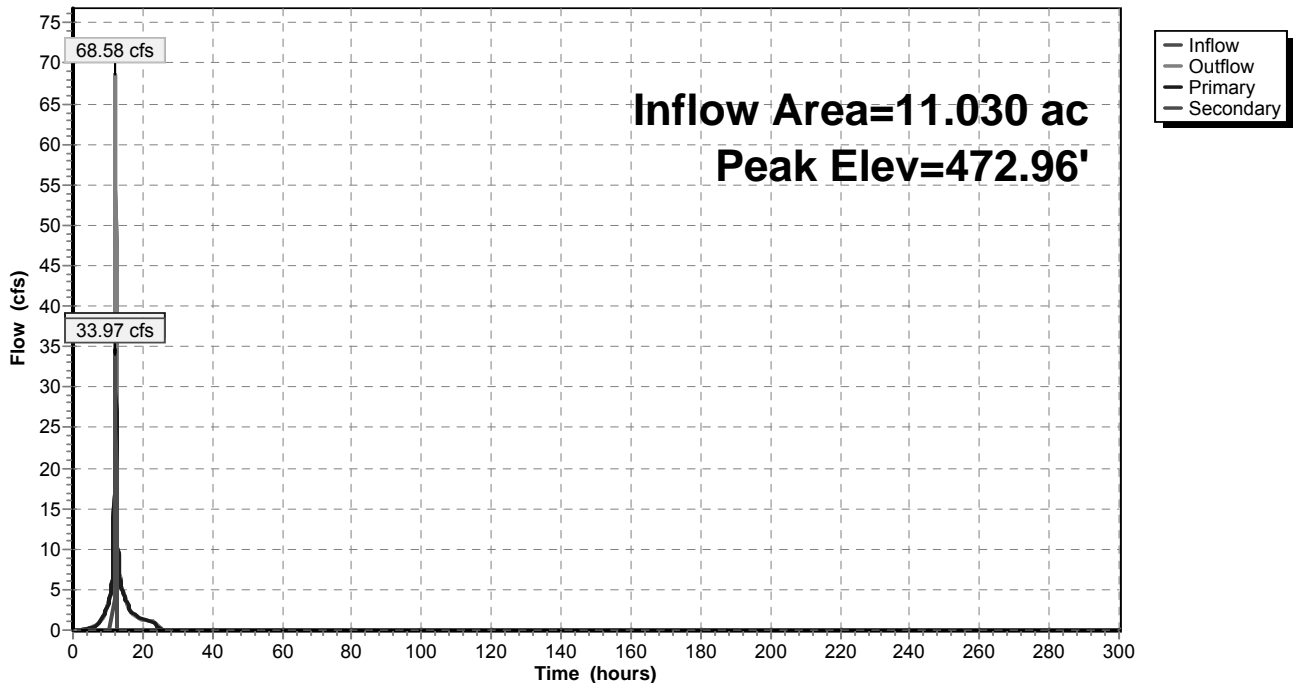
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=34.41 cfs @ 12.19 hrs HW=472.88' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 34.41 cfs @ 10.95 fps)

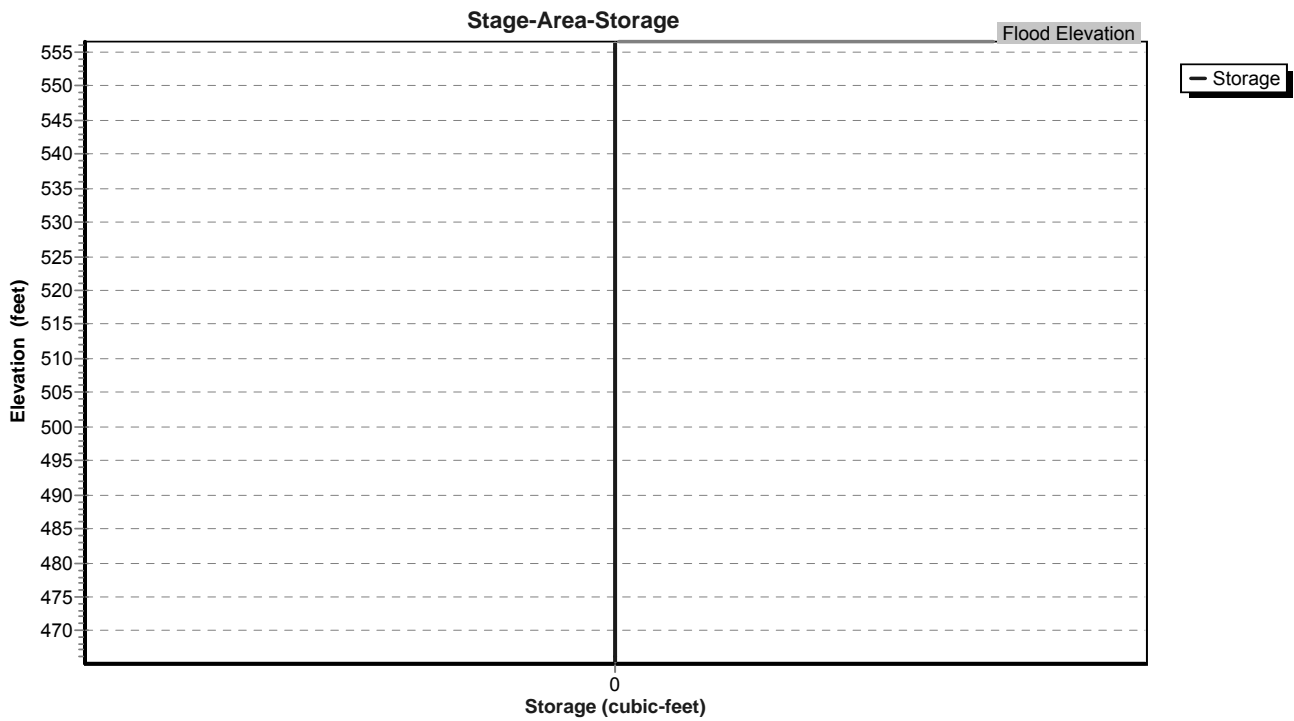
Secondary OutFlow Max=33.66 cfs @ 12.19 hrs HW=472.88' (Free Discharge)
 ↳2=Outlet to Basin K3 (Inlet Controls 33.66 cfs @ 8.47 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Pond FS K3: Flow Splitter - K3



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 6.69" for 100 Year - North Salem event
 Inflow = 41.41 cfs @ 12.30 hrs, Volume= 4.664 af
 Outflow = 41.41 cfs @ 12.30 hrs, Volume= 4.664 af, Atten= 0%, Lag= 0.0 min
 Primary = 23.94 cfs @ 12.30 hrs, Volume= 4.014 af
 Secondary = 17.47 cfs @ 12.30 hrs, Volume= 0.650 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 509.22' @ 12.30 hrs
 Flood Elev= 556.50'

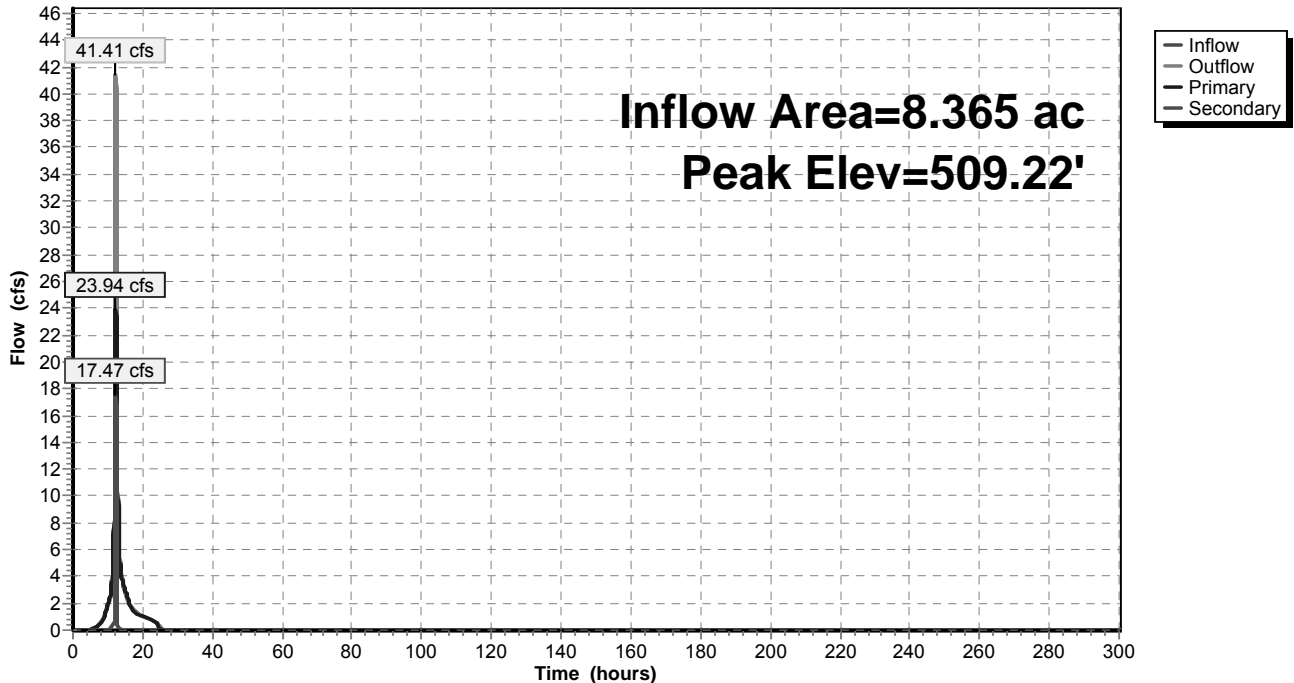
Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=23.93 cfs @ 12.30 hrs HW=509.22' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 23.93 cfs @ 7.62 fps)

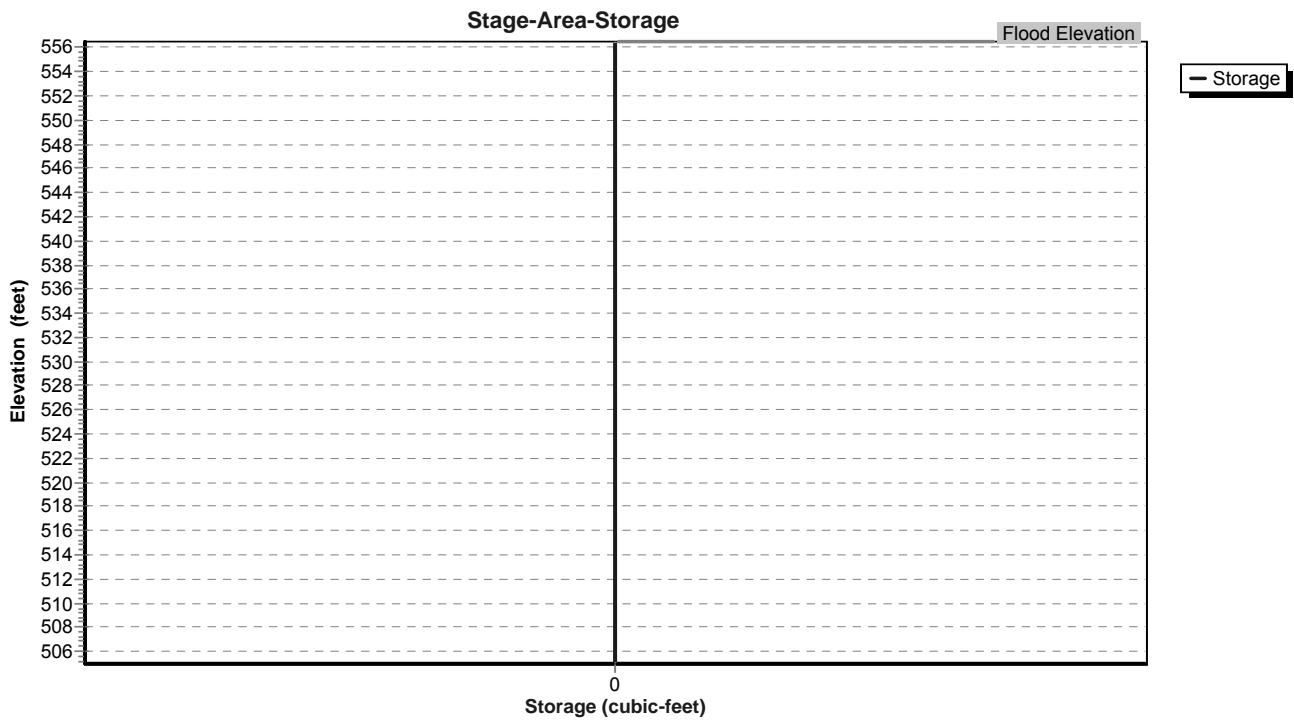
Secondary OutFlow Max=17.48 cfs @ 12.30 hrs HW=509.22' (Free Discharge)
 ↳2=Outlet to Basin K5 (Inlet Controls 17.48 cfs @ 5.56 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Pond FS-K5: Flow Splitter - K5



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 5.09" for 100 Year - North Salem event
 Inflow = 9.60 cfs @ 12.21 hrs, Volume= 0.867 af
 Outflow = 9.26 cfs @ 12.25 hrs, Volume= 0.867 af, Atten= 3%, Lag= 2.8 min
 Primary = 9.26 cfs @ 12.25 hrs, Volume= 0.867 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 426.78' @ 12.25 hrs Surf.Area= 2,357 sf Storage= 6,211 cf

Plug-Flow detention time= 295.0 min calculated for 0.867 af (100% of inflow)
 Center-of-Mass det. time= 294.6 min (1,146.0 - 851.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

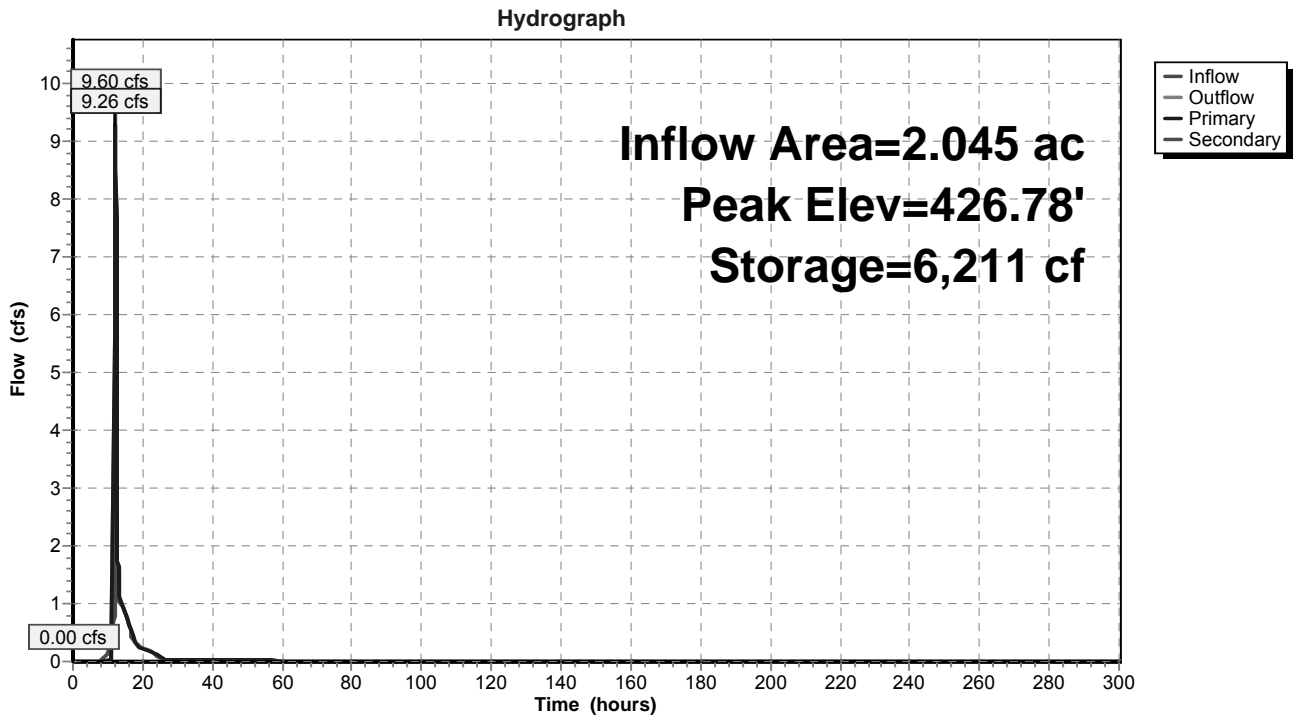
Primary OutFlow Max=9.14 cfs @ 12.25 hrs HW=426.78' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 9.14 cfs of 12.40 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.05 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 8.80 cfs @ 2.93 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 0.29 cfs @ 0.58 fps)

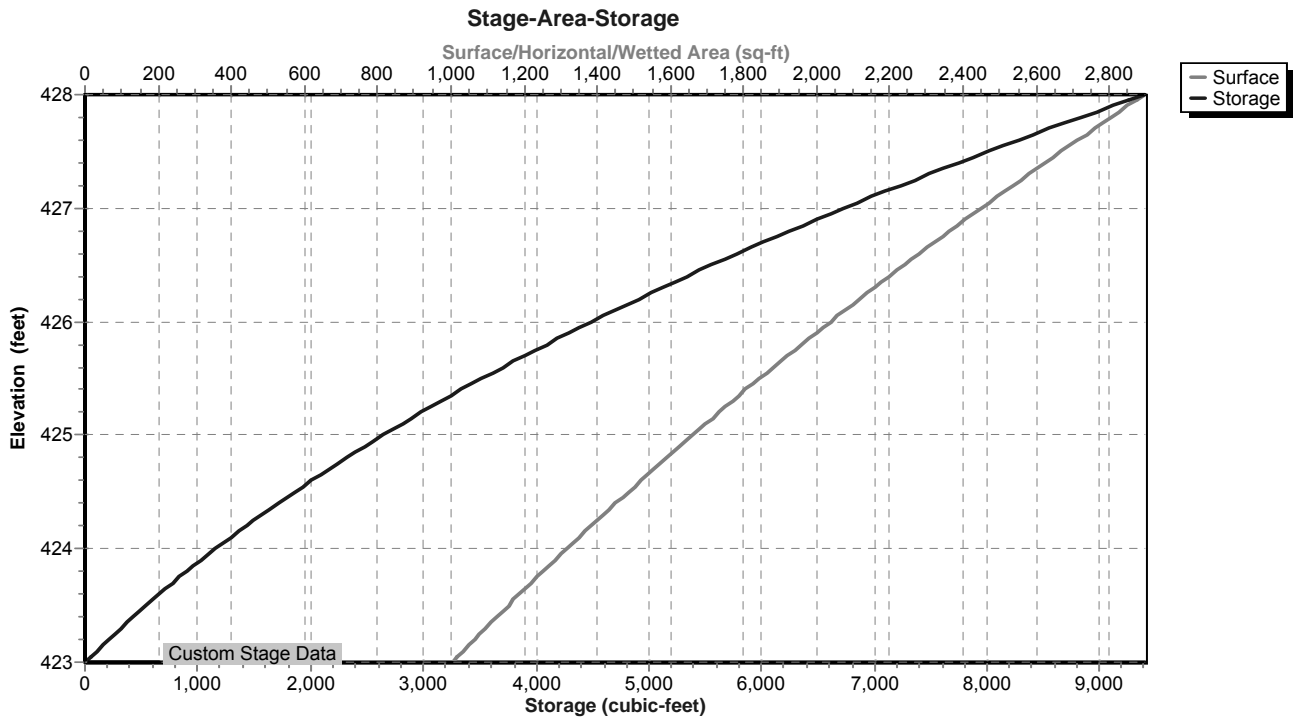
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K2: Sand Filter - K2



Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 OUTLET by 0.93'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 5.93" for 100 Year - North Salem event
 Inflow = 34.12 cfs @ 12.22 hrs, Volume= 5.451 af
 Outflow = 29.14 cfs @ 12.35 hrs, Volume= 5.415 af, Atten= 15%, Lag= 7.6 min
 Primary = 29.14 cfs @ 12.35 hrs, Volume= 5.415 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 461.93' @ 12.35 hrs Surf.Area= 19,271 sf Storage= 65,278 cf

Plug-Flow detention time= 1,118.9 min calculated for 5.415 af (99% of inflow)
 Center-of-Mass det. time= 1,110.7 min (1,988.6 - 877.9)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

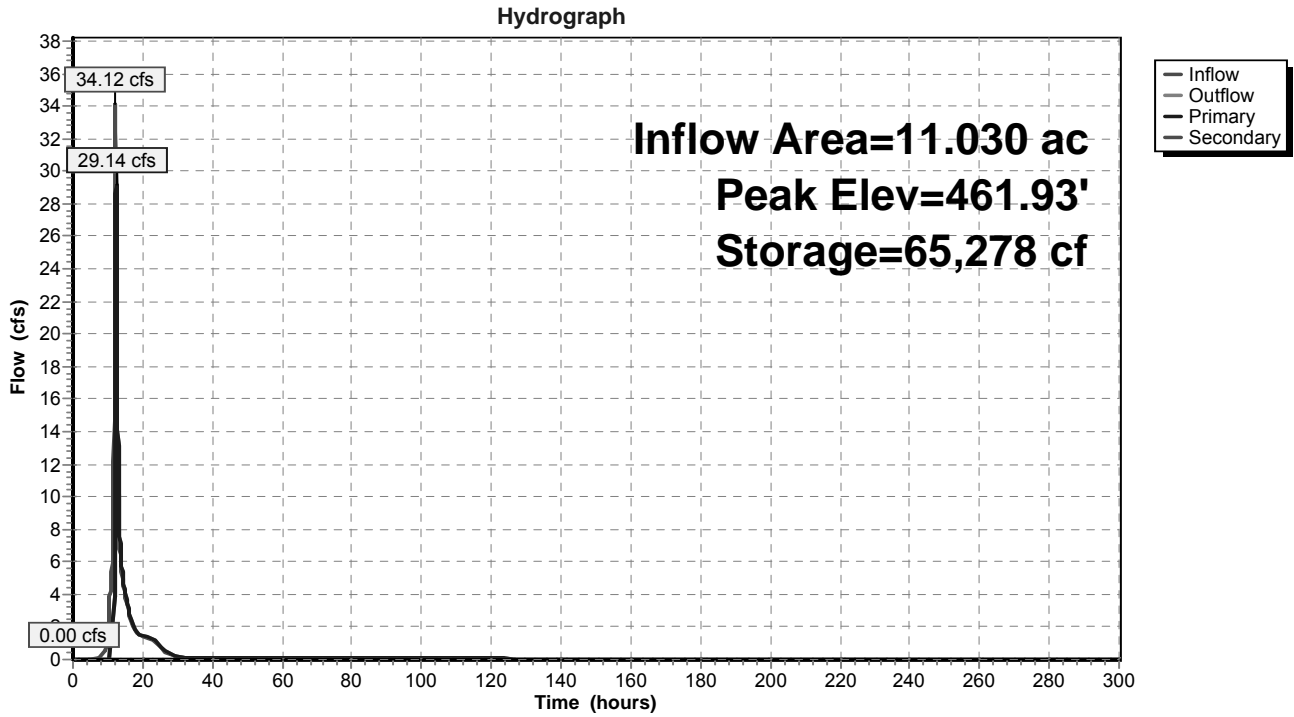
Primary OutFlow Max=29.07 cfs @ 12.35 hrs HW=461.93' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 29.07 cfs of 66.67 cfs potential flow)
- ↑ 2=Exfiltration (Exfiltration Controls 0.21 cfs)
- ↑ 3=Orifice #1 (Orifice Controls 21.16 cfs @ 3.66 fps)
- ↑ 4=Top of Outlet Box (Weir Controls 7.69 cfs @ 1.73 fps)

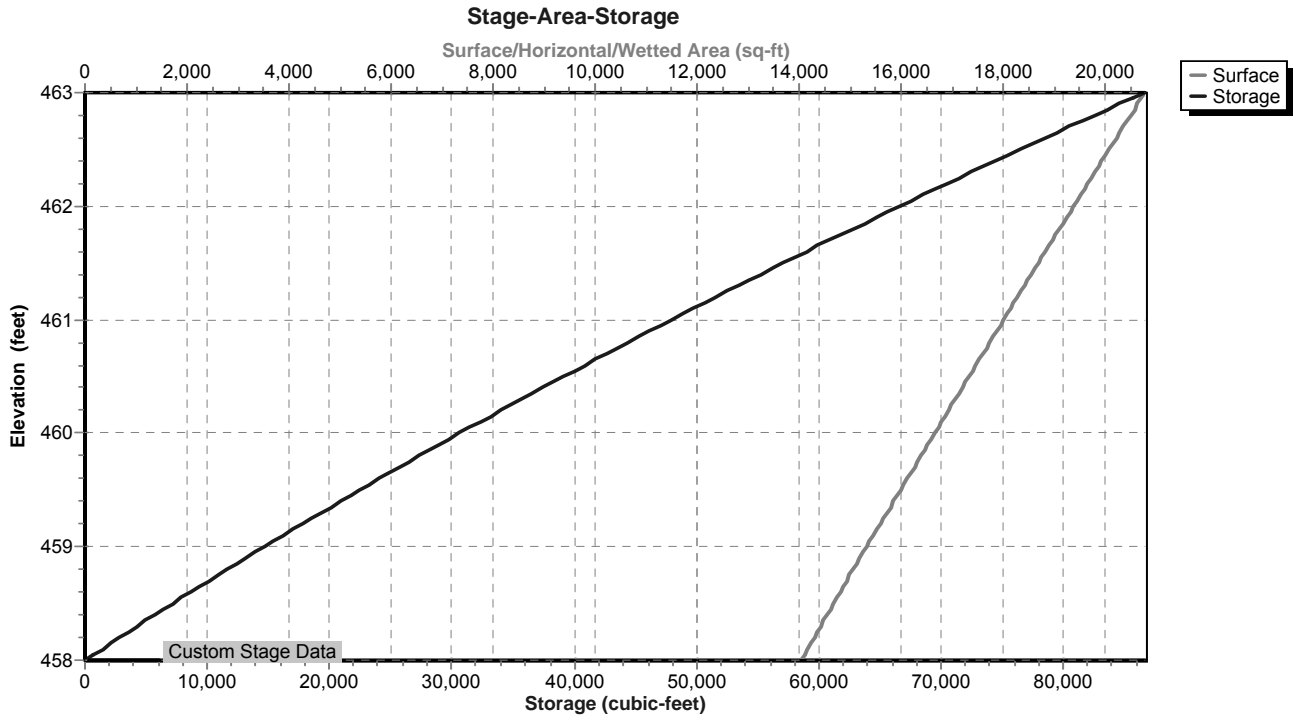
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K3: Sand Filter -K3



Pond SF-K3: Sand Filter -K3



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 5.76" for 100 Year - North Salem event
 Inflow = 23.33 cfs @ 12.36 hrs, Volume= 4.014 af
 Outflow = 22.72 cfs @ 12.42 hrs, Volume= 3.993 af, Atten= 3%, Lag= 3.9 min
 Primary = 22.72 cfs @ 12.42 hrs, Volume= 3.993 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 494.92' @ 12.42 hrs Surf.Area= 11,067 sf Storage= 37,373 cf

Plug-Flow detention time= 931.1 min calculated for 3.993 af (99% of inflow)
 Center-of-Mass det. time= 926.4 min (1,799.8 - 873.4)

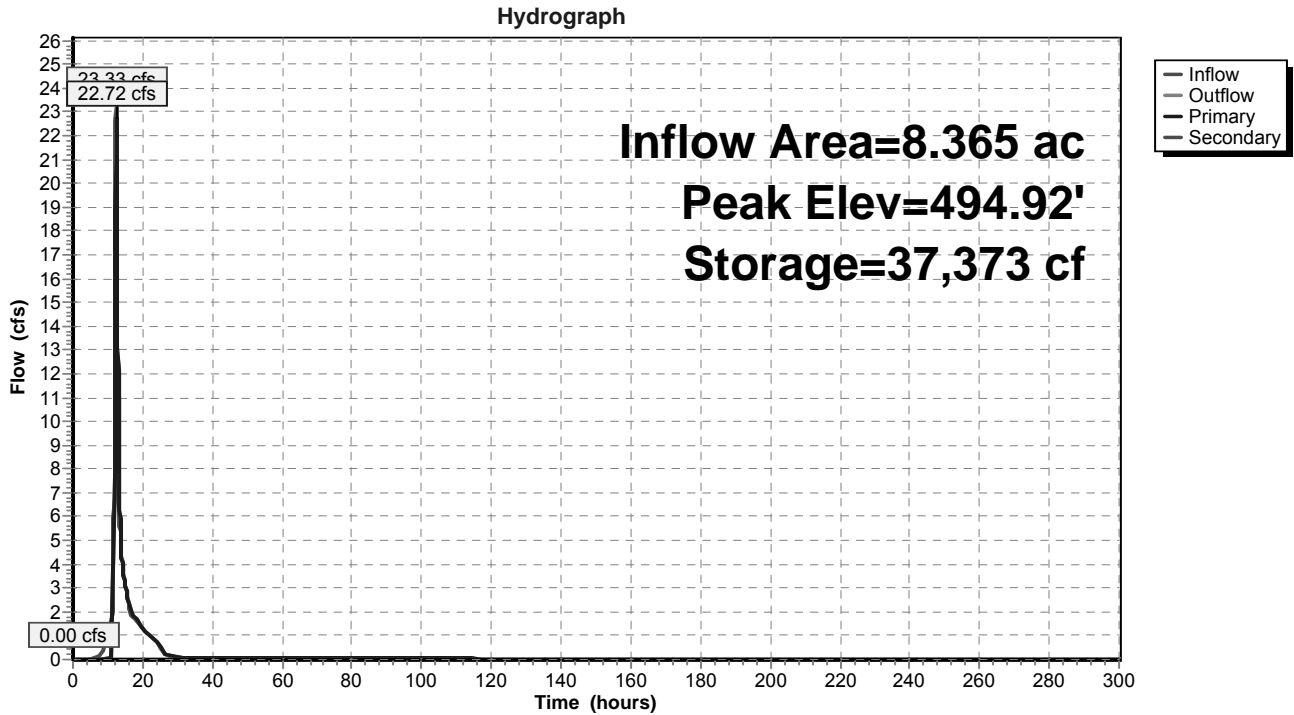
Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

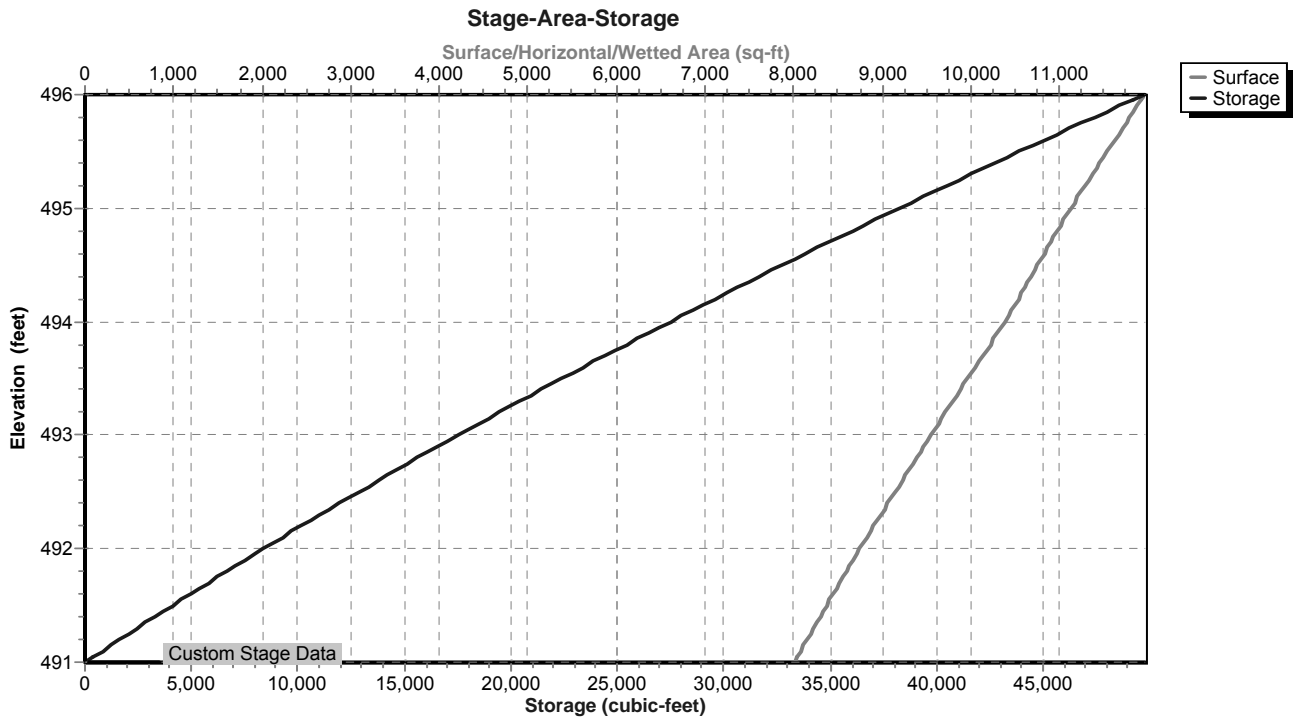
Primary OutFlow Max=22.57 cfs @ 12.42 hrs HW=494.92' (Free Discharge)
 ↑ 1=Outlet Pipe (Passes 22.57 cfs of 31.07 cfs potential flow)
 ↑ 2=Exfiltration (Exfiltration Controls 0.12 cfs)
 ↑ 3=Top of Outlet Box (Weir Controls 22.44 cfs @ 2.47 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K5: Sand Filter - K5



Pond SF-K5: Sand Filter - K5



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 5.09" for 100 Year - North Salem event
 Inflow = 9.64 cfs @ 12.18 hrs, Volume= 0.867 af
 Outflow = 9.60 cfs @ 12.21 hrs, Volume= 0.867 af, Atten= 0%, Lag= 1.5 min
 Primary = 6.23 cfs @ 12.21 hrs, Volume= 0.818 af
 Secondary = 3.36 cfs @ 12.21 hrs, Volume= 0.049 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.22' @ 12.21 hrs Surf.Area= 1,729 sf Storage= 3,373 cf

Plug-Flow detention time= 21.2 min calculated for 0.867 af (100% of inflow)
 Center-of-Mass det. time= 21.1 min (851.3 - 830.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
430.00	440	165.0	0	0	440
432.00	1,216	210.0	1,592	1,592	1,834
434.00	2,107	235.0	3,282	4,874	2,825

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

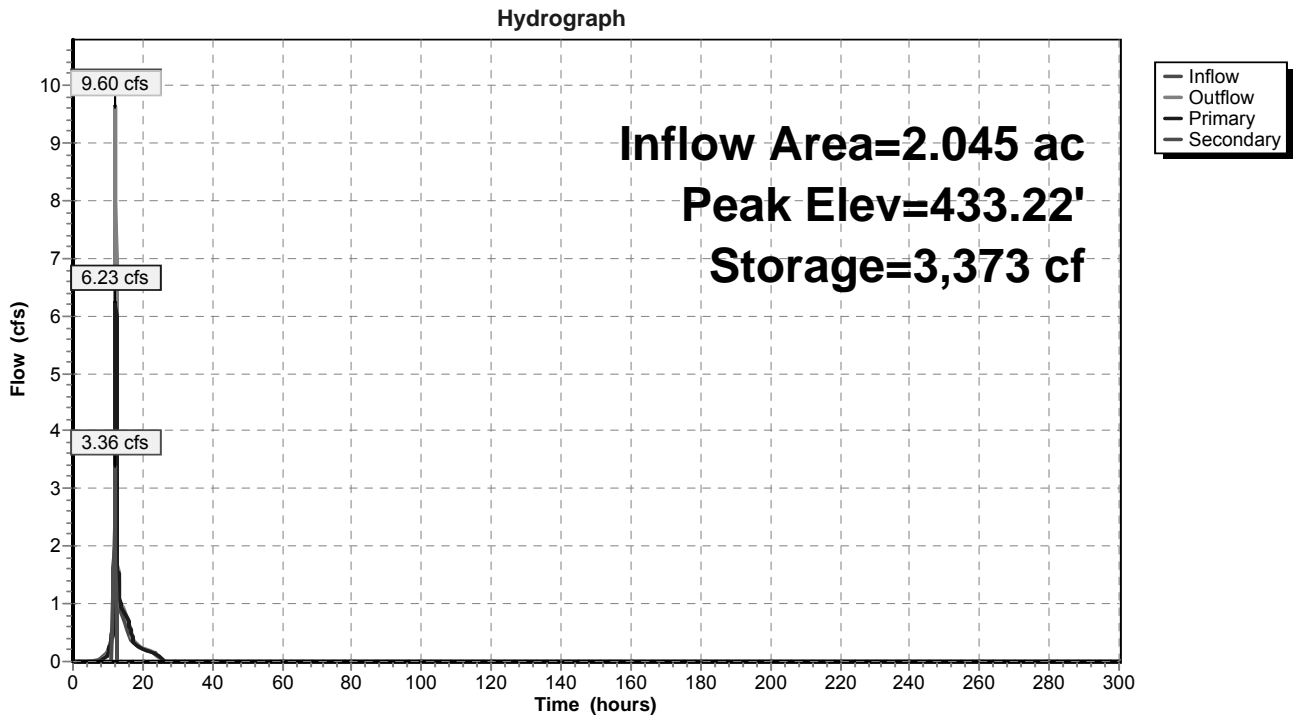
Primary OutFlow Max=6.23 cfs @ 12.21 hrs HW=433.21' (Free Discharge)

- ↑ 1=Outlet Pipe (Inlet Controls 6.23 cfs @ 7.93 fps)
- ↑ 2=Standpipe Openings (Passes < 1.06 cfs potential flow)
- ↑ 3=Top of Standpipe (Passes < 6.45 cfs potential flow)
- ↑ 4=Top of Outlet Box (Passes < 8.54 cfs potential flow)

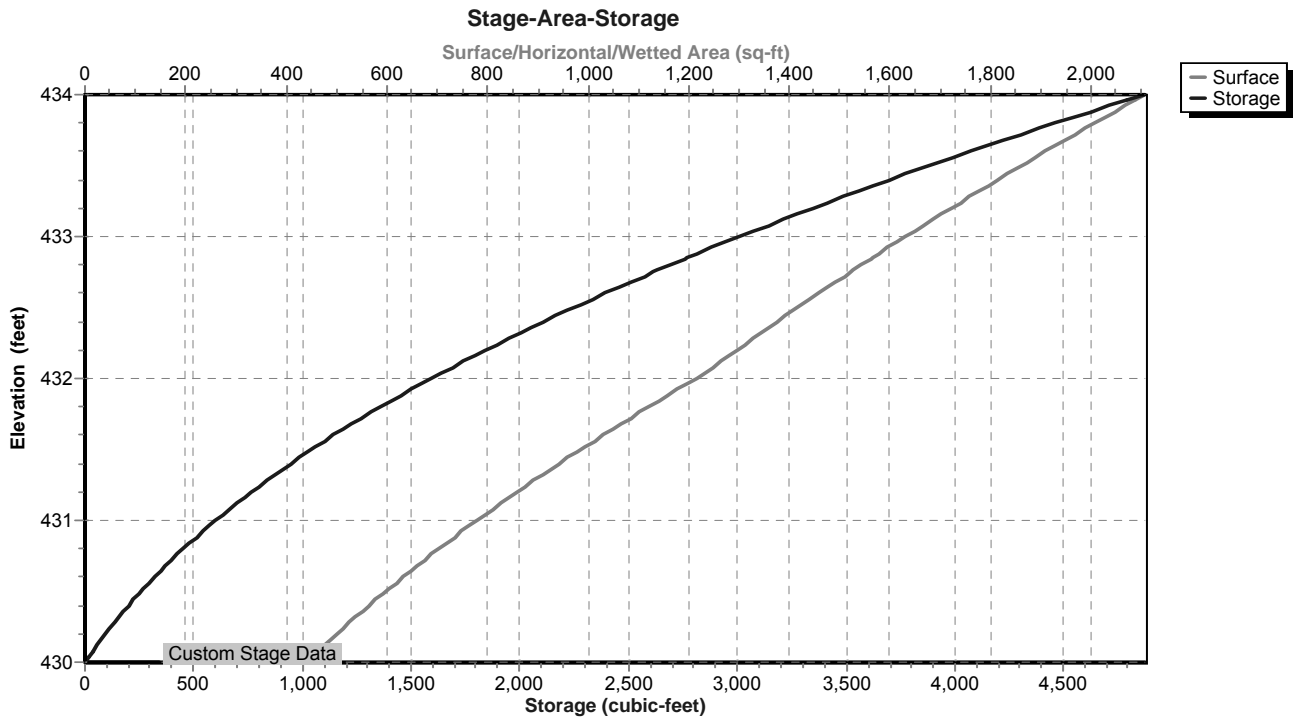
Secondary OutFlow Max=3.26 cfs @ 12.21 hrs HW=433.21' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 3.26 cfs @ 1.54 fps)

Pond SFF-K2: Sand Filter Forebay - K2



Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

[79] Warning: Submerged Pond FS K3 Primary device # 1 OUTLET by 0.11'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 6.06" for 100 Year - North Salem event
 Inflow = 34.61 cfs @ 12.19 hrs, Volume= 5.574 af
 Outflow = 34.12 cfs @ 12.22 hrs, Volume= 5.451 af, Atten= 1%, Lag= 1.7 min
 Primary = 34.12 cfs @ 12.22 hrs, Volume= 5.451 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.91' @ 12.22 hrs Surf.Area= 7,389 sf Storage= 24,217 cf

Plug-Flow detention time= 87.0 min calculated for 5.451 af (98% of inflow)
 Center-of-Mass det. time= 72.6 min (877.9 - 805.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
461.00	5,065	273.0	0	0	5,065
462.00	5,623	285.0	5,342	5,342	5,666
464.00	6,813	310.0	12,417	17,759	6,991
464.50	7,126	319.0	3,484	21,243	7,468
465.00	7,447	323.0	3,643	24,886	7,728
466.00	8,104	336.0	7,773	32,659	8,486

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

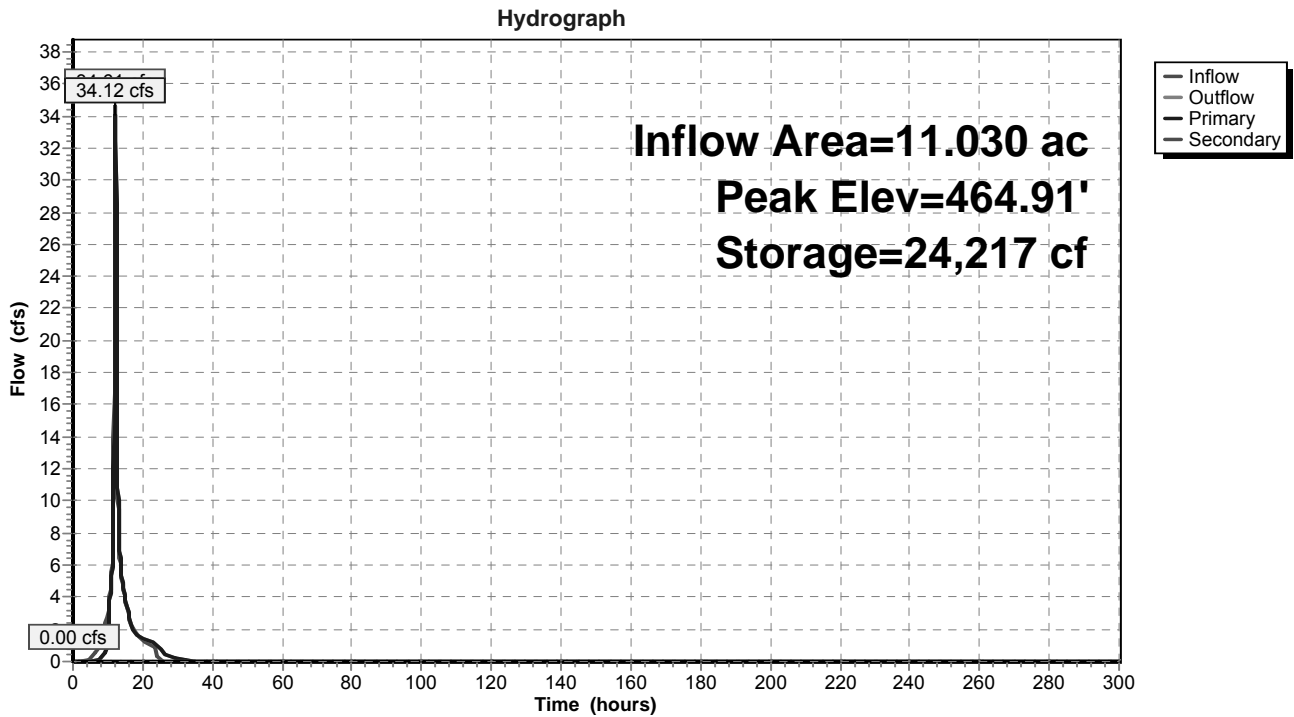
Primary OutFlow Max=33.76 cfs @ 12.22 hrs HW=464.90' (Free Discharge)

- ↑ 1=Outlet Pipe (Passes 33.76 cfs of 40.63 cfs potential flow)
- ↑ 2=Standpipe Openings (Orifice Controls 1.78 cfs @ 6.79 fps)
- ↑ 3=Top of Standpipe (Weir Controls 21.78 cfs @ 2.65 fps)
- ↑ 4=Orifice #1 (Orifice Controls 10.21 cfs @ 2.60 fps)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

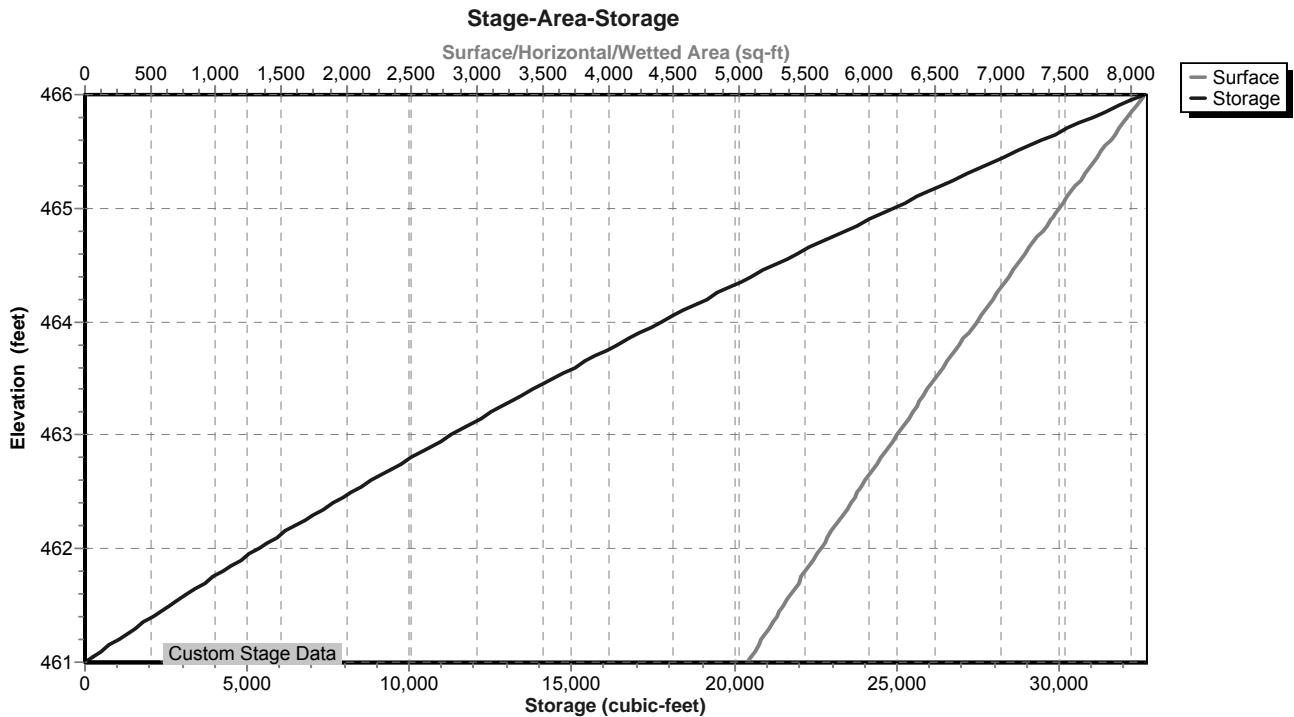
Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

- ↑ 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K3: Sand Filter Forebay - K3



Pond SFF-K3: Sand Filter Forebay - K3



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 5.76" for 100 Year - North Salem event
 Inflow = 23.94 cfs @ 12.30 hrs, Volume= 4.014 af
 Outflow = 23.33 cfs @ 12.36 hrs, Volume= 4.014 af, Atten= 3%, Lag= 3.6 min
 Primary = 23.33 cfs @ 12.36 hrs, Volume= 4.014 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 504.64' @ 12.36 hrs Surf.Area= 5,232 sf Storage= 18,619 cf

Plug-Flow detention time= 50.6 min calculated for 4.014 af (100% of inflow)
 Center-of-Mass det. time= 50.7 min (873.4 - 822.7)

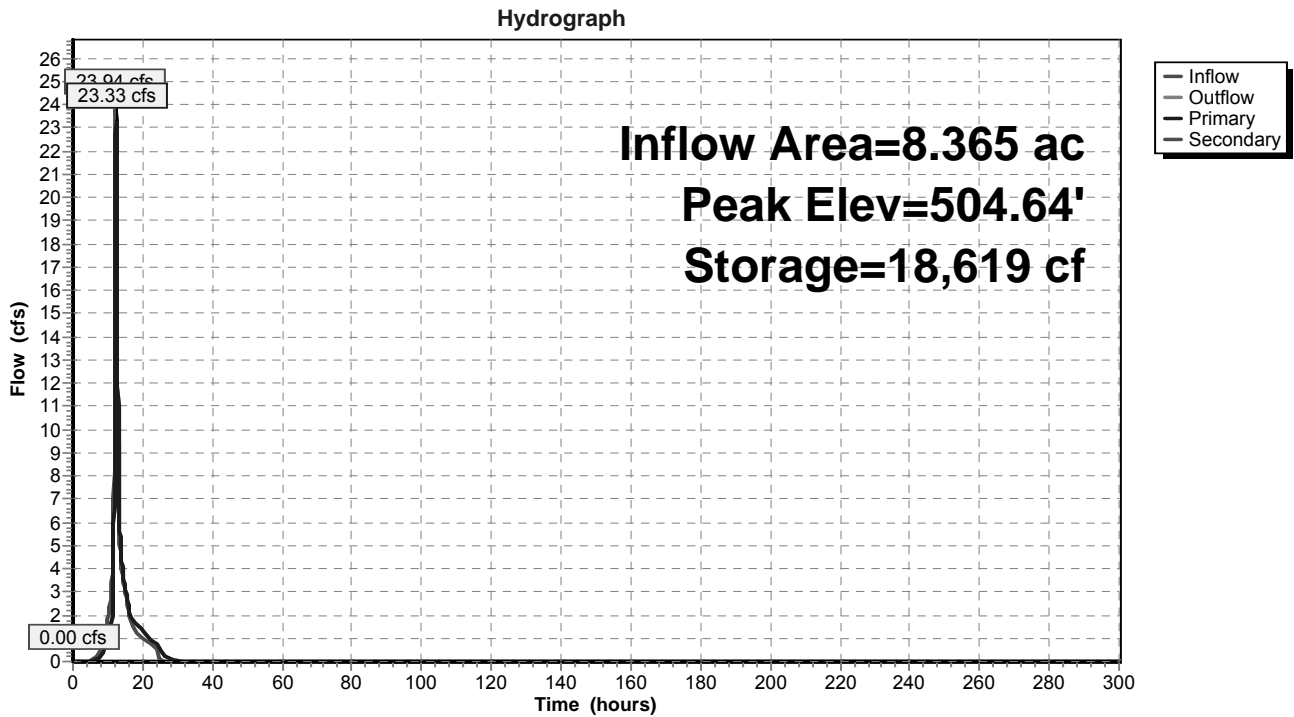
Volume	Invert	Avail.Storage	Storage Description		
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
500.00	2,880	224.0	0	0	2,880
502.00	3,826	250.0	6,684	6,684	3,969
504.00	4,874	275.0	8,679	15,363	5,138
505.00	5,434	287.0	5,151	20,514	5,744
506.00	6,021	300.0	5,725	26,239	6,418

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

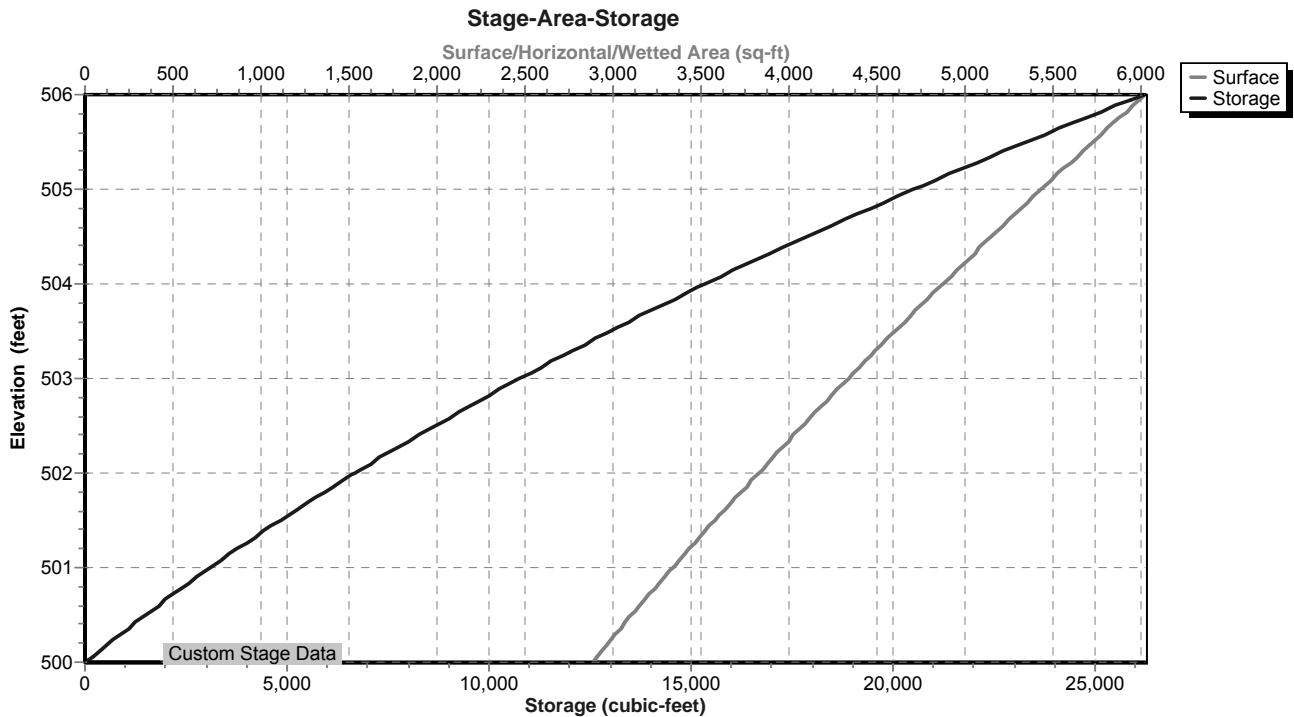
Primary OutFlow Max=23.26 cfs @ 12.36 hrs HW=504.64' (Free Discharge)
 1=Outlet Pipe (Passes 23.26 cfs of 28.87 cfs potential flow)
 2=Standpipe Openings (Orifice Controls 2.44 cfs @ 9.32 fps)
 3=Top of Standpipe (Orifice Controls 10.90 cfs @ 6.17 fps)
 4=Orifice #1 (Orifice Controls 9.91 cfs @ 2.57 fps)
 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)
 6=Emergency Overflow (Controls 0.00 cfs)

Pond SFF-K5: Sand Filter Forebay - K5



Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

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WATER QUALITY VOLUME CALCULATIONS & STORMWATER DESIGN WORKSHEETS

FOR

HIGHGATE-WOODLANDS AT NORTH SALEM SUBDIVISION
REED ROAD
TOWN OF NORTH SALEM
WESTCHESTER COUNTY, NEW YORK

Design Point	Sub-Basin	SMP ¹ ID	SMP ¹ Type	Contributing Area (Acres)	% Imp. ²	WQV ³ Required		WQV ³ Provided		Sufficient WQV ³ ?
						af	cf	af	cf	
1a	A1a			1.563	0.0%	0.000	0.000	0.000	0	Yes
	A2 ⁵		Hydrodynamic Separator & Vegetated Swale	3.282	4.51%	0.101	4399.560	0.101	4400	Yes
	A3a	SF-A3a	F-1 Surface Sand Filter	0.702	12.82%	0.032	1393.920	0.032	1408	Yes
	A3b	SF-A3b	F-1 Surface Sand Filter	2.10	11.83%	0.090	3920.400	0.110	4784	Yes
	A4	ED-A4	P-1, Micropool Extended Detention Basin	6.93	15.71%	0.343	14941.080	0.467	20348	Yes
2	B1	-	-	3.91	0.0%	0.000	0.000	0.000	0.000	Yes
	B2	SF-B2	F-1 Surface Sand Filter/ Dry Basin	4.525	17.50%	0.224	9757.440	0.242	10520.000	Yes
	B3	B-B3	Dry Basin	0.619	0.00%	0.000	0.000	0.000	0.000	Yes
3	C1 ⁶	-	Hydrodynamic Separator	2.633	4.75%	0.074	0.000	0.000	0.000	Yes
	C2	PW-C2	W-4 Pocket Wetlands	4.033	8.60%	0.172	7492.320	0.290	12635.000	Yes
6	F1	-	-	5.369	0.00%	0.000	0.000	0.000	0.000	Yes
	F2	Sub-Lot 16	I-1 Infiltration Trench	0.559	25.04%	0.034	1481.040	0.073	3180.000	Yes
	F3	Sub-Lot 15	I-1 Infiltration Trench	0.489	26.58%	0.031	1350.360	0.049	2134.000	Yes
	F4	Sub-Lot 14	I-1 Infiltration Trench	0.762	20.34%	0.040	1742.400	0.041	1786.000	Yes
	F5	Sub-Lot 13	I-1 Infiltration Trench	0.317	36.59%	0.027	1176.120	0.041	1786.000	Yes
7	G1	SF-G1	F-1 Surface Sand Filter/Dry Basin	2.36	19.11%	0.161	7013.160	0.164	7125.000	Yes
	G2	I-G2	I-2 Infiltration Basin	6.667	23.94%	0.511	22259.160	0.511	22259.160	Yes
	G3a	I-G3a	I-2 Infiltration Basin	3.341	35.74%	0.334	14549.040	0.334	14549.040	Yes
	G3b	I-G3b	I-2 Infiltration Basin	3.72	22.04%	0.197	8581.320	0.197	8581.320	Yes
	G4a	B-G4a	NO ACTION	1.993	0.00%	0.000	0.000	0.000	0.000	Yes
	G4b	-	-	12.967	0.00%	0.000	0.000	0.000	0.000	Yes
	G5a	SF-G5	F-1 Surface Sand Filter/ Dry Basin	2.154	19.41%	0.122	5314.320	0.122	5322.000	Yes
	G5b	Sub-Lot 17	I-1 Infiltration Trench	0.153	100.00%	0.037	1611.720	0.037	1611.720	Yes
	G5c	Sub-Lot 21	I-1 Infiltration Trench	0.143	89.51%	0.029	1263.240	0.029	1263.240	Yes
	G6	SF-G6	F-1 Surface Sand Filter/ Dry Basin	3.518	19.41%	0.352	15333.120	0.378	16470.400	Yes
G7	SF-G7	F-1 Surface Sand Filter/ Dry Basin	1.542	19.58%	0.154	6708.240	0.172	7504.000	Yes	
8	H2	Sub-Lot 18	I-1 Infiltration Trench	0.349	38.11%	0.044	1916.640	0.044	1916.640	Yes
	H3	Sub-Lot 19	I-1 Infiltration Trench	0.289	41.87%	0.037	1611.720	0.037	1611.720	Yes
	H4	Sub-Lot 20	I-1 Infiltration Trench	0.409	33.25%	0.047	2047.320	0.047	2047.320	Yes
11	K2	SF-K2	F-1 Surface Sand Filter	2.045	17.21%	0.116	5052.960	0.120	5225.800	Yes
	K3 ⁴	SF-K3	F-1 Surface Sand Filter	11.03	50.96%	1.537	66951.720	1.537	66952.000	Yes
	K4	ED-K3	P-1 Micropool ED Basin					1.634	71159.000	Yes
	K5 ⁴	SF-K5	F-1 Surface Sand Filter	8.365	29.84%	0.970	42253.200	0.973	42393.000	Yes
		ED-K5	P-1 Micropool ED Basin					0.983	42824.000	Yes
	K6	ED-K6	P-1, Micropool ED Basin	8.601	9.45	0.697	30361.320	0.853	37171.000	Yes

¹ SMP = Stormwater Management Practice

² Imp = Impervious

³ WQv = Water Quality Volume

⁴ Two NYSDEC compliant practices are provided to treat one subcatchment if the percent imperviousness exceeded 20% and the SMP provided is not infiltration. This was provided to address the additional requirements of the NYCDEP.

⁵ The proposed hydrodynamic separator has been sized to capture and treat the water quality volume peak flow as required.

⁶ There is no increase in impervious surface for this subcatchment, therefore a hydrodynamic separator will be installed and connected to any future drainage improvements along Sun Valley Drive

DESIGN POINT: 1a
LOCATION: Reed Road

Sub-Basin:	A3a	Area (ac):	0.702	Percent Impervious:	12.82%
				WQv (cf):	1394
Testing Information			SMP Information		
Test Pit Number/Depth	D25	/	70"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	364			Sedimentation Basin	
Bottom of Test Pit Elev	358.17			Surface Area (sf)	200
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	432

Step 1 **Water Quality Volume** 1394 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _O	Discharge Rate from Basin	0.016134259	cfs
WQV	Water Quality Volume	1394	cf
A _S	Sedimentation Basin Surface Area Required	92.87626214	sf
Pre-treatment Volume Required (25% WQv)		348.5	cf
Sedimentation Basin Surface Area Provided		200	sf
Sedimentation Basin Depth		1.75	ft
Pre-Treatment Volume Provided (V _S)		350.00	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	1.5	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed Required	119.2472198	sf
Treatment Volume Required (75% WQv)		1045.5	cf
Filter Bed Area Provided		432	sf
Height of Water above Filter Media Provided		1.85	ft
Treatment Volume Provided		799.20	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	259.2	cf	n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	799.2	cf	V _F =A _F (D _F)(n)
V _S	Pre-Treatment Volume Storage	350.00	cf	V _{F-TEMP} =(H _F)(A _F)
Total Volume w/in Practice Provided		1408.4	cf	
Total Volume Required		1394	cf	
Volume Provided > Volume Required?		Yes		

Sub-Basin:	A3b	Area (ac):	2.1	Percent Impervious:	11.83%
				WQv (cf):	3921
Testing Information			SMP Information		
Test Pit Number/Depth	D25	/	70"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	364			Sedimentation Basin	
Bottom of Test Pit Elev	358.17			Surface Area (sf)	707
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	1296

Step 1 **Water Quality Volume** 3921 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q ₀	Discharge Rate from Basin	0.045381944	cfs
WQV	Water Quality Volume	3921	cf
A _S	Sedimentation Basin Surface Area Required	261.2394719	sf
Pre-treatment Volume Required (25% WQv)		980.25	cf
Sedimentation Basin Surface Area Provided		707	sf
Sedimentation Basin Depth		2	ft
Pre-Treatment Volume Provided (V _S)		1414.00	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	1.5	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed	335.4148845	sf
Treatment Volume Required (75% WQv)		2940.75	cf
Filter Bed Area Provided		1296	sf
Height of Water above Filter Media Provided		2	ft
Treatment Volume Provided		2592.00	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	777.6	cf	n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	2592	cf	V _F =A _F (D _F)(n)
V _s	Pre-Treatment Volume Storage	1414.00	cf	V _{F-TEMP} =(H _F)(A _F)
Total Volume w/in Practice Provided		4783.6	cf	
Total Volume Required		3921	cf	
Volume Provided > Volume Required?		Yes		

Sub-Basin:	A4	Area (ac):	6.93	Percent Impervious:	15.71%
				WQv (cf):	14941
Testing Information			SMP Information		
Test Pit Number/Depth	D23/D24 / 70"		Type:	P-1, Micropool ED	
Approx. Existing Grade	368				
Bottom of Test Pit Elev	362.17				
Bottom of SMP Practice	n/a				
Top of SMP Practice	n/a				

Water Quality Volume Calculations

	<u>Required</u>		<u>Provided</u>	
Pre-Treatment Volume Required (10%)	1494.1	cf	5154	cf
WQv Treatment Volume in Permanent Pool (20%)	2689.38	cf	4207	cf
WQv Treatment Volume in Extended Detention (80%)	10757.52	cf	10987	cf
<u>Total WQv</u>	<u>14941</u>	cf	<u>20348</u>	cf

Pond Geometry Calculations

	<u>Required</u>		<u>Provided</u>	
Minimum Basin Surface Area (1% of Drainage Area)	3018.708	sf	3267	sf

DESIGN POINT: 2
LOCATION: Southwest

Sub-Basin:	B2	Area (ac):	4.525	Percent Impervious:	17.50%
				WQv (cf):	9758
Tesing Information			SMP Information		
Test Pit Number/Depth	D22	/	84"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	462			Sedimentation Basin	
Bottom of Test Pit Elev	455			Surface Area (sf)	1042
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	2184

Step 1 **Water Quality Volume** 9758 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _O	Discharge Rate from Basin	0.112939815	cfs
WQV	Water Quality Volume	9758	cf
A _S	Sedimentation Basin Surface Area Required	650.133835	sf
	Pre-treatment Volume Required (25% WQv)	2439.5	cf
	Sedimentation Basin Surface Area Provided	1042	sf
	Sedimentation Basin Depth	2.55	ft
	Pre-Treatment Volume Provided (V _S)	2657.10	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	1.5	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed Required	834.7305389	sf
	Treatment Volume Required (75% WQv)	7318.5	cf
	Filter Bed Area Provided	2184	sf
	Height of Water above Filter Media Provided	3	ft
	Treatment Volume Provided	6552.00	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	1310.4	cf	n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	6552	cf	V _F =A _F (D _F)(n)
V _S	Pre-Treatment Volume Storage	2657.10	cf	V _{F-TEMP} =(H _F)(A _F)
	Total Volume w/in Practice Provided	10519.5	cf	
	Total Volume Required	9758	cf	
	Volume Provided > Volume Required?	Yes		

DESIGN POINT: 3
LOCATION: Reed Road

Sub-Basin:	C3	Area (ac):	0.798	Percent Impervious:	5.01%
				WQv (cf):	1089
Testing Information			SMP Information		
Test Pit Number/Depth	C2	/	60"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	464			Sedimentation Basin	
Bottom of Test Pit Elev	459			Surface Area (sf)	200
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	432

Step 1 **Water Quality Volume** 1089 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _O	Discharge Rate from Basin	0.012604167	cfs
WQV	Water Quality Volume	1089	cf
A _S	Sedimentation Basin Surface Area Required	72.55541569	sf
Pre-treatment Volume Required (25% WQv)		272.25	cf
Sedimentation Basin Surface Area Provided		150	sf
Sedimentation Basin Depth		2	ft
Pre-Treatment Volume Provided (V _S)		300.00	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	1.5	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed Required	93.15654405	sf
Treatment Volume Required (75% WQv)		816.75	cf
Filter Bed Area Provided		400	sf
Height of Water above Filter Media Provided		1.5	ft
Treatment Volume Provided		600.00	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	240	cf	n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	600	cf	V _F =A _F (D _F)(n)
V _S	Pre-Treatment Volume Storage	300.00	cf	V _{F-TEMP} =(H _F)(A _F)
Total Volume w/in Practice Provided		1140	cf	
Total Volume Required		1089	cf	
Volume Provided > Volume Required?		Yes		

DESIGN POINT: 6

LOCATION: Northwest Corner of Property

Sub-Basin:	F1	Area:	5.369	Percent Impervious:	0.00%
SMP Type:	None Required				
Testing Provided:	None Required				

Sub-Basin:	F2	Area (ac):	0.559	Percent Impervious:	25.04%
				WQv (cf):	1481
Testing Information			SMP Information		
Test Pit Number/Depth	25A	/	54"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	417.00'			Model:	Cultec Recharger 150HD
Bottom of Test Pit Elev	412.50'			No. Chambers	90
Bottom of SMP Practice	415.50'			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice	417.50'			Volume Req:	1481
Percolation Test #/Rate (min/in)	D19	/	7.7	Volume Provided:	1481

Sub-Basin:	F3	Area (ac):	0.489	Percent Impervious:	26.58%
				WQv (cf):	1350
Testing Information			SMP Information		
Test Pit Number/Depth	D3	/	55"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	435.00'			Model:	Cultec Recharger 150HD
Bottom of Test Pit Elev	430.42'			No. Chambers	60
Bottom of SMP Practice	433.42'			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice				Volume Req:	1350
Percolation Test #/Rate (min/in)	D17	/	5.9	Volume Provided:	1350

Sub-Basin:	F4	Area (ac):	0.762	Percent Impervious:	20.34%
				WQv (cf):	1742
Testing Information			SMP Information		
Test Pit Number/Depth	23A	/	60"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	442.00'			Model:	Cultec Recharger 180HD
Bottom of Test Pit Elev	437.00'			No. Chambers	49
Bottom of SMP Practice	440.00'			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice	442.17'			Volume Req:	1742
Percolation Test #/Rate (min/in)	D16	/	18.8	Volume Provided:	1742

Sub-Basin:	F5	Area (ac):	0.317	Percent Impervious:	36.59%
				WQv (cf):	1176
Testing Information			SMP Information		
Test Pit Number/Depth	20A	/	60"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	463.00'			Model:	Cultec Recharger 180HD
Bottom of Test Pit Elev	458.00'			No. Chambers	49
Bottom of SMP Practice	461.00'			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice	463.17'			Volume Req:	1176
Percolation Test #/Rate (min/in)	D14	/	11.6	Volume Provided:	1176

DESIGN POINT: 7

LOCATION: Northwest Corner of Property

Sub-Basin:	G1	Area (ac):	2.36	Percent Impervious:	19.11%
				WQv (cf):	7013
Testing Information			SMP Information		
Test Pit Number/Depth	n/a			Type:	F-1, Surface Sand Filter
Approx. Existing Grade	n/a			Sedimentation Basin	
Bottom of Test Pit Elev	n/a			Surface Area (sf)	630
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	2523

Step 1 **Water Quality Volume** 7013 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _o	Discharge Rate from Basin	0.081168981	cfs
WQV	Water Quality Volume	7013	cf
A _s	Sedimentation Basin Surface Area Required	467.2462169	sf

Pre-treatment Volume Required (25% WQv)	1753.25	cf
Sedimentation Basin Surface Area Provided	630	sf
Sedimentation Basin Depth	2.9	ft
Pre-Treatment Volume Provided (V _s)	1827.00	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	1.5	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed	599.9144568	sf

Treatment Volume Required (75% WQv)	5259.75	cf
Filter Bed Area Provided	2523	sf
Height of Water above Filter Media Provided	1.5	ft
Treatment Volume Provided	3784.50	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	1513.8	cf	V _F =A _F (D _F)(n)
V _{F-TEMP}	Temporary Volume above Filter Bed	3784.5	cf	V _{F-TEMP} =(H _F)(A _F)
V _s	Pre-Treatment Volume Storage	1827.00	cf	
	Total Volume w/in Practice Provided	7125.3	cf	
	Total Volume Required	7013	cf	
	Volume Provided > Volume Required?	Yes		

Sub-Basin:	G2	Area (ac):	6.667	Percent Impervious:	23.94%
				WQv (cf):	22,259.00
Testing Information			SMP Information		
Test Pit Number/Depth	D13	/	84"	Type:	I-2, Infiltration Basin
Approx. Existing Grade	452.00'			Pre-Treatment Sizing	
Bottom of Test Pit Elev	445.00'			% WQv Req:	100.00 Vol Req: (cf) 22259
Bottom of SMP Practice	448.00'			% WQv Prov:	109.27 Vol Prov: (cf) 24322
Percolation Test #/Rate (min/in)	D B6	/	2.5	Basin Sizing	
				WQv (cf)	22,259.00
				Depth Prov. Below Outlet (ft)	3.5
				Basin Bottom Area Required (sf)	6359.71429
				Basin Bottom Area Provided (sf)	6713

Sub-Basin:	G3a	Area (ac):	3.341	Percent Impervious:	35.74%
				WQv (cf):	14,549.04
Testing Information			SMP Information		
Test Pit Number/Depth	26A	/	48"	Type:	I-2, Infiltration Basin
Approx. Existing Grade	401			Pre-Treatment Sizing	
Bottom of Test Pit Elev	397			% WQv Req:	100.00 Vol Req: (cf) 14549.04
Bottom of SMP Practice	400			% WQv Prov:	105.42 Vol Prov: (cf) 15338
Percolation Test #/Rate (min/in)	4	/	7.7	Basin Sizing	
				WQv (cf)	14,549.04
				Depth Prov. Below Outlet (ft)	2.42
				Basin Bottom Area Required (sf)	6012
				Basin Bottom Area Provided (sf)	6018

Sub-Basin:	G3b	Area (ac):	3.72	Percent Impervious:	22.04%
				WQv (cf):	8,581.32
Testing Information			SMP Information		
Test Pit Number/Depth	13A, 15, 16	/	84"	Type:	I-2, Infiltration Basin
Approx. Existing Grade	444			Pre-Treatment Sizing	
Bottom of Test Pit Elev	437			% WQv Req:	100.00 Vol Req: (cf) 8581.32
Bottom of SMP Practice	440			% WQv Prov:	104.65 Vol Prov: (cf) 8980
Percolation Test #/Rate (min/in)	D17	/	5.9	Basin Sizing	
				WQv (cf)	8,581.32
				Depth Prov. Below Outlet (ft)	2
				Basin Bottom Area Required (sf)	4290.66
				Basin Bottom Area Provided (sf)	4681

Sub-Basin:	G5a	Area (ac):	2.154	Percent Impervious:	19.41%
				WQv (cf):	5314
Testing Information			SMP Information		
Test Pit Number/Depth	D6	/	60"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	n/a			Sedimentation Basin	460
Bottom of Test Pit Elev	n/a			Surface Area (sf)	
Bottom of SMP Practice	n/a			Filter Bed	1095
Top of SMP Practice	n/a			Surface Area (sf)	

Step 1 **Water Quality Volume** 5314 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _o	Discharge Rate from Basin	0.06150463	cfs
WQV	Water Quality Volume	5314	cf
A _s	Sedimentation Basin Surface Area Required	354.0491083	sf
	Pre-treatment Volume Required (25% WQv)	1328.5	cf
	Sedimentation Basin Surface Area Provided	460	sf
	Sedimentation Basin Depth	3	ft
	Pre-Treatment Volume Provided (V _s)	1380.00	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	3	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed	303.0510408	sf
	Treatment Volume Required (75% WQv)	3985.5	cf
	Filter Bed Area Provided	1095	sf
	Height of Water above Filter Media Provided	3	ft
	Treatment Volume Provided	3285.00	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	657	cf	V _F = A _F (D _F)(n)
V _{F-TEMP}	Temporary Volume above Filter Bed	3285	cf	V _{F-TEMP} = (H _F)(A _F)
V _s	Pre-Treatment Volume Storage	1380.00	cf	
	Total Volume w/in Practice Provided	5322	cf	
	Total Volume Required	5314	cf	
	Volume Provided > Volume Required?	Yes		

Sub-Basin:	G5b	Area (ac):	0.153	Percent Impervious:	100.00%
				WQv (cf):	1611.72
Testing Information			SMP Information		
Test Pit Number/Depth	30A/30B	/	48"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	500			Model:	Cultec Contactor 100
Bottom of Test Pit Elev	496			No. Chambers:	35
Bottom of SMP Practice	499.5			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice	500.54			Volume Req:	1611.72
Percolation Test #/Rate (min/in)	D22	/	1	Volume Provided:	1611.72

Sub-Basin:	G5c	Area (ac):	0.143	Percent Impervious:	89.51%
				WQv (cf):	1263.24
Testing Information			SMP Information		
Test Pit Number/Depth	30A/30B	/	48"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	500			Model:	Cultec Recharger 150HD
Bottom of Test Pit Elev	496			No. Chambers:	35
Bottom of SMP Practice	499.5			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice	500.54			Volume Req:	1263.24
Percolation Test #/Rate (min/in)	D22	/	1	Volume Provided:	1263.24

Sub-Basin:	G6	Area (ac):	3.518	Percent Impervious:	19.41%
				WQv (cf):	15333.12
Testing Information			SMP Information		
Test Pit Number/Depth	D12	/	36"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	n/a			Sedimentation Basin	
Bottom of Test Pit Elev	n/a			Surface Area (sf)	1047
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	3512

Step 1 **Water Quality Volume** 15333.12 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q ₀	Discharge Rate from Basin	0.177466667	cfs
WQV	Water Quality Volume	15333.12	cf
A _S	Sedimentation Basin Surface Area Required	1021.580253	sf
	Pre-treatment Volume Required (25% WQv)	3833.28	cf
	Sedimentation Basin Surface Area Provided	1047	sf
	Sedimentation Basin Depth	3	ft
	Pre-Treatment Volume Provided (V _s)	4354.00	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	3	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed	874.4294269	sf
	Treatment Volume Required (75% WQv)	11499.84	cf
	Filter Bed Area Provided	3512	sf
	Height of Water above Filter Media Provided	2.75	ft
	Treatment Volume Provided	9658.00	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	2107.2	cf	n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	9658	cf	V _F =A _F (D _F)(n)
V _s	Pre-Treatment Volume Storage	4354.00	cf	V _{F-TEMP} =(H _F)(A _F)
	Total Volume w/in Practice Provided	16119.2	cf	
	Total Volume Required	15333.12	cf	
	Volume Provided > Volume Required?	Yes		

Sub-Basin:	G7	Area (ac):	1.542	Percent Impervious:	19.58%
				WQv (cf):	6708.24
Testing Information			SMP Information		
Test Pit Number/Depth	49A	/	48"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	n/a			Sedimentation Basin	
Bottom of Test Pit Elev	n/a			Surface Area (sf)	581
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	1452

Step 1	Water Quality Volume	6708.24	cf
Step 2	Required Sedimentation Basin Area & Pre-treatment Volume		
E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _O	Discharge Rate from Basin	0.077641667	cfs
WQV	Water Quality Volume	6708.24	cf
A _S	Sedimentation Basin Surface Area Required	446.9413607	sf
	Pre-treatment Volume Required (25% WQv)	1677.06	cf
	Sedimentation Basin Surface Area Provided	581	sf
	Sedimentation Basin Depth	2.8	ft
	Pre-Treatment Volume Provided (V _S)	2495.00	cf

Step 3	Required Filtration Bed Area		
D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	3	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed	382.5628743	sf
	Treatment Volume Required (75% WQv)	5031.18	cf
	Filter Bed Area Provided	1452	sf
	Height of Water above Filter Media Provided	2.85	ft
	Treatment Volume Provided	4138.20	cf

Step 4	Compute Total Volume Within Practice			
V _F	Volume within Filter Bed	871.2	cf	V _F =A _F (D _F)(n) n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	4138.2	cf	V _{F-TEMP} =(H _F)(A _F)
V _S	Pre-Treatment Volume Storage	2495.00	cf	
	Total Volume w/in Practice Provided	7504.4	cf	
	Total Volume Required	6708.24	cf	
	Volume Provided > Volume Required?	Yes		

DESIGN POINT: 8

LOCATION: Northeast Corner of Property

Sub-Basin:	H1	Area:		Percent Impervious:	
SMP Type:	None Required				
Testing Provided:	None Required				

Sub-Basin:	H2	Area (ac):	0.349	Percent Impervious:	38.11%
				WQv (cf):	1,916.64
Testing Information			SMP Information		
Test Pit Number/Depth	D8	/	53"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	444.00'			Model:	Cultec Contactor C-100
Bottom of Test Pit Elev	440.42'			No. Chambers:	42
Bottom of SMP Practice	443.42'			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice				Volume Req:	1916.64
Percolation Test #/Rate (min/in)	D8B	/	8	Volume Provided:	1916.64

Sub-Basin:	H3	Area (ac):	0.289	Percent Impervious:	41.87%
				WQv (cf):	1,611.72
Testing Information			SMP Information		
Test Pit Number/Depth	D9	/	53"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	453.00'			Model:	Cultec Contactor C-100
Bottom of Test Pit Elev	448.58'			No. Chambers:	48
Bottom of SMP Practice	451.58'			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice				Volume Req:	1611.72
Percolation Test #/Rate (min/in)	D9	/	1	Volume Provided:	1611.72

Sub-Basin:	H4	Area (ac):	0.409	Percent Impervious:	33.25%
				WQv (cf):	2047.32
Testing Information			SMP Information		
Test Pit Number/Depth	30A & 30B	/	48"	Type:	I-1, Infiltration Trench
Approx. Existing Grade	471.00'			Model:	Cultec Contactor C-100
Bottom of Test Pit Elev	467.00'			No. Chambers:	35
Bottom of SMP Practice	470.00'			Pre-Treatment Practice:	Concrete Tank/Rain Garden
Top of SMP Practice	471.50'			Volume Req:	2047.32
Percolation Test #/Rate (min/in)	D22	/	1	Volume Provided:	2047.32

DESIGN POINT: 11
LOCATION: Southeast

Sub-Basin:	K2	Area (ac):	2.045	Percent Impervious:	17.21%
				WQv (cf):	5052.96
SMP Information					
				Type:	F-1, Surface Sand Filter
				Sedimentation Basin	
				Surface Area (sf)	440
				Filter Bed	
				Surface Area (sf)	288.1642429

Step 1	Water Quality Volume		5052.96	cf	
Step 2	Required Sedimentation Basin Area & Pre-treatment Volume				
	E	Sediment Trap Efficiency	90	%	
	W	Particle Settling Velocity	0.0004	ft/sec	
	Q _O	Discharge Rate from Basin	0.058483333	cfs	
	WQV	Water Quality Volume	5052.96	cf	
	A _S	Sedimentation Basin Surface Area Required	336.6571288	sf	
		Pre-treatment Volume Required (25% WQv)	1263.24	cf	
		Sedimentation Basin Surface Area Provided	440	sf	
		Sedimentation Basin Depth	2.75	ft	
		Pre-Treatment Volume Provided (V _S)	1611.40	cf	From dwg

Step 3	Required Filtration Bed Area				
	D _F	Depth of Filter Bed	1.5	ft	
	k	Coef. Of Permeability (Filter Media)	3.5	ft/day	
	H _F	Height of Water above Filter Media	3	ft	
	T _F	Filter Bed Drain Time	1.67	days	
	A _F	Area of Filter Bed	288.1642429	sf	
		Treatment Volume Required (75% WQv)	3789.72	cf	
		Filter Bed Area Provided	1004	sf	
		Height of Water above Filter Media Provided	3	ft	
		Treatment Volume Provided	3012.00	cf	

Step 4	Compute Total Volume Within Practice				
	V _F	Volume within Filter Bed	602.4	cf	n=0.4 (sand)
	V _{F-TEMP}	Temporary Volume above Filter Bed	3012	cf	V _F =A _F (D _F)(n)
	V _S	Pre-Treatment Volume Storage	1611.40	cf	V _{F-TEMP} =(H _F)(A _F)
		Total Volume w/in Practice Provided	5225.8	cf	
		Total Volume Required	5052.96	cf	
		Volume Provided > Volume Required?	Yes		

Sub-Basin:	K3	Area (ac):	11.03	Percent Impervious:	50.96%
				WQv (cf):	66951.72
Testing Information			SMP Information		
Test Pit Number/Depth	20, 20A, 21 / 36"		Type:	F-1, Surface Sand Filter	
Approx. Existing Grade	n/a		Sedimentation Basin		
Bottom of Test Pit Elev	n/a		Surface Area (sf)	5065	
Bottom of SMP Practice	n/a		Filter Bed		
Top of SMP Practice	n/a		Surface Area (sf)	14031	

Step 1 **Water Quality Volume** 66951.72 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _O	Discharge Rate from Basin	0.774904167	cfs
WQV	Water Quality Volume	66951.72	cf
A _S	Sedimentation Basin Surface Area Required	4460.706957	sf
Pre-treatment Volume Required (25% WQv)		16737.93	cf
Sedimentation Basin Surface Area Provided		5065	sf
Sedimentation Basin Depth		3.25	ft
Pre-Treatment Volume Provided (V _S)		18557.50	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	3	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed	3818.176219	sf
Treatment Volume Required (75% WQv)		50213.79	cf
Filter Bed Area Provided		14031	sf
Height of Water above Filter Media Provided		3	ft
Treatment Volume Provided		42093.00	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	8418.6	cf	n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	42093	cf	V _F =A _F (D _F)(n)
V _S	Pre-Treatment Volume Storage	18557.50	cf	V _{F-TEMP} =(H _F)(A _F)
Total Volume w/in Practice Provided		69069.1	cf	
Total Volume Required		66951.72	cf	
Volume Provided > Volume Required?		Yes		

Sub-Basin:	K3	Area (ac):	11.03	Percent Impervious:	50.96%
				WQv (cf):	66951.72
Testing Information			SMP Information		
Test Pit Number/Depth	20, 20A, 21 / 36"		Type:	P-1, Micropool ED	
Approx. Existing Grade	n/a				
Bottom of Test Pit Elev	n/a				
Bottom of SMP Practice	n/a				
Top of SMP Practice	n/a				

Water Quality Volume Calculations

	<u>Required</u>	<u>Provided</u>
Pre-Treatment Volume Required (10%)	6695.172 cf	16172.5 cf
WQv Treatment Volume in Permanent Pool (20%)	12051.3096 cf	12531 cf
WQv Treatment Volume in Extended Detention (80%)	48205.2384 cf	42455 cf
<u>Total WQv</u>	<u>66951.72</u> cf	<u>71158.5</u> cf

Pond Geometry Calculations

	<u>Required</u>	<u>Provided</u>
Minimum Basin Surface Area (1% of Drainage Area)	4804.668 sf	4810 sf

Sub-Basin:	K5	Area (ac):	8.365	Percent Impervious:	29.84%
				WQv (cf):	42253
Testing Information			SMP Information		
Test Pit Number/Depth	D13	/	42"	Type:	F-1, Surface Sand Filter
Approx. Existing Grade	n/a			Sedimentation Basin	
Bottom of Test Pit Elev	n/a			Surface Area (sf)	2880
Bottom of SMP Practice	n/a			Filter Bed	
Top of SMP Practice	n/a			Surface Area (sf)	8008

Step 1 **Water Quality Volume** 42253 cf

Step 2 **Required Sedimentation Basin Area & Pre-treatment Volume**

E	Sediment Trap Efficiency	90	%
W	Particle Settling Velocity	0.0004	ft/sec
Q _O	Discharge Rate from Basin	0.489039352	cfs
WQV	Water Quality Volume	42253	cf
A _S	Sedimentation Basin Surface Area Required	2815.136804	sf
Pre-treatment Volume Required (25% WQv)		10563.25	cf
Sedimentation Basin Surface Area Provided		2880	sf
Sedimentation Basin Depth		3	ft
Pre-Treatment Volume Provided (V _S)		10761.00	cf

Step 3 **Required Filtration Bed Area**

D _F	Depth of Filter Bed	1.5	ft
k	Coef. Of Permeability (Filter Media)	3.5	ft/day
H _F	Height of Water above Filter Media	3.35	ft
T _F	Filter Bed Drain Time	1.67	days
A _F	Area of Filter Bed	2235.746475	sf
Treatment Volume Required (75% WQv)		31689.75	cf
Filter Bed Area Provided		8008	sf
Height of Water above Filter Media Provided		3.35	ft
Treatment Volume Provided		26826.80	cf

Step 4 **Compute Total Volume Within Practice**

V _F	Volume within Filter Bed	4804.8	cf	n=0.4 (sand)
V _{F-TEMP}	Temporary Volume above Filter Bed	26826.8	cf	V _F =A _F (D _F)(n)
V _S	Pre-Treatment Volume Storage	10761.00	cf	V _{F-TEMP} =(H _F)(A _F)
Total Volume w/in Practice Provided		42392.6	cf	
Total Volume Required		42253	cf	
Volume Provided > Volume Required?		Yes		

Sub-Basin:	K5	Area (ac):	8.365	Percent Impervious:	29.84%
				WQv (cf):	42253
Testing Information			SMP Information		
Test Pit Number/Depth	D13	/	42"	Type:	P-1, Micropool ED
Approx. Existing Grade	n/a				
Bottom of Test Pit Elev	n/a				
Bottom of SMP Practice	n/a				
Top of SMP Practice	n/a				

Water Quality Volume Calculations

	<u>Required</u>	<u>Provided</u>
Pre-Treatment Volume Required (10%)	4225.3 cf	5400 cf
WQv Treatment Volume in Permanent Pool (20%)	7605.54 cf	7611 cf
WQv Treatment Volume in Extended Detention (80%)	30422.16 cf	29816 cf
<u>Total WQv</u>	<u>42253</u> cf	<u>42827</u> cf
		38027.7

Pond Geometry Calculations

	<u>Required</u>	<u>Provided</u>
Minimum Basin Surface Area (1% of Drainage Area)	3643.794 sf	5213 sf

Sub-Basin:	K6	Area (ac):	8.601	Percent Impervious:	9.45%
				WQv (cf):	30361.32
Testing Information			SMP Information		
Test Pit Number/Depth	12B	/	38"	Type:	P-1, Micropool ED
Approx. Existing Grade	n/a				
Bottom of Test Pit Elev	n/a				
Bottom of SMP Practice	n/a				
Top of SMP Practice	n/a				

Water Quality Volume Calculations

	<u>Required</u>	<u>Provided</u>
Pre-Treatment Volume Required (10%)	3036.132 cf	8918 cf
WQv Treatment Volume in Permanent Pool (20%)	5465.0376 cf	7053 cf
WQv Treatment Volume in Extended Detention (80%)	21860.1504 cf	21200 cf
<u>Total WQv</u>	<u>30361.32</u> cf	<u>37171</u> cf

Pond Geometry Calculations

	<u>Required</u>	<u>Provided</u>
Minimum Basin Surface Area (1% of Drainage Area)	3746.5956 sf	4812 sf



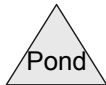
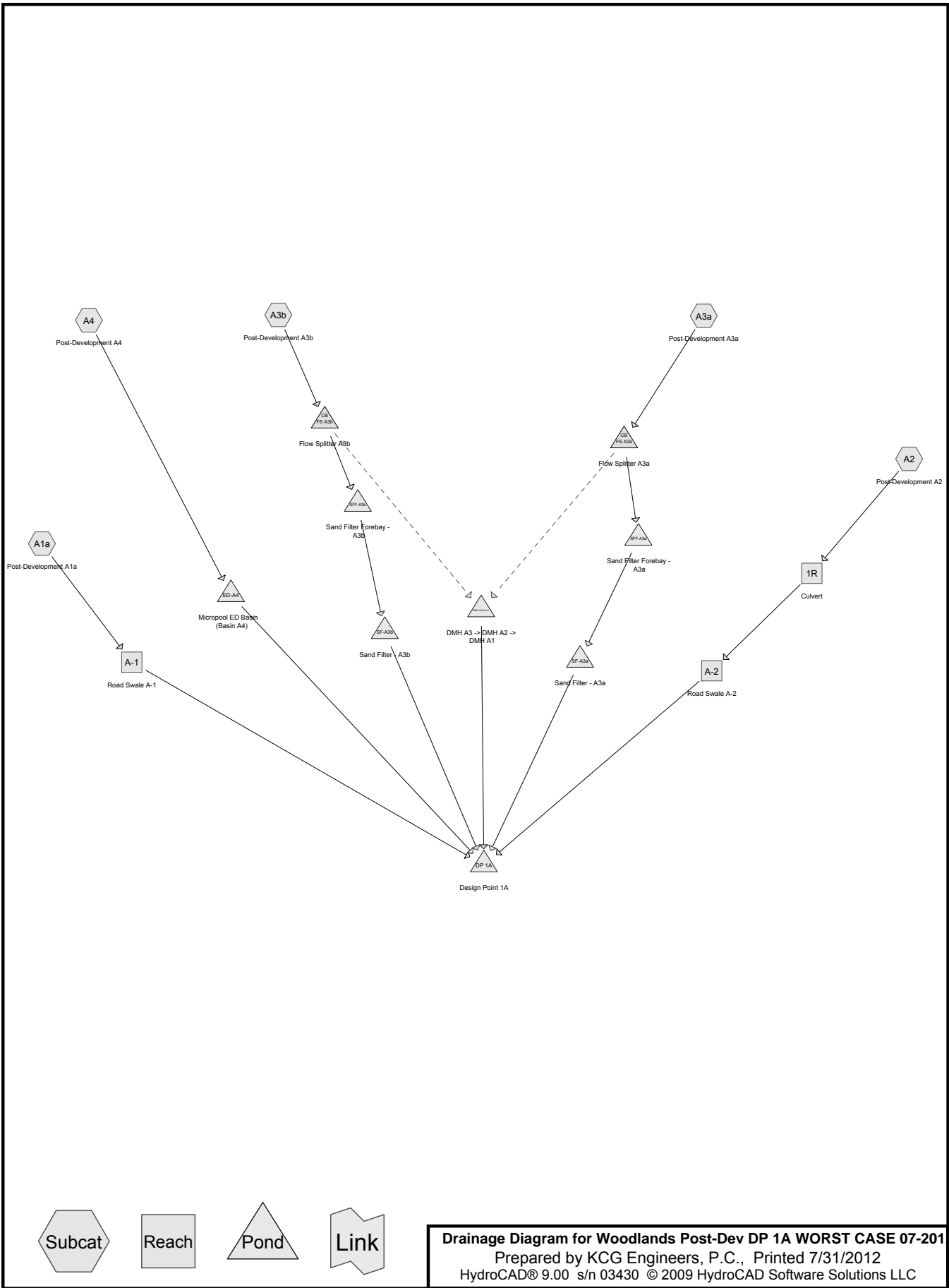
WORST CASE POST-DEVELOPMENT DRAINAGE REPORT

FOR

HIGHGATE-WOODLANDS AT NORTH SALEM SUBDIVISION
REED ROAD
TOWN OF NORTH SALEM
WESTCHESTER COUNTY, NEW YORK

NOTE: This worst case situation models the stormwater basins with a clogged or damaged outlet pipe. The 1-year, 2-year, 10-year, 25-year, and 100-year storm events were modeled for each design point with at least one stormwater basin.

RESULTS: As a result of modeling each stormwater basin with a clogged outlet structure, the emergency overflow weir has the capacity to safely pass each storm event without overtopping the berm of the stormwater basin.



Drainage Diagram for Woodlands Post-Dev DP 1A WORST CASE 07-2012

Prepared by KCG Engineers, P.C., Printed 7/31/2012

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Woodlands Post-Dev DP 1A WORST CASE 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.353	55	Woods, Good, HSG B (A3a, A3b)
2.790	55	Woods, Good, HSG B (Undisturbed) (A2, A4)
1.016	55	Woods, Good, HSG B, (Undisurbed) (A1a)
8.798	61	>75% Grass cover, Good, HSG B (A1a, A2, A3a, A3b, A4)
0.012	98	Gatehouse (A4)
0.048	98	Paved roads w/curbs & sewers (A1a)
1.451	98	Paved roads w/curbs & sewers, HSG B (A2, A3a, A3b, A4)
0.004	98	Pillars (A4)
0.109	98	Sidewalk (A4)
14.581		TOTAL AREA

Woodlands Post-Dev DP 1A WORST CASType III 24-hr 1 Year - North Salem Rainfall=3.10"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=0.31"
Flow Length=649' Tc=11.3 min CN=58 Runoff=0.22 cfs 0.040 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=0.37"
Flow Length=724' Tc=19.0 min CN=60 Runoff=0.58 cfs 0.101 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=0.55"
Flow Length=367' Tc=6.2 min CN=65 Runoff=0.34 cfs 0.032 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=0.51"
Flow Length=598' Tc=7.3 min CN=64 Runoff=0.85 cfs 0.090 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=0.59"
Flow Length=775' Tc=9.8 min CN=66 Runoff=3.29 cfs 0.343 af

Reach 1R: Culvert Avg. Depth=0.08' Max Vel=2.30 fps Inflow=0.58 cfs 0.101 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=0.58 cfs 0.101 af

Reach A-1: Road Swale A-1 Avg. Depth=0.10' Max Vel=0.39 fps Inflow=0.22 cfs 0.040 af
n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=0.12 cfs 0.040 af

Reach A-2: Road Swale A-2 Avg. Depth=0.28' Max Vel=0.54 fps Inflow=0.58 cfs 0.101 af
n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=0.54 cfs 0.101 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Pond DP 1A: Design Point 1A Inflow=0.54 cfs 0.141 af
Primary=0.54 cfs 0.141 af

Pond ED-A4: Micropool ED Basin (Basin Peak Elev=364.97' Storage=19,128 cf Inflow=3.29 cfs 0.343 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond FS A3a: Flow Splitter A3a Peak Elev=339.50' Inflow=0.34 cfs 0.032 af
Primary=0.34 cfs 0.032 af Secondary=0.00 cfs 0.000 af Outflow=0.34 cfs 0.032 af

Pond FS A3b: Flow Splitter A3b Peak Elev=351.78' Inflow=0.85 cfs 0.090 af
Primary=0.85 cfs 0.090 af Secondary=0.00 cfs 0.000 af Outflow=0.85 cfs 0.090 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=336.24' Storage=732 cf Inflow=0.05 cfs 0.017 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=342.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=339.01' Storage=682 cf Inflow=0.34 cfs 0.032 af
Primary=0.00 cfs 0.000 af Secondary=0.05 cfs 0.017 af Outflow=0.05 cfs 0.017 af

Woodlands Post-Dev DP 1A WORST CASType III 24-hr 1 Year - North Salem Rainfall=3.10"

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Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=350.91' Storage=3,920 cf Inflow=0.85 cfs 0.090 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Total Runoff Area = 14.581 ac Runoff Volume = 0.606 af Average Runoff Depth = 0.50"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 0.22 cfs @ 12.36 hrs, Volume= 0.040 af, Depth= 0.31"

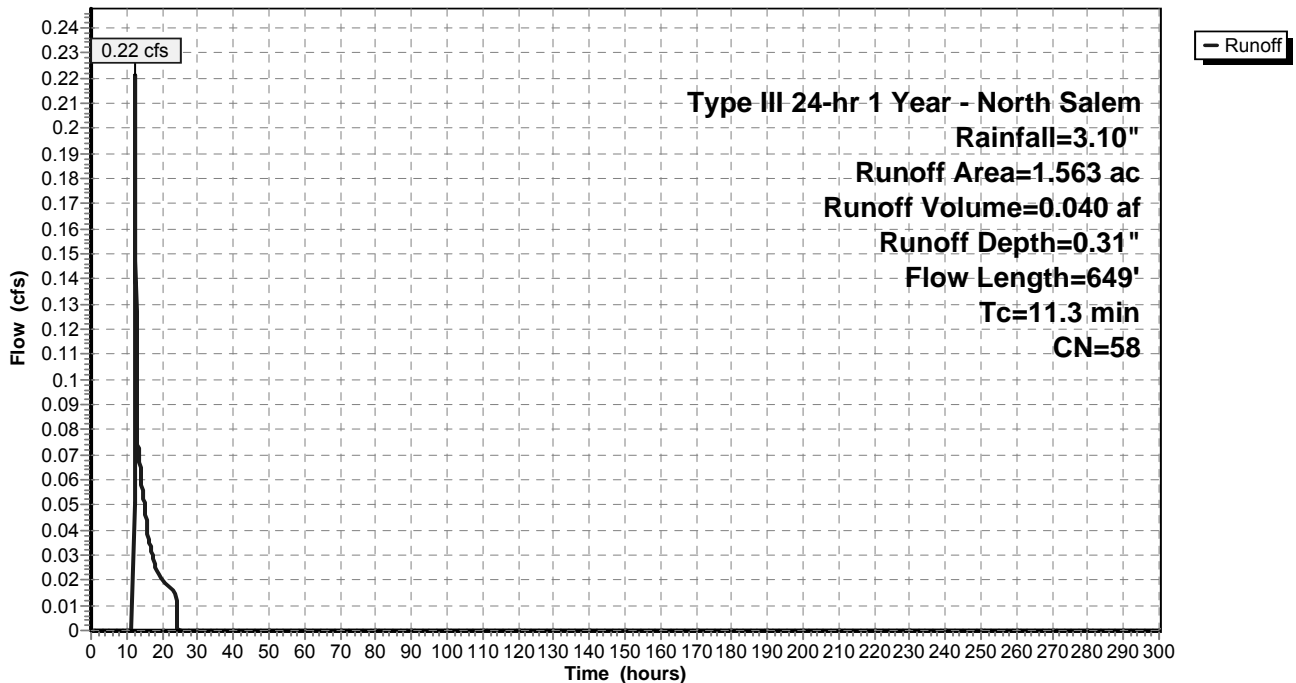
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

Runoff = 0.58 cfs @ 12.43 hrs, Volume= 0.101 af, Depth= 0.37"

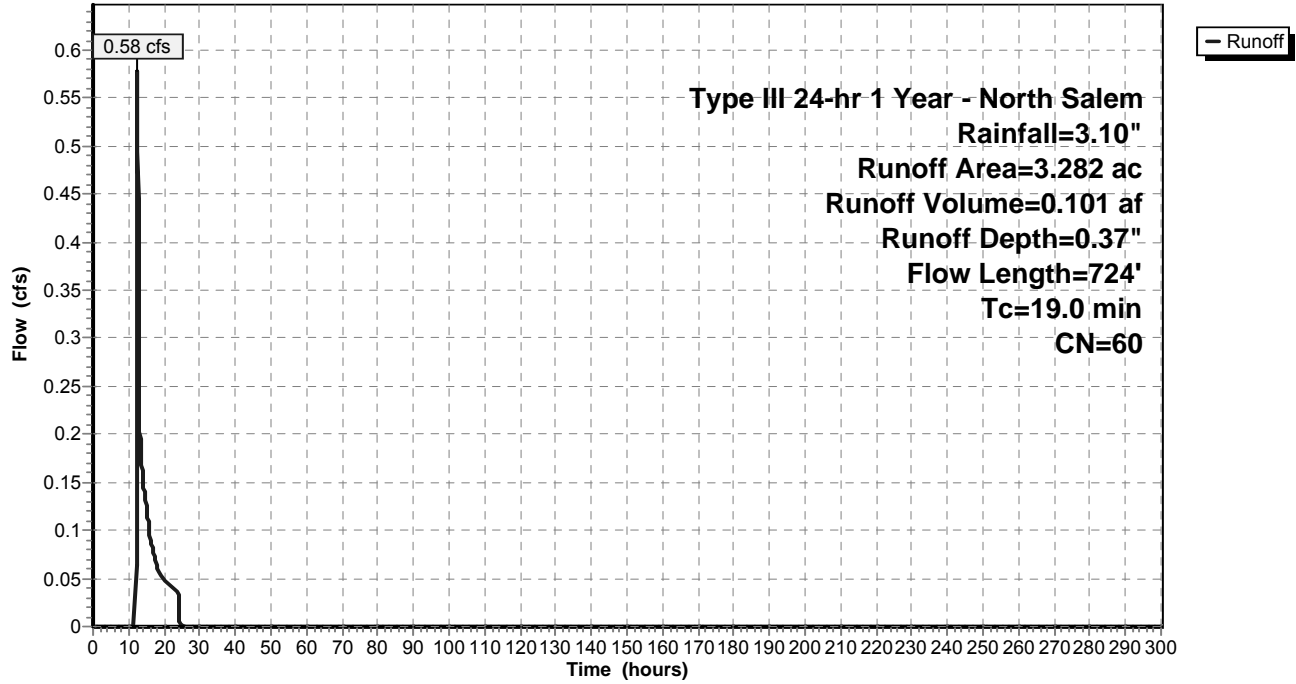
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2

Hydrograph



Summary for Subcatchment A3a: Post-Development A3a

Runoff = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af, Depth= 0.55"

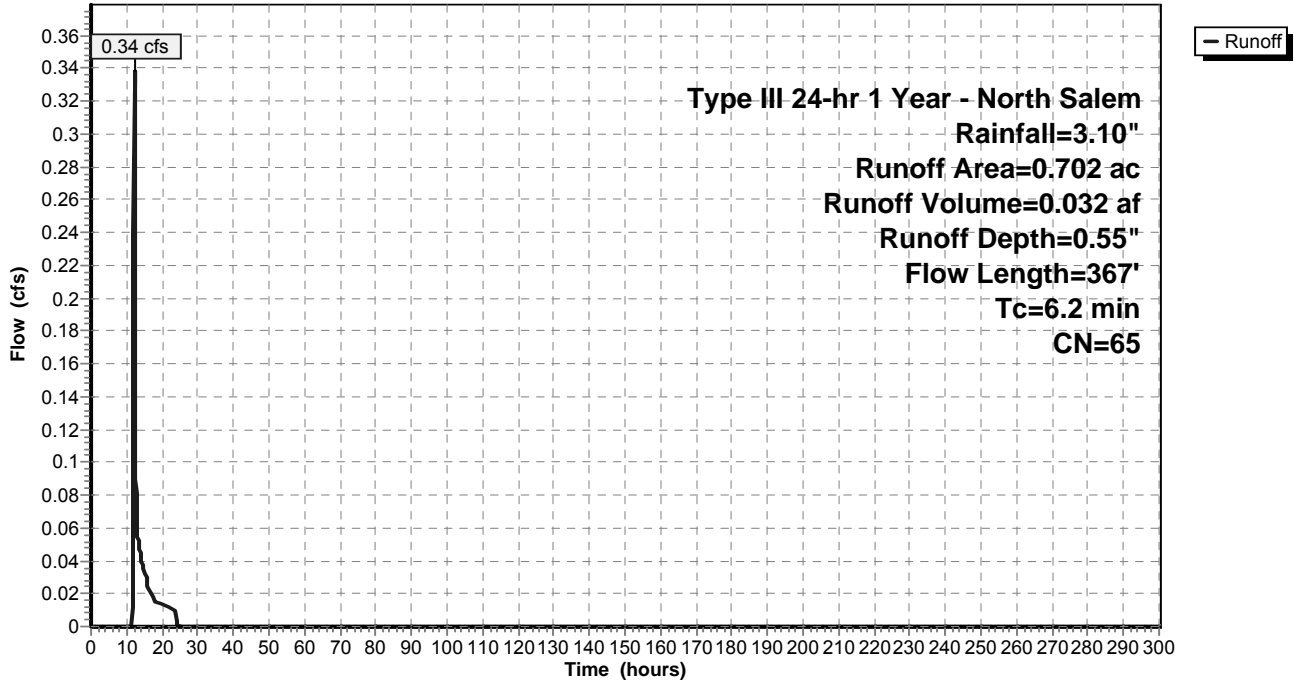
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a

Hydrograph



Summary for Subcatchment A3b: Post-Development A3b

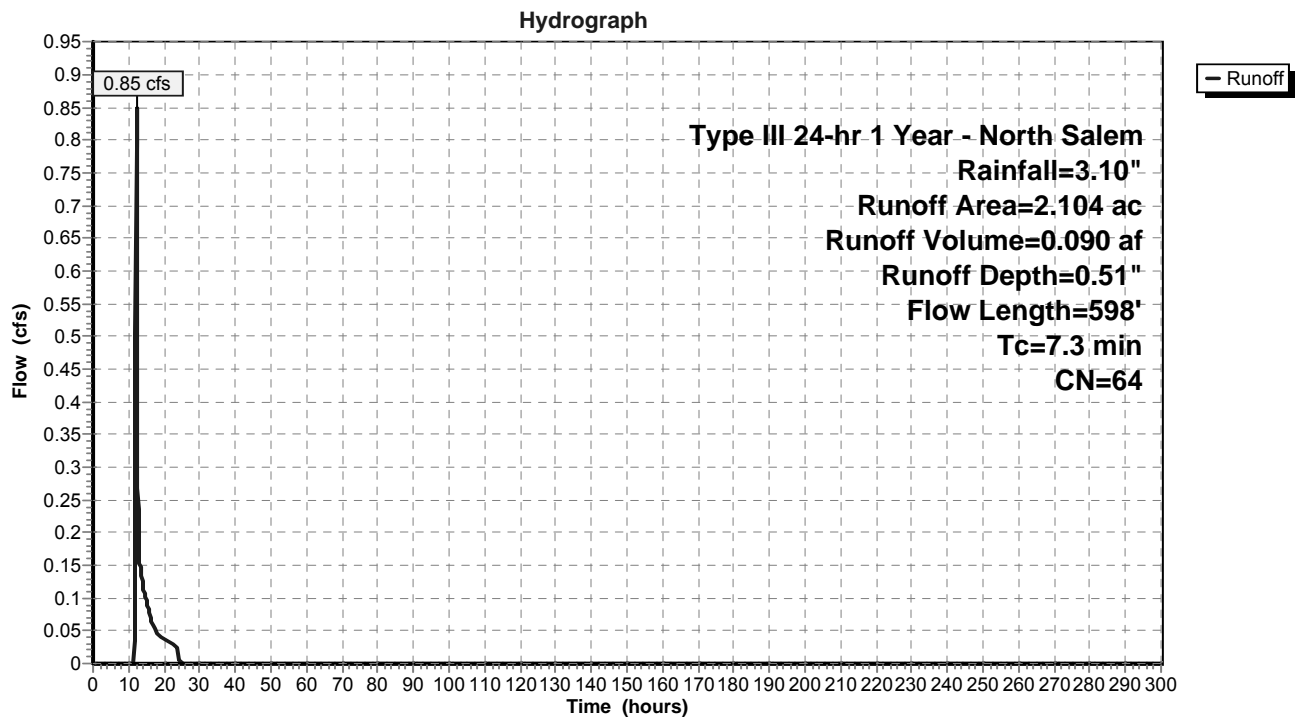
Runoff = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b



Summary for Subcatchment A4: Post-Development A4

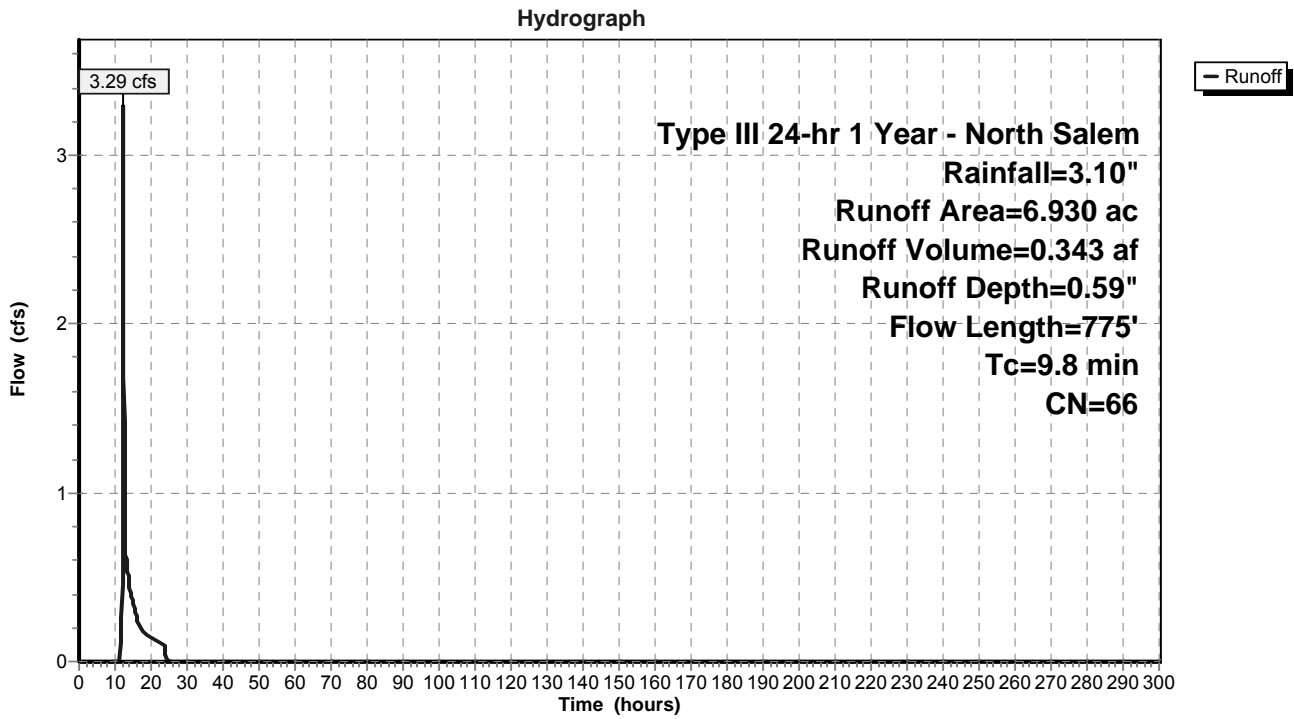
Runoff = 3.29 cfs @ 12.17 hrs, Volume= 0.343 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.37" for 1 Year - North Salem event
 Inflow = 0.58 cfs @ 12.43 hrs, Volume= 0.101 af
 Outflow = 0.58 cfs @ 12.44 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 2.30 fps, Min. Travel Time= 0.5 min
 Avg. Velocity = 1.11 fps, Avg. Travel Time= 1.0 min

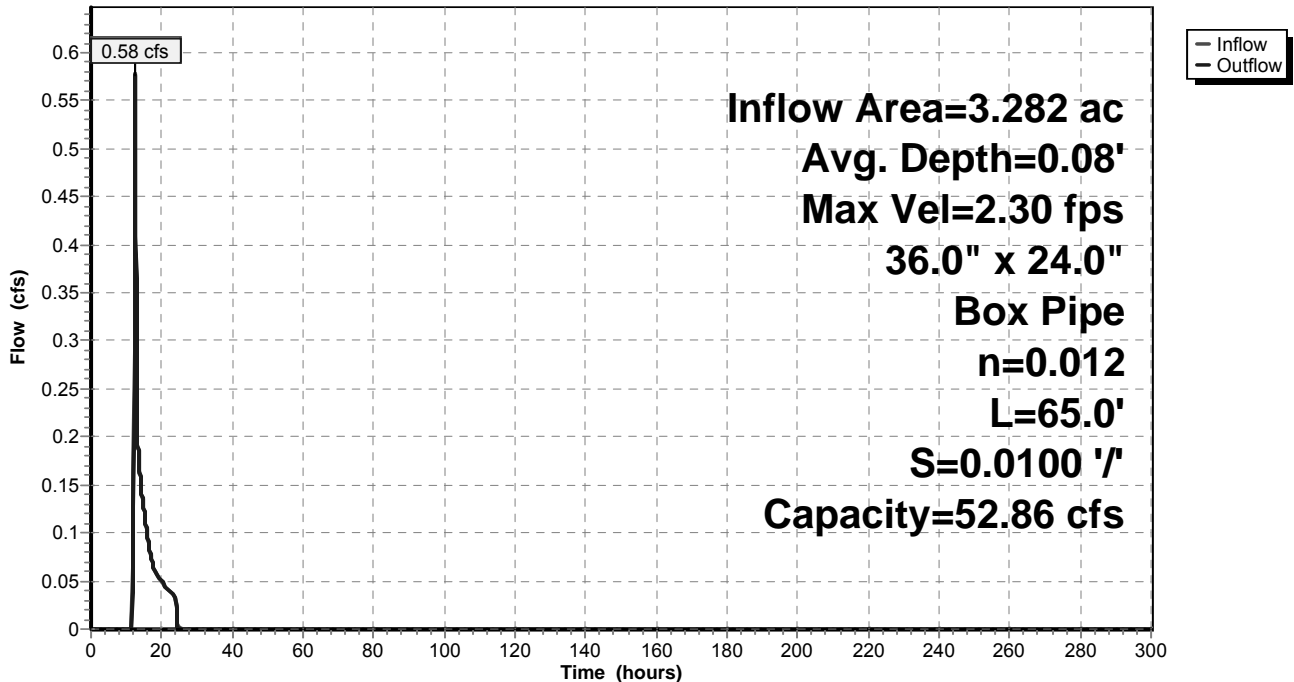
Peak Storage= 16 cf @ 12.43 hrs, Average Depth at Peak Storage= 0.08'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/
 Inlet Invert= 334.65', Outlet Invert= 334.00'



Reach 1R: Culvert

Hydrograph



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 0.31" for 1 Year - North Salem event
 Inflow = 0.22 cfs @ 12.36 hrs, Volume= 0.040 af
 Outflow = 0.12 cfs @ 13.23 hrs, Volume= 0.040 af, Atten= 46%, Lag= 52.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.39 fps, Min. Travel Time= 33.2 min
 Avg. Velocity = 0.20 fps, Avg. Travel Time= 65.5 min

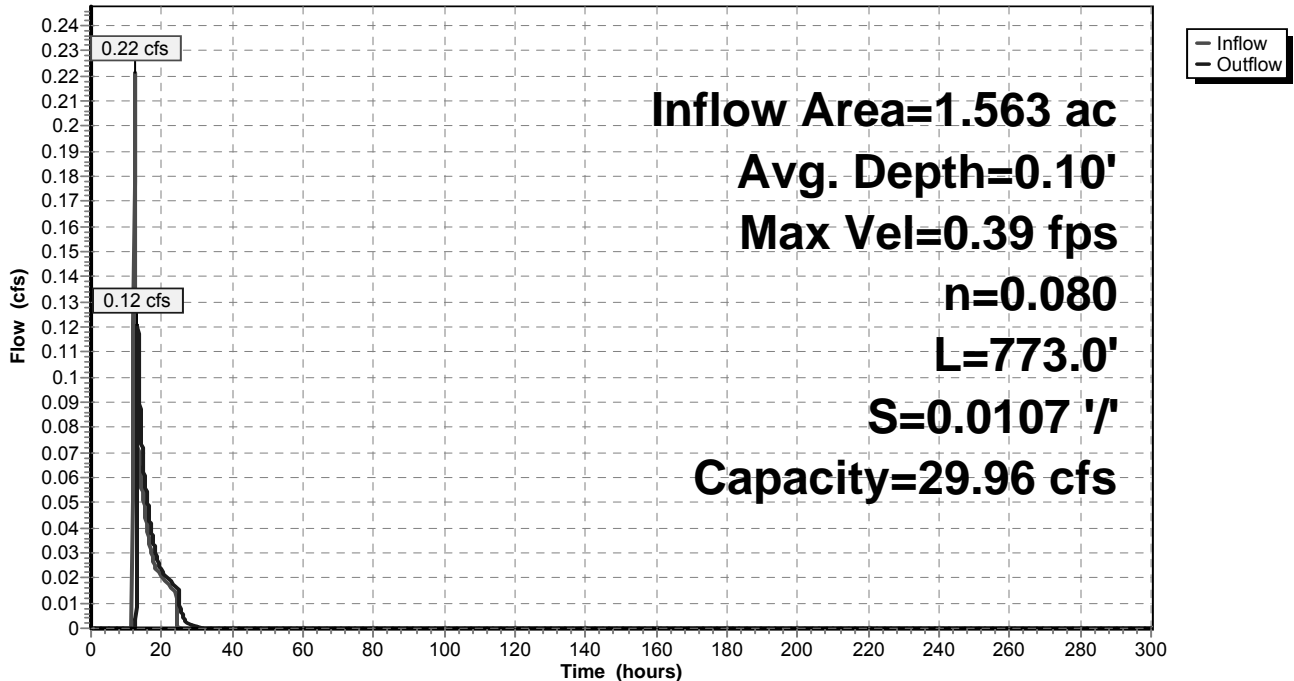
Peak Storage= 240 cf @ 12.67 hrs, Average Depth at Peak Storage= 0.10'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/ Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/
 Inlet Invert= 340.00', Outlet Invert= 331.70'



Reach A-1: Road Swale A-1

Hydrograph



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.37" for 1 Year - North Salem event
 Inflow = 0.58 cfs @ 12.44 hrs, Volume= 0.101 af
 Outflow = 0.54 cfs @ 12.67 hrs, Volume= 0.101 af, Atten= 6%, Lag= 13.6 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.54 fps, Min. Travel Time= 7.2 min
 Avg. Velocity = 0.23 fps, Avg. Travel Time= 16.8 min

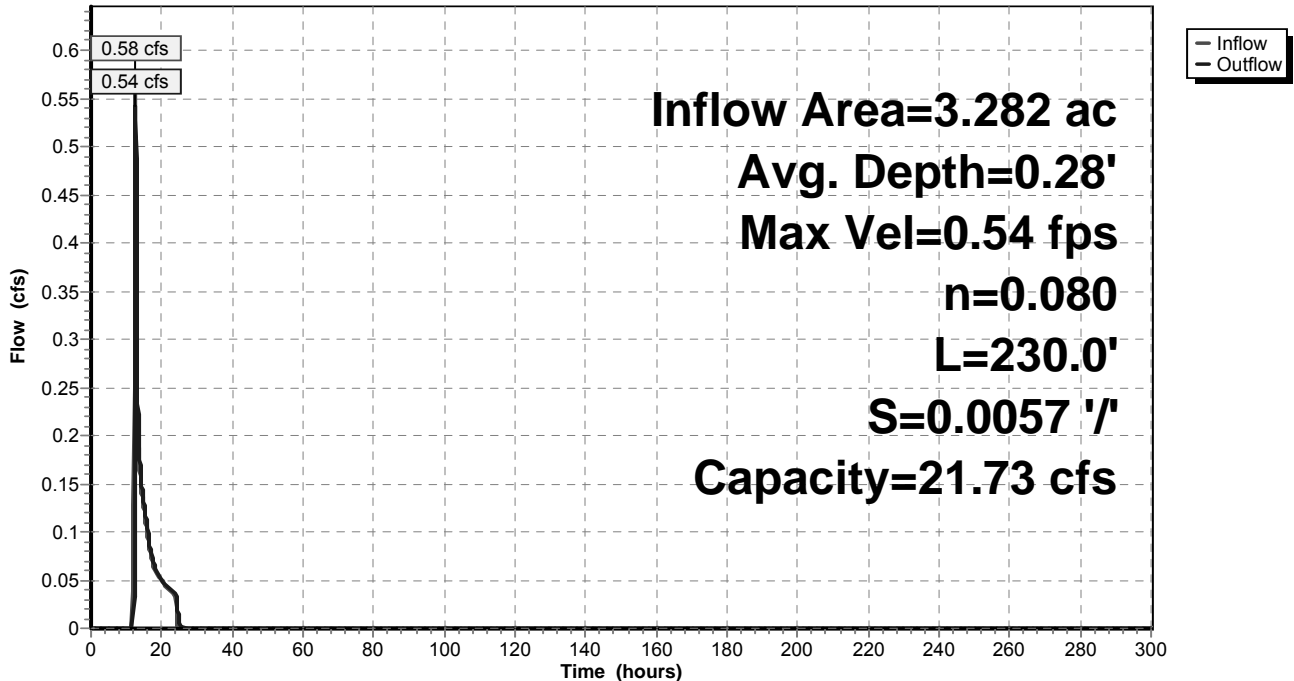
Peak Storage= 234 cf @ 12.55 hrs, Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 '/'
 Inlet Invert= 333.00', Outlet Invert= 331.70'



Reach A-2: Road Swale A-2

Hydrograph



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

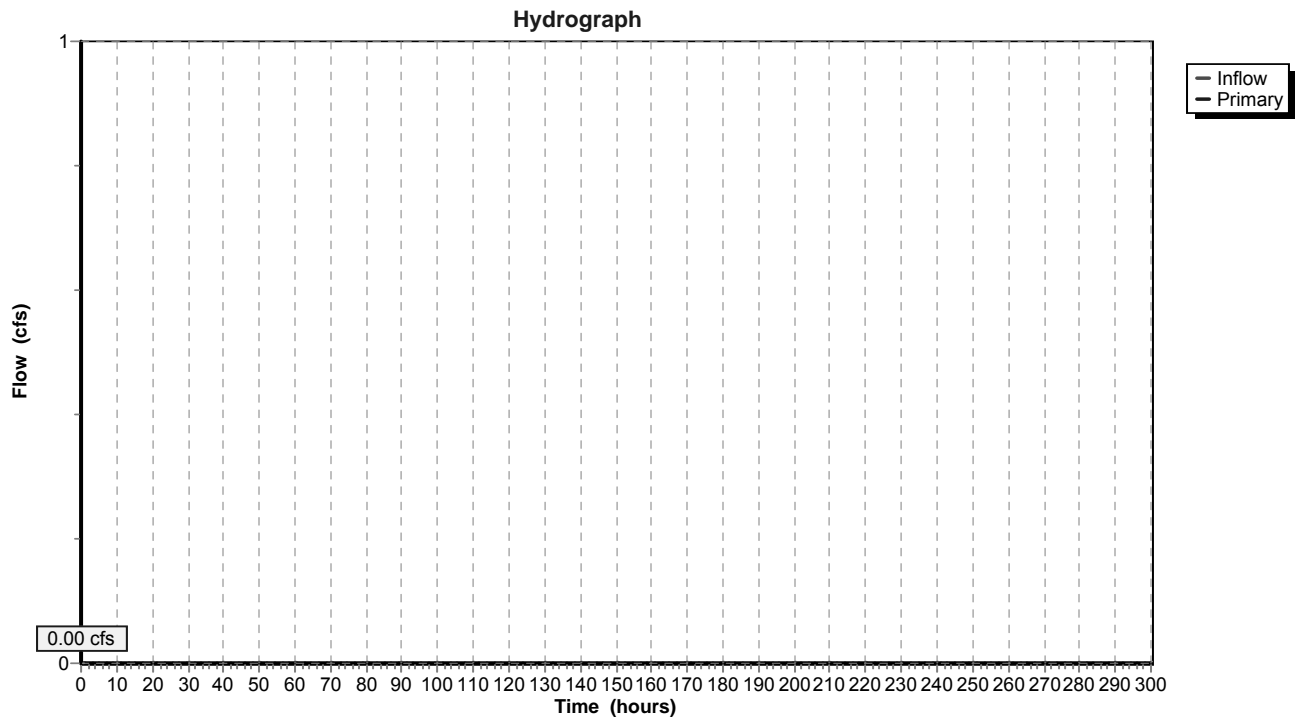
Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

[40] Hint: Not Described (Outflow=Inflow)

Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1



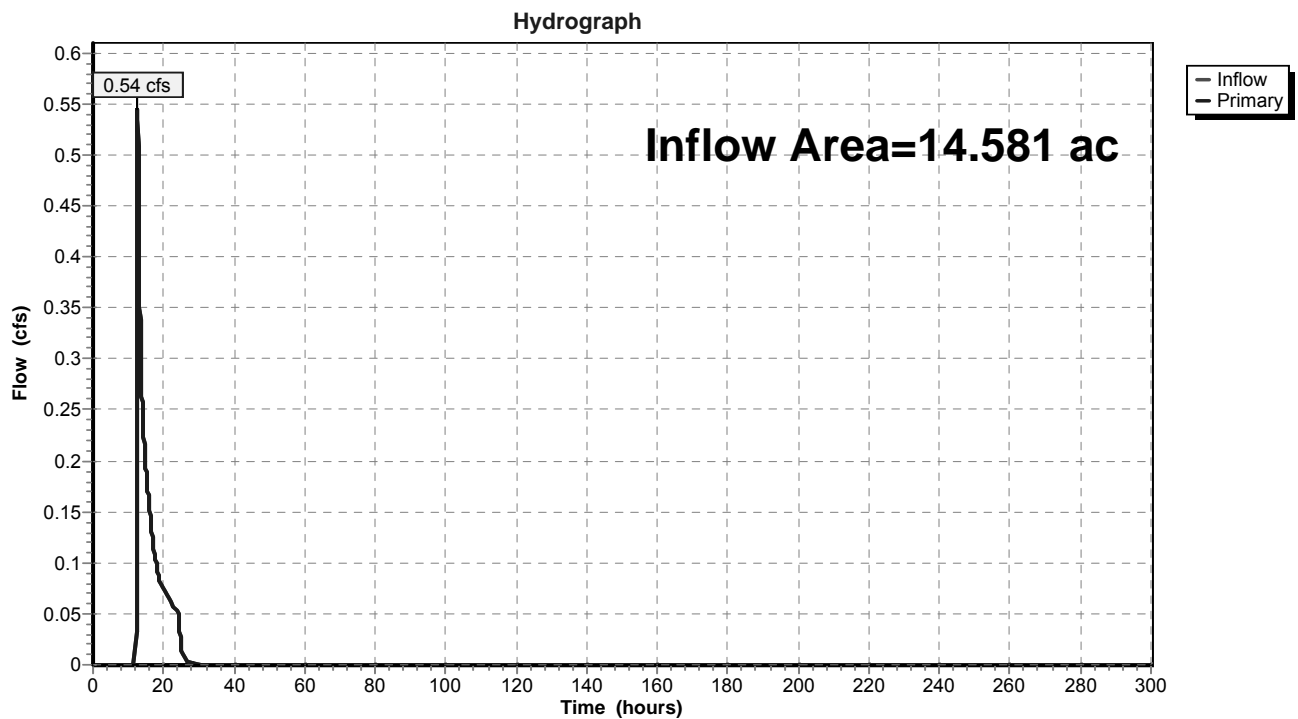
Summary for Pond DP 1A: Design Point 1A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 0.12" for 1 Year - North Salem event
Inflow = 0.54 cfs @ 12.67 hrs, Volume= 0.141 af
Primary = 0.54 cfs @ 12.67 hrs, Volume= 0.141 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
 Inflow = 3.29 cfs @ 12.17 hrs, Volume= 0.343 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 364.97' @ 24.60 hrs Surf.Area= 10,001 sf Storage= 19,128 cf (14,921 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe X 0.00 L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

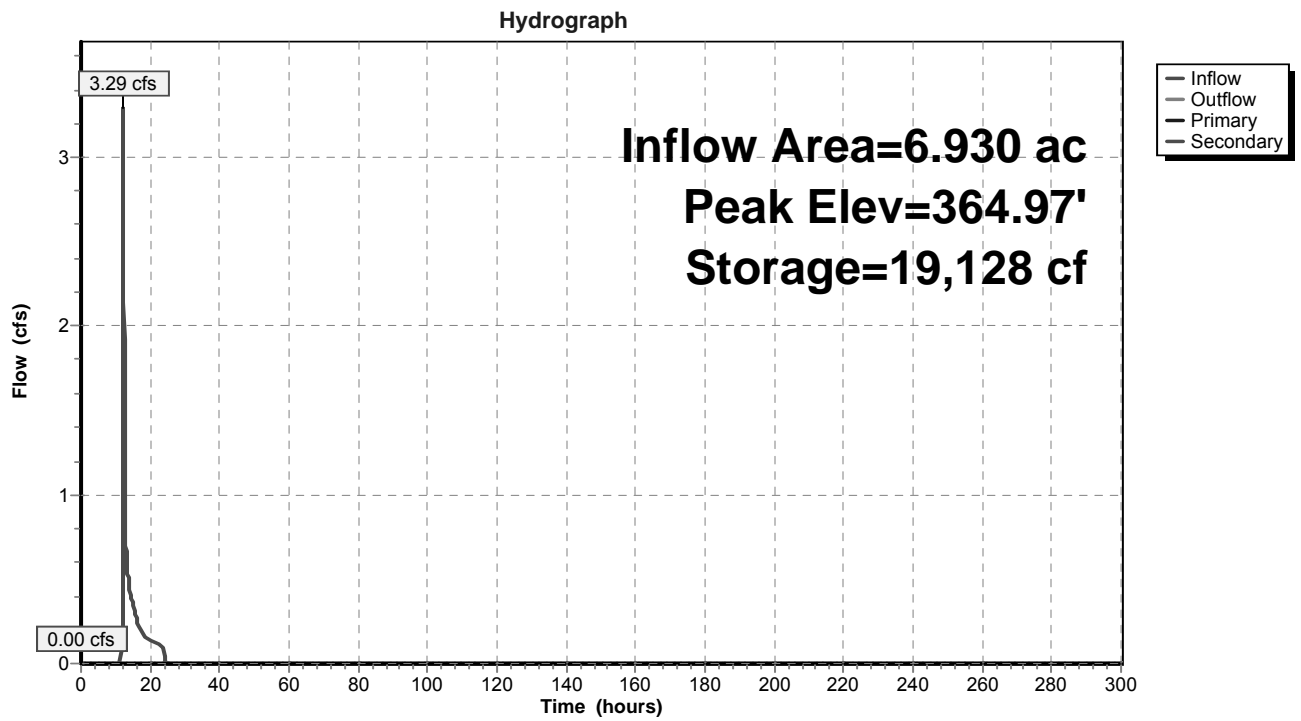
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Orifice #2 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.55" for 1 Year - North Salem event
 Inflow = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af
 Outflow = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.50' @ 12.12 hrs
 Flood Elev= 358.26'

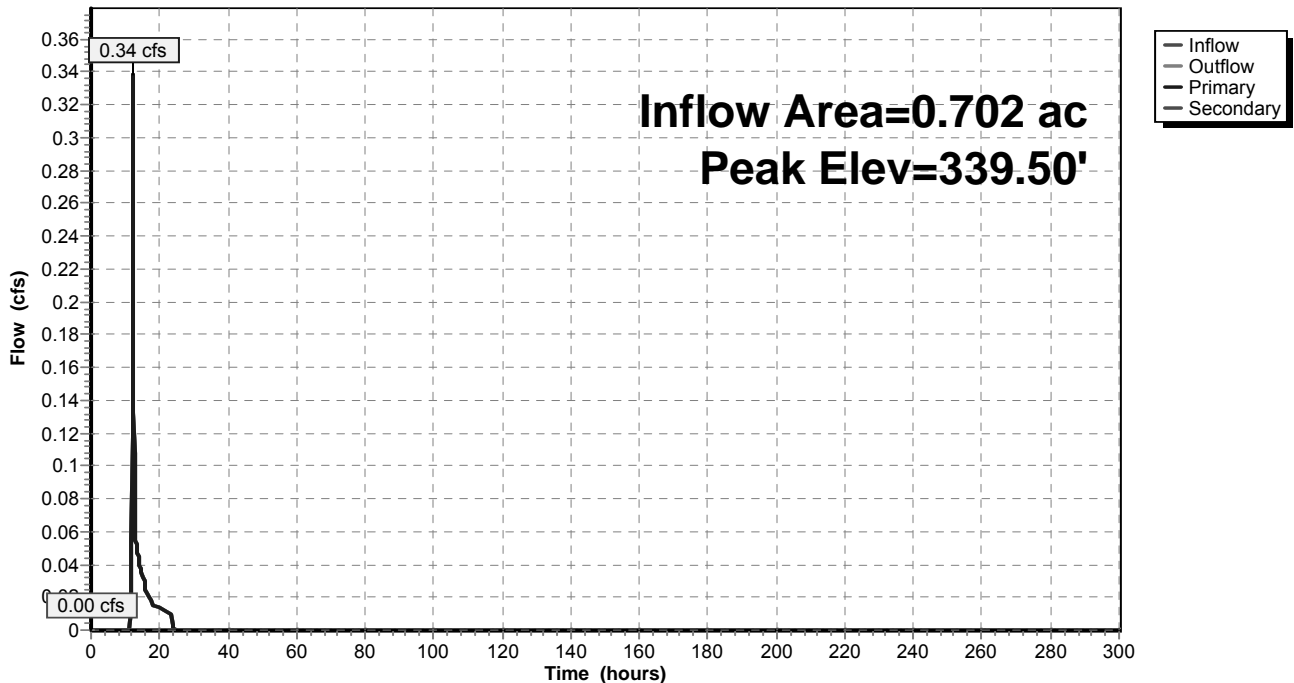
Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.33 cfs @ 12.12 hrs HW=339.50' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 0.33 cfs @ 2.69 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=339.16' (Free Discharge)
 ↳2=Outlet to DP (Controls 0.00 cfs)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
 Inflow = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af
 Outflow = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

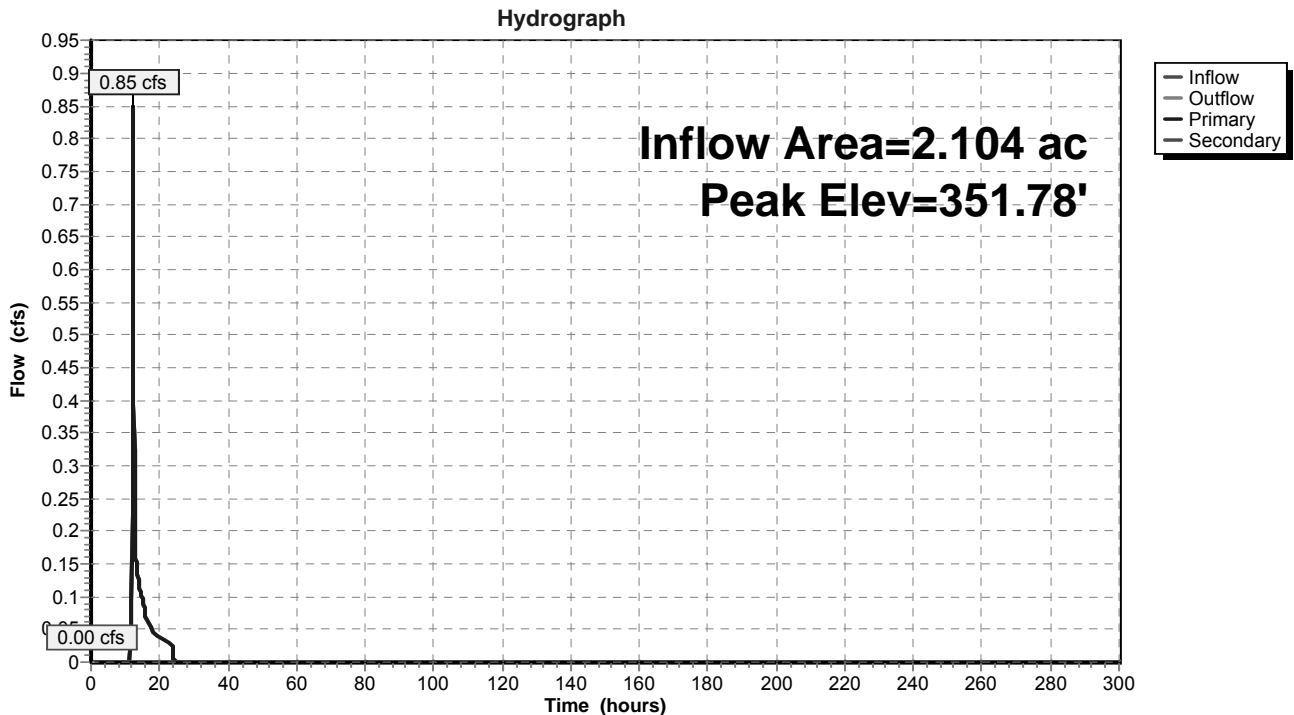
Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 351.78' @ 12.14 hrs
 Flood Elev= 358.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.84 cfs @ 12.14 hrs HW=351.77' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 0.84 cfs @ 3.25 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=351.16' (Free Discharge)
 ↳2=Outlet to DP (Controls 0.00 cfs)

Pond FS A3b: Flow Splitter A3b



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.29" for 1 Year - North Salem event
 Inflow = 0.05 cfs @ 13.62 hrs, Volume= 0.017 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 336.24' @ 25.40 hrs Surf.Area= 757 sf Storage= 732 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
335.00	432	111.0	0	0	432
336.00	693	141.0	557	557	1,047
338.00	1,313	168.0	1,973	2,531	1,779

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)

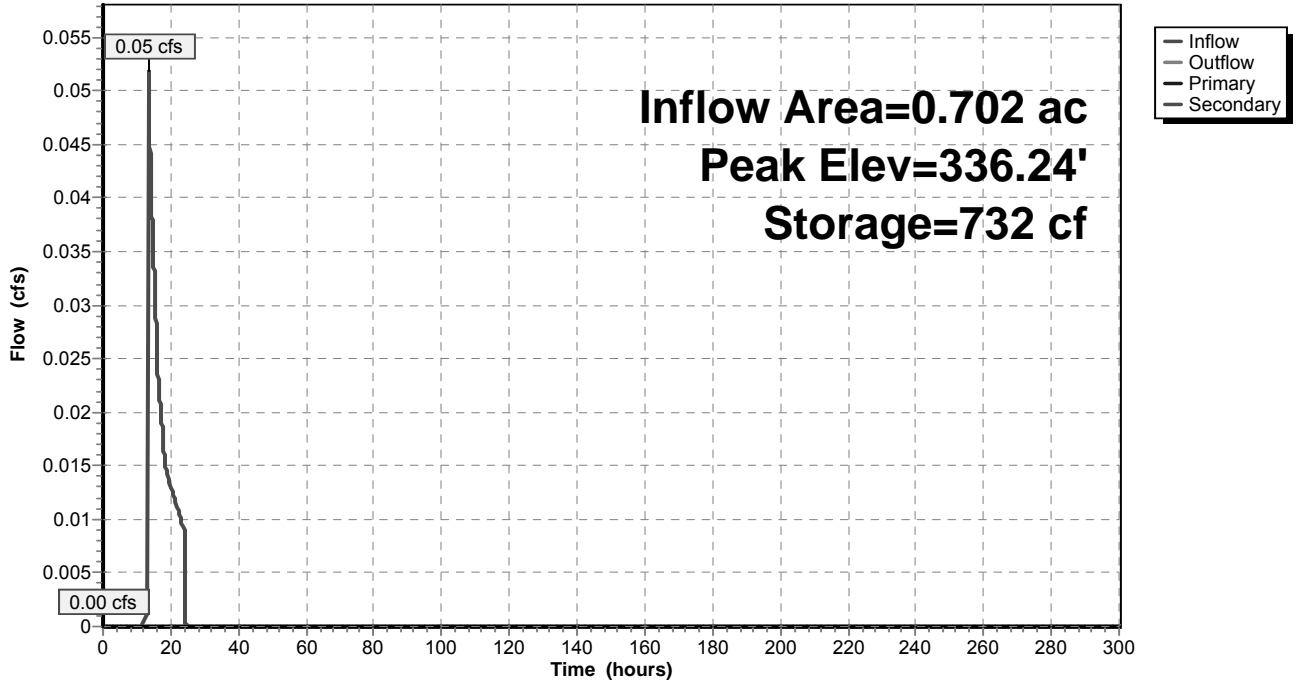
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3a: Sand Filter - A3a

Hydrograph



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.00" for 1 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 342.00' @ 0.00 hrs Surf.Area= 1,296 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

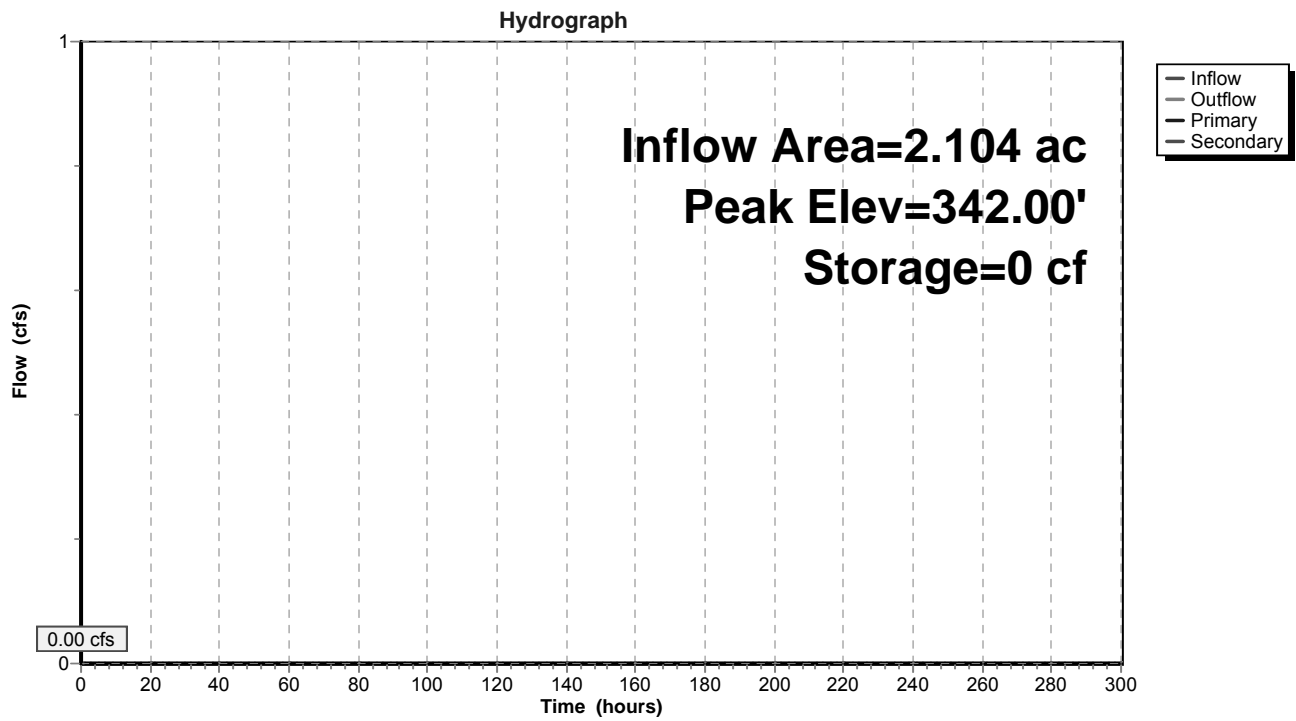
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3b: Sand Filter - A3b



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

[79] Warning: Submerged Pond FS A3a Primary device # 1 OUTLET by 0.01'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.55" for 1 Year - North Salem event
 Inflow = 0.34 cfs @ 12.12 hrs, Volume= 0.032 af
 Outflow = 0.05 cfs @ 13.62 hrs, Volume= 0.017 af, Atten= 85%, Lag= 90.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.05 cfs @ 13.62 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.01' @ 13.60 hrs Surf.Area= 492 sf Storage= 682 cf

Plug-Flow detention time= 287.2 min calculated for 0.017 af (52% of inflow)
 Center-of-Mass det. time= 142.0 min (1,040.8 - 898.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
337.00	200	57.0	0	0	200
338.00	336	71.0	265	265	356
339.00	490	83.0	411	676	522
340.00	670	96.0	578	1,253	728

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

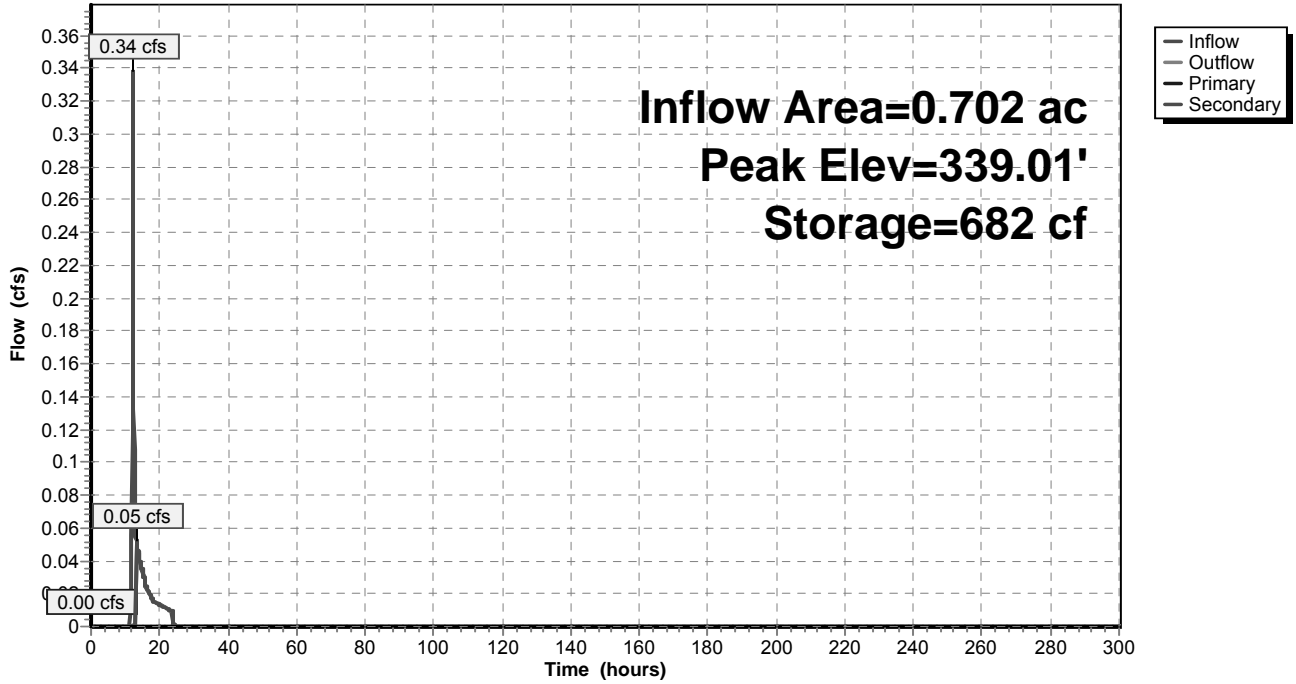
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.04 cfs @ 13.62 hrs HW=339.01' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 0.04 cfs @ 0.38 fps)

Pond SFF-A3a: Sand Filter Forebay - A3a

Hydrograph



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
 Inflow = 0.85 cfs @ 12.14 hrs, Volume= 0.090 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 350.91' @ 24.45 hrs Surf.Area= 2,098 sf Storage= 3,920 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

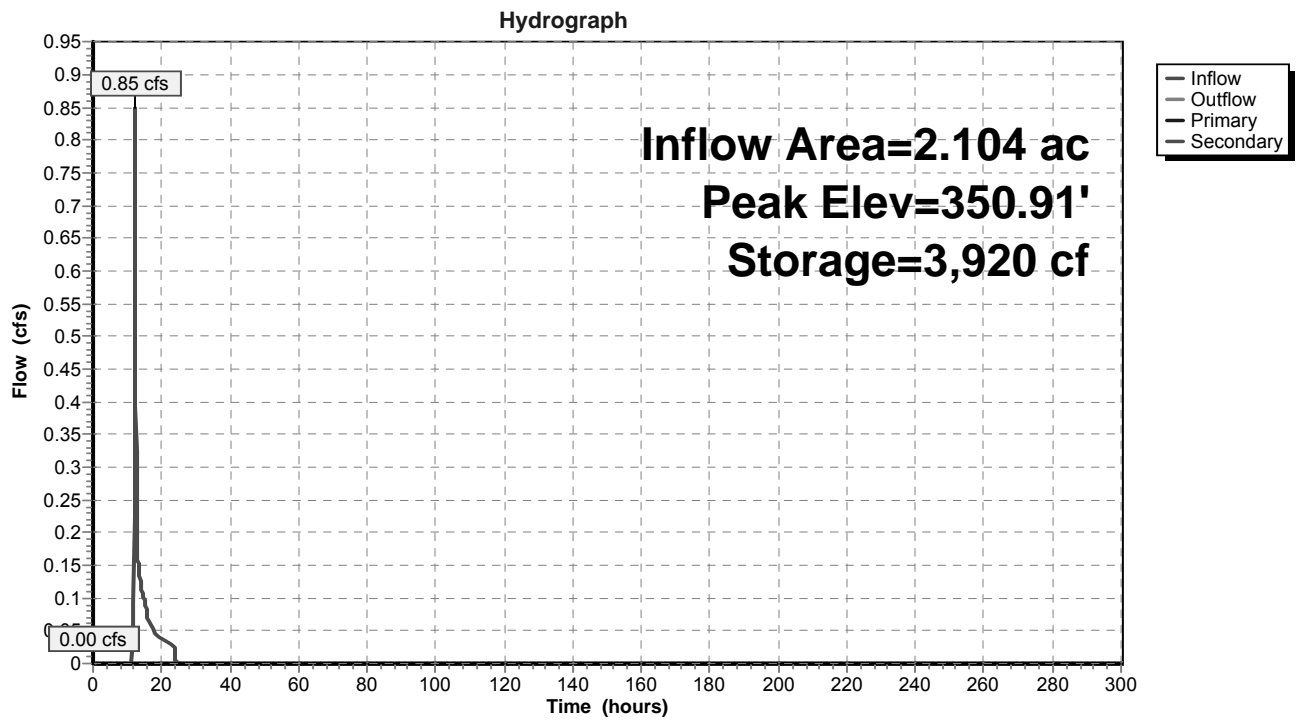
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- ↑ 6=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Woodlands Post-Dev DP 1A WORST CASType III 24-hr 2 Year - North Salem Rainfall=3.70"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=0.53"
Flow Length=649' Tc=11.3 min CN=58 Runoff=0.53 cfs 0.070 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=0.62"
Flow Length=724' Tc=19.0 min CN=60 Runoff=1.20 cfs 0.170 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=0.86"
Flow Length=367' Tc=6.2 min CN=65 Runoff=0.60 cfs 0.050 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=0.81"
Flow Length=598' Tc=7.3 min CN=64 Runoff=1.58 cfs 0.142 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=0.91"
Flow Length=775' Tc=9.8 min CN=66 Runoff=5.64 cfs 0.526 af

Reach 1R: Culvert Avg. Depth=0.13' Max Vel=3.04 fps Inflow=1.20 cfs 0.170 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=1.20 cfs 0.170 af

Reach A-1: Road Swale A-1 Avg. Depth=0.17' Max Vel=0.55 fps Inflow=0.53 cfs 0.070 af
n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=0.32 cfs 0.070 af

Reach A-2: Road Swale A-2 Avg. Depth=0.43' Max Vel=0.68 fps Inflow=1.20 cfs 0.170 af
n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=1.14 cfs 0.170 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=0.40 cfs 0.004 af
Primary=0.40 cfs 0.004 af

Pond DP 1A: Design Point 1A Inflow=1.22 cfs 0.243 af
Primary=1.22 cfs 0.243 af

Pond ED-A4: Micropool ED Basin (Basin Peak Elev=365.70' Storage=27,130 cf Inflow=5.64 cfs 0.526 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond FS A3a: Flow Splitter A3a Peak Elev=339.60' Inflow=0.60 cfs 0.050 af
Primary=0.51 cfs 0.049 af Secondary=0.09 cfs 0.001 af Outflow=0.60 cfs 0.050 af

Pond FS A3b: Flow Splitter A3b Peak Elev=352.06' Inflow=1.58 cfs 0.142 af
Primary=1.26 cfs 0.138 af Secondary=0.31 cfs 0.003 af Outflow=1.58 cfs 0.142 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=337.09' Storage=1,478 cf Inflow=0.26 cfs 0.034 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=343.28' Storage=1,912 cf Inflow=0.11 cfs 0.044 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=339.04' Storage=697 cf Inflow=0.51 cfs 0.049 af
Primary=0.00 cfs 0.000 af Secondary=0.26 cfs 0.034 af Outflow=0.26 cfs 0.034 af

Woodlands Post-Dev DP 1A WORST CASType III 24-hr 2 Year - North Salem Rainfall=3.70"

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Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=351.02' Storage=4,163 cf Inflow=1.26 cfs 0.138 af
Primary=0.00 cfs 0.000 af Secondary=0.11 cfs 0.044 af Outflow=0.11 cfs 0.044 af

Total Runoff Area = 14.581 ac Runoff Volume = 0.957 af Average Runoff Depth = 0.79"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 0.53 cfs @ 12.22 hrs, Volume= 0.070 af, Depth= 0.53"

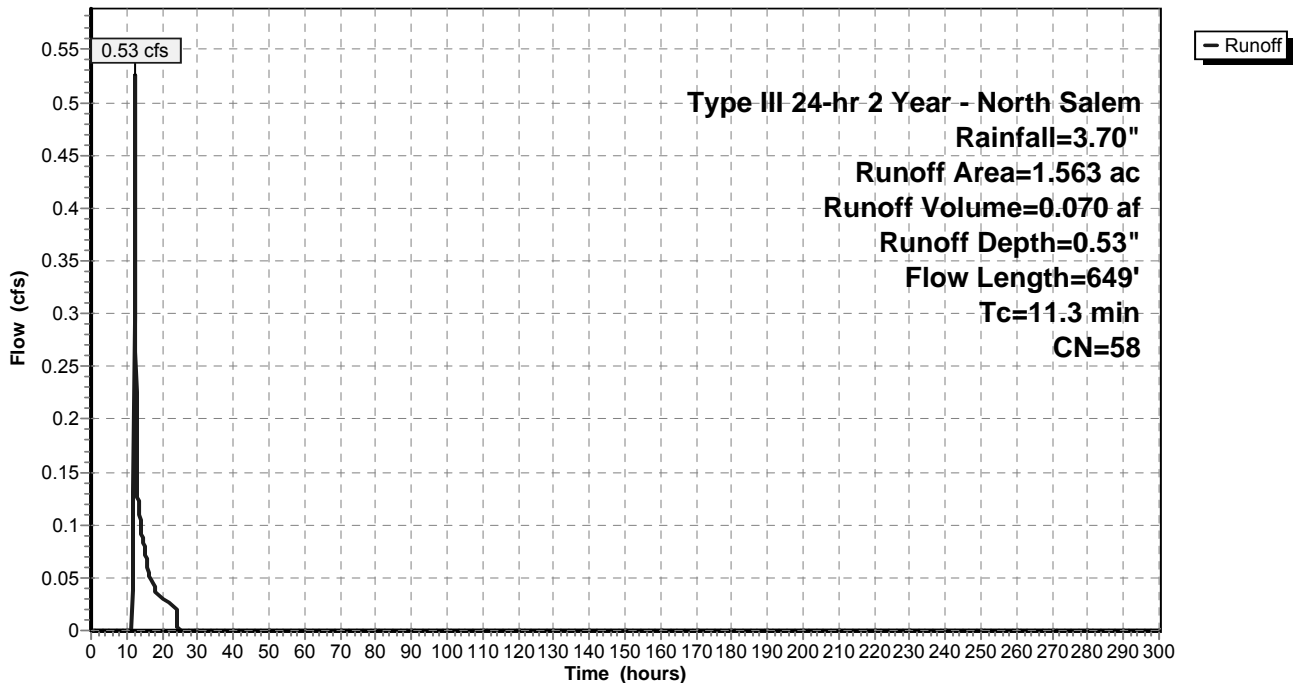
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

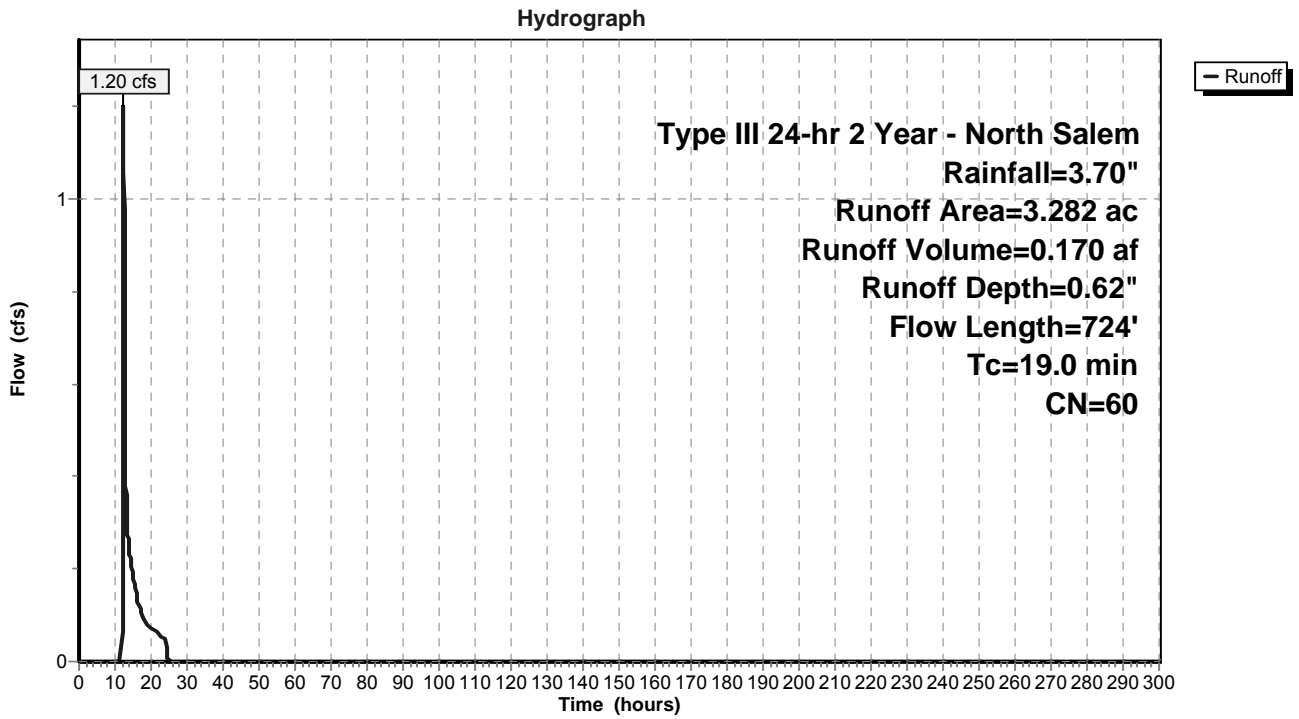
Runoff = 1.20 cfs @ 12.35 hrs, Volume= 0.170 af, Depth= 0.62"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2



Summary for Subcatchment A3a: Post-Development A3a

Runoff = 0.60 cfs @ 12.11 hrs, Volume= 0.050 af, Depth= 0.86"

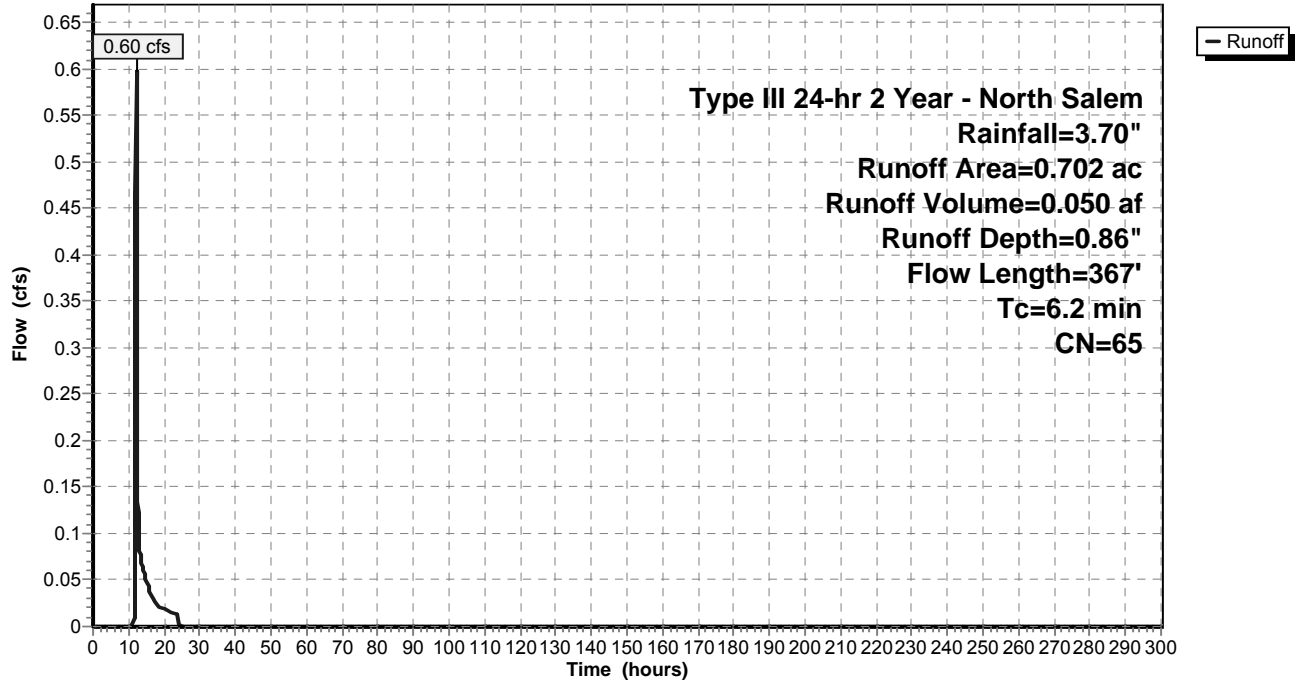
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a

Hydrograph



Summary for Subcatchment A3b: Post-Development A3b

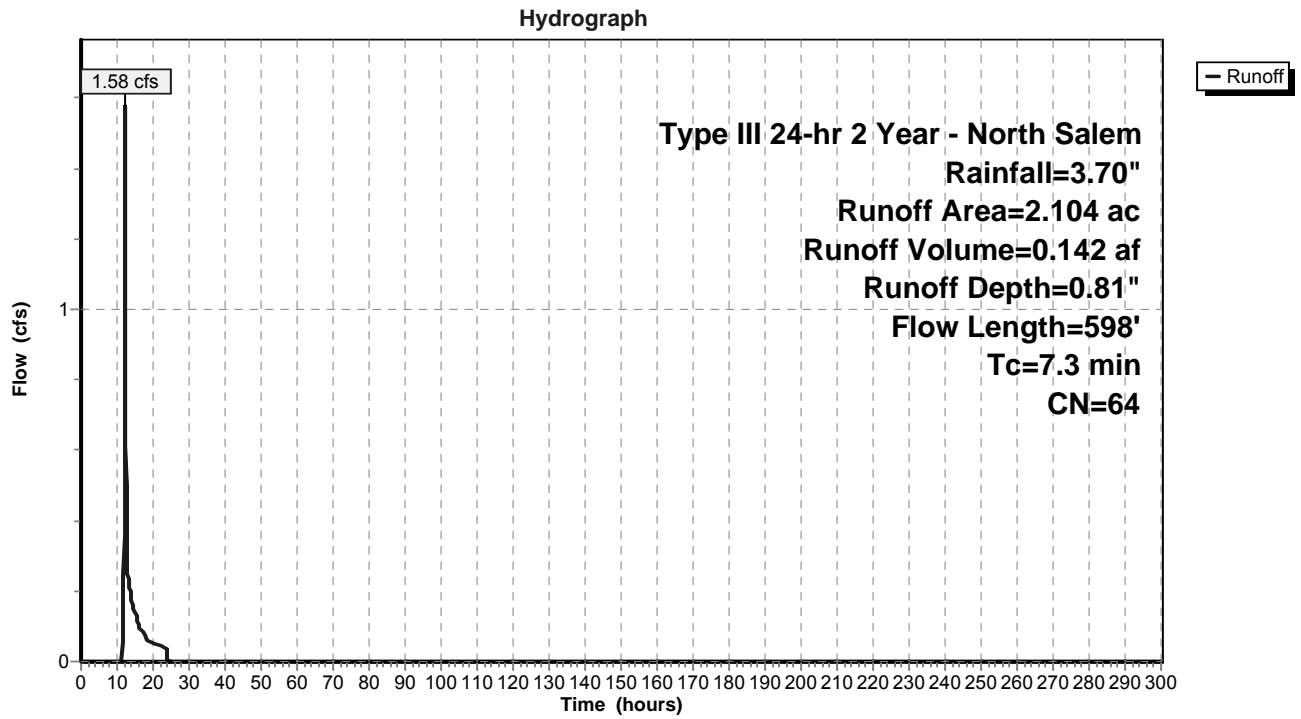
Runoff = 1.58 cfs @ 12.12 hrs, Volume= 0.142 af, Depth= 0.81"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b



Summary for Subcatchment A4: Post-Development A4

Runoff = 5.64 cfs @ 12.16 hrs, Volume= 0.526 af, Depth= 0.91"

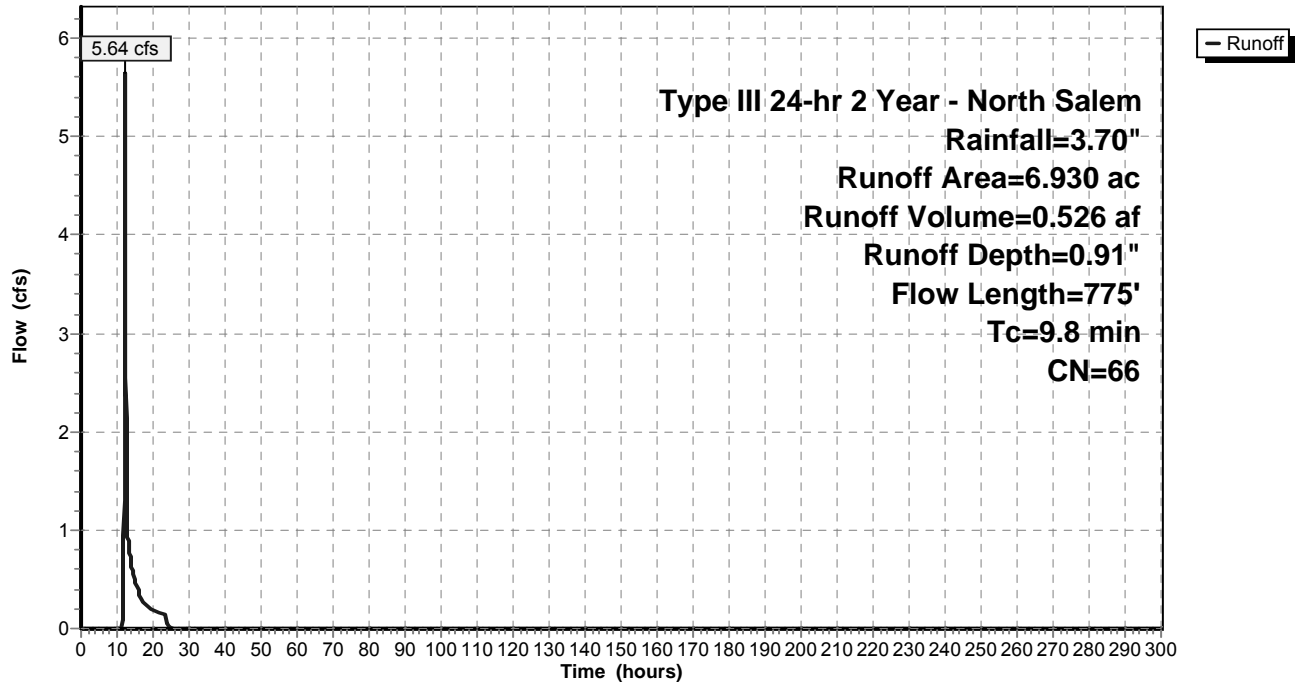
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.62" for 2 Year - North Salem event
 Inflow = 1.20 cfs @ 12.35 hrs, Volume= 0.170 af
 Outflow = 1.20 cfs @ 12.36 hrs, Volume= 0.170 af, Atten= 0%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 3.04 fps, Min. Travel Time= 0.4 min
 Avg. Velocity = 1.27 fps, Avg. Travel Time= 0.9 min

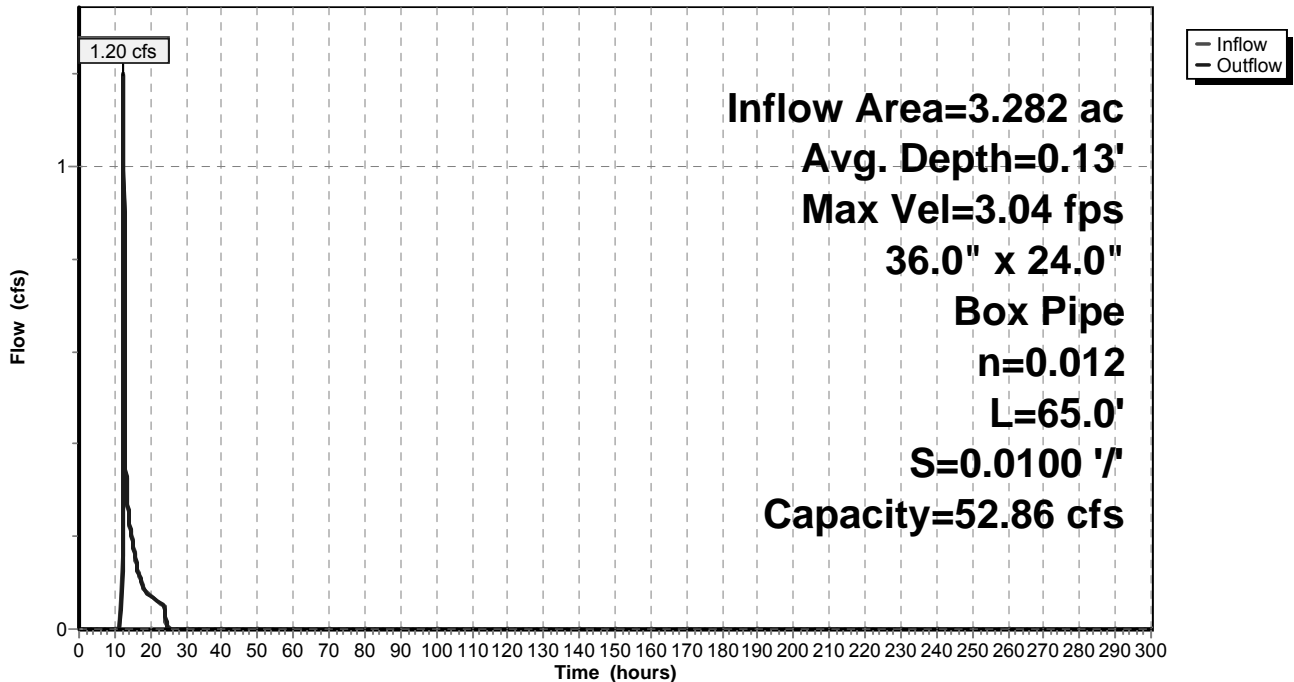
Peak Storage= 26 cf @ 12.35 hrs, Average Depth at Peak Storage= 0.13'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/
 Inlet Invert= 334.65', Outlet Invert= 334.00'



Reach 1R: Culvert

Hydrograph



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 0.53" for 2 Year - North Salem event
 Inflow = 0.53 cfs @ 12.22 hrs, Volume= 0.070 af
 Outflow = 0.32 cfs @ 12.93 hrs, Volume= 0.070 af, Atten= 39%, Lag= 42.9 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.55 fps, Min. Travel Time= 23.3 min
 Avg. Velocity = 0.22 fps, Avg. Travel Time= 58.0 min

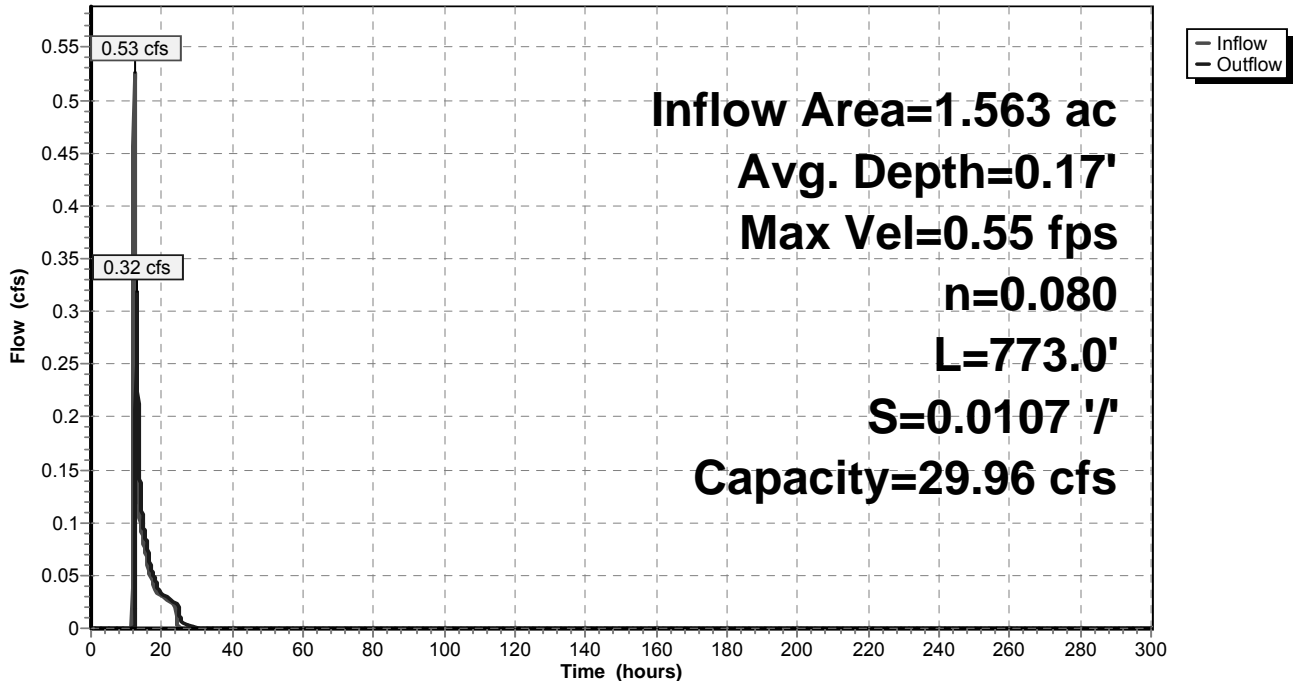
Peak Storage= 447 cf @ 12.55 hrs, Average Depth at Peak Storage= 0.17'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/'
 Inlet Invert= 340.00', Outlet Invert= 331.70'



Reach A-1: Road Swale A-1

Hydrograph



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 0.62" for 2 Year - North Salem event
 Inflow = 1.20 cfs @ 12.36 hrs, Volume= 0.170 af
 Outflow = 1.14 cfs @ 12.54 hrs, Volume= 0.170 af, Atten= 5%, Lag= 11.1 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.68 fps, Min. Travel Time= 5.6 min
 Avg. Velocity = 0.26 fps, Avg. Travel Time= 14.6 min

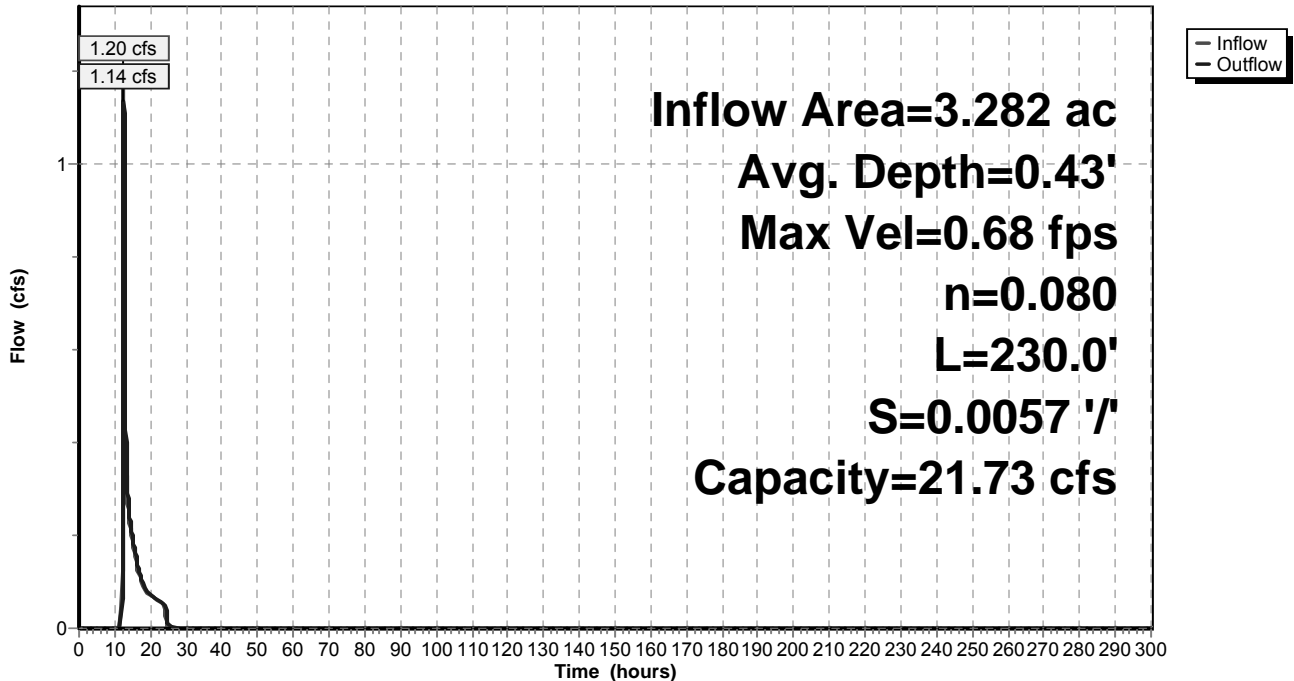
Peak Storage= 385 cf @ 12.45 hrs, Average Depth at Peak Storage= 0.43'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 ' / ' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 ' / '
 Inlet Invert= 333.00', Outlet Invert= 331.70'



Reach A-2: Road Swale A-2

Hydrograph



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

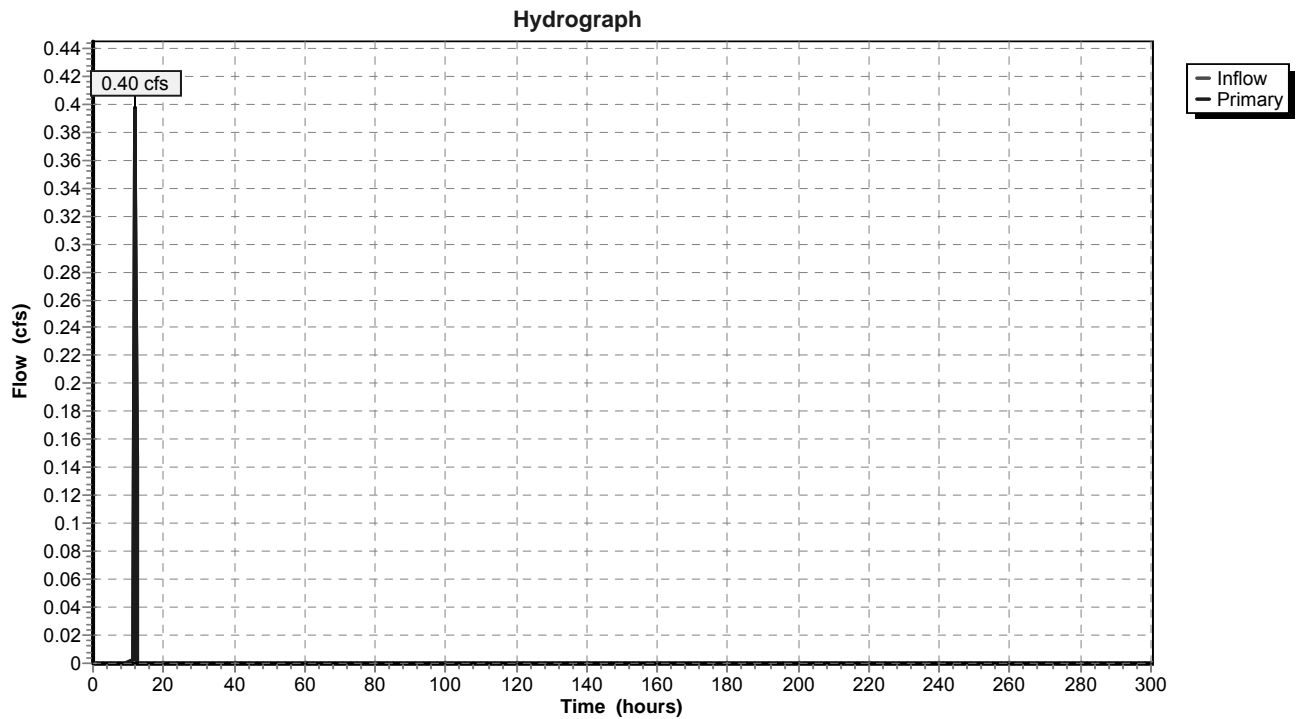
Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

[40] Hint: Not Described (Outflow=Inflow)

Inflow = 0.40 cfs @ 12.12 hrs, Volume= 0.004 af
Primary = 0.40 cfs @ 12.12 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1



Summary for Pond DP 1A: Design Point 1A

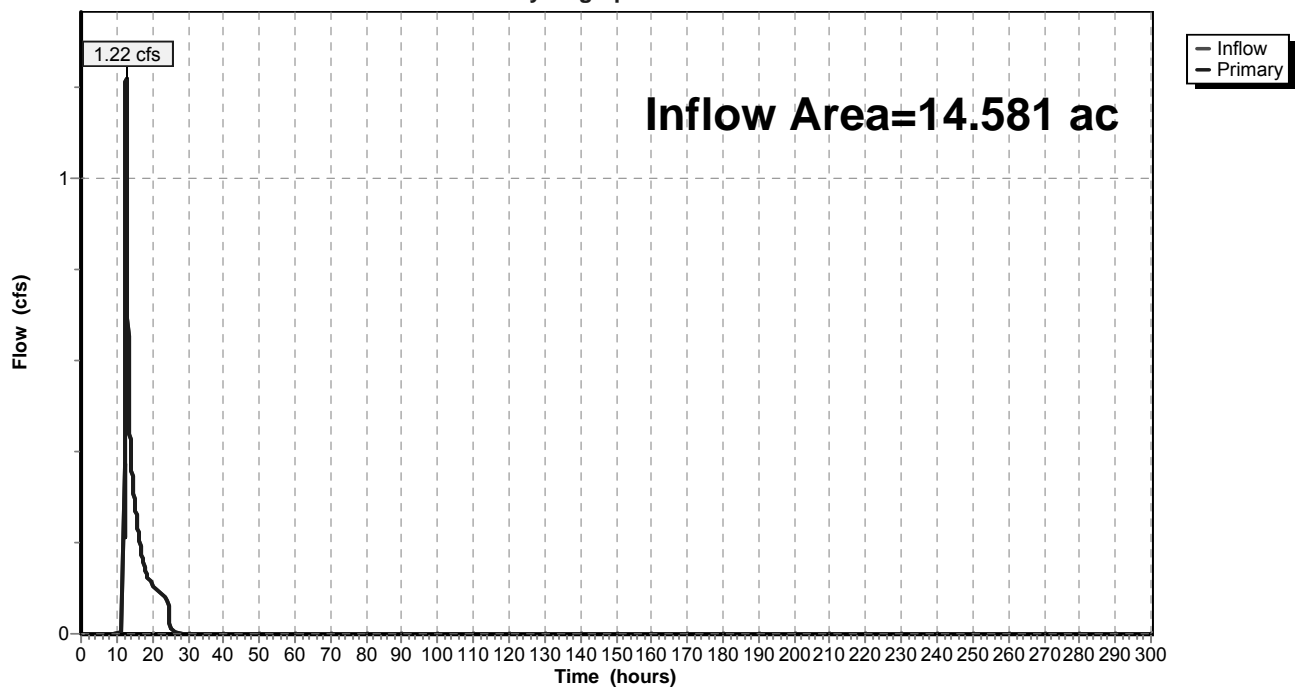
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 0.20" for 2 Year - North Salem event
 Inflow = 1.22 cfs @ 12.64 hrs, Volume= 0.243 af
 Primary = 1.22 cfs @ 12.64 hrs, Volume= 0.243 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
 Inflow = 5.64 cfs @ 12.16 hrs, Volume= 0.526 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 365.70' @ 24.60 hrs Surf.Area= 11,987 sf Storage= 27,130 cf (22,923 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe X 0.00 L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

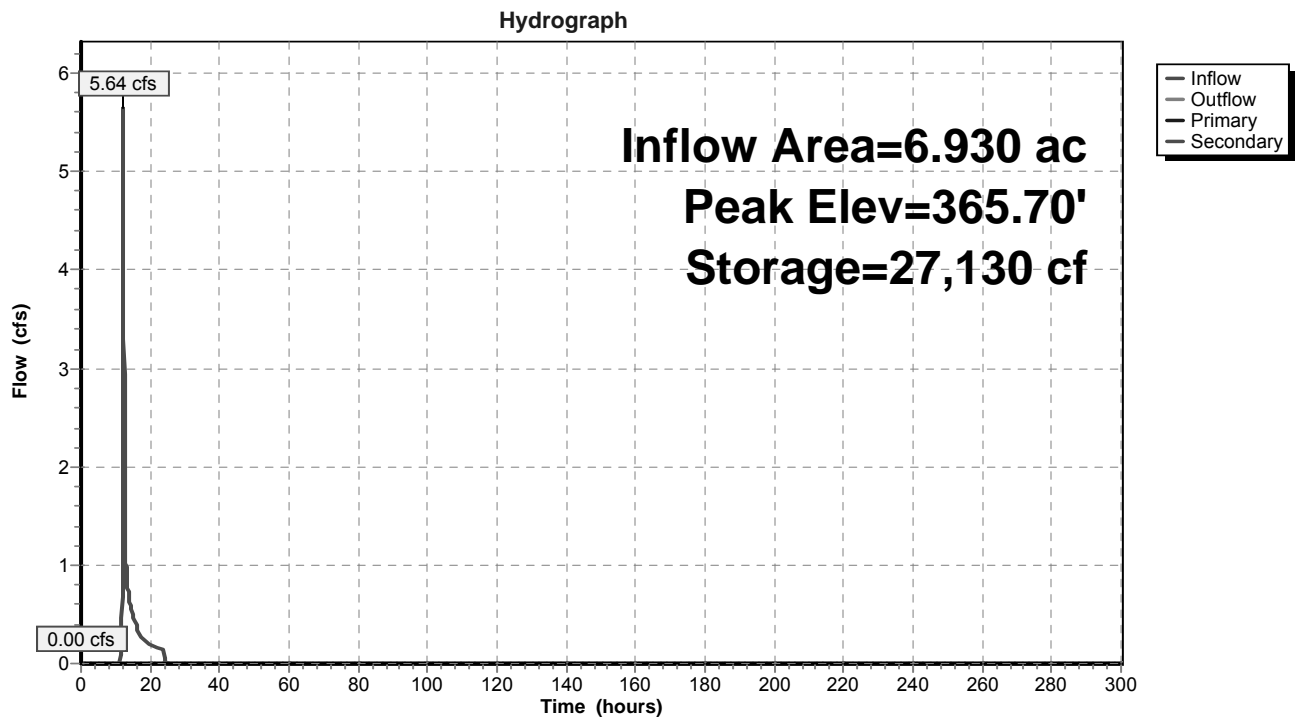
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Orifice #2 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.86" for 2 Year - North Salem event
 Inflow = 0.60 cfs @ 12.11 hrs, Volume= 0.050 af
 Outflow = 0.60 cfs @ 12.11 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.51 cfs @ 12.11 hrs, Volume= 0.049 af
 Secondary = 0.09 cfs @ 12.11 hrs, Volume= 0.001 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.60' @ 12.11 hrs
 Flood Elev= 358.26'

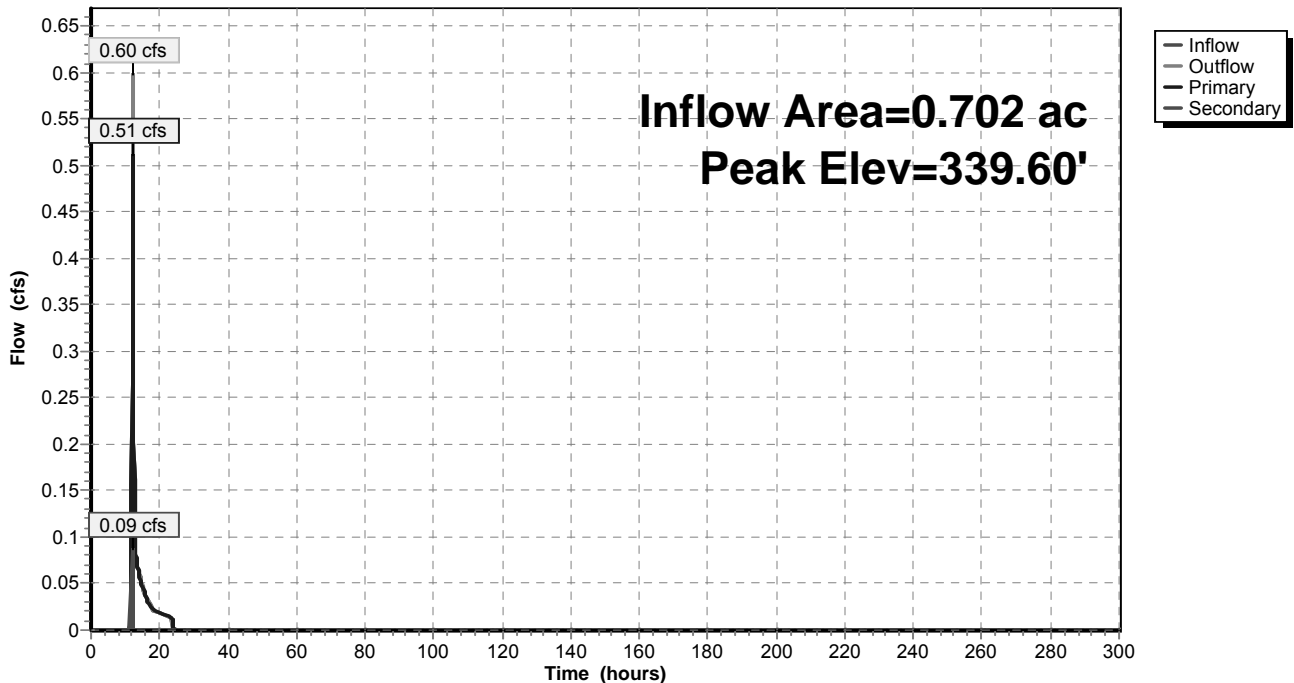
Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.50 cfs @ 12.11 hrs HW=339.60' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 0.50 cfs @ 2.93 fps)

Secondary OutFlow Max=0.05 cfs @ 12.11 hrs HW=339.60' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 0.05 cfs @ 1.06 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.81" for 2 Year - North Salem event
 Inflow = 1.58 cfs @ 12.12 hrs, Volume= 0.142 af
 Outflow = 1.58 cfs @ 12.12 hrs, Volume= 0.142 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.26 cfs @ 12.12 hrs, Volume= 0.138 af
 Secondary = 0.31 cfs @ 12.12 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 352.06' @ 12.12 hrs
 Flood Elev= 358.26'

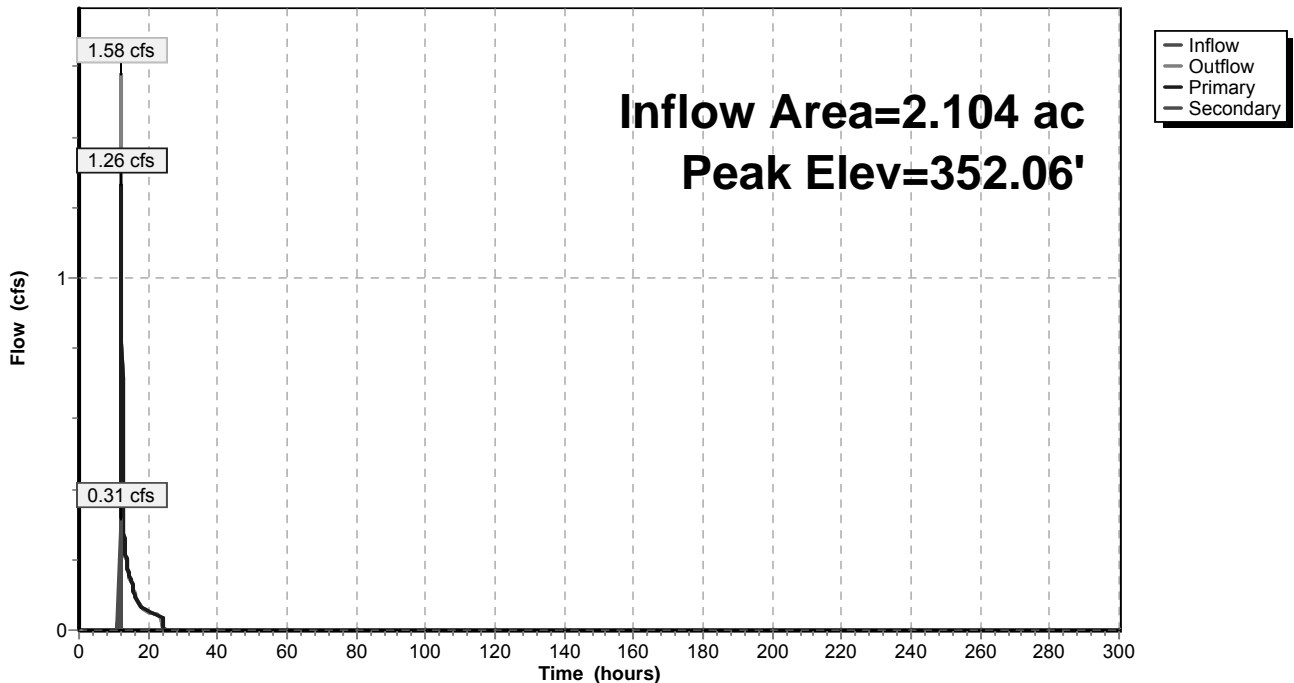
Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.23 cfs @ 12.12 hrs HW=352.04' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 1.23 cfs @ 3.52 fps)

Secondary OutFlow Max=0.28 cfs @ 12.12 hrs HW=352.04' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 0.28 cfs @ 1.67 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

[79] Warning: Submerged Pond SFF-A3a Primary device # 1 INLET by 0.09'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.58" for 2 Year - North Salem event
 Inflow = 0.26 cfs @ 12.47 hrs, Volume= 0.034 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 337.09' @ 25.40 hrs Surf.Area= 1,006 sf Storage= 1,478 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
335.00	432	111.0	0	0	432
336.00	693	141.0	557	557	1,047
338.00	1,313	168.0	1,973	2,531	1,779

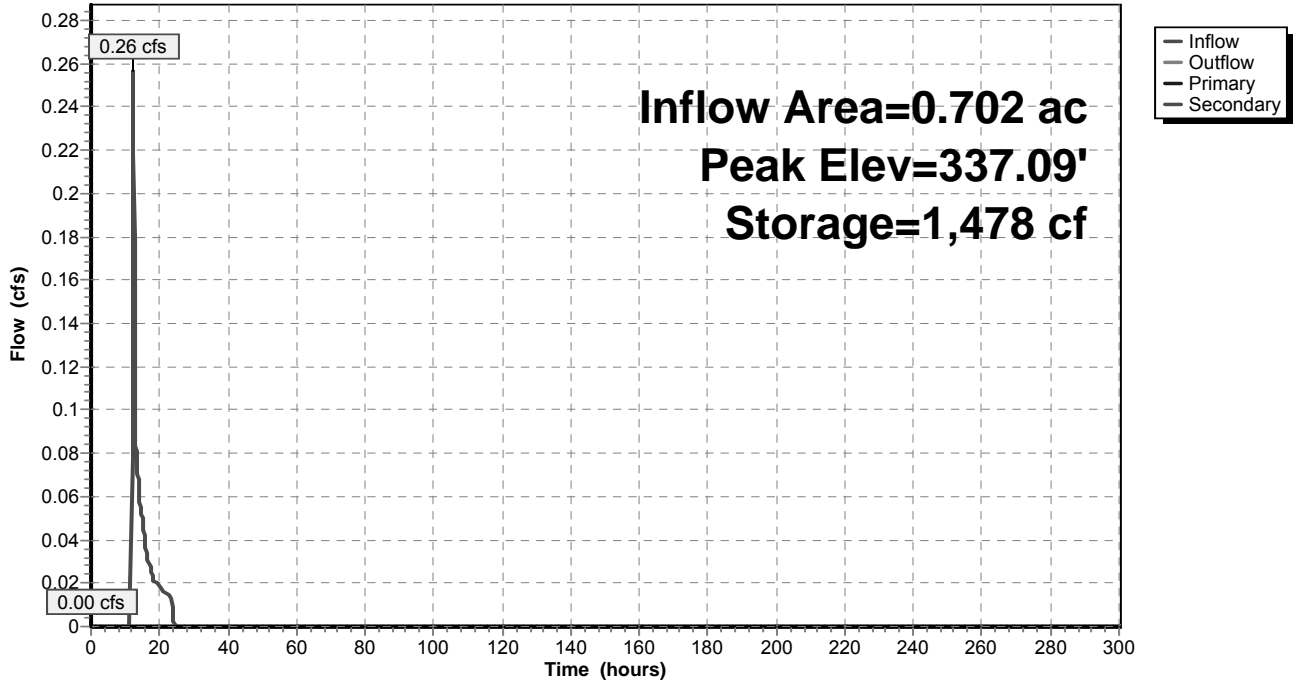
Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3a: Sand Filter - A3a

Hydrograph



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.25" for 2 Year - North Salem event
 Inflow = 0.11 cfs @ 15.78 hrs, Volume= 0.044 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 343.28' @ 291.50 hrs Surf.Area= 1,689 sf Storage= 1,912 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

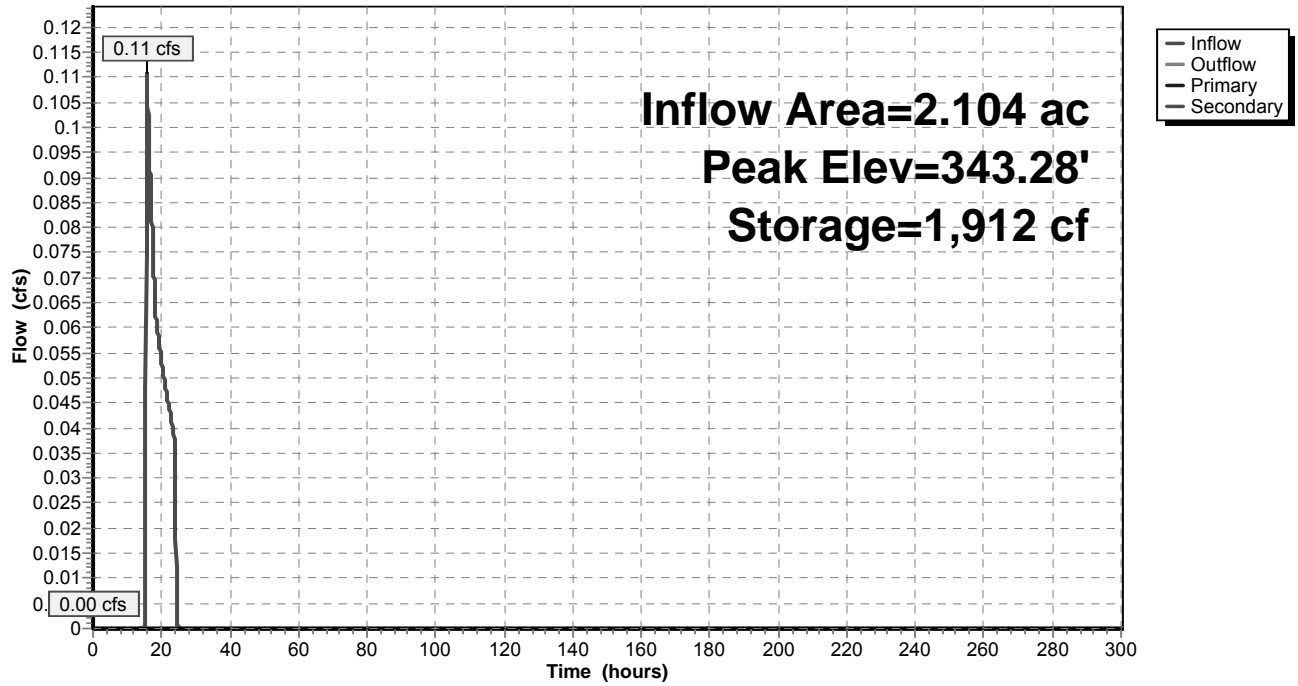
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-A3b: Sand Filter - A3b

Hydrograph



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

[79] Warning: Submerged Pond FS A3a Primary device # 1 OUTLET by 0.04'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 0.85" for 2 Year - North Salem event
 Inflow = 0.51 cfs @ 12.11 hrs, Volume= 0.049 af
 Outflow = 0.26 cfs @ 12.47 hrs, Volume= 0.034 af, Atten= 50%, Lag= 21.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.26 cfs @ 12.47 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.04' @ 12.45 hrs Surf.Area= 497 sf Storage= 697 cf

Plug-Flow detention time= 185.7 min calculated for 0.034 af (69% of inflow)
 Center-of-Mass det. time= 74.0 min (959.0 - 885.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
337.00	200	57.0	0	0	200
338.00	336	71.0	265	265	356
339.00	490	83.0	411	676	522
340.00	670	96.0	578	1,253	728

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

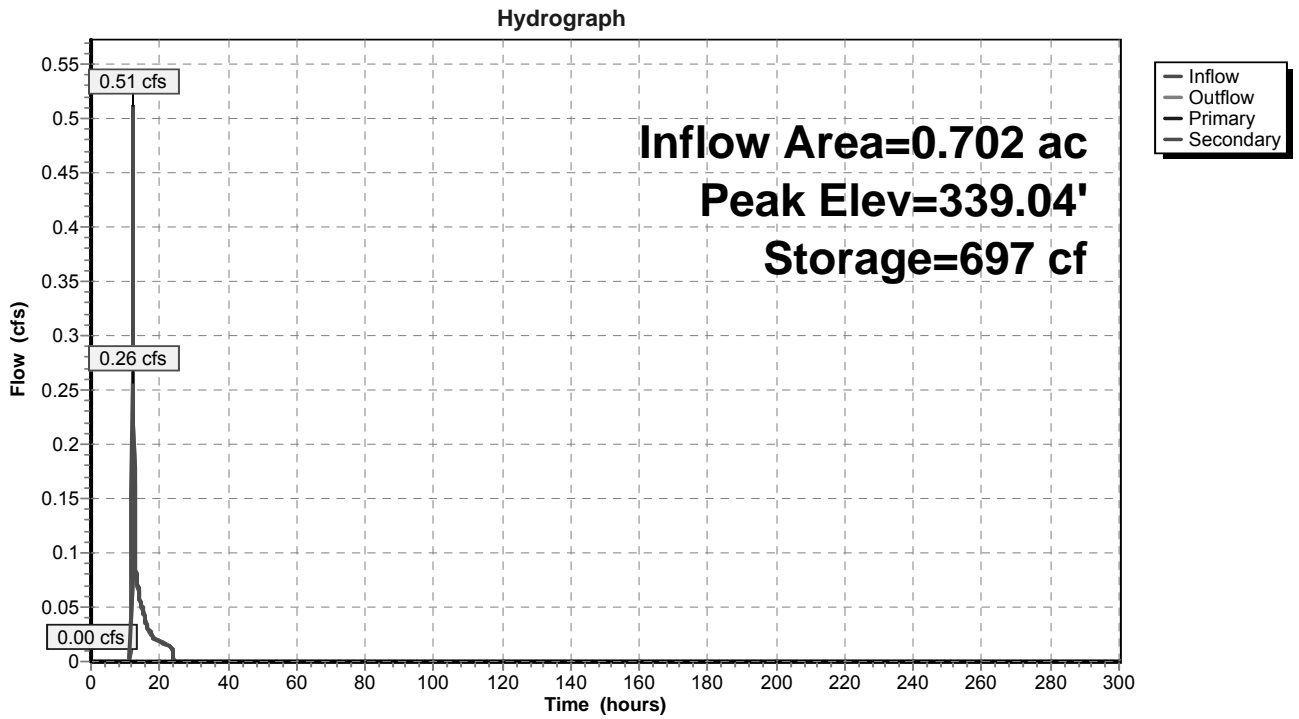
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.22 cfs @ 12.47 hrs HW=339.04' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 0.22 cfs @ 0.67 fps)

Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

[79] Warning: Submerged Pond FS A3b Primary device # 1 OUTLET by 0.02'

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 0.79" for 2 Year - North Salem event
 Inflow = 1.26 cfs @ 12.12 hrs, Volume= 0.138 af
 Outflow = 0.11 cfs @ 15.78 hrs, Volume= 0.044 af, Atten= 91%, Lag= 219.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.11 cfs @ 15.78 hrs, Volume= 0.044 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 351.02' @ 15.78 hrs Surf.Area= 2,165 sf Storage= 4,163 cf

Plug-Flow detention time= 410.8 min calculated for 0.044 af (32% of inflow)
 Center-of-Mass det. time= 251.0 min (1,142.0 - 891.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

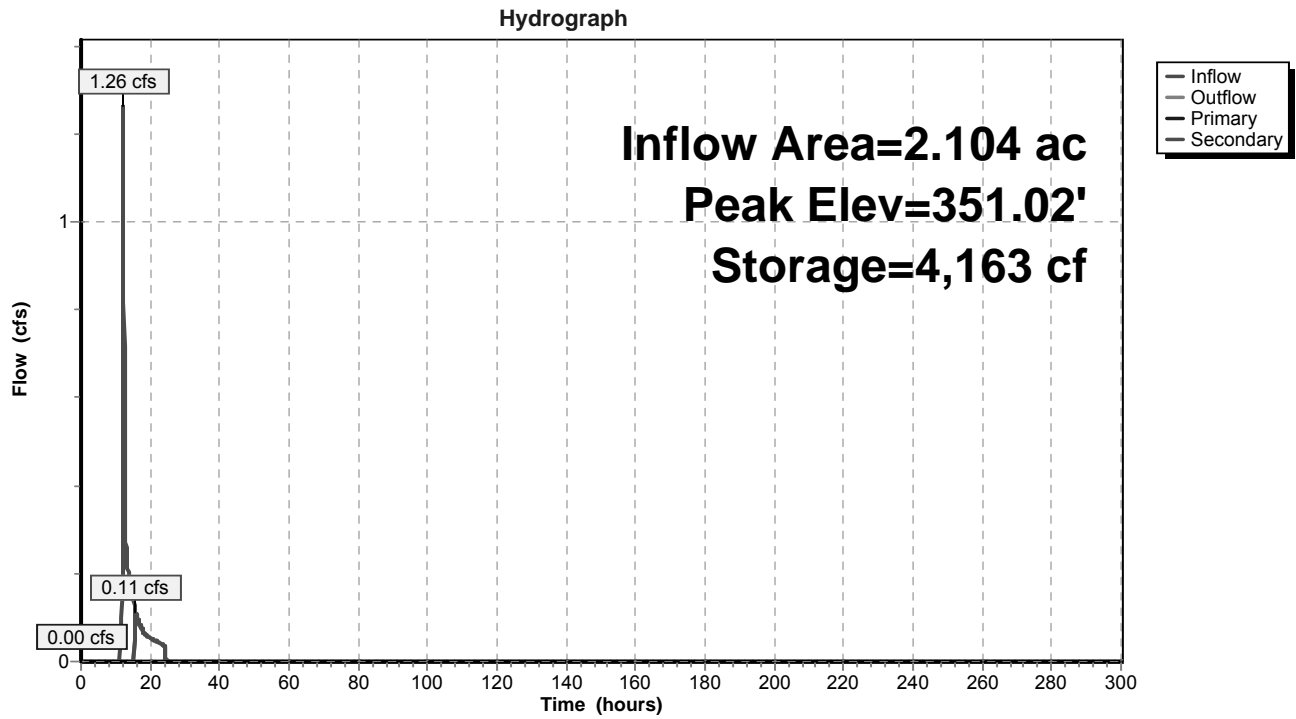
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.08 cfs @ 15.78 hrs HW=351.02' (Free Discharge)

- ↑ 6=Sharp-Crested Rectangular Weir (Weir Controls 0.08 cfs @ 0.48 fps)

Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Woodlands Post-Dev DP 1A WORST CA Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=1.45"
Flow Length=649' Tc=11.3 min CN=58 Runoff=1.96 cfs 0.189 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=1.60"
Flow Length=724' Tc=19.0 min CN=60 Runoff=3.88 cfs 0.438 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=1.99"
Flow Length=367' Tc=6.2 min CN=65 Runoff=1.55 cfs 0.117 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=1.91"
Flow Length=598' Tc=7.3 min CN=64 Runoff=4.27 cfs 0.336 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=2.08"
Flow Length=775' Tc=9.8 min CN=66 Runoff=14.22 cfs 1.199 af

Reach 1R: Culvert Avg. Depth=0.28' Max Vel=4.69 fps Inflow=3.88 cfs 0.438 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=3.87 cfs 0.438 af

Reach A-1: Road Swale A-1 Avg. Depth=0.40' Max Vel=0.90 fps Inflow=1.96 cfs 0.189 af
n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=1.37 cfs 0.189 af

Reach A-2: Road Swale A-2 Avg. Depth=0.83' Max Vel=0.97 fps Inflow=3.87 cfs 0.438 af
n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=3.73 cfs 0.438 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=3.09 cfs 0.064 af
Primary=3.09 cfs 0.064 af

Pond DP 1A: Design Point 1A Inflow=5.17 cfs 1.076 af
Primary=5.17 cfs 1.076 af

Pond ED-A4: Micropool ED Basin (Basin Peak Elev=367.06' Storage=46,030 cf Inflow=14.22 cfs 1.199 af
Primary=0.00 cfs 0.000 af Secondary=0.56 cfs 0.262 af Outflow=0.56 cfs 0.262 af

Pond FS A3a: Flow Splitter A3a Peak Elev=339.85' Inflow=1.55 cfs 0.117 af
Primary=0.96 cfs 0.106 af Secondary=0.59 cfs 0.011 af Outflow=1.55 cfs 0.117 af

Pond FS A3b: Flow Splitter A3b Peak Elev=352.60' Inflow=4.27 cfs 0.336 af
Primary=1.77 cfs 0.283 af Secondary=2.51 cfs 0.053 af Outflow=4.27 cfs 0.336 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=337.13' Storage=1,515 cf Inflow=1.20 cfs 0.090 af
Primary=0.00 cfs 0.000 af Secondary=0.20 cfs 0.056 af Outflow=0.20 cfs 0.056 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=345.03' Storage=5,363 cf Inflow=0.83 cfs 0.188 af
Primary=0.00 cfs 0.000 af Secondary=0.17 cfs 0.067 af Outflow=0.17 cfs 0.067 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=339.13' Storage=739 cf Inflow=0.96 cfs 0.106 af
Primary=0.00 cfs 0.000 af Secondary=1.20 cfs 0.090 af Outflow=1.20 cfs 0.090 af

Woodlands Post-Dev DP 1A WORST CA *Type III 24-hr 10 Year - North Salem Rainfall=5.50"*

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Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=351.10' Storage=4,331 cf Inflow=1.77 cfs 0.283 af
Primary=0.00 cfs 0.000 af Secondary=0.83 cfs 0.188 af Outflow=0.83 cfs 0.188 af

Total Runoff Area = 14.581 ac Runoff Volume = 2.279 af Average Runoff Depth = 1.88"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 1.96 cfs @ 12.18 hrs, Volume= 0.189 af, Depth= 1.45"

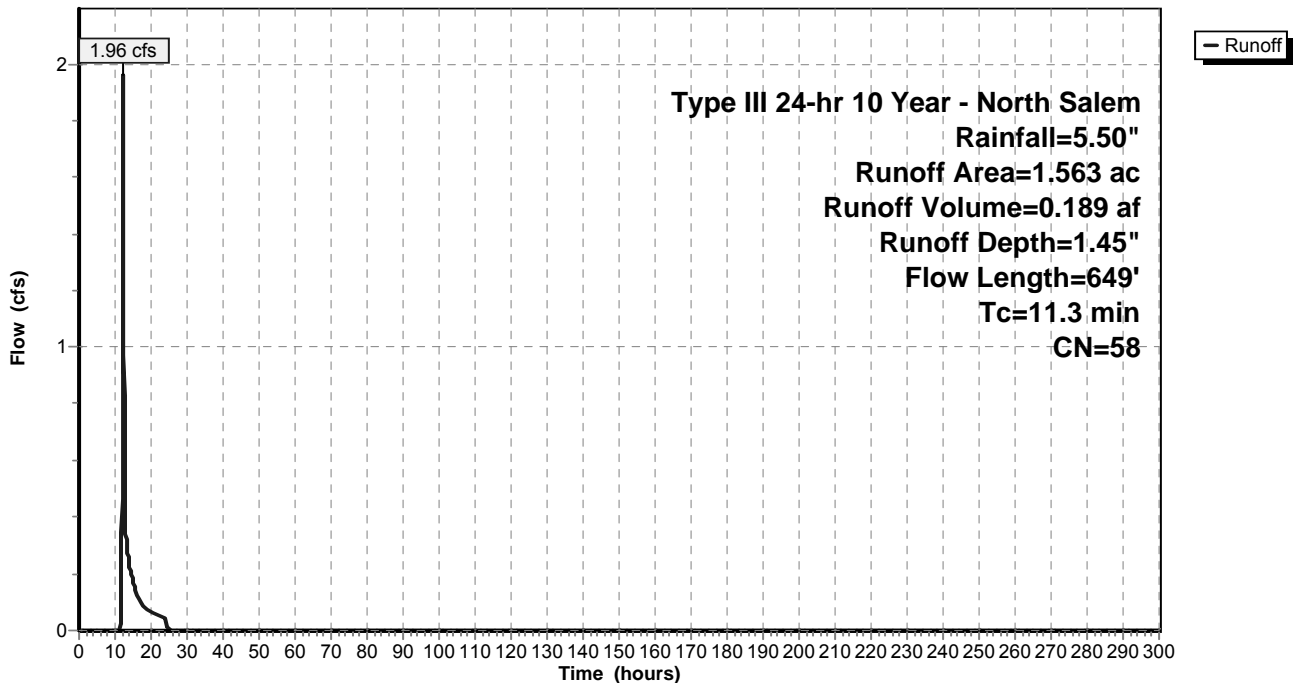
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

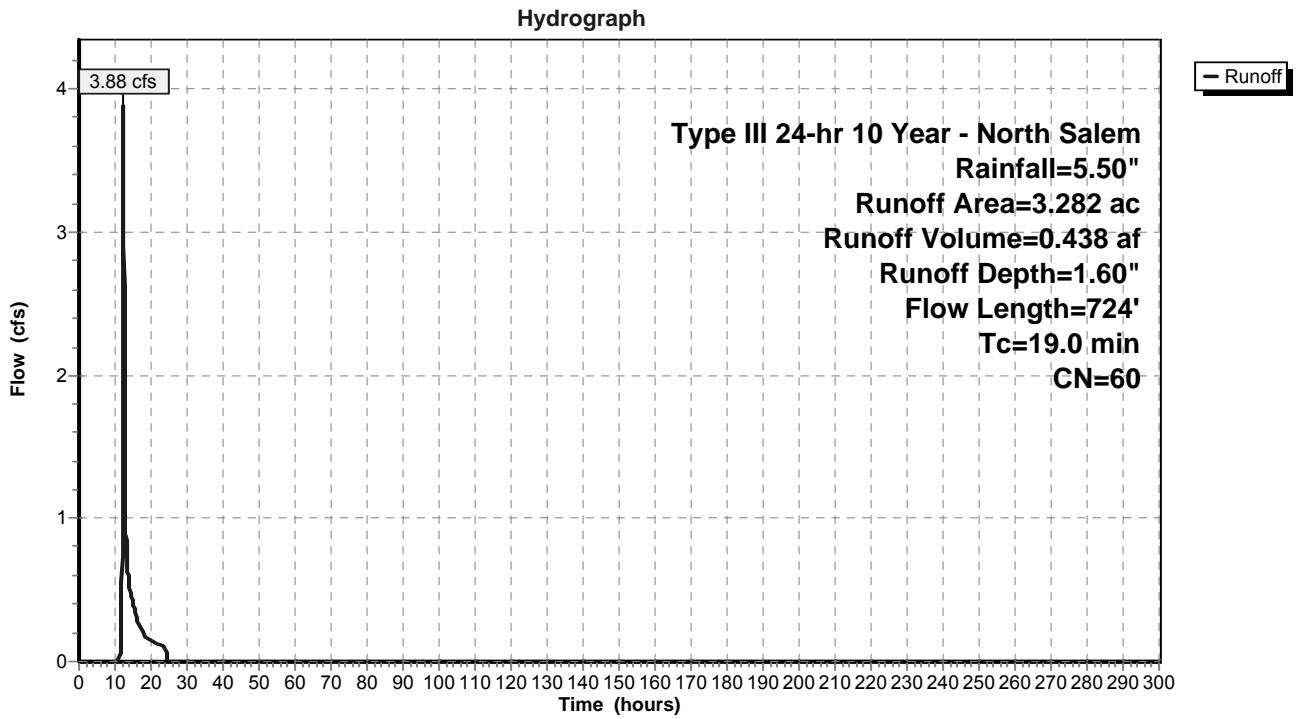
Runoff = 3.88 cfs @ 12.29 hrs, Volume= 0.438 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2



Summary for Subcatchment A3a: Post-Development A3a

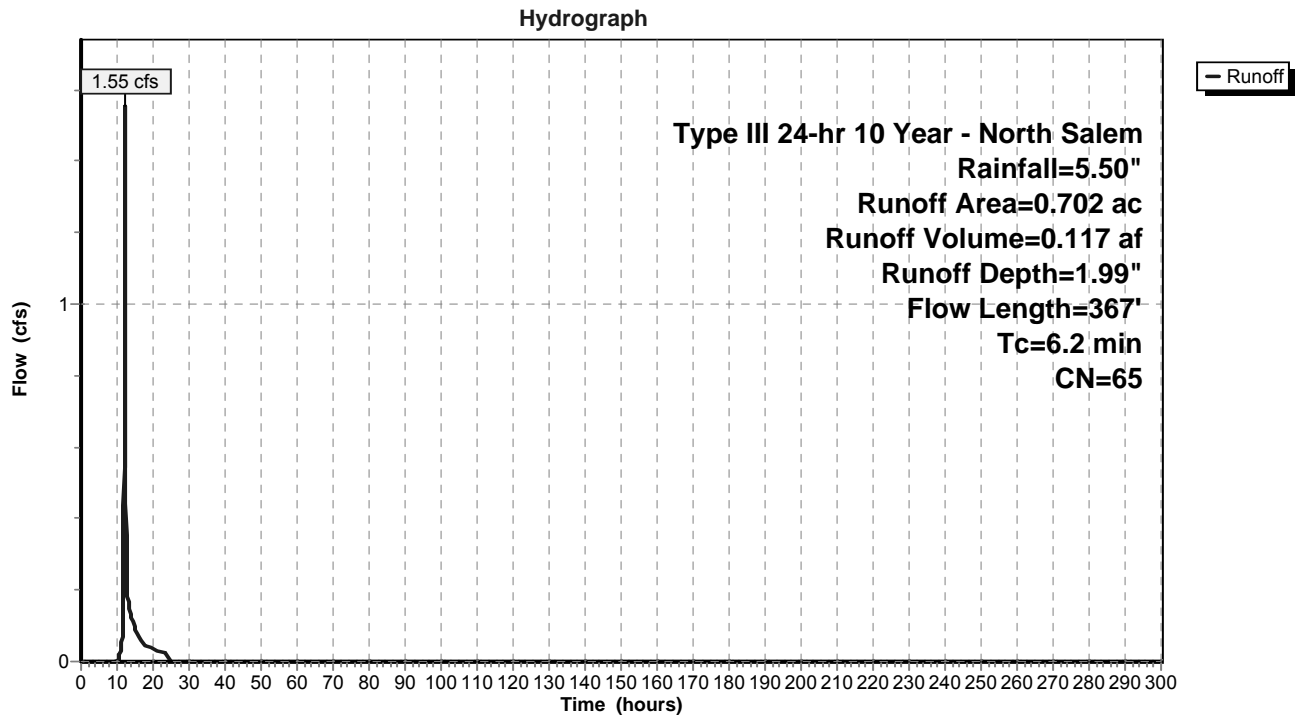
Runoff = 1.55 cfs @ 12.10 hrs, Volume= 0.117 af, Depth= 1.99"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 4.27 cfs @ 12.11 hrs, Volume= 0.336 af, Depth= 1.91"

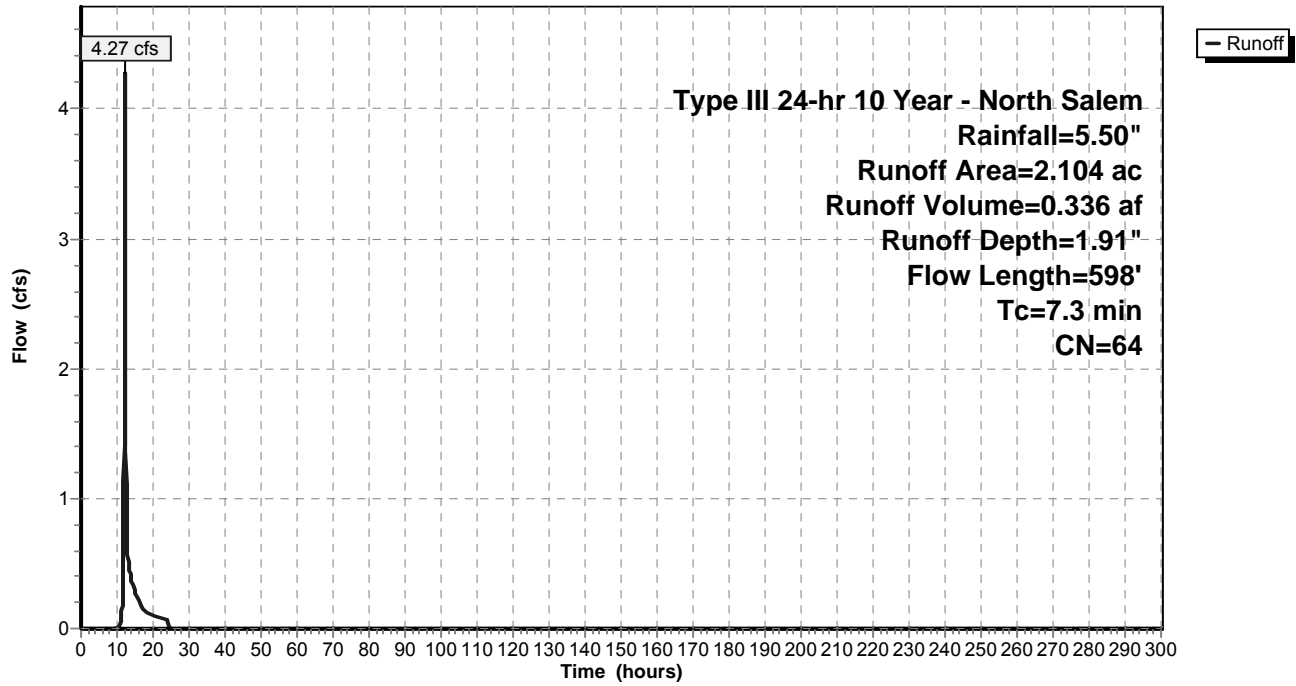
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 14.22 cfs @ 12.15 hrs, Volume= 1.199 af, Depth= 2.08"

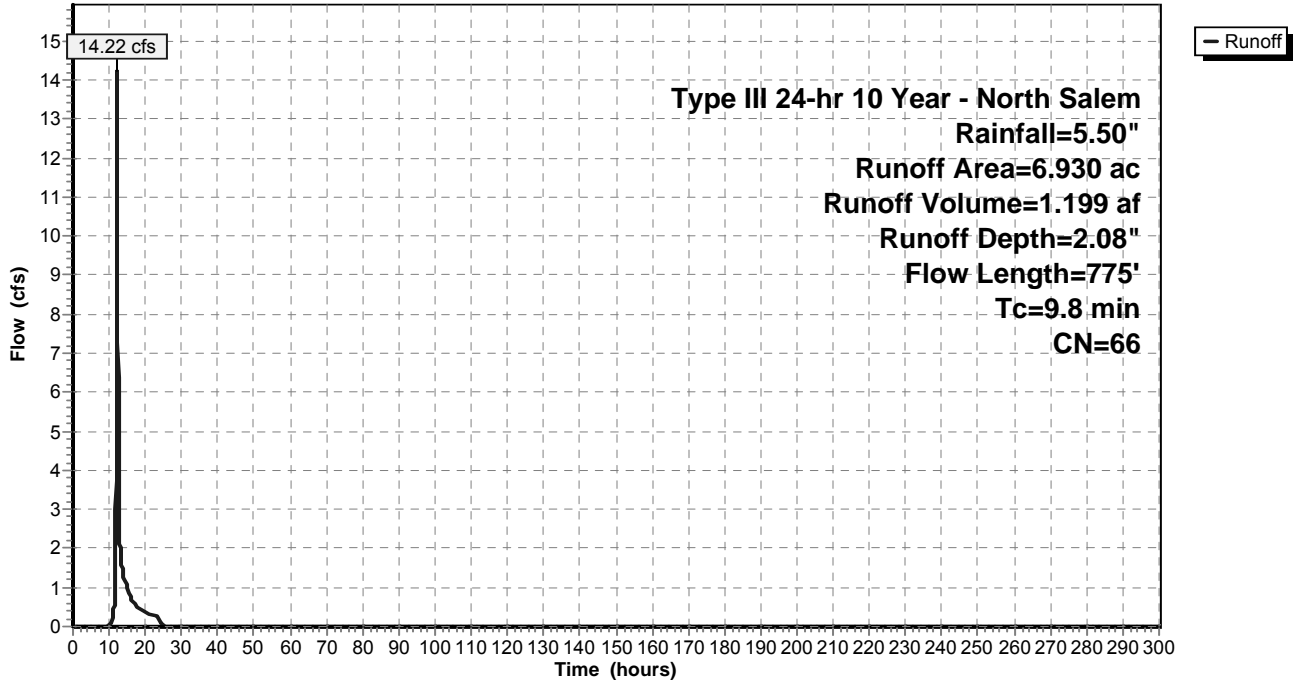
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 1.60" for 10 Year - North Salem event
 Inflow = 3.88 cfs @ 12.29 hrs, Volume= 0.438 af
 Outflow = 3.87 cfs @ 12.30 hrs, Volume= 0.438 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 4.69 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.70 fps, Avg. Travel Time= 0.6 min

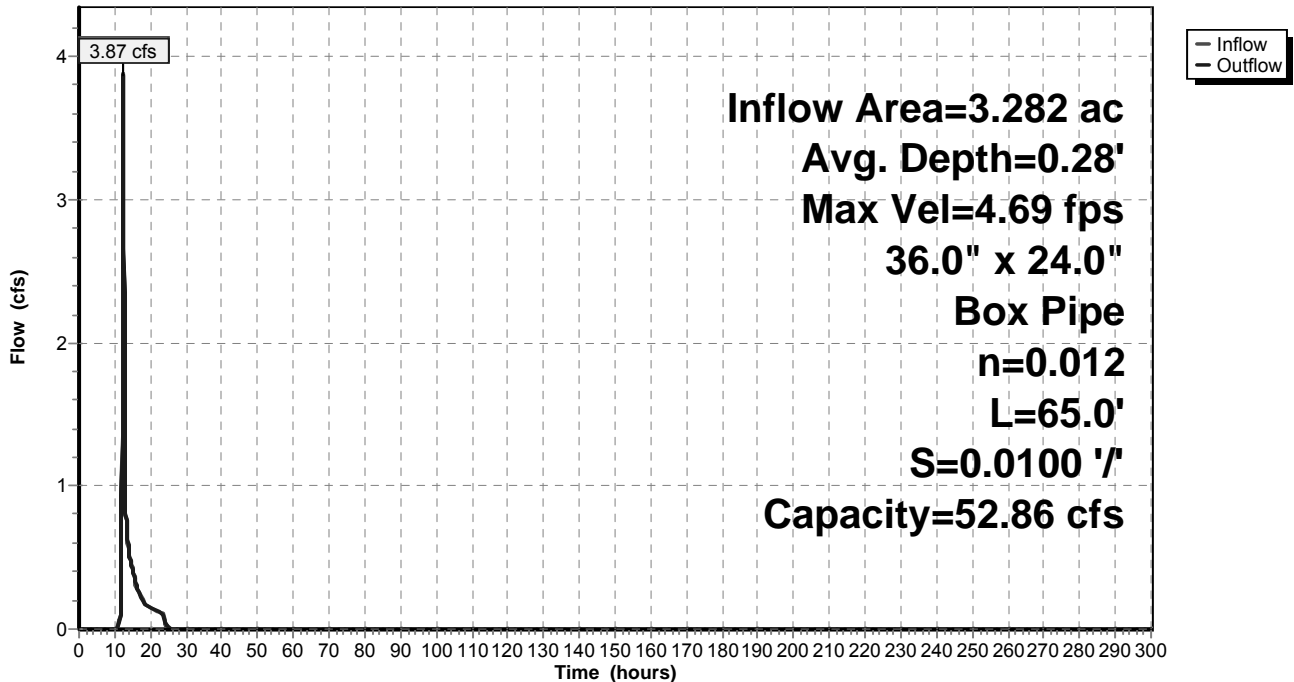
Peak Storage= 54 cf @ 12.30 hrs, Average Depth at Peak Storage= 0.28'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/'
 Inlet Invert= 334.65', Outlet Invert= 334.00'



Reach 1R: Culvert

Hydrograph



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 1.45" for 10 Year - North Salem event
 Inflow = 1.96 cfs @ 12.18 hrs, Volume= 0.189 af
 Outflow = 1.37 cfs @ 12.60 hrs, Volume= 0.189 af, Atten= 30%, Lag= 25.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.90 fps, Min. Travel Time= 14.4 min
 Avg. Velocity = 0.28 fps, Avg. Travel Time= 46.4 min

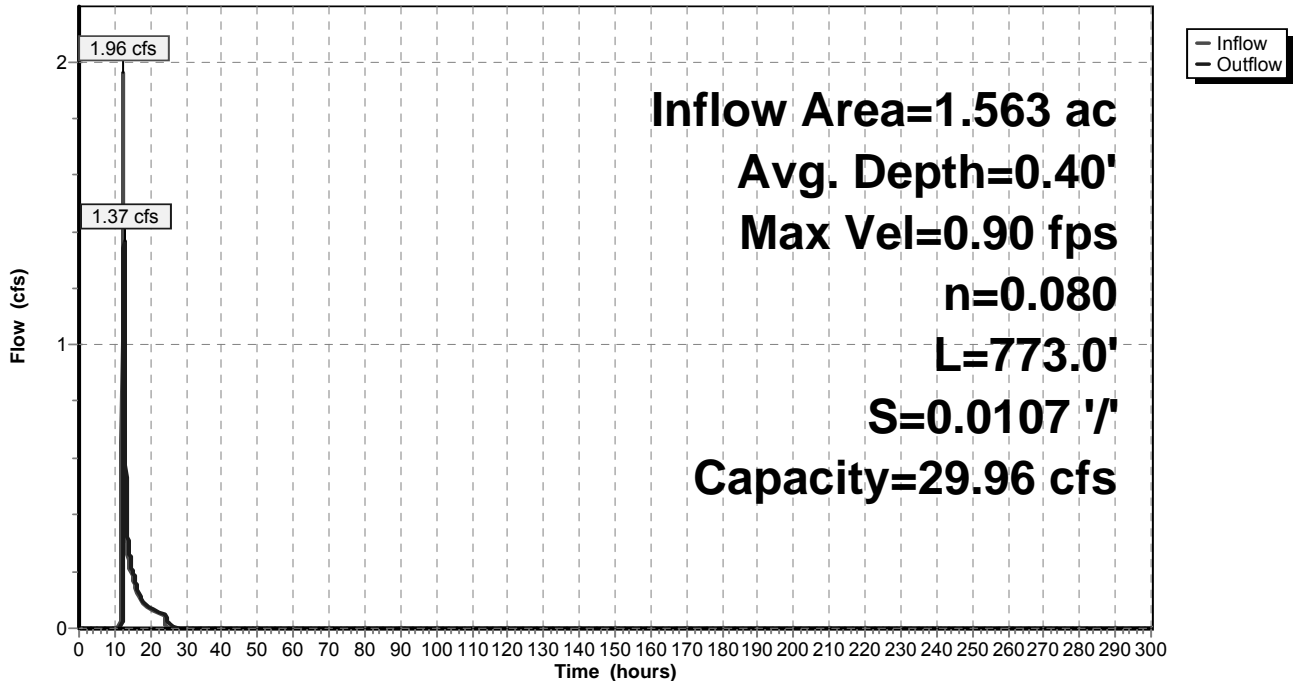
Peak Storage= 1,180 cf @ 12.36 hrs, Average Depth at Peak Storage= 0.40'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/'
 Inlet Invert= 340.00', Outlet Invert= 331.70'



Reach A-1: Road Swale A-1

Hydrograph



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 1.60" for 10 Year - North Salem event
 Inflow = 3.87 cfs @ 12.30 hrs, Volume= 0.438 af
 Outflow = 3.73 cfs @ 12.42 hrs, Volume= 0.438 af, Atten= 4%, Lag= 7.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 0.97 fps, Min. Travel Time= 4.0 min
 Avg. Velocity = 0.33 fps, Avg. Travel Time= 11.5 min

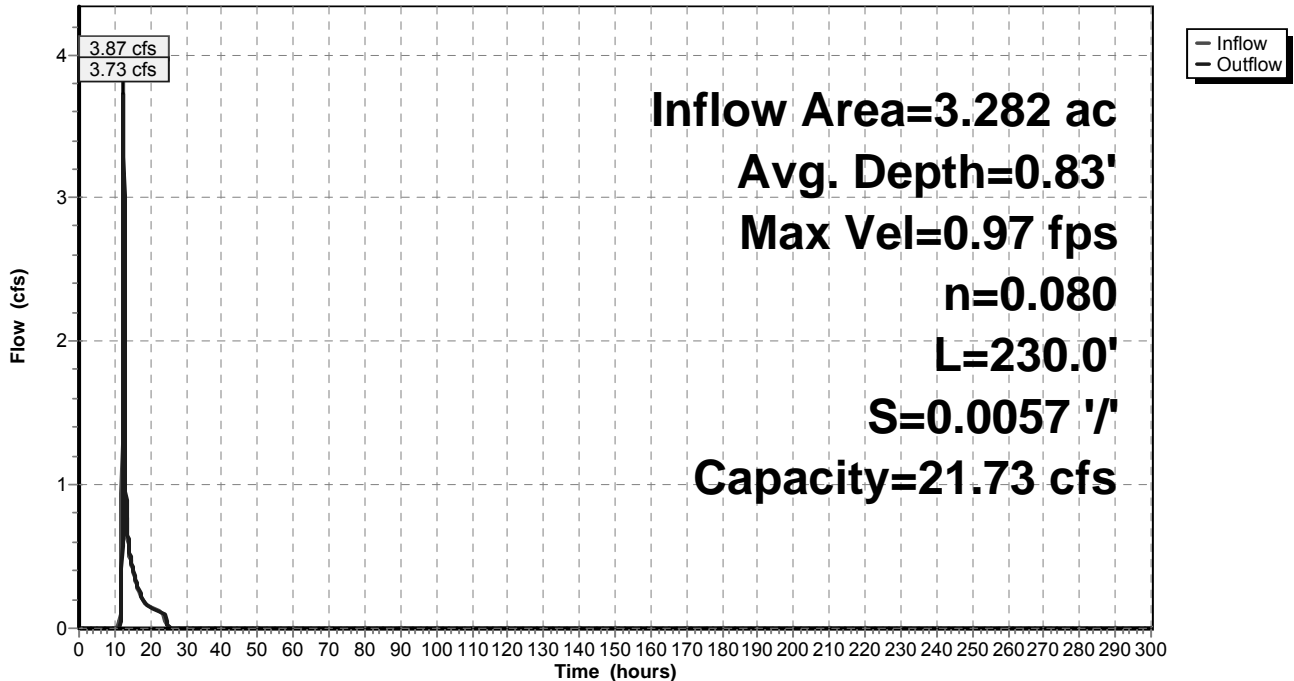
Peak Storage= 891 cf @ 12.36 hrs, Average Depth at Peak Storage= 0.83'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 ' / ' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 ' / '
 Inlet Invert= 333.00', Outlet Invert= 331.70'



Reach A-2: Road Swale A-2

Hydrograph



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

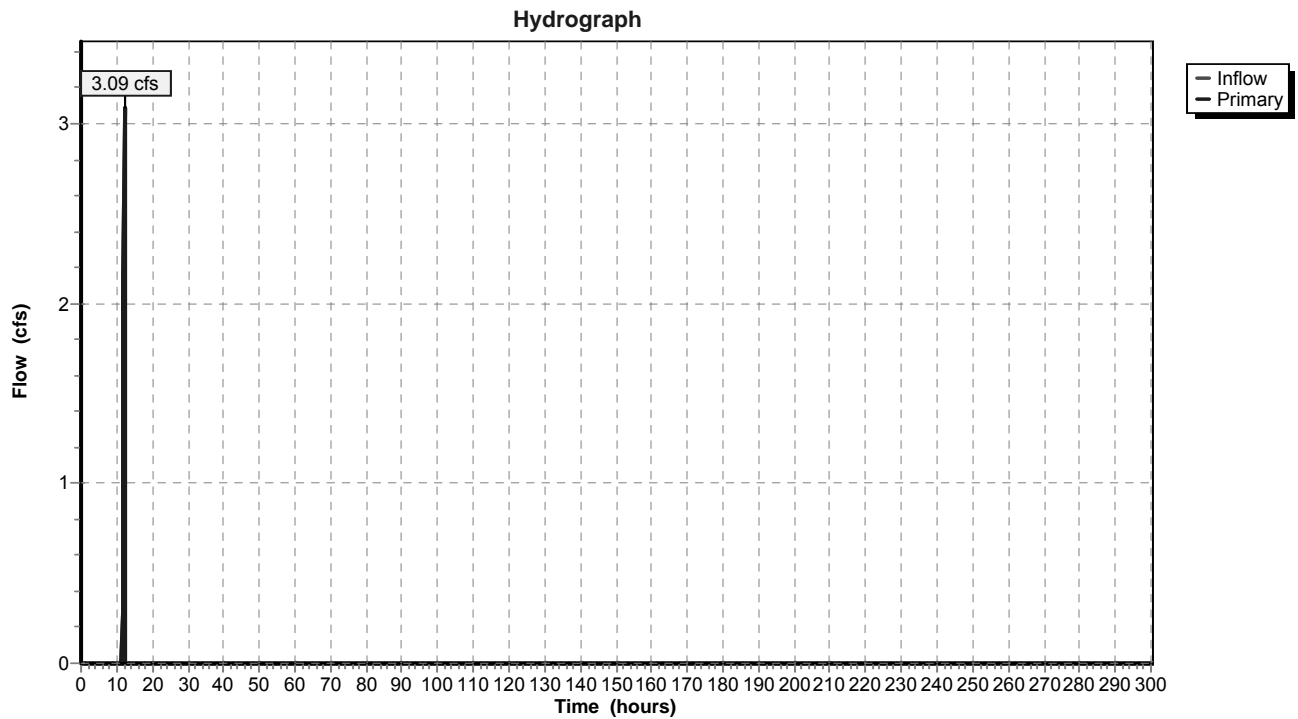
Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

[40] Hint: Not Described (Outflow=Inflow)

Inflow = 3.09 cfs @ 12.11 hrs, Volume= 0.064 af
Primary = 3.09 cfs @ 12.11 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1



Summary for Pond DP 1A: Design Point 1A

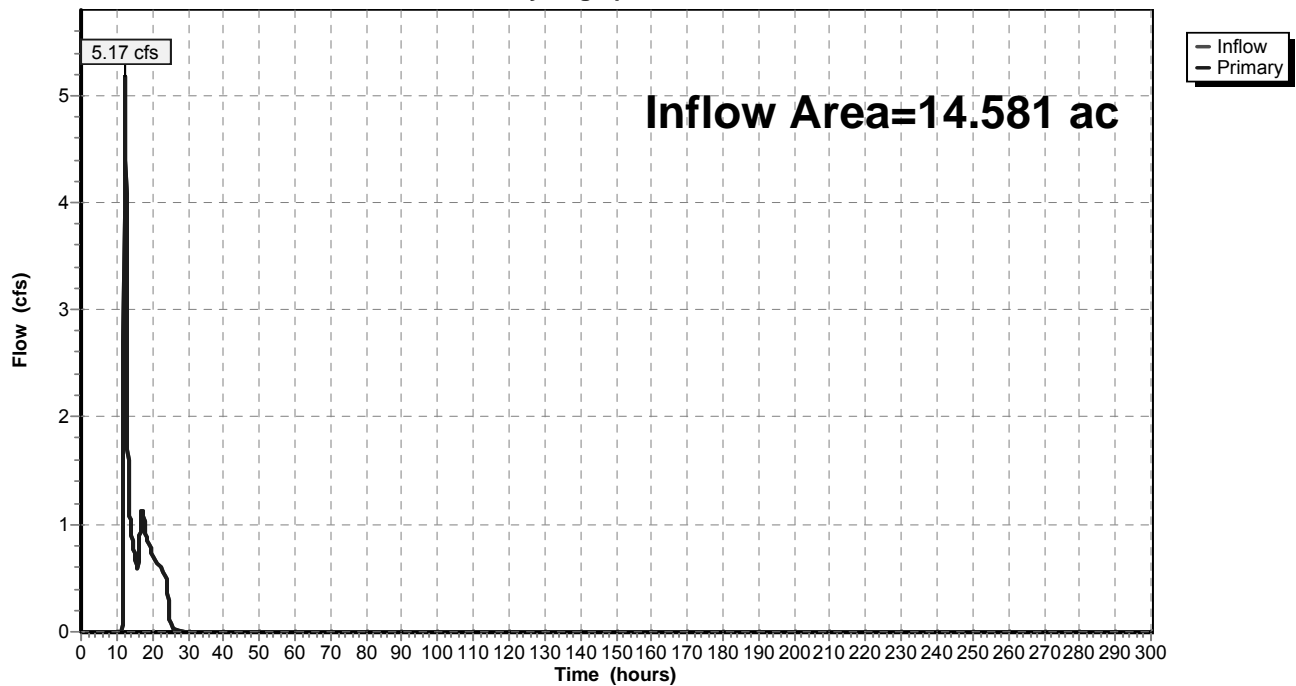
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 0.89" for 10 Year - North Salem event
 Inflow = 5.17 cfs @ 12.43 hrs, Volume= 1.076 af
 Primary = 5.17 cfs @ 12.43 hrs, Volume= 1.076 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 2.08" for 10 Year - North Salem event
 Inflow = 14.22 cfs @ 12.15 hrs, Volume= 1.199 af
 Outflow = 0.56 cfs @ 17.08 hrs, Volume= 0.262 af, Atten= 96%, Lag= 296.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.56 cfs @ 17.08 hrs, Volume= 0.262 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf

Peak Elev= 367.06' @ 17.08 hrs Surf.Area= 15,788 sf Storage= 46,030 cf (41,823 cf above start)

Plug-Flow detention time= 580.3 min calculated for 0.165 af (14% of inflow)

Center-of-Mass det. time= 339.5 min (1,195.6 - 856.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe X 0.00 L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

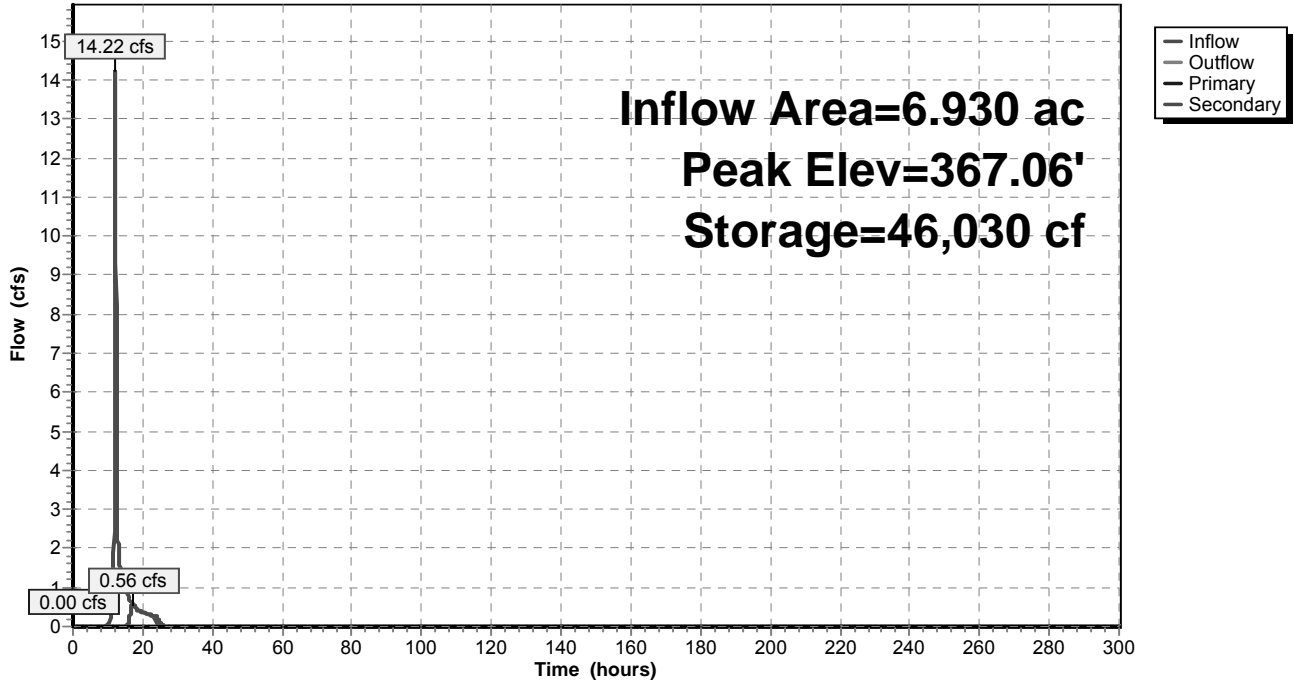
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Orifice #2 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.52 cfs @ 17.08 hrs HW=367.06' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Weir Controls 0.52 cfs @ 0.82 fps)

Pond ED-A4: Micropool ED Basin (Basin A4)

Hydrograph



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 1.99" for 10 Year - North Salem event
 Inflow = 1.55 cfs @ 12.10 hrs, Volume= 0.117 af
 Outflow = 1.55 cfs @ 12.10 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.96 cfs @ 12.10 hrs, Volume= 0.106 af
 Secondary = 0.59 cfs @ 12.10 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.85' @ 12.10 hrs
 Flood Elev= 358.26'

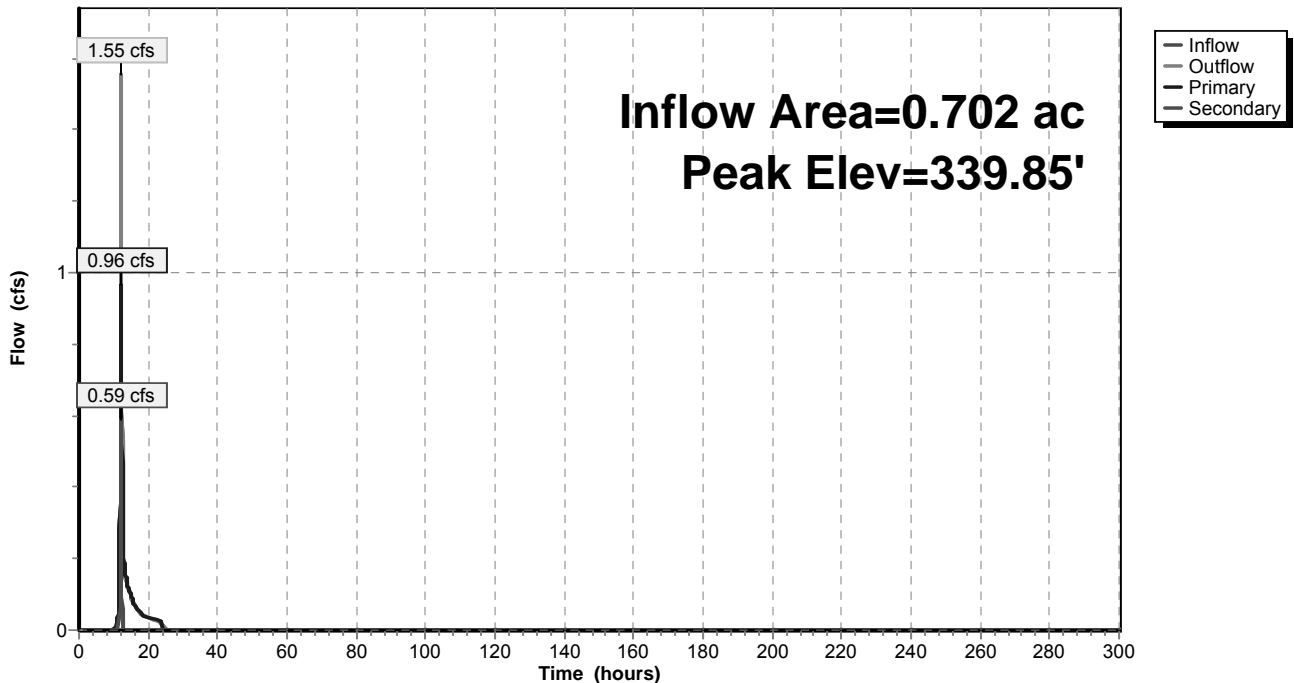
Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=0.97 cfs @ 12.10 hrs HW=339.85' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 0.97 cfs @ 3.36 fps)

Secondary OutFlow Max=0.55 cfs @ 12.10 hrs HW=339.85' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 0.55 cfs @ 2.00 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 1.91" for 10 Year - North Salem event
 Inflow = 4.27 cfs @ 12.11 hrs, Volume= 0.336 af
 Outflow = 4.27 cfs @ 12.11 hrs, Volume= 0.336 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.77 cfs @ 12.11 hrs, Volume= 0.283 af
 Secondary = 2.51 cfs @ 12.11 hrs, Volume= 0.053 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 352.60' @ 12.11 hrs
 Flood Elev= 358.26'

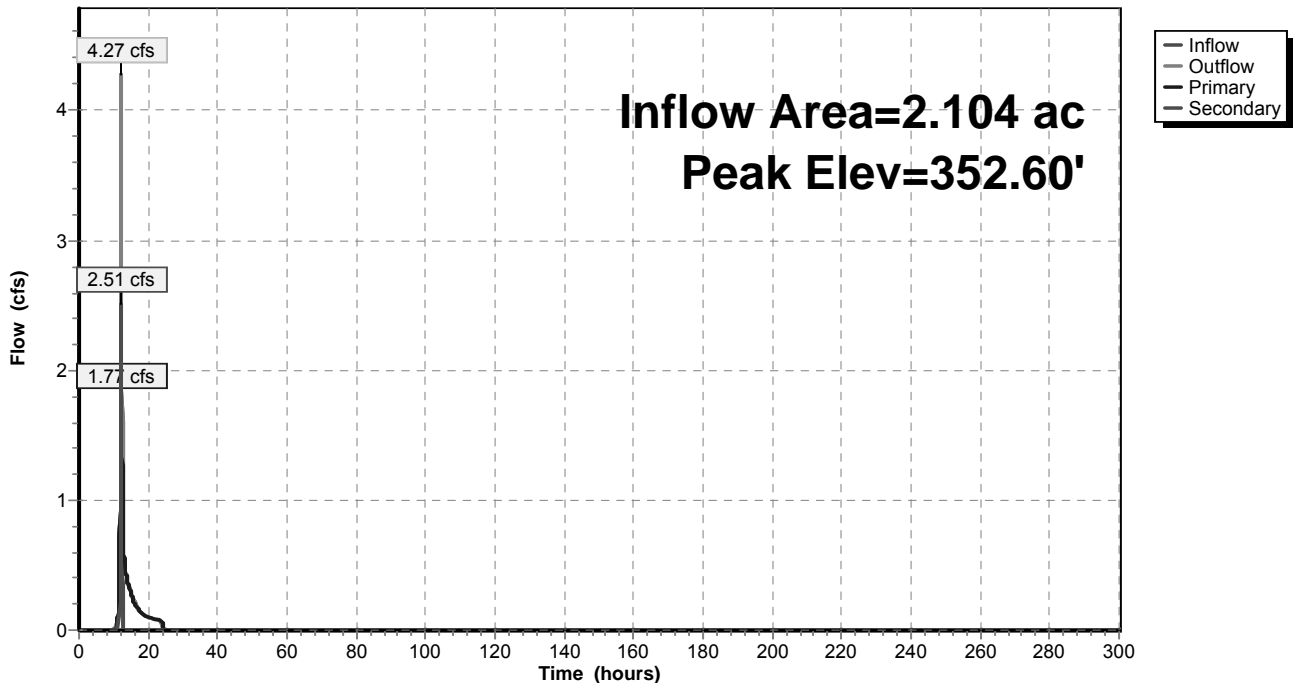
Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 ' S= 0.0869 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.75 cfs @ 12.11 hrs HW=352.58' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.75 cfs @ 5.01 fps)

Secondary OutFlow Max=2.40 cfs @ 12.11 hrs HW=352.58' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 2.40 cfs @ 3.00 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

[79] Warning: Submerged Pond SFF-A3a Primary device # 1 INLET by 0.13'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 1.54" for 10 Year - North Salem event
 Inflow = 1.20 cfs @ 12.11 hrs, Volume= 0.090 af
 Outflow = 0.20 cfs @ 13.00 hrs, Volume= 0.056 af, Atten= 84%, Lag= 53.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.20 cfs @ 13.00 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 337.13' @ 13.00 hrs Surf.Area= 1,018 sf Storage= 1,515 cf

Plug-Flow detention time= 223.5 min calculated for 0.056 af (62% of inflow)
 Center-of-Mass det. time= 98.9 min (997.2 - 898.3)

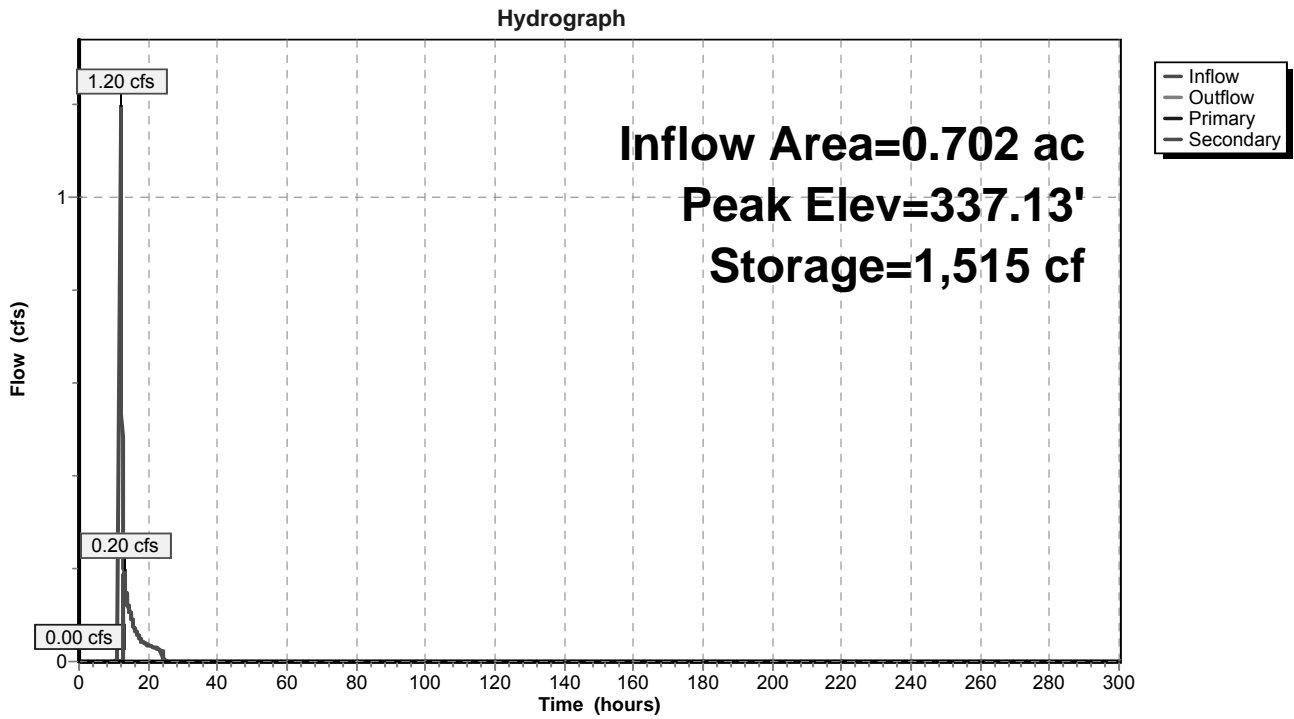
Volume	Invert	Avail.Storage	Storage Description			
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
335.00	432	111.0	0	0	432	
336.00	693	141.0	557	557	1,047	
338.00	1,313	168.0	1,973	2,531	1,779	

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.14 cfs @ 13.00 hrs HW=337.13' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 0.14 cfs @ 0.53 fps)

Pond SF-A3a: Sand Filter - A3a



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 1.08" for 10 Year - North Salem event
 Inflow = 0.83 cfs @ 12.65 hrs, Volume= 0.188 af
 Outflow = 0.17 cfs @ 17.01 hrs, Volume= 0.067 af, Atten= 80%, Lag= 261.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.17 cfs @ 17.01 hrs, Volume= 0.067 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 345.03' @ 17.01 hrs Surf.Area= 2,288 sf Storage= 5,363 cf

Plug-Flow detention time= 406.8 min calculated for 0.067 af (35% of inflow)
 Center-of-Mass det. time= 229.2 min (1,197.7 - 968.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

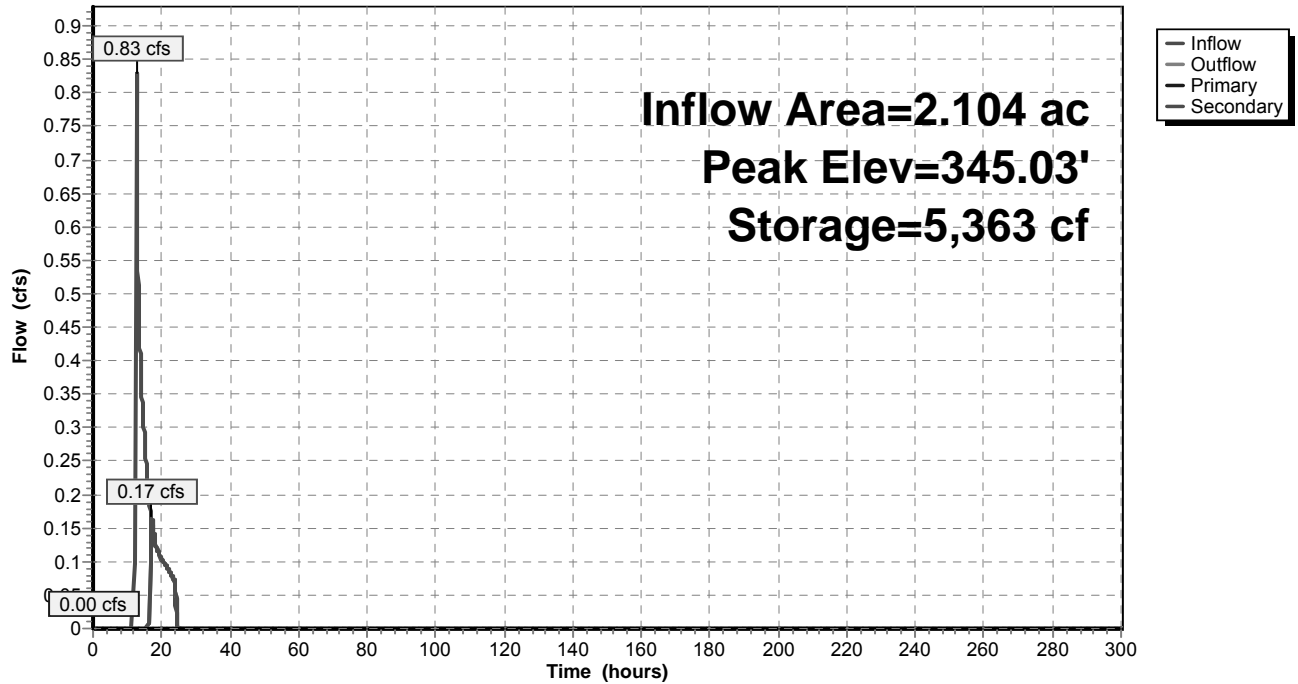
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.13 cfs @ 17.01 hrs HW=345.03' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.13 cfs @ 0.52 fps)

Pond SF-A3b: Sand Filter - A3b

Hydrograph



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

[88] Warning: Qout>Qin may require Finer Routing>1
 [79] Warning: Submerged Pond FS A3a Primary device # 1 OUTLET by 0.12'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 1.81" for 10 Year - North Salem event
 Inflow = 0.96 cfs @ 12.10 hrs, Volume= 0.106 af
 Outflow = 1.20 cfs @ 12.11 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.20 cfs @ 12.11 hrs, Volume= 0.090 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.13' @ 12.11 hrs Surf.Area= 511 sf Storage= 739 cf

Plug-Flow detention time= 95.9 min calculated for 0.090 af (85% of inflow)
 Center-of-Mass det. time= 29.9 min (898.3 - 868.4)

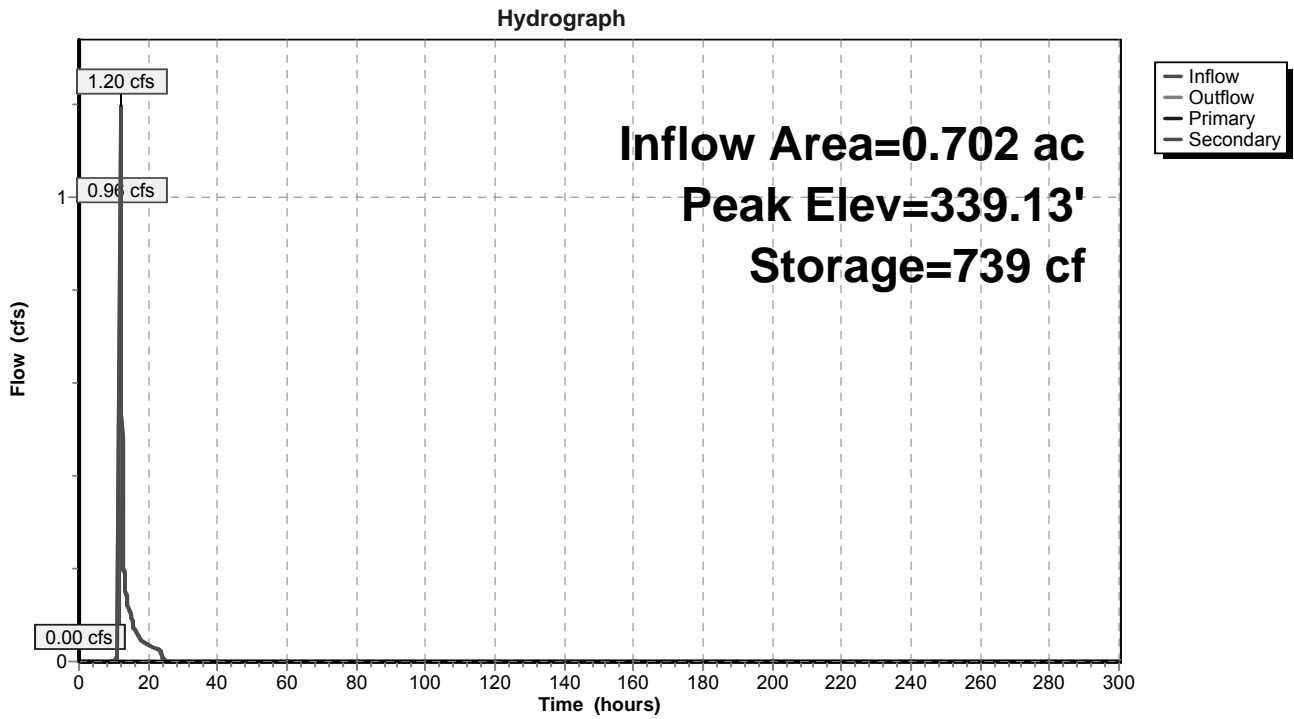
Volume	Invert	Avail.Storage	Storage Description			
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
337.00	200	57.0	0	0	200	
338.00	336	71.0	265	265	356	
339.00	490	83.0	411	676	522	
340.00	670	96.0	578	1,253	728	

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Standpipe Openings (Controls 0.00 cfs)
 ↑ 3=Top of Standpipe (Controls 0.00 cfs)
 ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.07 cfs @ 12.11 hrs HW=339.12' (Free Discharge)
 ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 1.07 cfs @ 1.15 fps)

Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

[79] Warning: Submerged Pond FS A3b Primary device # 1 OUTLET by 0.10'

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 1.61" for 10 Year - North Salem event
 Inflow = 1.77 cfs @ 12.11 hrs, Volume= 0.283 af
 Outflow = 0.83 cfs @ 12.65 hrs, Volume= 0.188 af, Atten= 53%, Lag= 31.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.83 cfs @ 12.65 hrs, Volume= 0.188 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 351.10' @ 12.65 hrs Surf.Area= 2,209 sf Storage= 4,331 cf

Plug-Flow detention time= 201.5 min calculated for 0.188 af (67% of inflow)
 Center-of-Mass det. time= 85.8 min (968.5 - 882.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

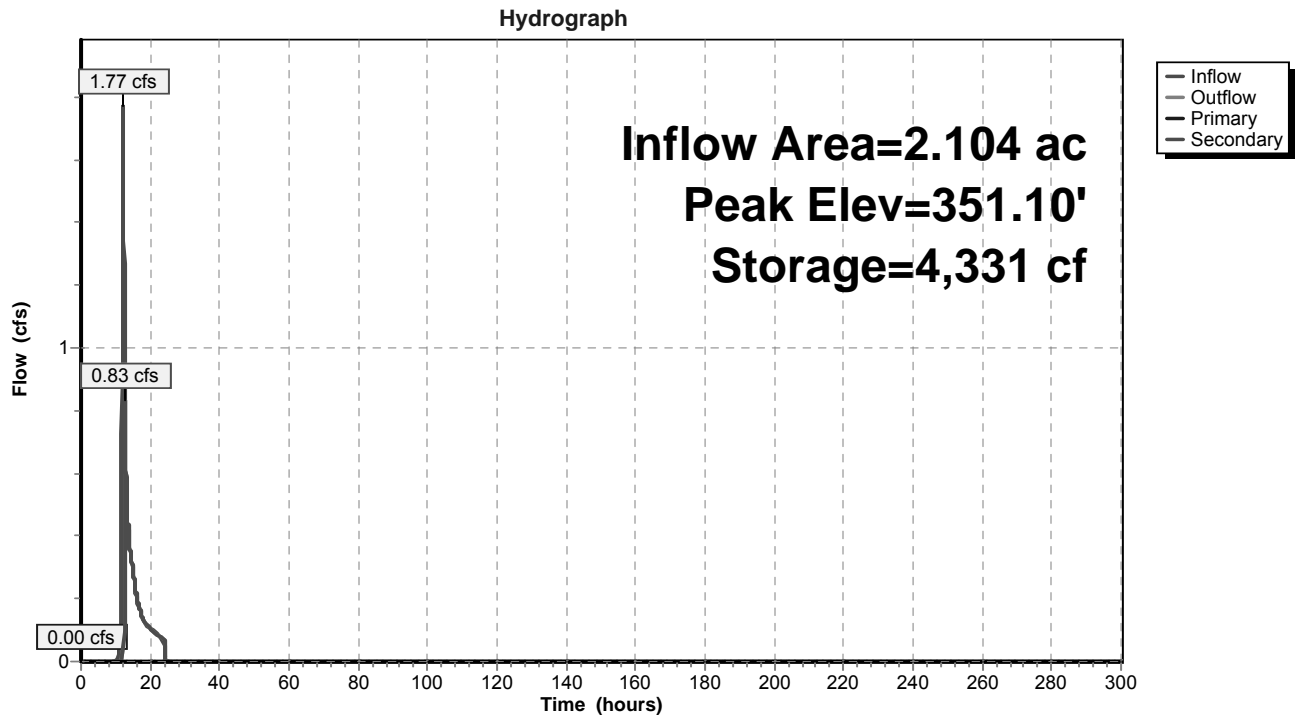
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.81 cfs @ 12.65 hrs HW=351.10' (Free Discharge)

- ↑ 6=Sharp-Crested Rectangular Weir (Weir Controls 0.81 cfs @ 1.05 fps)

Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=2.41"
Flow Length=649' Tc=11.3 min CN=58 Runoff=3.51 cfs 0.314 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=2.60"
Flow Length=724' Tc=19.0 min CN=60 Runoff=6.62 cfs 0.712 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=3.10"
Flow Length=367' Tc=6.2 min CN=65 Runoff=2.47 cfs 0.181 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=3.00"
Flow Length=598' Tc=7.3 min CN=64 Runoff=6.90 cfs 0.526 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=3.20"
Flow Length=775' Tc=9.8 min CN=66 Runoff=22.42 cfs 1.851 af

Reach 1R: Culvert Avg. Depth=0.39' Max Vel=5.66 fps Inflow=6.62 cfs 0.712 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/' Capacity=52.86 cfs Outflow=6.61 cfs 0.712 af

Reach A-1: Road Swale A-1 Avg. Depth=0.57' Max Vel=1.09 fps Inflow=3.51 cfs 0.314 af
n=0.080 L=773.0' S=0.0107 '/' Capacity=29.96 cfs Outflow=2.60 cfs 0.314 af

Reach A-2: Road Swale A-2 Avg. Depth=1.10' Max Vel=1.12 fps Inflow=6.61 cfs 0.712 af
n=0.080 L=230.0' S=0.0057 '/' Capacity=21.73 cfs Outflow=6.42 cfs 0.712 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=6.02 cfs 0.149 af
Primary=6.02 cfs 0.149 af

Pond DP 1A: Design Point 1A Inflow=10.92 cfs 2.381 af
Primary=10.92 cfs 2.381 af

Pond ED-A4: Micropool ED Basin (Basin) Peak Elev=367.19' Storage=48,045 cf Inflow=22.42 cfs 1.851 af
Primary=0.00 cfs 0.000 af Secondary=2.75 cfs 0.913 af Outflow=2.75 cfs 0.913 af

Pond FS A3a: Flow Splitter A3a Peak Elev=340.03' Inflow=2.47 cfs 0.181 af
Primary=1.22 cfs 0.155 af Secondary=1.25 cfs 0.027 af Outflow=2.47 cfs 0.181 af

Pond FS A3b: Flow Splitter A3b Peak Elev=353.08' Inflow=6.90 cfs 0.526 af
Primary=2.11 cfs 0.404 af Secondary=4.78 cfs 0.122 af Outflow=6.90 cfs 0.526 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=337.18' Storage=1,570 cf Inflow=1.23 cfs 0.139 af
Primary=0.00 cfs 0.000 af Secondary=0.85 cfs 0.105 af Outflow=0.85 cfs 0.105 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=345.06' Storage=5,450 cf Inflow=1.61 cfs 0.310 af
Primary=0.00 cfs 0.000 af Secondary=0.55 cfs 0.188 af Outflow=0.55 cfs 0.188 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=339.13' Storage=740 cf Inflow=1.22 cfs 0.155 af
Primary=0.00 cfs 0.000 af Secondary=1.23 cfs 0.139 af Outflow=1.23 cfs 0.139 af

Woodlands Post-Dev DP 1A WORST CA *Type III 24-hr 25 Year - North Salem Rainfall=7.00"*

Prepared by KCG Engineers, P.C.

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Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=351.15' Storage=4,453 cf Inflow=2.11 cfs 0.404 af
Primary=0.00 cfs 0.000 af Secondary=1.61 cfs 0.310 af Outflow=1.61 cfs 0.310 af

Total Runoff Area = 14.581 ac Runoff Volume = 3.584 af Average Runoff Depth = 2.95"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 3.51 cfs @ 12.17 hrs, Volume= 0.314 af, Depth= 2.41"

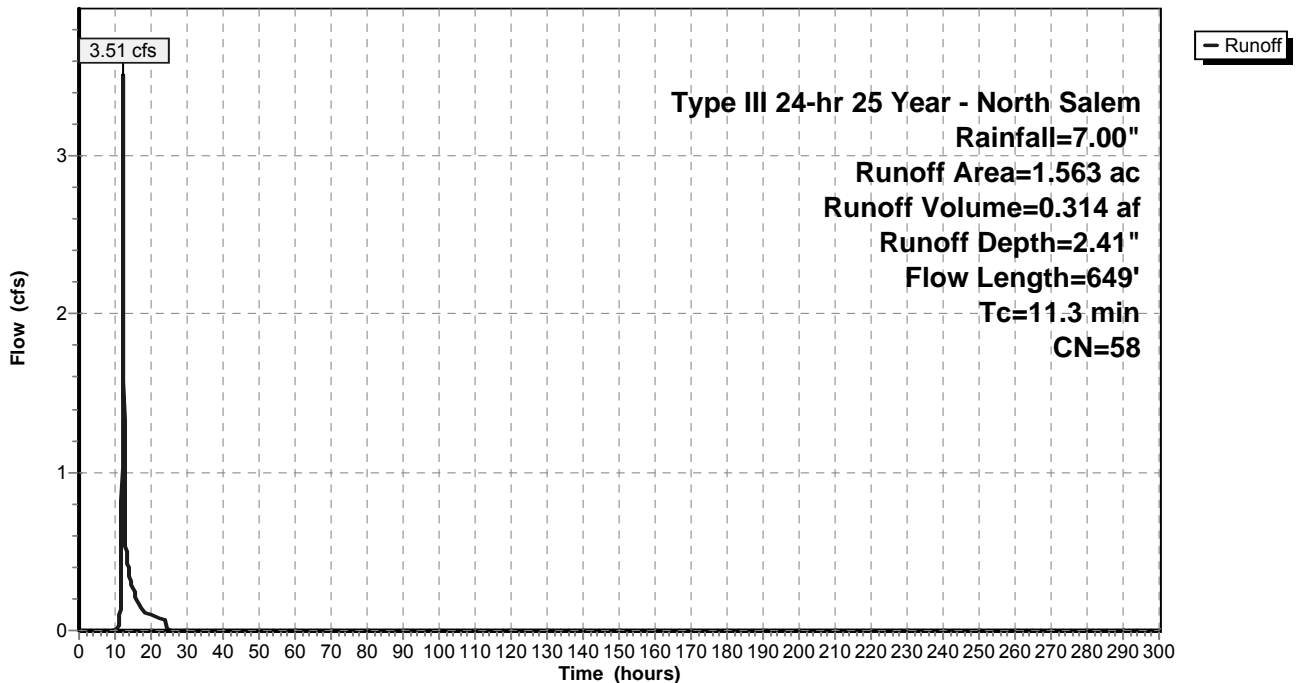
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

Runoff = 6.62 cfs @ 12.28 hrs, Volume= 0.712 af, Depth= 2.60"

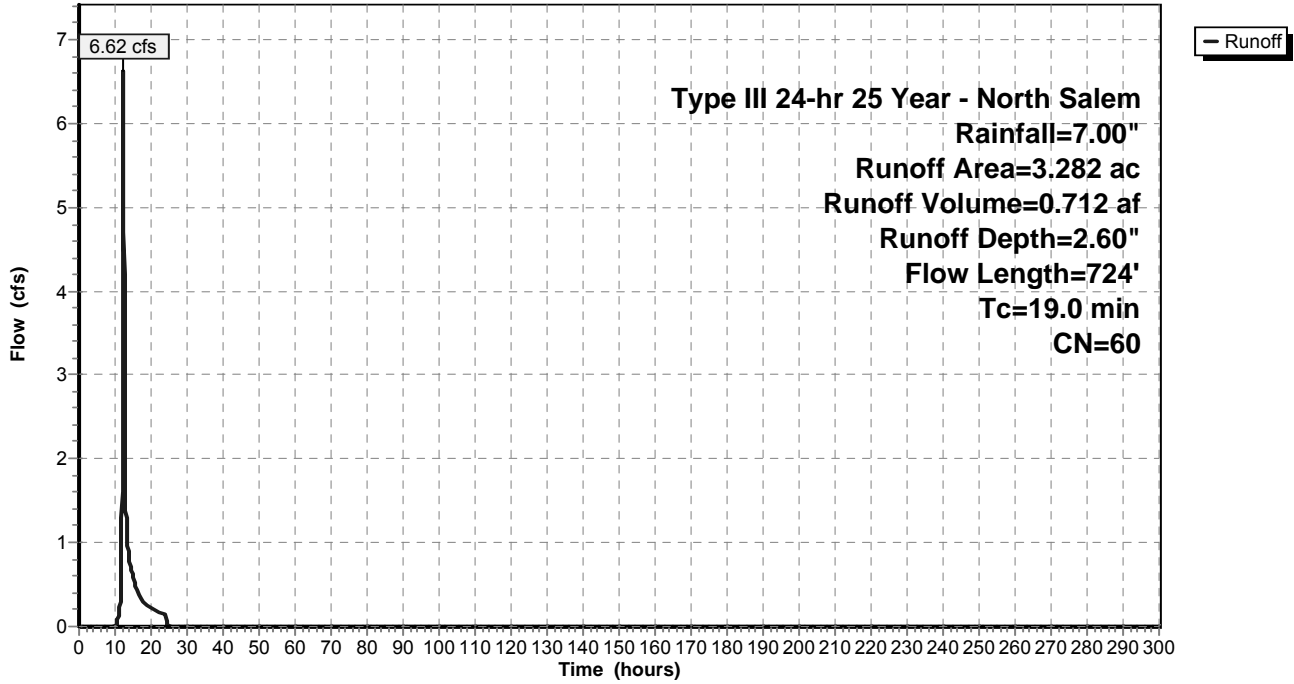
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2

Hydrograph



Summary for Subcatchment A3a: Post-Development A3a

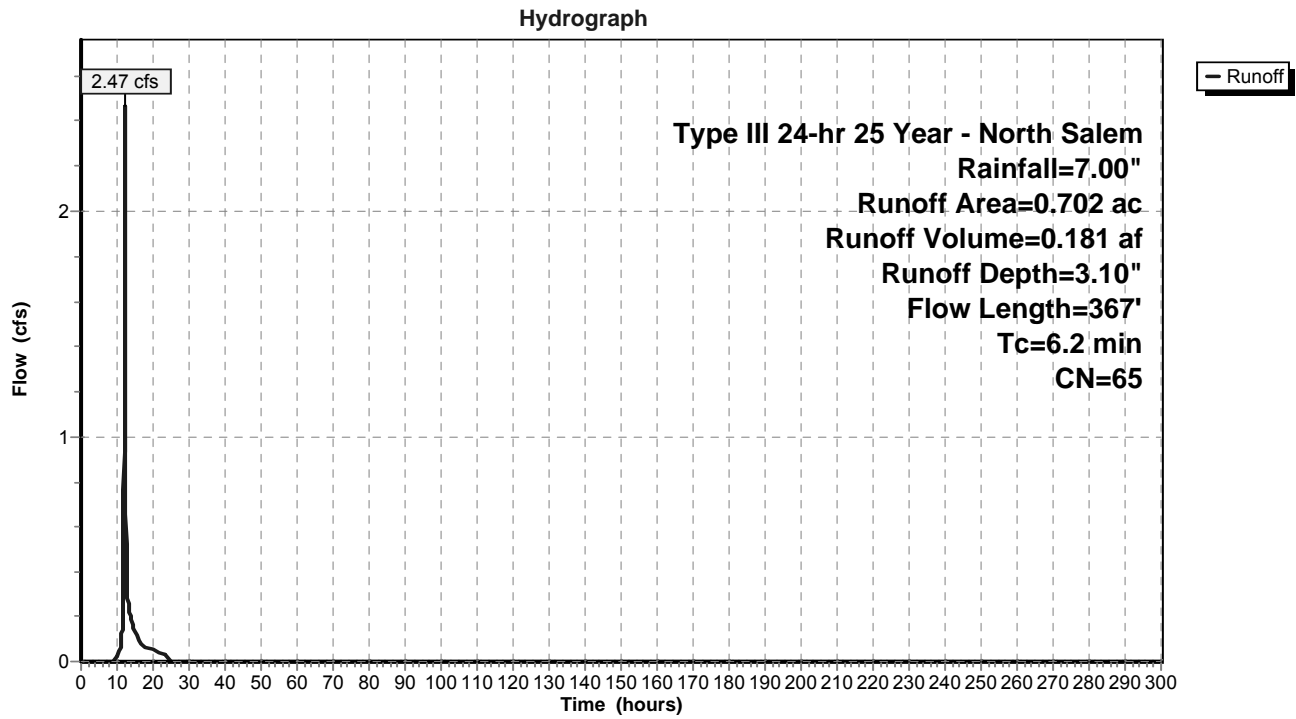
Runoff = 2.47 cfs @ 12.10 hrs, Volume= 0.181 af, Depth= 3.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 6.90 cfs @ 12.11 hrs, Volume= 0.526 af, Depth= 3.00"

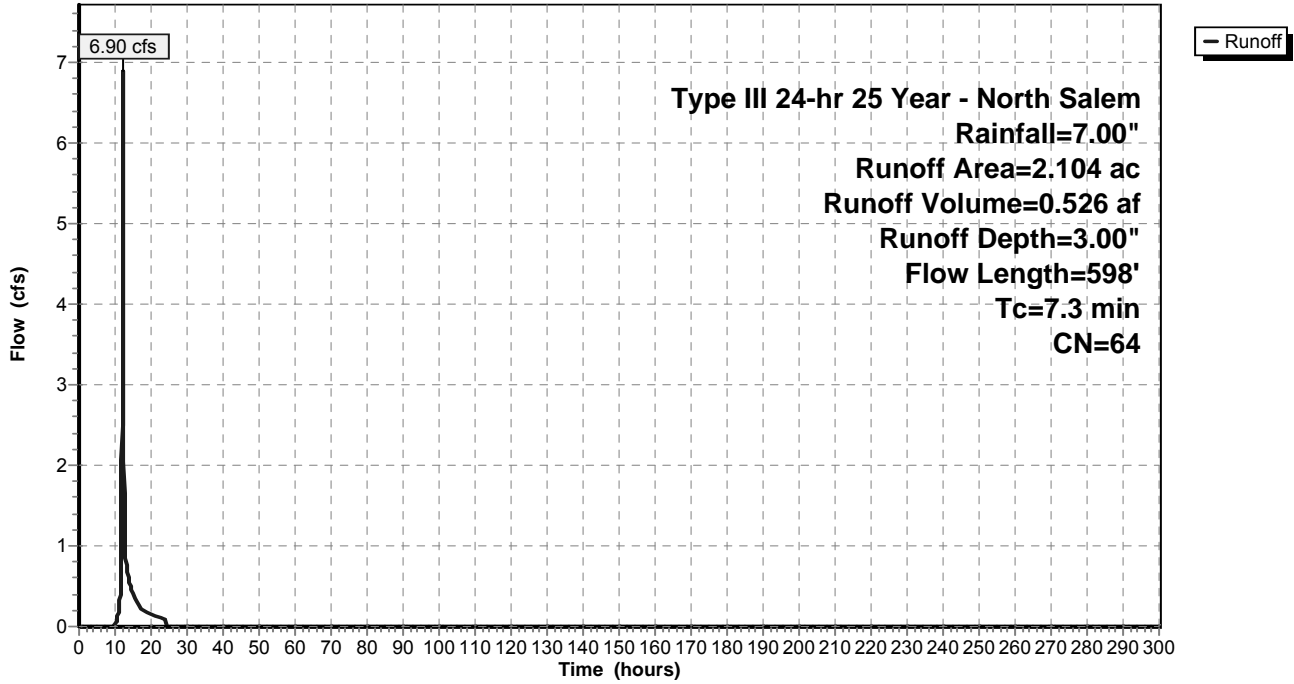
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 22.42 cfs @ 12.15 hrs, Volume= 1.851 af, Depth= 3.20"

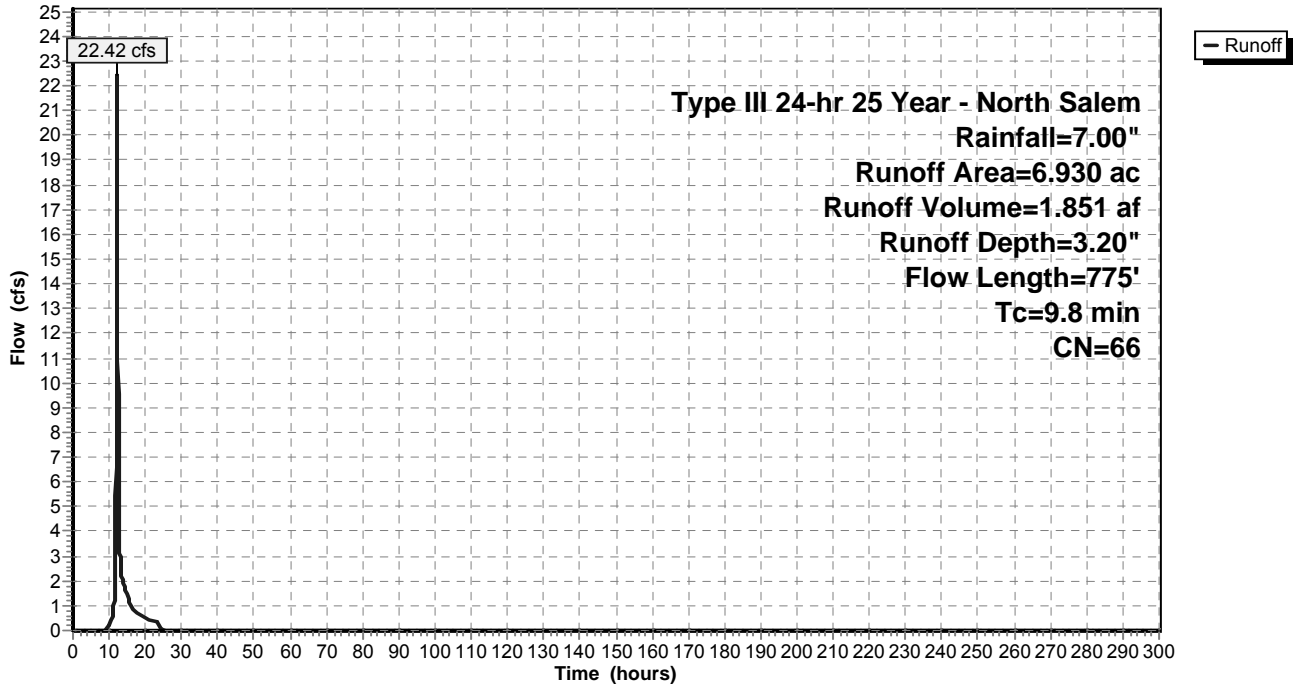
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 2.60" for 25 Year - North Salem event
 Inflow = 6.62 cfs @ 12.28 hrs, Volume= 0.712 af
 Outflow = 6.61 cfs @ 12.29 hrs, Volume= 0.712 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 5.66 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 1.94 fps, Avg. Travel Time= 0.6 min

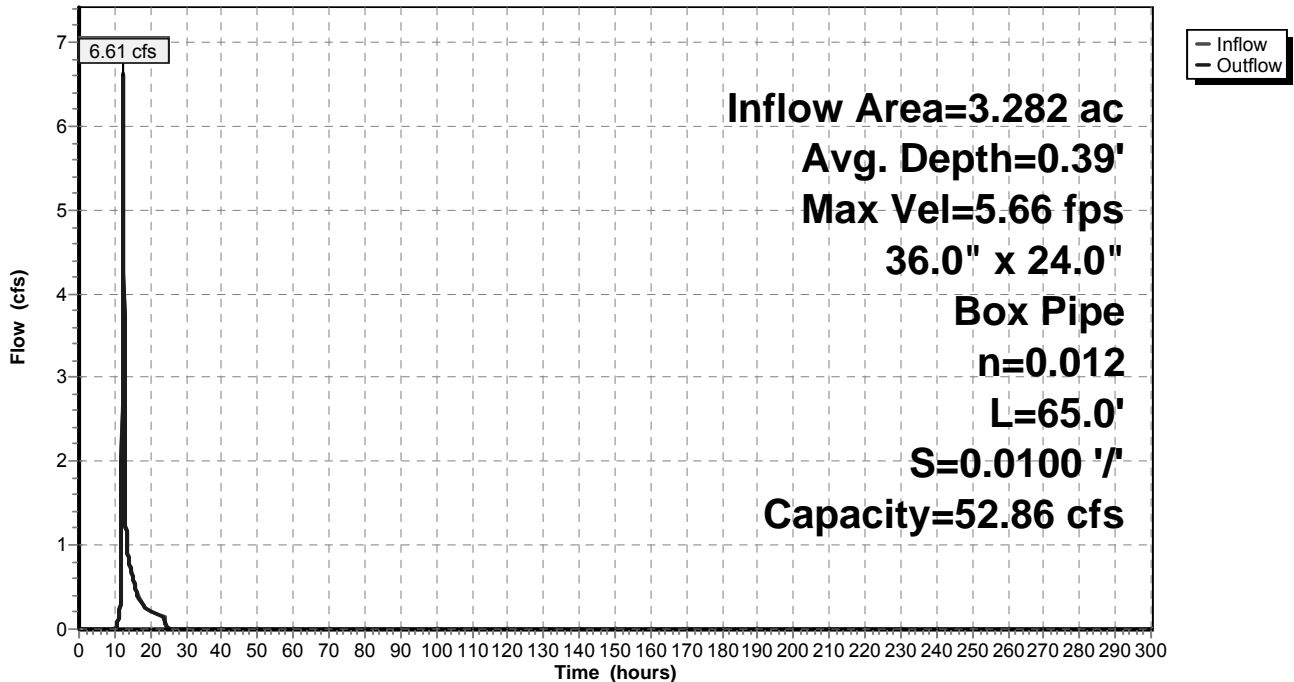
Peak Storage= 76 cf @ 12.28 hrs, Average Depth at Peak Storage= 0.39'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/'
 Inlet Invert= 334.65', Outlet Invert= 334.00'



Reach 1R: Culvert

Hydrograph



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 2.41" for 25 Year - North Salem event
 Inflow = 3.51 cfs @ 12.17 hrs, Volume= 0.314 af
 Outflow = 2.60 cfs @ 12.50 hrs, Volume= 0.314 af, Atten= 26%, Lag= 20.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.09 fps, Min. Travel Time= 11.8 min
 Avg. Velocity = 0.31 fps, Avg. Travel Time= 41.3 min

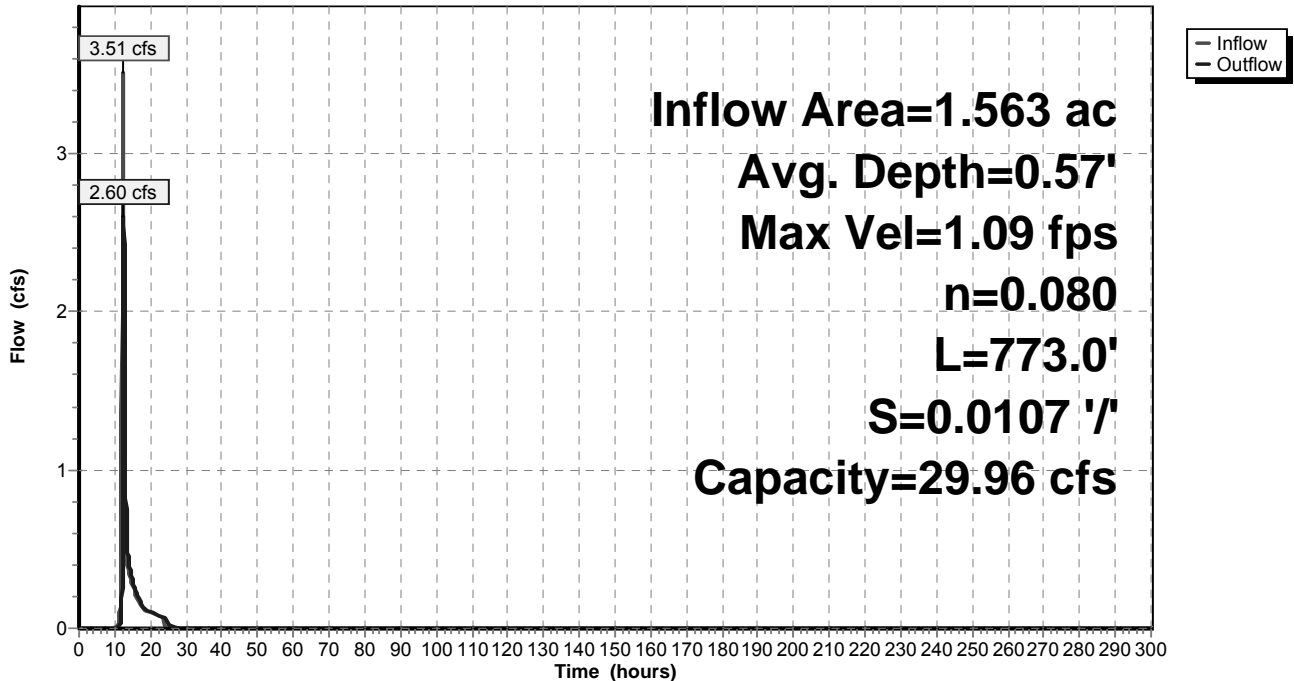
Peak Storage= 1,842 cf @ 12.31 hrs, Average Depth at Peak Storage= 0.57'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 ' / ' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 ' / '
 Inlet Invert= 340.00', Outlet Invert= 331.70'



Reach A-1: Road Swale A-1

Hydrograph



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

[61] Hint: Exceeded Reach 1R outlet invert by 0.10' @ 12.35 hrs

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 2.60" for 25 Year - North Salem event
 Inflow = 6.61 cfs @ 12.29 hrs, Volume= 0.712 af
 Outflow = 6.42 cfs @ 12.39 hrs, Volume= 0.712 af, Atten= 3%, Lag= 6.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.12 fps, Min. Travel Time= 3.4 min
 Avg. Velocity = 0.38 fps, Avg. Travel Time= 10.1 min

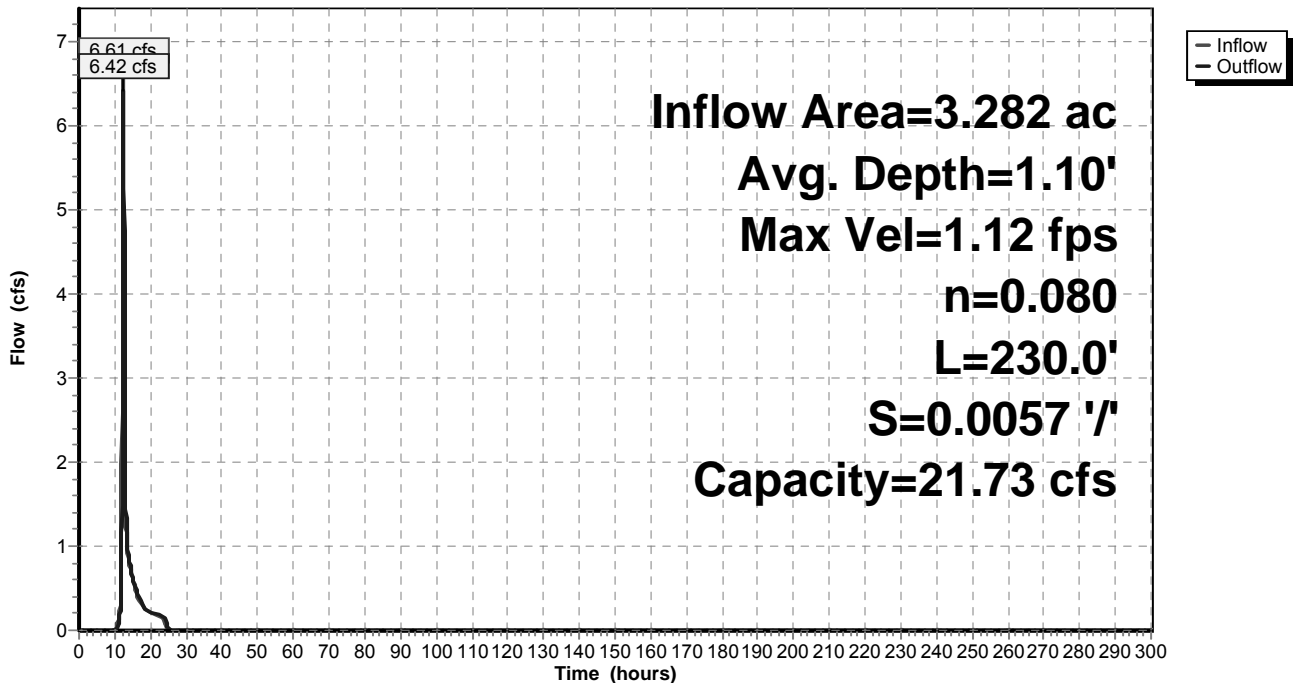
Peak Storage= 1,317 cf @ 12.33 hrs, Average Depth at Peak Storage= 1.10'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 '/'
 Inlet Invert= 333.00', Outlet Invert= 331.70'



Reach A-2: Road Swale A-2

Hydrograph



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

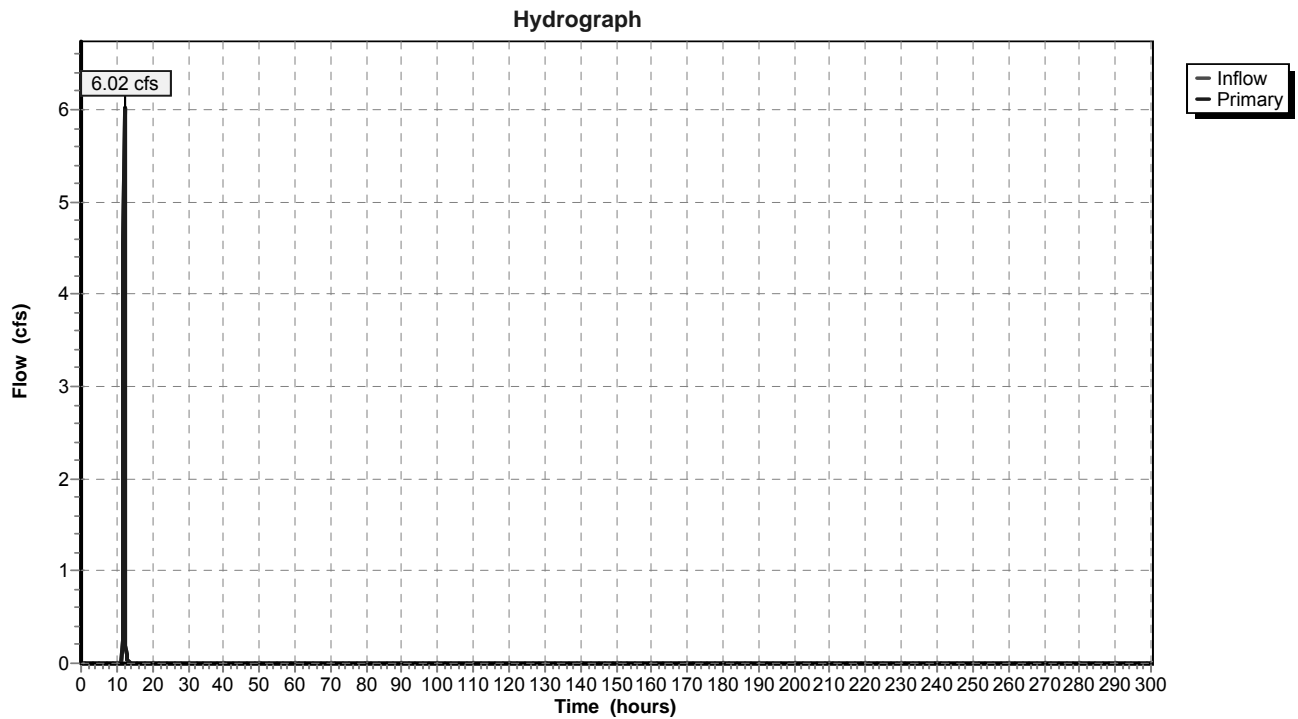
Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

[40] Hint: Not Described (Outflow=Inflow)

Inflow = 6.02 cfs @ 12.11 hrs, Volume= 0.149 af
Primary = 6.02 cfs @ 12.11 hrs, Volume= 0.149 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1



Summary for Pond DP 1A: Design Point 1A

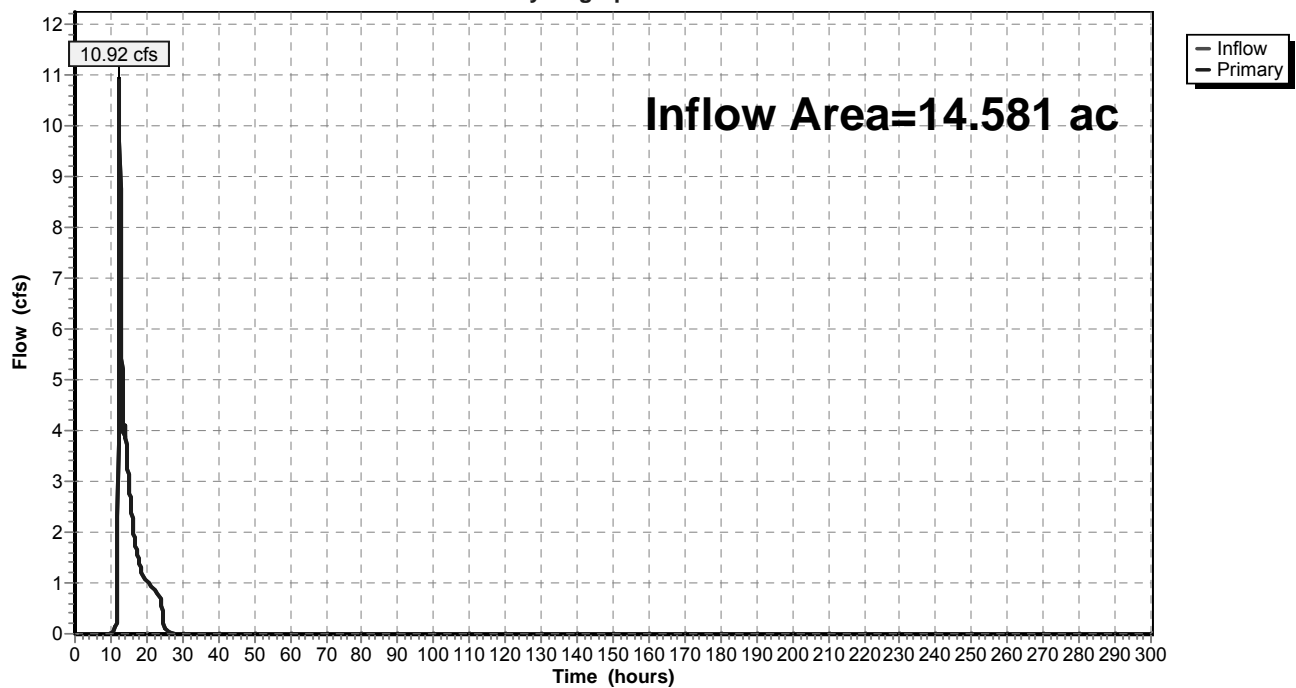
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 1.96" for 25 Year - North Salem event
Inflow = 10.92 cfs @ 12.39 hrs, Volume= 2.381 af
Primary = 10.92 cfs @ 12.39 hrs, Volume= 2.381 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
 Inflow = 22.42 cfs @ 12.15 hrs, Volume= 1.851 af
 Outflow = 2.75 cfs @ 13.07 hrs, Volume= 0.913 af, Atten= 88%, Lag= 55.4 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.75 cfs @ 13.07 hrs, Volume= 0.913 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf

Peak Elev= 367.19' @ 13.07 hrs Surf.Area= 16,283 sf Storage= 48,045 cf (43,838 cf above start)

Plug-Flow detention time= 298.8 min calculated for 0.816 af (44% of inflow)

Center-of-Mass det. time= 148.1 min (991.3 - 843.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe X 0.00 L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)

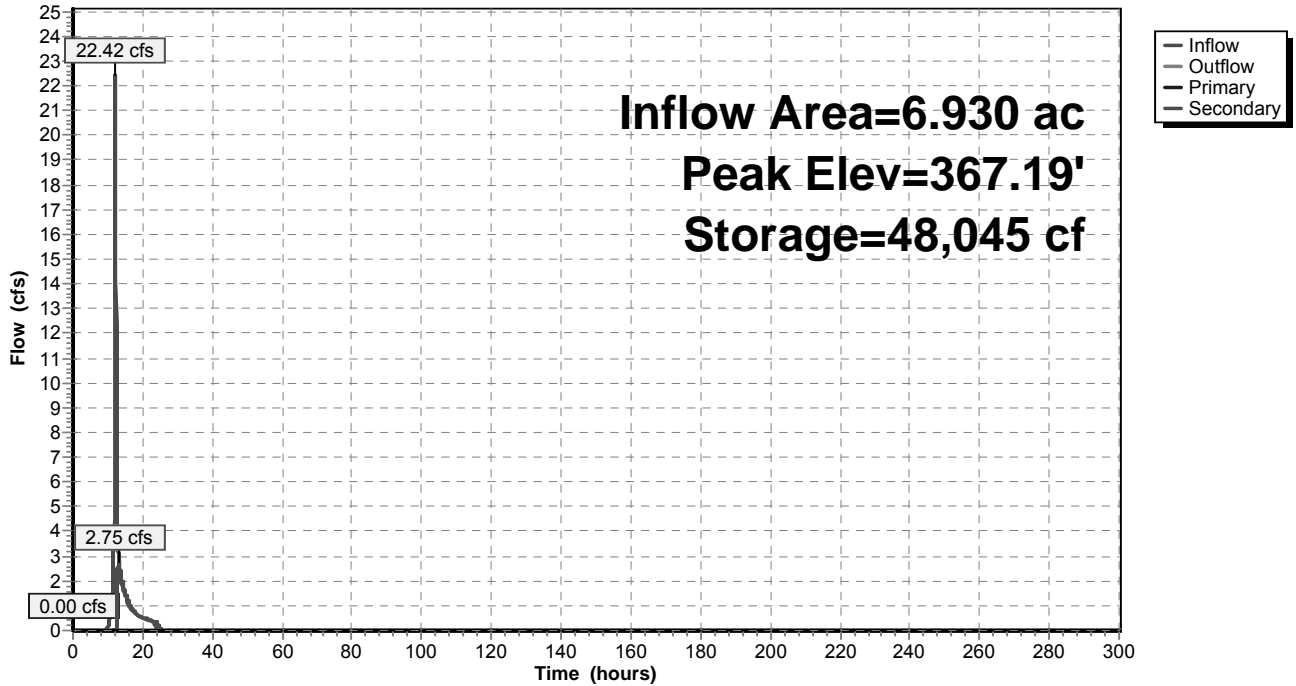
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Orifice #2 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.72 cfs @ 13.07 hrs HW=367.19' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Weir Controls 2.72 cfs @ 1.45 fps)

Pond ED-A4: Micropool ED Basin (Basin A4)

Hydrograph



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 3.10" for 25 Year - North Salem event
 Inflow = 2.47 cfs @ 12.10 hrs, Volume= 0.181 af
 Outflow = 2.47 cfs @ 12.10 hrs, Volume= 0.181 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.22 cfs @ 12.10 hrs, Volume= 0.155 af
 Secondary = 1.25 cfs @ 12.10 hrs, Volume= 0.027 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 340.03' @ 12.10 hrs
 Flood Elev= 358.26'

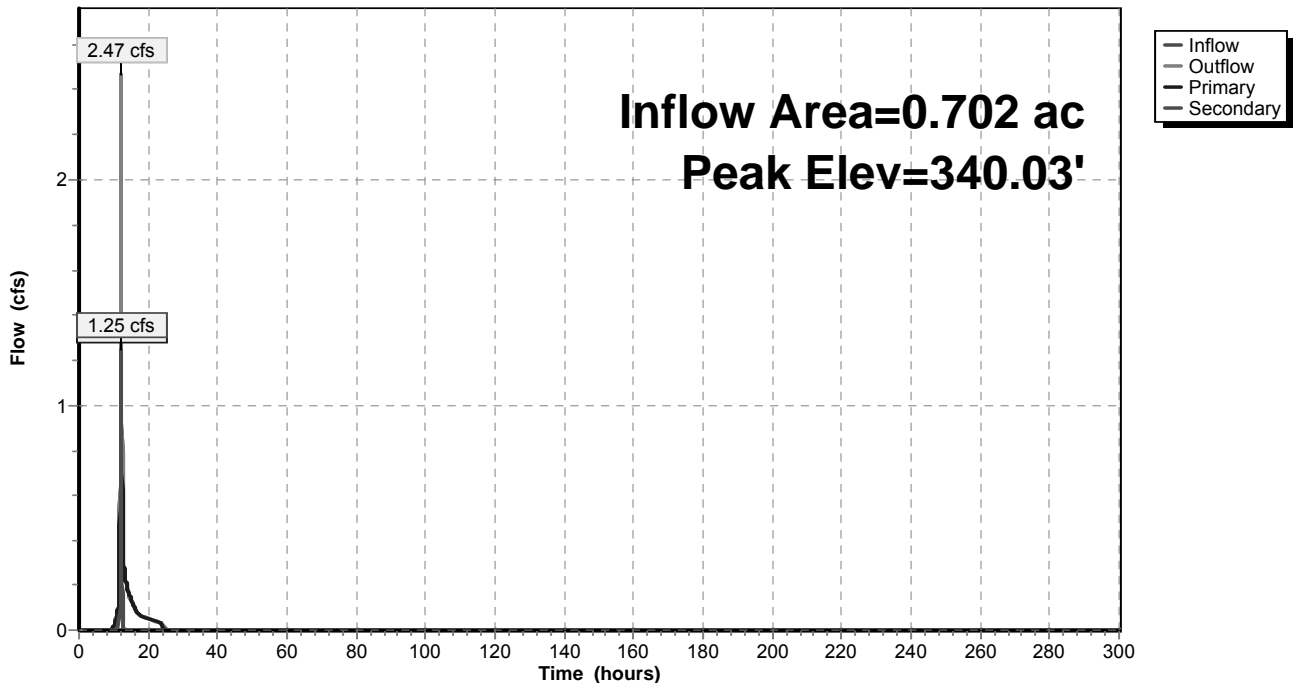
Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.22 cfs @ 12.10 hrs HW=340.03' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 1.22 cfs @ 3.53 fps)

Secondary OutFlow Max=1.21 cfs @ 12.10 hrs HW=340.03' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 1.21 cfs @ 2.47 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 3.00" for 25 Year - North Salem event
 Inflow = 6.90 cfs @ 12.11 hrs, Volume= 0.526 af
 Outflow = 6.90 cfs @ 12.11 hrs, Volume= 0.526 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.11 cfs @ 12.11 hrs, Volume= 0.404 af
 Secondary = 4.78 cfs @ 12.11 hrs, Volume= 0.122 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 353.08' @ 12.11 hrs
 Flood Elev= 358.26'

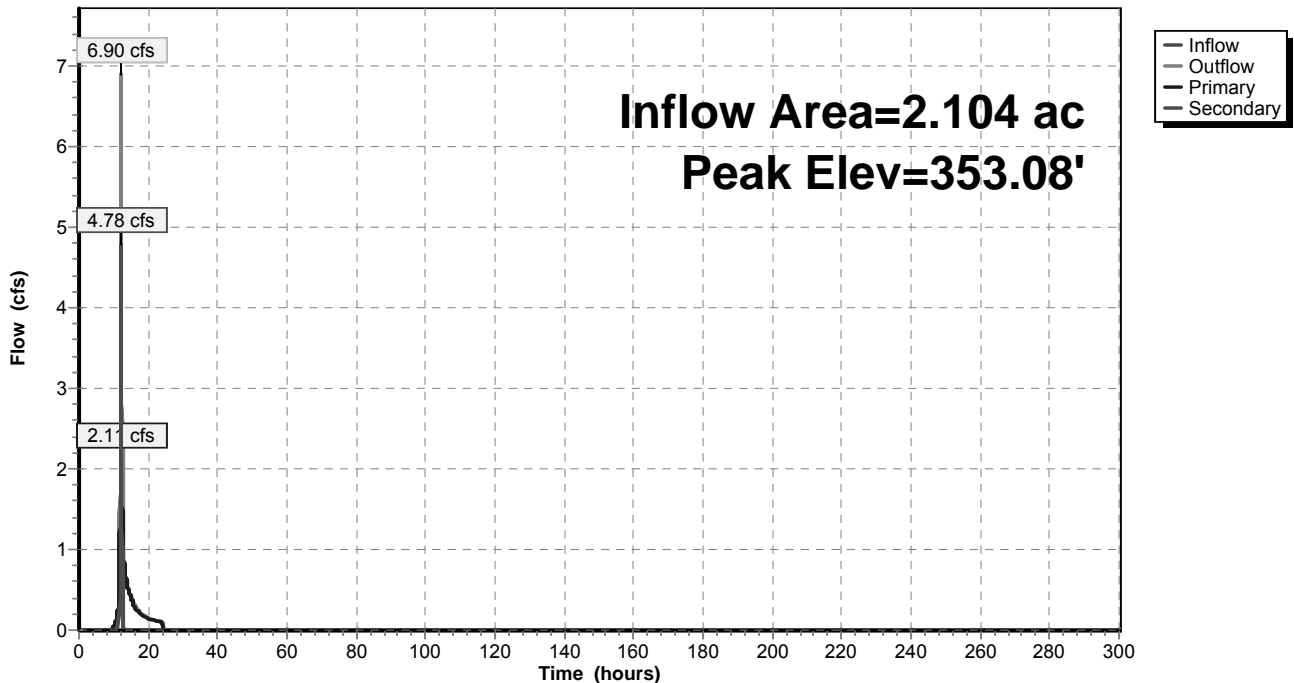
Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.09 cfs @ 12.11 hrs HW=353.04' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.09 cfs @ 6.00 fps)

Secondary OutFlow Max=4.65 cfs @ 12.11 hrs HW=353.04' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 4.65 cfs @ 3.79 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

[79] Warning: Submerged Pond SFF-A3a Primary device # 1 INLET by 0.18'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 2.38" for 25 Year - North Salem event
 Inflow = 1.23 cfs @ 12.11 hrs, Volume= 0.139 af
 Outflow = 0.85 cfs @ 12.37 hrs, Volume= 0.105 af, Atten= 31%, Lag= 15.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.85 cfs @ 12.37 hrs, Volume= 0.105 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 337.18' @ 12.35 hrs Surf.Area= 1,035 sf Storage= 1,570 cf

Plug-Flow detention time= 148.8 min calculated for 0.105 af (75% of inflow)
 Center-of-Mass det. time= 54.2 min (938.1 - 883.9)

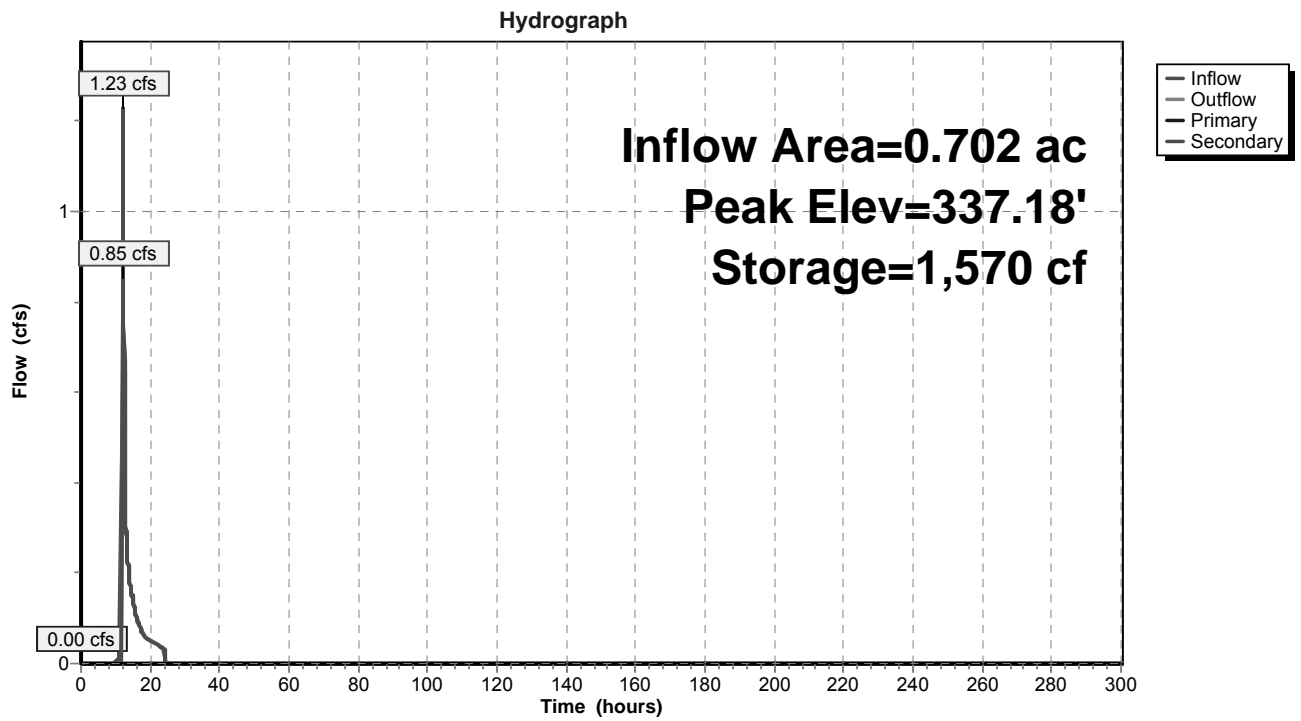
Volume	Invert	Avail.Storage	Storage Description			
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
335.00	432	111.0	0	0	432	
336.00	693	141.0	557	557	1,047	
338.00	1,313	168.0	1,973	2,531	1,779	

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.73 cfs @ 12.37 hrs HW=337.18' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 0.73 cfs @ 0.93 fps)

Pond SF-A3a: Sand Filter - A3a



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 1.77" for 25 Year - North Salem event
 Inflow = 1.61 cfs @ 12.37 hrs, Volume= 0.310 af
 Outflow = 0.55 cfs @ 14.01 hrs, Volume= 0.188 af, Atten= 66%, Lag= 98.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.55 cfs @ 14.01 hrs, Volume= 0.188 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 345.06' @ 14.01 hrs Surf.Area= 2,302 sf Storage= 5,450 cf

Plug-Flow detention time= 244.3 min calculated for 0.188 af (61% of inflow)
 Center-of-Mass det. time= 113.6 min (1,052.8 - 939.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

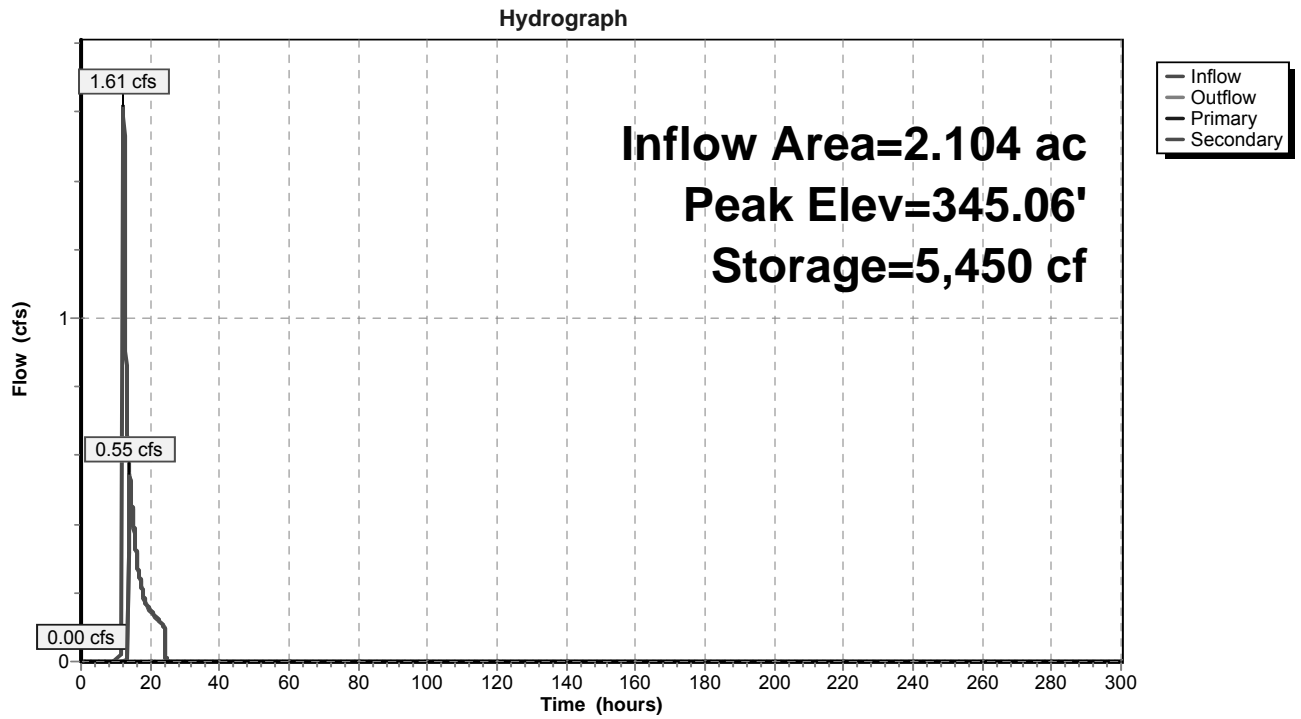
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.52 cfs @ 14.01 hrs HW=345.06' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.52 cfs @ 0.83 fps)

Pond SF-A3b: Sand Filter - A3b



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

[88] Warning: Qout>Qin may require Finer Routing>1
 [79] Warning: Submerged Pond FS A3a Primary device # 1 OUTLET by 0.13'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 2.64" for 25 Year - North Salem event
 Inflow = 1.22 cfs @ 12.10 hrs, Volume= 0.155 af
 Outflow = 1.23 cfs @ 12.11 hrs, Volume= 0.139 af, Atten= 0%, Lag= 0.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.23 cfs @ 12.11 hrs, Volume= 0.139 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.13' @ 12.11 hrs Surf.Area= 511 sf Storage= 740 cf

Plug-Flow detention time= 71.0 min calculated for 0.139 af (90% of inflow)
 Center-of-Mass det. time= 22.1 min (883.9 - 861.8)

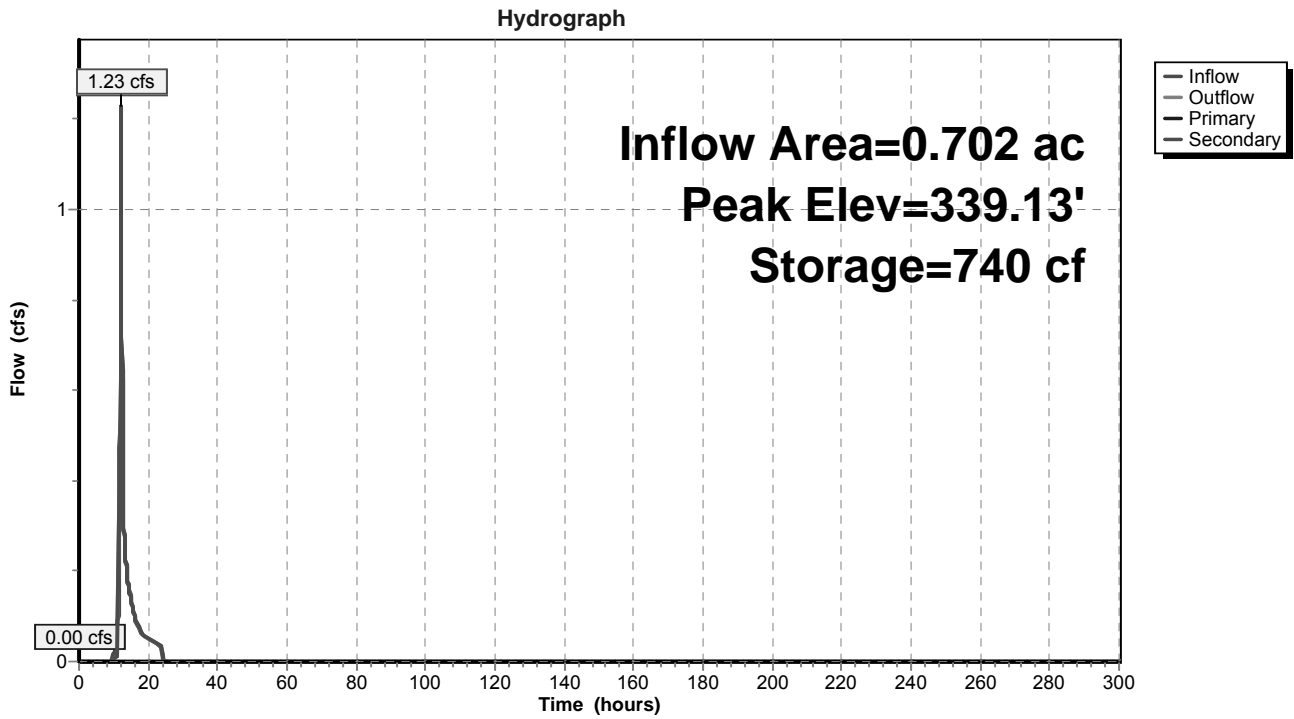
Volume	Invert	Avail.Storage	Storage Description			
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
337.00	200	57.0	0	0	200	
338.00	336	71.0	265	265	356	
339.00	490	83.0	411	676	522	
340.00	670	96.0	578	1,253	728	

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Standpipe Openings (Controls 0.00 cfs)
 ↑ 3=Top of Standpipe (Controls 0.00 cfs)
 ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.21 cfs @ 12.11 hrs HW=339.13' (Free Discharge)
 ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 1.21 cfs @ 1.20 fps)

Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

[79] Warning: Submerged Pond FS A3b Primary device # 1 OUTLET by 0.15'

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 2.31" for 25 Year - North Salem event
 Inflow = 2.11 cfs @ 12.11 hrs, Volume= 0.404 af
 Outflow = 1.61 cfs @ 12.37 hrs, Volume= 0.310 af, Atten= 24%, Lag= 15.4 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.61 cfs @ 12.37 hrs, Volume= 0.310 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 351.15' @ 12.37 hrs Surf.Area= 2,241 sf Storage= 4,453 cf

Plug-Flow detention time= 152.4 min calculated for 0.310 af (77% of inflow)
 Center-of-Mass det. time= 59.2 min (939.2 - 880.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

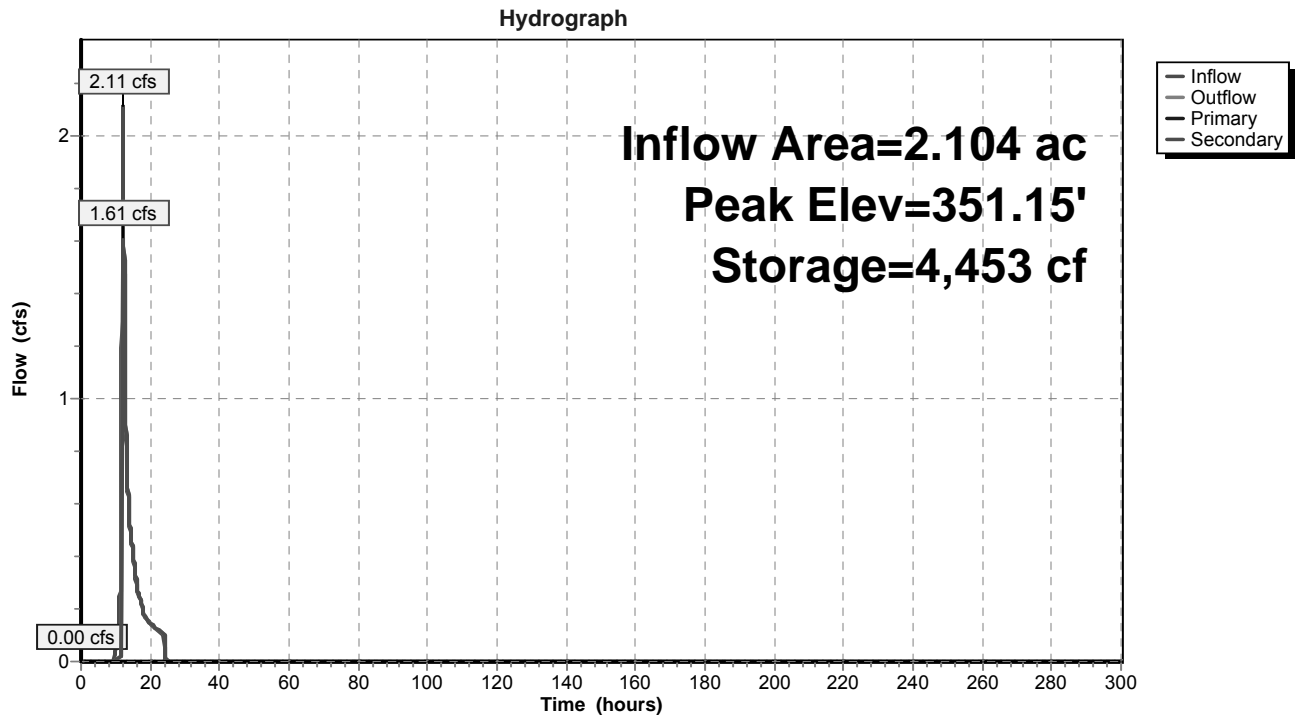
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.59 cfs @ 12.37 hrs HW=351.15' (Free Discharge)

- ↑ 6=Sharp-Crested Rectangular Weir (Weir Controls 1.59 cfs @ 1.32 fps)

Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			

Woodlands Post-Dev DP 1A WORST C Type III 24-hr 100 Year - North Salem Rainfall=9.00"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment A1a: Post-Development A1a Runoff Area=1.563 ac 3.07% Impervious Runoff Depth=3.86"
Flow Length=649' Tc=11.3 min CN=58 Runoff=5.80 cfs 0.502 af

Subcatchment A2: Post-Development A2 Runoff Area=3.282 ac 4.51% Impervious Runoff Depth=4.10"
Flow Length=724' Tc=19.0 min CN=60 Runoff=10.73 cfs 1.122 af

Subcatchment A3a: Post-Development A3a Runoff Area=0.702 ac 12.82% Impervious Runoff Depth=4.72"
Flow Length=367' Tc=6.2 min CN=65 Runoff=3.79 cfs 0.276 af

Subcatchment A3b: Post-Development A3b Runoff Area=2.104 ac 11.83% Impervious Runoff Depth=4.59"
Flow Length=598' Tc=7.3 min CN=64 Runoff=10.69 cfs 0.805 af

Subcatchment A4: Post-Development A4 Runoff Area=6.930 ac 15.71% Impervious Runoff Depth=4.84"
Flow Length=775' Tc=9.8 min CN=66 Runoff=34.12 cfs 2.796 af

Reach 1R: Culvert Avg. Depth=0.54' Max Vel=6.65 fps Inflow=10.73 cfs 1.122 af
36.0" x 24.0" Box Pipe n=0.012 L=65.0' S=0.0100 '/ Capacity=52.86 cfs Outflow=10.71 cfs 1.122 af

Reach A-1: Road Swale A-1 Avg. Depth=0.78' Max Vel=1.28 fps Inflow=5.80 cfs 0.502 af
n=0.080 L=773.0' S=0.0107 '/ Capacity=29.96 cfs Outflow=4.49 cfs 0.502 af

Reach A-2: Road Swale A-2 Avg. Depth=1.41' Max Vel=1.28 fps Inflow=10.71 cfs 1.122 af
n=0.080 L=230.0' S=0.0057 '/ Capacity=21.73 cfs Outflow=10.49 cfs 1.122 af

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1 Inflow=10.21 cfs 0.295 af
Primary=10.21 cfs 0.295 af

Pond DP 1A: Design Point 1A Inflow=33.31 cfs 4.297 af
Primary=33.31 cfs 4.297 af

Pond ED-A4: Micropool ED Basin (Basin Peak Elev=367.57' Storage=54,571 cf Inflow=34.12 cfs 2.796 af
Primary=0.00 cfs 0.000 af Secondary=14.93 cfs 1.858 af Outflow=14.93 cfs 1.858 af

Pond FS A3a: Flow Splitter A3a Peak Elev=340.26' Inflow=3.79 cfs 0.276 af
Primary=1.47 cfs 0.219 af Secondary=2.32 cfs 0.057 af Outflow=3.79 cfs 0.276 af

Pond FS A3b: Flow Splitter A3b Peak Elev=354.21' Inflow=10.69 cfs 0.805 af
Primary=2.77 cfs 0.567 af Secondary=7.91 cfs 0.238 af Outflow=10.69 cfs 0.805 af

Pond SF-A3a: Sand Filter - A3a Peak Elev=337.23' Storage=1,618 cf Inflow=1.47 cfs 0.204 af
Primary=0.00 cfs 0.000 af Secondary=1.49 cfs 0.170 af Outflow=1.49 cfs 0.170 af

Pond SF-A3b: Sand Filter - A3b Peak Elev=345.11' Storage=5,550 cf Inflow=2.66 cfs 0.473 af
Primary=0.00 cfs 0.000 af Secondary=1.16 cfs 0.351 af Outflow=1.16 cfs 0.351 af

Pond SFF-A3a: Sand Filter Forebay - A3a Peak Elev=339.14' Storage=747 cf Inflow=1.47 cfs 0.219 af
Primary=0.00 cfs 0.000 af Secondary=1.47 cfs 0.204 af Outflow=1.47 cfs 0.204 af

Woodlands Post-Dev DP 1A WORST C Type III 24-hr 100 Year - North Salem Rainfall=9.00"

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Pond SFF-A3b: Sand Filter Forebay - A3b Peak Elev=351.21' Storage=4,585 cf Inflow=2.77 cfs 0.567 af
Primary=0.00 cfs 0.000 af Secondary=2.66 cfs 0.473 af Outflow=2.66 cfs 0.473 af

Total Runoff Area = 14.581 ac Runoff Volume = 5.501 af Average Runoff Depth = 4.53"
88.86% Pervious = 12.957 ac 11.14% Impervious = 1.624 ac

Summary for Subcatchment A1a: Post-Development A1a

Runoff = 5.80 cfs @ 12.16 hrs, Volume= 0.502 af, Depth= 3.86"

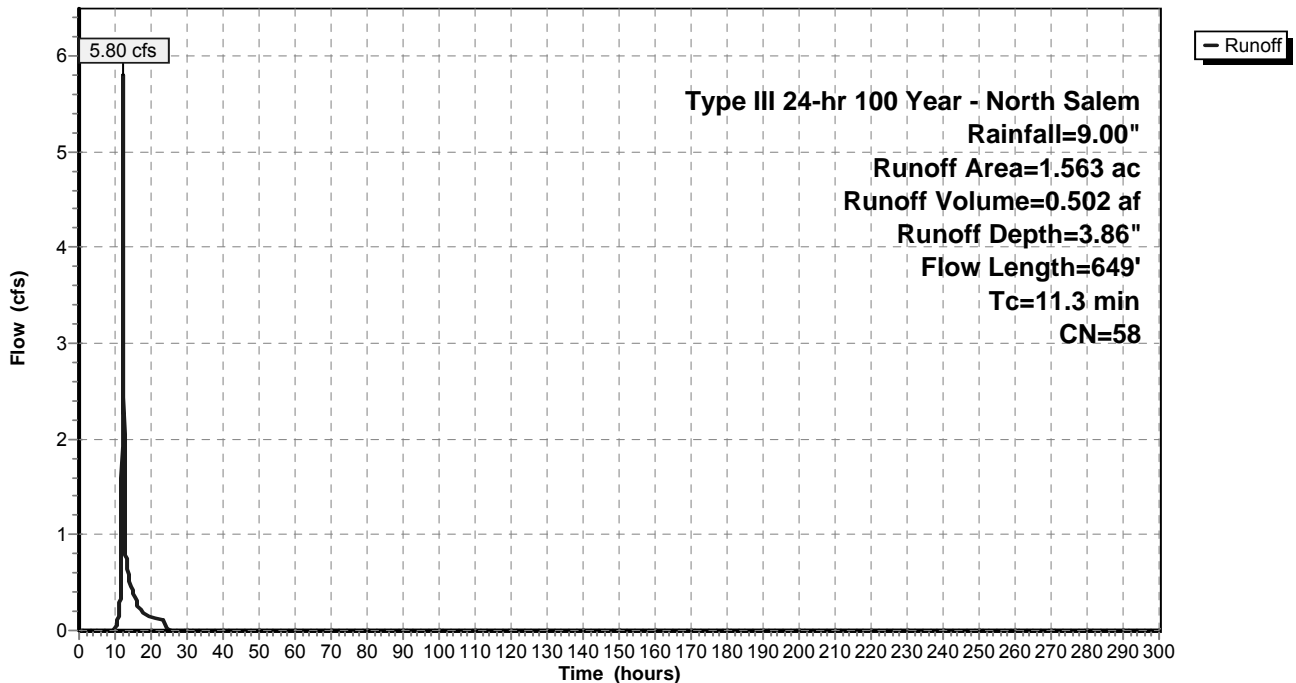
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.048	98	Paved roads w/curbs & sewers
0.499	61	>75% Grass cover, Good, HSG B
* 1.016	55	Woods, Good, HSG B, (Undisurbed)
1.563	58	Weighted Average
1.515		96.93% Pervious Area
0.048		3.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.2400	0.23		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	74	0.4324	10.59		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.8	475	0.0167	2.08		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
11.3	649	Total			

Subcatchment A1a: Post-Development A1a

Hydrograph



Summary for Subcatchment A2: Post-Development A2

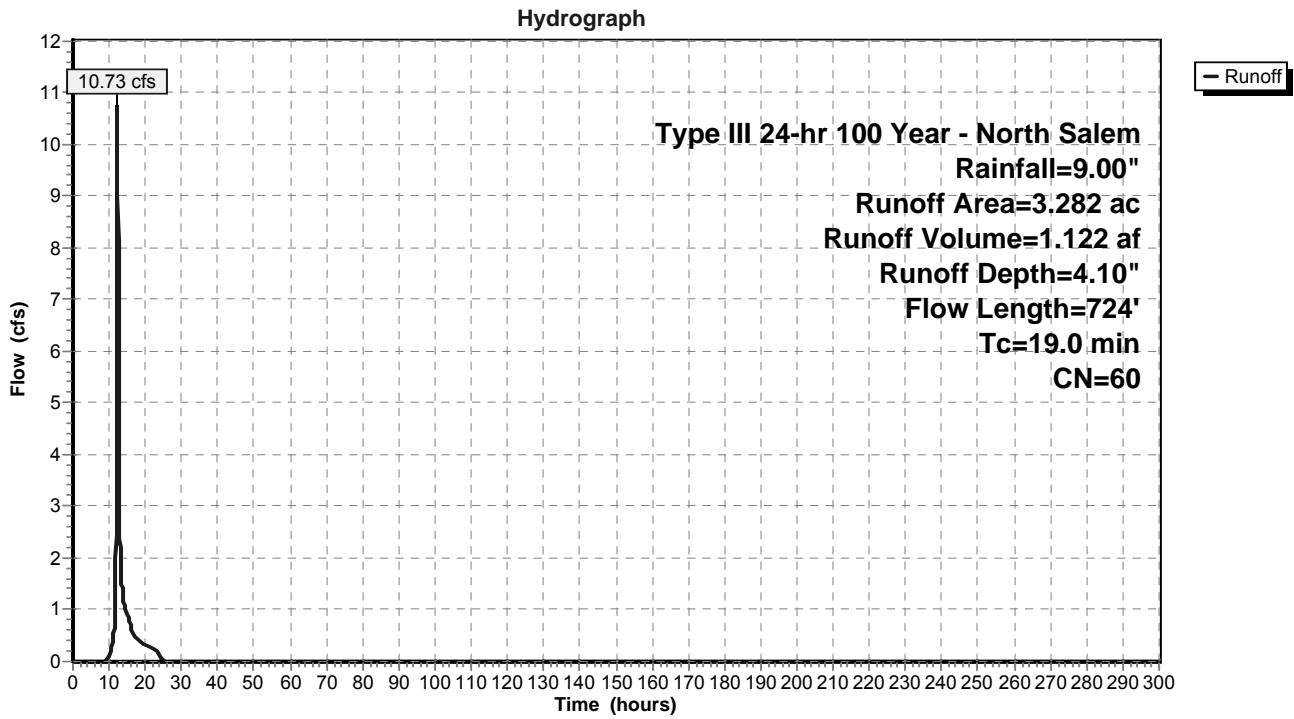
Runoff = 10.73 cfs @ 12.27 hrs, Volume= 1.122 af, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.148	98	Paved roads w/curbs & sewers, HSG B
1.541	61	>75% Grass cover, Good, HSG B
* 1.593	55	Woods, Good, HSG B (Undisturbed)
3.282	60	Weighted Average
3.134		95.49% Pervious Area
0.148		4.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.3	40	0.2500	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
14.3	60	0.0667	0.07		Sheet Flow, B-C Woods: Dense underbrush n= 0.800 P2= 3.70"
0.7	152	0.0526	3.69		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	137	0.1168	5.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	73	0.3014	8.84		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	58	0.2068	7.32		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.1	52	0.5769	12.23		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
1.0	152	0.0263	2.61		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
19.0	724	Total			

Subcatchment A2: Post-Development A2



Summary for Subcatchment A3a: Post-Development A3a

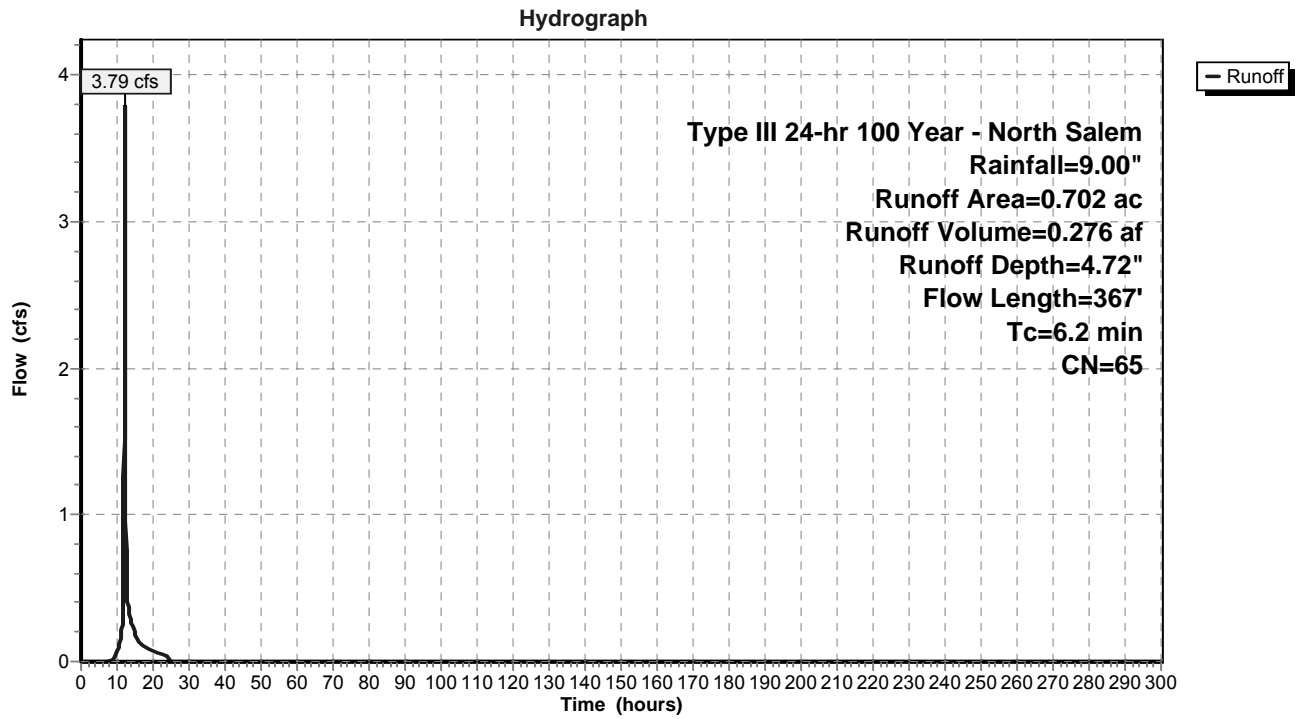
Runoff = 3.79 cfs @ 12.10 hrs, Volume= 0.276 af, Depth= 4.72"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG B
0.583	61	>75% Grass cover, Good, HSG B
0.029	55	Woods, Good, HSG B
0.702	65	Weighted Average
0.612		87.18% Pervious Area
0.090		12.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	45	0.2200	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
1.6	55	0.4700	0.57		Sheet Flow, B-C Grass: Short n= 0.150 P2= 3.70"
0.1	83	0.3700	9.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	119	0.0840	4.67		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	65	0.0400	11.89	21.01	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
6.2	367	Total			

Subcatchment A3a: Post-Development A3a



Summary for Subcatchment A3b: Post-Development A3b

Runoff = 10.69 cfs @ 12.11 hrs, Volume= 0.805 af, Depth= 4.59"

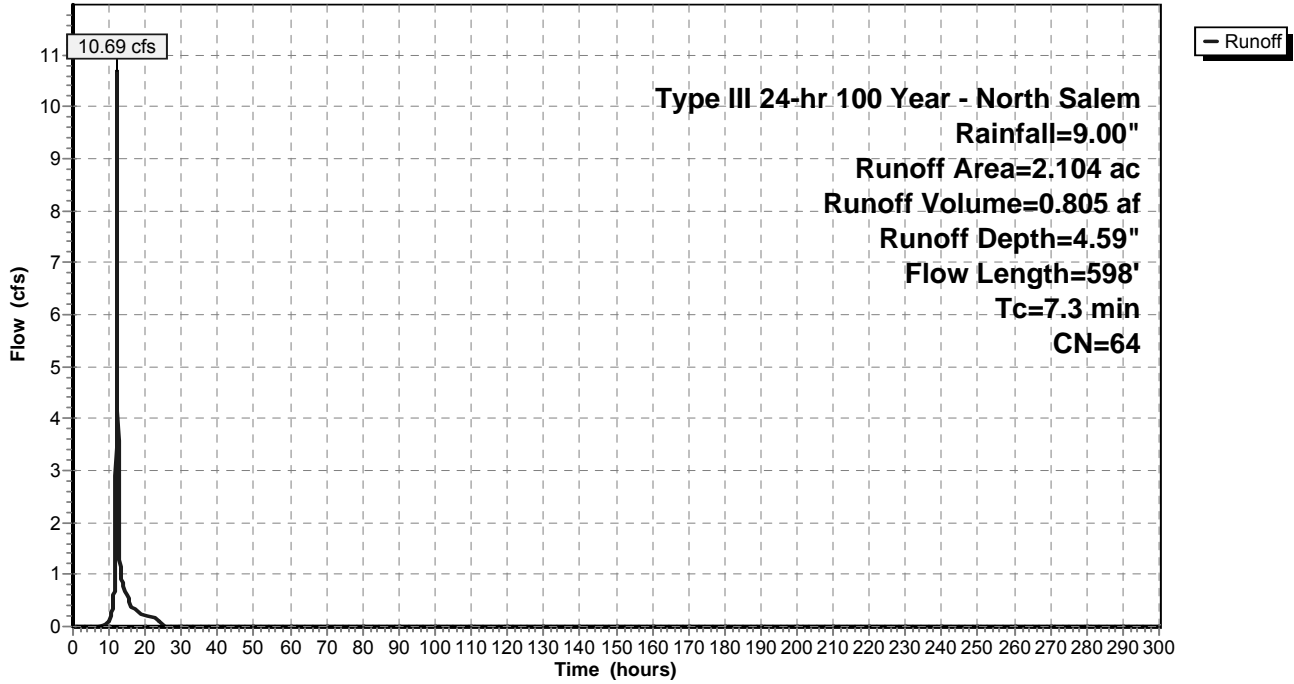
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.249	98	Paved roads w/curbs & sewers, HSG B
1.531	61	>75% Grass cover, Good, HSG B
0.324	55	Woods, Good, HSG B
2.104	64	Weighted Average
1.855		88.17% Pervious Area
0.249		11.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0	100	0.4000	0.28		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	107	0.2243	7.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	93	0.4623	10.95		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	238	0.0759	4.44		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	60	0.1500	14.96	26.44	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
7.3	598	Total			

Subcatchment A3b: Post-Development A3b

Hydrograph



Summary for Subcatchment A4: Post-Development A4

Runoff = 34.12 cfs @ 12.14 hrs, Volume= 2.796 af, Depth= 4.84"

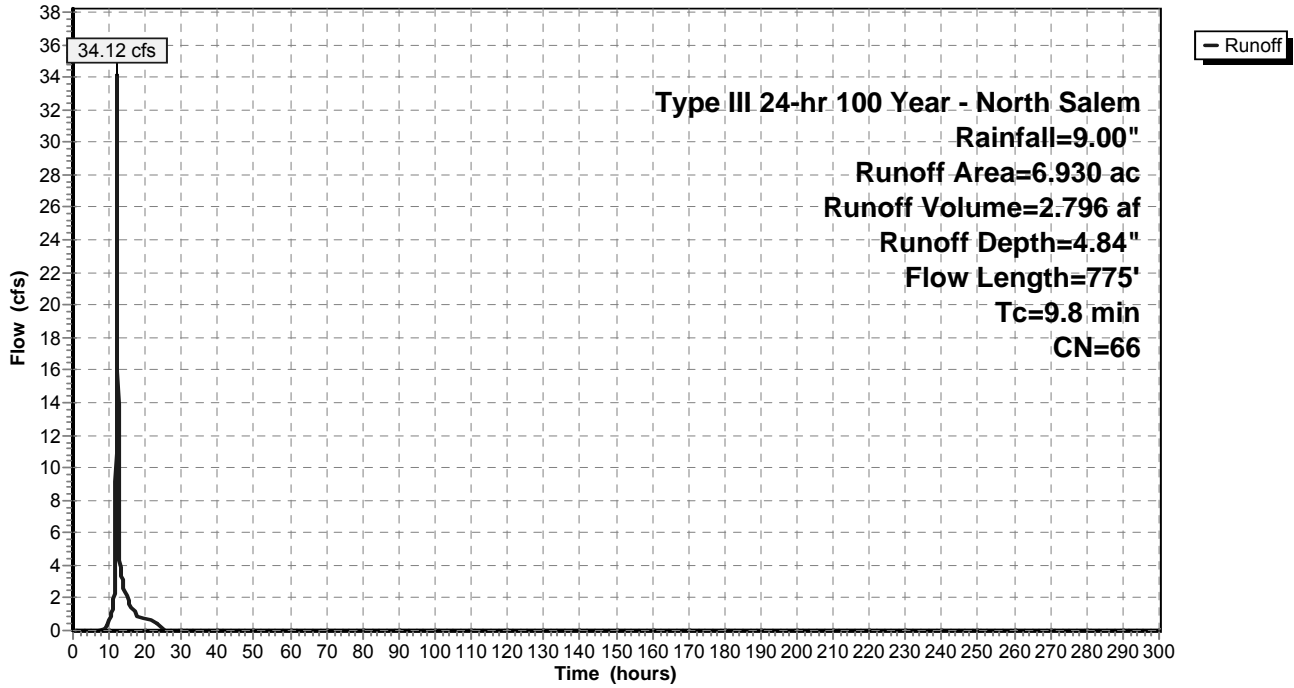
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.964	98	Paved roads w/curbs & sewers, HSG B
4.644	61	>75% Grass cover, Good, HSG B
* 0.109	98	Sidewalk
* 0.012	98	Gatehouse
* 0.004	98	Pillars
* 1.197	55	Woods, Good, HSG B (Undisturbed)
6.930	66	Weighted Average
5.841		84.29% Pervious Area
1.089		15.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	100	0.0800	0.22		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.5	75	0.0267	2.63		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	18	0.0555	3.79		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	67	0.4627	10.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	202	0.0891	4.81		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	87	0.4590	10.91		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.6	142	0.0563	3.82		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.1	84	0.1200	13.38	23.65	Pipe Channel, H-I 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
9.8	775	Total			

Subcatchment A4: Post-Development A4

Hydrograph



Summary for Reach 1R: Culvert

[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 4.10" for 100 Year - North Salem event
 Inflow = 10.73 cfs @ 12.27 hrs, Volume= 1.122 af
 Outflow = 10.71 cfs @ 12.27 hrs, Volume= 1.122 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 6.65 fps, Min. Travel Time= 0.2 min
 Avg. Velocity = 2.21 fps, Avg. Travel Time= 0.5 min

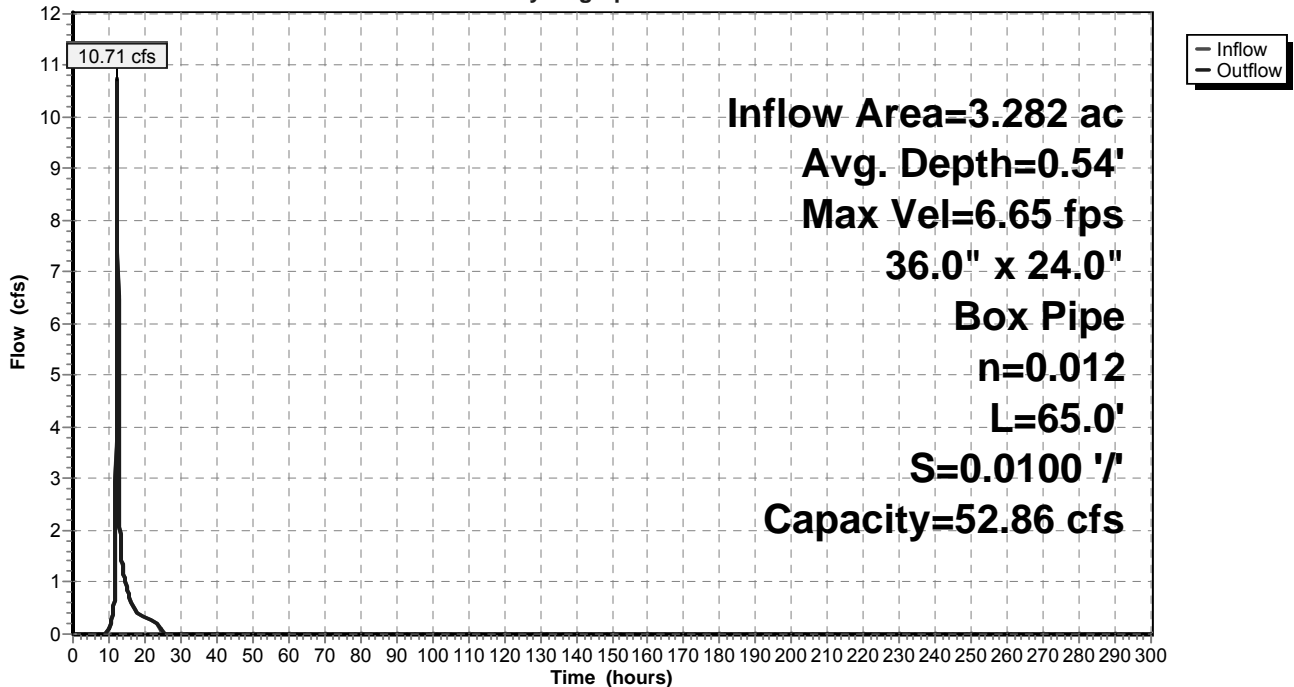
Peak Storage= 105 cf @ 12.27 hrs, Average Depth at Peak Storage= 0.54'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 52.86 cfs

36.0" W x 24.0" H Box Pipe
 n= 0.012 Concrete pipe, finished
 Length= 65.0' Slope= 0.0100 '/
 Inlet Invert= 334.65', Outlet Invert= 334.00'



Reach 1R: Culvert

Hydrograph



Stage-Area-Storage for Reach 1R: Culvert

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.65	0.0	0	335.18	1.6	103
334.66	0.0	2	335.19	1.6	105
334.67	0.1	4	335.20	1.7	107
334.68	0.1	6	335.21	1.7	109
334.69	0.1	8	335.22	1.7	111
334.70	0.1	10	335.23	1.7	113
334.71	0.2	12	335.24	1.8	115
334.72	0.2	14	335.25	1.8	117
334.73	0.2	16	335.26	1.8	119
334.74	0.3	18	335.27	1.9	121
334.75	0.3	20	335.28	1.9	123
334.76	0.3	21	335.29	1.9	125
334.77	0.4	23	335.30	1.9	127
334.78	0.4	25	335.31	2.0	129
334.79	0.4	27	335.32	2.0	131
334.80	0.4	29	335.33	2.0	133
334.81	0.5	31	335.34	2.1	135
334.82	0.5	33	335.35	2.1	137
334.83	0.5	35	335.36	2.1	138
334.84	0.6	37	335.37	2.2	140
334.85	0.6	39	335.38	2.2	142
334.86	0.6	41	335.39	2.2	144
334.87	0.7	43	335.40	2.3	146
334.88	0.7	45	335.41	2.3	148
334.89	0.7	47	335.42	2.3	150
334.90	0.8	49	335.43	2.3	152
334.91	0.8	51	335.44	2.4	154
334.92	0.8	53	335.45	2.4	156
334.93	0.8	55	335.46	2.4	158
334.94	0.9	57	335.47	2.5	160
334.95	0.9	58	335.48	2.5	162
334.96	0.9	60	335.49	2.5	164
334.97	1.0	62	335.50	2.5	166
334.98	1.0	64	335.51	2.6	168
334.99	1.0	66	335.52	2.6	170
335.00	1.1	68	335.53	2.6	172
335.01	1.1	70	335.54	2.7	174
335.02	1.1	72	335.55	2.7	176
335.03	1.1	74	335.56	2.7	177
335.04	1.2	76	335.57	2.8	179
335.05	1.2	78	335.58	2.8	181
335.06	1.2	80	335.59	2.8	183
335.07	1.3	82	335.60	2.9	185
335.08	1.3	84	335.61	2.9	187
335.09	1.3	86	335.62	2.9	189
335.10	1.4	88	335.63	2.9	191
335.11	1.4	90	335.64	3.0	193
335.12	1.4	92	335.65	3.0	195
335.13	1.4	94	335.66	3.0	197
335.14	1.5	96	335.67	3.1	199
335.15	1.5	98	335.68	3.1	201
335.16	1.5	99	335.69	3.1	203
335.17	1.6	101	335.70	3.2	205

Stage-Area-Storage for Reach 1R: Culvert (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
335.71	3.2	207	336.24	4.8	310
335.72	3.2	209	336.25	4.8	312
335.73	3.2	211	336.26	4.8	314
335.74	3.3	213	336.27	4.9	316
335.75	3.3	215	336.28	4.9	318
335.76	3.3	216	336.29	4.9	320
335.77	3.4	218	336.30	5.0	322
335.78	3.4	220	336.31	5.0	324
335.79	3.4	222	336.32	5.0	326
335.80	3.5	224	336.33	5.0	328
335.81	3.5	226	336.34	5.1	330
335.82	3.5	228	336.35	5.1	332
335.83	3.5	230	336.36	5.1	333
335.84	3.6	232	336.37	5.2	335
335.85	3.6	234	336.38	5.2	337
335.86	3.6	236	336.39	5.2	339
335.87	3.7	238	336.40	5.3	341
335.88	3.7	240	336.41	5.3	343
335.89	3.7	242	336.42	5.3	345
335.90	3.8	244	336.43	5.3	347
335.91	3.8	246	336.44	5.4	349
335.92	3.8	248	336.45	5.4	351
335.93	3.8	250	336.46	5.4	353
335.94	3.9	252	336.47	5.5	355
335.95	3.9	254	336.48	5.5	357
335.96	3.9	255	336.49	5.5	359
335.97	4.0	257	336.50	5.6	361
335.98	4.0	259	336.51	5.6	363
335.99	4.0	261	336.52	5.6	365
336.00	4.1	263	336.53	5.6	367
336.01	4.1	265	336.54	5.7	369
336.02	4.1	267	336.55	5.7	371
336.03	4.1	269	336.56	5.7	372
336.04	4.2	271	336.57	5.8	374
336.05	4.2	273	336.58	5.8	376
336.06	4.2	275	336.59	5.8	378
336.07	4.3	277	336.60	5.8	380
336.08	4.3	279	336.61	5.9	382
336.09	4.3	281	336.62	5.9	384
336.10	4.3	283	336.63	5.9	386
336.11	4.4	285	336.64	6.0	388
336.12	4.4	287	336.65	6.0	390
336.13	4.4	289			
336.14	4.5	291			
336.15	4.5	293			
336.16	4.5	294			
336.17	4.6	296			
336.18	4.6	298			
336.19	4.6	300			
336.20	4.7	302			
336.21	4.7	304			
336.22	4.7	306			
336.23	4.7	308			

Summary for Reach A-1: Road Swale A-1

Inflow Area = 1.563 ac, 3.07% Impervious, Inflow Depth = 3.86" for 100 Year - North Salem event
 Inflow = 5.80 cfs @ 12.16 hrs, Volume= 0.502 af
 Outflow = 4.49 cfs @ 12.45 hrs, Volume= 0.502 af, Atten= 23%, Lag= 17.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.28 fps, Min. Travel Time= 10.0 min
 Avg. Velocity = 0.35 fps, Avg. Travel Time= 36.9 min

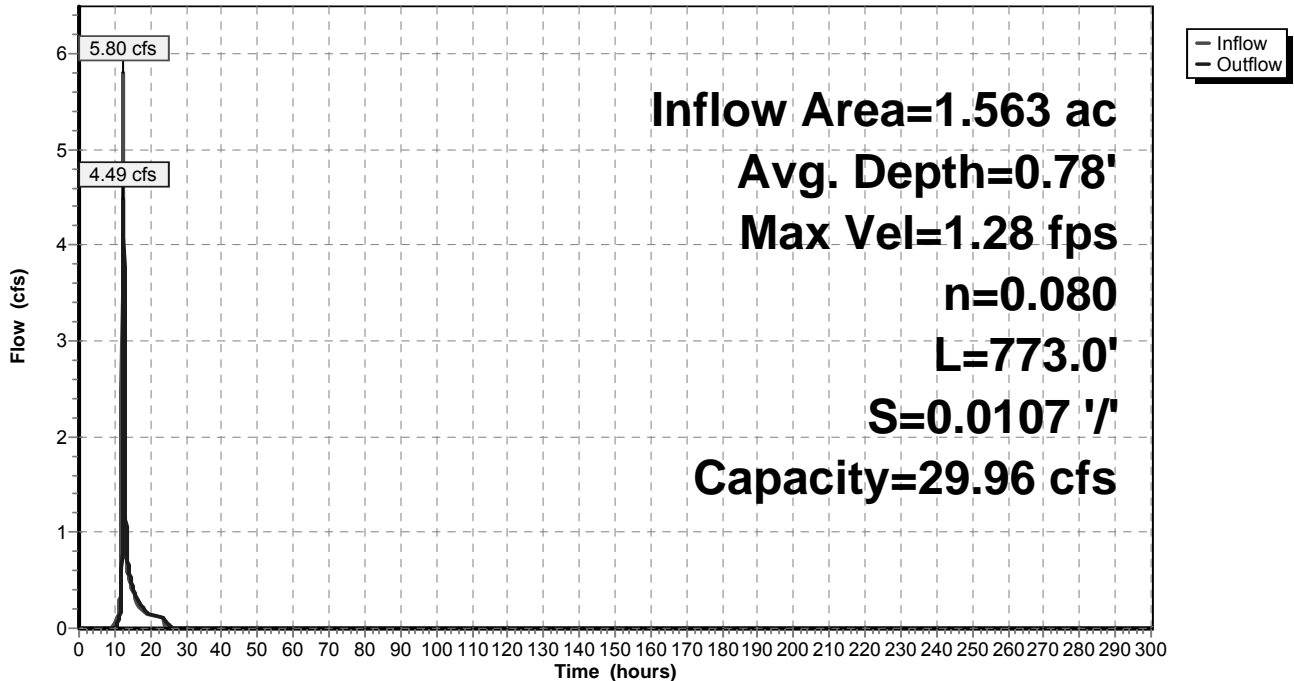
Peak Storage= 2,728 cf @ 12.27 hrs, Average Depth at Peak Storage= 0.78'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 29.96 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/' Top Width= 11.00'
 Length= 773.0' Slope= 0.0107 '/'
 Inlet Invert= 340.00', Outlet Invert= 331.70'



Reach A-1: Road Swale A-1

Hydrograph



Stage-Area-Storage for Reach A-1: Road Swale A-1

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
340.00	0.0	0	340.53	2.2	1,663
340.01	0.0	23	340.54	2.2	1,703
340.02	0.1	47	340.55	2.3	1,743
340.03	0.1	71	340.56	2.3	1,783
340.04	0.1	95	340.57	2.4	1,824
340.05	0.2	120	340.58	2.4	1,865
340.06	0.2	145	340.59	2.5	1,907
340.07	0.2	170	340.60	2.5	1,948
340.08	0.3	195	340.61	2.6	1,990
340.09	0.3	221	340.62	2.6	2,032
340.10	0.3	247	340.63	2.7	2,075
340.11	0.4	274	340.64	2.7	2,117
340.12	0.4	301	340.65	2.8	2,161
340.13	0.4	328	340.66	2.9	2,204
340.14	0.5	355	340.67	2.9	2,248
340.15	0.5	383	340.68	3.0	2,292
340.16	0.5	411	340.69	3.0	2,336
340.17	0.6	439	340.70	3.1	2,381
340.18	0.6	468	340.71	3.1	2,426
340.19	0.6	497	340.72	3.2	2,471
340.20	0.7	526	340.73	3.3	2,517
340.21	0.7	555	340.74	3.3	2,563
340.22	0.8	585	340.75	3.4	2,609
340.23	0.8	615	340.76	3.4	2,655
340.24	0.8	646	340.77	3.5	2,702
340.25	0.9	677	340.78	3.6	2,749
340.26	0.9	707	340.79	3.6	2,797
340.27	1.0	739	340.80	3.7	2,845
340.28	1.0	771	340.81	3.7	2,893
340.29	1.0	803	340.82	3.8	2,941
340.30	1.1	835	340.83	3.9	2,990
340.31	1.1	868	340.84	3.9	3,039
340.32	1.2	900	340.85	4.0	3,088
340.33	1.2	934	340.86	4.1	3,138
340.34	1.3	967	340.87	4.1	3,188
340.35	1.3	1,001	340.88	4.2	3,238
340.36	1.3	1,035	340.89	4.3	3,289
340.37	1.4	1,070	340.90	4.3	3,339
340.38	1.4	1,104	340.91	4.4	3,391
340.39	1.5	1,140	340.92	4.5	3,442
340.40	1.5	1,175	340.93	4.5	3,494
340.41	1.6	1,211	340.94	4.6	3,546
340.42	1.6	1,247	340.95	4.7	3,598
340.43	1.7	1,283	340.96	4.7	3,651
340.44	1.7	1,320	340.97	4.8	3,704
340.45	1.8	1,357	340.98	4.9	3,757
340.46	1.8	1,394	340.99	4.9	3,811
340.47	1.9	1,432	341.00	5.0	3,865
340.48	1.9	1,469	341.01	5.1	3,919
340.49	2.0	1,508	341.02	5.1	3,974
340.50	2.0	1,546	341.03	5.2	4,029
340.51	2.1	1,585	341.04	5.3	4,084
340.52	2.1	1,624	341.05	5.4	4,140

Stage-Area-Storage for Reach A-1: Road Swale A-1 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
341.06	5.4	4,195	341.59	9.8	7,596
341.07	5.5	4,252	341.60	9.9	7,668
341.08	5.6	4,308	341.61	10.0	7,741
341.09	5.6	4,365	341.62	10.1	7,814
341.10	5.7	4,422	341.63	10.2	7,888
341.11	5.8	4,479	341.64	10.3	7,961
341.12	5.9	4,537	341.65	10.4	8,035
341.13	5.9	4,595	341.66	10.5	8,110
341.14	6.0	4,653	341.67	10.6	8,185
341.15	6.1	4,712	341.68	10.7	8,259
341.16	6.2	4,770	341.69	10.8	8,335
341.17	6.2	4,830	341.70	10.9	8,410
341.18	6.3	4,889	341.71	11.0	8,486
341.19	6.4	4,949	341.72	11.1	8,562
341.20	6.5	5,009	341.73	11.2	8,639
341.21	6.6	5,070	341.74	11.3	8,716
341.22	6.6	5,130	341.75	11.4	8,793
341.23	6.7	5,191	341.76	11.5	8,870
341.24	6.8	5,253	341.77	11.6	8,948
341.25	6.9	5,315	341.78	11.7	9,026
341.26	7.0	5,376	341.79	11.8	9,105
341.27	7.0	5,439	341.80	11.9	9,183
341.28	7.1	5,501	341.81	12.0	9,262
341.29	7.2	5,564	341.82	12.1	9,342
341.30	7.3	5,627	341.83	12.2	9,421
341.31	7.4	5,691	341.84	12.3	9,501
341.32	7.4	5,755	341.85	12.4	9,581
341.33	7.5	5,819	341.86	12.5	9,662
341.34	7.6	5,883	341.87	12.6	9,743
341.35	7.7	5,948	341.88	12.7	9,824
341.36	7.8	6,013	341.89	12.8	9,906
341.37	7.9	6,079	341.90	12.9	9,987
341.38	7.9	6,144	341.91	13.0	10,069
341.39	8.0	6,211	341.92	13.1	10,152
341.40	8.1	6,277	341.93	13.2	10,235
341.41	8.2	6,344	341.94	13.3	10,317
341.42	8.3	6,410	341.95	13.5	10,401
341.43	8.4	6,478	341.96	13.6	10,484
341.44	8.5	6,545	341.97	13.7	10,568
341.45	8.6	6,613	341.98	13.8	10,653
341.46	8.6	6,681	341.99	13.9	10,737
341.47	8.7	6,750	342.00	14.0	10,822
341.48	8.8	6,818			
341.49	8.9	6,888			
341.50	9.0	6,957			
341.51	9.1	7,027			
341.52	9.2	7,097			
341.53	9.3	7,167			
341.54	9.4	7,238			
341.55	9.5	7,309			
341.56	9.5	7,380			
341.57	9.6	7,452			
341.58	9.7	7,523			

Summary for Reach A-2: Road Swale A-2

[61] Hint: Exceeded Reach 1R outlet invert by 0.40' @ 12.30 hrs

Inflow Area = 3.282 ac, 4.51% Impervious, Inflow Depth = 4.10" for 100 Year - North Salem event
 Inflow = 10.71 cfs @ 12.27 hrs, Volume= 1.122 af
 Outflow = 10.49 cfs @ 12.37 hrs, Volume= 1.122 af, Atten= 2%, Lag= 5.5 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Max. Velocity= 1.28 fps, Min. Travel Time= 3.0 min
 Avg. Velocity = 0.43 fps, Avg. Travel Time= 9.0 min

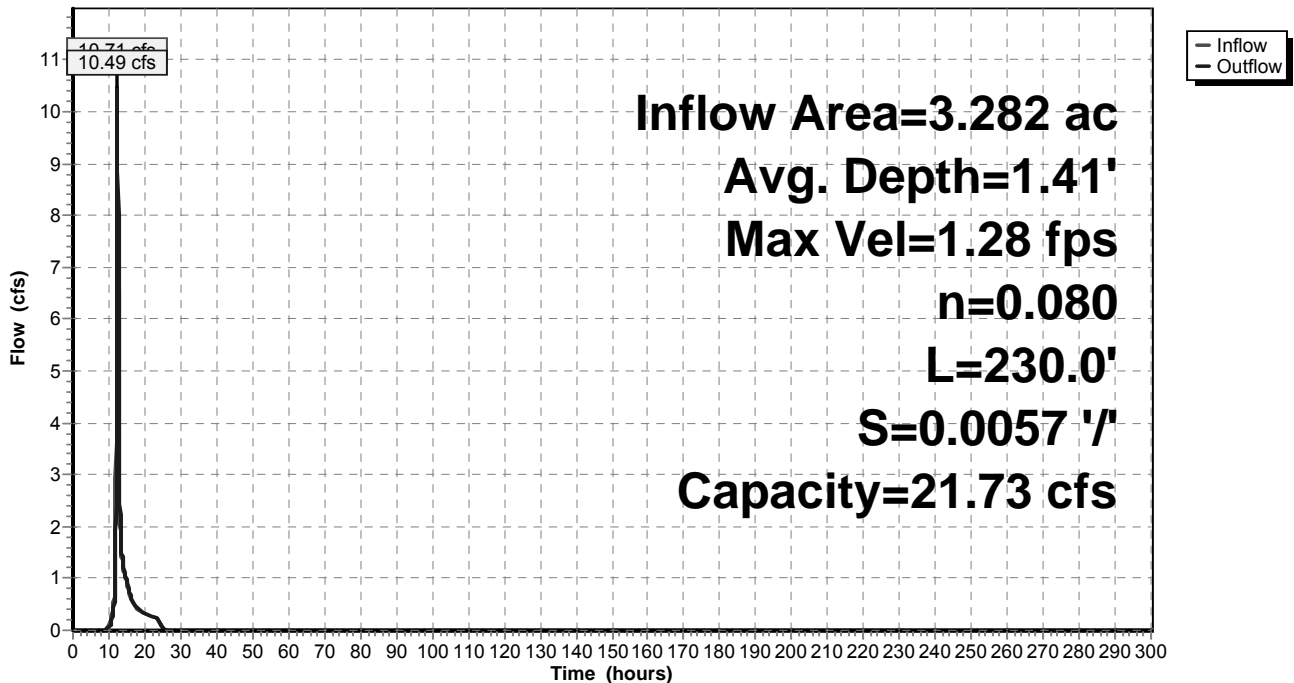
Peak Storage= 1,881 cf @ 12.32 hrs, Average Depth at Peak Storage= 1.41'
 Bank-Full Depth= 2.00', Capacity at Bank-Full= 21.73 cfs

3.00' x 2.00' deep channel, n= 0.080 Earth, long dense weeds
 Side Slope Z-value= 2.0 '/ Top Width= 11.00'
 Length= 230.0' Slope= 0.0057 '/
 Inlet Invert= 333.00', Outlet Invert= 331.70'



Reach A-2: Road Swale A-2

Hydrograph



Stage-Area-Storage for Reach A-2: Road Swale A-2

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
333.00	0.0	0	333.53	2.2	495
333.01	0.0	7	333.54	2.2	507
333.02	0.1	14	333.55	2.3	519
333.03	0.1	21	333.56	2.3	531
333.04	0.1	28	333.57	2.4	543
333.05	0.2	36	333.58	2.4	555
333.06	0.2	43	333.59	2.5	567
333.07	0.2	51	333.60	2.5	580
333.08	0.3	58	333.61	2.6	592
333.09	0.3	66	333.62	2.6	605
333.10	0.3	74	333.63	2.7	617
333.11	0.4	82	333.64	2.7	630
333.12	0.4	89	333.65	2.8	643
333.13	0.4	98	333.66	2.9	656
333.14	0.5	106	333.67	2.9	669
333.15	0.5	114	333.68	3.0	682
333.16	0.5	122	333.69	3.0	695
333.17	0.6	131	333.70	3.1	708
333.18	0.6	139	333.71	3.1	722
333.19	0.6	148	333.72	3.2	735
333.20	0.7	156	333.73	3.3	749
333.21	0.7	165	333.74	3.3	762
333.22	0.8	174	333.75	3.4	776
333.23	0.8	183	333.76	3.4	790
333.24	0.8	192	333.77	3.5	804
333.25	0.9	201	333.78	3.6	818
333.26	0.9	210	333.79	3.6	832
333.27	1.0	220	333.80	3.7	846
333.28	1.0	229	333.81	3.7	861
333.29	1.0	239	333.82	3.8	875
333.30	1.1	248	333.83	3.9	890
333.31	1.1	258	333.84	3.9	904
333.32	1.2	268	333.85	4.0	919
333.33	1.2	278	333.86	4.1	934
333.34	1.3	288	333.87	4.1	949
333.35	1.3	298	333.88	4.2	963
333.36	1.3	308	333.89	4.3	979
333.37	1.4	318	333.90	4.3	994
333.38	1.4	329	333.91	4.4	1,009
333.39	1.5	339	333.92	4.5	1,024
333.40	1.5	350	333.93	4.5	1,040
333.41	1.6	360	333.94	4.6	1,055
333.42	1.6	371	333.95	4.7	1,071
333.43	1.7	382	333.96	4.7	1,086
333.44	1.7	393	333.97	4.8	1,102
333.45	1.8	404	333.98	4.9	1,118
333.46	1.8	415	333.99	4.9	1,134
333.47	1.9	426	334.00	5.0	1,150
333.48	1.9	437	334.01	5.1	1,166
333.49	2.0	449	334.02	5.1	1,182
333.50	2.0	460	334.03	5.2	1,199
333.51	2.1	472	334.04	5.3	1,215
333.52	2.1	483	334.05	5.4	1,232

Stage-Area-Storage for Reach A-2: Road Swale A-2 (continued)

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
334.06	5.4	1,248	334.59	9.8	2,260
334.07	5.5	1,265	334.60	9.9	2,282
334.08	5.6	1,282	334.61	10.0	2,303
334.09	5.6	1,299	334.62	10.1	2,325
334.10	5.7	1,316	334.63	10.2	2,347
334.11	5.8	1,333	334.64	10.3	2,369
334.12	5.9	1,350	334.65	10.4	2,391
334.13	5.9	1,367	334.66	10.5	2,413
334.14	6.0	1,384	334.67	10.6	2,435
334.15	6.1	1,402	334.68	10.7	2,458
334.16	6.2	1,419	334.69	10.8	2,480
334.17	6.2	1,437	334.70	10.9	2,502
334.18	6.3	1,455	334.71	11.0	2,525
334.19	6.4	1,473	334.72	11.1	2,548
334.20	6.5	1,490	334.73	11.2	2,570
334.21	6.6	1,508	334.74	11.3	2,593
334.22	6.6	1,526	334.75	11.4	2,616
334.23	6.7	1,545	334.76	11.5	2,639
334.24	6.8	1,563	334.77	11.6	2,662
334.25	6.9	1,581	334.78	11.7	2,686
334.26	7.0	1,600	334.79	11.8	2,709
334.27	7.0	1,618	334.80	11.9	2,732
334.28	7.1	1,637	334.81	12.0	2,756
334.29	7.2	1,656	334.82	12.1	2,780
334.30	7.3	1,674	334.83	12.2	2,803
334.31	7.4	1,693	334.84	12.3	2,827
334.32	7.4	1,712	334.85	12.4	2,851
334.33	7.5	1,731	334.86	12.5	2,875
334.34	7.6	1,751	334.87	12.6	2,899
334.35	7.7	1,770	334.88	12.7	2,923
334.36	7.8	1,789	334.89	12.8	2,947
334.37	7.9	1,809	334.90	12.9	2,972
334.38	7.9	1,828	334.91	13.0	2,996
334.39	8.0	1,848	334.92	13.1	3,021
334.40	8.1	1,868	334.93	13.2	3,045
334.41	8.2	1,887	334.94	13.3	3,070
334.42	8.3	1,907	334.95	13.5	3,095
334.43	8.4	1,927	334.96	13.6	3,120
334.44	8.5	1,947	334.97	13.7	3,145
334.45	8.6	1,968	334.98	13.8	3,170
334.46	8.6	1,988	334.99	13.9	3,195
334.47	8.7	2,008	335.00	14.0	3,220
334.48	8.8	2,029			
334.49	8.9	2,049			
334.50	9.0	2,070			
334.51	9.1	2,091			
334.52	9.2	2,112			
334.53	9.3	2,133			
334.54	9.4	2,154			
334.55	9.5	2,175			
334.56	9.5	2,196			
334.57	9.6	2,217			
334.58	9.7	2,239			

Summary for Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

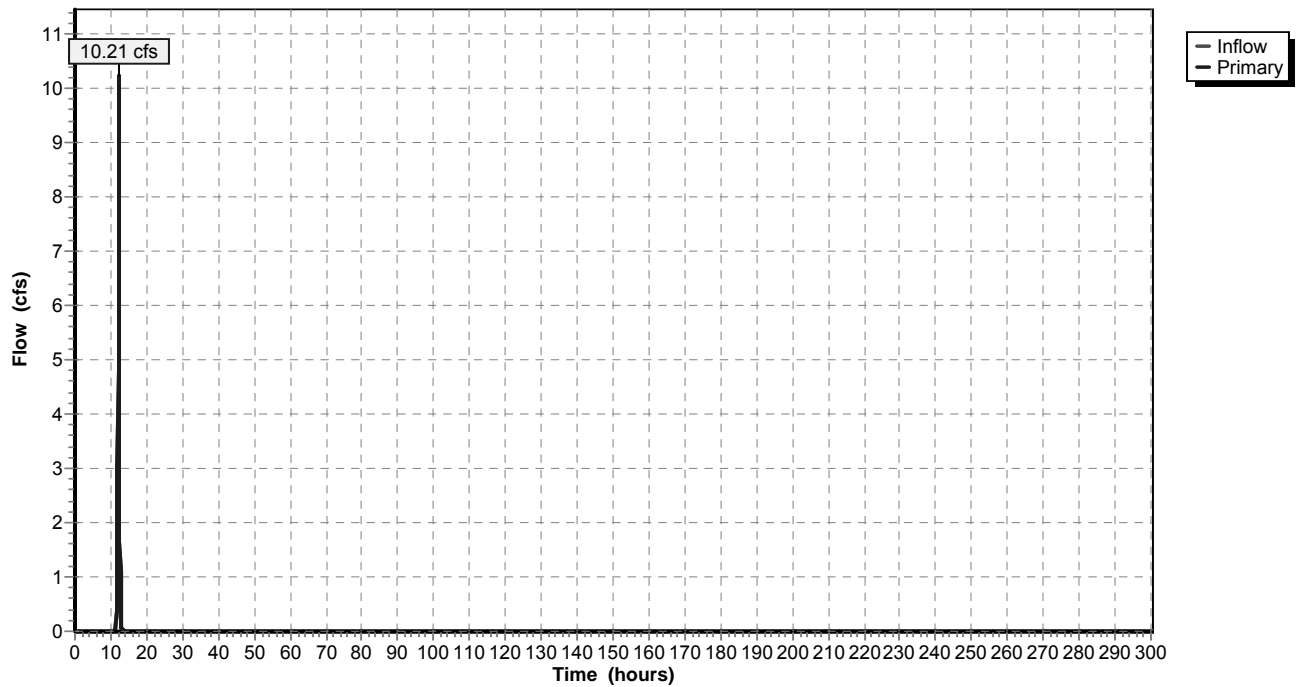
[40] Hint: Not Described (Outflow=Inflow)

Inflow = 10.21 cfs @ 12.11 hrs, Volume= 0.295 af
Primary = 10.21 cfs @ 12.11 hrs, Volume= 0.295 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DMH A3-A2-A1: DMH A3 -> DMH A2 -> DMH A1

Hydrograph



Summary for Pond DP 1A: Design Point 1A

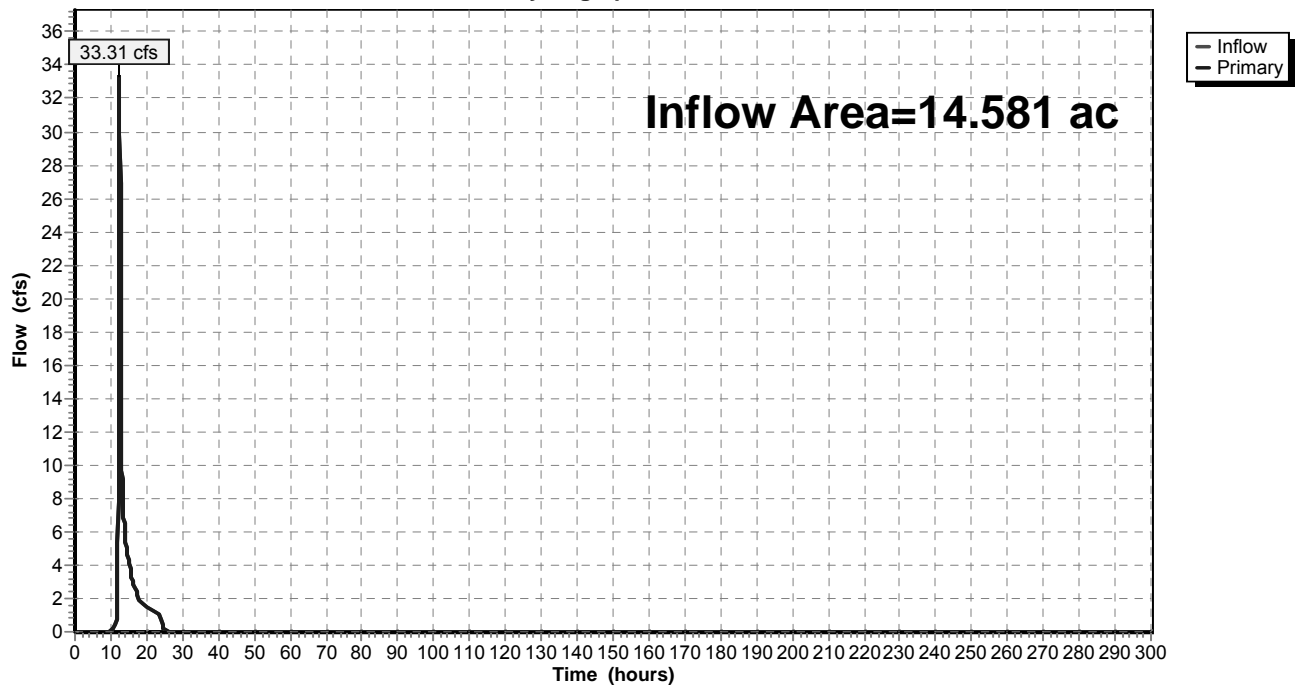
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 14.581 ac, 11.14% Impervious, Inflow Depth = 3.54" for 100 Year - North Salem event
Inflow = 33.31 cfs @ 12.40 hrs, Volume= 4.297 af
Primary = 33.31 cfs @ 12.40 hrs, Volume= 4.297 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 1A: Design Point 1A

Hydrograph



Summary for Pond ED-A4: Micropool ED Basin (Basin A4)

Inflow Area = 6.930 ac, 15.71% Impervious, Inflow Depth = 4.84" for 100 Year - North Salem event
 Inflow = 34.12 cfs @ 12.14 hrs, Volume= 2.796 af
 Outflow = 14.93 cfs @ 12.43 hrs, Volume= 1.858 af, Atten= 56%, Lag= 17.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 14.93 cfs @ 12.43 hrs, Volume= 1.858 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 363.00' Surf.Area= 5,223 sf Storage= 4,207 cf
 Peak Elev= 367.57' @ 12.43 hrs Surf.Area= 17,838 sf Storage= 54,571 cf (50,364 cf above start)

Plug-Flow detention time= 199.0 min calculated for 1.761 af (63% of inflow)
 Center-of-Mass det. time= 83.4 min (914.7 - 831.3)

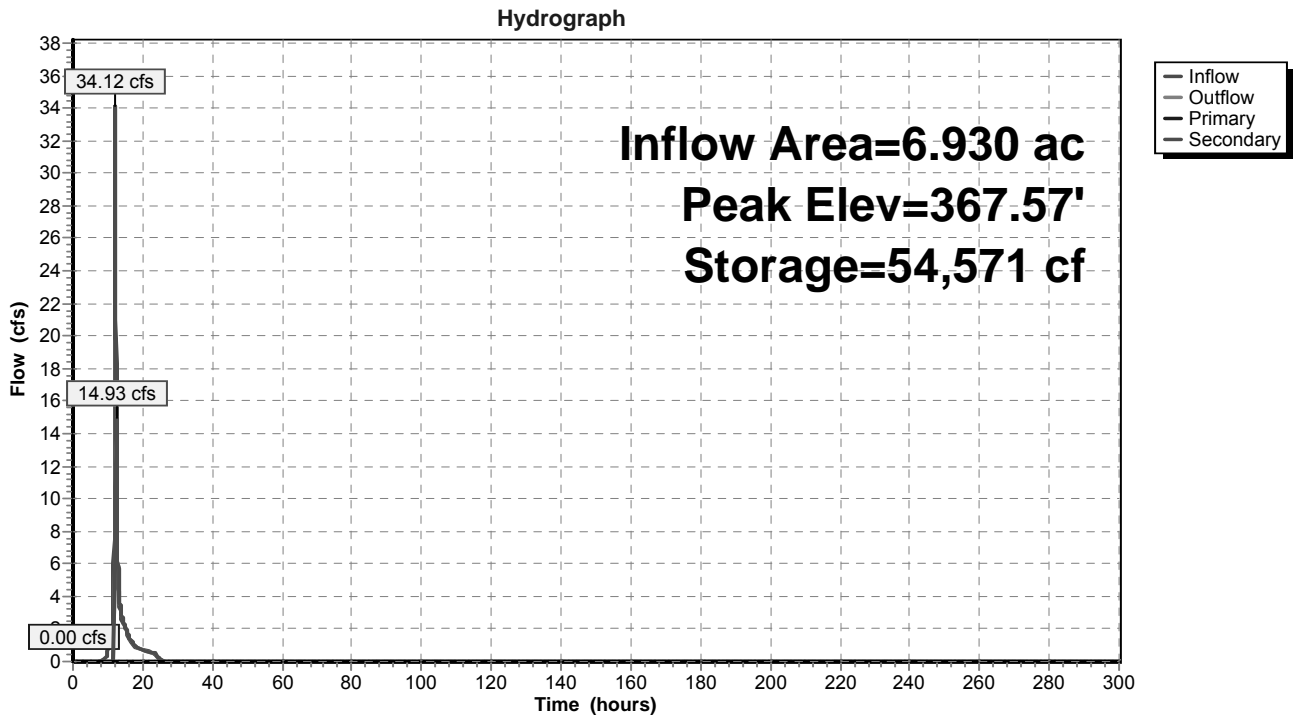
Volume	Invert	Avail.Storage	Storage Description		
#1	362.00'	62,612 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
362.00	3,267	495.0	0	0	3,267
364.00	7,635	765.0	10,598	10,598	30,369
366.00	12,860	854.0	20,269	30,867	41,949
367.00	15,544	850.0	14,181	45,048	42,959
368.00	19,665	871.0	17,564	62,612	45,961

Device	Routing	Invert	Outlet Devices
#1	Primary	358.00'	24.0" Round Outlet Pipe X 0.00 L= 75.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 356.00' S= 0.0267 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	363.00'	2.0" Round Reverse Pipe Inlet L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 361.25' S= -0.0875 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	364.47'	13.0" W x 9.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	366.00'	22.0" W x 12.0" H Vert. Orifice #2 X 2.00 C= 0.600
#5	Device 1	366.97'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	367.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=363.00' (Free Discharge)
 1=Outlet Pipe (Controls 0.00 cfs)
 2=Reverse Pipe Inlet (Controls 0.00 cfs)
 3=Orifice #1 (Controls 0.00 cfs)
 4=Orifice #2 (Controls 0.00 cfs)
 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=14.83 cfs @ 12.43 hrs HW=367.57' (Free Discharge)
 6=Emergency Overflow Weir (Weir Controls 14.83 cfs @ 2.64 fps)

Pond ED-A4: Micropool ED Basin (Basin A4)



Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
362.00	3,267	0	363.06	5,355	4,524
362.02	3,302	66	363.08	5,399	4,632
362.04	3,336	132	363.10	5,443	4,740
362.06	3,371	199	363.12	5,488	4,849
362.08	3,407	267	363.14	5,533	4,960
362.10	3,442	335	363.16	5,578	5,071
362.12	3,478	405	363.18	5,623	5,183
362.14	3,513	475	363.20	5,669	5,296
362.16	3,549	545	363.22	5,714	5,409
362.18	3,585	616	363.24	5,760	5,524
362.20	3,622	689	363.26	5,806	5,640
362.22	3,658	761	363.28	5,852	5,756
362.24	3,695	835	363.30	5,898	5,874
362.26	3,732	909	363.32	5,945	5,992
362.28	3,769	984	363.34	5,992	6,112
362.30	3,806	1,060	363.36	6,039	6,232
362.32	3,843	1,136	363.38	6,086	6,353
362.34	3,881	1,214	363.40	6,133	6,475
362.36	3,918	1,292	363.42	6,180	6,599
362.38	3,956	1,370	363.44	6,228	6,723
362.40	3,994	1,450	363.46	6,276	6,848
362.42	4,033	1,530	363.48	6,324	6,974
362.44	4,071	1,611	363.50	6,372	7,101
362.46	4,110	1,693	363.52	6,420	7,229
362.48	4,149	1,776	363.54	6,469	7,357
362.50	4,188	1,859	363.56	6,517	7,487
362.52	4,227	1,943	363.58	6,566	7,618
362.54	4,266	2,028	363.60	6,615	7,750
362.56	4,306	2,114	363.62	6,665	7,883
362.58	4,346	2,200	363.64	6,714	8,017
362.60	4,386	2,288	363.66	6,764	8,151
362.62	4,426	2,376	363.68	6,813	8,287
362.64	4,466	2,465	363.70	6,863	8,424
362.66	4,507	2,554	363.72	6,914	8,562
362.68	4,547	2,645	363.74	6,964	8,700
362.70	4,588	2,736	363.76	7,014	8,840
362.72	4,629	2,828	363.78	7,065	8,981
362.74	4,670	2,921	363.80	7,116	9,123
362.76	4,712	3,015	363.82	7,167	9,266
362.78	4,753	3,110	363.84	7,218	9,409
362.80	4,795	3,205	363.86	7,270	9,554
362.82	4,837	3,302	363.88	7,321	9,700
362.84	4,879	3,399	363.90	7,373	9,847
362.86	4,921	3,497	363.92	7,425	9,995
362.88	4,964	3,596	363.94	7,477	10,144
362.90	5,007	3,695	363.96	7,530	10,294
362.92	5,049	3,796	363.98	7,582	10,445
362.94	5,092	3,897	364.00	7,635	10,598
362.96	5,136	4,000	364.02	7,681	10,751
362.98	5,179	4,103	364.04	7,726	10,905
363.00	5,223	4,207	364.06	7,772	11,060
363.02	5,266	4,312	364.08	7,818	11,216
363.04	5,310	4,417	364.10	7,864	11,372

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
364.12	7,910	11,530	365.18	10,554	21,283
364.14	7,957	11,689	365.20	10,607	21,494
364.16	8,003	11,849	365.22	10,661	21,707
364.18	8,050	12,009	365.24	10,715	21,921
364.20	8,097	12,170	365.26	10,769	22,136
364.22	8,143	12,333	365.28	10,823	22,351
364.24	8,190	12,496	365.30	10,877	22,568
364.26	8,238	12,661	365.32	10,932	22,787
364.28	8,285	12,826	365.34	10,986	23,006
364.30	8,332	12,992	365.36	11,041	23,226
364.32	8,380	13,159	365.38	11,095	23,447
364.34	8,428	13,327	365.40	11,150	23,670
364.36	8,476	13,496	365.42	11,205	23,893
364.38	8,524	13,666	365.44	11,260	24,118
364.40	8,572	13,837	365.46	11,316	24,344
364.42	8,620	14,009	365.48	11,371	24,571
364.44	8,668	14,182	365.50	11,427	24,799
364.46	8,717	14,356	365.52	11,482	25,028
364.48	8,765	14,531	365.54	11,538	25,258
364.50	8,814	14,706	365.56	11,594	25,489
364.52	8,863	14,883	365.58	11,650	25,722
364.54	8,912	15,061	365.60	11,707	25,955
364.56	8,961	15,240	365.62	11,763	26,190
364.58	9,011	15,419	365.64	11,820	26,426
364.60	9,060	15,600	365.66	11,876	26,663
364.62	9,110	15,782	365.68	11,933	26,901
364.64	9,160	15,964	365.70	11,990	27,140
364.66	9,210	16,148	365.72	12,047	27,380
364.68	9,260	16,333	365.74	12,104	27,622
364.70	9,310	16,519	365.76	12,161	27,865
364.72	9,360	16,705	365.78	12,219	28,108
364.74	9,410	16,893	365.80	12,277	28,353
364.76	9,461	17,082	365.82	12,334	28,600
364.78	9,512	17,271	365.84	12,392	28,847
364.80	9,562	17,462	365.86	12,450	29,095
364.82	9,613	17,654	365.88	12,508	29,345
364.84	9,665	17,847	365.90	12,567	29,596
364.86	9,716	18,040	365.92	12,625	29,847
364.88	9,767	18,235	365.94	12,684	30,101
364.90	9,819	18,431	365.96	12,742	30,355
364.92	9,870	18,628	365.98	12,801	30,610
364.94	9,922	18,826	366.00	12,860	30,867
364.96	9,974	19,025	366.02	12,911	31,125
364.98	10,026	19,225	366.04	12,962	31,383
365.00	10,078	19,426	366.06	13,014	31,643
365.02	10,131	19,628	366.08	13,065	31,904
365.04	10,183	19,831	366.10	13,117	32,166
365.06	10,236	20,035	366.12	13,169	32,429
365.08	10,288	20,241	366.14	13,220	32,692
365.10	10,341	20,447	366.16	13,272	32,957
365.12	10,394	20,654	366.18	13,324	33,223
365.14	10,447	20,863	366.20	13,376	33,490
365.16	10,501	21,072	366.22	13,429	33,758

Stage-Area-Storage for Pond ED-A4: Micropool ED Basin (Basin A4) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
366.24	13,481	34,027	367.30	16,729	49,888
366.26	13,533	34,298	367.32	16,810	50,223
366.28	13,586	34,569	367.34	16,891	50,560
366.30	13,639	34,841	367.36	16,972	50,899
366.32	13,691	35,114	367.38	17,053	51,239
366.34	13,744	35,389	367.40	17,134	51,581
366.36	13,797	35,664	367.42	17,216	51,924
366.38	13,850	35,941	367.44	17,298	52,269
366.40	13,903	36,218	367.46	17,380	52,616
366.42	13,956	36,497	367.48	17,462	52,965
366.44	14,010	36,776	367.50	17,544	53,315
366.46	14,063	37,057	367.52	17,627	53,666
366.48	14,117	37,339	367.54	17,709	54,020
366.50	14,170	37,622	367.56	17,792	54,375
366.52	14,224	37,906	367.58	17,875	54,731
366.54	14,278	38,191	367.60	17,959	55,090
366.56	14,332	38,477	367.62	18,042	55,450
366.58	14,386	38,764	367.64	18,126	55,811
366.60	14,440	39,052	367.66	18,210	56,175
366.62	14,494	39,342	367.68	18,294	56,540
366.64	14,548	39,632	367.70	18,378	56,906
366.66	14,603	39,924	367.72	18,462	57,275
366.68	14,657	40,216	367.74	18,547	57,645
366.70	14,712	40,510	367.76	18,632	58,017
366.72	14,767	40,805	367.78	18,717	58,390
366.74	14,822	41,100	367.80	18,802	58,765
366.76	14,877	41,397	367.82	18,888	59,142
366.78	14,932	41,696	367.84	18,973	59,521
366.80	14,987	41,995	367.86	19,059	59,901
366.82	15,042	42,295	367.88	19,145	60,283
366.84	15,097	42,596	367.90	19,231	60,667
366.86	15,153	42,899	367.92	19,318	61,053
366.88	15,208	43,203	367.94	19,404	61,440
366.90	15,264	43,507	367.96	19,491	61,829
366.92	15,320	43,813	367.98	19,578	62,219
366.94	15,376	44,120	368.00	19,665	62,612
366.96	15,432	44,428			
366.98	15,488	44,737			
367.00	15,544	45,048			
367.02	15,622	45,359			
367.04	15,700	45,673			
367.06	15,778	45,987			
367.08	15,856	46,304			
367.10	15,934	46,622			
367.12	16,013	46,941			
367.14	16,092	47,262			
367.16	16,171	47,585			
367.18	16,250	47,909			
367.20	16,329	48,235			
367.22	16,409	48,562			
367.24	16,489	48,891			
367.26	16,569	49,222			
367.28	16,649	49,554			

Summary for Pond FS A3a: Flow Splitter A3a

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 4.72" for 100 Year - North Salem event
 Inflow = 3.79 cfs @ 12.10 hrs, Volume= 0.276 af
 Outflow = 3.79 cfs @ 12.10 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.47 cfs @ 12.10 hrs, Volume= 0.219 af
 Secondary = 2.32 cfs @ 12.10 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 340.26' @ 12.10 hrs
 Flood Elev= 358.26'

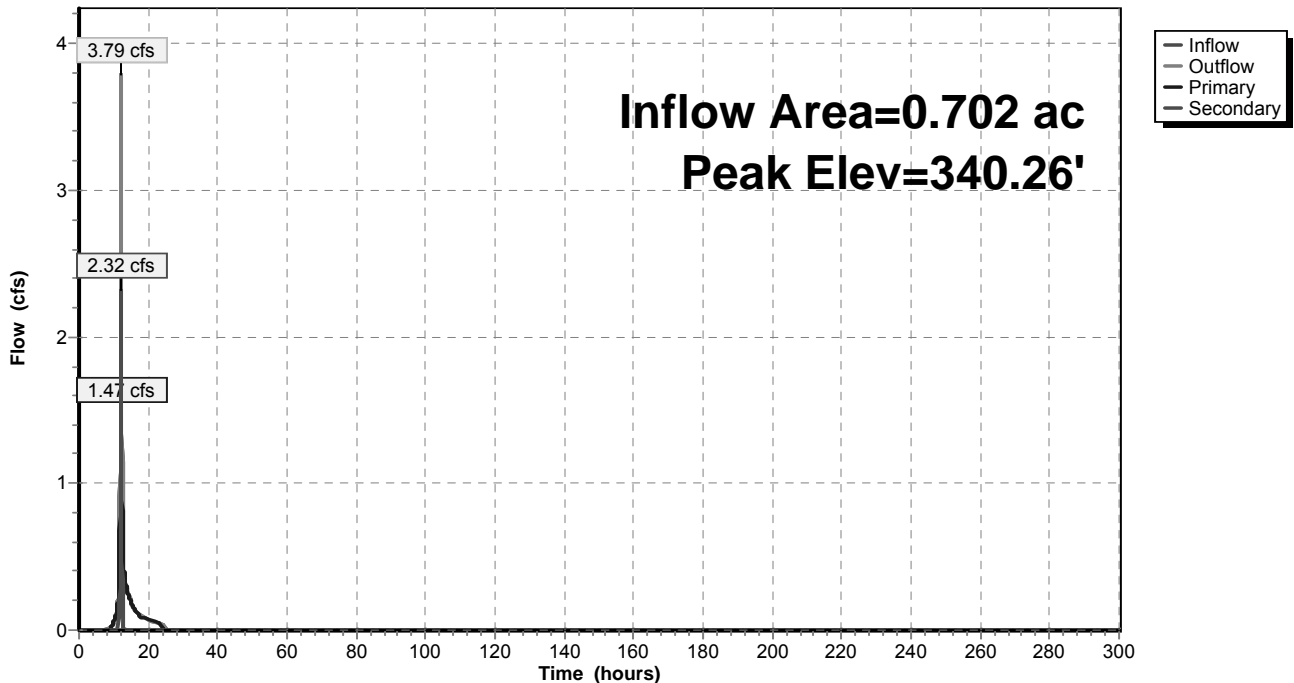
Device	Routing	Invert	Outlet Devices
#1	Primary	339.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 339.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	339.50'	15.0" Round Outlet to DP L= 156.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 333.00' S= 0.0417 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.46 cfs @ 12.10 hrs HW=340.25' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.46 cfs @ 4.19 fps)

Secondary OutFlow Max=2.27 cfs @ 12.10 hrs HW=340.25' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 2.27 cfs @ 2.95 fps)

Pond FS A3a: Flow Splitter A3a

Hydrograph



Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
339.16	0	341.28	0	343.40	0
339.20	0	341.32	0	343.44	0
339.24	0	341.36	0	343.48	0
339.28	0	341.40	0	343.52	0
339.32	0	341.44	0	343.56	0
339.36	0	341.48	0	343.60	0
339.40	0	341.52	0	343.64	0
339.44	0	341.56	0	343.68	0
339.48	0	341.60	0	343.72	0
339.52	0	341.64	0	343.76	0
339.56	0	341.68	0	343.80	0
339.60	0	341.72	0	343.84	0
339.64	0	341.76	0	343.88	0
339.68	0	341.80	0	343.92	0
339.72	0	341.84	0	343.96	0
339.76	0	341.88	0	344.00	0
339.80	0	341.92	0	344.04	0
339.84	0	341.96	0	344.08	0
339.88	0	342.00	0	344.12	0
339.92	0	342.04	0	344.16	0
339.96	0	342.08	0	344.20	0
340.00	0	342.12	0	344.24	0
340.04	0	342.16	0	344.28	0
340.08	0	342.20	0	344.32	0
340.12	0	342.24	0	344.36	0
340.16	0	342.28	0	344.40	0
340.20	0	342.32	0	344.44	0
340.24	0	342.36	0	344.48	0
340.28	0	342.40	0	344.52	0
340.32	0	342.44	0	344.56	0
340.36	0	342.48	0	344.60	0
340.40	0	342.52	0	344.64	0
340.44	0	342.56	0	344.68	0
340.48	0	342.60	0	344.72	0
340.52	0	342.64	0	344.76	0
340.56	0	342.68	0	344.80	0
340.60	0	342.72	0	344.84	0
340.64	0	342.76	0	344.88	0
340.68	0	342.80	0	344.92	0
340.72	0	342.84	0	344.96	0
340.76	0	342.88	0	345.00	0
340.80	0	342.92	0	345.04	0
340.84	0	342.96	0	345.08	0
340.88	0	343.00	0	345.12	0
340.92	0	343.04	0	345.16	0
340.96	0	343.08	0	345.20	0
341.00	0	343.12	0	345.24	0
341.04	0	343.16	0	345.28	0
341.08	0	343.20	0	345.32	0
341.12	0	343.24	0	345.36	0
341.16	0	343.28	0	345.40	0
341.20	0	343.32	0	345.44	0
341.24	0	343.36	0	345.48	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
345.52	0	347.64	0	349.76	0
345.56	0	347.68	0	349.80	0
345.60	0	347.72	0	349.84	0
345.64	0	347.76	0	349.88	0
345.68	0	347.80	0	349.92	0
345.72	0	347.84	0	349.96	0
345.76	0	347.88	0	350.00	0
345.80	0	347.92	0	350.04	0
345.84	0	347.96	0	350.08	0
345.88	0	348.00	0	350.12	0
345.92	0	348.04	0	350.16	0
345.96	0	348.08	0	350.20	0
346.00	0	348.12	0	350.24	0
346.04	0	348.16	0	350.28	0
346.08	0	348.20	0	350.32	0
346.12	0	348.24	0	350.36	0
346.16	0	348.28	0	350.40	0
346.20	0	348.32	0	350.44	0
346.24	0	348.36	0	350.48	0
346.28	0	348.40	0	350.52	0
346.32	0	348.44	0	350.56	0
346.36	0	348.48	0	350.60	0
346.40	0	348.52	0	350.64	0
346.44	0	348.56	0	350.68	0
346.48	0	348.60	0	350.72	0
346.52	0	348.64	0	350.76	0
346.56	0	348.68	0	350.80	0
346.60	0	348.72	0	350.84	0
346.64	0	348.76	0	350.88	0
346.68	0	348.80	0	350.92	0
346.72	0	348.84	0	350.96	0
346.76	0	348.88	0	351.00	0
346.80	0	348.92	0	351.04	0
346.84	0	348.96	0	351.08	0
346.88	0	349.00	0	351.12	0
346.92	0	349.04	0	351.16	0
346.96	0	349.08	0	351.20	0
347.00	0	349.12	0	351.24	0
347.04	0	349.16	0	351.28	0
347.08	0	349.20	0	351.32	0
347.12	0	349.24	0	351.36	0
347.16	0	349.28	0	351.40	0
347.20	0	349.32	0	351.44	0
347.24	0	349.36	0	351.48	0
347.28	0	349.40	0	351.52	0
347.32	0	349.44	0	351.56	0
347.36	0	349.48	0	351.60	0
347.40	0	349.52	0	351.64	0
347.44	0	349.56	0	351.68	0
347.48	0	349.60	0	351.72	0
347.52	0	349.64	0	351.76	0
347.56	0	349.68	0	351.80	0
347.60	0	349.72	0	351.84	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.88	0	354.00	0	356.12	0
351.92	0	354.04	0	356.16	0
351.96	0	354.08	0	356.20	0
352.00	0	354.12	0	356.24	0
352.04	0	354.16	0	356.28	0
352.08	0	354.20	0	356.32	0
352.12	0	354.24	0	356.36	0
352.16	0	354.28	0	356.40	0
352.20	0	354.32	0	356.44	0
352.24	0	354.36	0	356.48	0
352.28	0	354.40	0	356.52	0
352.32	0	354.44	0	356.56	0
352.36	0	354.48	0	356.60	0
352.40	0	354.52	0	356.64	0
352.44	0	354.56	0	356.68	0
352.48	0	354.60	0	356.72	0
352.52	0	354.64	0	356.76	0
352.56	0	354.68	0	356.80	0
352.60	0	354.72	0	356.84	0
352.64	0	354.76	0	356.88	0
352.68	0	354.80	0	356.92	0
352.72	0	354.84	0	356.96	0
352.76	0	354.88	0	357.00	0
352.80	0	354.92	0	357.04	0
352.84	0	354.96	0	357.08	0
352.88	0	355.00	0	357.12	0
352.92	0	355.04	0	357.16	0
352.96	0	355.08	0	357.20	0
353.00	0	355.12	0	357.24	0
353.04	0	355.16	0	357.28	0
353.08	0	355.20	0	357.32	0
353.12	0	355.24	0	357.36	0
353.16	0	355.28	0	357.40	0
353.20	0	355.32	0	357.44	0
353.24	0	355.36	0	357.48	0
353.28	0	355.40	0	357.52	0
353.32	0	355.44	0	357.56	0
353.36	0	355.48	0	357.60	0
353.40	0	355.52	0	357.64	0
353.44	0	355.56	0	357.68	0
353.48	0	355.60	0	357.72	0
353.52	0	355.64	0	357.76	0
353.56	0	355.68	0	357.80	0
353.60	0	355.72	0	357.84	0
353.64	0	355.76	0	357.88	0
353.68	0	355.80	0	357.92	0
353.72	0	355.84	0	357.96	0
353.76	0	355.88	0	358.00	0
353.80	0	355.92	0	358.04	0
353.84	0	355.96	0	358.08	0
353.88	0	356.00	0	358.12	0
353.92	0	356.04	0	358.16	0
353.96	0	356.08	0	358.20	0

Stage-Area-Storage for Pond FS A3a: Flow Splitter A3a (continued)

Elevation (feet)	Storage (cubic-feet)
358.24	0

Summary for Pond FS A3b: Flow Splitter A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 4.59" for 100 Year - North Salem event
 Inflow = 10.69 cfs @ 12.11 hrs, Volume= 0.805 af
 Outflow = 10.69 cfs @ 12.11 hrs, Volume= 0.805 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.77 cfs @ 12.11 hrs, Volume= 0.567 af
 Secondary = 7.91 cfs @ 12.11 hrs, Volume= 0.238 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 354.21' @ 12.11 hrs
 Flood Elev= 358.26'

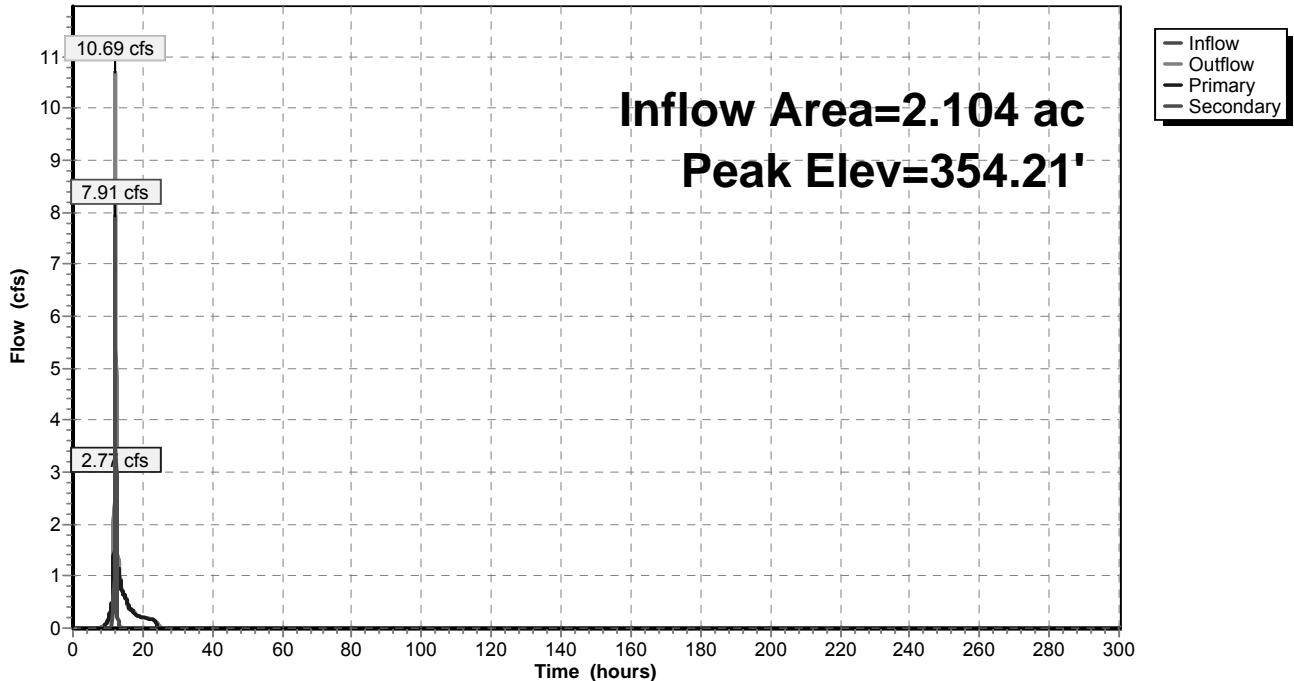
Device	Routing	Invert	Outlet Devices
#1	Primary	351.16'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 351.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	351.80'	15.0" Round Outlet to DP L= 178.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.33' S= 0.0869 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.74 cfs @ 12.11 hrs HW=354.14' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.74 cfs @ 7.84 fps)

Secondary OutFlow Max=7.74 cfs @ 12.11 hrs HW=354.14' (Free Discharge)
 ↳2=Outlet to DP (Inlet Controls 7.74 cfs @ 6.31 fps)

Pond FS A3b: Flow Splitter A3b

Hydrograph



Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
351.16	0	352.22	0	353.28	0
351.18	0	352.24	0	353.30	0
351.20	0	352.26	0	353.32	0
351.22	0	352.28	0	353.34	0
351.24	0	352.30	0	353.36	0
351.26	0	352.32	0	353.38	0
351.28	0	352.34	0	353.40	0
351.30	0	352.36	0	353.42	0
351.32	0	352.38	0	353.44	0
351.34	0	352.40	0	353.46	0
351.36	0	352.42	0	353.48	0
351.38	0	352.44	0	353.50	0
351.40	0	352.46	0	353.52	0
351.42	0	352.48	0	353.54	0
351.44	0	352.50	0	353.56	0
351.46	0	352.52	0	353.58	0
351.48	0	352.54	0	353.60	0
351.50	0	352.56	0	353.62	0
351.52	0	352.58	0	353.64	0
351.54	0	352.60	0	353.66	0
351.56	0	352.62	0	353.68	0
351.58	0	352.64	0	353.70	0
351.60	0	352.66	0	353.72	0
351.62	0	352.68	0	353.74	0
351.64	0	352.70	0	353.76	0
351.66	0	352.72	0	353.78	0
351.68	0	352.74	0	353.80	0
351.70	0	352.76	0	353.82	0
351.72	0	352.78	0	353.84	0
351.74	0	352.80	0	353.86	0
351.76	0	352.82	0	353.88	0
351.78	0	352.84	0	353.90	0
351.80	0	352.86	0	353.92	0
351.82	0	352.88	0	353.94	0
351.84	0	352.90	0	353.96	0
351.86	0	352.92	0	353.98	0
351.88	0	352.94	0	354.00	0
351.90	0	352.96	0	354.02	0
351.92	0	352.98	0	354.04	0
351.94	0	353.00	0	354.06	0
351.96	0	353.02	0	354.08	0
351.98	0	353.04	0	354.10	0
352.00	0	353.06	0	354.12	0
352.02	0	353.08	0	354.14	0
352.04	0	353.10	0	354.16	0
352.06	0	353.12	0	354.18	0
352.08	0	353.14	0	354.20	0
352.10	0	353.16	0	354.22	0
352.12	0	353.18	0	354.24	0
352.14	0	353.20	0	354.26	0
352.16	0	353.22	0	354.28	0
352.18	0	353.24	0	354.30	0
352.20	0	353.26	0	354.32	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
354.34	0	355.40	0	356.46	0
354.36	0	355.42	0	356.48	0
354.38	0	355.44	0	356.50	0
354.40	0	355.46	0	356.52	0
354.42	0	355.48	0	356.54	0
354.44	0	355.50	0	356.56	0
354.46	0	355.52	0	356.58	0
354.48	0	355.54	0	356.60	0
354.50	0	355.56	0	356.62	0
354.52	0	355.58	0	356.64	0
354.54	0	355.60	0	356.66	0
354.56	0	355.62	0	356.68	0
354.58	0	355.64	0	356.70	0
354.60	0	355.66	0	356.72	0
354.62	0	355.68	0	356.74	0
354.64	0	355.70	0	356.76	0
354.66	0	355.72	0	356.78	0
354.68	0	355.74	0	356.80	0
354.70	0	355.76	0	356.82	0
354.72	0	355.78	0	356.84	0
354.74	0	355.80	0	356.86	0
354.76	0	355.82	0	356.88	0
354.78	0	355.84	0	356.90	0
354.80	0	355.86	0	356.92	0
354.82	0	355.88	0	356.94	0
354.84	0	355.90	0	356.96	0
354.86	0	355.92	0	356.98	0
354.88	0	355.94	0	357.00	0
354.90	0	355.96	0	357.02	0
354.92	0	355.98	0	357.04	0
354.94	0	356.00	0	357.06	0
354.96	0	356.02	0	357.08	0
354.98	0	356.04	0	357.10	0
355.00	0	356.06	0	357.12	0
355.02	0	356.08	0	357.14	0
355.04	0	356.10	0	357.16	0
355.06	0	356.12	0	357.18	0
355.08	0	356.14	0	357.20	0
355.10	0	356.16	0	357.22	0
355.12	0	356.18	0	357.24	0
355.14	0	356.20	0	357.26	0
355.16	0	356.22	0	357.28	0
355.18	0	356.24	0	357.30	0
355.20	0	356.26	0	357.32	0
355.22	0	356.28	0	357.34	0
355.24	0	356.30	0	357.36	0
355.26	0	356.32	0	357.38	0
355.28	0	356.34	0	357.40	0
355.30	0	356.36	0	357.42	0
355.32	0	356.38	0	357.44	0
355.34	0	356.40	0	357.46	0
355.36	0	356.42	0	357.48	0
355.38	0	356.44	0	357.50	0

Stage-Area-Storage for Pond FS A3b: Flow Splitter A3b (continued)

Elevation (feet)	Storage (cubic-feet)
357.52	0
357.54	0
357.56	0
357.58	0
357.60	0
357.62	0
357.64	0
357.66	0
357.68	0
357.70	0
357.72	0
357.74	0
357.76	0
357.78	0
357.80	0
357.82	0
357.84	0
357.86	0
357.88	0
357.90	0
357.92	0
357.94	0
357.96	0
357.98	0
358.00	0
358.02	0
358.04	0
358.06	0
358.08	0
358.10	0
358.12	0
358.14	0
358.16	0
358.18	0
358.20	0
358.22	0
358.24	0
358.26	0

Summary for Pond SF-A3a: Sand Filter - A3a

[88] Warning: Qout>Qin may require Finer Routing>1
 [79] Warning: Submerged Pond SFF-A3a Primary device # 1 INLET by 0.23'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 3.48" for 100 Year - North Salem event
 Inflow = 1.47 cfs @ 12.11 hrs, Volume= 0.204 af
 Outflow = 1.49 cfs @ 12.16 hrs, Volume= 0.170 af, Atten= 0%, Lag= 3.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.49 cfs @ 12.16 hrs, Volume= 0.170 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 337.23' @ 12.16 hrs Surf.Area= 1,050 sf Storage= 1,618 cf

Plug-Flow detention time= 108.4 min calculated for 0.170 af (83% of inflow)
 Center-of-Mass det. time= 35.6 min (910.2 - 874.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	335.00'	2,531 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
335.00	432	111.0	0	0	432	
336.00	693	141.0	557	557	1,047	
338.00	1,313	168.0	1,973	2,531	1,779	

Device	Routing	Invert	Outlet Devices
#1	Primary	332.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 332.10' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	335.00'	1.750 in/hr Exfiltration over Surface area above 335.00' Excluded Surface area = 432 sf
#3	Device 1	336.85'	48.0" W x 48.0" H Vert. Top of Outlet Box C= 0.600
#4	Secondary	337.10'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

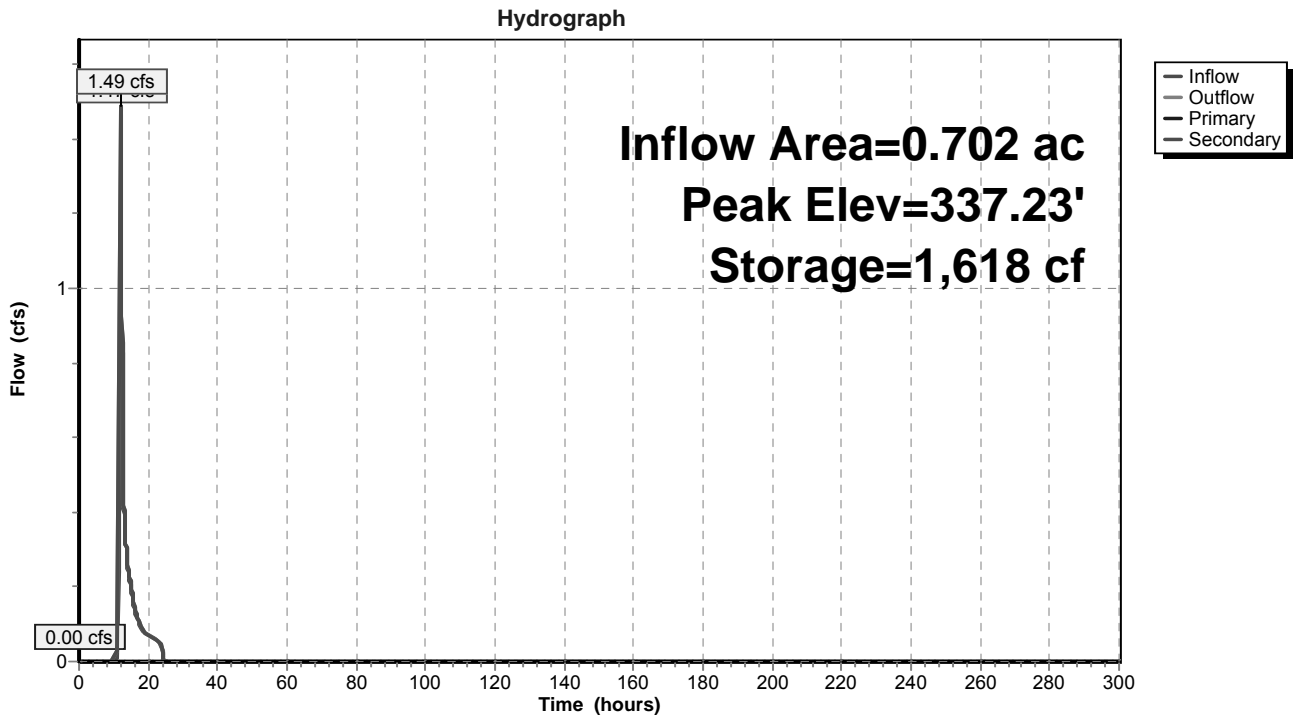
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=335.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.44 cfs @ 12.16 hrs HW=337.22' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 1.44 cfs @ 1.17 fps)

Pond SF-A3a: Sand Filter - A3a



Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
335.00	432	0	336.06	709	599
335.02	437	9	336.08	714	614
335.04	441	17	336.10	719	628
335.06	446	26	336.12	725	642
335.08	451	35	336.14	730	657
335.10	455	44	336.16	735	672
335.12	460	54	336.18	741	686
335.14	465	63	336.20	746	701
335.16	470	72	336.22	752	716
335.18	474	82	336.24	757	731
335.20	479	91	336.26	762	747
335.22	484	101	336.28	768	762
335.24	489	110	336.30	773	777
335.26	494	120	336.32	779	793
335.28	499	130	336.34	785	808
335.30	504	140	336.36	790	824
335.32	509	150	336.38	796	840
335.34	514	161	336.40	801	856
335.36	519	171	336.42	807	872
335.38	524	181	336.44	813	888
335.40	529	192	336.46	818	905
335.42	534	203	336.48	824	921
335.44	539	213	336.50	830	938
335.46	544	224	336.52	835	954
335.48	550	235	336.54	841	971
335.50	555	246	336.56	847	988
335.52	560	257	336.58	853	1,005
335.54	565	268	336.60	858	1,022
335.56	571	280	336.62	864	1,039
335.58	576	291	336.64	870	1,056
335.60	581	303	336.66	876	1,074
335.62	587	315	336.68	882	1,092
335.64	592	326	336.70	888	1,109
335.66	597	338	336.72	894	1,127
335.68	603	350	336.74	900	1,145
335.70	608	362	336.76	905	1,163
335.72	614	375	336.78	911	1,181
335.74	619	387	336.80	917	1,199
335.76	625	399	336.82	923	1,218
335.78	630	412	336.84	929	1,236
335.80	636	425	336.86	936	1,255
335.82	641	437	336.88	942	1,274
335.84	647	450	336.90	948	1,293
335.86	653	463	336.92	954	1,312
335.88	658	476	336.94	960	1,331
335.90	664	490	336.96	966	1,350
335.92	670	503	336.98	972	1,370
335.94	676	516	337.00	978	1,389
335.96	681	530	337.02	985	1,409
335.98	687	544	337.04	991	1,428
336.00	693	557	337.06	997	1,448
336.02	698	571	337.08	1,003	1,468
336.04	703	585	337.10	1,010	1,488

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.12	1,016	1,509	338.18	1,313	2,531
337.14	1,022	1,529	338.20	1,313	2,531
337.16	1,029	1,550	338.22	1,313	2,531
337.18	1,035	1,570	338.24	1,313	2,531
337.20	1,041	1,591	338.26	1,313	2,531
337.22	1,048	1,612	338.28	1,313	2,531
337.24	1,054	1,633	338.30	1,313	2,531
337.26	1,061	1,654	338.32	1,313	2,531
337.28	1,067	1,675	338.34	1,313	2,531
337.30	1,074	1,697	338.36	1,313	2,531
337.32	1,080	1,718	338.38	1,313	2,531
337.34	1,087	1,740	338.40	1,313	2,531
337.36	1,093	1,762	338.42	1,313	2,531
337.38	1,100	1,784	338.44	1,313	2,531
337.40	1,106	1,806	338.46	1,313	2,531
337.42	1,113	1,828	338.48	1,313	2,531
337.44	1,120	1,850	338.50	1,313	2,531
337.46	1,126	1,873	338.52	1,313	2,531
337.48	1,133	1,895	338.54	1,313	2,531
337.50	1,140	1,918	338.56	1,313	2,531
337.52	1,146	1,941	338.58	1,313	2,531
337.54	1,153	1,964	338.60	1,313	2,531
337.56	1,160	1,987	338.62	1,313	2,531
337.58	1,167	2,010	338.64	1,313	2,531
337.60	1,173	2,034	338.66	1,313	2,531
337.62	1,180	2,057	338.68	1,313	2,531
337.64	1,187	2,081	338.70	1,313	2,531
337.66	1,194	2,105	338.72	1,313	2,531
337.68	1,201	2,129	338.74	1,313	2,531
337.70	1,207	2,153	338.76	1,313	2,531
337.72	1,214	2,177	338.78	1,313	2,531
337.74	1,221	2,201	338.80	1,313	2,531
337.76	1,228	2,226	338.82	1,313	2,531
337.78	1,235	2,250	338.84	1,313	2,531
337.80	1,242	2,275	338.86	1,313	2,531
337.82	1,249	2,300	338.88	1,313	2,531
337.84	1,256	2,325	338.90	1,313	2,531
337.86	1,263	2,350	338.92	1,313	2,531
337.88	1,270	2,376	338.94	1,313	2,531
337.90	1,277	2,401	338.96	1,313	2,531
337.92	1,284	2,427	338.98	1,313	2,531
337.94	1,292	2,453	339.00	1,313	2,531
337.96	1,299	2,478	339.02	1,313	2,531
337.98	1,306	2,504	339.04	1,313	2,531
338.00	1,313	2,531	339.06	1,313	2,531
338.02	1,313	2,531	339.08	1,313	2,531
338.04	1,313	2,531	339.10	1,313	2,531
338.06	1,313	2,531	339.12	1,313	2,531
338.08	1,313	2,531	339.14	1,313	2,531
338.10	1,313	2,531	339.16	1,313	2,531
338.12	1,313	2,531	339.18	1,313	2,531
338.14	1,313	2,531	339.20	1,313	2,531
338.16	1,313	2,531	339.22	1,313	2,531

Stage-Area-Storage for Pond SF-A3a: Sand Filter - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.24	1,313	2,531	340.30	1,313	2,531
339.26	1,313	2,531	340.32	1,313	2,531
339.28	1,313	2,531	340.34	1,313	2,531
339.30	1,313	2,531	340.36	1,313	2,531
339.32	1,313	2,531	340.38	1,313	2,531
339.34	1,313	2,531	340.40	1,313	2,531
339.36	1,313	2,531	340.42	1,313	2,531
339.38	1,313	2,531	340.44	1,313	2,531
339.40	1,313	2,531	340.46	1,313	2,531
339.42	1,313	2,531	340.48	1,313	2,531
339.44	1,313	2,531	340.50	1,313	2,531
339.46	1,313	2,531	340.52	1,313	2,531
339.48	1,313	2,531	340.54	1,313	2,531
339.50	1,313	2,531	340.56	1,313	2,531
339.52	1,313	2,531	340.58	1,313	2,531
339.54	1,313	2,531	340.60	1,313	2,531
339.56	1,313	2,531	340.62	1,313	2,531
339.58	1,313	2,531	340.64	1,313	2,531
339.60	1,313	2,531	340.66	1,313	2,531
339.62	1,313	2,531	340.68	1,313	2,531
339.64	1,313	2,531	340.70	1,313	2,531
339.66	1,313	2,531	340.72	1,313	2,531
339.68	1,313	2,531	340.74	1,313	2,531
339.70	1,313	2,531	340.76	1,313	2,531
339.72	1,313	2,531	340.78	1,313	2,531
339.74	1,313	2,531	340.80	1,313	2,531
339.76	1,313	2,531	340.82	1,313	2,531
339.78	1,313	2,531	340.84	1,313	2,531
339.80	1,313	2,531			
339.82	1,313	2,531			
339.84	1,313	2,531			
339.86	1,313	2,531			
339.88	1,313	2,531			
339.90	1,313	2,531			
339.92	1,313	2,531			
339.94	1,313	2,531			
339.96	1,313	2,531			
339.98	1,313	2,531			
340.00	1,313	2,531			
340.02	1,313	2,531			
340.04	1,313	2,531			
340.06	1,313	2,531			
340.08	1,313	2,531			
340.10	1,313	2,531			
340.12	1,313	2,531			
340.14	1,313	2,531			
340.16	1,313	2,531			
340.18	1,313	2,531			
340.20	1,313	2,531			
340.22	1,313	2,531			
340.24	1,313	2,531			
340.26	1,313	2,531			
340.28	1,313	2,531			

Summary for Pond SF-A3b: Sand Filter - A3b

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 2.70" for 100 Year - North Salem event
 Inflow = 2.66 cfs @ 12.15 hrs, Volume= 0.473 af
 Outflow = 1.16 cfs @ 12.96 hrs, Volume= 0.351 af, Atten= 56%, Lag= 48.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.16 cfs @ 12.96 hrs, Volume= 0.351 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 345.11' @ 12.96 hrs Surf.Area= 2,318 sf Storage= 5,550 cf

Plug-Flow detention time= 167.5 min calculated for 0.351 af (74% of inflow)
 Center-of-Mass det. time= 67.9 min (989.6 - 921.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	342.00'	7,770 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
342.00	1,296	145.0	0	0	1,296
343.00	1,599	157.0	1,445	1,445	1,622
344.00	1,926	170.0	1,760	3,205	1,997
345.00	2,279	182.0	2,100	5,305	2,377
346.00	2,657	195.0	2,466	7,770	2,810

Device	Routing	Invert	Outlet Devices
#1	Primary	339.50'	12.0" Round Outlet Pipe X 0.00 L= 80.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 338.70' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	342.00'	1.750 in/hr Exfiltration over Surface area above 342.00' Excluded Surface area = 1,296 sf
#3	Device 1	344.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	344.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	345.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

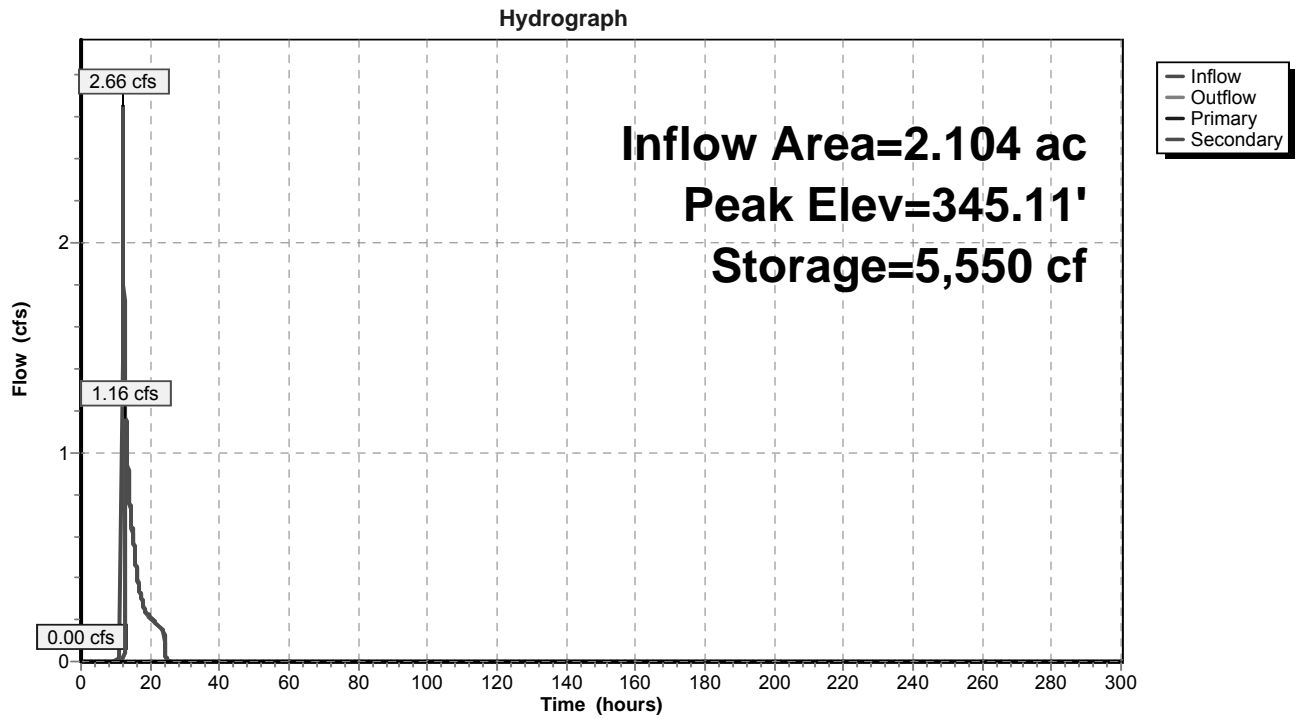
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=342.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.15 cfs @ 12.96 hrs HW=345.11' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.15 cfs @ 1.08 fps)

Pond SF-A3b: Sand Filter - A3b



Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
342.00	1,296	0	342.53	1,453	728
342.01	1,299	13	342.54	1,456	743
342.02	1,302	26	342.55	1,459	757
342.03	1,305	39	342.56	1,462	772
342.04	1,308	52	342.57	1,465	786
342.05	1,310	65	342.58	1,468	801
342.06	1,313	78	342.59	1,471	816
342.07	1,316	91	342.60	1,474	830
342.08	1,319	105	342.61	1,477	845
342.09	1,322	118	342.62	1,480	860
342.10	1,325	131	342.63	1,483	875
342.11	1,328	144	342.64	1,486	890
342.12	1,331	158	342.65	1,489	905
342.13	1,334	171	342.66	1,492	919
342.14	1,337	184	342.67	1,495	934
342.15	1,339	198	342.68	1,499	949
342.16	1,342	211	342.69	1,502	964
342.17	1,345	224	342.70	1,505	979
342.18	1,348	238	342.71	1,508	994
342.19	1,351	251	342.72	1,511	1,010
342.20	1,354	265	342.73	1,514	1,025
342.21	1,357	279	342.74	1,517	1,040
342.22	1,360	292	342.75	1,520	1,055
342.23	1,363	306	342.76	1,523	1,070
342.24	1,366	319	342.77	1,526	1,085
342.25	1,369	333	342.78	1,530	1,101
342.26	1,372	347	342.79	1,533	1,116
342.27	1,375	360	342.80	1,536	1,131
342.28	1,378	374	342.81	1,539	1,147
342.29	1,381	388	342.82	1,542	1,162
342.30	1,384	402	342.83	1,545	1,178
342.31	1,387	416	342.84	1,548	1,193
342.32	1,390	430	342.85	1,552	1,209
342.33	1,392	444	342.86	1,555	1,224
342.34	1,395	457	342.87	1,558	1,240
342.35	1,398	471	342.88	1,561	1,255
342.36	1,401	485	342.89	1,564	1,271
342.37	1,404	499	342.90	1,567	1,287
342.38	1,407	513	342.91	1,570	1,302
342.39	1,410	528	342.92	1,574	1,318
342.40	1,413	542	342.93	1,577	1,334
342.41	1,416	556	342.94	1,580	1,349
342.42	1,419	570	342.95	1,583	1,365
342.43	1,422	584	342.96	1,586	1,381
342.44	1,425	598	342.97	1,589	1,397
342.45	1,428	613	342.98	1,593	1,413
342.46	1,431	627	342.99	1,596	1,429
342.47	1,434	641	343.00	1,599	1,445
342.48	1,437	656	343.01	1,602	1,461
342.49	1,440	670	343.02	1,605	1,477
342.50	1,444	685	343.03	1,608	1,493
342.51	1,447	699	343.04	1,611	1,509
342.52	1,450	713	343.05	1,615	1,525

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
343.06	1,618	1,541	343.59	1,788	2,444
343.07	1,621	1,558	343.60	1,792	2,461
343.08	1,624	1,574	343.61	1,795	2,479
343.09	1,627	1,590	343.62	1,798	2,497
343.10	1,630	1,606	343.63	1,801	2,515
343.11	1,633	1,623	343.64	1,805	2,533
343.12	1,637	1,639	343.65	1,808	2,551
343.13	1,640	1,655	343.66	1,811	2,570
343.14	1,643	1,672	343.67	1,815	2,588
343.15	1,646	1,688	343.68	1,818	2,606
343.16	1,649	1,705	343.69	1,821	2,624
343.17	1,652	1,721	343.70	1,825	2,642
343.18	1,656	1,738	343.71	1,828	2,661
343.19	1,659	1,754	343.72	1,831	2,679
343.20	1,662	1,771	343.73	1,835	2,697
343.21	1,665	1,788	343.74	1,838	2,716
343.22	1,668	1,804	343.75	1,841	2,734
343.23	1,672	1,821	343.76	1,845	2,752
343.24	1,675	1,838	343.77	1,848	2,771
343.25	1,678	1,854	343.78	1,851	2,789
343.26	1,681	1,871	343.79	1,855	2,808
343.27	1,684	1,888	343.80	1,858	2,826
343.28	1,687	1,905	343.81	1,862	2,845
343.29	1,691	1,922	343.82	1,865	2,864
343.30	1,694	1,939	343.83	1,868	2,882
343.31	1,697	1,956	343.84	1,872	2,901
343.32	1,700	1,973	343.85	1,875	2,920
343.33	1,704	1,990	343.86	1,878	2,939
343.34	1,707	2,007	343.87	1,882	2,957
343.35	1,710	2,024	343.88	1,885	2,976
343.36	1,713	2,041	343.89	1,889	2,995
343.37	1,716	2,058	343.90	1,892	3,014
343.38	1,720	2,075	343.91	1,895	3,033
343.39	1,723	2,092	343.92	1,899	3,052
343.40	1,726	2,110	343.93	1,902	3,071
343.41	1,729	2,127	343.94	1,906	3,090
343.42	1,733	2,144	343.95	1,909	3,109
343.43	1,736	2,162	343.96	1,912	3,128
343.44	1,739	2,179	343.97	1,916	3,147
343.45	1,742	2,196	343.98	1,919	3,166
343.46	1,746	2,214	343.99	1,923	3,186
343.47	1,749	2,231	344.00	1,926	3,205
343.48	1,752	2,249	344.01	1,929	3,224
343.49	1,755	2,266	344.02	1,933	3,243
343.50	1,759	2,284	344.03	1,936	3,263
343.51	1,762	2,302	344.04	1,940	3,282
343.52	1,765	2,319	344.05	1,943	3,302
343.53	1,769	2,337	344.06	1,946	3,321
343.54	1,772	2,355	344.07	1,950	3,340
343.55	1,775	2,372	344.08	1,953	3,360
343.56	1,778	2,390	344.09	1,957	3,380
343.57	1,782	2,408	344.10	1,960	3,399
343.58	1,785	2,426	344.11	1,963	3,419

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
344.12	1,967	3,438	344.65	2,152	4,530
344.13	1,970	3,458	344.66	2,156	4,551
344.14	1,974	3,478	344.67	2,159	4,573
344.15	1,977	3,498	344.68	2,163	4,594
344.16	1,980	3,517	344.69	2,166	4,616
344.17	1,984	3,537	344.70	2,170	4,638
344.18	1,987	3,557	344.71	2,174	4,659
344.19	1,991	3,577	344.72	2,177	4,681
344.20	1,994	3,597	344.73	2,181	4,703
344.21	1,998	3,617	344.74	2,184	4,725
344.22	2,001	3,637	344.75	2,188	4,747
344.23	2,005	3,657	344.76	2,192	4,768
344.24	2,008	3,677	344.77	2,195	4,790
344.25	2,011	3,697	344.78	2,199	4,812
344.26	2,015	3,717	344.79	2,202	4,834
344.27	2,018	3,737	344.80	2,206	4,856
344.28	2,022	3,757	344.81	2,210	4,878
344.29	2,025	3,778	344.82	2,213	4,901
344.30	2,029	3,798	344.83	2,217	4,923
344.31	2,032	3,818	344.84	2,221	4,945
344.32	2,036	3,839	344.85	2,224	4,967
344.33	2,039	3,859	344.86	2,228	4,989
344.34	2,043	3,879	344.87	2,231	5,012
344.35	2,046	3,900	344.88	2,235	5,034
344.36	2,050	3,920	344.89	2,239	5,056
344.37	2,053	3,941	344.90	2,242	5,079
344.38	2,057	3,961	344.91	2,246	5,101
344.39	2,060	3,982	344.92	2,250	5,124
344.40	2,064	4,003	344.93	2,253	5,146
344.41	2,067	4,023	344.94	2,257	5,169
344.42	2,071	4,044	344.95	2,261	5,191
344.43	2,074	4,065	344.96	2,264	5,214
344.44	2,078	4,085	344.97	2,268	5,237
344.45	2,081	4,106	344.98	2,272	5,259
344.46	2,085	4,127	344.99	2,275	5,282
344.47	2,088	4,148	345.00	2,279	5,305
344.48	2,092	4,169	345.01	2,283	5,328
344.49	2,095	4,190	345.02	2,286	5,350
344.50	2,099	4,211	345.03	2,290	5,373
344.51	2,102	4,232	345.04	2,294	5,396
344.52	2,106	4,253	345.05	2,297	5,419
344.53	2,109	4,274	345.06	2,301	5,442
344.54	2,113	4,295	345.07	2,305	5,465
344.55	2,116	4,316	345.08	2,308	5,488
344.56	2,120	4,337	345.09	2,312	5,511
344.57	2,124	4,358	345.10	2,315	5,535
344.58	2,127	4,380	345.11	2,319	5,558
344.59	2,131	4,401	345.12	2,323	5,581
344.60	2,134	4,422	345.13	2,327	5,604
344.61	2,138	4,444	345.14	2,330	5,627
344.62	2,141	4,465	345.15	2,334	5,651
344.63	2,145	4,487	345.16	2,338	5,674
344.64	2,149	4,508	345.17	2,341	5,698

Stage-Area-Storage for Pond SF-A3b: Sand Filter - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
345.18	2,345	5,721	345.71	2,544	7,016
345.19	2,349	5,744	345.72	2,548	7,042
345.20	2,352	5,768	345.73	2,552	7,067
345.21	2,356	5,791	345.74	2,556	7,093
345.22	2,360	5,815	345.75	2,560	7,118
345.23	2,363	5,839	345.76	2,564	7,144
345.24	2,367	5,862	345.77	2,567	7,170
345.25	2,371	5,886	345.78	2,571	7,195
345.26	2,374	5,910	345.79	2,575	7,221
345.27	2,378	5,934	345.80	2,579	7,247
345.28	2,382	5,957	345.81	2,583	7,273
345.29	2,386	5,981	345.82	2,587	7,298
345.30	2,389	6,005	345.83	2,591	7,324
345.31	2,393	6,029	345.84	2,595	7,350
345.32	2,397	6,053	345.85	2,598	7,376
345.33	2,401	6,077	345.86	2,602	7,402
345.34	2,404	6,101	345.87	2,606	7,428
345.35	2,408	6,125	345.88	2,610	7,454
345.36	2,412	6,149	345.89	2,614	7,481
345.37	2,415	6,173	345.90	2,618	7,507
345.38	2,419	6,197	345.91	2,622	7,533
345.39	2,423	6,222	345.92	2,626	7,559
345.40	2,427	6,246	345.93	2,630	7,585
345.41	2,430	6,270	345.94	2,634	7,612
345.42	2,434	6,294	345.95	2,637	7,638
345.43	2,438	6,319	345.96	2,641	7,664
345.44	2,442	6,343	345.97	2,645	7,691
345.45	2,446	6,368	345.98	2,649	7,717
345.46	2,449	6,392	345.99	2,653	7,744
345.47	2,453	6,417	346.00	2,657	7,770
345.48	2,457	6,441			
345.49	2,461	6,466			
345.50	2,464	6,490			
345.51	2,468	6,515			
345.52	2,472	6,540			
345.53	2,476	6,564			
345.54	2,480	6,589			
345.55	2,483	6,614			
345.56	2,487	6,639			
345.57	2,491	6,664			
345.58	2,495	6,689			
345.59	2,499	6,714			
345.60	2,502	6,739			
345.61	2,506	6,764			
345.62	2,510	6,789			
345.63	2,514	6,814			
345.64	2,518	6,839			
345.65	2,521	6,864			
345.66	2,525	6,890			
345.67	2,529	6,915			
345.68	2,533	6,940			
345.69	2,537	6,965			
345.70	2,541	6,991			

Summary for Pond SFF-A3a: Sand Filter Forebay - A3a

[79] Warning: Submerged Pond FS A3a Primary device # 1 OUTLET by 0.14'

Inflow Area = 0.702 ac, 12.82% Impervious, Inflow Depth = 3.75" for 100 Year - North Salem event
 Inflow = 1.47 cfs @ 12.10 hrs, Volume= 0.219 af
 Outflow = 1.47 cfs @ 12.11 hrs, Volume= 0.204 af, Atten= 0%, Lag= 0.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.47 cfs @ 12.11 hrs, Volume= 0.204 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 339.14' @ 12.11 hrs Surf.Area= 514 sf Storage= 747 cf

Plug-Flow detention time= 55.1 min calculated for 0.204 af (93% of inflow)
 Center-of-Mass det. time= 18.5 min (874.6 - 856.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	337.00'	1,253 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
337.00	200	57.0	0	0	200
338.00	336	71.0	265	265	356
339.00	490	83.0	411	676	522
340.00	670	96.0	578	1,253	728

Device	Routing	Invert	Outlet Devices
#1	Primary	337.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 336.90' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	337.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	338.75'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	338.75'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	339.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

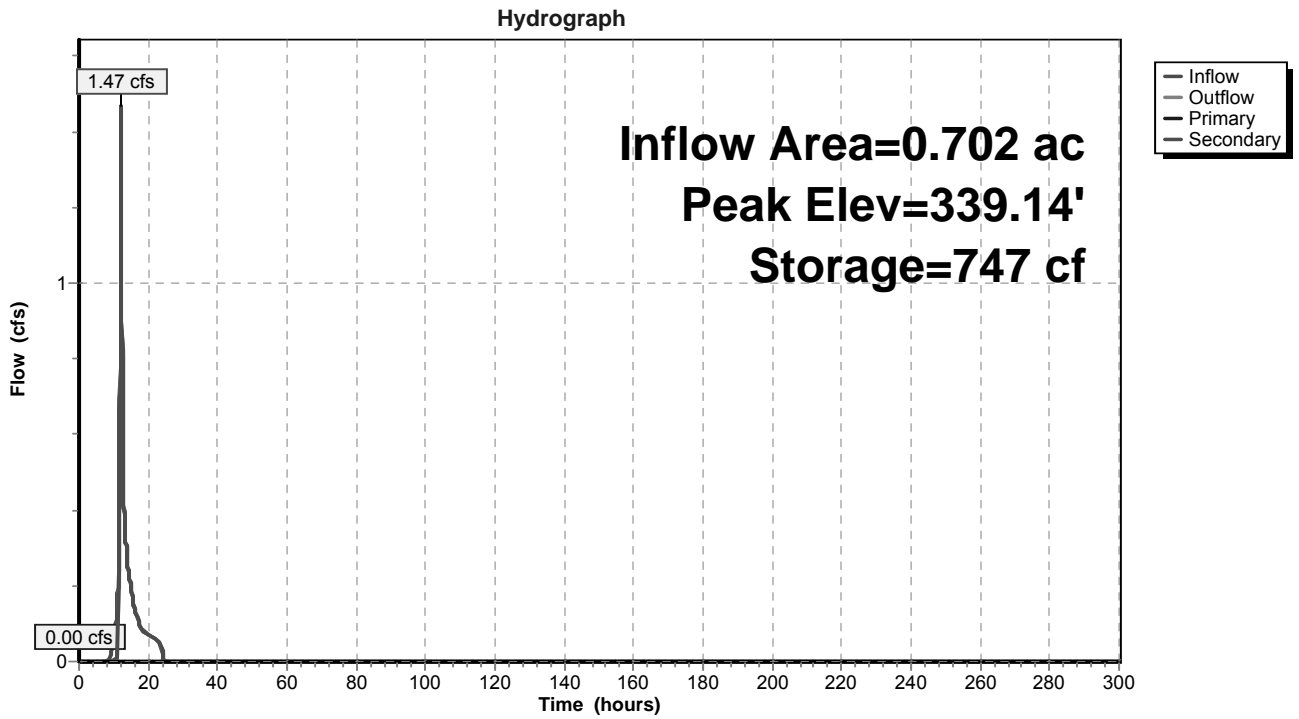
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=337.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.45 cfs @ 12.11 hrs HW=339.14' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 1.45 cfs @ 1.28 fps)

Pond SFF-A3a: Sand Filter Forebay - A3a



Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
337.00	200	0	337.53	268	124
337.01	201	2	337.54	269	126
337.02	202	4	337.55	270	129
337.03	204	6	337.56	272	132
337.04	205	8	337.57	273	134
337.05	206	10	337.58	275	137
337.06	207	12	337.59	276	140
337.07	208	14	337.60	277	143
337.08	210	16	337.61	279	145
337.09	211	18	337.62	280	148
337.10	212	21	337.63	282	151
337.11	213	23	337.64	283	154
337.12	214	25	337.65	284	157
337.13	216	27	337.66	286	159
337.14	217	29	337.67	287	162
337.15	218	31	337.68	289	165
337.16	219	34	337.69	290	168
337.17	221	36	337.70	292	171
337.18	222	38	337.71	293	174
337.19	223	40	337.72	294	177
337.20	224	42	337.73	296	180
337.21	226	45	337.74	297	183
337.22	227	47	337.75	299	186
337.23	228	49	337.76	300	189
337.24	229	51	337.77	302	192
337.25	231	54	337.78	303	195
337.26	232	56	337.79	305	198
337.27	233	58	337.80	306	201
337.28	235	61	337.81	307	204
337.29	236	63	337.82	309	207
337.30	237	65	337.83	310	210
337.31	238	68	337.84	312	213
337.32	240	70	337.85	313	216
337.33	241	73	337.86	315	220
337.34	242	75	337.87	316	223
337.35	244	78	337.88	318	226
337.36	245	80	337.89	319	229
337.37	246	82	337.90	321	232
337.38	248	85	337.91	322	235
337.39	249	87	337.92	324	239
337.40	250	90	337.93	325	242
337.41	252	92	337.94	327	245
337.42	253	95	337.95	328	248
337.43	254	97	337.96	330	252
337.44	256	100	337.97	331	255
337.45	257	103	337.98	333	258
337.46	258	105	337.99	334	262
337.47	260	108	338.00	336	265
337.48	261	110	338.01	337	268
337.49	262	113	338.02	339	272
337.50	264	116	338.03	340	275
337.51	265	118	338.04	342	279
337.52	266	121	338.05	343	282

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
338.06	344	285	338.59	423	489
338.07	346	289	338.60	425	493
338.08	347	292	338.61	426	497
338.09	349	296	338.62	428	501
338.10	350	299	338.63	430	506
338.11	352	303	338.64	431	510
338.12	353	306	338.65	433	514
338.13	354	310	338.66	434	519
338.14	356	313	338.67	436	523
338.15	357	317	338.68	438	527
338.16	359	321	338.69	439	532
338.17	360	324	338.70	441	536
338.18	362	328	338.71	442	541
338.19	363	331	338.72	444	545
338.20	364	335	338.73	446	549
338.21	366	339	338.74	447	554
338.22	367	342	338.75	449	558
338.23	369	346	338.76	450	563
338.24	370	350	338.77	452	567
338.25	372	354	338.78	454	572
338.26	373	357	338.79	455	576
338.27	375	361	338.80	457	581
338.28	376	365	338.81	459	586
338.29	378	369	338.82	460	590
338.30	379	372	338.83	462	595
338.31	381	376	338.84	463	599
338.32	382	380	338.85	465	604
338.33	384	384	338.86	467	609
338.34	385	388	338.87	468	613
338.35	387	391	338.88	470	618
338.36	388	395	338.89	472	623
338.37	390	399	338.90	473	628
338.38	391	403	338.91	475	632
338.39	393	407	338.92	477	637
338.40	394	411	338.93	478	642
338.41	396	415	338.94	480	647
338.42	397	419	338.95	482	651
338.43	399	423	338.96	483	656
338.44	400	427	338.97	485	661
338.45	402	431	338.98	487	666
338.46	403	435	338.99	488	671
338.47	405	439	339.00	490	676
338.48	406	443	339.01	492	681
338.49	408	447	339.02	493	685
338.50	409	451	339.03	495	690
338.51	411	455	339.04	497	695
338.52	412	459	339.05	498	700
338.53	414	463	339.06	500	705
338.54	416	468	339.07	502	710
338.55	417	472	339.08	503	715
338.56	419	476	339.09	505	720
338.57	420	480	339.10	507	725
338.58	422	484	339.11	508	731

Stage-Area-Storage for Pond SFF-A3a: Sand Filter Forebay - A3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
339.12	510	736	339.65	604	1,031
339.13	512	741	339.66	606	1,037
339.14	514	746	339.67	607	1,043
339.15	515	751	339.68	609	1,049
339.16	517	756	339.69	611	1,055
339.17	519	761	339.70	613	1,061
339.18	520	767	339.71	615	1,067
339.19	522	772	339.72	617	1,073
339.20	524	777	339.73	619	1,079
339.21	525	782	339.74	620	1,086
339.22	527	788	339.75	622	1,092
339.23	529	793	339.76	624	1,098
339.24	531	798	339.77	626	1,104
339.25	532	803	339.78	628	1,111
339.26	534	809	339.79	630	1,117
339.27	536	814	339.80	632	1,123
339.28	538	819	339.81	634	1,129
339.29	539	825	339.82	636	1,136
339.30	541	830	339.83	637	1,142
339.31	543	836	339.84	639	1,149
339.32	545	841	339.85	641	1,155
339.33	546	847	339.86	643	1,161
339.34	548	852	339.87	645	1,168
339.35	550	858	339.88	647	1,174
339.36	552	863	339.89	649	1,181
339.37	553	869	339.90	651	1,187
339.38	555	874	339.91	653	1,194
339.39	557	880	339.92	655	1,200
339.40	559	885	339.93	656	1,207
339.41	560	891	339.94	658	1,213
339.42	562	896	339.95	660	1,220
339.43	564	902	339.96	662	1,227
339.44	566	908	339.97	664	1,233
339.45	568	913	339.98	666	1,240
339.46	569	919	339.99	668	1,247
339.47	571	925	340.00	670	1,253
339.48	573	930			
339.49	575	936			
339.50	576	942			
339.51	578	948			
339.52	580	954			
339.53	582	959			
339.54	584	965			
339.55	586	971			
339.56	587	977			
339.57	589	983			
339.58	591	989			
339.59	593	995			
339.60	595	1,001			
339.61	596	1,007			
339.62	598	1,012			
339.63	600	1,018			
339.64	602	1,024			

Summary for Pond SFF-A3b: Sand Filter Forebay - A3b

[79] Warning: Submerged Pond FS A3b Primary device # 1 INLET by 0.05'

Inflow Area = 2.104 ac, 11.83% Impervious, Inflow Depth = 3.23" for 100 Year - North Salem event
 Inflow = 2.77 cfs @ 12.11 hrs, Volume= 0.567 af
 Outflow = 2.66 cfs @ 12.15 hrs, Volume= 0.473 af, Atten= 4%, Lag= 2.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.66 cfs @ 12.15 hrs, Volume= 0.473 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 351.21' @ 12.15 hrs Surf.Area= 2,275 sf Storage= 4,585 cf

Plug-Flow detention time= 119.8 min calculated for 0.473 af (83% of inflow)
 Center-of-Mass det. time= 45.8 min (921.7 - 876.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	348.00'	6,570 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
348.00	707	123.0	0	0	707	
350.00	1,601	174.0	2,248	2,248	1,948	
351.00	2,153	194.0	1,870	4,118	2,562	
352.00	2,763	213.0	2,452	6,570	3,210	

Device	Routing	Invert	Outlet Devices
#1	Primary	348.00'	15.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 347.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	348.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	350.00'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	350.00'	18.0" W x 12.0" H Vert. Orifice #1 X 2.00 C= 0.600
#5	Device 1	351.00'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	351.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

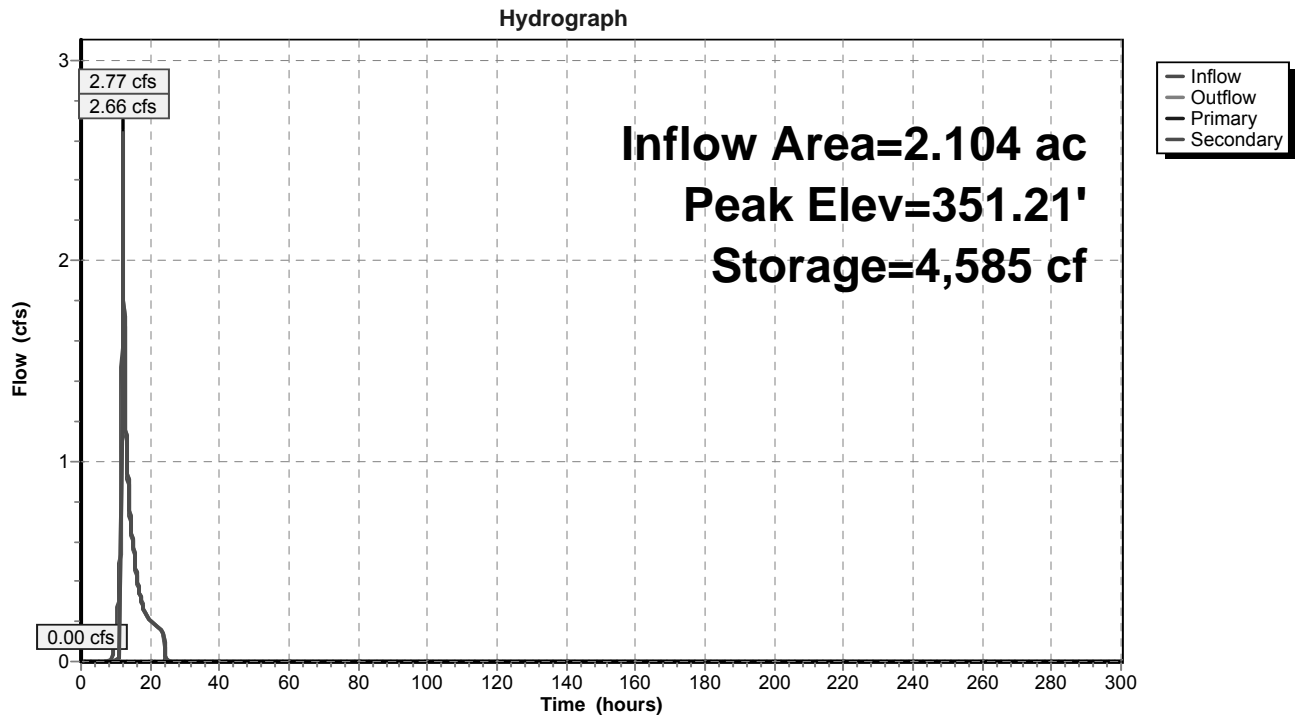
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=348.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.63 cfs @ 12.15 hrs HW=351.21' (Free Discharge)

- ↑ 6=Sharp-Crested Rectangular Weir (Weir Controls 2.63 cfs @ 1.58 fps)

Pond SFF-A3b: Sand Filter Forebay - A3b



Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
348.00	707	0	348.53	909	427
348.01	711	7	348.54	913	436
348.02	714	14	348.55	917	445
348.03	718	21	348.56	921	455
348.04	721	29	348.57	925	464
348.05	725	36	348.58	929	473
348.06	729	43	348.59	933	482
348.07	732	50	348.60	937	492
348.08	736	58	348.61	941	501
348.09	739	65	348.62	946	511
348.10	743	72	348.63	950	520
348.11	747	80	348.64	954	530
348.12	750	87	348.65	958	539
348.13	754	95	348.66	962	549
348.14	758	103	348.67	966	558
348.15	762	110	348.68	971	568
348.16	765	118	348.69	975	578
348.17	769	125	348.70	979	587
348.18	773	133	348.71	983	597
348.19	776	141	348.72	987	607
348.20	780	149	348.73	992	617
348.21	784	156	348.74	996	627
348.22	788	164	348.75	1,000	637
348.23	791	172	348.76	1,004	647
348.24	795	180	348.77	1,009	657
348.25	799	188	348.78	1,013	667
348.26	803	196	348.79	1,017	677
348.27	807	204	348.80	1,021	687
348.28	810	212	348.81	1,026	698
348.29	814	220	348.82	1,030	708
348.30	818	229	348.83	1,034	718
348.31	822	237	348.84	1,039	729
348.32	826	245	348.85	1,043	739
348.33	830	253	348.86	1,047	750
348.34	834	262	348.87	1,052	760
348.35	837	270	348.88	1,056	771
348.36	841	278	348.89	1,060	781
348.37	845	287	348.90	1,065	792
348.38	849	295	348.91	1,069	802
348.39	853	304	348.92	1,073	813
348.40	857	312	348.93	1,078	824
348.41	861	321	348.94	1,082	835
348.42	865	330	348.95	1,087	846
348.43	869	338	348.96	1,091	856
348.44	873	347	348.97	1,096	867
348.45	877	356	348.98	1,100	878
348.46	881	364	348.99	1,104	889
348.47	885	373	349.00	1,109	900
348.48	889	382	349.01	1,113	912
348.49	893	391	349.02	1,118	923
348.50	897	400	349.03	1,122	934
348.51	901	409	349.04	1,127	945
348.52	905	418	349.05	1,131	956

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

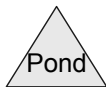
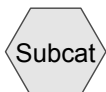
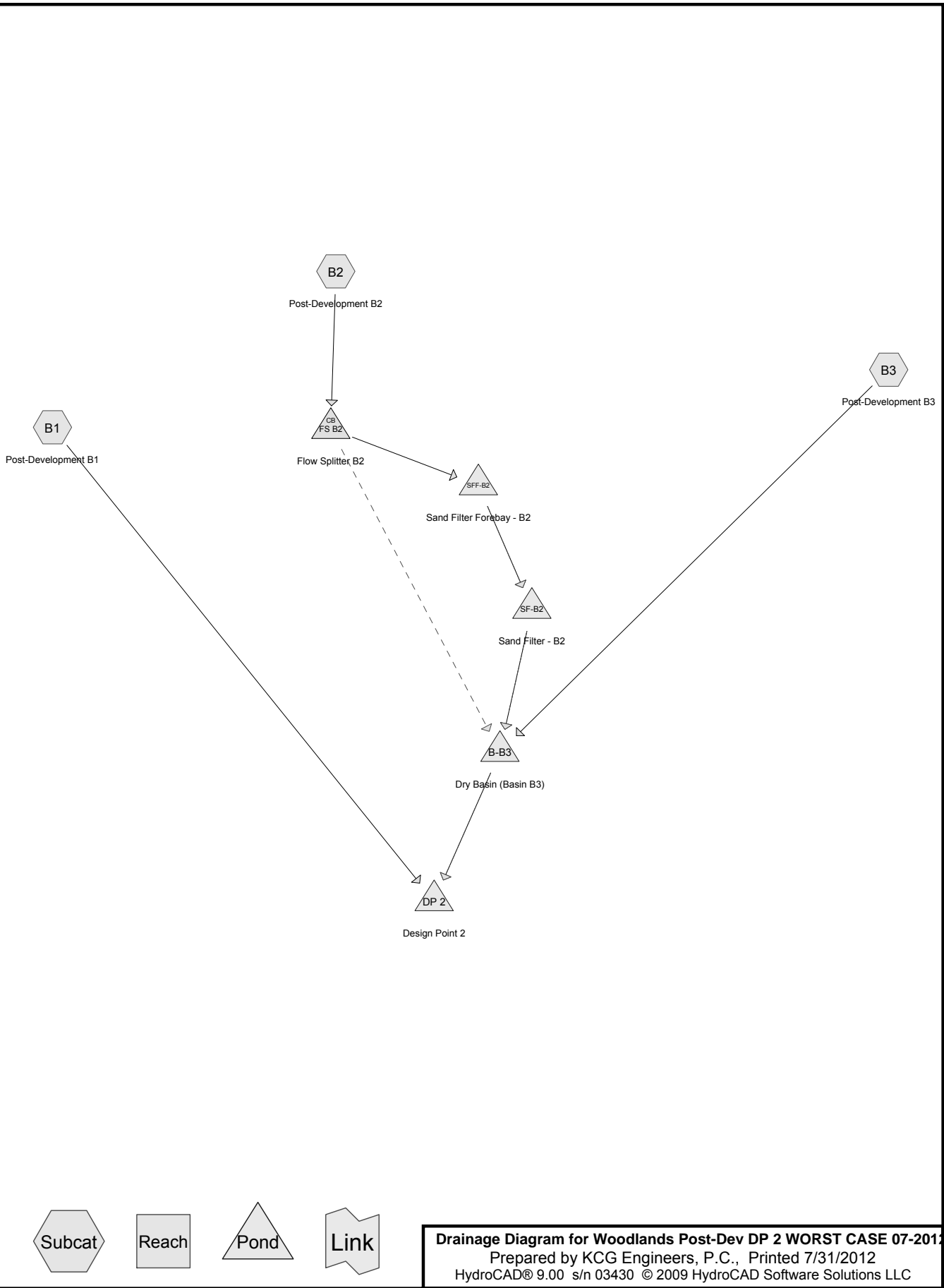
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
349.06	1,136	968	349.59	1,388	1,636
349.07	1,140	979	349.60	1,393	1,650
349.08	1,145	991	349.61	1,398	1,664
349.09	1,150	1,002	349.62	1,403	1,678
349.10	1,154	1,014	349.63	1,408	1,692
349.11	1,159	1,025	349.64	1,413	1,706
349.12	1,163	1,037	349.65	1,419	1,720
349.13	1,168	1,048	349.66	1,424	1,734
349.14	1,172	1,060	349.67	1,429	1,748
349.15	1,177	1,072	349.68	1,434	1,763
349.16	1,182	1,084	349.69	1,439	1,777
349.17	1,186	1,096	349.70	1,444	1,791
349.18	1,191	1,107	349.71	1,449	1,806
349.19	1,196	1,119	349.72	1,454	1,820
349.20	1,200	1,131	349.73	1,459	1,835
349.21	1,205	1,143	349.74	1,464	1,850
349.22	1,209	1,155	349.75	1,470	1,864
349.23	1,214	1,168	349.76	1,475	1,879
349.24	1,219	1,180	349.77	1,480	1,894
349.25	1,224	1,192	349.78	1,485	1,909
349.26	1,228	1,204	349.79	1,490	1,923
349.27	1,233	1,216	349.80	1,495	1,938
349.28	1,238	1,229	349.81	1,501	1,953
349.29	1,242	1,241	349.82	1,506	1,968
349.30	1,247	1,254	349.83	1,511	1,983
349.31	1,252	1,266	349.84	1,516	1,999
349.32	1,257	1,279	349.85	1,521	2,014
349.33	1,261	1,291	349.86	1,527	2,029
349.34	1,266	1,304	349.87	1,532	2,044
349.35	1,271	1,317	349.88	1,537	2,060
349.36	1,276	1,329	349.89	1,542	2,075
349.37	1,281	1,342	349.90	1,548	2,091
349.38	1,285	1,355	349.91	1,553	2,106
349.39	1,290	1,368	349.92	1,558	2,122
349.40	1,295	1,381	349.93	1,564	2,137
349.41	1,300	1,394	349.94	1,569	2,153
349.42	1,305	1,407	349.95	1,574	2,169
349.43	1,309	1,420	349.96	1,580	2,184
349.44	1,314	1,433	349.97	1,585	2,200
349.45	1,319	1,446	349.98	1,590	2,216
349.46	1,324	1,459	349.99	1,596	2,232
349.47	1,329	1,473	350.00	1,601	2,248
349.48	1,334	1,486	350.01	1,606	2,264
349.49	1,339	1,499	350.02	1,611	2,280
349.50	1,344	1,513	350.03	1,616	2,296
349.51	1,349	1,526	350.04	1,622	2,312
349.52	1,354	1,540	350.05	1,627	2,329
349.53	1,359	1,553	350.06	1,632	2,345
349.54	1,363	1,567	350.07	1,637	2,361
349.55	1,368	1,581	350.08	1,642	2,378
349.56	1,373	1,594	350.09	1,647	2,394
349.57	1,378	1,608	350.10	1,653	2,411
349.58	1,383	1,622	350.11	1,658	2,427

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
350.12	1,663	2,444	350.65	1,951	3,400
350.13	1,668	2,460	350.66	1,956	3,420
350.14	1,673	2,477	350.67	1,962	3,439
350.15	1,679	2,494	350.68	1,967	3,459
350.16	1,684	2,511	350.69	1,973	3,479
350.17	1,689	2,528	350.70	1,979	3,499
350.18	1,694	2,544	350.71	1,985	3,518
350.19	1,700	2,561	350.72	1,990	3,538
350.20	1,705	2,578	350.73	1,996	3,558
350.21	1,710	2,596	350.74	2,002	3,578
350.22	1,715	2,613	350.75	2,007	3,598
350.23	1,721	2,630	350.76	2,013	3,618
350.24	1,726	2,647	350.77	2,019	3,638
350.25	1,731	2,664	350.78	2,025	3,659
350.26	1,737	2,682	350.79	2,030	3,679
350.27	1,742	2,699	350.80	2,036	3,699
350.28	1,747	2,717	350.81	2,042	3,720
350.29	1,753	2,734	350.82	2,048	3,740
350.30	1,758	2,752	350.83	2,053	3,761
350.31	1,763	2,769	350.84	2,059	3,781
350.32	1,769	2,787	350.85	2,065	3,802
350.33	1,774	2,805	350.86	2,071	3,822
350.34	1,780	2,822	350.87	2,077	3,843
350.35	1,785	2,840	350.88	2,082	3,864
350.36	1,790	2,858	350.89	2,088	3,885
350.37	1,796	2,876	350.90	2,094	3,906
350.38	1,801	2,894	350.91	2,100	3,927
350.39	1,807	2,912	350.92	2,106	3,948
350.40	1,812	2,930	350.93	2,112	3,969
350.41	1,817	2,948	350.94	2,118	3,990
350.42	1,823	2,966	350.95	2,123	4,011
350.43	1,828	2,985	350.96	2,129	4,032
350.44	1,834	3,003	350.97	2,135	4,054
350.45	1,839	3,021	350.98	2,141	4,075
350.46	1,845	3,040	350.99	2,147	4,097
350.47	1,850	3,058	351.00	2,153	4,118
350.48	1,856	3,077	351.01	2,159	4,140
350.49	1,861	3,095	351.02	2,164	4,161
350.50	1,867	3,114	351.03	2,170	4,183
350.51	1,872	3,133	351.04	2,176	4,205
350.52	1,878	3,151	351.05	2,182	4,227
350.53	1,883	3,170	351.06	2,187	4,248
350.54	1,889	3,189	351.07	2,193	4,270
350.55	1,895	3,208	351.08	2,199	4,292
350.56	1,900	3,227	351.09	2,205	4,314
350.57	1,906	3,246	351.10	2,211	4,336
350.58	1,911	3,265	351.11	2,216	4,358
350.59	1,917	3,284	351.12	2,222	4,381
350.60	1,922	3,303	351.13	2,228	4,403
350.61	1,928	3,323	351.14	2,234	4,425
350.62	1,934	3,342	351.15	2,240	4,448
350.63	1,939	3,361	351.16	2,245	4,470
350.64	1,945	3,381	351.17	2,251	4,492

Stage-Area-Storage for Pond SFF-A3b: Sand Filter Forebay - A3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
351.18	2,257	4,515	351.71	2,578	5,795
351.19	2,263	4,538	351.72	2,585	5,821
351.20	2,269	4,560	351.73	2,591	5,847
351.21	2,275	4,583	351.74	2,597	5,873
351.22	2,281	4,606	351.75	2,603	5,899
351.23	2,287	4,629	351.76	2,610	5,925
351.24	2,292	4,652	351.77	2,616	5,951
351.25	2,298	4,674	351.78	2,622	5,977
351.26	2,304	4,697	351.79	2,629	6,004
351.27	2,310	4,721	351.80	2,635	6,030
351.28	2,316	4,744	351.81	2,641	6,056
351.29	2,322	4,767	351.82	2,648	6,083
351.30	2,328	4,790	351.83	2,654	6,109
351.31	2,334	4,813	351.84	2,660	6,136
351.32	2,340	4,837	351.85	2,667	6,163
351.33	2,346	4,860	351.86	2,673	6,189
351.34	2,352	4,884	351.87	2,679	6,216
351.35	2,358	4,907	351.88	2,686	6,243
351.36	2,364	4,931	351.89	2,692	6,270
351.37	2,370	4,955	351.90	2,699	6,297
351.38	2,376	4,978	351.91	2,705	6,324
351.39	2,382	5,002	351.92	2,711	6,351
351.40	2,388	5,026	351.93	2,718	6,378
351.41	2,394	5,050	351.94	2,724	6,405
351.42	2,400	5,074	351.95	2,731	6,432
351.43	2,406	5,098	351.96	2,737	6,460
351.44	2,412	5,122	351.97	2,744	6,487
351.45	2,418	5,146	351.98	2,750	6,515
351.46	2,424	5,170	351.99	2,757	6,542
351.47	2,430	5,195	352.00	2,763	6,570
351.48	2,436	5,219			
351.49	2,442	5,243			
351.50	2,449	5,268			
351.51	2,455	5,292			
351.52	2,461	5,317			
351.53	2,467	5,341			
351.54	2,473	5,366			
351.55	2,479	5,391			
351.56	2,485	5,416			
351.57	2,491	5,441			
351.58	2,498	5,466			
351.59	2,504	5,491			
351.60	2,510	5,516			
351.61	2,516	5,541			
351.62	2,522	5,566			
351.63	2,528	5,591			
351.64	2,535	5,617			
351.65	2,541	5,642			
351.66	2,547	5,667			
351.67	2,553	5,693			
351.68	2,560	5,718			
351.69	2,566	5,744			
351.70	2,572	5,770			



Drainage Diagram for Woodlands Post-Dev DP 2 WORST CASE 07-2012

Prepared by KCG Engineers, P.C., Printed 7/31/2012

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Woodlands Post-Dev DP 2 WORST CASE 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.214	55	Woods, Good, HSG B (B1)
1.110	55	Woods, Good, HSG B, (Undisturbed) (B2, B3)
4.938	61	>75% Grass cover, Good, HSG B (B1, B2, B3)
0.085	98	Driveway (B2)
0.547	98	Paved roads w/curbs & sewers, HSG B (B2)
0.064	98	Roof/Walkway (B2)
0.096	98	Sidewalk (B2)
9.054		TOTAL AREA

Woodlands Post-Dev DP 2 WORST CASE Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=0.31"
Flow Length=917' Tc=9.6 min CN=58 Runoff=0.56 cfs 0.100 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=0.59"
Flow Length=602' Tc=10.9 min CN=66 Runoff=2.05 cfs 0.224 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=0.34"
Flow Length=230' Tc=8.5 min CN=59 Runoff=0.11 cfs 0.017 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=420.66' Storage=759 cf Inflow=0.11 cfs 0.017 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond DP 2: Design Point 2 Inflow=0.56 cfs 0.100 af
Primary=0.56 cfs 0.100 af

Pond FS B2: Flow Splitter B2 Peak Elev=463.82' Inflow=2.05 cfs 0.224 af
Primary=2.05 cfs 0.224 af Secondary=0.00 cfs 0.000 af Outflow=2.05 cfs 0.224 af

Pond SF-B2: Sand Filter - B2 Peak Elev=435.77' Storage=4,641 cf Inflow=0.28 cfs 0.107 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=459.05' Storage=5,218 cf Inflow=2.05 cfs 0.224 af
Primary=0.00 cfs 0.000 af Secondary=0.28 cfs 0.107 af Outflow=0.28 cfs 0.107 af

Total Runoff Area = 9.054 ac Runoff Volume = 0.341 af Average Runoff Depth = 0.45"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 0.56 cfs @ 12.33 hrs, Volume= 0.100 af, Depth= 0.31"

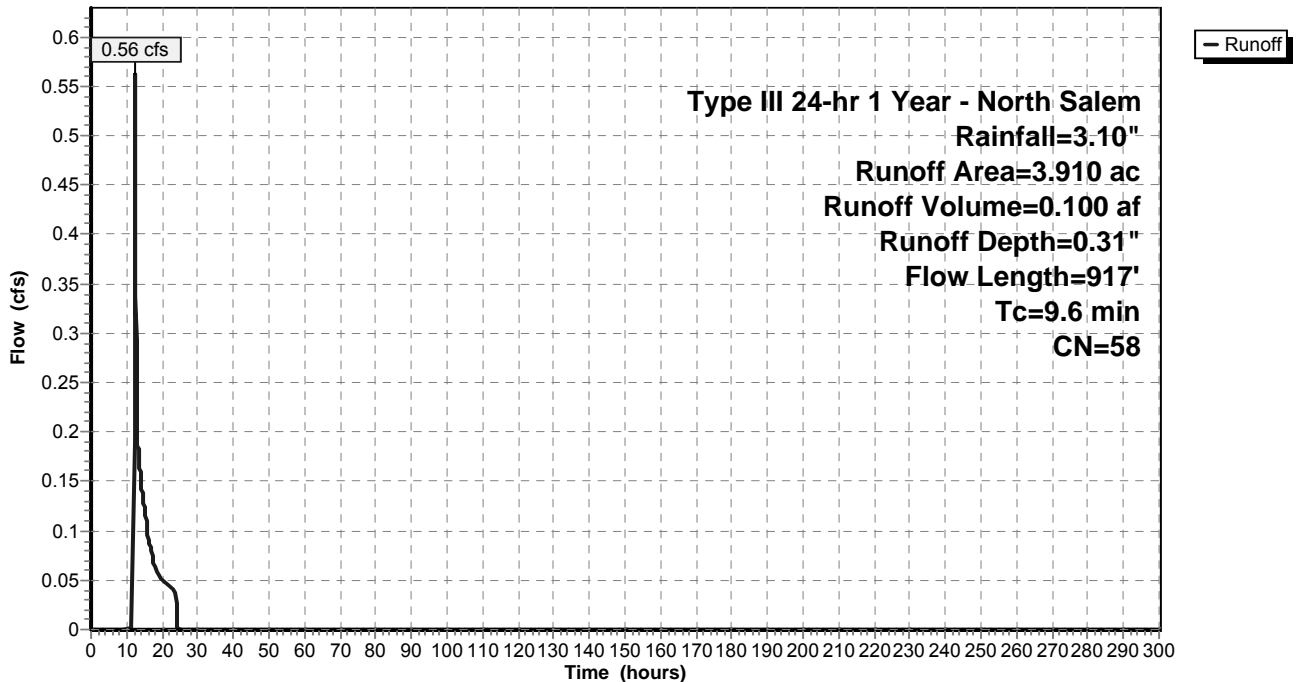
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

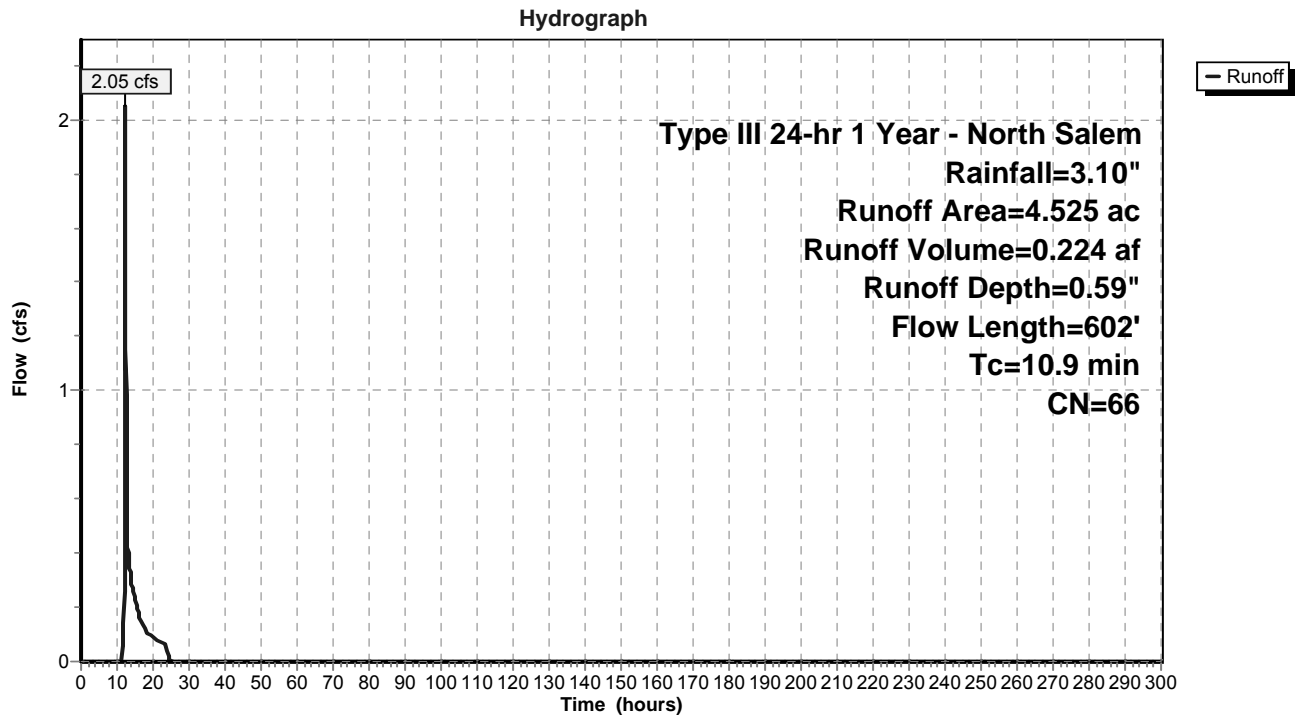
Runoff = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af, Depth= 0.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2



Summary for Subcatchment B3: Post-Development B3

Runoff = 0.11 cfs @ 12.20 hrs, Volume= 0.017 af, Depth= 0.34"

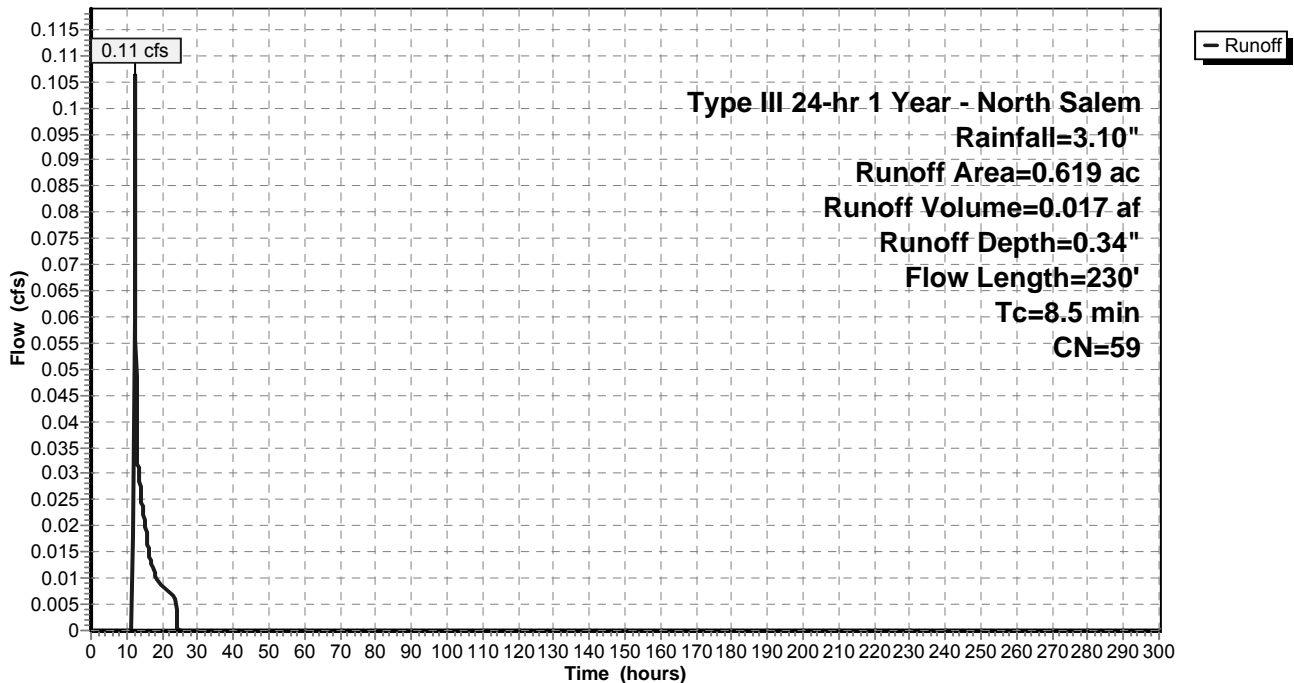
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 0.04" for 1 Year - North Salem event
 Inflow = 0.11 cfs @ 12.20 hrs, Volume= 0.017 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 420.66' @ 24.55 hrs Surf.Area= 1,371 sf Storage= 759 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

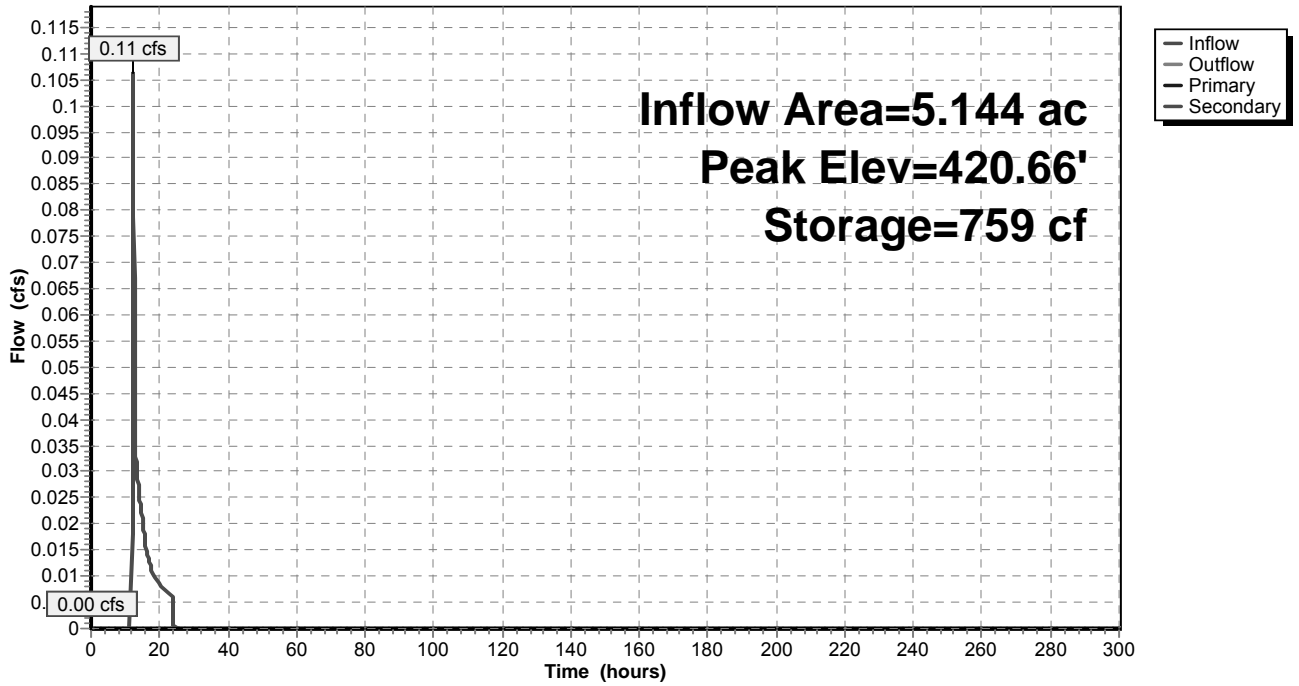
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-B3: Dry Basin (Basin B3)

Hydrograph



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

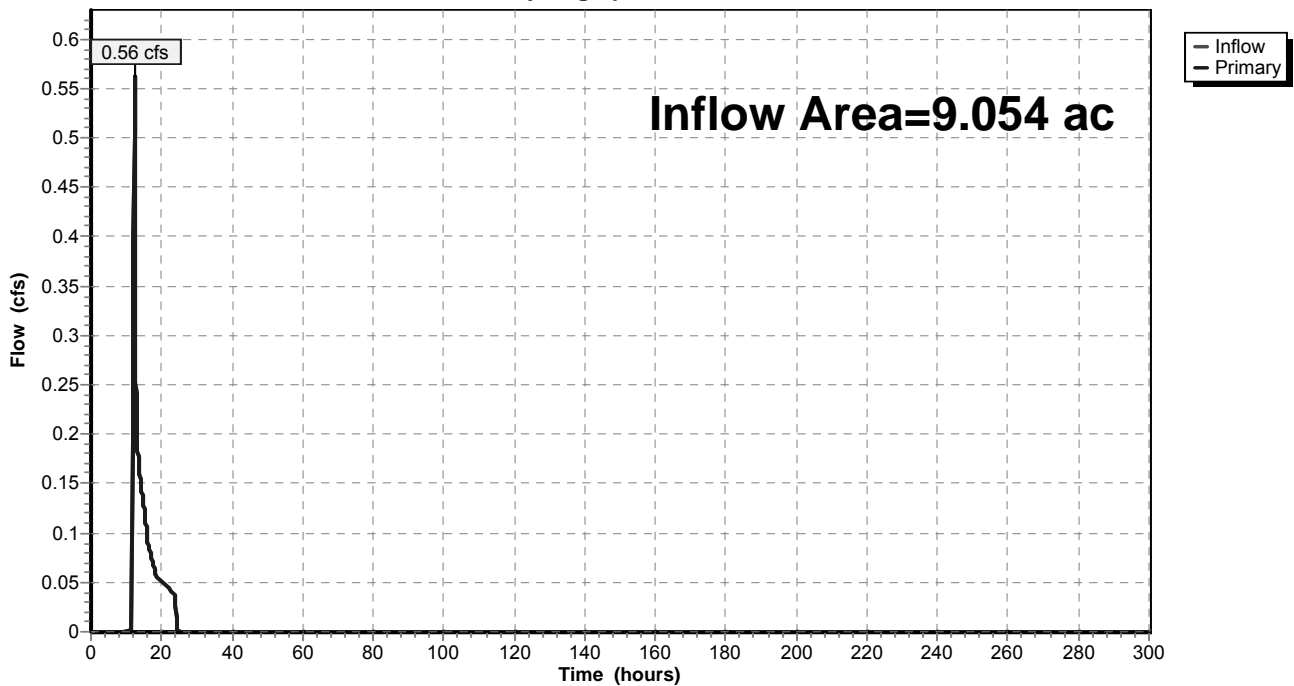
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 0.13" for 1 Year - North Salem event
 Inflow = 0.56 cfs @ 12.33 hrs, Volume= 0.100 af
 Primary = 0.56 cfs @ 12.33 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
 Inflow = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af
 Outflow = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

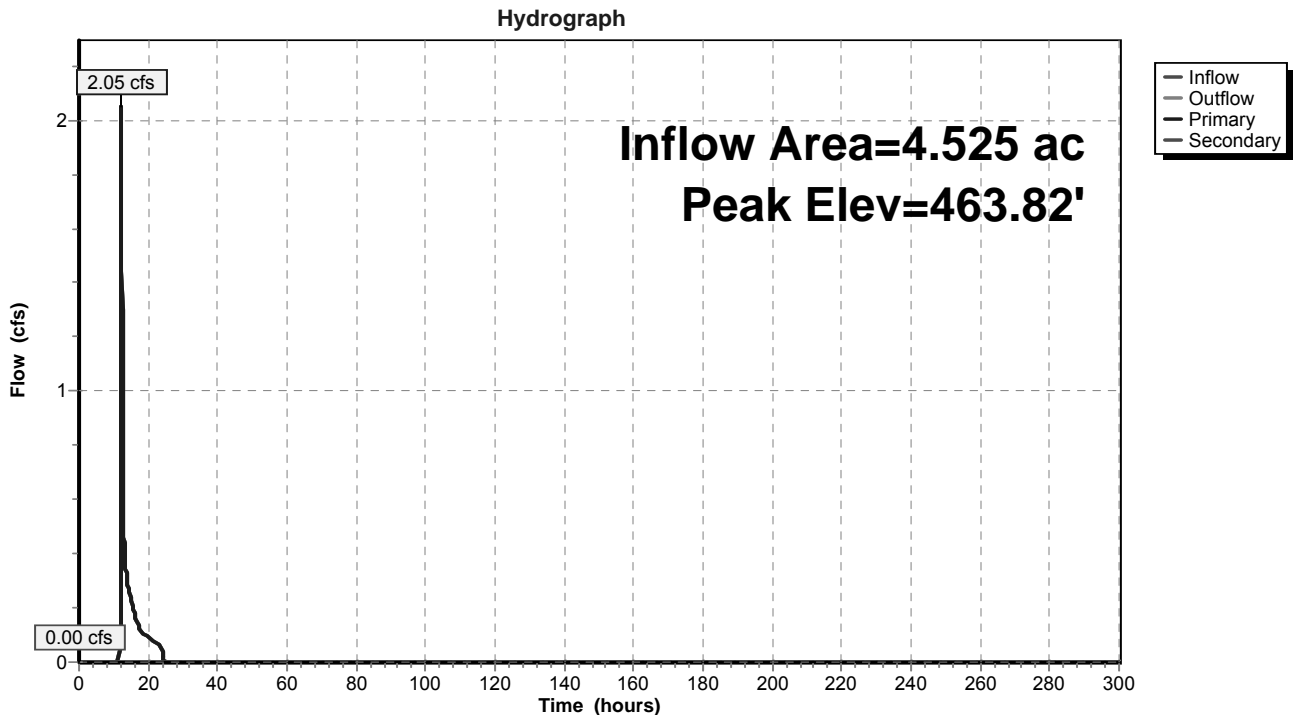
Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 463.82' @ 12.19 hrs
 Flood Elev= 468.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.03 cfs @ 12.19 hrs HW=463.79' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.03 cfs @ 5.82 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=462.00' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS B2: Flow Splitter B2



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.28" for 1 Year - North Salem event
 Inflow = 0.28 cfs @ 14.18 hrs, Volume= 0.107 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 435.77' @ 295.85 hrs Surf.Area= 3,088 sf Storage= 4,641 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe X 0.00 L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

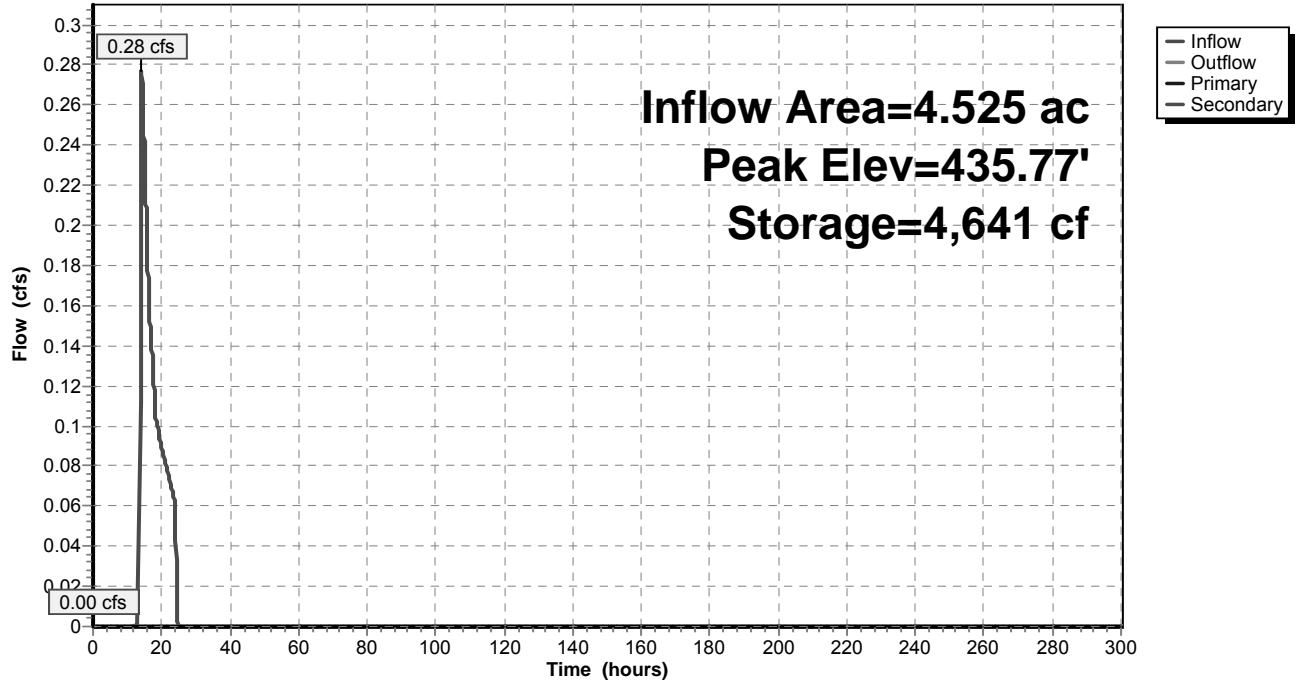
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-B2: Sand Filter - B2

Hydrograph



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.59" for 1 Year - North Salem event
 Inflow = 2.05 cfs @ 12.19 hrs, Volume= 0.224 af
 Outflow = 0.28 cfs @ 14.18 hrs, Volume= 0.107 af, Atten= 87%, Lag= 119.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.28 cfs @ 14.18 hrs, Volume= 0.107 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 459.05' @ 14.18 hrs Surf.Area= 2,476 sf Storage= 5,218 cf

Plug-Flow detention time= 314.1 min calculated for 0.107 af (48% of inflow)
 Center-of-Mass det. time= 164.9 min (1,063.6 - 898.7)

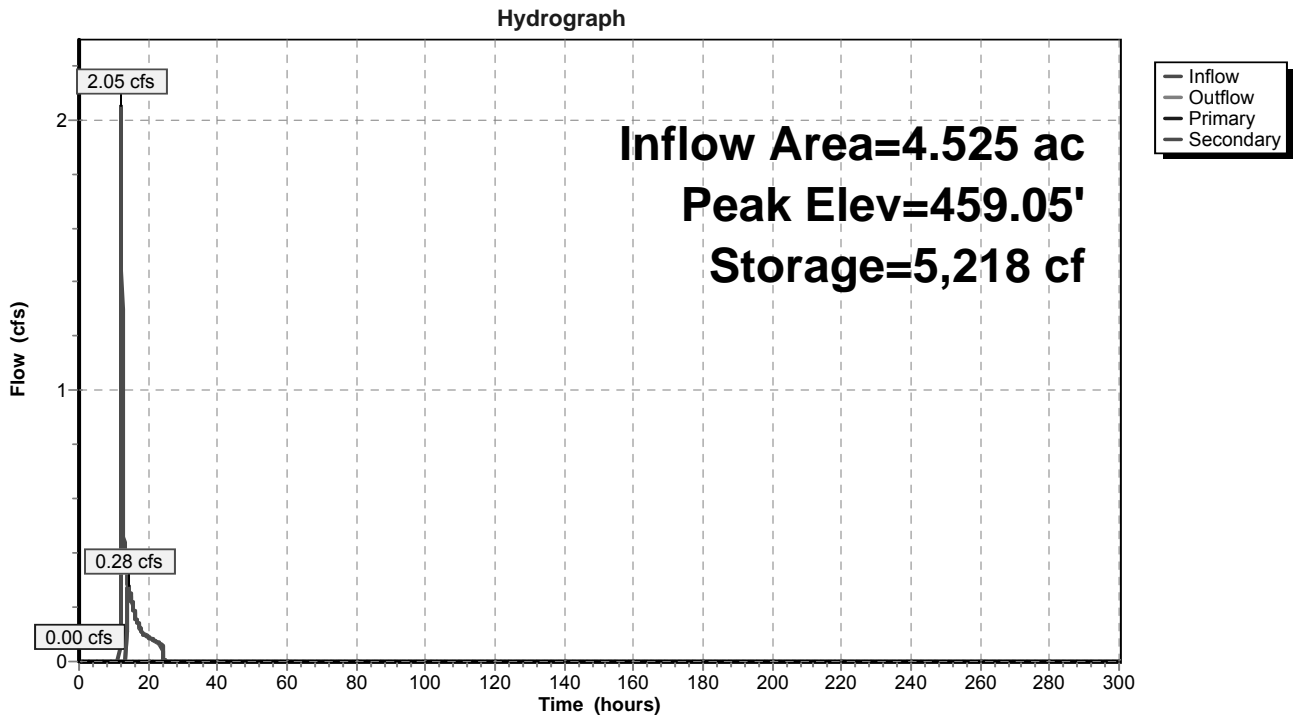
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe X 0.00 L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Standpipe Openings (Controls 0.00 cfs)
 ↑ 3=Top of Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=0.27 cfs @ 14.18 hrs HW=459.05' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 0.27 cfs @ 0.71 fps)

Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
 Runoff by SCS TR-20 method, UH=SCS
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=0.53"
 Flow Length=917' Tc=9.6 min CN=58 Runoff=1.36 cfs 0.174 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=0.91"
 Flow Length=602' Tc=10.9 min CN=66 Runoff=3.56 cfs 0.344 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=0.58"
 Flow Length=230' Tc=8.5 min CN=59 Runoff=0.26 cfs 0.030 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=421.47' Storage=2,114 cf Inflow=1.48 cfs 0.049 af
 Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond DP 2: Design Point 2 Inflow=1.36 cfs 0.174 af
 Primary=1.36 cfs 0.174 af

Pond FS B2: Flow Splitter B2 Peak Elev=464.27' Inflow=3.56 cfs 0.344 af
 Primary=2.34 cfs 0.325 af Secondary=1.22 cfs 0.019 af Outflow=3.56 cfs 0.344 af

Pond SF-B2: Sand Filter - B2 Peak Elev=437.05' Storage=9,046 cf Inflow=0.75 cfs 0.208 af
 Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=459.09' Storage=5,330 cf Inflow=2.34 cfs 0.325 af
 Primary=0.00 cfs 0.000 af Secondary=0.75 cfs 0.208 af Outflow=0.75 cfs 0.208 af

Total Runoff Area = 9.054 ac Runoff Volume = 0.547 af Average Runoff Depth = 0.73"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 1.36 cfs @ 12.19 hrs, Volume= 0.174 af, Depth= 0.53"

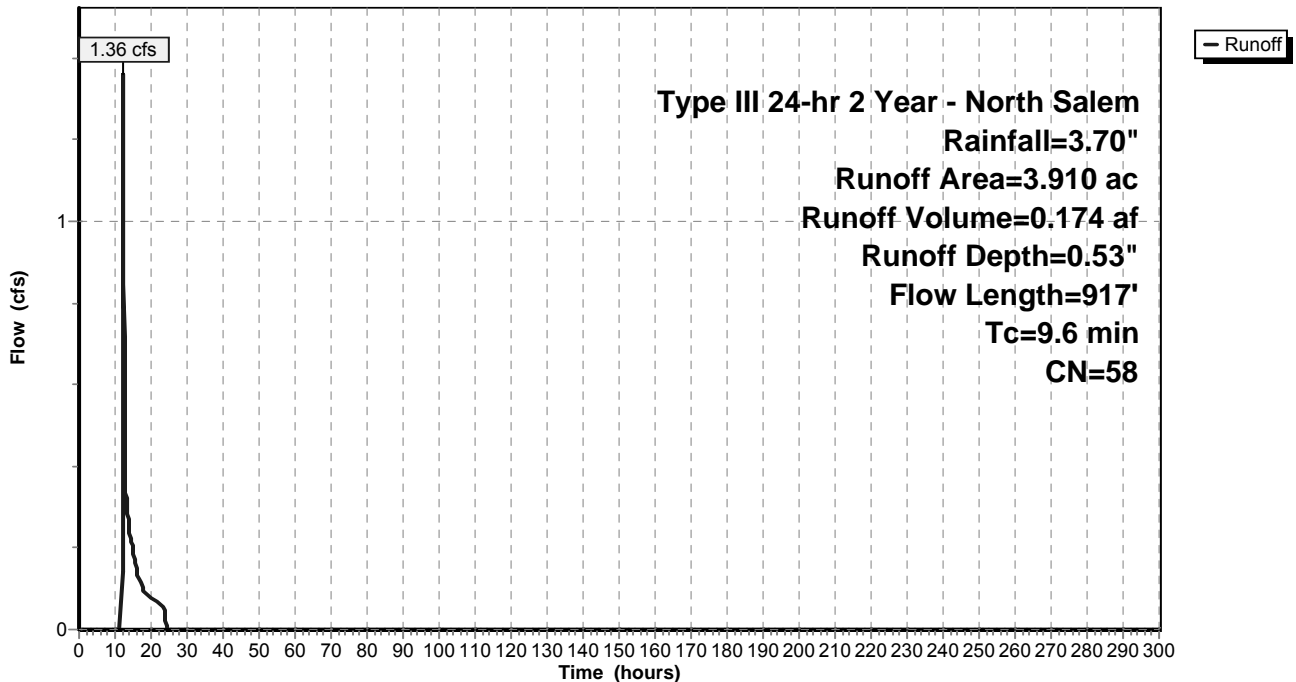
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

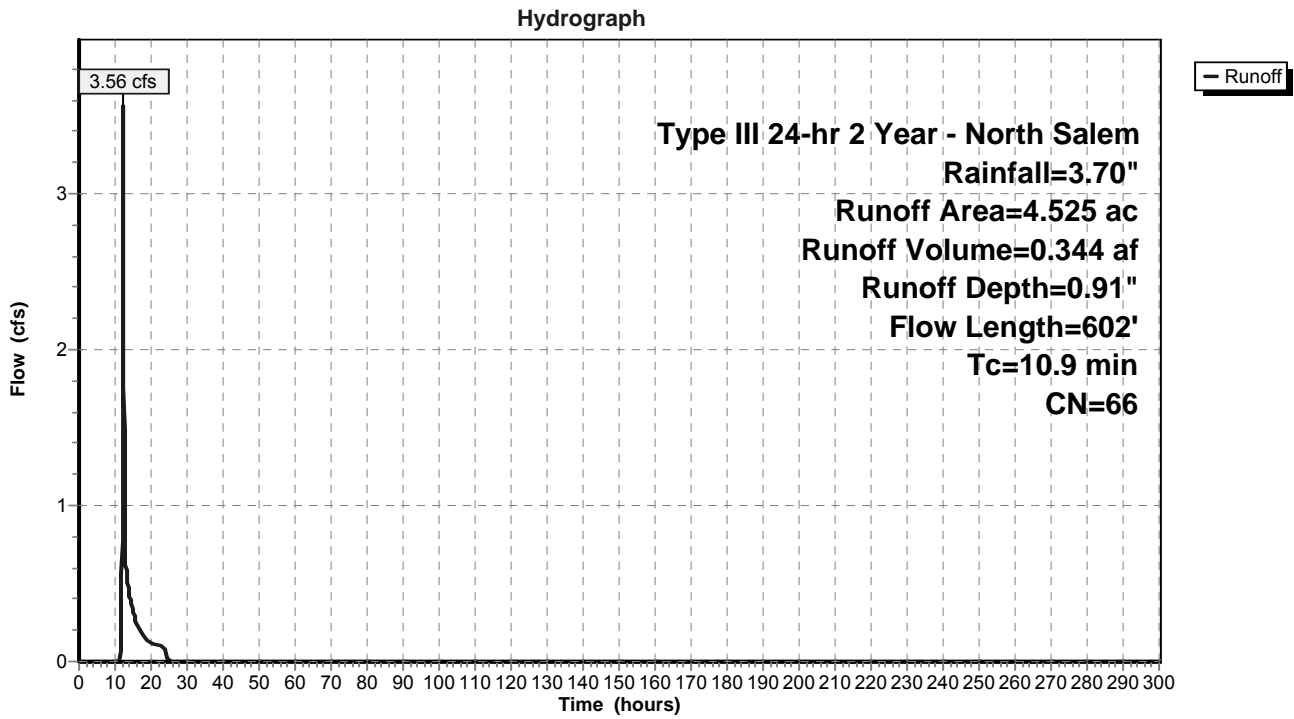
Runoff = 3.56 cfs @ 12.17 hrs, Volume= 0.344 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2



Summary for Subcatchment B3: Post-Development B3

Runoff = 0.26 cfs @ 12.16 hrs, Volume= 0.030 af, Depth= 0.58"

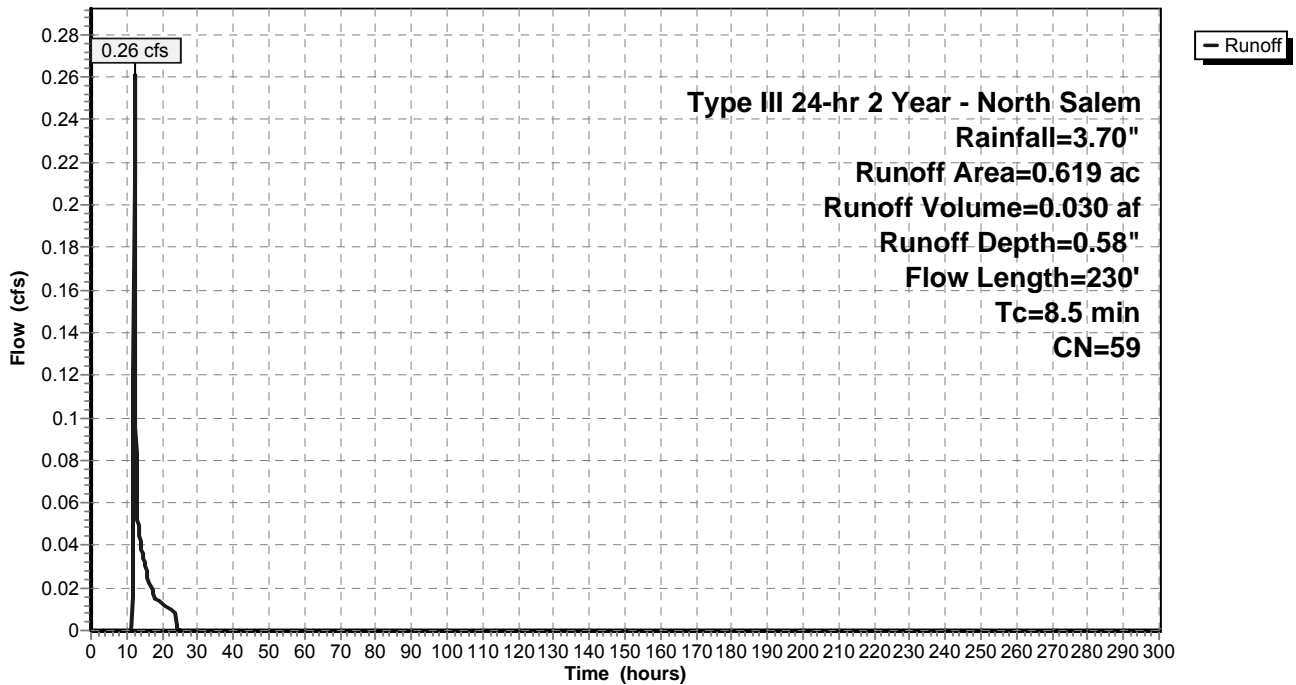
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 0.11" for 2 Year - North Salem event
 Inflow = 1.48 cfs @ 12.17 hrs, Volume= 0.049 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 421.47' @ 24.55 hrs Surf.Area= 2,008 sf Storage= 2,114 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

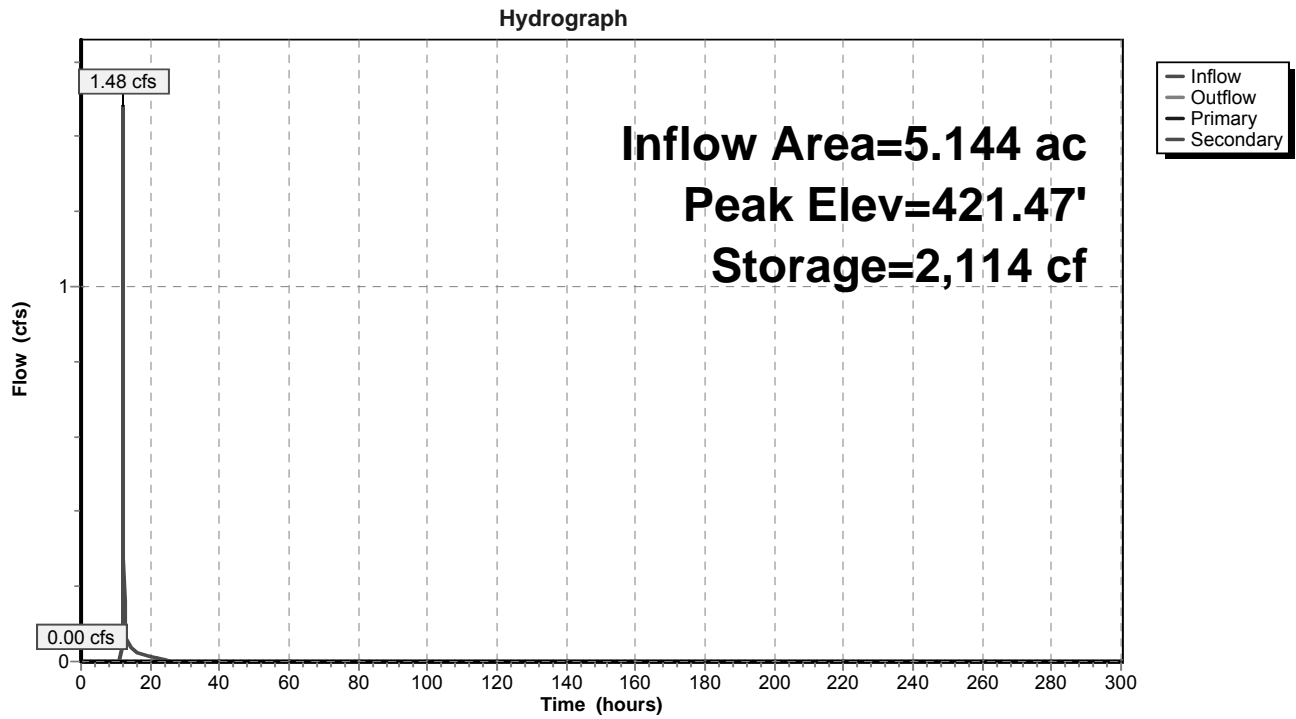
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-B3: Dry Basin (Basin B3)



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

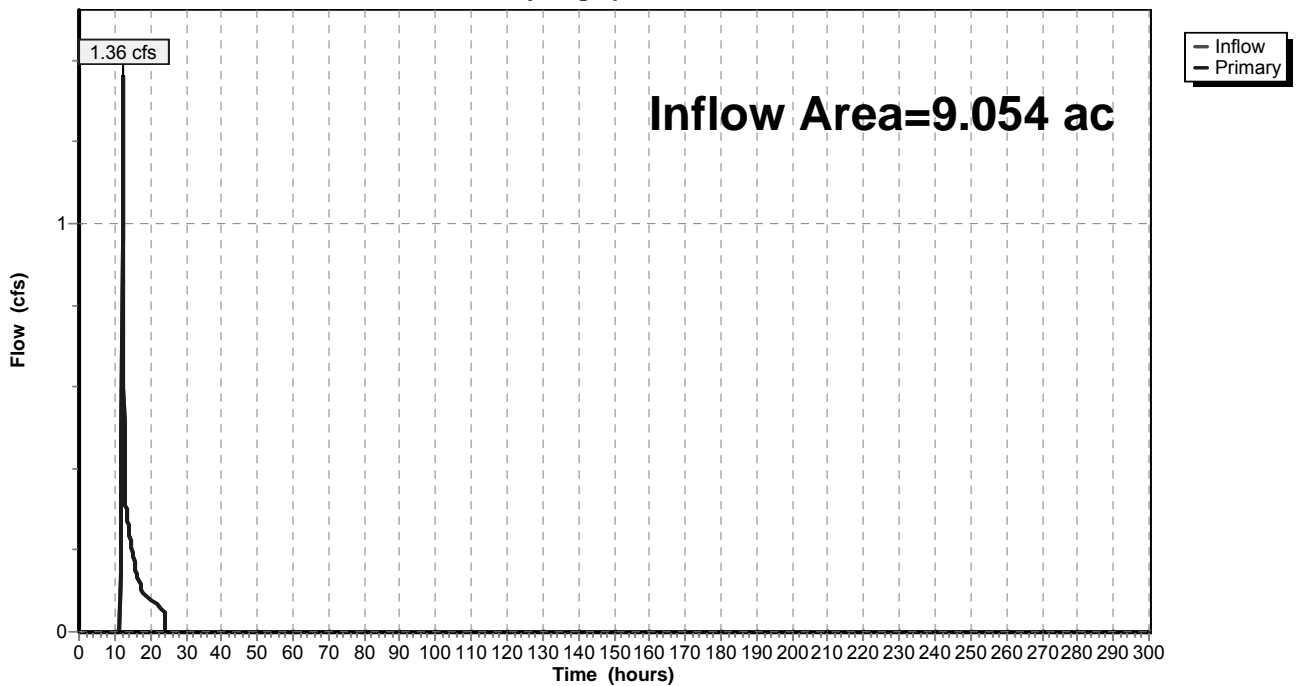
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 0.23" for 2 Year - North Salem event
 Inflow = 1.36 cfs @ 12.19 hrs, Volume= 0.174 af
 Primary = 1.36 cfs @ 12.19 hrs, Volume= 0.174 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
 Inflow = 3.56 cfs @ 12.17 hrs, Volume= 0.344 af
 Outflow = 3.56 cfs @ 12.17 hrs, Volume= 0.344 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.34 cfs @ 12.17 hrs, Volume= 0.325 af
 Secondary = 1.22 cfs @ 12.17 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.27' @ 12.17 hrs
 Flood Elev= 468.26'

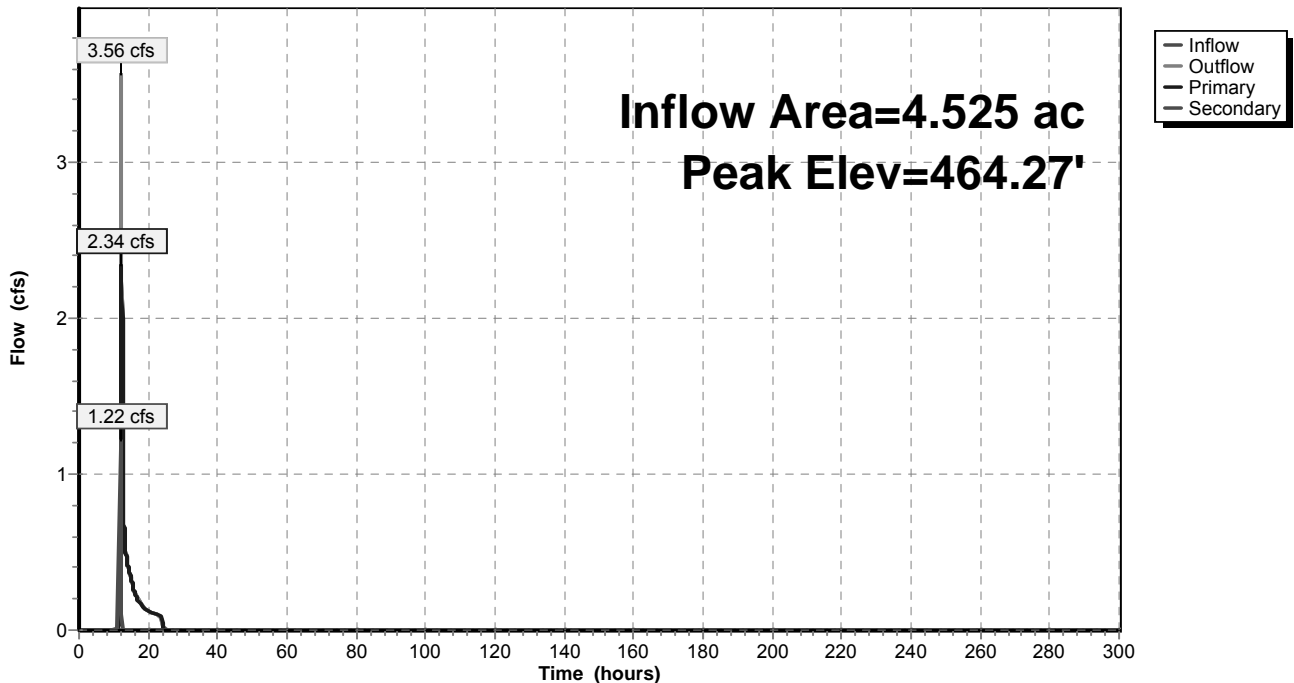
Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.33 cfs @ 12.17 hrs HW=464.26' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.33 cfs @ 6.68 fps)

Secondary OutFlow Max=1.14 cfs @ 12.17 hrs HW=464.26' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 1.14 cfs @ 2.25 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.55" for 2 Year - North Salem event
 Inflow = 0.75 cfs @ 12.86 hrs, Volume= 0.208 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 437.05' @ 27.60 hrs Surf.Area= 3,793 sf Storage= 9,046 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe X 0.00 L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

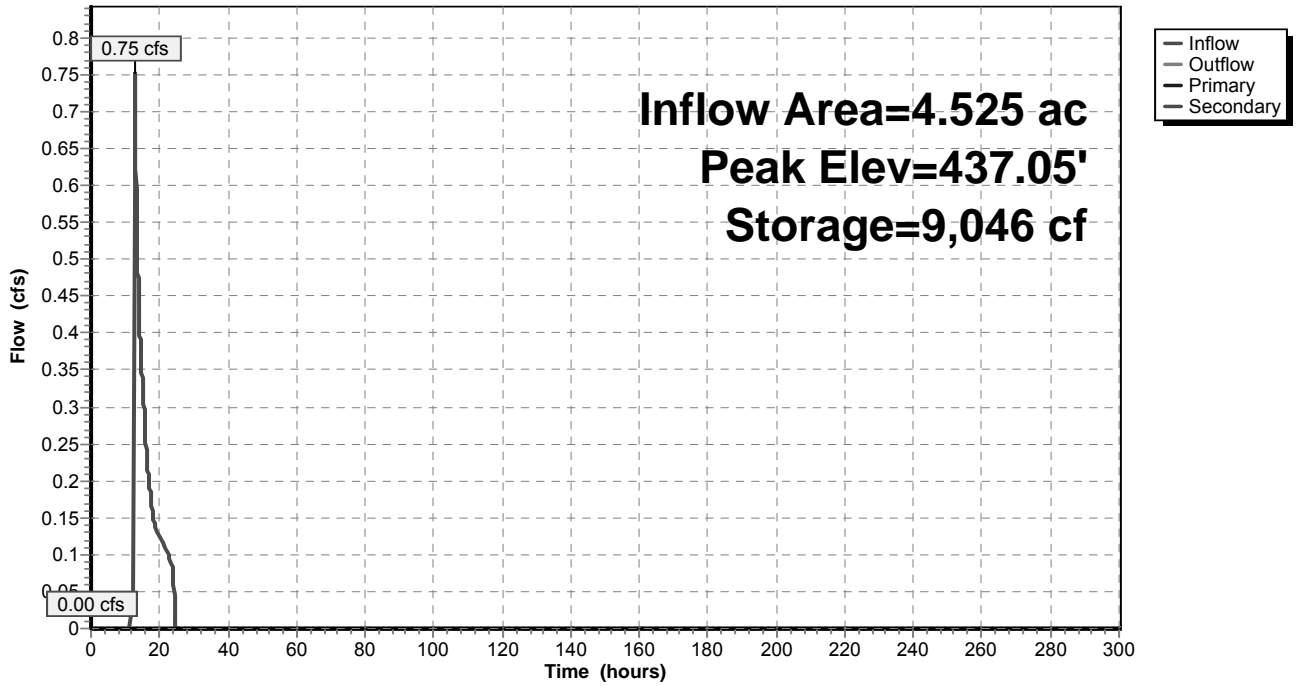
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-B2: Sand Filter - B2

Hydrograph



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 0.86" for 2 Year - North Salem event
 Inflow = 2.34 cfs @ 12.17 hrs, Volume= 0.325 af
 Outflow = 0.75 cfs @ 12.86 hrs, Volume= 0.208 af, Atten= 68%, Lag= 40.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.75 cfs @ 12.86 hrs, Volume= 0.208 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 459.09' @ 12.86 hrs Surf.Area= 2,501 sf Storage= 5,330 cf

Plug-Flow detention time= 216.4 min calculated for 0.208 af (64% of inflow)
 Center-of-Mass det. time= 94.9 min (986.9 - 892.0)

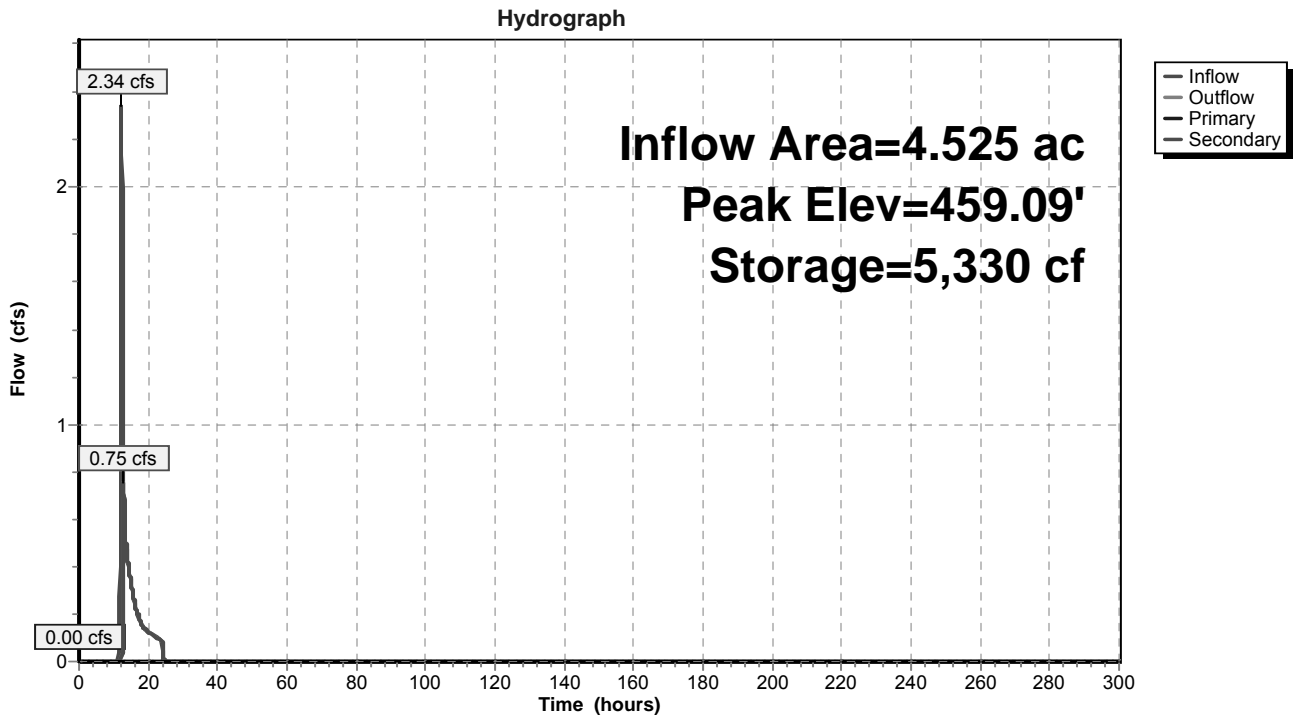
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe X 0.00 L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Standpipe Openings (Controls 0.00 cfs)
 ↑ 3=Top of Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=0.74 cfs @ 12.86 hrs HW=459.09' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 0.74 cfs @ 1.01 fps)

Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Woodlands Post-Dev DP 2 WORST CAS Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=1.45"
Flow Length=917' Tc=9.6 min CN=58 Runoff=5.23 cfs 0.474 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=2.08"
Flow Length=602' Tc=10.9 min CN=66 Runoff=9.00 cfs 0.783 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=1.53"
Flow Length=230' Tc=8.5 min CN=59 Runoff=0.91 cfs 0.079 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=425.04' Storage=15,135 cf Inflow=7.19 cfs 0.448 af
Primary=0.00 cfs 0.000 af Secondary=0.27 cfs 0.106 af Outflow=0.27 cfs 0.106 af

Pond DP 2: Design Point 2 Inflow=5.23 cfs 0.579 af
Primary=5.23 cfs 0.579 af

Pond FS B2: Flow Splitter B2 Peak Elev=464.92' Inflow=9.00 cfs 0.783 af
Primary=2.70 cfs 0.613 af Secondary=6.30 cfs 0.170 af Outflow=9.00 cfs 0.783 af

Pond SF-B2: Sand Filter - B2 Peak Elev=438.06' Storage=13,178 cf Inflow=2.47 cfs 0.496 af
Primary=0.00 cfs 0.000 af Secondary=0.52 cfs 0.200 af Outflow=0.52 cfs 0.200 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=459.20' Storage=5,608 cf Inflow=2.70 cfs 0.613 af
Primary=0.00 cfs 0.000 af Secondary=2.47 cfs 0.496 af Outflow=2.47 cfs 0.496 af

Total Runoff Area = 9.054 ac Runoff Volume = 1.335 af Average Runoff Depth = 1.77"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 5.23 cfs @ 12.15 hrs, Volume= 0.474 af, Depth= 1.45"

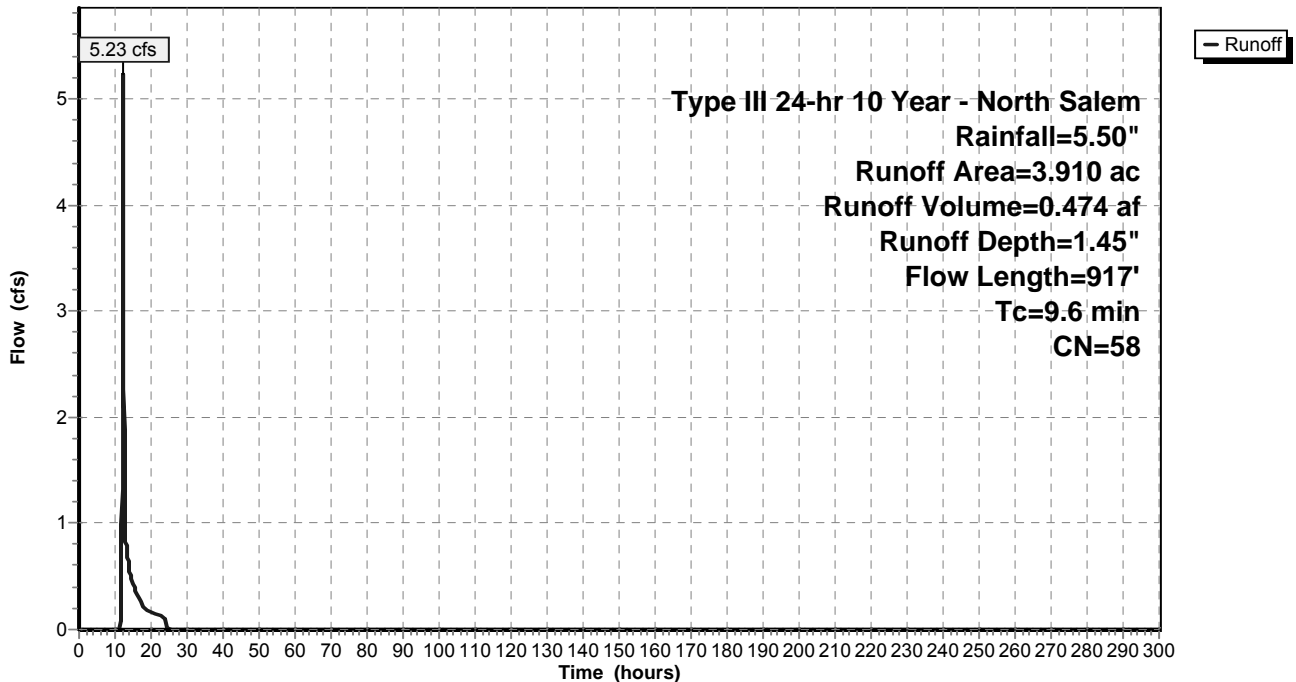
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

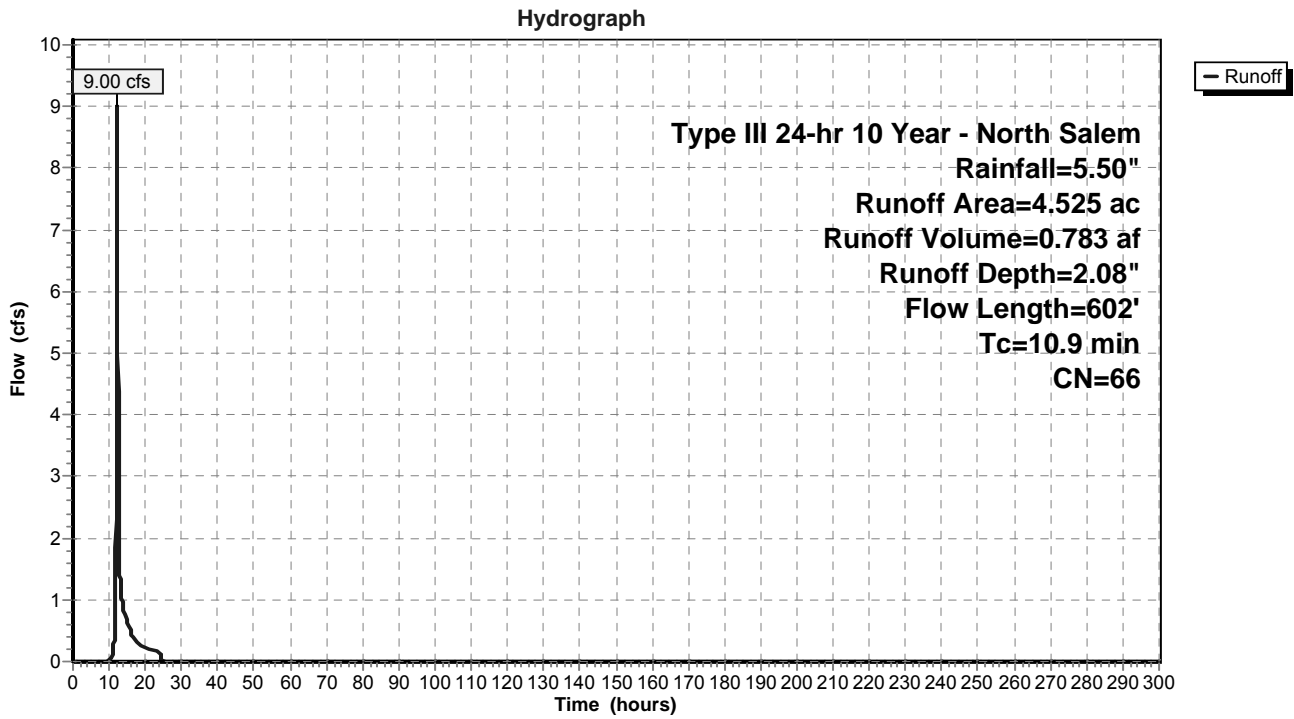
Runoff = 9.00 cfs @ 12.16 hrs, Volume= 0.783 af, Depth= 2.08"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2



Summary for Subcatchment B3: Post-Development B3

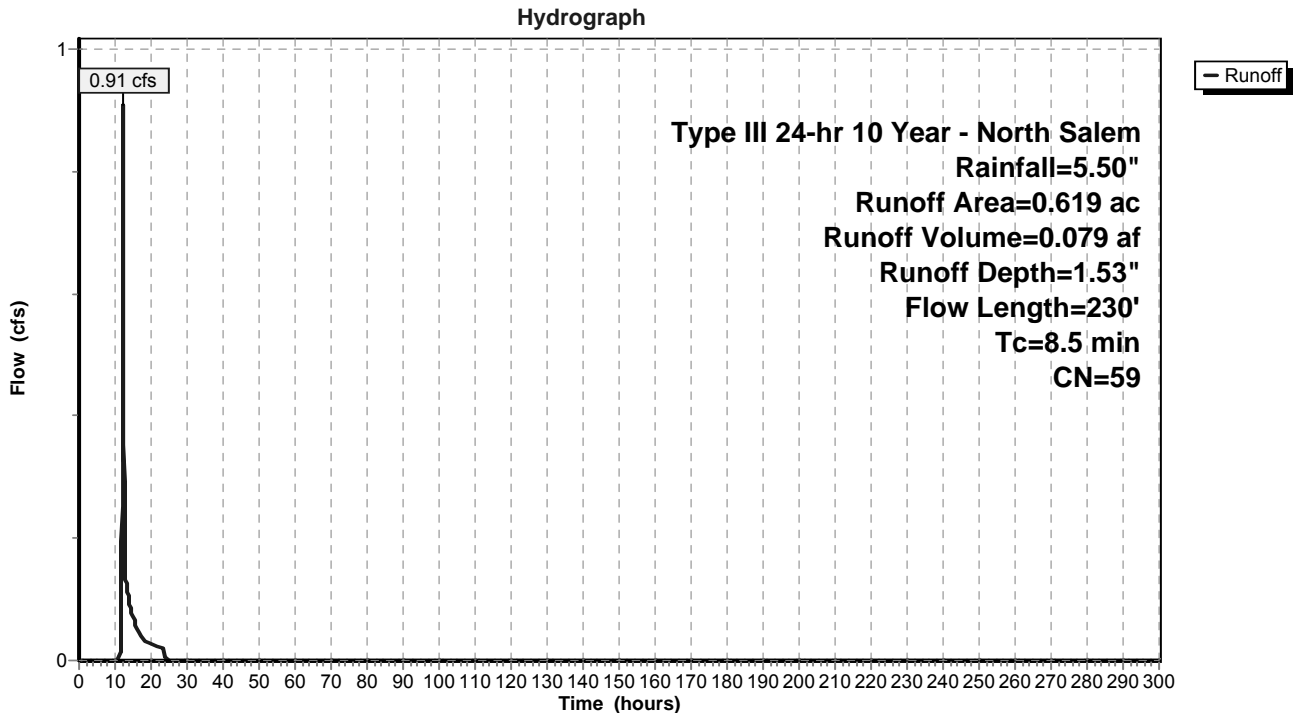
Runoff = 0.91 cfs @ 12.14 hrs, Volume= 0.079 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 1.05" for 10 Year - North Salem event
 Inflow = 7.19 cfs @ 12.16 hrs, Volume= 0.448 af
 Outflow = 0.27 cfs @ 19.66 hrs, Volume= 0.106 af, Atten= 96%, Lag= 449.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.27 cfs @ 19.66 hrs, Volume= 0.106 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 425.04' @ 19.66 hrs Surf.Area= 5,403 sf Storage= 15,135 cf

Plug-Flow detention time= 571.3 min calculated for 0.106 af (24% of inflow)
 Center-of-Mass det. time= 355.3 min (1,297.8 - 942.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

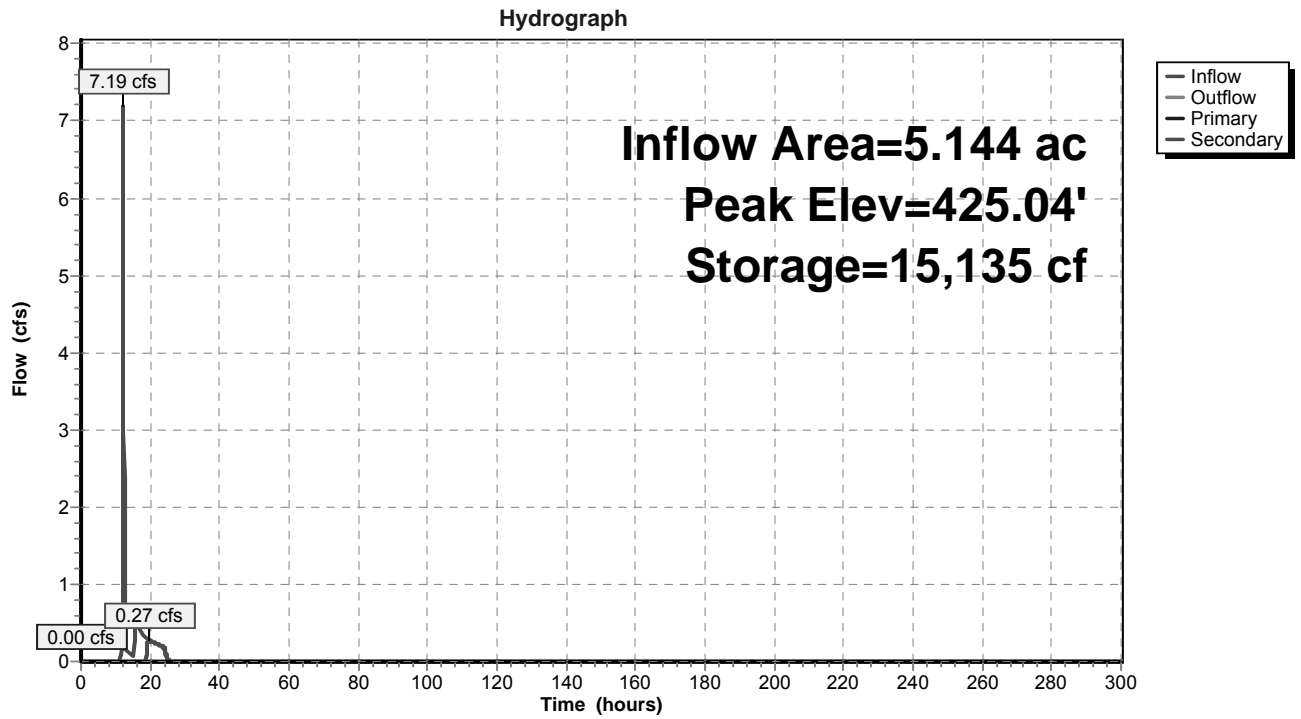
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.27 cfs @ 19.66 hrs HW=425.04' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.27 cfs @ 0.66 fps)

Pond B-B3: Dry Basin (Basin B3)



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

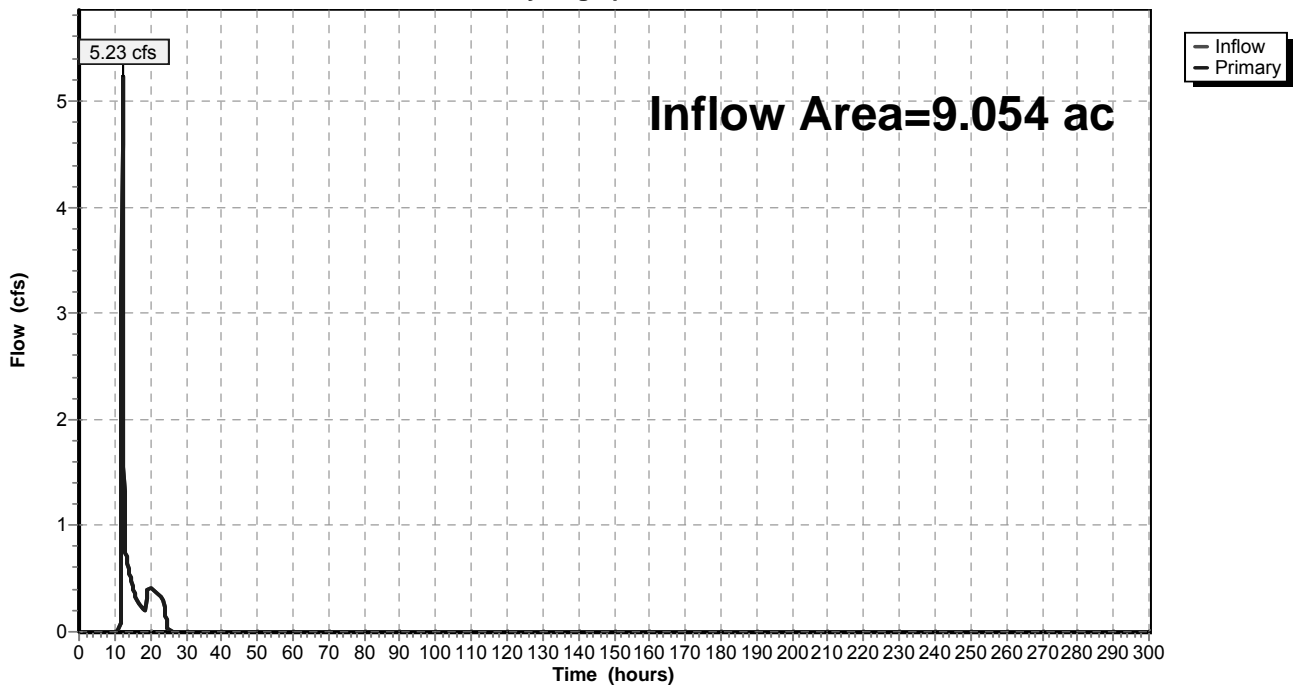
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 0.77" for 10 Year - North Salem event
Inflow = 5.23 cfs @ 12.15 hrs, Volume= 0.579 af
Primary = 5.23 cfs @ 12.15 hrs, Volume= 0.579 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 2.08" for 10 Year - North Salem event
 Inflow = 9.00 cfs @ 12.16 hrs, Volume= 0.783 af
 Outflow = 9.00 cfs @ 12.16 hrs, Volume= 0.783 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.70 cfs @ 12.16 hrs, Volume= 0.613 af
 Secondary = 6.30 cfs @ 12.16 hrs, Volume= 0.170 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.92' @ 12.16 hrs
 Flood Elev= 468.26'

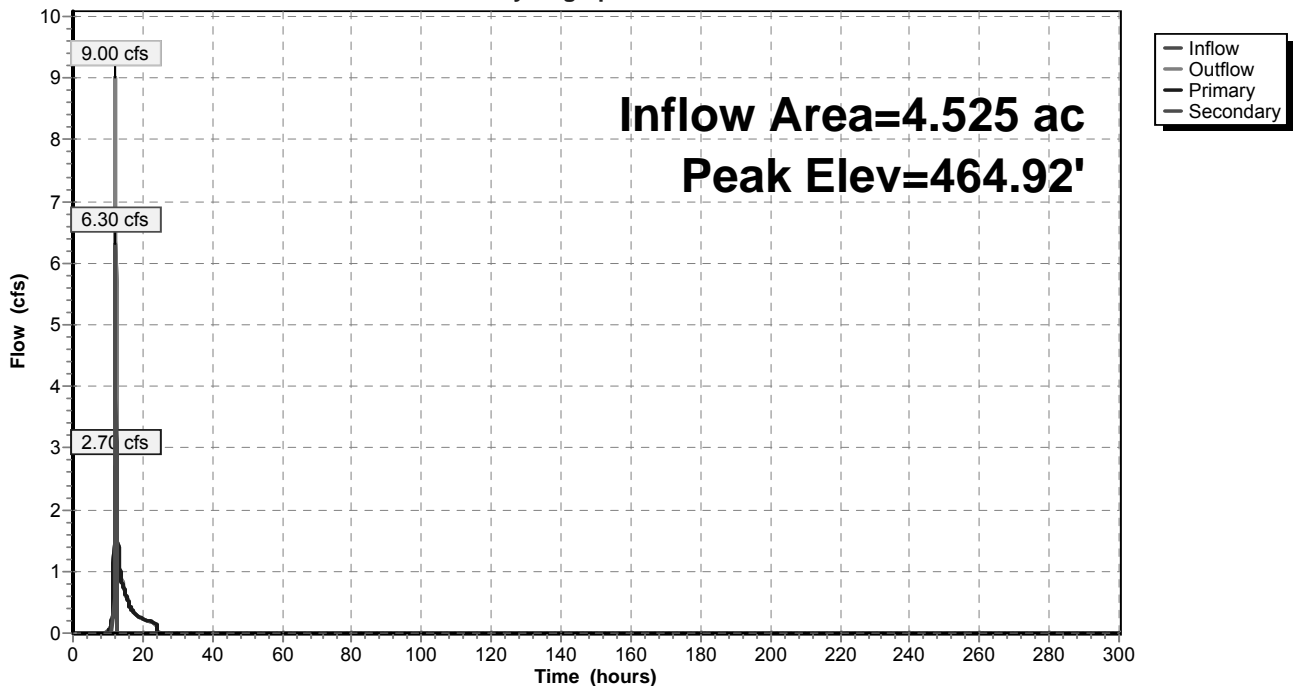
Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.69 cfs @ 12.16 hrs HW=464.90' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.69 cfs @ 7.72 fps)

Secondary OutFlow Max=6.15 cfs @ 12.16 hrs HW=464.90' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 6.15 cfs @ 3.54 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 1.32" for 10 Year - North Salem event
 Inflow = 2.47 cfs @ 12.41 hrs, Volume= 0.496 af
 Outflow = 0.52 cfs @ 15.82 hrs, Volume= 0.200 af, Atten= 79%, Lag= 204.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.52 cfs @ 15.82 hrs, Volume= 0.200 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 438.06' @ 15.82 hrs Surf.Area= 4,389 sf Storage= 13,178 cf

Plug-Flow detention time= 374.5 min calculated for 0.200 af (40% of inflow)
 Center-of-Mass det. time= 207.3 min (1,146.6 - 939.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe X 0.00 L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

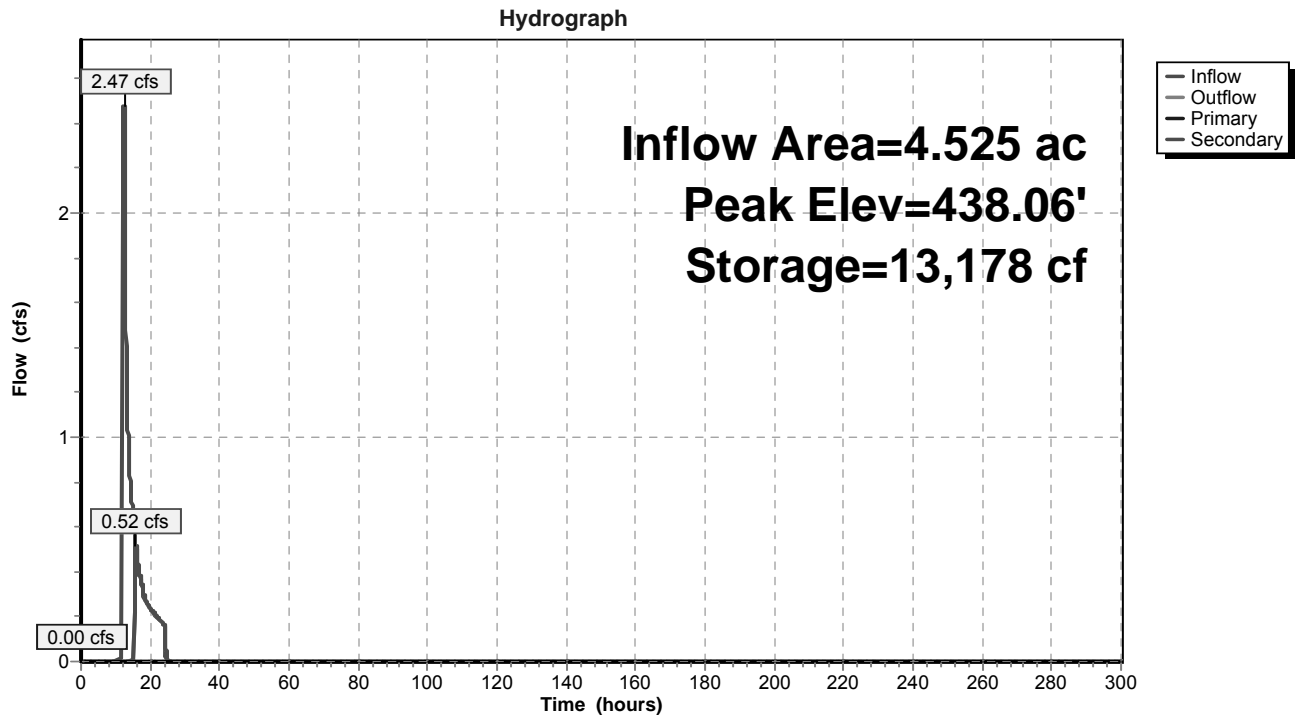
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.50 cfs @ 15.82 hrs HW=438.06' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.50 cfs @ 0.81 fps)

Pond SF-B2: Sand Filter - B2



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 1.63" for 10 Year - North Salem event
 Inflow = 2.70 cfs @ 12.16 hrs, Volume= 0.613 af
 Outflow = 2.47 cfs @ 12.41 hrs, Volume= 0.496 af, Atten= 8%, Lag= 14.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.47 cfs @ 12.41 hrs, Volume= 0.496 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 459.20' @ 12.41 hrs Surf.Area= 2,562 sf Storage= 5,608 cf

Plug-Flow detention time= 129.0 min calculated for 0.496 af (81% of inflow)
 Center-of-Mass det. time= 48.1 min (939.3 - 891.2)

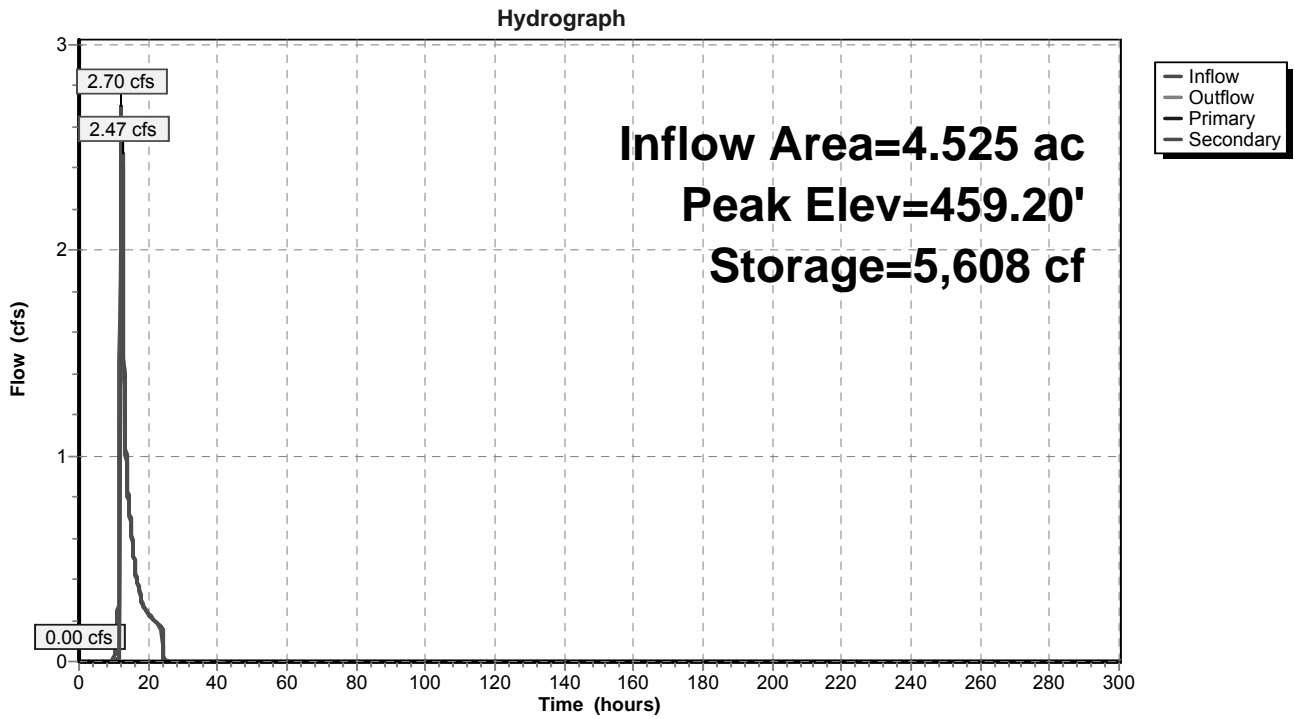
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe X 0.00 L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Standpipe Openings (Controls 0.00 cfs)
 ↑ 3=Top of Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=2.47 cfs @ 12.41 hrs HW=459.20' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 2.47 cfs @ 1.54 fps)

Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=2.41"
Flow Length=917' Tc=9.6 min CN=58 Runoff=9.22 cfs 0.785 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=3.20"
Flow Length=602' Tc=10.9 min CN=66 Runoff=14.21 cfs 1.208 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=2.51"
Flow Length=230' Tc=8.5 min CN=59 Runoff=1.57 cfs 0.129 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=425.21' Storage=16,036 cf Inflow=12.81 cfs 0.924 af
Primary=0.00 cfs 0.000 af Secondary=3.12 cfs 0.582 af Outflow=3.12 cfs 0.582 af

Pond DP 2: Design Point 2 Inflow=9.22 cfs 1.367 af
Primary=9.22 cfs 1.367 af

Pond FS B2: Flow Splitter B2 Peak Elev=465.39' Inflow=14.21 cfs 1.208 af
Primary=2.94 cfs 0.852 af Secondary=11.27 cfs 0.356 af Outflow=14.21 cfs 1.208 af

Pond SF-B2: Sand Filter - B2 Peak Elev=438.11' Storage=13,404 cf Inflow=2.91 cfs 0.735 af
Primary=0.00 cfs 0.000 af Secondary=1.26 cfs 0.438 af Outflow=1.26 cfs 0.438 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=459.22' Storage=5,664 cf Inflow=2.94 cfs 0.852 af
Primary=0.00 cfs 0.000 af Secondary=2.91 cfs 0.735 af Outflow=2.91 cfs 0.735 af

Total Runoff Area = 9.054 ac Runoff Volume = 2.123 af Average Runoff Depth = 2.81"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 9.22 cfs @ 12.15 hrs, Volume= 0.785 af, Depth= 2.41"

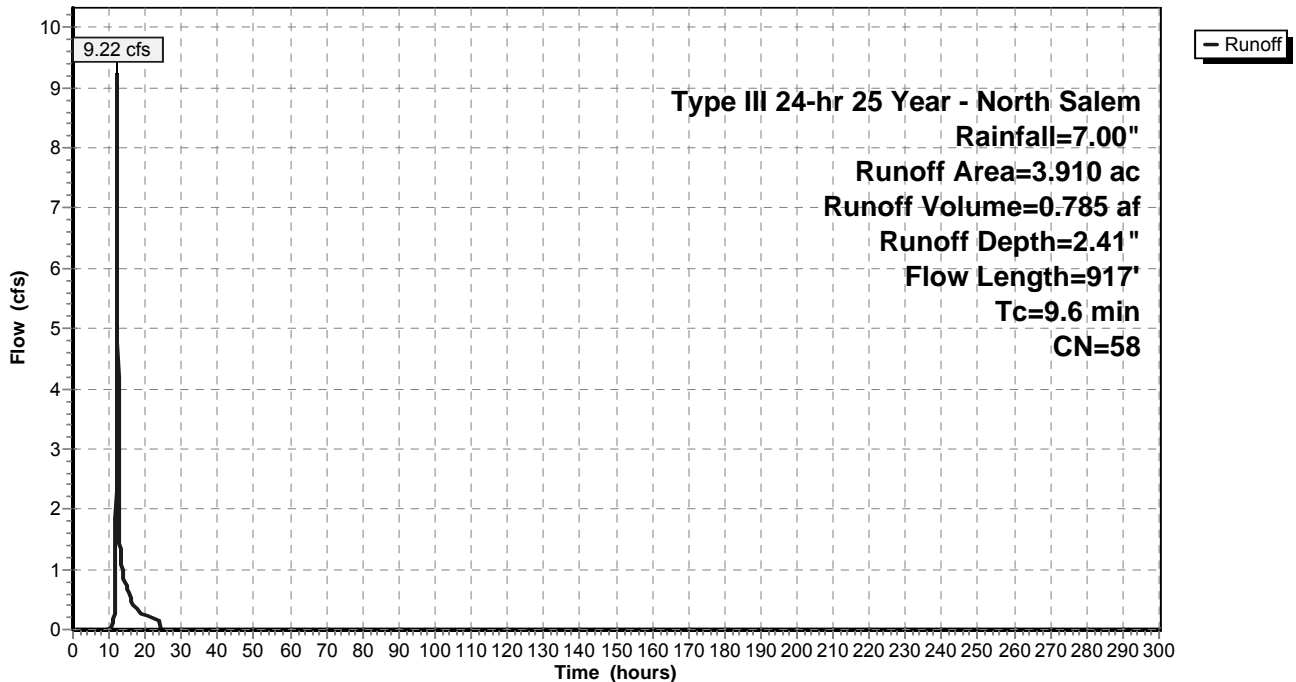
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

Runoff = 14.21 cfs @ 12.16 hrs, Volume= 1.208 af, Depth= 3.20"

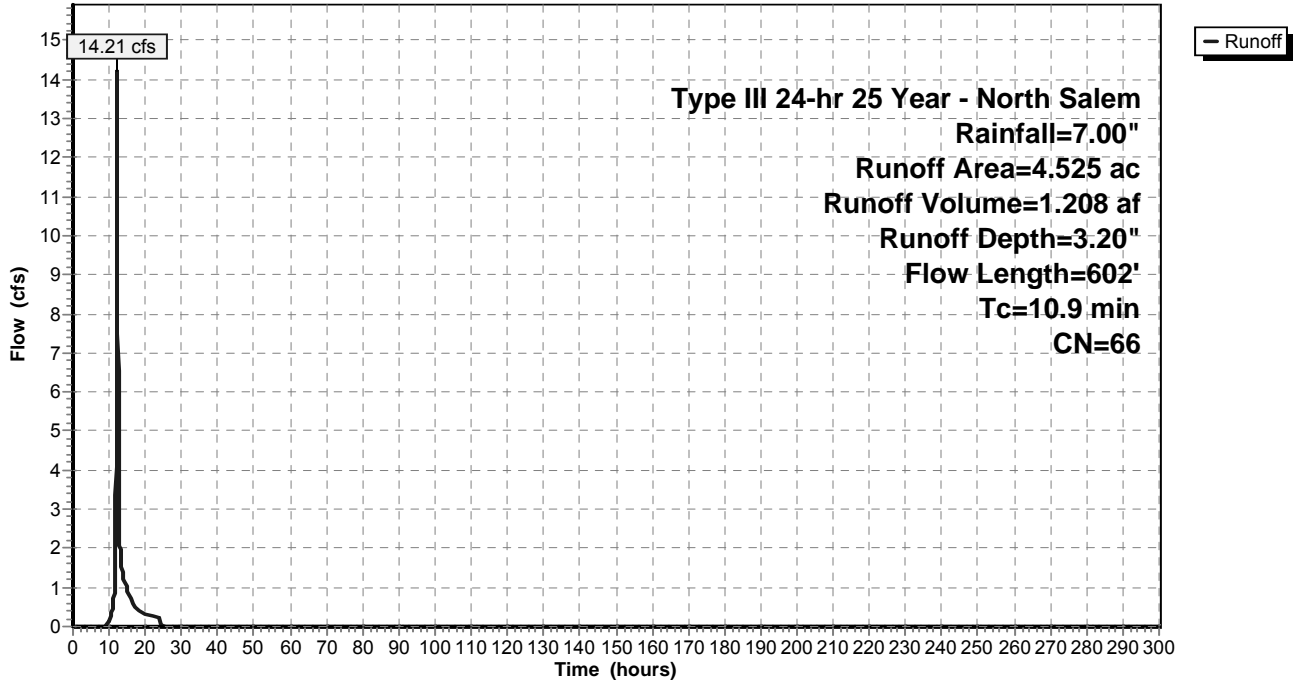
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2

Hydrograph



Summary for Subcatchment B3: Post-Development B3

Runoff = 1.57 cfs @ 12.13 hrs, Volume= 0.129 af, Depth= 2.51"

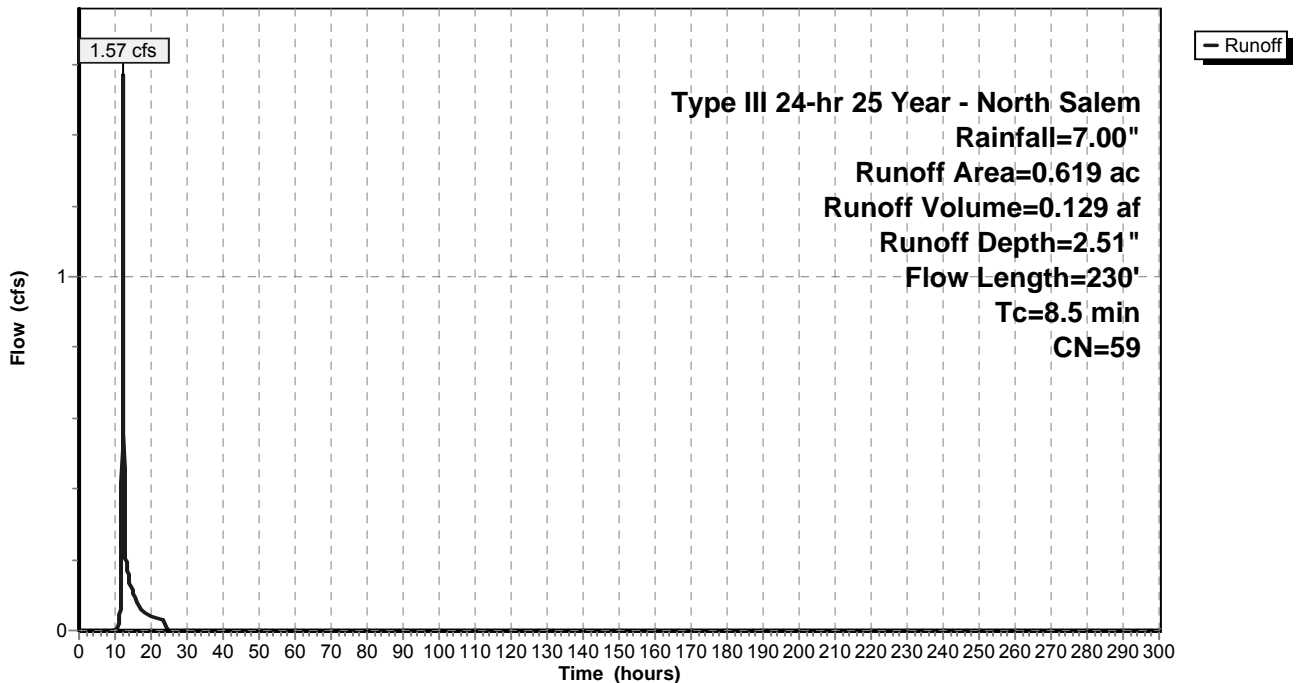
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 2.16" for 25 Year - North Salem event
 Inflow = 12.81 cfs @ 12.16 hrs, Volume= 0.924 af
 Outflow = 3.12 cfs @ 12.54 hrs, Volume= 0.582 af, Atten= 76%, Lag= 22.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 3.12 cfs @ 12.54 hrs, Volume= 0.582 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 425.21' @ 12.54 hrs Surf.Area= 5,572 sf Storage= 16,036 cf

Plug-Flow detention time= 243.7 min calculated for 0.582 af (63% of inflow)
 Center-of-Mass det. time= 110.8 min (1,011.3 - 900.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
420.00	940	212.0	0	0	940	
422.00	2,494	282.0	3,310	3,310	3,736	
424.00	4,350	328.0	6,759	10,069	6,051	
425.00	5,361	346.0	4,847	14,915	7,073	
426.00	6,428	365.0	5,886	20,802	8,205	

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

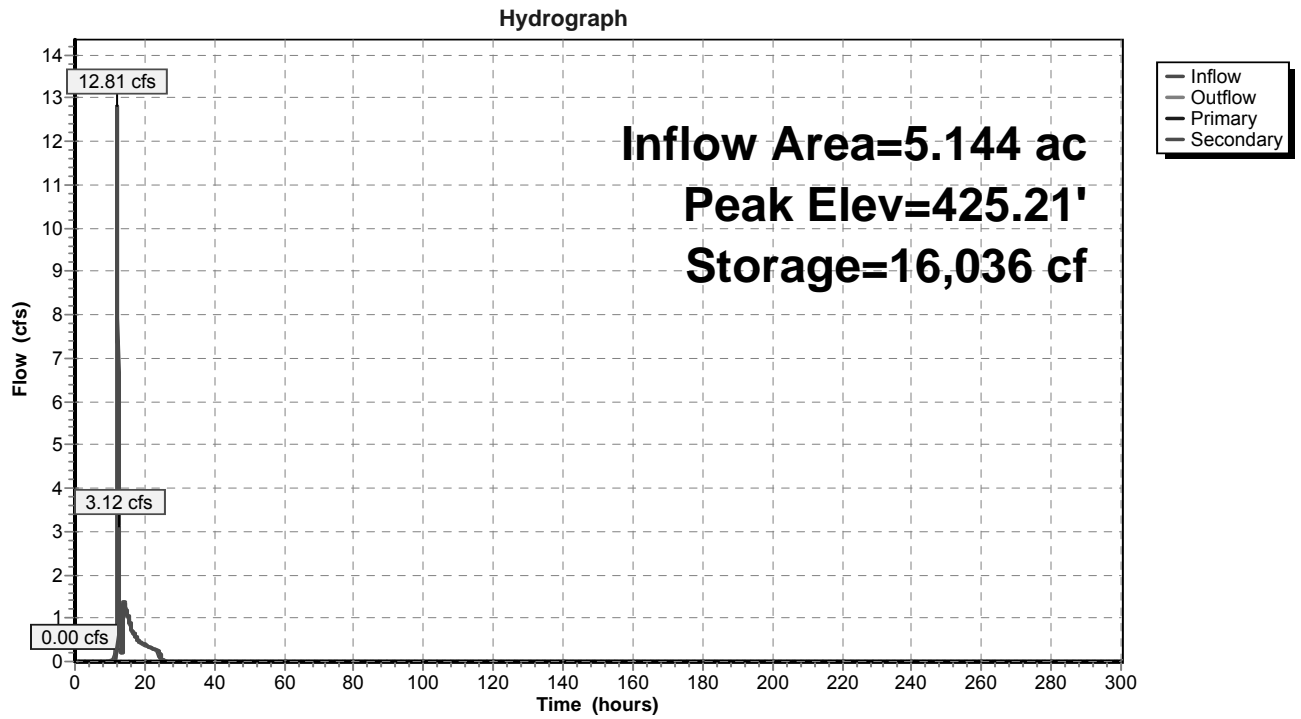
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=3.05 cfs @ 12.54 hrs HW=425.20' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 3.05 cfs @ 1.51 fps)

Pond B-B3: Dry Basin (Basin B3)



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

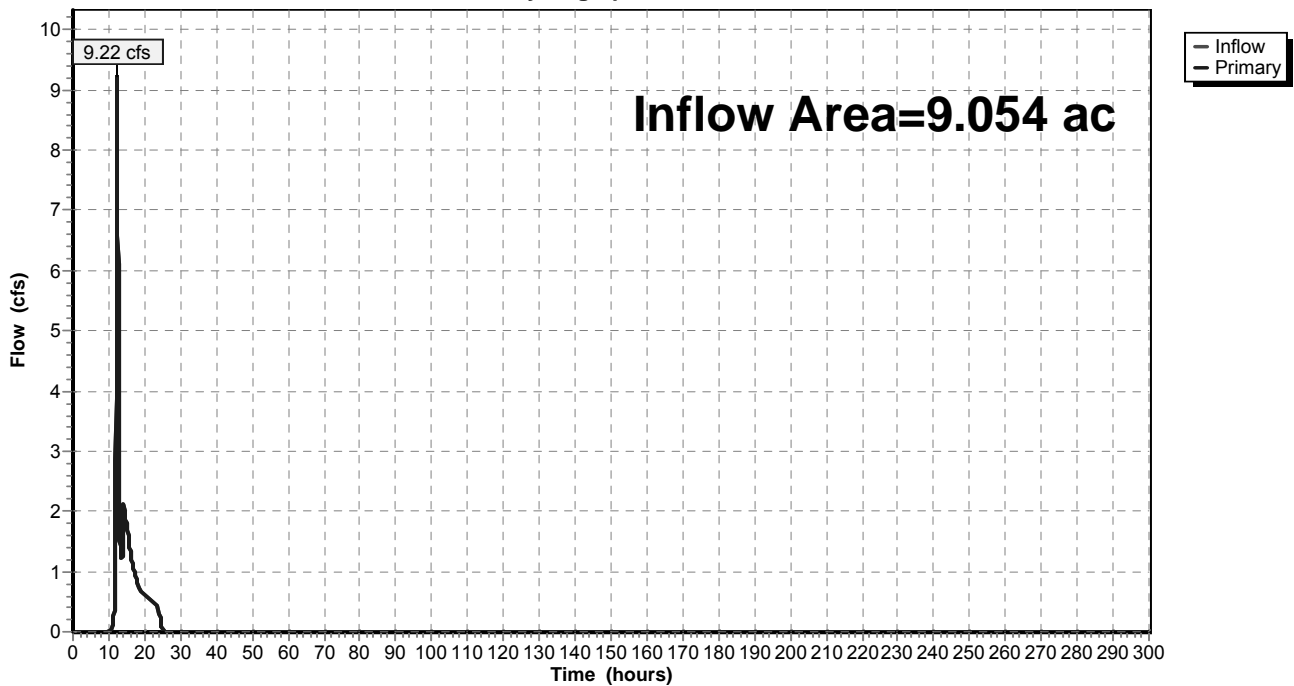
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 1.81" for 25 Year - North Salem event
Inflow = 9.22 cfs @ 12.15 hrs, Volume= 1.367 af
Primary = 9.22 cfs @ 12.15 hrs, Volume= 1.367 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
 Inflow = 14.21 cfs @ 12.16 hrs, Volume= 1.208 af
 Outflow = 14.21 cfs @ 12.16 hrs, Volume= 1.208 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.94 cfs @ 12.16 hrs, Volume= 0.852 af
 Secondary = 11.27 cfs @ 12.16 hrs, Volume= 0.356 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.39' @ 12.16 hrs
 Flood Elev= 468.26'

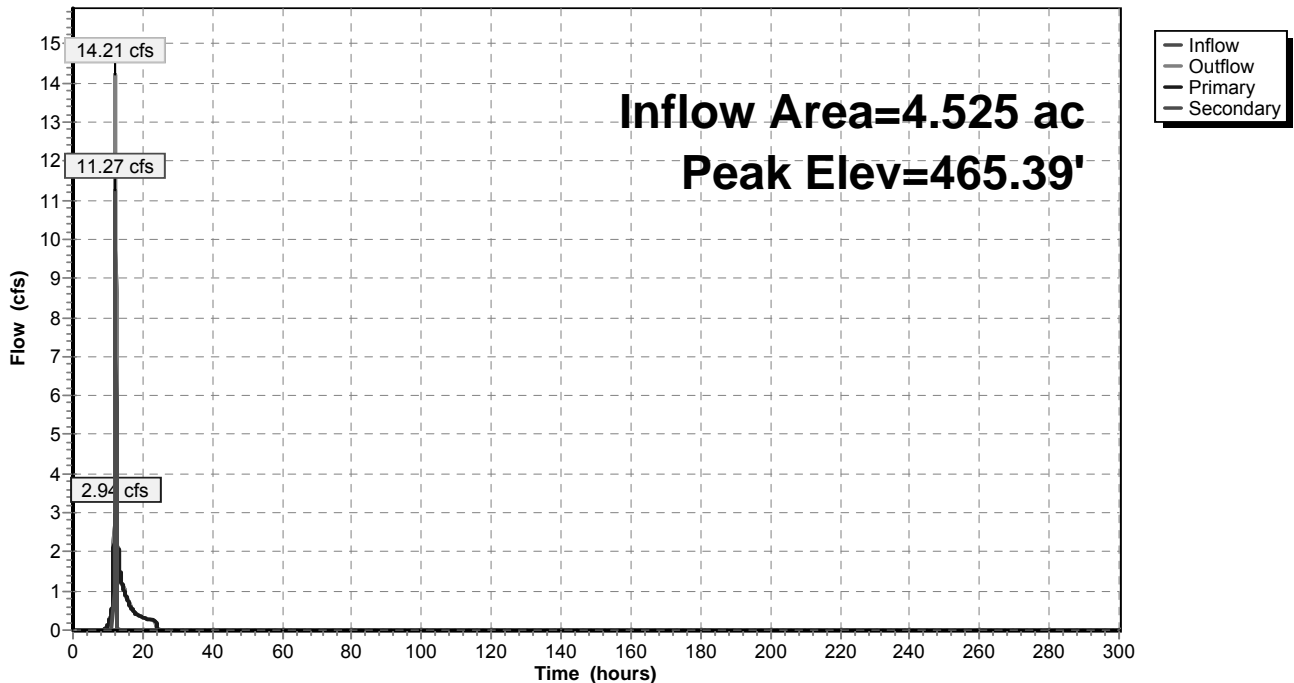
Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.93 cfs @ 12.16 hrs HW=465.37' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.93 cfs @ 8.39 fps)

Secondary OutFlow Max=11.09 cfs @ 12.16 hrs HW=465.37' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 11.09 cfs @ 4.24 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 1.95" for 25 Year - North Salem event
 Inflow = 2.91 cfs @ 12.20 hrs, Volume= 0.735 af
 Outflow = 1.26 cfs @ 13.97 hrs, Volume= 0.438 af, Atten= 57%, Lag= 106.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.26 cfs @ 13.97 hrs, Volume= 0.438 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 438.11' @ 13.97 hrs Surf.Area= 4,419 sf Storage= 13,404 cf

Plug-Flow detention time= 252.9 min calculated for 0.438 af (60% of inflow)
 Center-of-Mass det. time= 120.0 min (1,048.6 - 928.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe X 0.00 L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

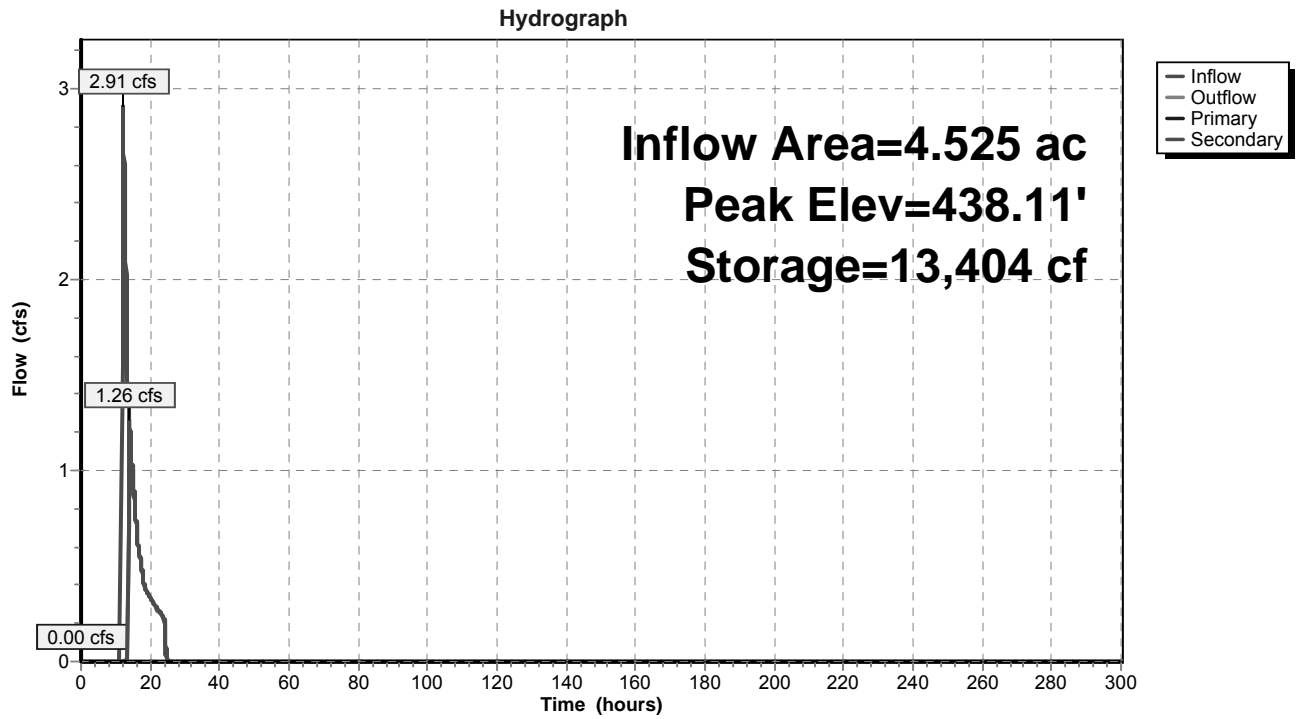
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.24 cfs @ 13.97 hrs HW=438.11' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.24 cfs @ 1.11 fps)

Pond SF-B2: Sand Filter - B2



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 2.26" for 25 Year - North Salem event
 Inflow = 2.94 cfs @ 12.16 hrs, Volume= 0.852 af
 Outflow = 2.91 cfs @ 12.20 hrs, Volume= 0.735 af, Atten= 1%, Lag= 2.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.91 cfs @ 12.20 hrs, Volume= 0.735 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 459.22' @ 12.20 hrs Surf.Area= 2,575 sf Storage= 5,664 cf

Plug-Flow detention time= 101.3 min calculated for 0.735 af (86% of inflow)
 Center-of-Mass det. time= 38.1 min (928.5 - 890.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe X 0.00 L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

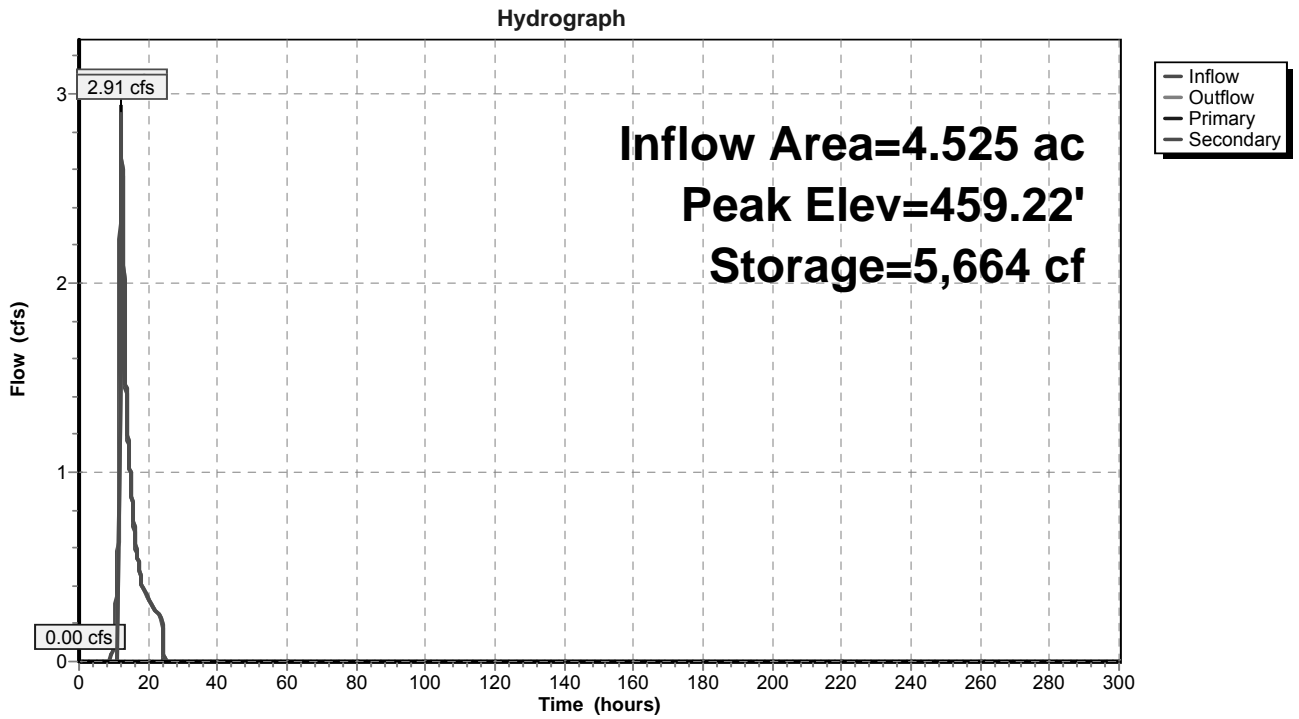
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=2.90 cfs @ 12.20 hrs HW=459.22' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 2.90 cfs @ 1.63 fps)

Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			

Woodlands Post-Dev DP 2 WORST CA Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment B1: Post-Development B1 Runoff Area=3.910 ac 0.00% Impervious Runoff Depth=3.86"
Flow Length=917' Tc=9.6 min CN=58 Runoff=15.21 cfs 1.256 af

Subcatchment B2: Post-Development B2 Runoff Area=4.525 ac 17.50% Impervious Runoff Depth=4.84"
Flow Length=602' Tc=10.9 min CN=66 Runoff=21.64 cfs 1.825 af

Subcatchment B3: Post-Development B3 Runoff Area=0.619 ac 0.00% Impervious Runoff Depth=3.98"
Flow Length=230' Tc=8.5 min CN=59 Runoff=2.56 cfs 0.205 af

Pond B-B3: Dry Basin (Basin B3) Peak Elev=425.55' Storage=18,017 cf Inflow=20.80 cfs 1.617 af
Primary=0.00 cfs 0.000 af Secondary=14.07 cfs 1.275 af Outflow=14.07 cfs 1.275 af

Pond DP 2: Design Point 2 Inflow=24.96 cfs 2.531 af
Primary=24.96 cfs 2.531 af

Pond FS B2: Flow Splitter B2 Peak Elev=466.28' Inflow=21.64 cfs 1.825 af
Primary=3.34 cfs 1.162 af Secondary=18.30 cfs 0.663 af Outflow=21.64 cfs 1.825 af

Pond SF-B2: Sand Filter - B2 Peak Elev=438.16' Storage=13,623 cf Inflow=3.28 cfs 1.045 af
Primary=0.00 cfs 0.000 af Secondary=2.18 cfs 0.748 af Outflow=2.18 cfs 0.748 af

Pond SFF-B2: Sand Filter Forebay - B2 Peak Elev=459.24' Storage=5,712 cf Inflow=3.34 cfs 1.162 af
Primary=0.00 cfs 0.000 af Secondary=3.28 cfs 1.045 af Outflow=3.28 cfs 1.045 af

Total Runoff Area = 9.054 ac Runoff Volume = 3.287 af Average Runoff Depth = 4.36"
91.25% Pervious = 8.262 ac 8.75% Impervious = 0.792 ac

Summary for Subcatchment B1: Post-Development B1

Runoff = 15.21 cfs @ 12.14 hrs, Volume= 1.256 af, Depth= 3.86"

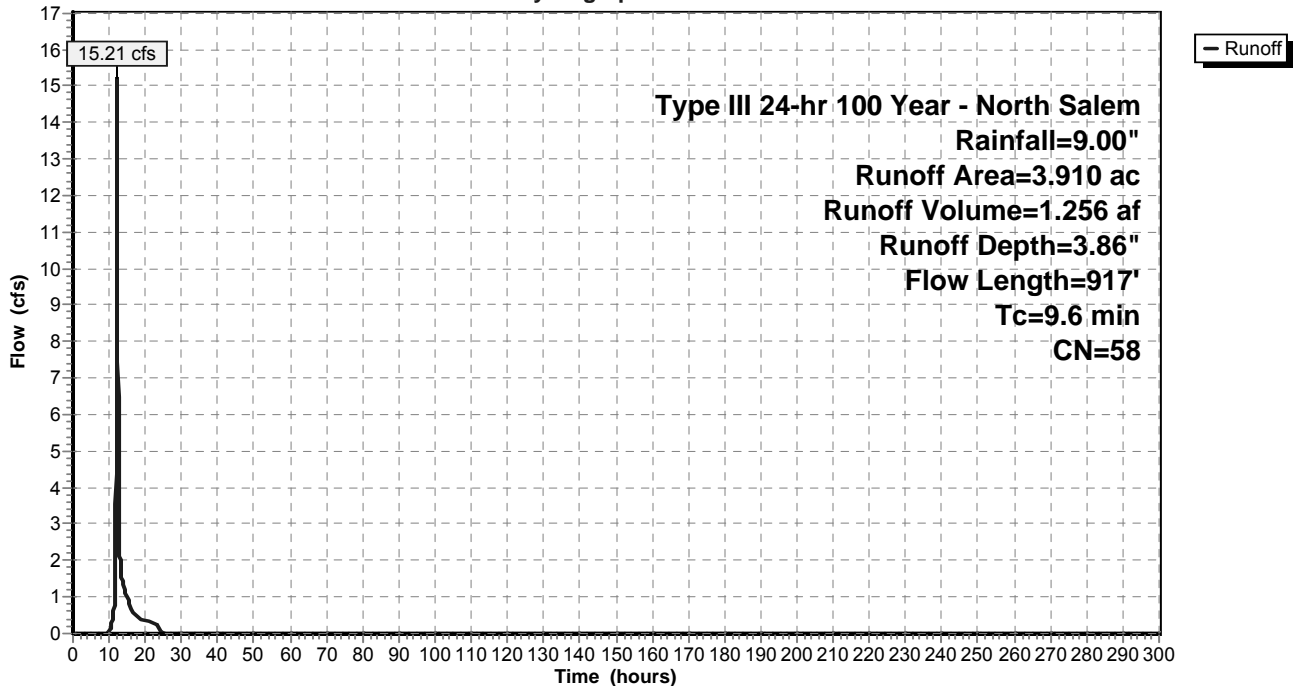
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
1.696	61	>75% Grass cover, Good, HSG B
2.214	55	Woods, Good, HSG B
3.910	58	Weighted Average
3.910		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.7	100	0.2200	0.22		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	94	0.1915	7.05		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	71	0.3098	8.96		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	330	0.1364	5.95		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.7	322	0.2205	7.56		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
9.6	917	Total			

Subcatchment B1: Post-Development B1

Hydrograph



Summary for Subcatchment B2: Post-Development B2

Runoff = 21.64 cfs @ 12.16 hrs, Volume= 1.825 af, Depth= 4.84"

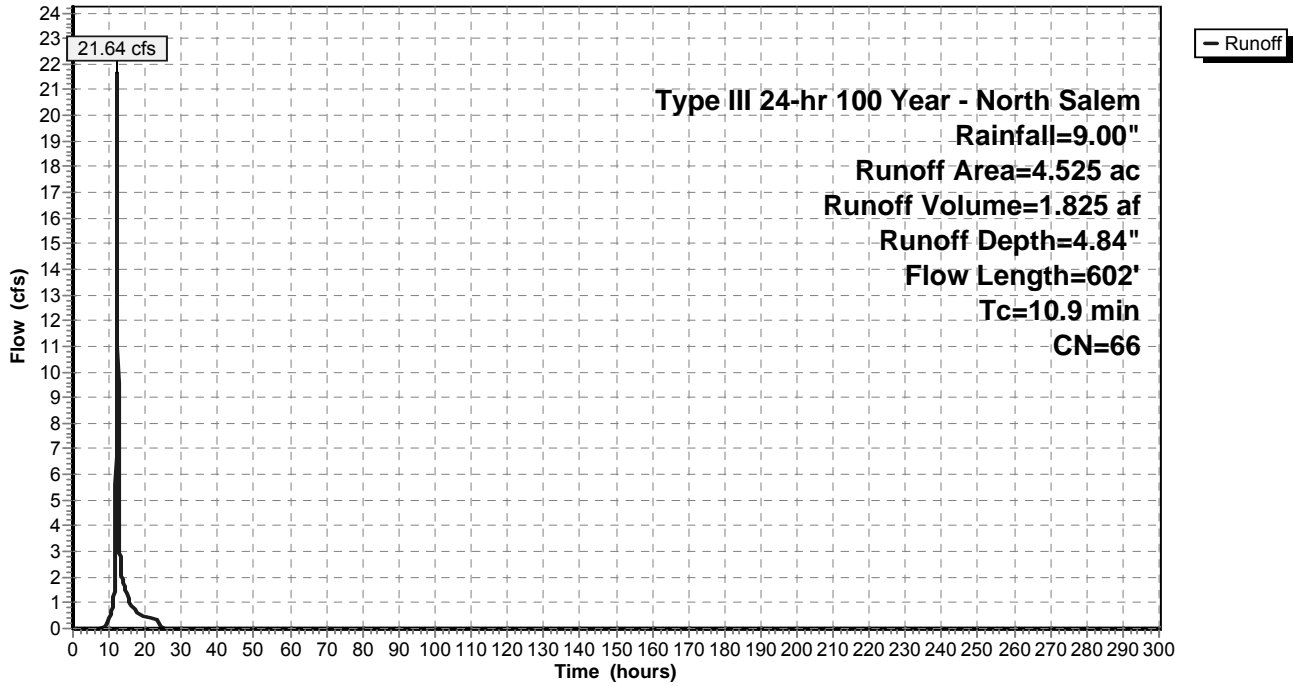
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.547	98	Paved roads w/curbs & sewers, HSG B
* 0.096	98	Sidewalk
2.812	61	>75% Grass cover, Good, HSG B
* 0.921	55	Woods, Good, HSG B, (Undisturbed)
* 0.064	98	Roof/Walkway
* 0.085	98	Driveway
4.525	66	Weighted Average
3.733		82.50% Pervious Area
0.792		17.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	48	0.1250	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.0	52	0.3077	0.22		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.2197	7.55		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.9	156	0.0321	2.88		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
0.2	155	0.0903	11.61	20.52	Pipe Channel, F-G 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.9	602	Total			

Subcatchment B2: Post-Development B2

Hydrograph



Summary for Subcatchment B3: Post-Development B3

Runoff = 2.56 cfs @ 12.13 hrs, Volume= 0.205 af, Depth= 3.98"

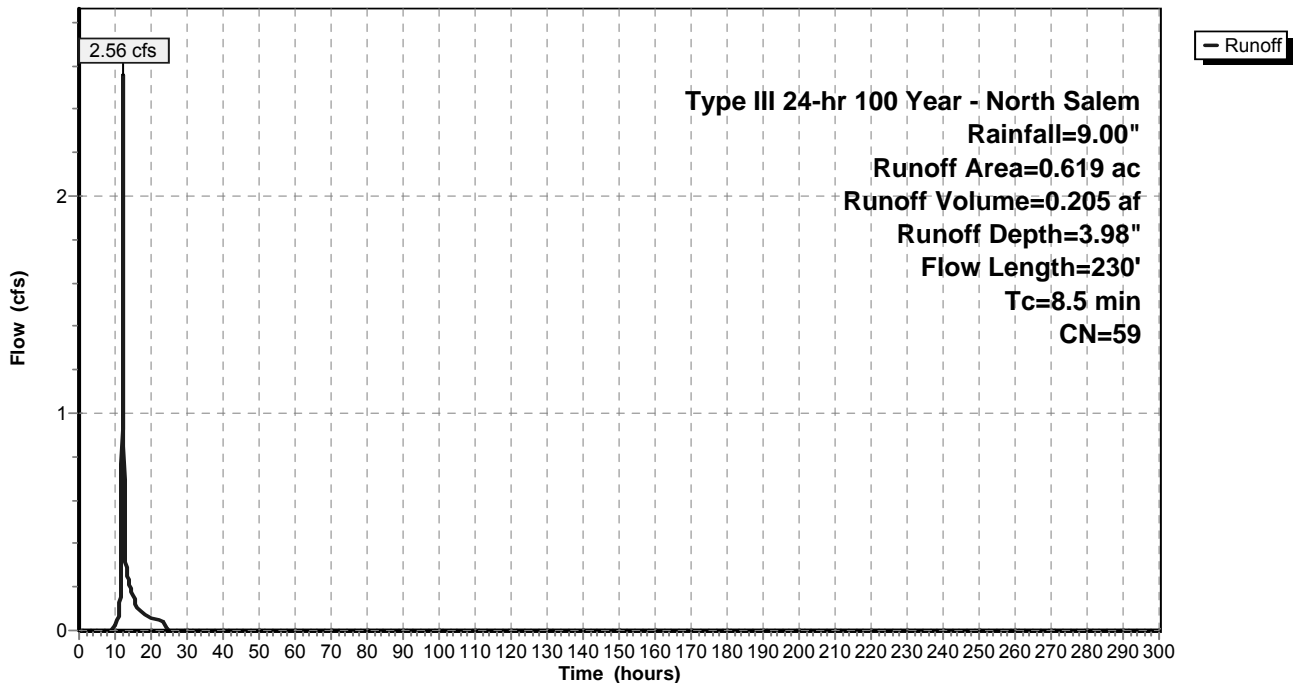
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.430	61	>75% Grass cover, Good, HSG B
* 0.189	55	Woods, Good, HSG B, (Undisturbed)
0.619	59	Weighted Average
0.619		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	100	0.2000	0.21		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	50	0.3600	9.66		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	20	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	60	0.0330	2.92		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
8.5	230	Total			

Subcatchment B3: Post-Development B3

Hydrograph



Summary for Pond B-B3: Dry Basin (Basin B3)

Inflow Area = 5.144 ac, 15.40% Impervious, Inflow Depth = 3.77" for 100 Year - North Salem event
 Inflow = 20.80 cfs @ 12.15 hrs, Volume= 1.617 af
 Outflow = 14.07 cfs @ 12.29 hrs, Volume= 1.275 af, Atten= 32%, Lag= 8.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 14.07 cfs @ 12.29 hrs, Volume= 1.275 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 425.55' @ 12.29 hrs Surf.Area= 5,935 sf Storage= 18,017 cf

Plug-Flow detention time= 134.4 min calculated for 1.274 af (79% of inflow)
 Center-of-Mass det. time= 48.1 min (920.5 - 872.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	20,802 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	940	212.0	0	0	940
422.00	2,494	282.0	3,310	3,310	3,736
424.00	4,350	328.0	6,759	10,069	6,051
425.00	5,361	346.0	4,847	14,915	7,073
426.00	6,428	365.0	5,886	20,802	8,205

Device	Routing	Invert	Outlet Devices
#1	Primary	414.00'	36.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 404.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	420.50'	6.0" Vert. Orifice #1 C= 0.600
#3	Device 1	424.00'	18.0" W x 12.0" H Vert. Orifice #2 X 3.00 C= 0.600
#4	Device 1	425.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

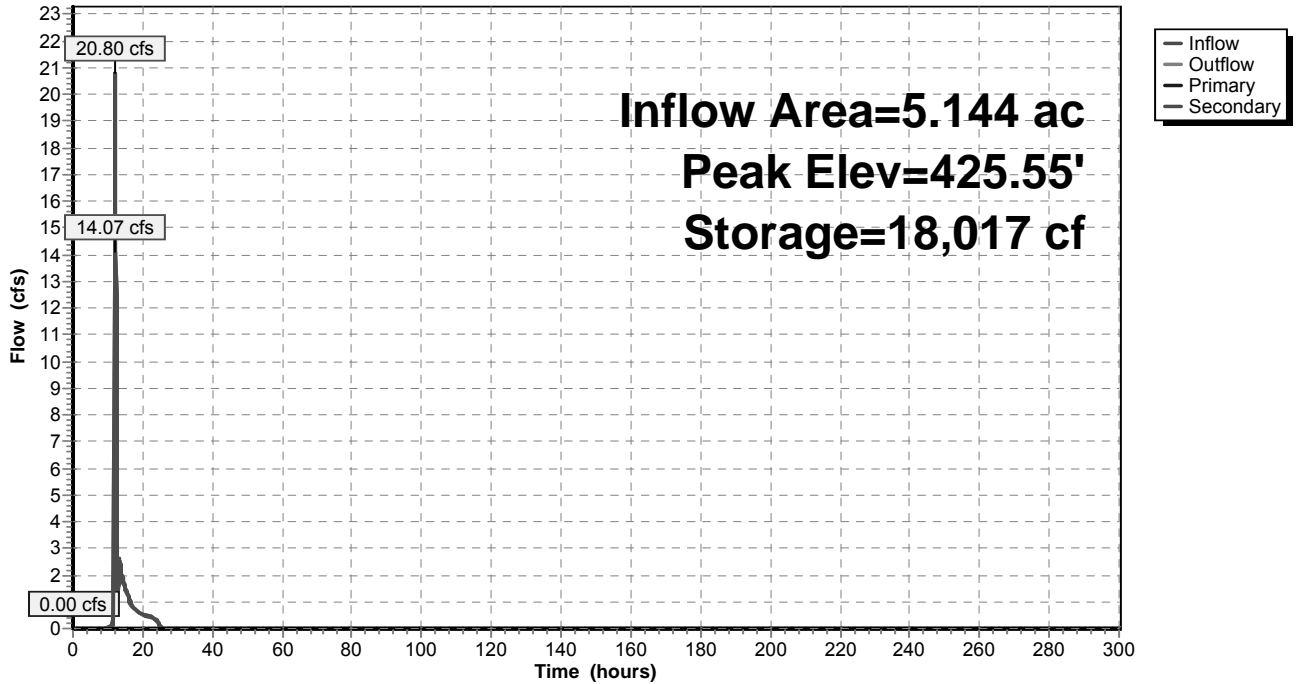
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=13.89 cfs @ 12.29 hrs HW=425.55' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 13.89 cfs @ 2.58 fps)

Pond B-B3: Dry Basin (Basin B3)

Hydrograph



Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	940	0	421.06	1,671	1,365
420.02	952	19	421.08	1,687	1,399
420.04	964	38	421.10	1,703	1,433
420.06	976	57	421.12	1,719	1,467
420.08	988	77	421.14	1,735	1,502
420.10	1,000	97	421.16	1,751	1,536
420.12	1,012	117	421.18	1,767	1,572
420.14	1,025	137	421.20	1,783	1,607
420.16	1,037	158	421.22	1,800	1,643
420.18	1,049	179	421.24	1,816	1,679
420.20	1,062	200	421.26	1,832	1,716
420.22	1,075	221	421.28	1,849	1,752
420.24	1,087	243	421.30	1,866	1,790
420.26	1,100	265	421.32	1,882	1,827
420.28	1,113	287	421.34	1,899	1,865
420.30	1,126	309	421.36	1,916	1,903
420.32	1,139	332	421.38	1,933	1,941
420.34	1,152	355	421.40	1,950	1,980
420.36	1,165	378	421.42	1,967	2,019
420.38	1,178	402	421.44	1,984	2,059
420.40	1,191	425	421.46	2,001	2,099
420.42	1,205	449	421.48	2,018	2,139
420.44	1,218	473	421.50	2,036	2,180
420.46	1,232	498	421.52	2,053	2,220
420.48	1,245	523	421.54	2,071	2,262
420.50	1,259	548	421.56	2,088	2,303
420.52	1,273	573	421.58	2,106	2,345
420.54	1,286	599	421.60	2,124	2,388
420.56	1,300	625	421.62	2,142	2,430
420.58	1,314	651	421.64	2,159	2,473
420.60	1,328	677	421.66	2,177	2,517
420.62	1,342	704	421.68	2,195	2,560
420.64	1,356	731	421.70	2,214	2,604
420.66	1,371	758	421.72	2,232	2,649
420.68	1,385	786	421.74	2,250	2,694
420.70	1,399	813	421.76	2,268	2,739
420.72	1,414	842	421.78	2,287	2,784
420.74	1,428	870	421.80	2,305	2,830
420.76	1,443	899	421.82	2,324	2,877
420.78	1,458	928	421.84	2,342	2,923
420.80	1,472	957	421.86	2,361	2,970
420.82	1,487	987	421.88	2,380	3,018
420.84	1,502	1,017	421.90	2,399	3,065
420.86	1,517	1,047	421.92	2,418	3,114
420.88	1,532	1,077	421.94	2,437	3,162
420.90	1,547	1,108	421.96	2,456	3,211
420.92	1,562	1,139	421.98	2,475	3,260
420.94	1,578	1,170	422.00	2,494	3,310
420.96	1,593	1,202	422.02	2,510	3,360
420.98	1,609	1,234	422.04	2,526	3,410
421.00	1,624	1,267	422.06	2,542	3,461
421.02	1,640	1,299	422.08	2,558	3,512
421.04	1,655	1,332	422.10	2,575	3,564

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	2,591	3,615	423.18	3,527	6,845
422.14	2,607	3,667	423.20	3,546	6,916
422.16	2,624	3,719	423.22	3,565	6,987
422.18	2,640	3,772	423.24	3,584	7,058
422.20	2,657	3,825	423.26	3,603	7,130
422.22	2,673	3,878	423.28	3,623	7,202
422.24	2,690	3,932	423.30	3,642	7,275
422.26	2,706	3,986	423.32	3,661	7,348
422.28	2,723	4,040	423.34	3,681	7,422
422.30	2,740	4,095	423.36	3,700	7,495
422.32	2,756	4,150	423.38	3,720	7,570
422.34	2,773	4,205	423.40	3,739	7,644
422.36	2,790	4,261	423.42	3,759	7,719
422.38	2,807	4,317	423.44	3,779	7,794
422.40	2,824	4,373	423.46	3,798	7,870
422.42	2,841	4,430	423.48	3,818	7,946
422.44	2,858	4,487	423.50	3,838	8,023
422.46	2,875	4,544	423.52	3,858	8,100
422.48	2,893	4,602	423.54	3,878	8,177
422.50	2,910	4,660	423.56	3,898	8,255
422.52	2,927	4,718	423.58	3,918	8,333
422.54	2,945	4,777	423.60	3,938	8,412
422.56	2,962	4,836	423.62	3,958	8,491
422.58	2,979	4,895	423.64	3,978	8,570
422.60	2,997	4,955	423.66	3,998	8,650
422.62	3,015	5,015	423.68	4,019	8,730
422.64	3,032	5,076	423.70	4,039	8,811
422.66	3,050	5,136	423.72	4,059	8,892
422.68	3,067	5,198	423.74	4,080	8,973
422.70	3,085	5,259	423.76	4,100	9,055
422.72	3,103	5,321	423.78	4,121	9,137
422.74	3,121	5,383	423.80	4,141	9,220
422.76	3,139	5,446	423.82	4,162	9,303
422.78	3,157	5,509	423.84	4,183	9,386
422.80	3,175	5,572	423.86	4,203	9,470
422.82	3,193	5,636	423.88	4,224	9,554
422.84	3,211	5,700	423.90	4,245	9,639
422.86	3,229	5,764	423.92	4,266	9,724
422.88	3,247	5,829	423.94	4,287	9,809
422.90	3,266	5,894	423.96	4,308	9,895
422.92	3,284	5,960	423.98	4,329	9,982
422.94	3,302	6,026	424.00	4,350	10,069
422.96	3,321	6,092	424.02	4,369	10,156
422.98	3,339	6,158	424.04	4,388	10,243
423.00	3,358	6,225	424.06	4,408	10,331
423.02	3,376	6,293	424.08	4,427	10,420
423.04	3,395	6,360	424.10	4,446	10,508
423.06	3,414	6,428	424.12	4,466	10,598
423.08	3,433	6,497	424.14	4,485	10,687
423.10	3,451	6,566	424.16	4,505	10,777
423.12	3,470	6,635	424.18	4,524	10,867
423.14	3,489	6,705	424.20	4,544	10,958
423.16	3,508	6,775	424.22	4,563	11,049

Stage-Area-Storage for Pond B-B3: Dry Basin (Basin B3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	4,583	11,140	425.30	5,671	16,570
424.26	4,603	11,232	425.32	5,692	16,684
424.28	4,622	11,325	425.34	5,713	16,798
424.30	4,642	11,417	425.36	5,734	16,912
424.32	4,662	11,510	425.38	5,755	17,027
424.34	4,682	11,604	425.40	5,776	17,142
424.36	4,702	11,698	425.42	5,797	17,258
424.38	4,722	11,792	425.44	5,819	17,374
424.40	4,742	11,886	425.46	5,840	17,491
424.42	4,762	11,981	425.48	5,861	17,608
424.44	4,782	12,077	425.50	5,882	17,725
424.46	4,802	12,173	425.52	5,904	17,843
424.48	4,822	12,269	425.54	5,925	17,961
424.50	4,842	12,366	425.56	5,947	18,080
424.52	4,863	12,463	425.58	5,968	18,199
424.54	4,883	12,560	425.60	5,990	18,319
424.56	4,903	12,658	425.62	6,011	18,439
424.58	4,924	12,756	425.64	6,033	18,559
424.60	4,944	12,855	425.66	6,054	18,680
424.62	4,964	12,954	425.68	6,076	18,801
424.64	4,985	13,053	425.70	6,098	18,923
424.66	5,005	13,153	425.72	6,119	19,045
424.68	5,026	13,254	425.74	6,141	19,168
424.70	5,047	13,354	425.76	6,163	19,291
424.72	5,067	13,456	425.78	6,185	19,414
424.74	5,088	13,557	425.80	6,207	19,538
424.76	5,109	13,659	425.82	6,229	19,663
424.78	5,130	13,761	425.84	6,251	19,787
424.80	5,150	13,864	425.86	6,273	19,913
424.82	5,171	13,967	425.88	6,295	20,038
424.84	5,192	14,071	425.90	6,317	20,164
424.86	5,213	14,175	425.92	6,339	20,291
424.88	5,234	14,280	425.94	6,361	20,418
424.90	5,255	14,385	425.96	6,383	20,546
424.92	5,276	14,490	425.98	6,406	20,673
424.94	5,297	14,596	426.00	6,428	20,802
424.96	5,319	14,702			
424.98	5,340	14,808			
425.00	5,361	14,915			
425.02	5,381	15,023			
425.04	5,402	15,131			
425.06	5,422	15,239			
425.08	5,443	15,347			
425.10	5,463	15,457			
425.12	5,484	15,566			
425.14	5,505	15,676			
425.16	5,525	15,786			
425.18	5,546	15,897			
425.20	5,567	16,008			
425.22	5,587	16,120			
425.24	5,608	16,232			
425.26	5,629	16,344			
425.28	5,650	16,457			

Summary for Pond DP 2: Design Point 2

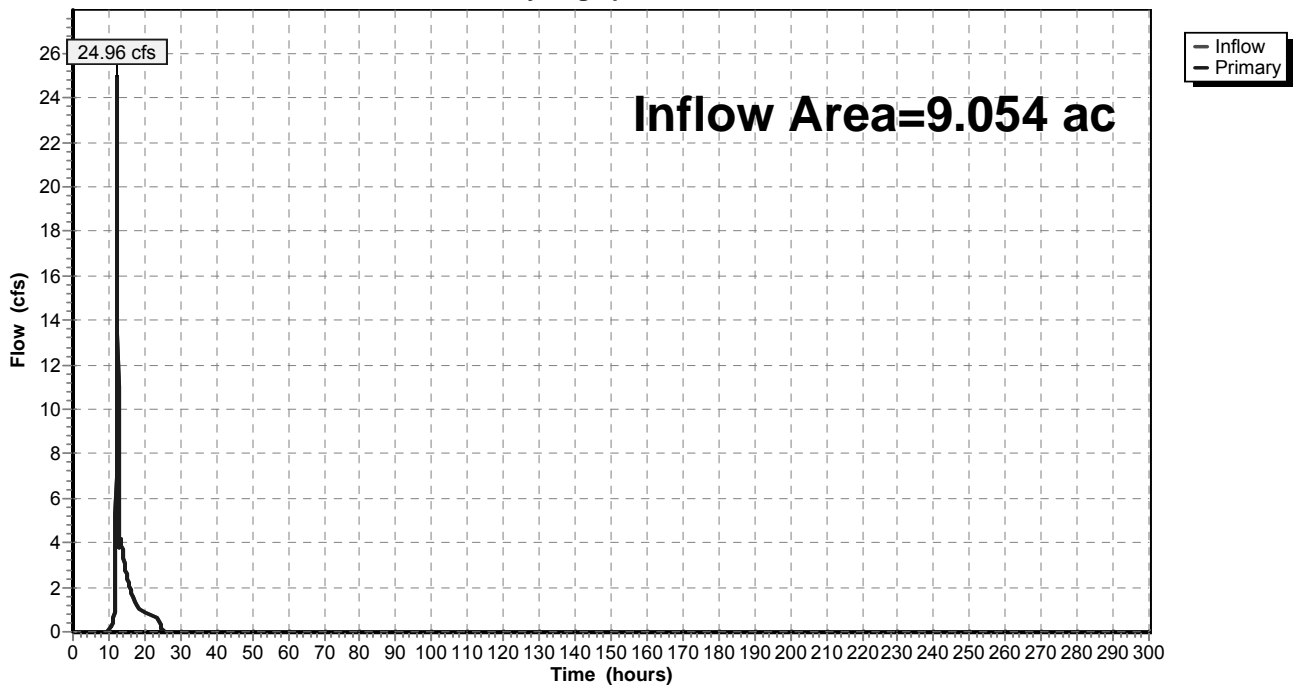
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 9.054 ac, 8.75% Impervious, Inflow Depth = 3.35" for 100 Year - North Salem event
Inflow = 24.96 cfs @ 12.27 hrs, Volume= 2.531 af
Primary = 24.96 cfs @ 12.27 hrs, Volume= 2.531 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 2: Design Point 2

Hydrograph



Summary for Pond FS B2: Flow Splitter B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 4.84" for 100 Year - North Salem event
 Inflow = 21.64 cfs @ 12.16 hrs, Volume= 1.825 af
 Outflow = 21.64 cfs @ 12.16 hrs, Volume= 1.825 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.34 cfs @ 12.16 hrs, Volume= 1.162 af
 Secondary = 18.30 cfs @ 12.16 hrs, Volume= 0.663 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 466.28' @ 12.16 hrs
 Flood Elev= 468.26'

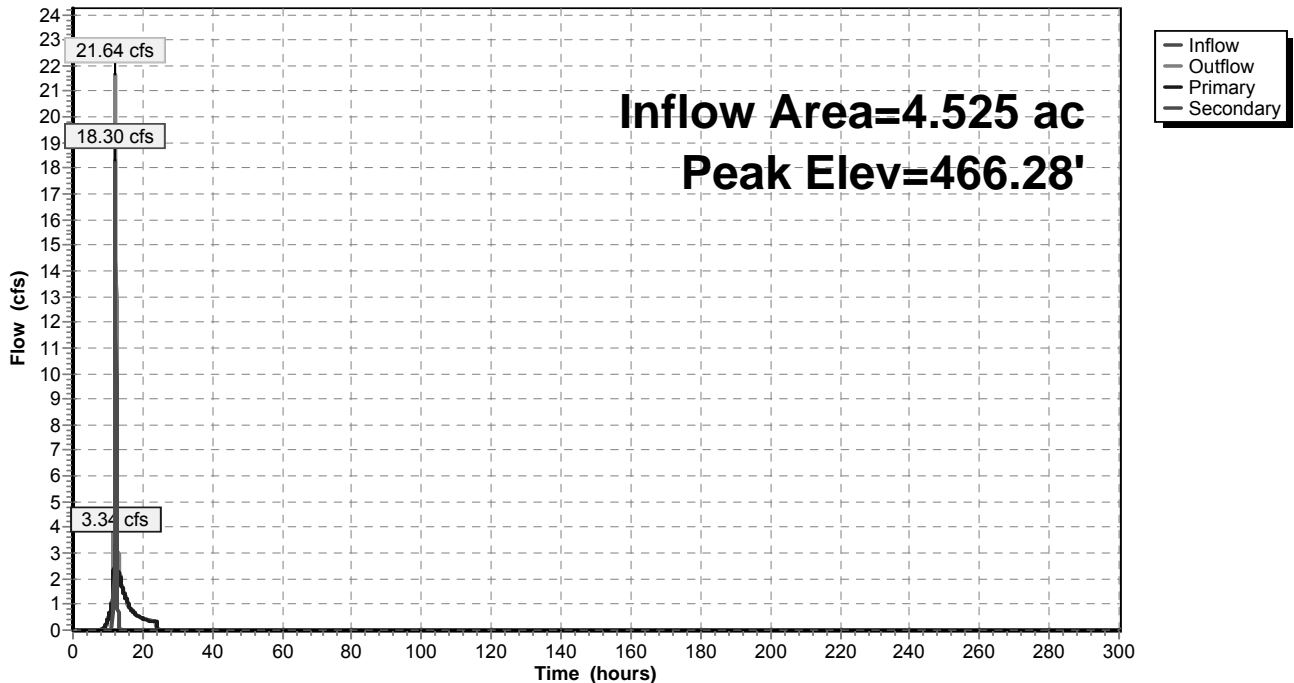
Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	8.0" Round Outlet to Sand Filter L= 16.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.68' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	463.82'	24.0" Round Outlet to Dry Basin L= 232.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 426.00' S= 0.1630 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=3.33 cfs @ 12.16 hrs HW=466.26' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 3.33 cfs @ 9.54 fps)

Secondary OutFlow Max=18.12 cfs @ 12.16 hrs HW=466.25' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 18.12 cfs @ 5.77 fps)

Pond FS B2: Flow Splitter B2

Hydrograph



Stage-Area-Storage for Pond FS B2: Flow Splitter B2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
462.00	0	463.06	0	464.12	0
462.02	0	463.08	0	464.14	0
462.04	0	463.10	0	464.16	0
462.06	0	463.12	0	464.18	0
462.08	0	463.14	0	464.20	0
462.10	0	463.16	0	464.22	0
462.12	0	463.18	0	464.24	0
462.14	0	463.20	0	464.26	0
462.16	0	463.22	0	464.28	0
462.18	0	463.24	0	464.30	0
462.20	0	463.26	0	464.32	0
462.22	0	463.28	0	464.34	0
462.24	0	463.30	0	464.36	0
462.26	0	463.32	0	464.38	0
462.28	0	463.34	0	464.40	0
462.30	0	463.36	0	464.42	0
462.32	0	463.38	0	464.44	0
462.34	0	463.40	0	464.46	0
462.36	0	463.42	0	464.48	0
462.38	0	463.44	0	464.50	0
462.40	0	463.46	0	464.52	0
462.42	0	463.48	0	464.54	0
462.44	0	463.50	0	464.56	0
462.46	0	463.52	0	464.58	0
462.48	0	463.54	0	464.60	0
462.50	0	463.56	0	464.62	0
462.52	0	463.58	0	464.64	0
462.54	0	463.60	0	464.66	0
462.56	0	463.62	0	464.68	0
462.58	0	463.64	0	464.70	0
462.60	0	463.66	0	464.72	0
462.62	0	463.68	0	464.74	0
462.64	0	463.70	0	464.76	0
462.66	0	463.72	0	464.78	0
462.68	0	463.74	0	464.80	0
462.70	0	463.76	0	464.82	0
462.72	0	463.78	0	464.84	0
462.74	0	463.80	0	464.86	0
462.76	0	463.82	0	464.88	0
462.78	0	463.84	0	464.90	0
462.80	0	463.86	0	464.92	0
462.82	0	463.88	0	464.94	0
462.84	0	463.90	0	464.96	0
462.86	0	463.92	0	464.98	0
462.88	0	463.94	0	465.00	0
462.90	0	463.96	0	465.02	0
462.92	0	463.98	0	465.04	0
462.94	0	464.00	0	465.06	0
462.96	0	464.02	0	465.08	0
462.98	0	464.04	0	465.10	0
463.00	0	464.06	0	465.12	0
463.02	0	464.08	0	465.14	0
463.04	0	464.10	0	465.16	0

Stage-Area-Storage for Pond FS B2: Flow Splitter B2 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.18	0	466.24	0	467.30	0
465.20	0	466.26	0	467.32	0
465.22	0	466.28	0	467.34	0
465.24	0	466.30	0	467.36	0
465.26	0	466.32	0	467.38	0
465.28	0	466.34	0	467.40	0
465.30	0	466.36	0	467.42	0
465.32	0	466.38	0	467.44	0
465.34	0	466.40	0	467.46	0
465.36	0	466.42	0	467.48	0
465.38	0	466.44	0	467.50	0
465.40	0	466.46	0	467.52	0
465.42	0	466.48	0	467.54	0
465.44	0	466.50	0	467.56	0
465.46	0	466.52	0	467.58	0
465.48	0	466.54	0	467.60	0
465.50	0	466.56	0	467.62	0
465.52	0	466.58	0	467.64	0
465.54	0	466.60	0	467.66	0
465.56	0	466.62	0	467.68	0
465.58	0	466.64	0	467.70	0
465.60	0	466.66	0	467.72	0
465.62	0	466.68	0	467.74	0
465.64	0	466.70	0	467.76	0
465.66	0	466.72	0	467.78	0
465.68	0	466.74	0	467.80	0
465.70	0	466.76	0	467.82	0
465.72	0	466.78	0	467.84	0
465.74	0	466.80	0	467.86	0
465.76	0	466.82	0	467.88	0
465.78	0	466.84	0	467.90	0
465.80	0	466.86	0	467.92	0
465.82	0	466.88	0	467.94	0
465.84	0	466.90	0	467.96	0
465.86	0	466.92	0	467.98	0
465.88	0	466.94	0	468.00	0
465.90	0	466.96	0	468.02	0
465.92	0	466.98	0	468.04	0
465.94	0	467.00	0	468.06	0
465.96	0	467.02	0	468.08	0
465.98	0	467.04	0	468.10	0
466.00	0	467.06	0	468.12	0
466.02	0	467.08	0	468.14	0
466.04	0	467.10	0	468.16	0
466.06	0	467.12	0	468.18	0
466.08	0	467.14	0	468.20	0
466.10	0	467.16	0	468.22	0
466.12	0	467.18	0	468.24	0
466.14	0	467.20	0	468.26	0
466.16	0	467.22	0		
466.18	0	467.24	0		
466.20	0	467.26	0		
466.22	0	467.28	0		

Summary for Pond SF-B2: Sand Filter - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 2.77" for 100 Year - North Salem event
 Inflow = 3.28 cfs @ 12.19 hrs, Volume= 1.045 af
 Outflow = 2.18 cfs @ 13.22 hrs, Volume= 0.748 af, Atten= 34%, Lag= 61.4 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.18 cfs @ 13.22 hrs, Volume= 0.748 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 438.16' @ 13.22 hrs Surf.Area= 4,448 sf Storage= 13,623 cf

Plug-Flow detention time= 188.8 min calculated for 0.748 af (72% of inflow)
 Center-of-Mass det. time= 81.4 min (1,002.2 - 920.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	434.00'	17,563 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
434.00	2,184	246.0	0	0	2,184
436.00	3,218	271.0	5,369	5,369	3,335
438.00	4,353	297.0	7,542	12,911	4,640
439.00	4,958	310.0	4,652	17,563	5,338

Device	Routing	Invert	Outlet Devices
#1	Primary	431.50'	12.0" Round Outlet Pipe X 0.00 L= 40.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 428.00' S= 0.0875 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	434.00'	1.750 in/hr Exfiltration over Surface area above 434.00' Excluded Surface area = 2,184 sf
#3	Device 1	437.00'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	438.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	438.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

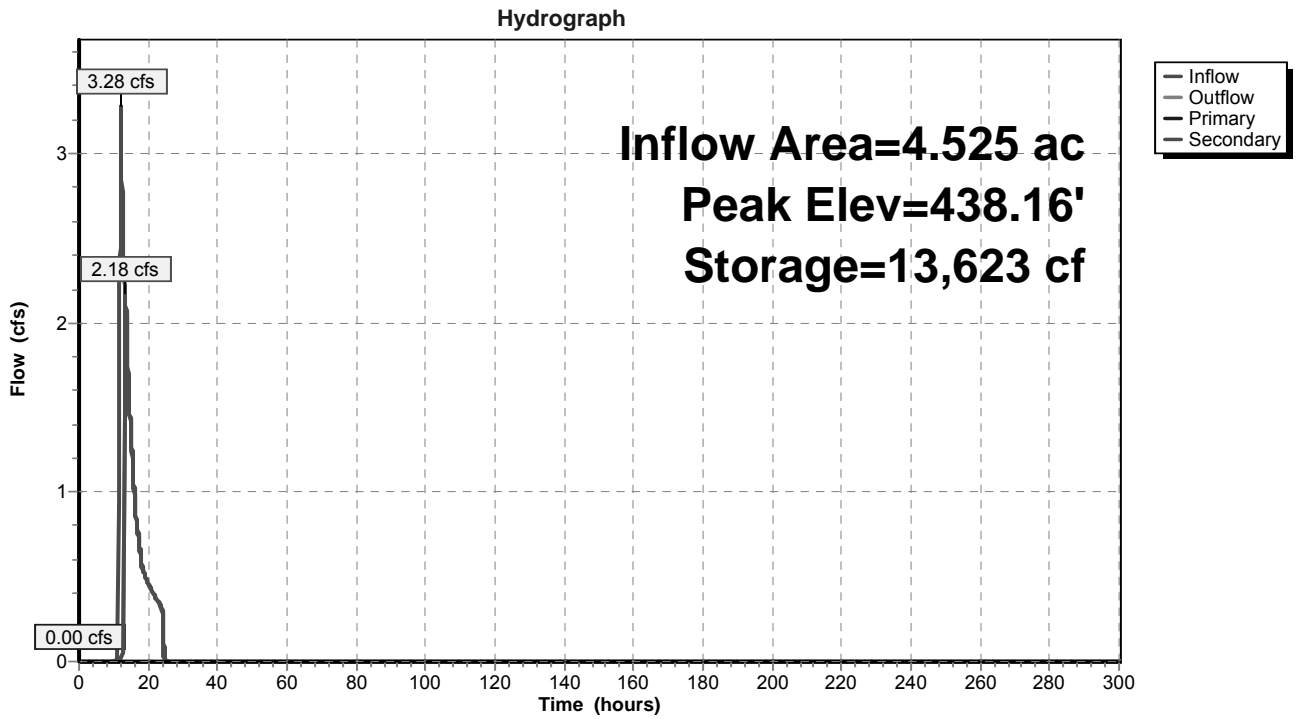
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=434.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.16 cfs @ 13.22 hrs HW=438.16' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 2.16 cfs @ 1.34 fps)

Pond SF-B2: Sand Filter - B2



Stage-Area-Storage for Pond SF-B2: Sand Filter - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.00	2,184	0	434.53	2,439	1,224
434.01	2,189	22	434.54	2,443	1,249
434.02	2,193	44	434.55	2,448	1,273
434.03	2,198	66	434.56	2,453	1,298
434.04	2,203	88	434.57	2,458	1,322
434.05	2,207	110	434.58	2,463	1,347
434.06	2,212	132	434.59	2,468	1,372
434.07	2,217	154	434.60	2,473	1,396
434.08	2,222	176	434.61	2,478	1,421
434.09	2,226	198	434.62	2,483	1,446
434.10	2,231	221	434.63	2,488	1,471
434.11	2,236	243	434.64	2,493	1,496
434.12	2,240	265	434.65	2,498	1,521
434.13	2,245	288	434.66	2,503	1,546
434.14	2,250	310	434.67	2,508	1,571
434.15	2,255	333	434.68	2,513	1,596
434.16	2,259	355	434.69	2,518	1,621
434.17	2,264	378	434.70	2,523	1,646
434.18	2,269	401	434.71	2,528	1,671
434.19	2,274	423	434.72	2,533	1,697
434.20	2,278	446	434.73	2,538	1,722
434.21	2,283	469	434.74	2,543	1,747
434.22	2,288	492	434.75	2,548	1,773
434.23	2,293	515	434.76	2,553	1,798
434.24	2,298	538	434.77	2,558	1,824
434.25	2,302	561	434.78	2,563	1,850
434.26	2,307	584	434.79	2,569	1,875
434.27	2,312	607	434.80	2,574	1,901
434.28	2,317	630	434.81	2,579	1,927
434.29	2,322	653	434.82	2,584	1,952
434.30	2,326	676	434.83	2,589	1,978
434.31	2,331	700	434.84	2,594	2,004
434.32	2,336	723	434.85	2,599	2,030
434.33	2,341	746	434.86	2,604	2,056
434.34	2,346	770	434.87	2,609	2,082
434.35	2,351	793	434.88	2,614	2,108
434.36	2,355	817	434.89	2,619	2,135
434.37	2,360	840	434.90	2,625	2,161
434.38	2,365	864	434.91	2,630	2,187
434.39	2,370	888	434.92	2,635	2,213
434.40	2,375	911	434.93	2,640	2,240
434.41	2,380	935	434.94	2,645	2,266
434.42	2,385	959	434.95	2,650	2,293
434.43	2,389	983	434.96	2,655	2,319
434.44	2,394	1,007	434.97	2,661	2,346
434.45	2,399	1,031	434.98	2,666	2,372
434.46	2,404	1,055	434.99	2,671	2,399
434.47	2,409	1,079	435.00	2,676	2,426
434.48	2,414	1,103	435.01	2,681	2,453
434.49	2,419	1,127	435.02	2,686	2,479
434.50	2,424	1,151	435.03	2,692	2,506
434.51	2,429	1,176	435.04	2,697	2,533
434.52	2,434	1,200	435.05	2,702	2,560

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.06	2,707	2,587	435.59	2,990	4,096
435.07	2,712	2,614	435.60	2,995	4,126
435.08	2,718	2,642	435.61	3,001	4,156
435.09	2,723	2,669	435.62	3,006	4,186
435.10	2,728	2,696	435.63	3,012	4,216
435.11	2,733	2,723	435.64	3,017	4,247
435.12	2,738	2,751	435.65	3,023	4,277
435.13	2,744	2,778	435.66	3,028	4,307
435.14	2,749	2,806	435.67	3,034	4,337
435.15	2,754	2,833	435.68	3,039	4,368
435.16	2,759	2,861	435.69	3,045	4,398
435.17	2,765	2,888	435.70	3,050	4,429
435.18	2,770	2,916	435.71	3,056	4,459
435.19	2,775	2,944	435.72	3,061	4,490
435.20	2,780	2,971	435.73	3,067	4,520
435.21	2,786	2,999	435.74	3,072	4,551
435.22	2,791	3,027	435.75	3,078	4,582
435.23	2,796	3,055	435.76	3,083	4,613
435.24	2,802	3,083	435.77	3,089	4,643
435.25	2,807	3,111	435.78	3,094	4,674
435.26	2,812	3,139	435.79	3,100	4,705
435.27	2,817	3,167	435.80	3,106	4,736
435.28	2,823	3,196	435.81	3,111	4,767
435.29	2,828	3,224	435.82	3,117	4,799
435.30	2,833	3,252	435.83	3,122	4,830
435.31	2,839	3,281	435.84	3,128	4,861
435.32	2,844	3,309	435.85	3,134	4,892
435.33	2,849	3,337	435.86	3,139	4,924
435.34	2,855	3,366	435.87	3,145	4,955
435.35	2,860	3,394	435.88	3,150	4,987
435.36	2,865	3,423	435.89	3,156	5,018
435.37	2,871	3,452	435.90	3,162	5,050
435.38	2,876	3,481	435.91	3,167	5,081
435.39	2,881	3,509	435.92	3,173	5,113
435.40	2,887	3,538	435.93	3,178	5,145
435.41	2,892	3,567	435.94	3,184	5,177
435.42	2,898	3,596	435.95	3,190	5,209
435.43	2,903	3,625	435.96	3,195	5,240
435.44	2,908	3,654	435.97	3,201	5,272
435.45	2,914	3,683	435.98	3,207	5,304
435.46	2,919	3,712	435.99	3,212	5,337
435.47	2,925	3,742	436.00	3,218	5,369
435.48	2,930	3,771	436.01	3,223	5,401
435.49	2,935	3,800	436.02	3,229	5,433
435.50	2,941	3,830	436.03	3,234	5,465
435.51	2,946	3,859	436.04	3,239	5,498
435.52	2,952	3,888	436.05	3,244	5,530
435.53	2,957	3,918	436.06	3,250	5,563
435.54	2,962	3,948	436.07	3,255	5,595
435.55	2,968	3,977	436.08	3,260	5,628
435.56	2,973	4,007	436.09	3,265	5,660
435.57	2,979	4,037	436.10	3,271	5,693
435.58	2,984	4,067	436.11	3,276	5,726

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
436.12	3,281	5,759	436.65	3,568	7,573
436.13	3,287	5,791	436.66	3,574	7,609
436.14	3,292	5,824	436.67	3,579	7,645
436.15	3,297	5,857	436.68	3,585	7,681
436.16	3,303	5,890	436.69	3,590	7,716
436.17	3,308	5,923	436.70	3,596	7,752
436.18	3,313	5,956	436.71	3,601	7,788
436.19	3,318	5,990	436.72	3,607	7,824
436.20	3,324	6,023	436.73	3,612	7,860
436.21	3,329	6,056	436.74	3,618	7,897
436.22	3,334	6,089	436.75	3,624	7,933
436.23	3,340	6,123	436.76	3,629	7,969
436.24	3,345	6,156	436.77	3,635	8,005
436.25	3,351	6,190	436.78	3,640	8,042
436.26	3,356	6,223	436.79	3,646	8,078
436.27	3,361	6,257	436.80	3,651	8,115
436.28	3,367	6,290	436.81	3,657	8,151
436.29	3,372	6,324	436.82	3,663	8,188
436.30	3,377	6,358	436.83	3,668	8,224
436.31	3,383	6,392	436.84	3,674	8,261
436.32	3,388	6,426	436.85	3,679	8,298
436.33	3,393	6,459	436.86	3,685	8,335
436.34	3,399	6,493	436.87	3,691	8,372
436.35	3,404	6,527	436.88	3,696	8,409
436.36	3,410	6,562	436.89	3,702	8,446
436.37	3,415	6,596	436.90	3,708	8,483
436.38	3,420	6,630	436.91	3,713	8,520
436.39	3,426	6,664	436.92	3,719	8,557
436.40	3,431	6,698	436.93	3,724	8,594
436.41	3,437	6,733	436.94	3,730	8,631
436.42	3,442	6,767	436.95	3,736	8,669
436.43	3,448	6,802	436.96	3,741	8,706
436.44	3,453	6,836	436.97	3,747	8,744
436.45	3,458	6,871	436.98	3,753	8,781
436.46	3,464	6,905	436.99	3,758	8,819
436.47	3,469	6,940	437.00	3,764	8,856
436.48	3,475	6,975	437.01	3,770	8,894
436.49	3,480	7,009	437.02	3,775	8,932
436.50	3,486	7,044	437.03	3,781	8,969
436.51	3,491	7,079	437.04	3,787	9,007
436.52	3,497	7,114	437.05	3,793	9,045
436.53	3,502	7,149	437.06	3,798	9,083
436.54	3,508	7,184	437.07	3,804	9,121
436.55	3,513	7,219	437.08	3,810	9,159
436.56	3,519	7,254	437.09	3,815	9,197
436.57	3,524	7,290	437.10	3,821	9,235
436.58	3,530	7,325	437.11	3,827	9,274
436.59	3,535	7,360	437.12	3,833	9,312
436.60	3,541	7,395	437.13	3,838	9,350
436.61	3,546	7,431	437.14	3,844	9,389
436.62	3,552	7,466	437.15	3,850	9,427
436.63	3,557	7,502	437.16	3,855	9,466
436.64	3,563	7,538	437.17	3,861	9,504

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
437.18	3,867	9,543	437.71	4,178	11,674
437.19	3,873	9,582	437.72	4,184	11,716
437.20	3,878	9,620	437.73	4,190	11,758
437.21	3,884	9,659	437.74	4,196	11,800
437.22	3,890	9,698	437.75	4,202	11,842
437.23	3,896	9,737	437.76	4,208	11,884
437.24	3,902	9,776	437.77	4,214	11,926
437.25	3,907	9,815	437.78	4,220	11,968
437.26	3,913	9,854	437.79	4,226	12,010
437.27	3,919	9,893	437.80	4,232	12,053
437.28	3,925	9,933	437.81	4,238	12,095
437.29	3,930	9,972	437.82	4,244	12,137
437.30	3,936	10,011	437.83	4,250	12,180
437.31	3,942	10,051	437.84	4,256	12,222
437.32	3,948	10,090	437.85	4,262	12,265
437.33	3,954	10,130	437.86	4,268	12,308
437.34	3,960	10,169	437.87	4,274	12,350
437.35	3,965	10,209	437.88	4,280	12,393
437.36	3,971	10,248	437.89	4,286	12,436
437.37	3,977	10,288	437.90	4,292	12,479
437.38	3,983	10,328	437.91	4,298	12,522
437.39	3,989	10,368	437.92	4,304	12,565
437.40	3,995	10,408	437.93	4,310	12,608
437.41	4,000	10,448	437.94	4,316	12,651
437.42	4,006	10,488	437.95	4,323	12,694
437.43	4,012	10,528	437.96	4,329	12,738
437.44	4,018	10,568	437.97	4,335	12,781
437.45	4,024	10,608	437.98	4,341	12,824
437.46	4,030	10,648	437.99	4,347	12,868
437.47	4,036	10,689	438.00	4,353	12,911
437.48	4,041	10,729	438.01	4,359	12,955
437.49	4,047	10,770	438.02	4,365	12,998
437.50	4,053	10,810	438.03	4,371	13,042
437.51	4,059	10,851	438.04	4,376	13,086
437.52	4,065	10,891	438.05	4,382	13,130
437.53	4,071	10,932	438.06	4,388	13,173
437.54	4,077	10,973	438.07	4,394	13,217
437.55	4,083	11,013	438.08	4,400	13,261
437.56	4,089	11,054	438.09	4,406	13,305
437.57	4,095	11,095	438.10	4,412	13,349
437.58	4,100	11,136	438.11	4,418	13,394
437.59	4,106	11,177	438.12	4,424	13,438
437.60	4,112	11,218	438.13	4,429	13,482
437.61	4,118	11,260	438.14	4,435	13,526
437.62	4,124	11,301	438.15	4,441	13,571
437.63	4,130	11,342	438.16	4,447	13,615
437.64	4,136	11,383	438.17	4,453	13,660
437.65	4,142	11,425	438.18	4,459	13,704
437.66	4,148	11,466	438.19	4,465	13,749
437.67	4,154	11,508	438.20	4,471	13,794
437.68	4,160	11,549	438.21	4,477	13,838
437.69	4,166	11,591	438.22	4,483	13,883
437.70	4,172	11,633	438.23	4,489	13,928

Stage-Area-Storage for Pond SF-B2: Sand Filter - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
438.24	4,495	13,973	438.77	4,815	16,440
438.25	4,501	14,018	438.78	4,822	16,488
438.26	4,507	14,063	438.79	4,828	16,536
438.27	4,512	14,108	438.80	4,834	16,584
438.28	4,518	14,153	438.81	4,840	16,633
438.29	4,524	14,198	438.82	4,846	16,681
438.30	4,530	14,244	438.83	4,852	16,730
438.31	4,536	14,289	438.84	4,859	16,778
438.32	4,542	14,334	438.85	4,865	16,827
438.33	4,548	14,380	438.86	4,871	16,875
438.34	4,554	14,425	438.87	4,877	16,924
438.35	4,560	14,471	438.88	4,883	16,973
438.36	4,566	14,517	438.89	4,890	17,022
438.37	4,572	14,562	438.90	4,896	17,071
438.38	4,578	14,608	438.91	4,902	17,120
438.39	4,584	14,654	438.92	4,908	17,169
438.40	4,590	14,700	438.93	4,914	17,218
438.41	4,596	14,746	438.94	4,921	17,267
438.42	4,602	14,792	438.95	4,927	17,316
438.43	4,608	14,838	438.96	4,933	17,366
438.44	4,614	14,884	438.97	4,939	17,415
438.45	4,620	14,930	438.98	4,946	17,464
438.46	4,626	14,976	438.99	4,952	17,514
438.47	4,632	15,022	439.00	4,958	17,563
438.48	4,638	15,069			
438.49	4,645	15,115			
438.50	4,651	15,162			
438.51	4,657	15,208			
438.52	4,663	15,255			
438.53	4,669	15,301			
438.54	4,675	15,348			
438.55	4,681	15,395			
438.56	4,687	15,442			
438.57	4,693	15,489			
438.58	4,699	15,536			
438.59	4,705	15,583			
438.60	4,711	15,630			
438.61	4,717	15,677			
438.62	4,723	15,724			
438.63	4,730	15,771			
438.64	4,736	15,819			
438.65	4,742	15,866			
438.66	4,748	15,914			
438.67	4,754	15,961			
438.68	4,760	16,009			
438.69	4,766	16,056			
438.70	4,772	16,104			
438.71	4,778	16,152			
438.72	4,785	16,200			
438.73	4,791	16,247			
438.74	4,797	16,295			
438.75	4,803	16,343			
438.76	4,809	16,391			

Summary for Pond SFF-B2: Sand Filter Forebay - B2

Inflow Area = 4.525 ac, 17.50% Impervious, Inflow Depth = 3.08" for 100 Year - North Salem event
 Inflow = 3.34 cfs @ 12.16 hrs, Volume= 1.162 af
 Outflow = 3.28 cfs @ 12.19 hrs, Volume= 1.045 af, Atten= 2%, Lag= 2.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 3.28 cfs @ 12.19 hrs, Volume= 1.045 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 459.24' @ 12.19 hrs Surf.Area= 2,585 sf Storage= 5,712 cf

Plug-Flow detention time= 83.2 min calculated for 1.045 af (90% of inflow)
 Center-of-Mass det. time= 32.7 min (920.8 - 888.1)

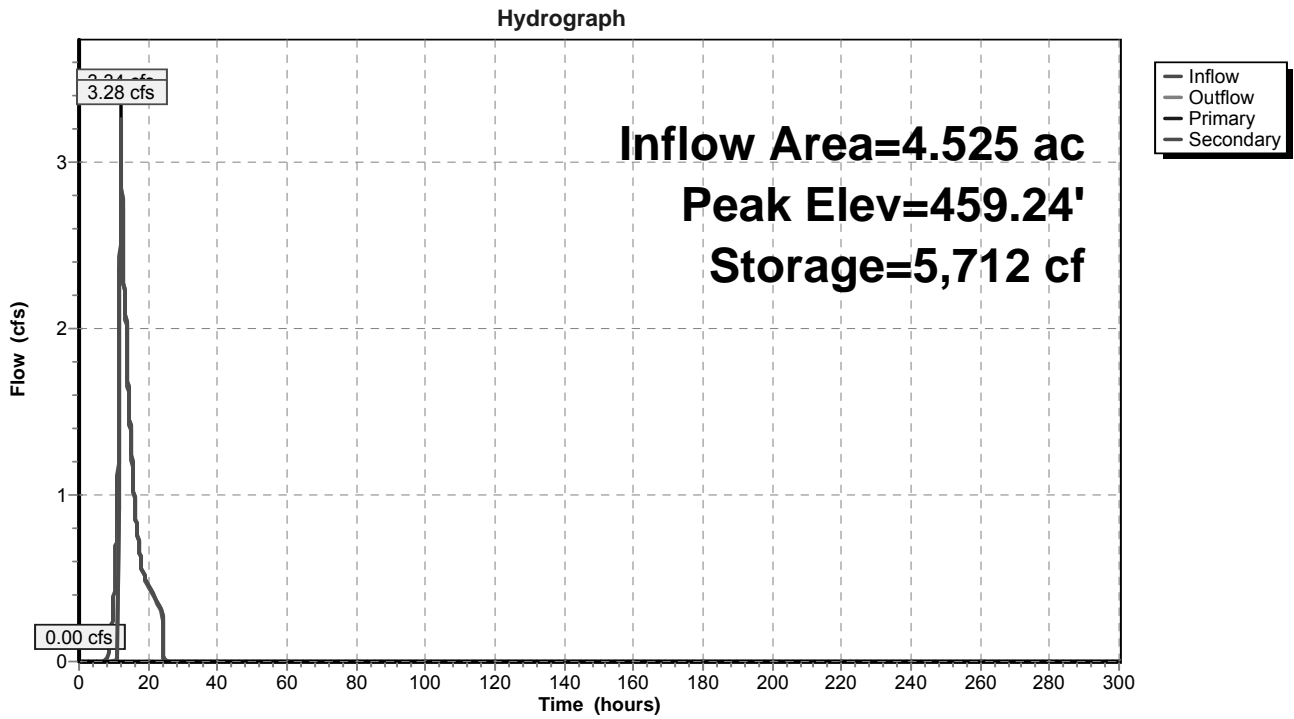
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	7,839 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	1,042	128.0	0	0	1,042
458.00	1,924	166.0	2,921	2,921	1,978
459.00	2,450	185.0	2,182	5,103	2,537
460.00	3,032	204.0	2,736	7,839	3,157

Device	Routing	Invert	Outlet Devices
#1	Primary	456.00'	12.0" Round Outlet Pipe X 0.00 L= 86.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 440.00' S= 0.1860 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.0" Vert. Standpipe Openings X 3.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	458.55'	12.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	8.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Standpipe Openings (Controls 0.00 cfs)
 ↑ 3=Top of Standpipe (Controls 0.00 cfs)

Secondary OutFlow Max=3.27 cfs @ 12.19 hrs HW=459.24' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 3.27 cfs @ 1.70 fps)

Pond SFF-B2: Sand Filter Forebay - B2



Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	1,042	0	456.53	1,250	606
456.01	1,046	10	456.54	1,254	619
456.02	1,049	21	456.55	1,258	632
456.03	1,053	31	456.56	1,262	644
456.04	1,057	42	456.57	1,266	657
456.05	1,061	53	456.58	1,270	669
456.06	1,065	63	456.59	1,274	682
456.07	1,068	74	456.60	1,278	695
456.08	1,072	85	456.61	1,283	708
456.09	1,076	95	456.62	1,287	721
456.10	1,080	106	456.63	1,291	733
456.11	1,084	117	456.64	1,295	746
456.12	1,087	128	456.65	1,299	759
456.13	1,091	139	456.66	1,303	772
456.14	1,095	150	456.67	1,308	785
456.15	1,099	161	456.68	1,312	799
456.16	1,103	172	456.69	1,316	812
456.17	1,107	183	456.70	1,320	825
456.18	1,110	194	456.71	1,324	838
456.19	1,114	205	456.72	1,329	851
456.20	1,118	216	456.73	1,333	865
456.21	1,122	227	456.74	1,337	878
456.22	1,126	238	456.75	1,341	891
456.23	1,130	250	456.76	1,346	905
456.24	1,134	261	456.77	1,350	918
456.25	1,138	272	456.78	1,354	932
456.26	1,141	284	456.79	1,358	945
456.27	1,145	295	456.80	1,363	959
456.28	1,149	307	456.81	1,367	973
456.29	1,153	318	456.82	1,371	986
456.30	1,157	330	456.83	1,375	1,000
456.31	1,161	341	456.84	1,380	1,014
456.32	1,165	353	456.85	1,384	1,028
456.33	1,169	365	456.86	1,388	1,042
456.34	1,173	376	456.87	1,393	1,055
456.35	1,177	388	456.88	1,397	1,069
456.36	1,181	400	456.89	1,401	1,083
456.37	1,185	412	456.90	1,406	1,097
456.38	1,189	424	456.91	1,410	1,111
456.39	1,193	435	456.92	1,414	1,126
456.40	1,197	447	456.93	1,419	1,140
456.41	1,201	459	456.94	1,423	1,154
456.42	1,205	471	456.95	1,427	1,168
456.43	1,209	484	456.96	1,432	1,183
456.44	1,213	496	456.97	1,436	1,197
456.45	1,217	508	456.98	1,441	1,211
456.46	1,221	520	456.99	1,445	1,226
456.47	1,225	532	457.00	1,449	1,240
456.48	1,229	544	457.01	1,454	1,255
456.49	1,233	557	457.02	1,458	1,269
456.50	1,237	569	457.03	1,463	1,284
456.51	1,241	582	457.04	1,467	1,298
456.52	1,246	594	457.05	1,472	1,313

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

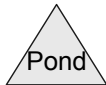
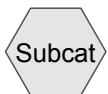
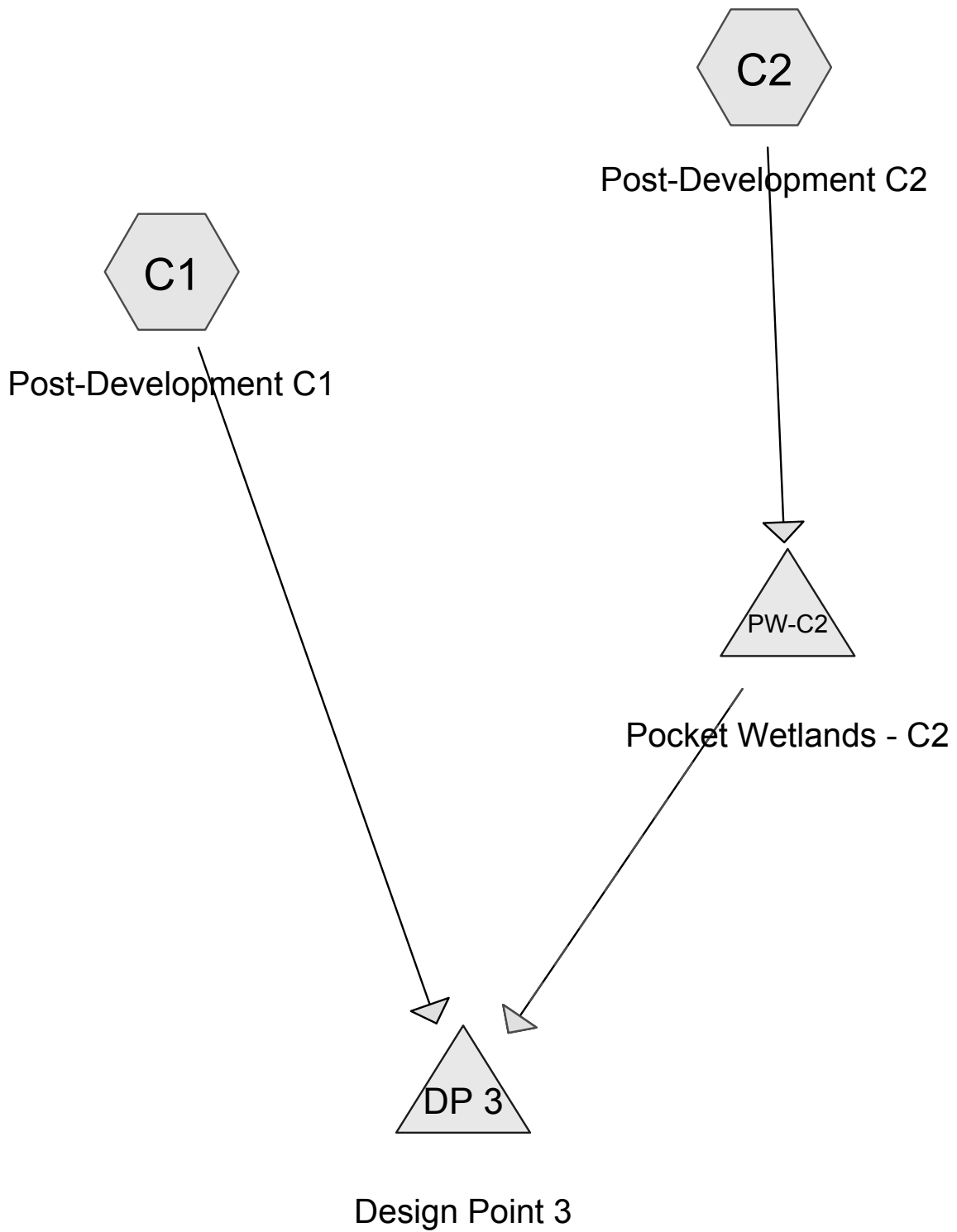
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	1,476	1,328	457.59	1,721	2,174
457.07	1,480	1,343	457.60	1,726	2,192
457.08	1,485	1,358	457.61	1,731	2,209
457.09	1,489	1,372	457.62	1,736	2,226
457.10	1,494	1,387	457.63	1,741	2,244
457.11	1,498	1,402	457.64	1,745	2,261
457.12	1,503	1,417	457.65	1,750	2,279
457.13	1,507	1,432	457.66	1,755	2,296
457.14	1,512	1,447	457.67	1,760	2,314
457.15	1,516	1,463	457.68	1,765	2,331
457.16	1,521	1,478	457.69	1,770	2,349
457.17	1,525	1,493	457.70	1,775	2,367
457.18	1,530	1,508	457.71	1,779	2,384
457.19	1,534	1,524	457.72	1,784	2,402
457.20	1,539	1,539	457.73	1,789	2,420
457.21	1,544	1,554	457.74	1,794	2,438
457.22	1,548	1,570	457.75	1,799	2,456
457.23	1,553	1,585	457.76	1,804	2,474
457.24	1,557	1,601	457.77	1,809	2,492
457.25	1,562	1,616	457.78	1,814	2,510
457.26	1,566	1,632	457.79	1,819	2,528
457.27	1,571	1,648	457.80	1,824	2,547
457.28	1,576	1,664	457.81	1,829	2,565
457.29	1,580	1,679	457.82	1,834	2,583
457.30	1,585	1,695	457.83	1,839	2,601
457.31	1,589	1,711	457.84	1,844	2,620
457.32	1,594	1,727	457.85	1,849	2,638
457.33	1,599	1,743	457.86	1,854	2,657
457.34	1,603	1,759	457.87	1,859	2,675
457.35	1,608	1,775	457.88	1,864	2,694
457.36	1,613	1,791	457.89	1,869	2,713
457.37	1,617	1,807	457.90	1,874	2,731
457.38	1,622	1,823	457.91	1,879	2,750
457.39	1,627	1,840	457.92	1,884	2,769
457.40	1,631	1,856	457.93	1,889	2,788
457.41	1,636	1,872	457.94	1,894	2,807
457.42	1,641	1,889	457.95	1,899	2,826
457.43	1,645	1,905	457.96	1,904	2,845
457.44	1,650	1,922	457.97	1,909	2,864
457.45	1,655	1,938	457.98	1,914	2,883
457.46	1,659	1,955	457.99	1,919	2,902
457.47	1,664	1,971	458.00	1,924	2,921
457.48	1,669	1,988	458.01	1,929	2,941
457.49	1,674	2,005	458.02	1,934	2,960
457.50	1,678	2,021	458.03	1,939	2,979
457.51	1,683	2,038	458.04	1,944	2,999
457.52	1,688	2,055	458.05	1,949	3,018
457.53	1,693	2,072	458.06	1,954	3,038
457.54	1,697	2,089	458.07	1,959	3,057
457.55	1,702	2,106	458.08	1,964	3,077
457.56	1,707	2,123	458.09	1,969	3,096
457.57	1,712	2,140	458.10	1,974	3,116
457.58	1,717	2,157	458.11	1,979	3,136

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	1,984	3,156	458.65	2,259	4,279
458.13	1,989	3,176	458.66	2,264	4,302
458.14	1,994	3,196	458.67	2,269	4,324
458.15	1,999	3,215	458.68	2,275	4,347
458.16	2,004	3,235	458.69	2,280	4,370
458.17	2,009	3,256	458.70	2,286	4,393
458.18	2,014	3,276	458.71	2,291	4,416
458.19	2,019	3,296	458.72	2,296	4,439
458.20	2,024	3,316	458.73	2,302	4,462
458.21	2,029	3,336	458.74	2,307	4,485
458.22	2,034	3,357	458.75	2,313	4,508
458.23	2,039	3,377	458.76	2,318	4,531
458.24	2,044	3,397	458.77	2,323	4,554
458.25	2,050	3,418	458.78	2,329	4,577
458.26	2,055	3,438	458.79	2,334	4,601
458.27	2,060	3,459	458.80	2,340	4,624
458.28	2,065	3,480	458.81	2,345	4,647
458.29	2,070	3,500	458.82	2,351	4,671
458.30	2,075	3,521	458.83	2,356	4,694
458.31	2,080	3,542	458.84	2,362	4,718
458.32	2,085	3,563	458.85	2,367	4,742
458.33	2,091	3,583	458.86	2,373	4,765
458.34	2,096	3,604	458.87	2,378	4,789
458.35	2,101	3,625	458.88	2,384	4,813
458.36	2,106	3,646	458.89	2,389	4,837
458.37	2,111	3,668	458.90	2,395	4,861
458.38	2,116	3,689	458.91	2,400	4,885
458.39	2,122	3,710	458.92	2,406	4,909
458.40	2,127	3,731	458.93	2,411	4,933
458.41	2,132	3,752	458.94	2,417	4,957
458.42	2,137	3,774	458.95	2,422	4,981
458.43	2,142	3,795	458.96	2,428	5,005
458.44	2,148	3,817	458.97	2,433	5,030
458.45	2,153	3,838	458.98	2,439	5,054
458.46	2,158	3,860	458.99	2,444	5,079
458.47	2,163	3,881	459.00	2,450	5,103
458.48	2,169	3,903	459.01	2,456	5,128
458.49	2,174	3,925	459.02	2,461	5,152
458.50	2,179	3,946	459.03	2,467	5,177
458.51	2,184	3,968	459.04	2,472	5,201
458.52	2,190	3,990	459.05	2,478	5,226
458.53	2,195	4,012	459.06	2,483	5,251
458.54	2,200	4,034	459.07	2,489	5,276
458.55	2,205	4,056	459.08	2,494	5,301
458.56	2,211	4,078	459.09	2,500	5,326
458.57	2,216	4,100	459.10	2,505	5,351
458.58	2,221	4,122	459.11	2,511	5,376
458.59	2,227	4,145	459.12	2,517	5,401
458.60	2,232	4,167	459.13	2,522	5,426
458.61	2,237	4,189	459.14	2,528	5,451
458.62	2,243	4,212	459.15	2,533	5,477
458.63	2,248	4,234	459.16	2,539	5,502
458.64	2,253	4,257	459.17	2,545	5,527

Stage-Area-Storage for Pond SFF-B2: Sand Filter Forebay - B2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	2,550	5,553	459.71	2,857	6,985
459.19	2,556	5,579	459.72	2,863	7,014
459.20	2,561	5,604	459.73	2,869	7,042
459.21	2,567	5,630	459.74	2,875	7,071
459.22	2,573	5,655	459.75	2,881	7,100
459.23	2,578	5,681	459.76	2,887	7,129
459.24	2,584	5,707	459.77	2,893	7,158
459.25	2,590	5,733	459.78	2,899	7,187
459.26	2,595	5,759	459.79	2,905	7,216
459.27	2,601	5,785	459.80	2,911	7,245
459.28	2,607	5,811	459.81	2,917	7,274
459.29	2,612	5,837	459.82	2,923	7,303
459.30	2,618	5,863	459.83	2,929	7,332
459.31	2,624	5,889	459.84	2,935	7,362
459.32	2,629	5,916	459.85	2,941	7,391
459.33	2,635	5,942	459.86	2,947	7,420
459.34	2,641	5,968	459.87	2,953	7,450
459.35	2,647	5,995	459.88	2,959	7,479
459.36	2,652	6,021	459.89	2,965	7,509
459.37	2,658	6,048	459.90	2,971	7,539
459.38	2,664	6,074	459.91	2,977	7,568
459.39	2,670	6,101	459.92	2,983	7,598
459.40	2,675	6,128	459.93	2,989	7,628
459.41	2,681	6,155	459.94	2,995	7,658
459.42	2,687	6,181	459.95	3,001	7,688
459.43	2,693	6,208	459.96	3,008	7,718
459.44	2,698	6,235	459.97	3,014	7,748
459.45	2,704	6,262	459.98	3,020	7,778
459.46	2,710	6,289	459.99	3,026	7,809
459.47	2,716	6,316	460.00	3,032	7,839
459.48	2,722	6,344			
459.49	2,727	6,371			
459.50	2,733	6,398			
459.51	2,739	6,426			
459.52	2,745	6,453			
459.53	2,751	6,480			
459.54	2,757	6,508			
459.55	2,762	6,536			
459.56	2,768	6,563			
459.57	2,774	6,591			
459.58	2,780	6,619			
459.59	2,786	6,647			
459.60	2,792	6,674			
459.61	2,798	6,702			
459.62	2,804	6,730			
459.63	2,809	6,758			
459.64	2,815	6,787			
459.65	2,821	6,815			
459.66	2,827	6,843			
459.67	2,833	6,871			
459.68	2,839	6,900			
459.69	2,845	6,928			
459.70	2,851	6,957			



Woodlands Post-Dev DP 3 WORST CASE 07-2012

Prepared by KCG Engineers, P.C.

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.853	55	Woods, Good, HSG B (C1, C2)
1.524	61	>75% Grass cover, Good, HSG B (C1, C2)
0.155	74	>75% Grass cover, Good, HSG C (C1)
0.550	74	>75% Grass cover, Good, HSG C - Lot 2 (C2)
0.025	85	Gravel Road - New (C2)
0.087	85	Gravel roads, HSG B (C2)
0.072	98	Driveway - Lot 2 (C2)
0.064	98	House/Walkway - Lot 2 (C2)
0.125	98	Road (C1)
0.211	98	Road/Driveway (C2)
6.666		TOTAL AREA

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=0.34"
Flow Length=617' Tc=11.9 min CN=59 Runoff=0.43 cfs 0.074 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=0.51"
Flow Length=637' Tc=11.4 min CN=64 Runoff=1.44 cfs 0.172 af

Pond DP 3: Design Point 3 Inflow=0.43 cfs 0.074 af
Primary=0.43 cfs 0.074 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=464.47' Storage=14,003 cf Inflow=1.44 cfs 0.172 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Total Runoff Area = 6.666 ac Runoff Volume = 0.247 af Average Runoff Depth = 0.44"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 0.43 cfs @ 12.33 hrs, Volume= 0.074 af, Depth= 0.34"

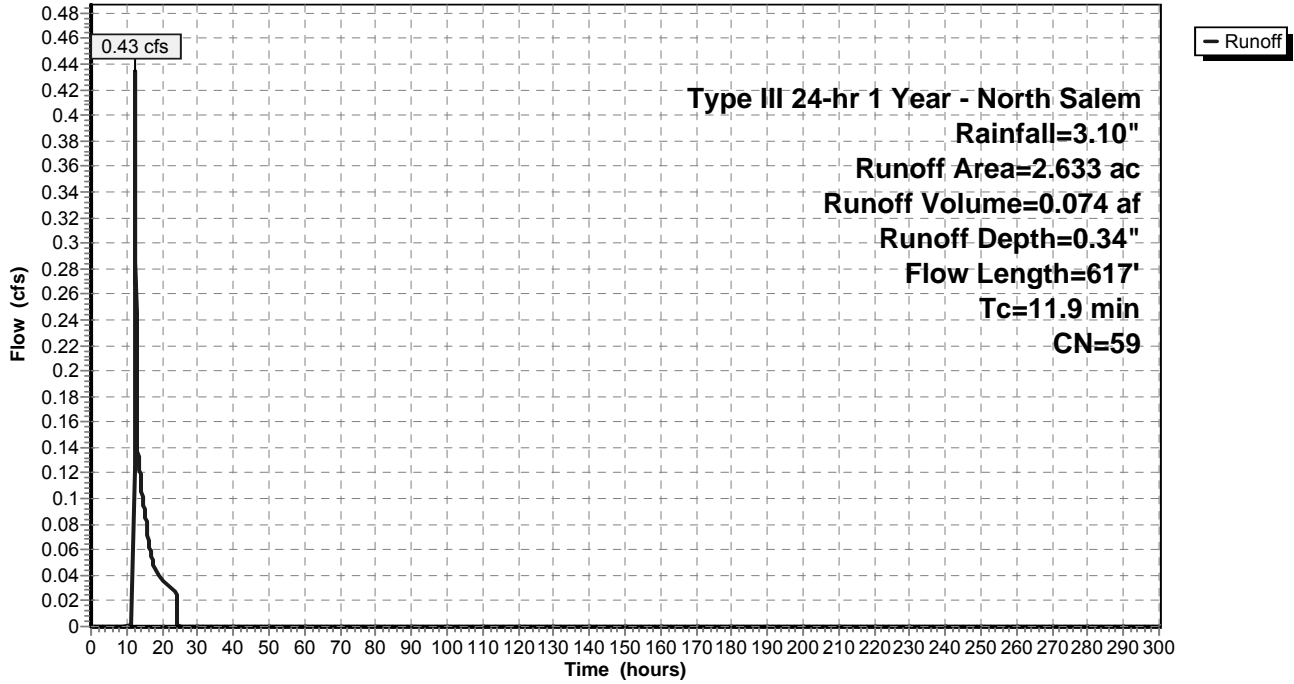
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

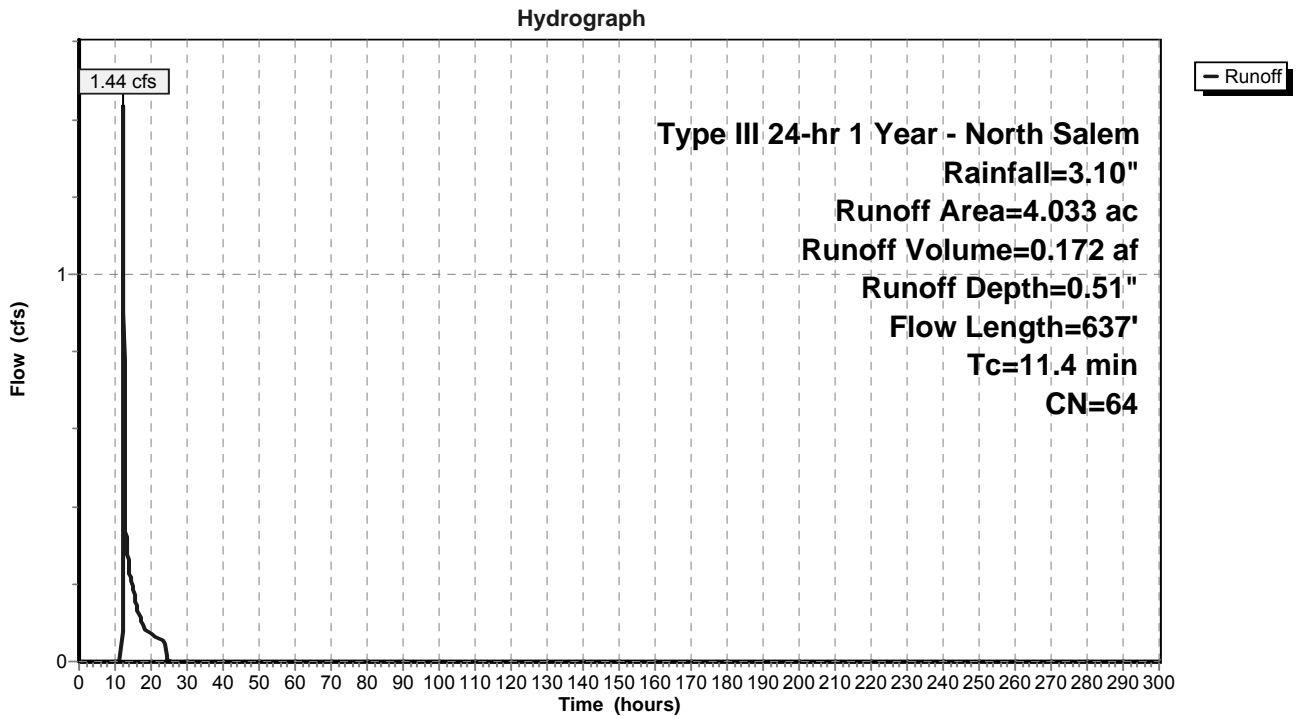
Runoff = 1.44 cfs @ 12.21 hrs, Volume= 0.172 af, Depth= 0.51"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2



Summary for Pond DP 3: Design Point 3

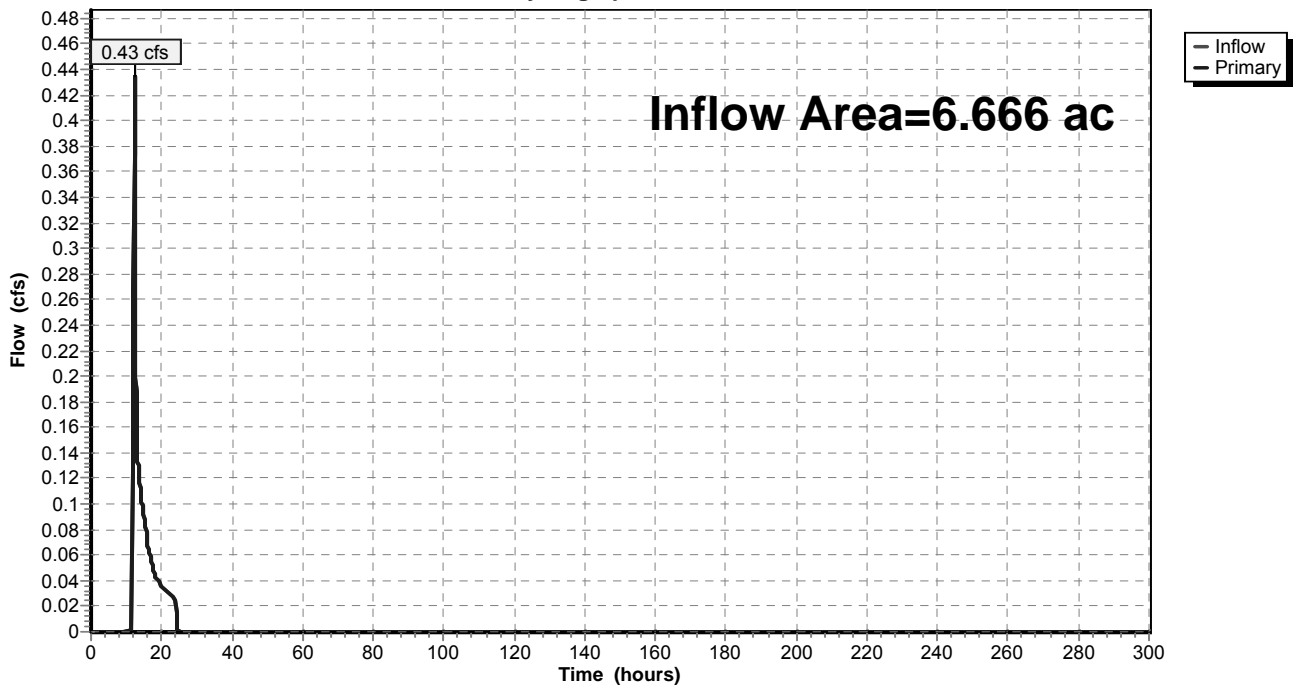
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 0.13" for 1 Year - North Salem event
Inflow = 0.43 cfs @ 12.33 hrs, Volume= 0.074 af
Primary = 0.43 cfs @ 12.33 hrs, Volume= 0.074 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 0.51" for 1 Year - North Salem event
 Inflow = 1.44 cfs @ 12.21 hrs, Volume= 0.172 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 464.47' @ 24.70 hrs Surf.Area= 6,287 sf Storage= 14,003 cf (7,513 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

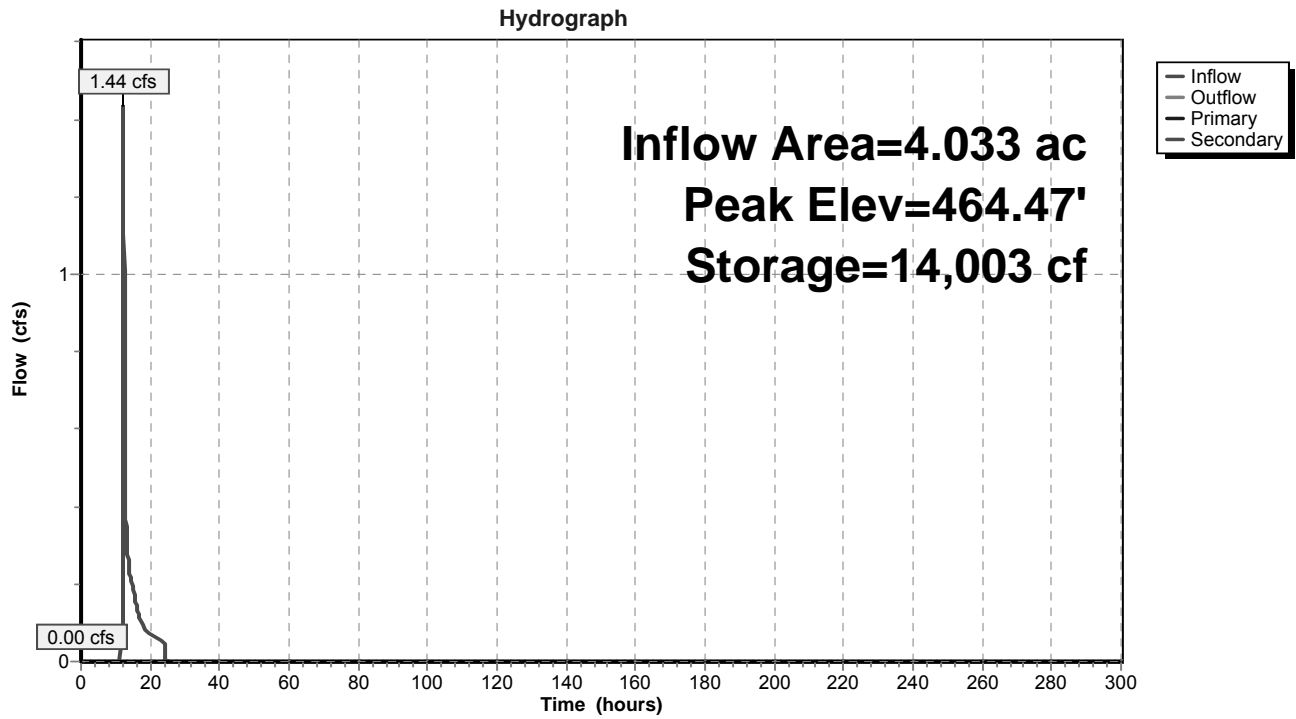
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=0.58"
Flow Length=617' Tc=11.9 min CN=59 Runoff=1.00 cfs 0.126 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=0.81"
Flow Length=637' Tc=11.4 min CN=64 Runoff=2.62 cfs 0.272 af

Pond DP 3: Design Point 3 Inflow=1.00 cfs 0.126 af
Primary=1.00 cfs 0.126 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=465.10' Storage=18,327 cf Inflow=2.62 cfs 0.272 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Total Runoff Area = 6.666 ac Runoff Volume = 0.398 af Average Runoff Depth = 0.72"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

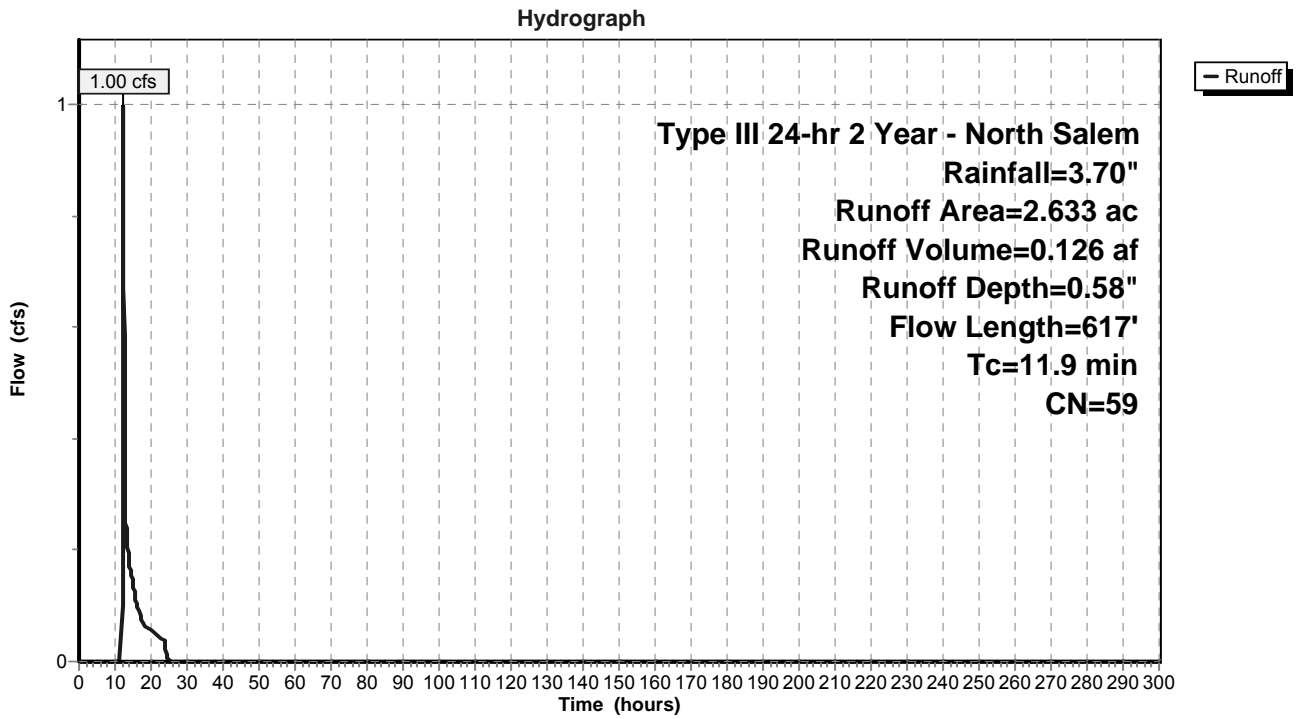
Runoff = 1.00 cfs @ 12.22 hrs, Volume= 0.126 af, Depth= 0.58"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1



Summary for Subcatchment C2: Post-Development C2

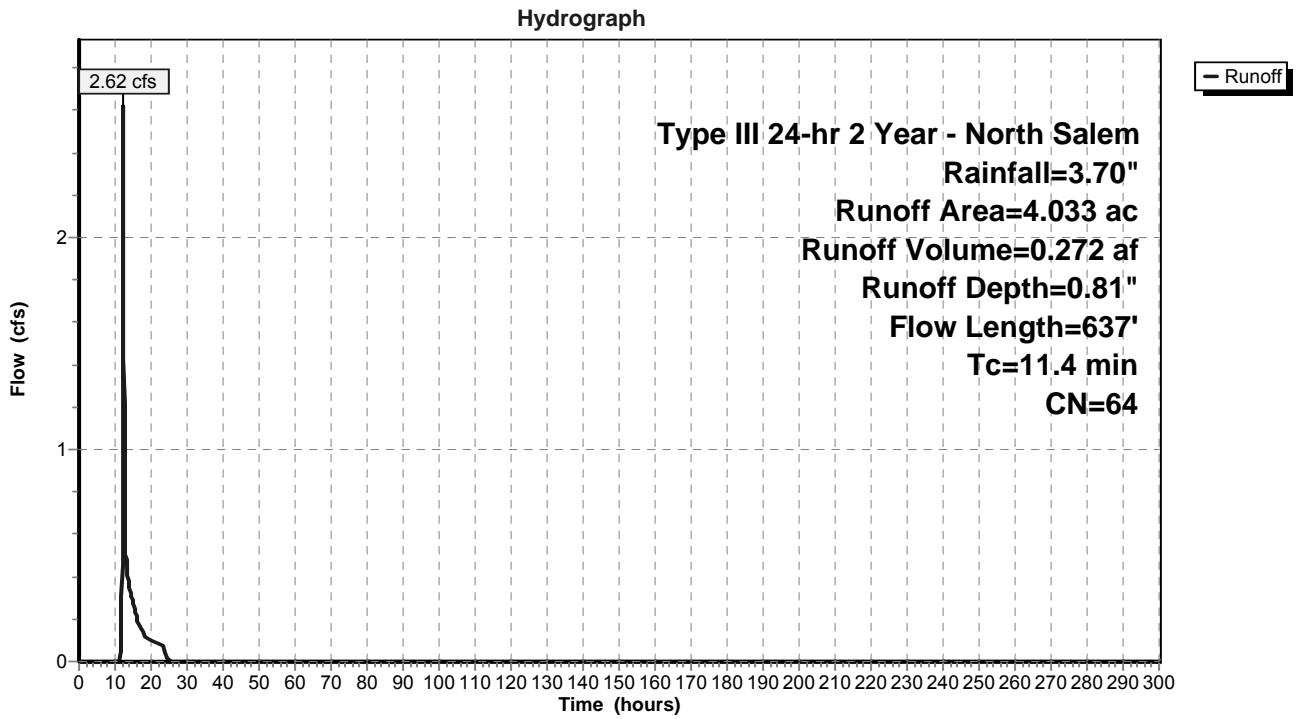
Runoff = 2.62 cfs @ 12.19 hrs, Volume= 0.272 af, Depth= 0.81"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2



Summary for Pond DP 3: Design Point 3

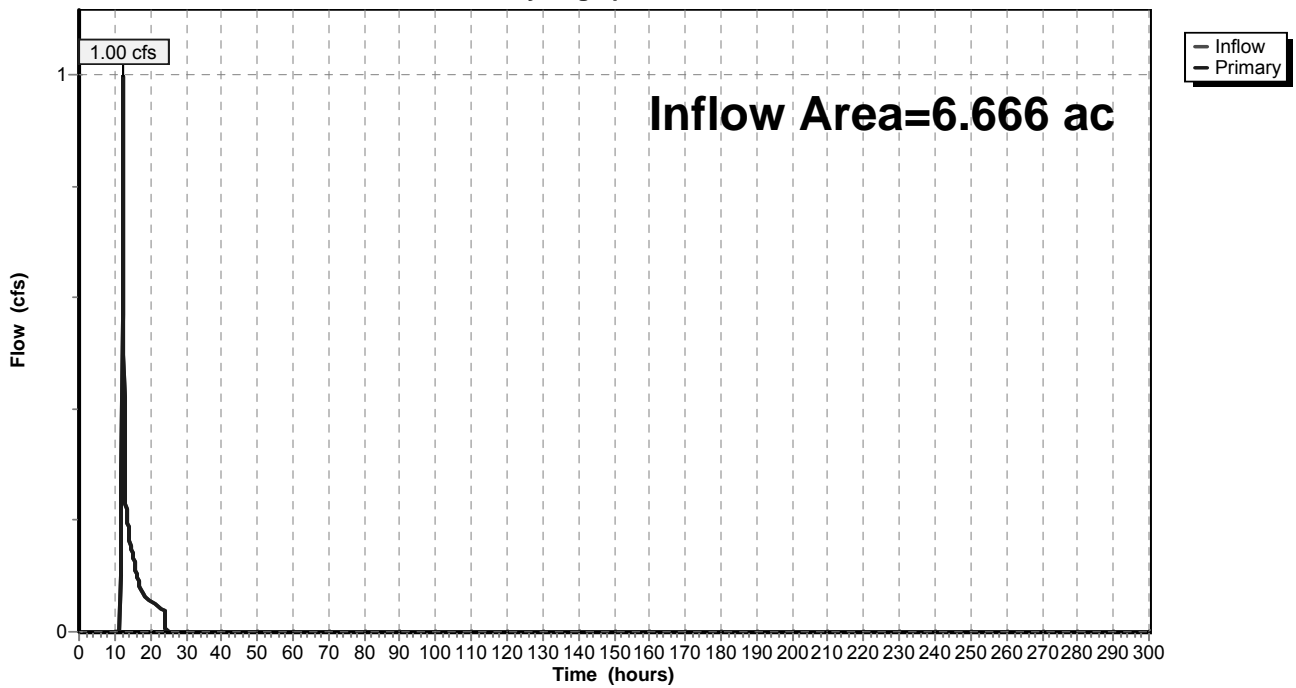
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 0.23" for 2 Year - North Salem event
Inflow = 1.00 cfs @ 12.22 hrs, Volume= 0.126 af
Primary = 1.00 cfs @ 12.22 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 0.81" for 2 Year - North Salem event
 Inflow = 2.62 cfs @ 12.19 hrs, Volume= 0.272 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 465.10' @ 24.70 hrs Surf.Area= 7,286 sf Storage= 18,327 cf (11,838 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

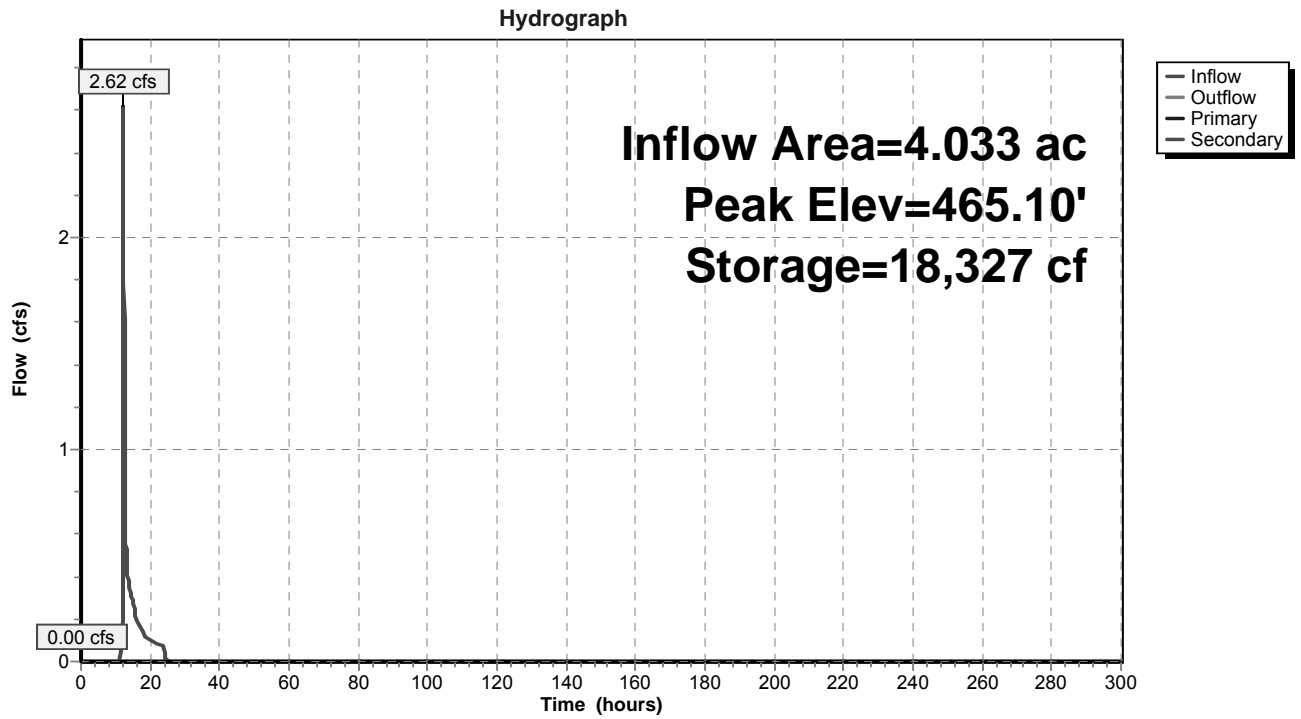
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=1.53"
Flow Length=617' Tc=11.9 min CN=59 Runoff=3.47 cfs 0.335 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=1.91"
Flow Length=637' Tc=11.4 min CN=64 Runoff=7.18 cfs 0.643 af

Pond DP 3: Design Point 3 Inflow=3.47 cfs 0.546 af
Primary=3.47 cfs 0.546 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=466.06' Storage=25,820 cf Inflow=7.18 cfs 0.643 af
Primary=0.00 cfs 0.000 af Secondary=0.53 cfs 0.211 af Outflow=0.53 cfs 0.211 af

Total Runoff Area = 6.666 ac Runoff Volume = 0.978 af Average Runoff Depth = 1.76"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

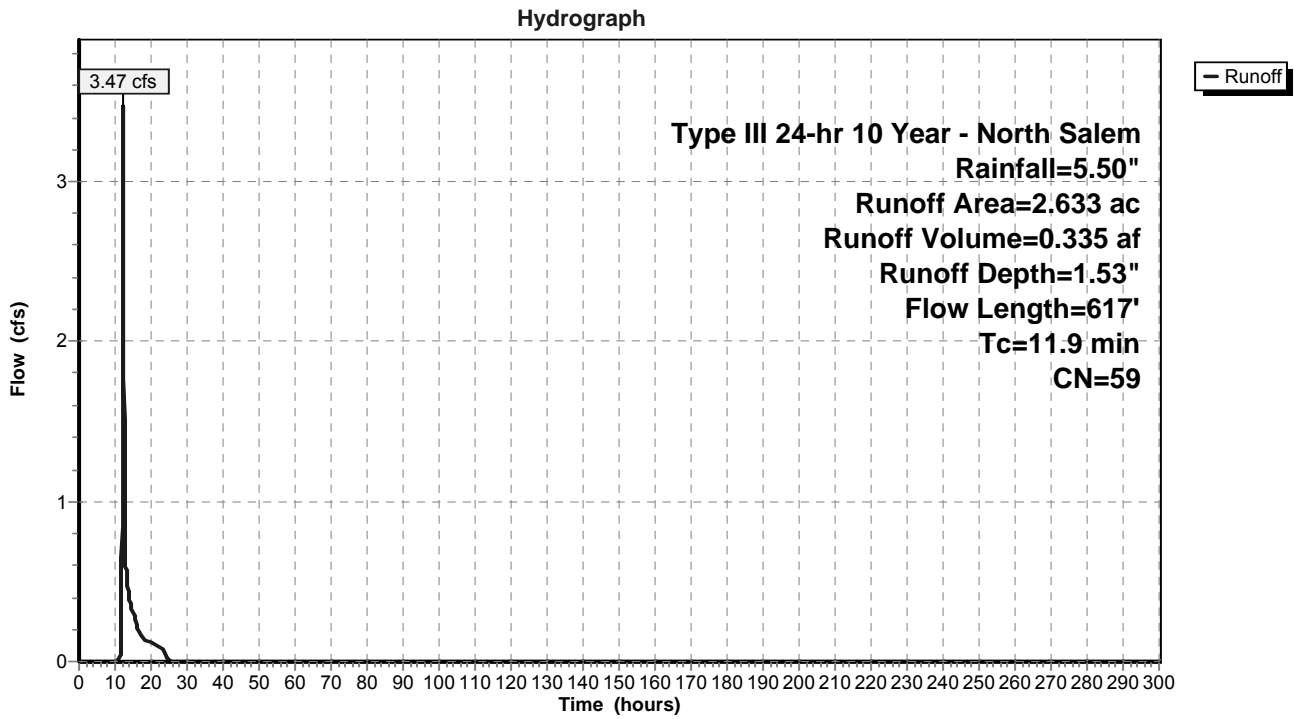
Runoff = 3.47 cfs @ 12.19 hrs, Volume= 0.335 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1



Summary for Subcatchment C2: Post-Development C2

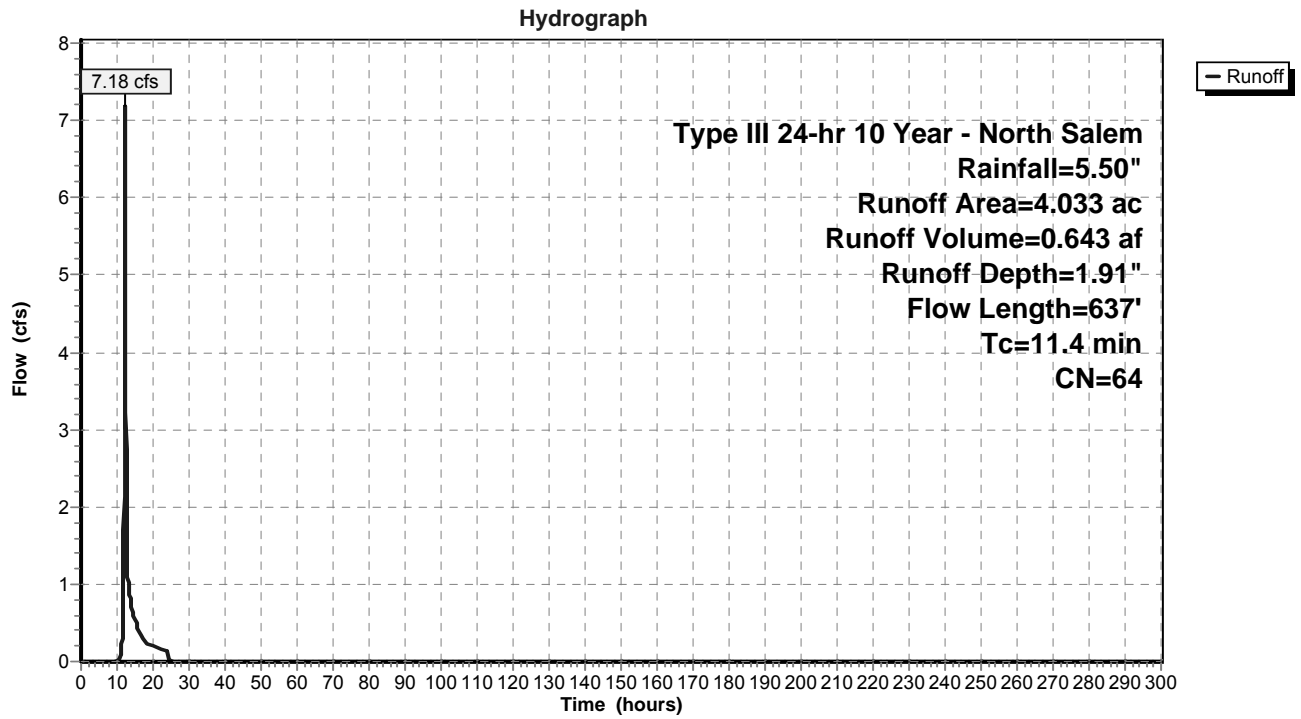
Runoff = 7.18 cfs @ 12.17 hrs, Volume= 0.643 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2



Summary for Pond DP 3: Design Point 3

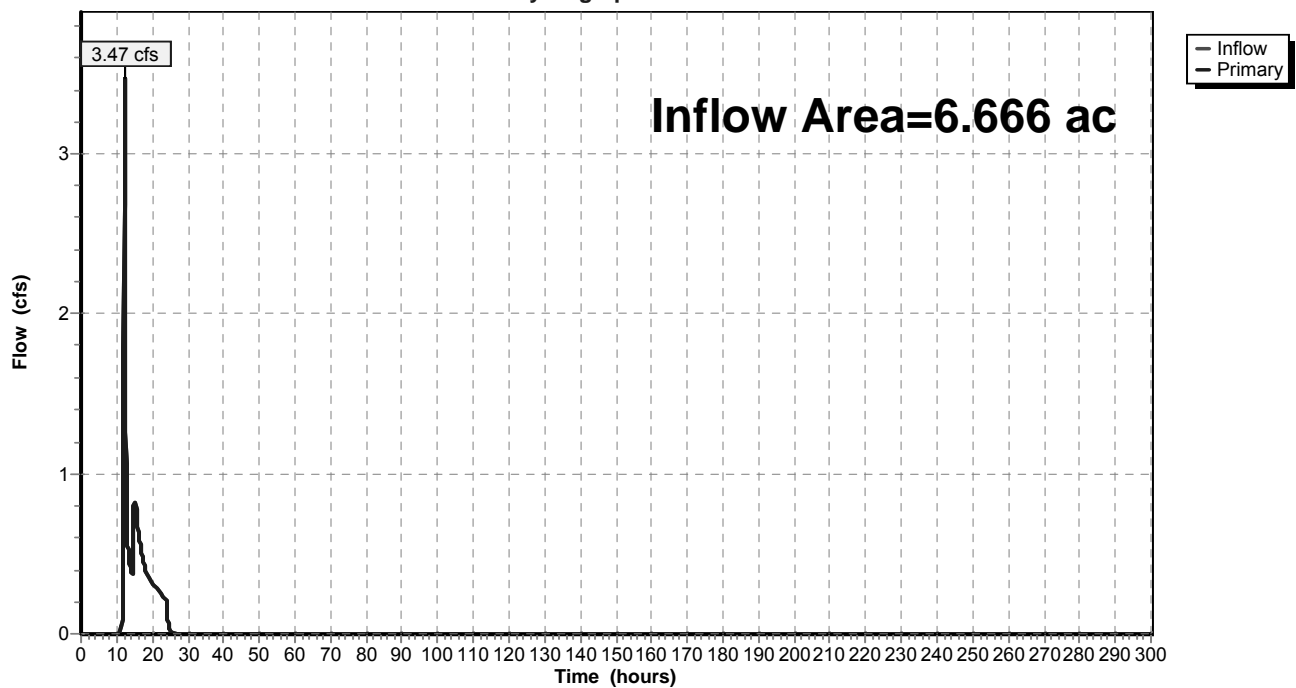
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 0.98" for 10 Year - North Salem event
 Inflow = 3.47 cfs @ 12.19 hrs, Volume= 0.546 af
 Primary = 3.47 cfs @ 12.19 hrs, Volume= 0.546 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 1.91" for 10 Year - North Salem event
 Inflow = 7.18 cfs @ 12.17 hrs, Volume= 0.643 af
 Outflow = 0.53 cfs @ 15.15 hrs, Volume= 0.211 af, Atten= 93%, Lag= 178.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.53 cfs @ 15.15 hrs, Volume= 0.211 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf

Peak Elev= 466.06' @ 15.15 hrs Surf.Area= 8,427 sf Storage= 25,820 cf (19,331 cf above start)

Plug-Flow detention time= 624.8 min calculated for 0.062 af (10% of inflow)

Center-of-Mass det. time= 241.1 min (1,103.8 - 862.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

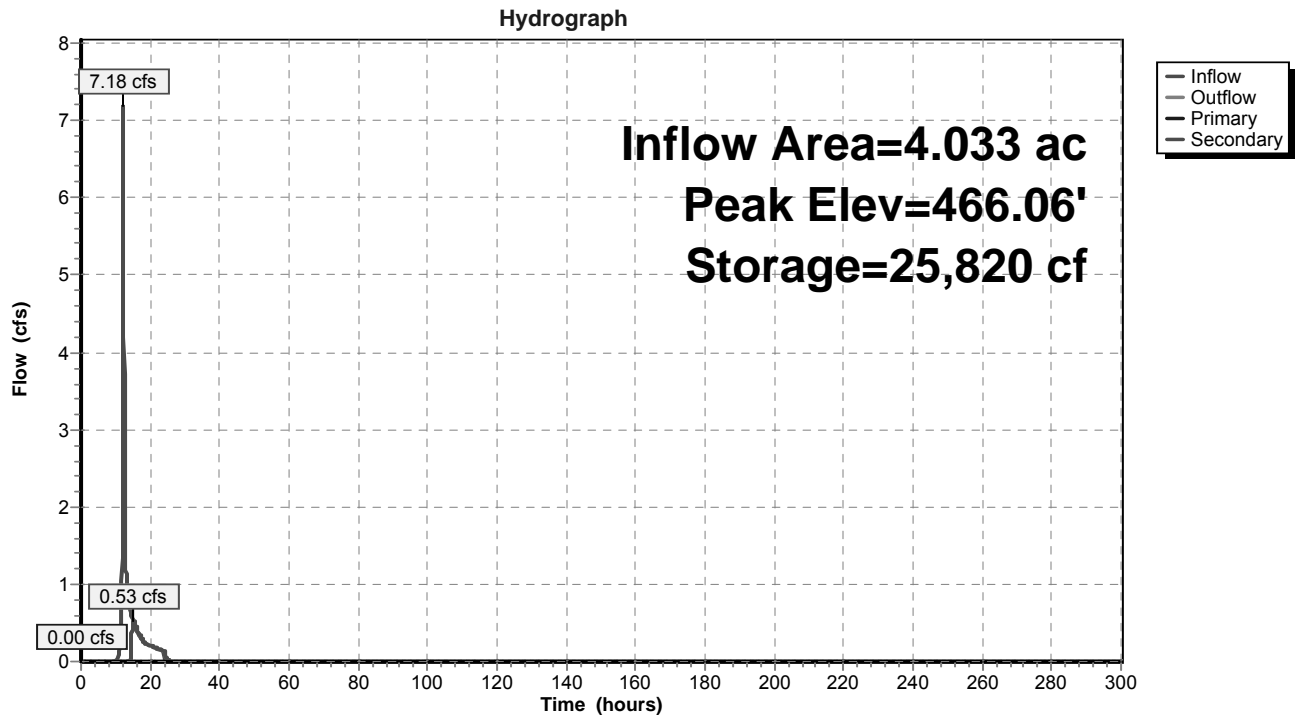
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.46 cfs @ 15.15 hrs HW=466.06' (Free Discharge)

- 5=Emergency Overflow Weir (Weir Controls 0.46 cfs @ 0.80 fps)

Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Woodlands Post-Dev DP 3 WORST CAS Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=2.51"
Flow Length=617' Tc=11.9 min CN=59 Runoff=6.03 cfs 0.550 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=3.00"
Flow Length=637' Tc=11.4 min CN=64 Runoff=11.61 cfs 1.009 af

Pond DP 3: Design Point 3

Inflow=6.03 cfs 1.126 af
Primary=6.03 cfs 1.126 af

Pond PW-C2: Pocket Wetlands - C2

Peak Elev=466.20' Storage=27,001 cf Inflow=11.61 cfs 1.009 af
Primary=0.00 cfs 0.000 af Secondary=2.95 cfs 0.576 af Outflow=2.95 cfs 0.576 af

Total Runoff Area = 6.666 ac Runoff Volume = 1.559 af Average Runoff Depth = 2.81"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 6.03 cfs @ 12.18 hrs, Volume= 0.550 af, Depth= 2.51"

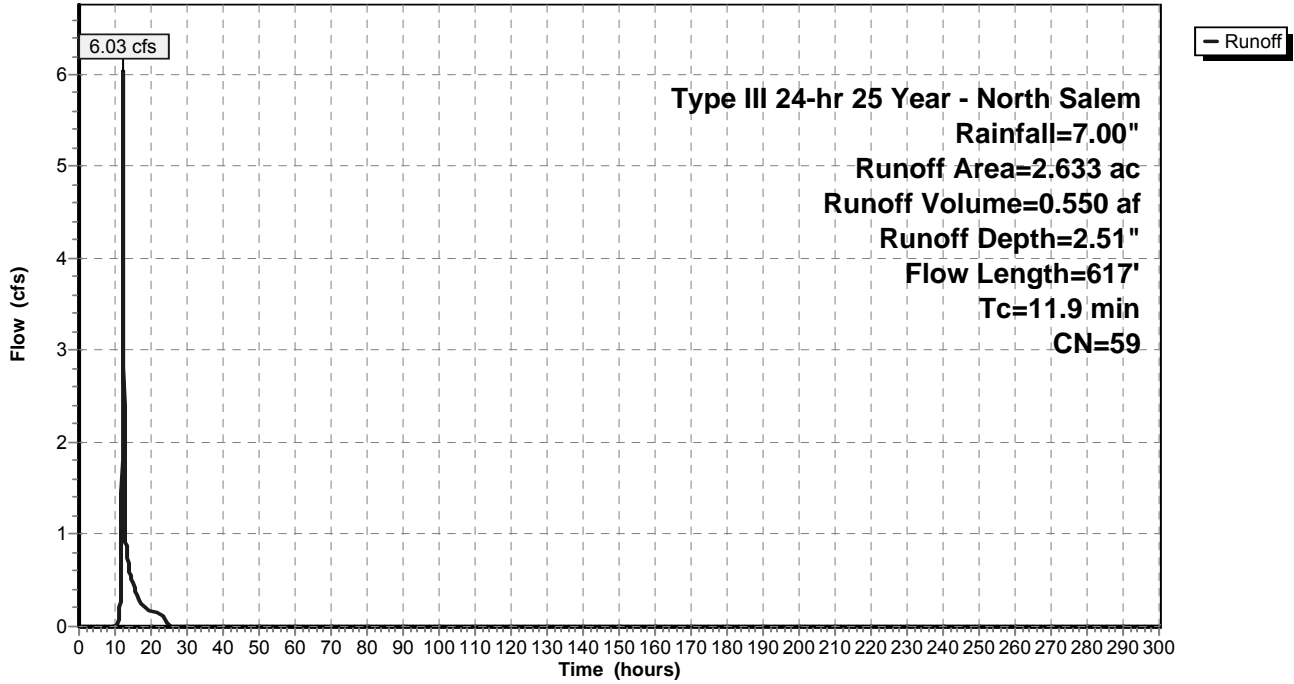
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

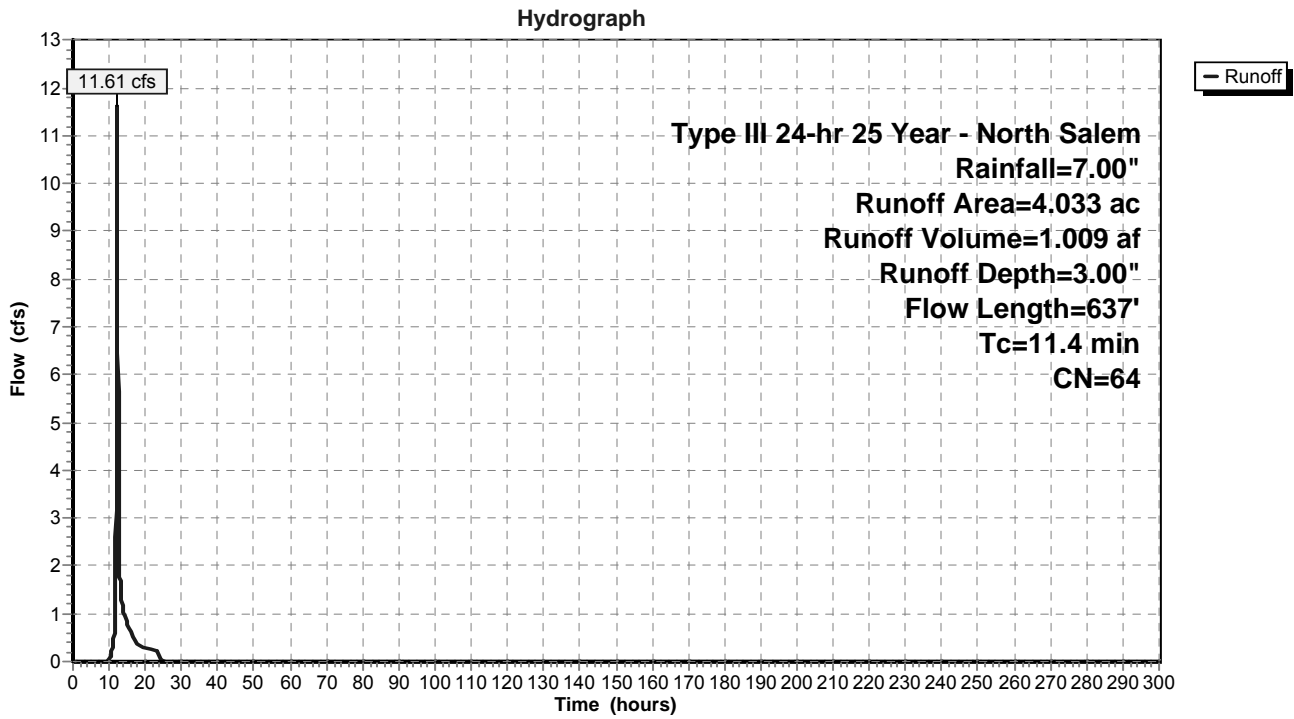
Runoff = 11.61 cfs @ 12.17 hrs, Volume= 1.009 af, Depth= 3.00"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2



Summary for Pond DP 3: Design Point 3

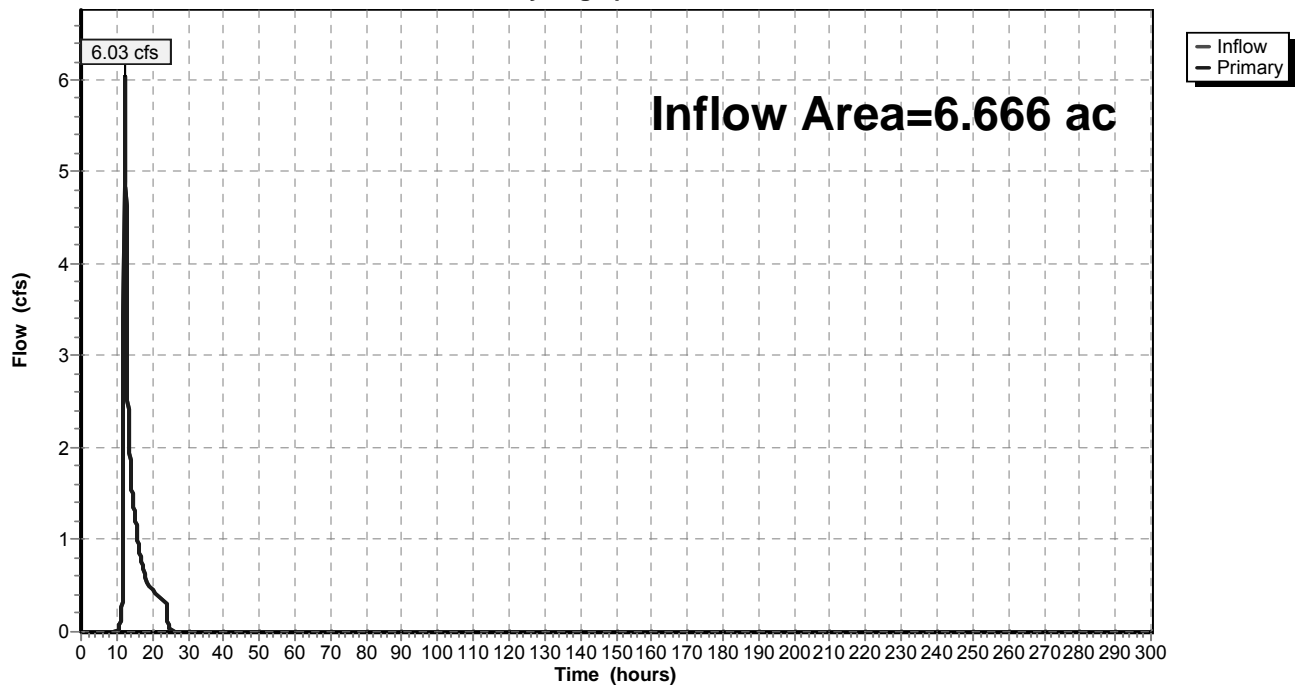
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 2.03" for 25 Year - North Salem event
Inflow = 6.03 cfs @ 12.18 hrs, Volume= 1.126 af
Primary = 6.03 cfs @ 12.18 hrs, Volume= 1.126 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 3.00" for 25 Year - North Salem event
 Inflow = 11.61 cfs @ 12.17 hrs, Volume= 1.009 af
 Outflow = 2.95 cfs @ 12.65 hrs, Volume= 0.576 af, Atten= 75%, Lag= 29.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.95 cfs @ 12.65 hrs, Volume= 0.576 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 466.20' @ 12.65 hrs Surf.Area= 8,595 sf Storage= 27,001 cf (20,511 cf above start)

Plug-Flow detention time= 301.9 min calculated for 0.427 af (42% of inflow)
 Center-of-Mass det. time= 109.6 min (958.9 - 849.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

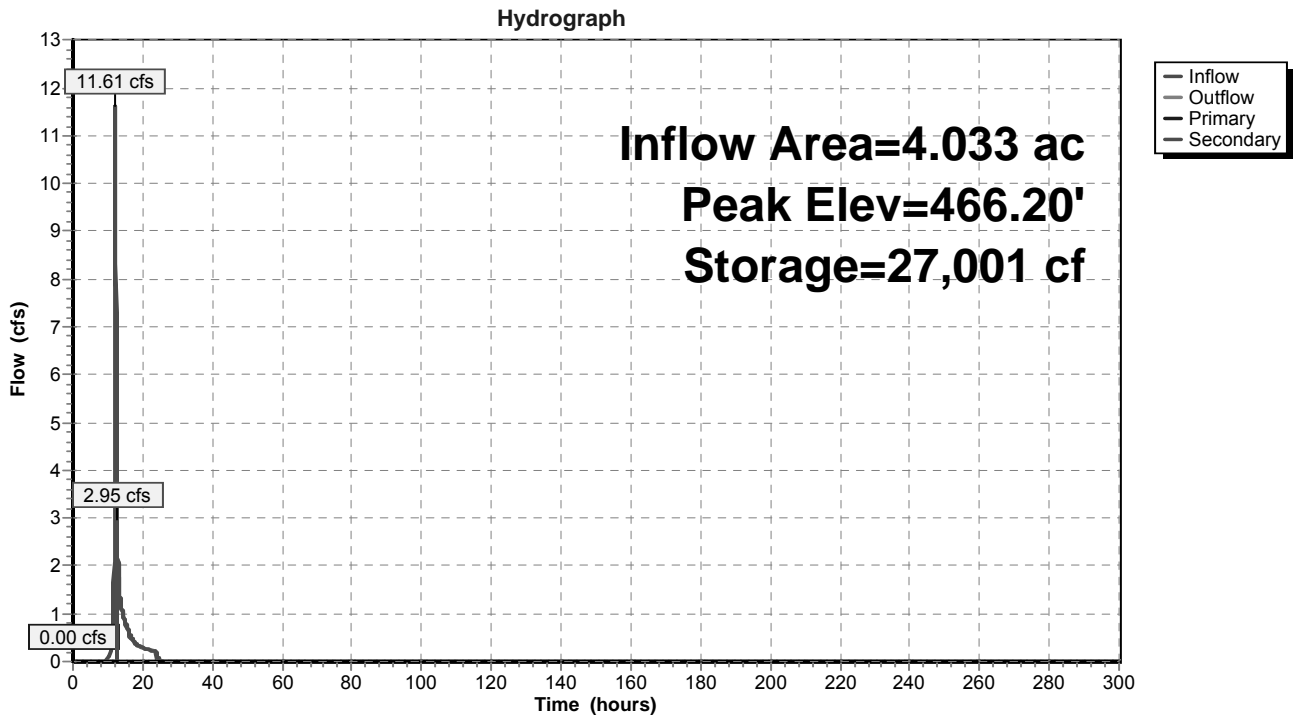
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.92 cfs @ 12.65 hrs HW=466.20' (Free Discharge)

- 5=Emergency Overflow Weir (Weir Controls 2.92 cfs @ 1.49 fps)

Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment C1: Post-Development C1 Runoff Area=2.633 ac 4.75% Impervious Runoff Depth=3.98"
Flow Length=617' Tc=11.9 min CN=59 Runoff=9.93 cfs 0.873 af

Subcatchment C2: Post-Development C2 Runoff Area=4.033 ac 8.60% Impervious Runoff Depth=4.59"
Flow Length=637' Tc=11.4 min CN=64 Runoff=18.01 cfs 1.544 af

Pond DP 3: Design Point 3 Inflow=18.50 cfs 1.984 af
Primary=18.50 cfs 1.984 af

Pond PW-C2: Pocket Wetlands - C2 Peak Elev=466.48' Storage=29,492 cf Inflow=18.01 cfs 1.544 af
Primary=0.00 cfs 0.000 af Secondary=11.47 cfs 1.111 af Outflow=11.47 cfs 1.111 af

Total Runoff Area = 6.666 ac Runoff Volume = 2.417 af Average Runoff Depth = 4.35"
92.92% Pervious = 6.194 ac 7.08% Impervious = 0.472 ac

Summary for Subcatchment C1: Post-Development C1

Runoff = 9.93 cfs @ 12.17 hrs, Volume= 0.873 af, Depth= 3.98"

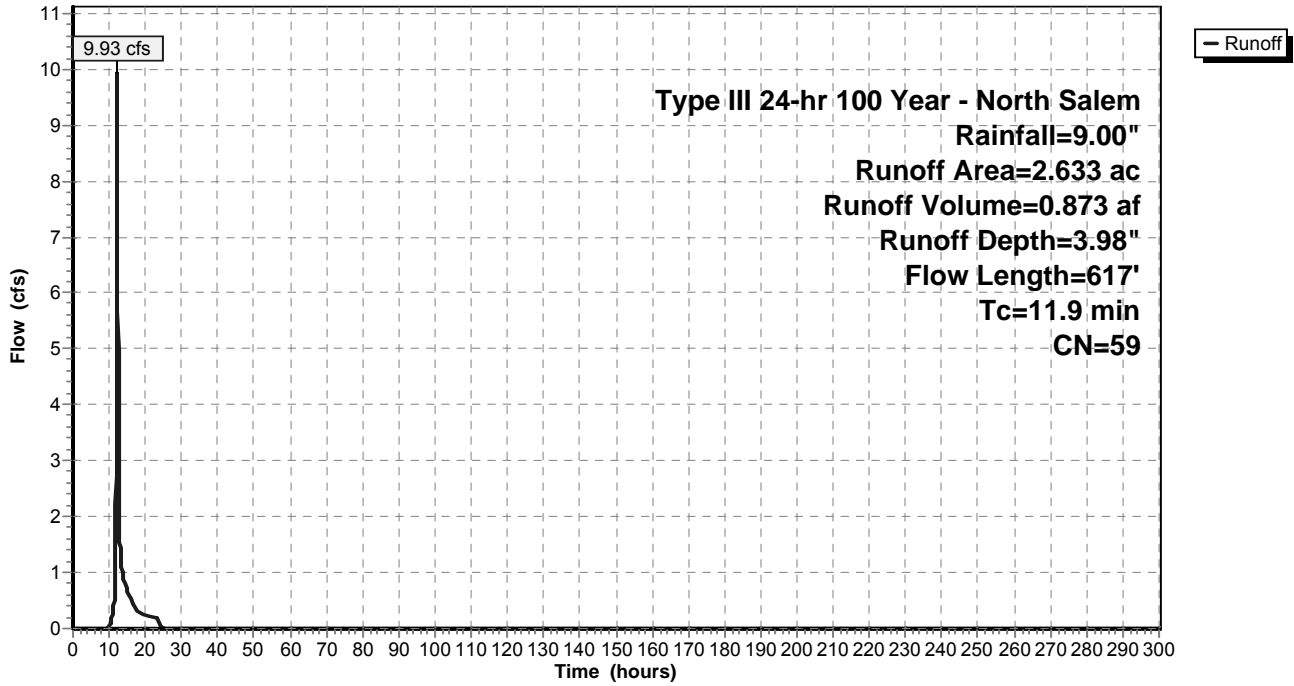
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.125	98	Road
0.155	74	>75% Grass cover, Good, HSG C
0.583	61	>75% Grass cover, Good, HSG B
1.770	55	Woods, Good, HSG B
2.633	59	Weighted Average
2.508		95.25% Pervious Area
0.125		4.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	44	0.2727	8.41		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	118	0.1355	5.93		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	86	0.2790	8.50		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	59	0.0678	4.19		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.6	210	0.1238	5.66		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
11.9	617	Total			

Subcatchment C1: Post-Development C1

Hydrograph



Summary for Subcatchment C2: Post-Development C2

Runoff = 18.01 cfs @ 12.16 hrs, Volume= 1.544 af, Depth= 4.59"

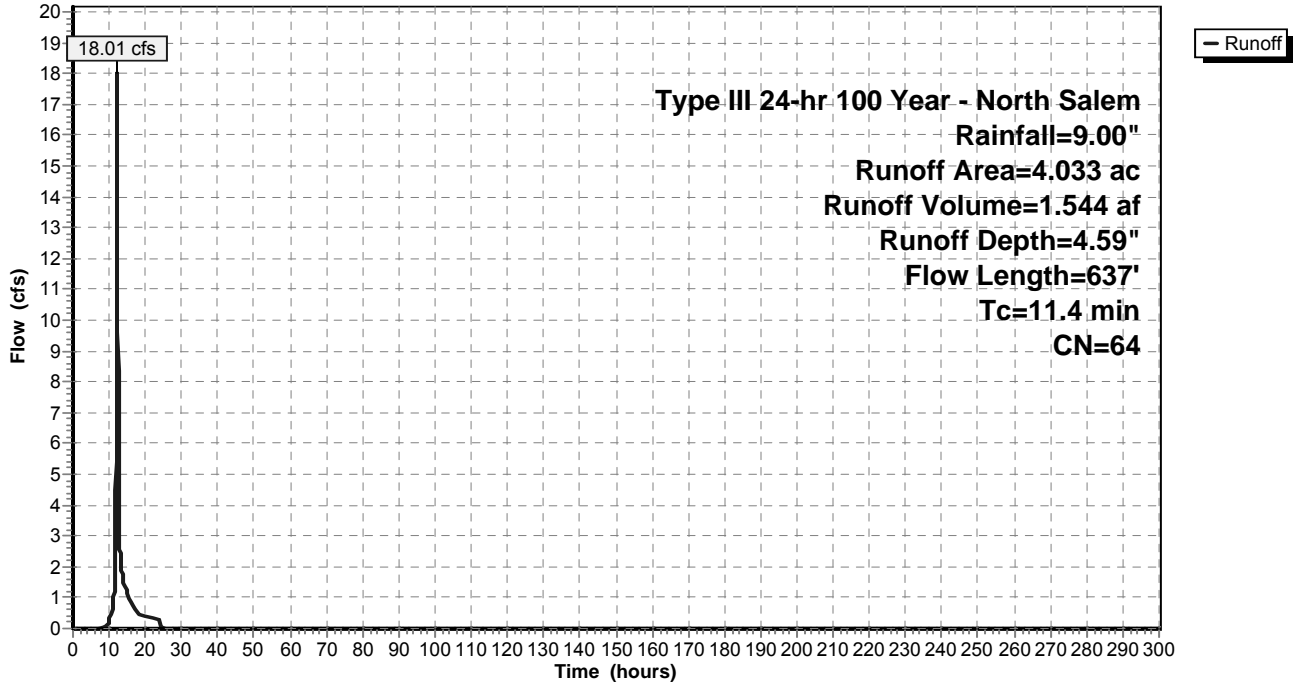
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.211	98	Road/Driveway
0.087	85	Gravel roads, HSG B
0.941	61	>75% Grass cover, Good, HSG B
2.083	55	Woods, Good, HSG B
* 0.064	98	House/Walkway - Lot 2
* 0.072	98	Driveway - Lot 2
* 0.550	74	>75% Grass cover, Good, HSG C - Lot 2
* 0.025	85	Gravel Road - New
4.033	64	Weighted Average
3.686		91.40% Pervious Area
0.347		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	100	0.1100	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	191	0.1989	7.18		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	70	0.3110	8.98		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	28	0.0200	2.87		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.5	195	0.1360	5.94		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.1	38	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
0.0	15	0.0200	7.44	9.14	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Corrugated PE, smooth interior
11.4	637	Total			

Subcatchment C2: Post-Development C2

Hydrograph



Summary for Pond DP 3: Design Point 3

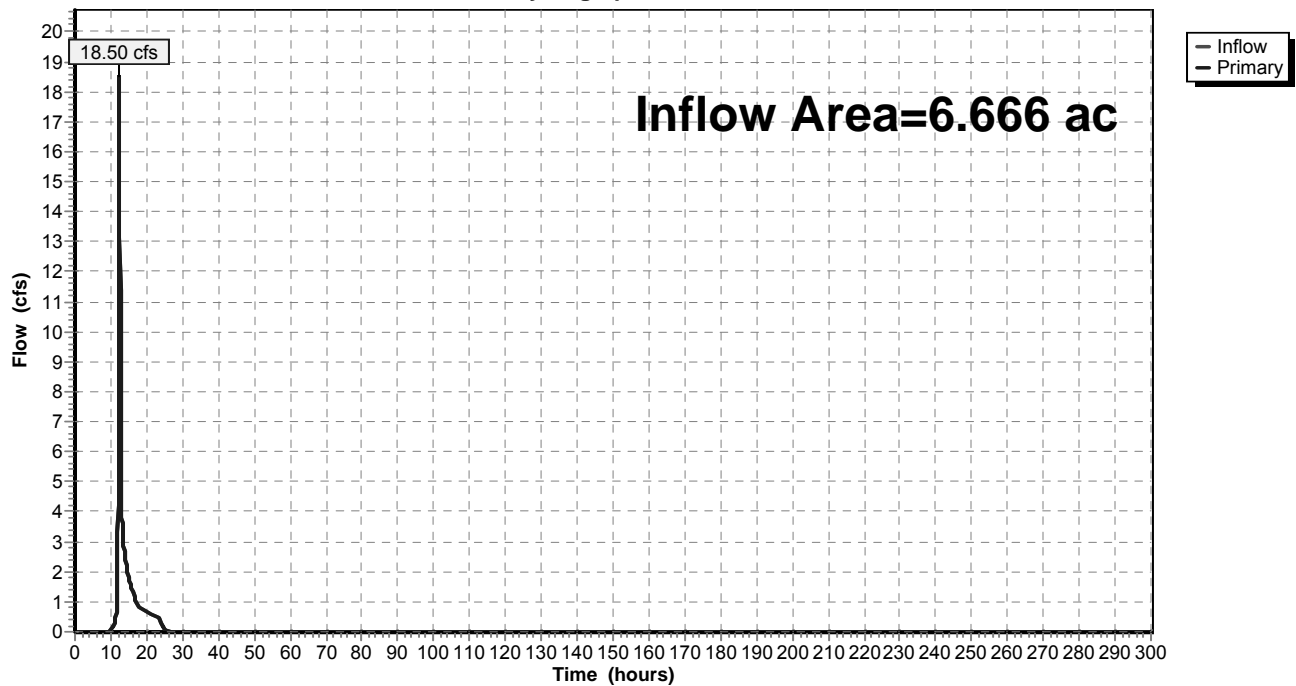
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 6.666 ac, 7.08% Impervious, Inflow Depth = 3.57" for 100 Year - North Salem event
Inflow = 18.50 cfs @ 12.31 hrs, Volume= 1.984 af
Primary = 18.50 cfs @ 12.31 hrs, Volume= 1.984 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 3: Design Point 3

Hydrograph



Summary for Pond PW-C2: Pocket Wetlands - C2

Inflow Area = 4.033 ac, 8.60% Impervious, Inflow Depth = 4.59" for 100 Year - North Salem event
 Inflow = 18.01 cfs @ 12.16 hrs, Volume= 1.544 af
 Outflow = 11.47 cfs @ 12.34 hrs, Volume= 1.111 af, Atten= 36%, Lag= 10.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 11.47 cfs @ 12.34 hrs, Volume= 1.111 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 463.00' Surf.Area= 3,965 sf Storage= 6,490 cf
 Peak Elev= 466.48' @ 12.34 hrs Surf.Area= 8,945 sf Storage= 29,492 cf (23,002 cf above start)

Plug-Flow detention time= 196.5 min calculated for 0.962 af (62% of inflow)
 Center-of-Mass det. time= 63.2 min (900.1 - 836.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	460.00'	34,303 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
460.00	760	225.0	0	0	760	
462.00	2,639	394.0	3,210	3,210	9,108	
464.00	5,560	507.0	8,020	11,230	17,260	
465.00	7,167	387.0	6,347	17,576	25,808	
466.00	8,357	406.0	7,754	25,331	27,071	
467.00	9,602	425.0	8,972	34,303	28,395	

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	18.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 449.00' S= 0.1692 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	463.00'	1.7" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 460.75' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	465.05'	13.0" W x 11.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	465.98'	48.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	466.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

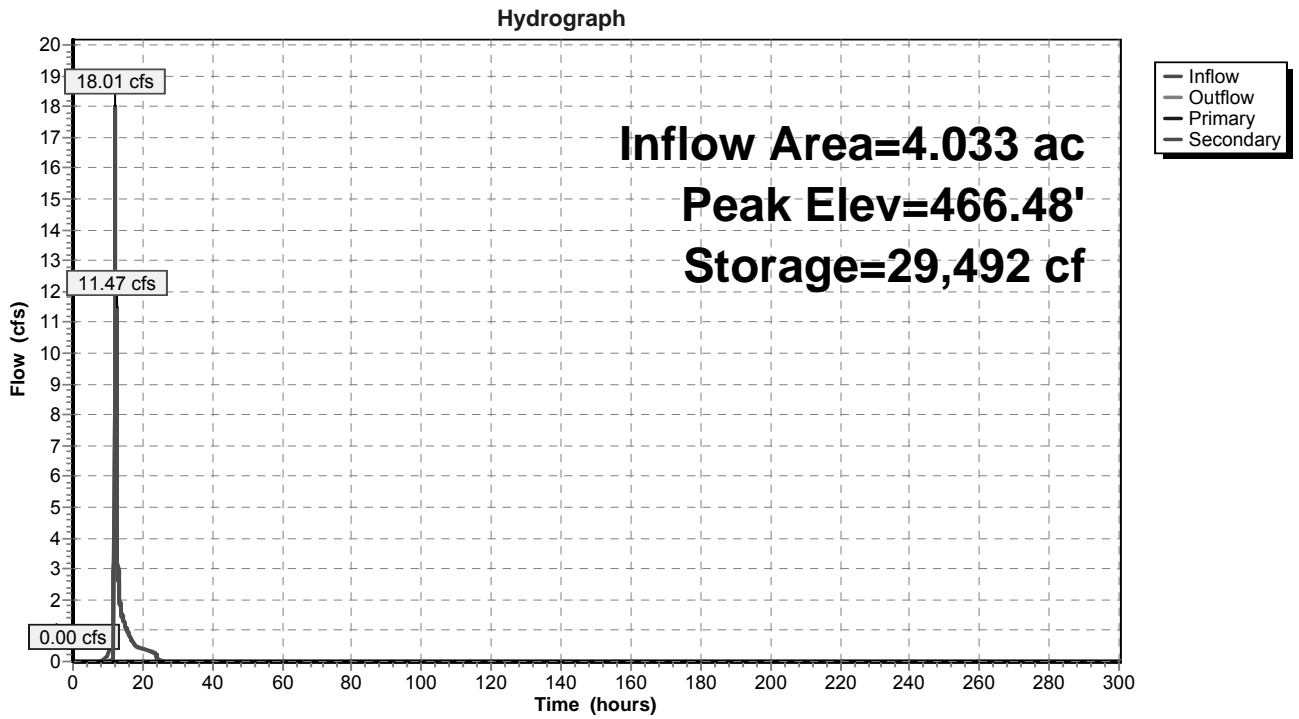
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=11.37 cfs @ 12.34 hrs HW=466.48' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Weir Controls 11.37 cfs @ 2.40 fps)

Pond PW-C2: Pocket Wetlands - C2



Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	760	0	461.06	1,615	1,230
460.02	773	15	461.08	1,634	1,263
460.04	786	31	461.10	1,653	1,296
460.06	800	47	461.12	1,673	1,329
460.08	813	63	461.14	1,692	1,363
460.10	827	79	461.16	1,712	1,397
460.12	841	96	461.18	1,732	1,431
460.14	855	113	461.20	1,751	1,466
460.16	869	130	461.22	1,771	1,501
460.18	883	148	461.24	1,791	1,537
460.20	897	166	461.26	1,812	1,573
460.22	911	184	461.28	1,832	1,609
460.24	926	202	461.30	1,852	1,646
460.26	940	221	461.32	1,873	1,683
460.28	955	240	461.34	1,894	1,721
460.30	970	259	461.36	1,914	1,759
460.32	984	278	461.38	1,935	1,798
460.34	999	298	461.40	1,956	1,837
460.36	1,015	318	461.42	1,977	1,876
460.38	1,030	339	461.44	1,999	1,916
460.40	1,045	360	461.46	2,020	1,956
460.42	1,061	381	461.48	2,041	1,997
460.44	1,076	402	461.50	2,063	2,038
460.46	1,092	424	461.52	2,085	2,079
460.48	1,108	446	461.54	2,106	2,121
460.50	1,124	468	461.56	2,128	2,163
460.52	1,140	491	461.58	2,150	2,206
460.54	1,156	514	461.60	2,173	2,249
460.56	1,172	537	461.62	2,195	2,293
460.58	1,188	560	461.64	2,217	2,337
460.60	1,205	584	461.66	2,240	2,382
460.62	1,221	609	461.68	2,262	2,427
460.64	1,238	633	461.70	2,285	2,472
460.66	1,255	658	461.72	2,308	2,518
460.68	1,272	683	461.74	2,331	2,564
460.70	1,289	709	461.76	2,354	2,611
460.72	1,306	735	461.78	2,377	2,659
460.74	1,323	761	461.80	2,400	2,706
460.76	1,341	788	461.82	2,423	2,755
460.78	1,358	815	461.84	2,447	2,803
460.80	1,376	842	461.86	2,471	2,853
460.82	1,393	870	461.88	2,494	2,902
460.84	1,411	898	461.90	2,518	2,952
460.86	1,429	926	461.92	2,542	3,003
460.88	1,447	955	461.94	2,566	3,054
460.90	1,465	984	461.96	2,590	3,106
460.92	1,484	1,014	461.98	2,615	3,158
460.94	1,502	1,044	462.00	2,639	3,210
460.96	1,520	1,074	462.02	2,663	3,263
460.98	1,539	1,104	462.04	2,687	3,317
461.00	1,558	1,135	462.06	2,711	3,371
461.02	1,577	1,167	462.08	2,735	3,425
461.04	1,596	1,198	462.10	2,759	3,480

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

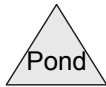
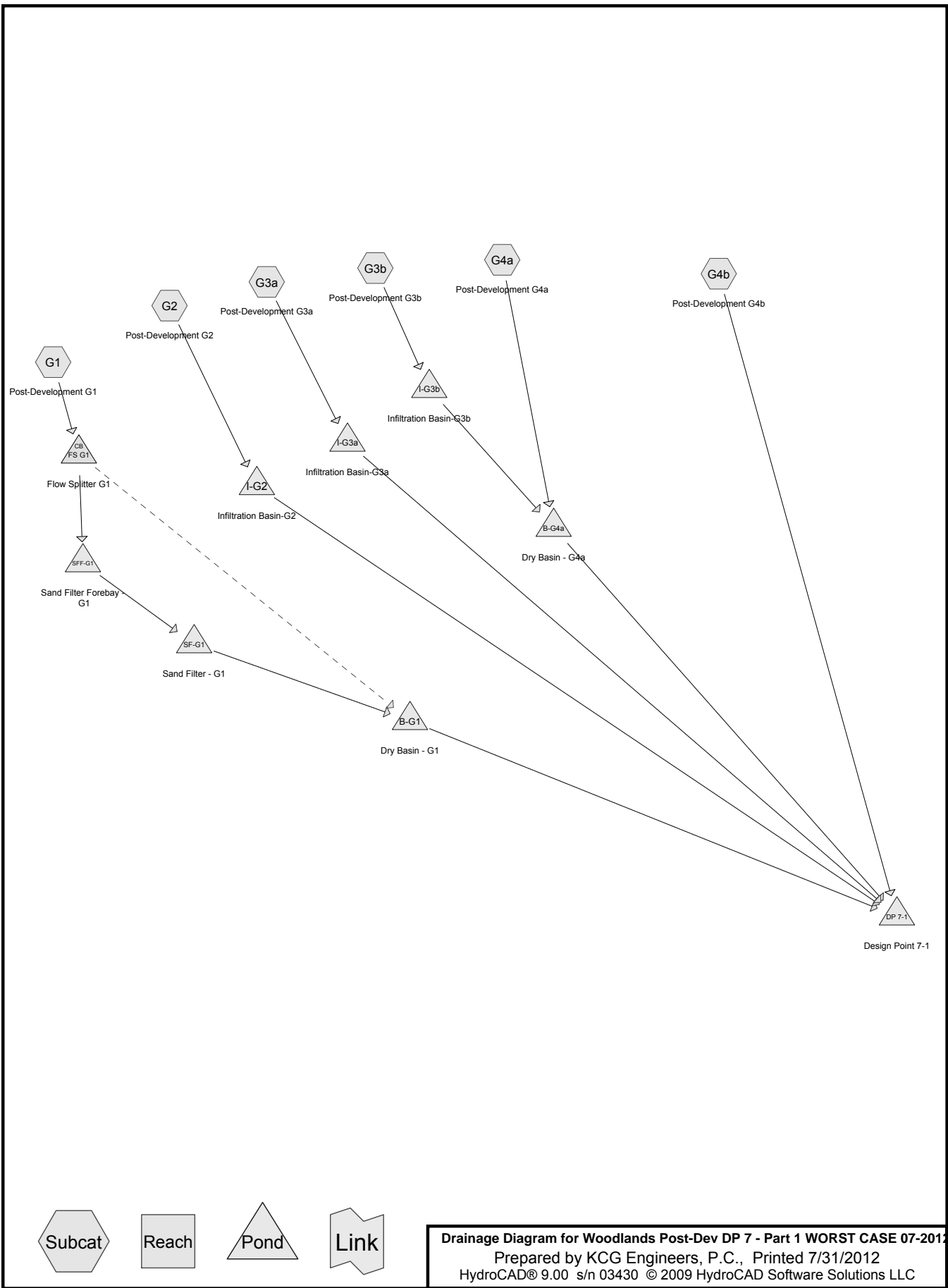
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	2,784	3,535	463.18	4,232	7,227
462.14	2,808	3,591	463.20	4,262	7,312
462.16	2,833	3,648	463.22	4,293	7,398
462.18	2,858	3,705	463.24	4,323	7,484
462.20	2,883	3,762	463.26	4,354	7,571
462.22	2,908	3,820	463.28	4,384	7,658
462.24	2,933	3,878	463.30	4,415	7,746
462.26	2,958	3,937	463.32	4,446	7,835
462.28	2,983	3,997	463.34	4,477	7,924
462.30	3,009	4,057	463.36	4,508	8,014
462.32	3,034	4,117	463.38	4,539	8,104
462.34	3,060	4,178	463.40	4,571	8,195
462.36	3,085	4,239	463.42	4,602	8,287
462.38	3,111	4,301	463.44	4,634	8,380
462.40	3,137	4,364	463.46	4,665	8,473
462.42	3,163	4,427	463.48	4,697	8,566
462.44	3,189	4,490	463.50	4,729	8,660
462.46	3,216	4,555	463.52	4,761	8,755
462.48	3,242	4,619	463.54	4,793	8,851
462.50	3,268	4,684	463.56	4,825	8,947
462.52	3,295	4,750	463.58	4,857	9,044
462.54	3,322	4,816	463.60	4,890	9,141
462.56	3,348	4,883	463.62	4,922	9,239
462.58	3,375	4,950	463.64	4,955	9,338
462.60	3,402	5,018	463.66	4,988	9,438
462.62	3,429	5,086	463.68	5,020	9,538
462.64	3,457	5,155	463.70	5,053	9,638
462.66	3,484	5,224	463.72	5,086	9,740
462.68	3,511	5,294	463.74	5,119	9,842
462.70	3,539	5,365	463.76	5,153	9,945
462.72	3,567	5,436	463.78	5,186	10,048
462.74	3,594	5,507	463.80	5,219	10,152
462.76	3,622	5,580	463.82	5,253	10,257
462.78	3,650	5,652	463.84	5,287	10,362
462.80	3,678	5,726	463.86	5,321	10,468
462.82	3,706	5,799	463.88	5,354	10,575
462.84	3,735	5,874	463.90	5,388	10,682
462.86	3,763	5,949	463.92	5,423	10,791
462.88	3,792	6,024	463.94	5,457	10,899
462.90	3,820	6,100	463.96	5,491	11,009
462.92	3,849	6,177	463.98	5,525	11,119
462.94	3,878	6,254	464.00	5,560	11,230
462.96	3,907	6,332	464.02	5,590	11,341
462.98	3,936	6,411	464.04	5,620	11,453
463.00	3,965	6,490	464.06	5,651	11,566
463.02	3,994	6,569	464.08	5,681	11,679
463.04	4,024	6,649	464.10	5,712	11,793
463.06	4,053	6,730	464.12	5,742	11,908
463.08	4,083	6,812	464.14	5,773	12,023
463.10	4,112	6,894	464.16	5,803	12,139
463.12	4,142	6,976	464.18	5,834	12,255
463.14	4,172	7,059	464.20	5,865	12,372
463.16	4,202	7,143	464.22	5,896	12,490

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.24	5,927	12,608	465.30	7,514	19,778
464.26	5,958	12,727	465.32	7,538	19,929
464.28	5,989	12,846	465.34	7,561	20,080
464.30	6,021	12,966	465.36	7,585	20,231
464.32	6,052	13,087	465.38	7,608	20,383
464.34	6,084	13,209	465.40	7,632	20,536
464.36	6,115	13,331	465.42	7,656	20,689
464.38	6,147	13,453	465.44	7,679	20,842
464.40	6,178	13,576	465.46	7,703	20,996
464.42	6,210	13,700	465.48	7,727	21,150
464.44	6,242	13,825	465.50	7,751	21,305
464.46	6,274	13,950	465.52	7,774	21,460
464.48	6,306	14,076	465.54	7,798	21,616
464.50	6,338	14,202	465.56	7,822	21,772
464.52	6,370	14,329	465.58	7,846	21,929
464.54	6,402	14,457	465.60	7,870	22,086
464.56	6,435	14,585	465.62	7,894	22,243
464.58	6,467	14,714	465.64	7,918	22,402
464.60	6,500	14,844	465.66	7,942	22,560
464.62	6,532	14,974	465.68	7,966	22,719
464.64	6,565	15,105	465.70	7,990	22,879
464.66	6,598	15,237	465.72	8,015	23,039
464.68	6,631	15,369	465.74	8,039	23,199
464.70	6,664	15,502	465.76	8,063	23,360
464.72	6,697	15,636	465.78	8,087	23,522
464.74	6,730	15,770	465.80	8,112	23,684
464.76	6,763	15,905	465.82	8,136	23,846
464.78	6,796	16,041	465.84	8,160	24,009
464.80	6,829	16,177	465.86	8,185	24,173
464.82	6,863	16,314	465.88	8,209	24,337
464.84	6,896	16,451	465.90	8,234	24,501
464.86	6,930	16,590	465.92	8,258	24,666
464.88	6,963	16,729	465.94	8,283	24,832
464.90	6,997	16,868	465.96	8,308	24,997
464.92	7,031	17,008	465.98	8,332	25,164
464.94	7,065	17,149	466.00	8,357	25,331
464.96	7,099	17,291	466.02	8,381	25,498
464.98	7,133	17,433	466.04	8,405	25,666
465.00	7,167	17,576	466.06	8,429	25,834
465.02	7,190	17,720	466.08	8,453	26,003
465.04	7,213	17,864	466.10	8,478	26,172
465.06	7,236	18,008	466.12	8,502	26,342
465.08	7,259	18,153	466.14	8,526	26,513
465.10	7,282	18,299	466.16	8,550	26,683
465.12	7,305	18,445	466.18	8,575	26,855
465.14	7,328	18,591	466.20	8,599	27,026
465.16	7,351	18,738	466.22	8,623	27,199
465.18	7,374	18,885	466.24	8,648	27,371
465.20	7,398	19,033	466.26	8,672	27,544
465.22	7,421	19,181	466.28	8,697	27,718
465.24	7,444	19,330	466.30	8,721	27,892
465.26	7,468	19,479	466.32	8,746	28,067
465.28	7,491	19,628	466.34	8,771	28,242

Stage-Area-Storage for Pond PW-C2: Pocket Wetlands - C2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
466.36	8,795	28,418
466.38	8,820	28,594
466.40	8,845	28,771
466.42	8,869	28,948
466.44	8,894	29,125
466.46	8,919	29,303
466.48	8,944	29,482
466.50	8,969	29,661
466.52	8,994	29,841
466.54	9,019	30,021
466.56	9,044	30,202
466.58	9,069	30,383
466.60	9,094	30,564
466.62	9,119	30,746
466.64	9,144	30,929
466.66	9,169	31,112
466.68	9,194	31,296
466.70	9,219	31,480
466.72	9,245	31,665
466.74	9,270	31,850
466.76	9,295	32,035
466.78	9,321	32,222
466.80	9,346	32,408
466.82	9,372	32,595
466.84	9,397	32,783
466.86	9,422	32,971
466.88	9,448	33,160
466.90	9,474	33,349
466.92	9,499	33,539
466.94	9,525	33,729
466.96	9,551	33,920
466.98	9,576	34,111
467.00	9,602	34,303



Drainage Diagram for Woodlands Post-Dev DP 7 - Part 1 WORST CASE 07-2012

Prepared by KCG Engineers, P.C., Printed 7/31/2012

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Woodlands Post-Dev DP 7 - Part 1 WORST CASE 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.381	55	Woods, Good, HSG B (G1, G2, G3b, G4a, G4b)
4.924	58	Woods/grass comb, Good, HSG B (G4b)
7.472	61	>75% Grass cover, Good, HSG B (G1, G2, G3a, G3b, G4a, G4b)
0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property) (G4b)
1.174	61	Basin, HSG B (G1, G2, G3a, G3b)
1.226	70	Woods, Good, HSG C (G1, G2, G4b)
2.288	72	Woods/grass comb., Good, HSG C (G4b)
3.807	74	>75% Grass cover, Good, HSG C (G1, G2, G3a, G4b)
0.192	74	Basin, C (G1)
1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands) (G4b)
0.160	98	Asphalt Driveway (Capucci/Bryson Property) (G4b)
1.107	98	Driveway (G1, G2, G3a, G3b)
0.206	98	Recreation Center (G3a)
1.619	98	Road (G1, G2, G3a, G3b)
0.894	98	Roof/Walkway (G1, G2, G3a, G3b)
0.235	98	Sidewalk (G1, G2, G3a, G3b)
31.048		TOTAL AREA

Woodlands Post-Dev DP 7 - Part 1 WORSType III 24-hr 1 Year - North Salem Rainfall=3.10"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=0.82"
Flow Length=184' Tc=10.2 min CN=71 Runoff=1.75 cfs 0.161 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=0.92"
Flow Length=619' Tc=10.1 min CN=73 Runoff=5.74 cfs 0.511 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=1.20"
Flow Length=770' Tc=15.1 min CN=78 Runoff=3.43 cfs 0.334 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=0.64"
Flow Length=983' Tc=12.1 min CN=67 Runoff=1.82 cfs 0.197 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=0.28"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=0.23 cfs 0.046 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=0.59"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=4.26 cfs 0.641 af

Pond B-G1: Dry Basin - G1 Peak Elev=512.50' Storage=618 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond B-G4a: Dry Basin - G4a Peak Elev=421.91' Storage=2,005 cf Inflow=0.23 cfs 0.046 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond DP 7-1: Design Point 7-1 Inflow=4.26 cfs 0.641 af
Primary=4.26 cfs 0.641 af

Pond FS G1: Flow Splitter G1 Peak Elev=524.53' Inflow=1.75 cfs 0.161 af
Primary=1.75 cfs 0.161 af Secondary=0.00 cfs 0.000 af Outflow=1.75 cfs 0.161 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=448.20' Storage=1,376 cf Inflow=5.74 cfs 0.511 af
Discarded=3.80 cfs 0.511 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=3.80 cfs 0.511 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=400.50' Storage=3,104 cf Inflow=3.43 cfs 0.334 af
Discarded=1.14 cfs 0.334 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.14 cfs 0.334 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=440.15' Storage=700 cf Inflow=1.82 cfs 0.197 af
Discarded=1.12 cfs 0.197 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.12 cfs 0.197 af

Pond SF-G1: Sand Filter - G1 Peak Elev=519.46' Storage=4,099 cf Inflow=0.36 cfs 0.094 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=523.05' Storage=2,988 cf Inflow=1.75 cfs 0.161 af
Primary=0.00 cfs 0.000 af Secondary=0.36 cfs 0.094 af Outflow=0.36 cfs 0.094 af

Total Runoff Area = 31.048 ac Runoff Volume = 1.890 af Average Runoff Depth = 0.73"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af, Depth= 0.82"

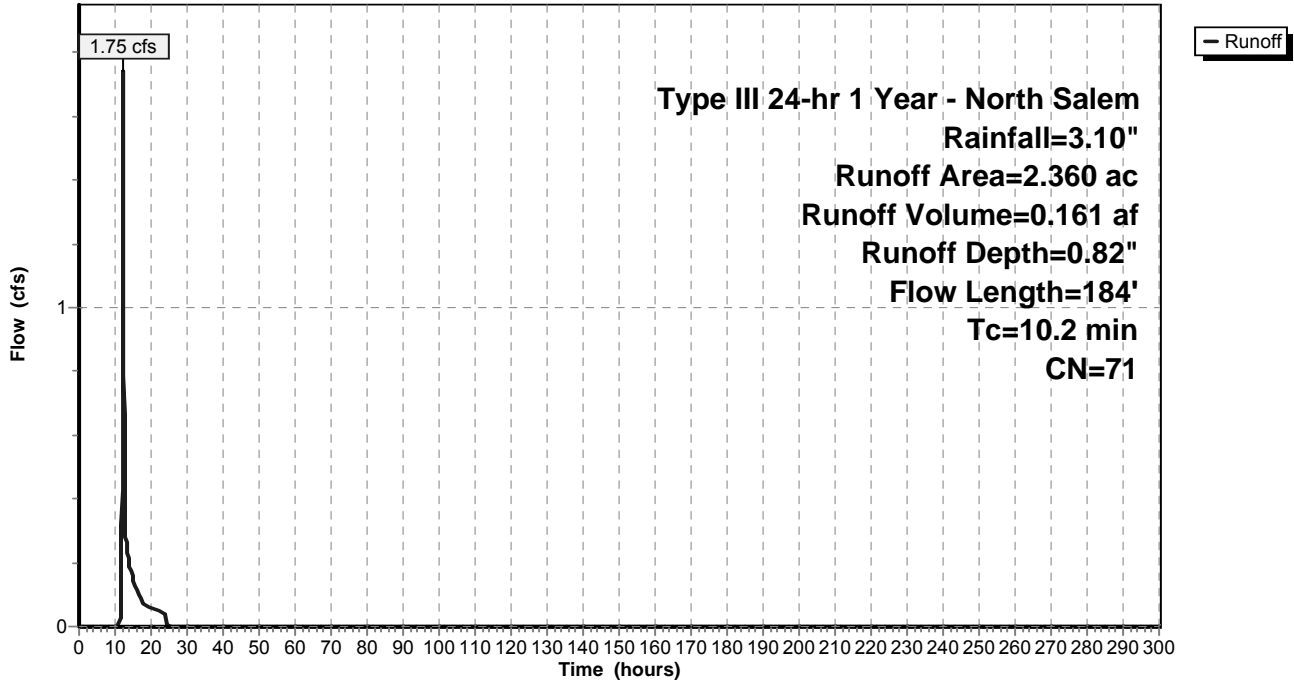
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 5.74 cfs @ 12.16 hrs, Volume= 0.511 af, Depth= 0.92"

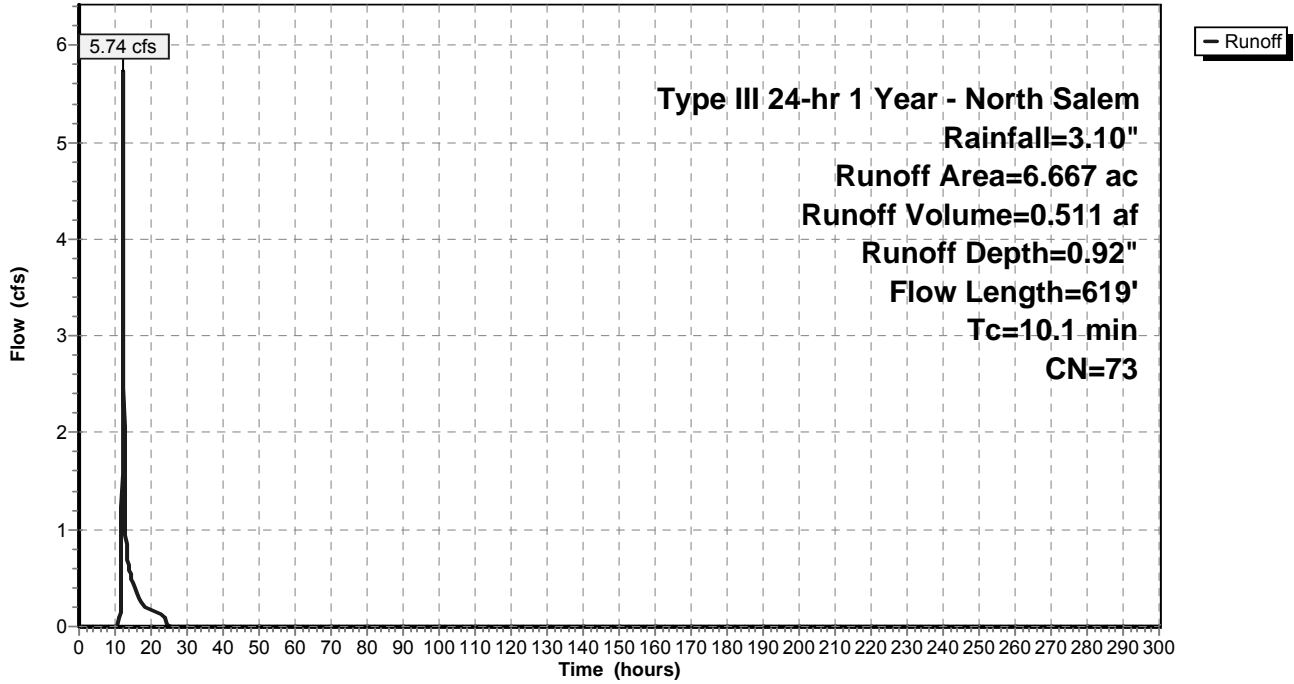
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 3.43 cfs @ 12.22 hrs, Volume= 0.334 af, Depth= 1.20"

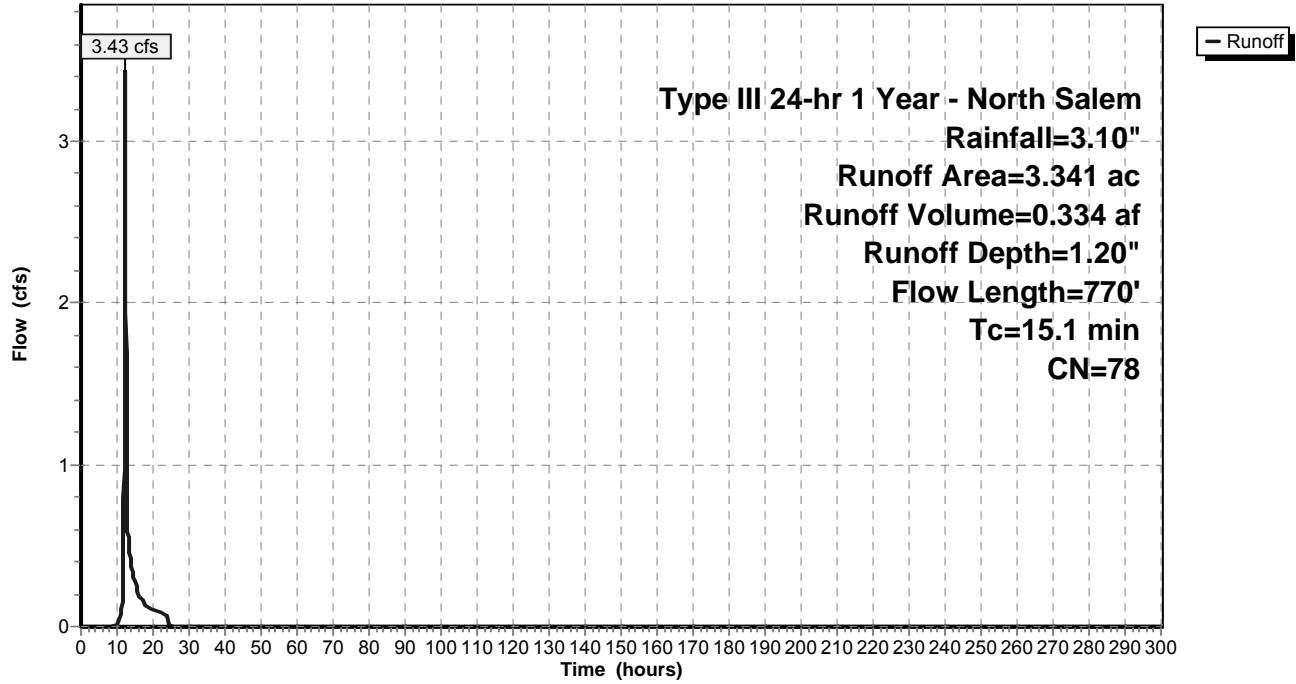
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

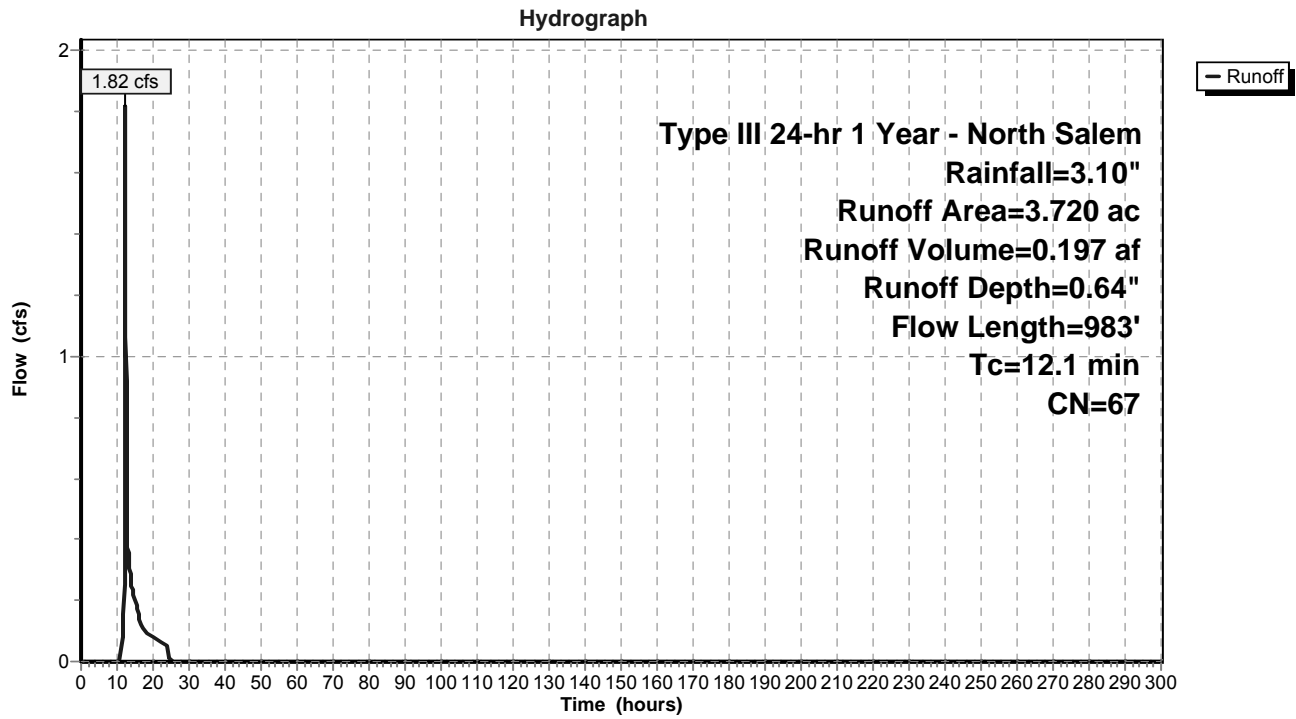
Runoff = 1.82 cfs @ 12.20 hrs, Volume= 0.197 af, Depth= 0.64"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 0.23 cfs @ 12.41 hrs, Volume= 0.046 af, Depth= 0.28"

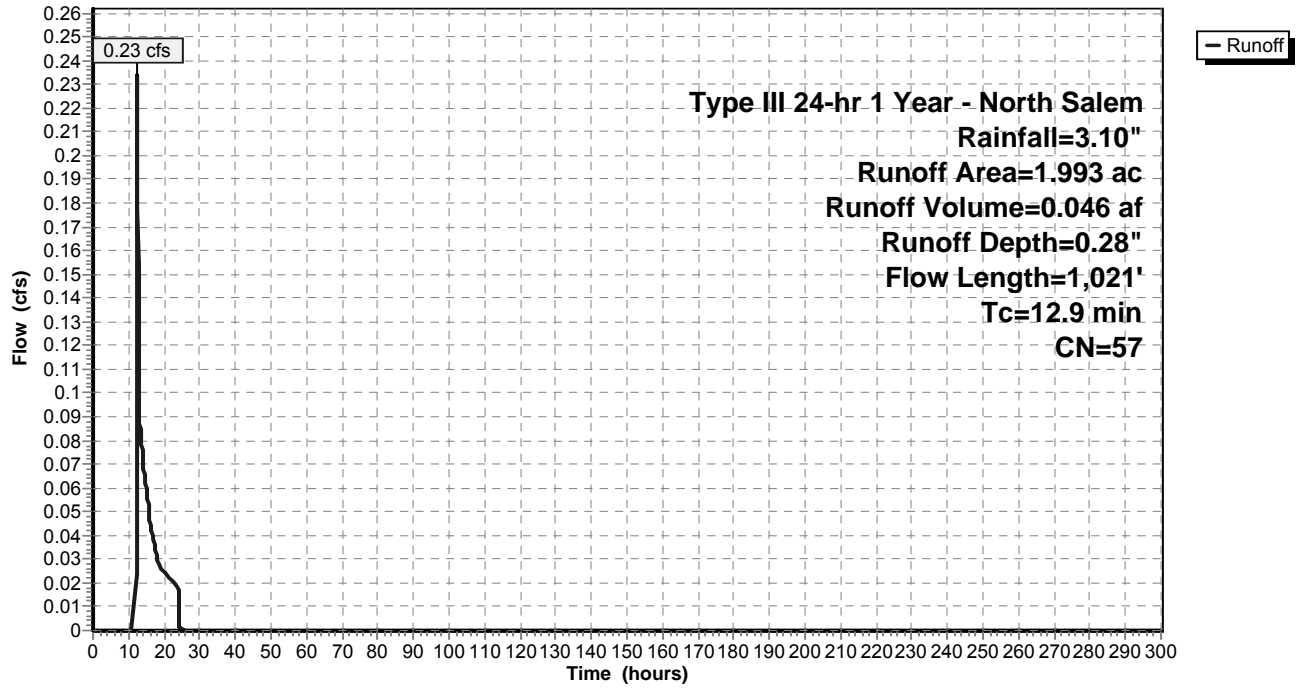
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 4.26 cfs @ 12.47 hrs, Volume= 0.641 af, Depth= 0.59"

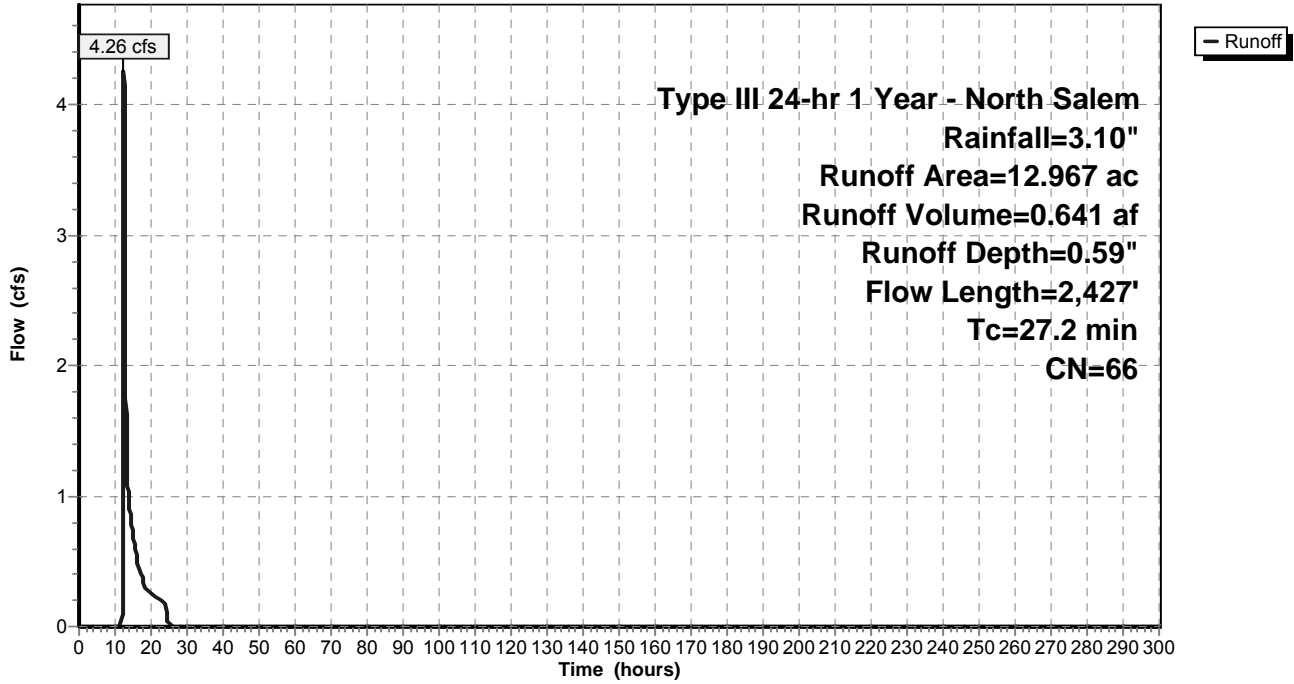
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.00" for 1 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 512.50' @ 0.00 hrs Surf.Area= 1,356 sf Storage= 618 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

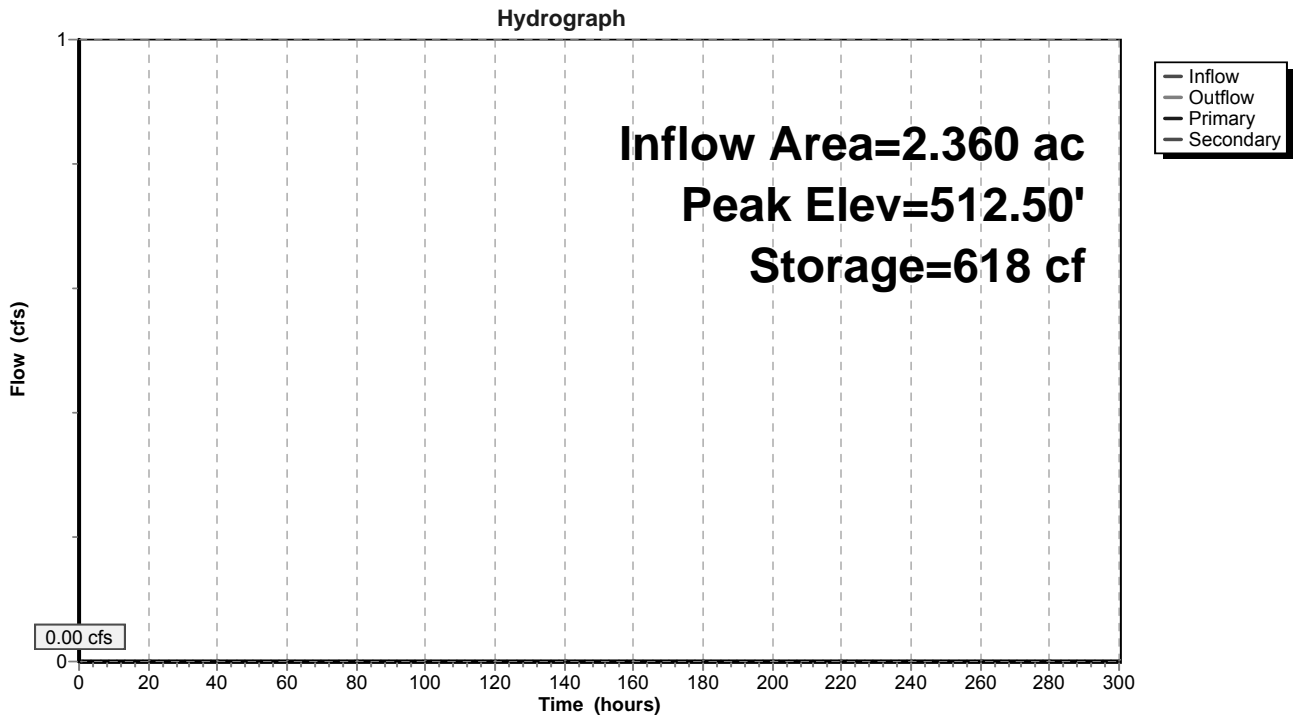
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 0.10" for 1 Year - North Salem event
 Inflow = 0.23 cfs @ 12.41 hrs, Volume= 0.046 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 421.91' @ 24.80 hrs Surf.Area= 1,488 sf Storage= 2,005 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert X 0.00 L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

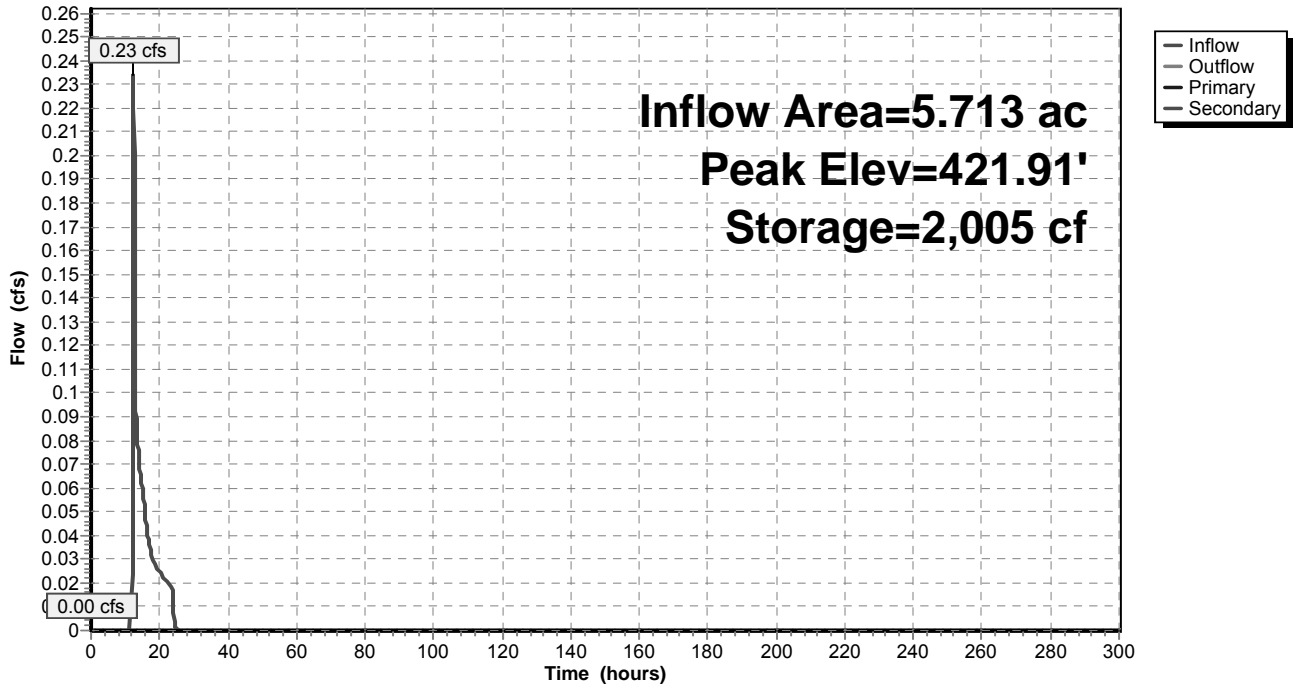
- ↑ 1=Culvert (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond B-G4a: Dry Basin - G4a

Hydrograph



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

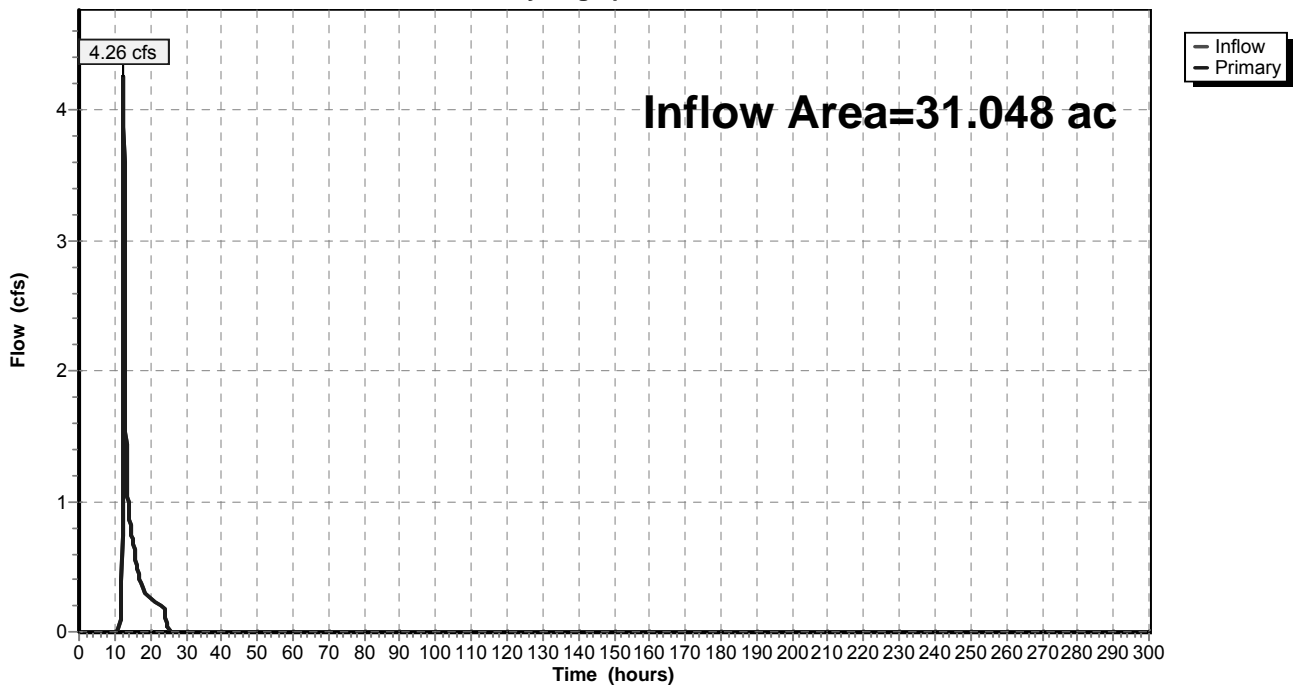
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 0.25" for 1 Year - North Salem event
Inflow = 4.26 cfs @ 12.47 hrs, Volume= 0.641 af
Primary = 4.26 cfs @ 12.47 hrs, Volume= 0.641 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.82" for 1 Year - North Salem event
 Inflow = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af
 Outflow = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 524.53' @ 12.16 hrs
 Flood Elev= 527.50'

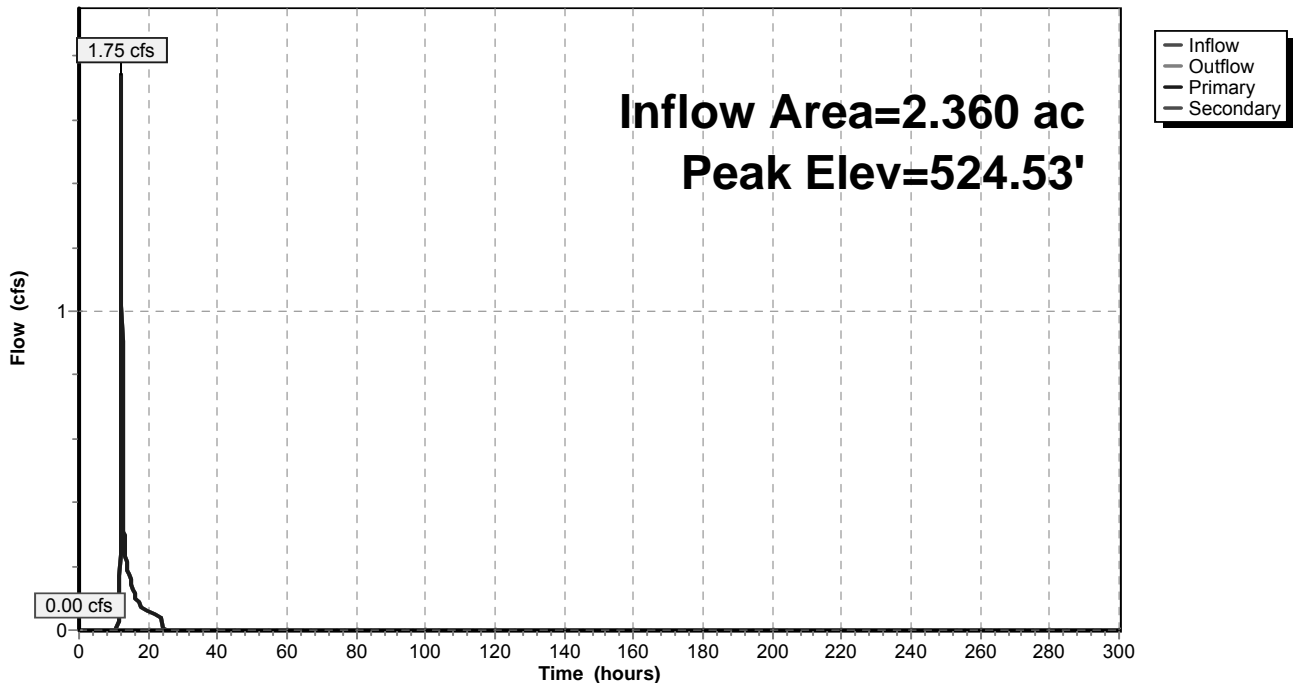
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.71 cfs @ 12.16 hrs HW=524.49' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.71 cfs @ 4.91 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=523.12' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G1: Flow Splitter G1

Hydrograph



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 0.92" for 1 Year - North Salem event
 Inflow = 5.74 cfs @ 12.16 hrs, Volume= 0.511 af
 Outflow = 3.80 cfs @ 12.33 hrs, Volume= 0.511 af, Atten= 34%, Lag= 10.1 min
 Discarded = 3.80 cfs @ 12.33 hrs, Volume= 0.511 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 448.20' @ 12.33 hrs Surf.Area= 6,839 sf Storage= 1,376 cf

Plug-Flow detention time= 2.6 min calculated for 0.511 af (100% of inflow)
 Center-of-Mass det. time= 2.6 min (874.0 - 871.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

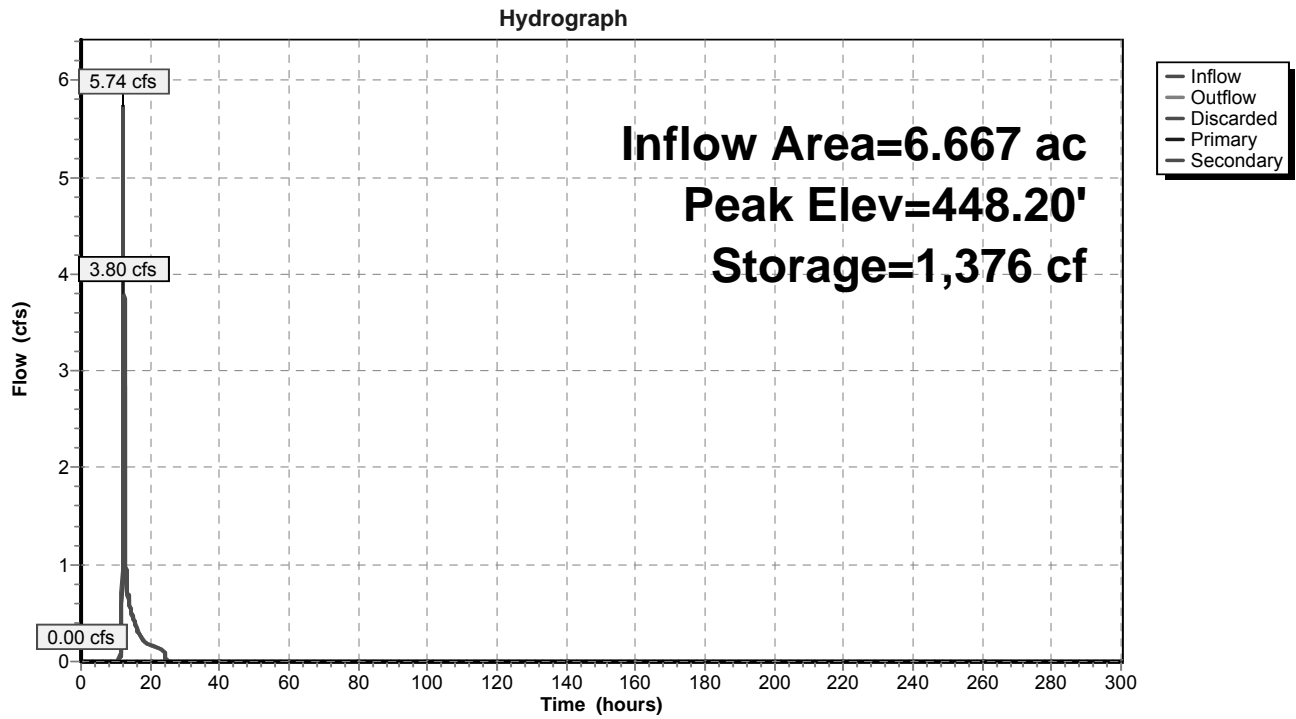
Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=3.80 cfs @ 12.33 hrs HW=448.20' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 3.80 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 3.43 cfs @ 12.22 hrs, Volume= 0.334 af
 Outflow = 1.14 cfs @ 12.67 hrs, Volume= 0.334 af, Atten= 67%, Lag= 27.1 min
 Discarded = 1.14 cfs @ 12.67 hrs, Volume= 0.334 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 400.50' @ 12.67 hrs Surf.Area= 6,329 sf Storage= 3,104 cf

Plug-Flow detention time= 17.3 min calculated for 0.334 af (100% of inflow)
 Center-of-Mass det. time= 17.3 min (876.7 - 859.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

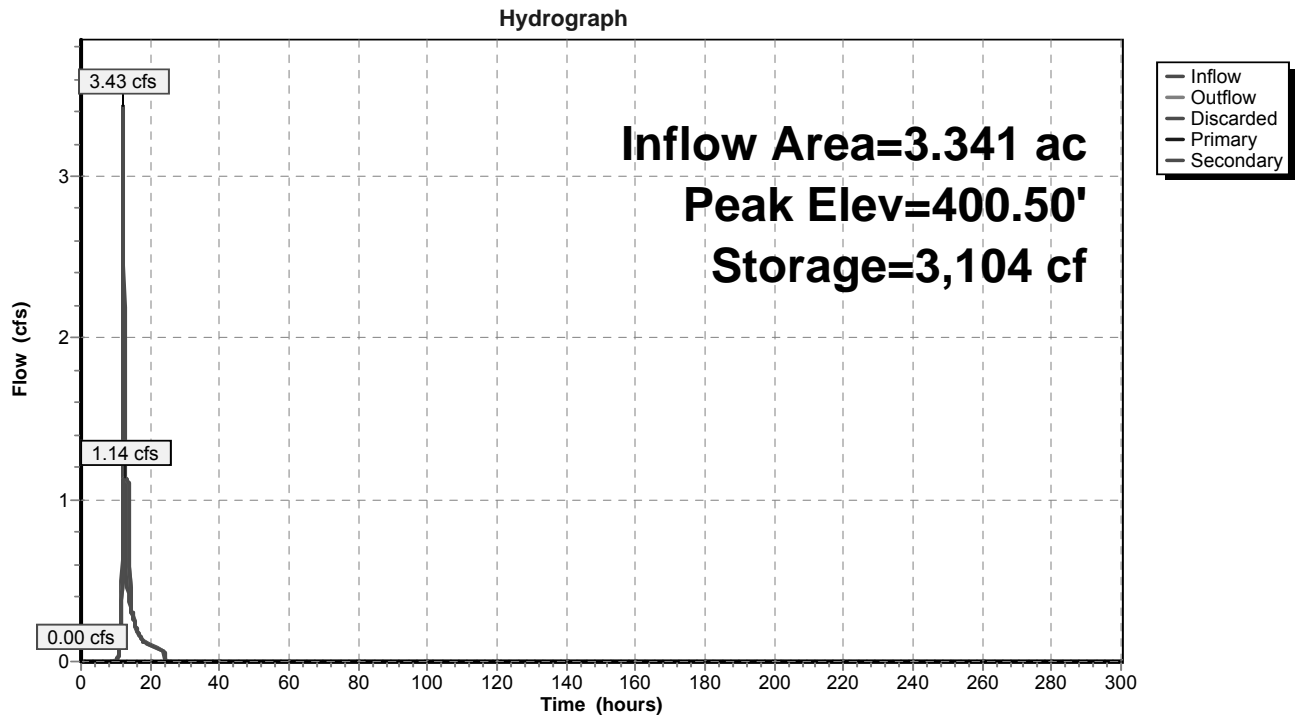
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.14 cfs @ 12.67 hrs HW=400.50' (Free Discharge)
 ↳ **4=Exfiltration** (Exfiltration Controls 1.14 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳ **1=Outlet Pipe** (Controls 0.00 cfs)
 ↳ **2=Orifice #1** (Controls 0.00 cfs)
 ↳ **3=Top of Outlet Box** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳ **5=Emergency Overflow** (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 1.82 cfs @ 12.20 hrs, Volume= 0.197 af
 Outflow = 1.12 cfs @ 12.48 hrs, Volume= 0.197 af, Atten= 38%, Lag= 16.4 min
 Discarded = 1.12 cfs @ 12.48 hrs, Volume= 0.197 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 440.15' @ 12.48 hrs Surf.Area= 4,766 sf Storage= 700 cf

Plug-Flow detention time= 4.4 min calculated for 0.197 af (100% of inflow)
 Center-of-Mass det. time= 4.4 min (900.0 - 895.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
440.00	4,681	292.0	0	0	4,681	
442.00	5,898	317.0	10,556	10,556	6,037	
443.00	6,543	330.0	6,218	16,773	6,780	
444.00	7,214	342.0	6,876	23,649	7,505	

Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.12 cfs @ 12.48 hrs HW=440.15' (Free Discharge)

↳ **4=Exfiltration** (Exfiltration Controls 1.12 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)

↳ **1=Outlet Pipe** (Controls 0.00 cfs)

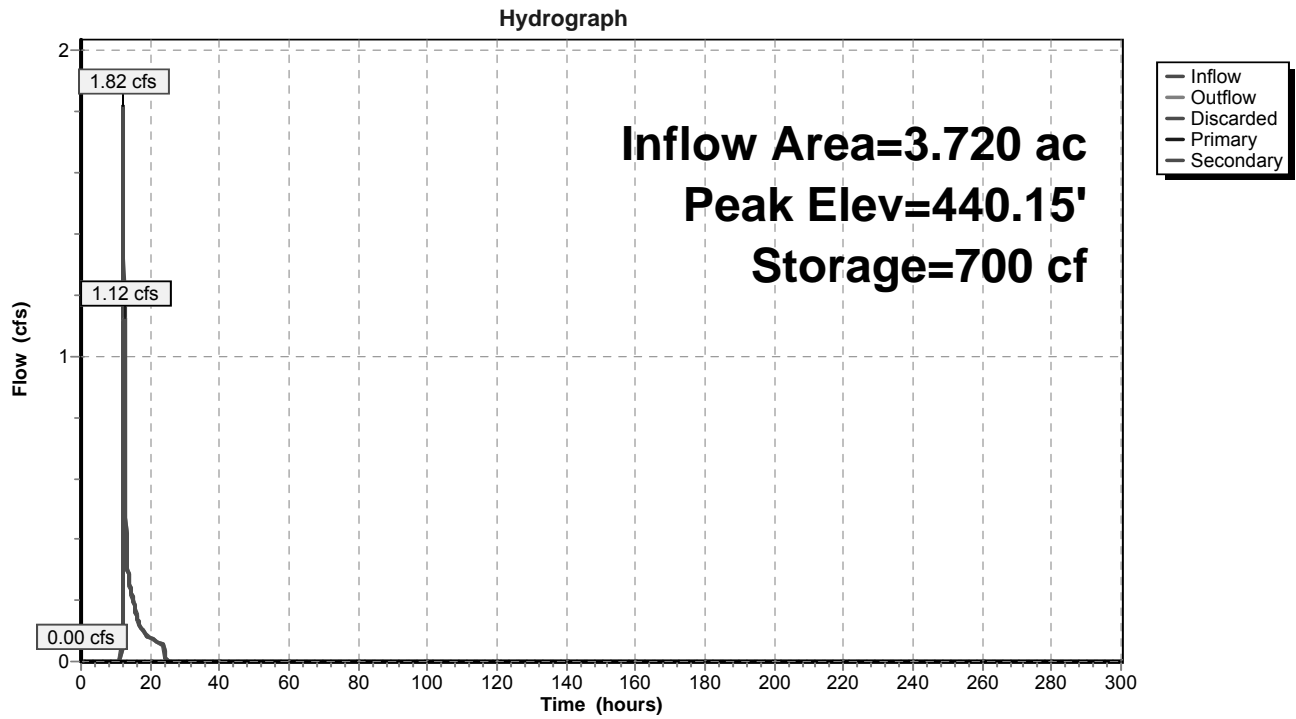
↳ **2=Orifice #1** (Controls 0.00 cfs)

↳ **3=Top of Outlet Box** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)

↳ **5=Emergency Overflow** (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.48" for 1 Year - North Salem event
 Inflow = 0.36 cfs @ 12.82 hrs, Volume= 0.094 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 519.46' @ 26.05 hrs Surf.Area= 3,120 sf Storage= 4,099 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
518.00	2,523	196.0	0	0	2,523
518.50	2,722	203.0	1,311	1,311	2,767
519.50	3,139	215.0	2,928	4,239	3,217
521.00	4,049	240.0	5,377	9,616	4,185
522.00	4,541	253.0	4,293	13,908	4,751

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe X 0.00 L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

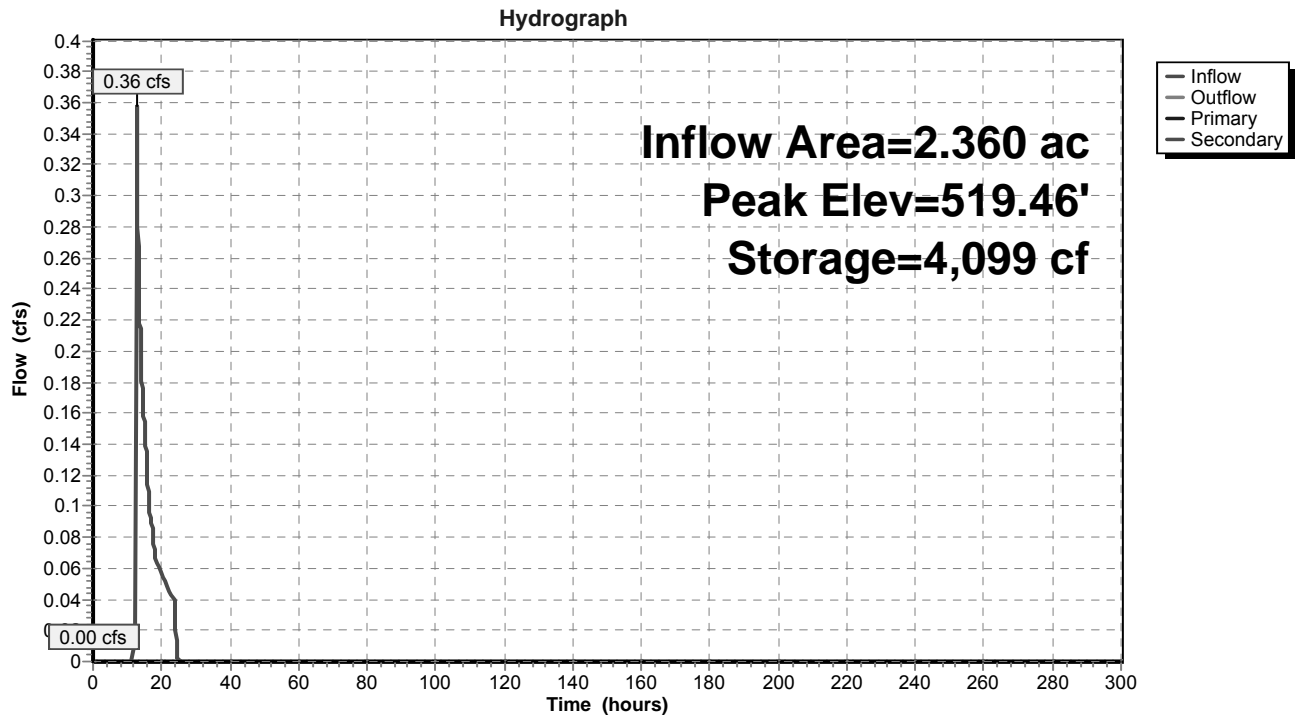
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

[79] Warning: Submerged Pond FS G1 Primary device # 1 OUTLET by 0.05'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.82" for 1 Year - North Salem event
 Inflow = 1.75 cfs @ 12.16 hrs, Volume= 0.161 af
 Outflow = 0.36 cfs @ 12.82 hrs, Volume= 0.094 af, Atten= 80%, Lag= 39.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.36 cfs @ 12.82 hrs, Volume= 0.094 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 523.05' @ 12.80 hrs Surf.Area= 1,368 sf Storage= 2,988 cf

Plug-Flow detention time= 233.7 min calculated for 0.094 af (58% of inflow)
 Center-of-Mass det. time= 106.6 min (985.0 - 878.4)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

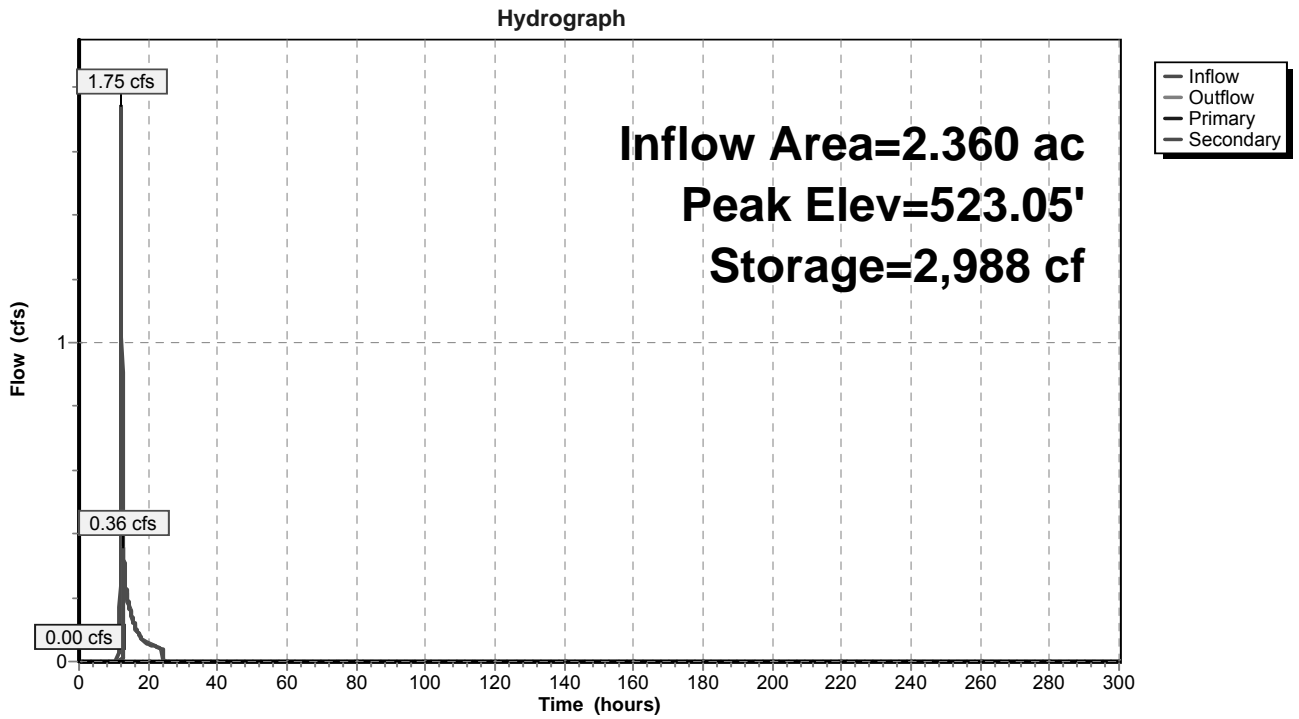
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Standpipe Openings (Controls 0.00 cfs)
- 3=Top of Standpipe (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.33 cfs @ 12.82 hrs HW=523.05' (Free Discharge)

- 5=Sharp-Crested Rectangular Weir (Weir Controls 0.33 cfs @ 0.77 fps)

Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Woodlands Post-Dev DP 7 - Part 1 WORSType III 24-hr 2 Year - North Salem Rainfall=3.70"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=1.19"
Flow Length=184' Tc=10.2 min CN=71 Runoff=2.68 cfs 0.235 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=1.32"
Flow Length=619' Tc=10.1 min CN=73 Runoff=8.52 cfs 0.731 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=1.65"
Flow Length=770' Tc=15.1 min CN=78 Runoff=4.80 cfs 0.460 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=0.96"
Flow Length=983' Tc=12.1 min CN=67 Runoff=3.03 cfs 0.299 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=0.49"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=0.56 cfs 0.082 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=0.91"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=7.19 cfs 0.985 af

Pond B-G1: Dry Basin - G1 Peak Elev=512.73' Storage=945 cf Inflow=0.66 cfs 0.008 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond B-G4a: Dry Basin - G4a Peak Elev=422.81' Storage=3,568 cf Inflow=0.56 cfs 0.082 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond DP 7-1: Design Point 7-1 Inflow=7.19 cfs 0.985 af
Primary=7.19 cfs 0.985 af

Pond FS G1: Flow Splitter G1 Peak Elev=524.89' Inflow=2.68 cfs 0.235 af
Primary=2.01 cfs 0.227 af Secondary=0.66 cfs 0.008 af Outflow=2.68 cfs 0.235 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=448.59' Storage=4,043 cf Inflow=8.52 cfs 0.731 af
Discarded=3.93 cfs 0.731 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=3.93 cfs 0.731 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=400.86' Storage=5,412 cf Inflow=4.80 cfs 0.460 af
Discarded=1.18 cfs 0.460 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.18 cfs 0.460 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=440.46' Storage=2,205 cf Inflow=3.03 cfs 0.299 af
Discarded=1.16 cfs 0.299 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.16 cfs 0.299 af

Pond SF-G1: Sand Filter - G1 Peak Elev=520.31' Storage=6,979 cf Inflow=1.57 cfs 0.160 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=523.15' Storage=3,121 cf Inflow=2.01 cfs 0.227 af
Primary=0.00 cfs 0.000 af Secondary=1.57 cfs 0.160 af Outflow=1.57 cfs 0.160 af

Total Runoff Area = 31.048 ac Runoff Volume = 2.791 af Average Runoff Depth = 1.08"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

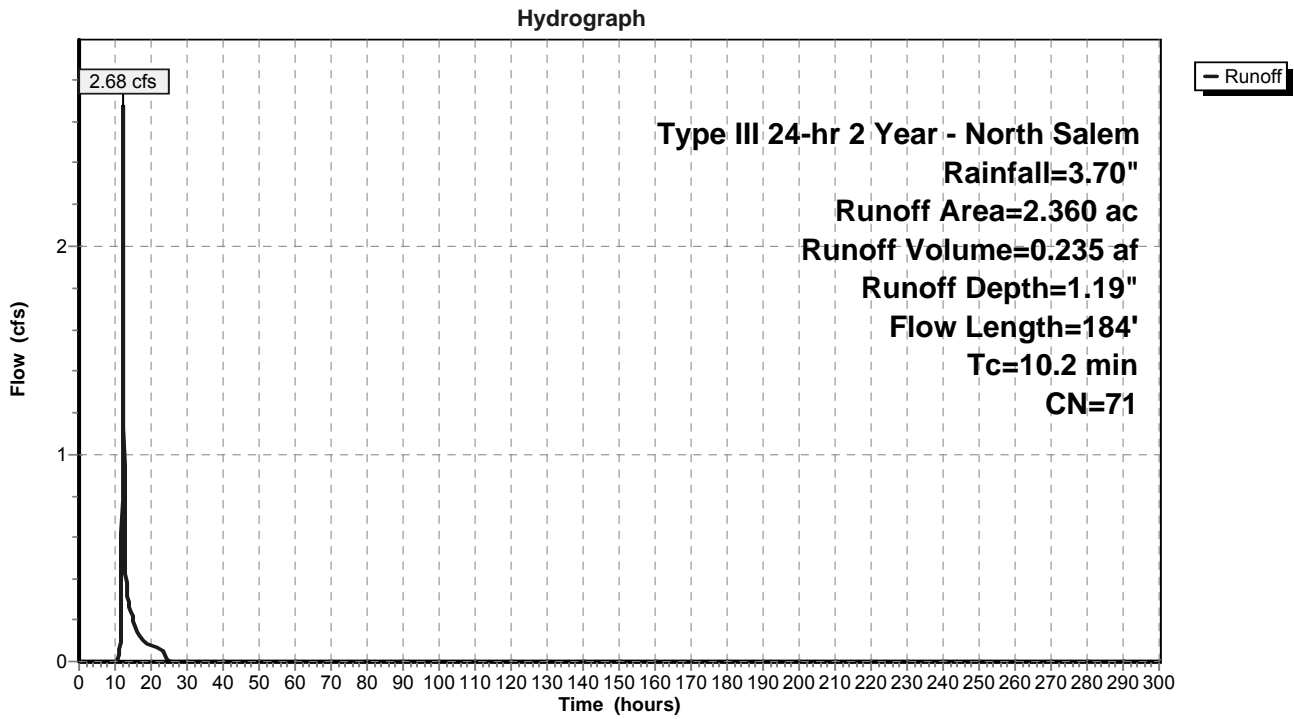
Runoff = 2.68 cfs @ 12.16 hrs, Volume= 0.235 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1



Summary for Subcatchment G2: Post-Development G2

Runoff = 8.52 cfs @ 12.15 hrs, Volume= 0.731 af, Depth= 1.32"

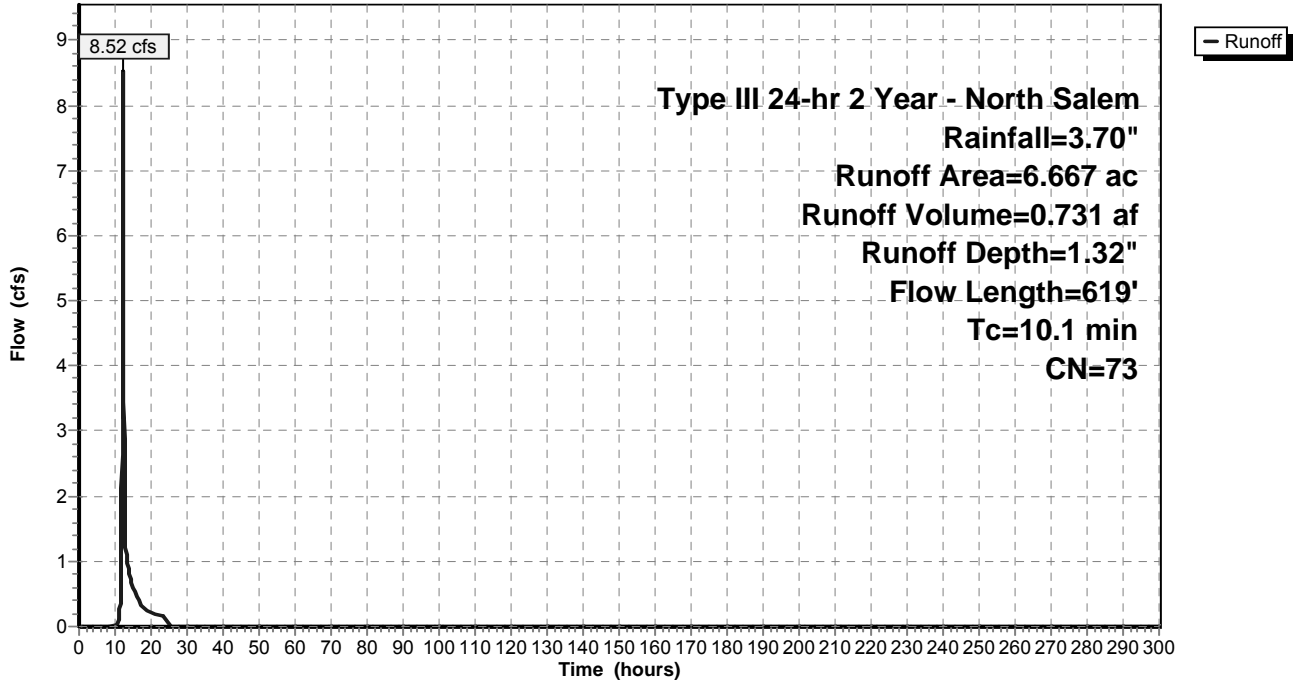
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 4.80 cfs @ 12.22 hrs, Volume= 0.460 af, Depth= 1.65"

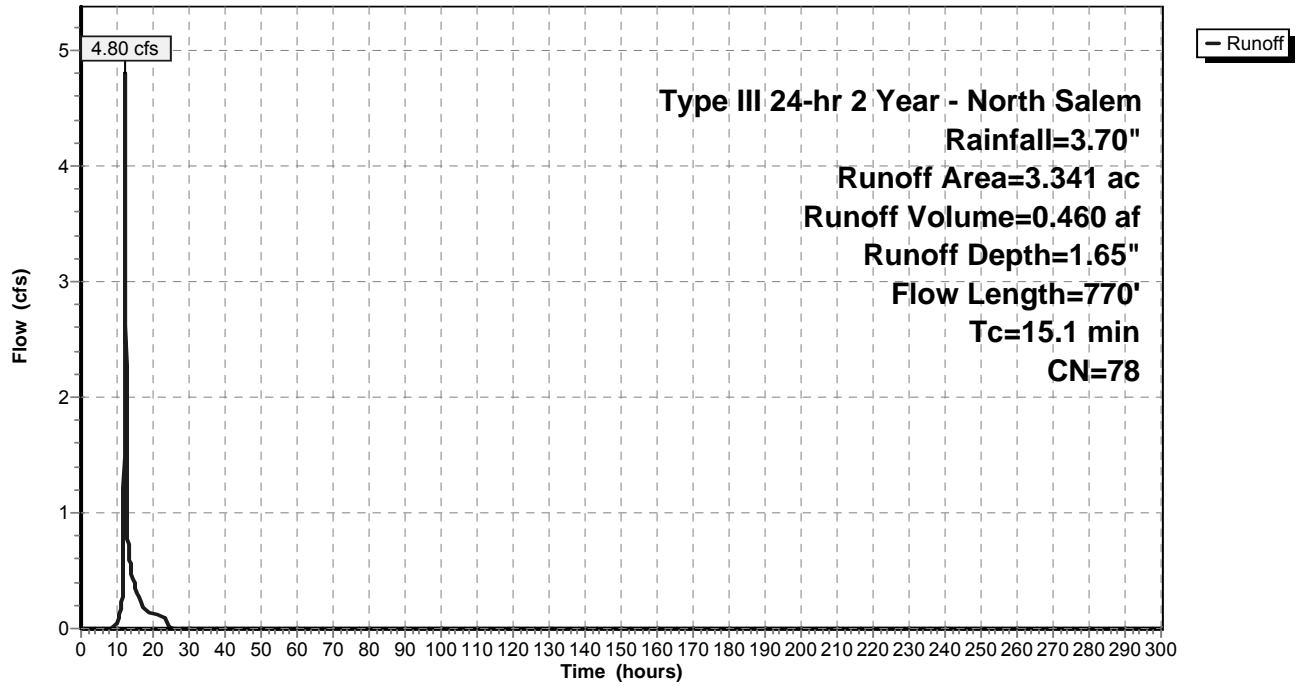
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

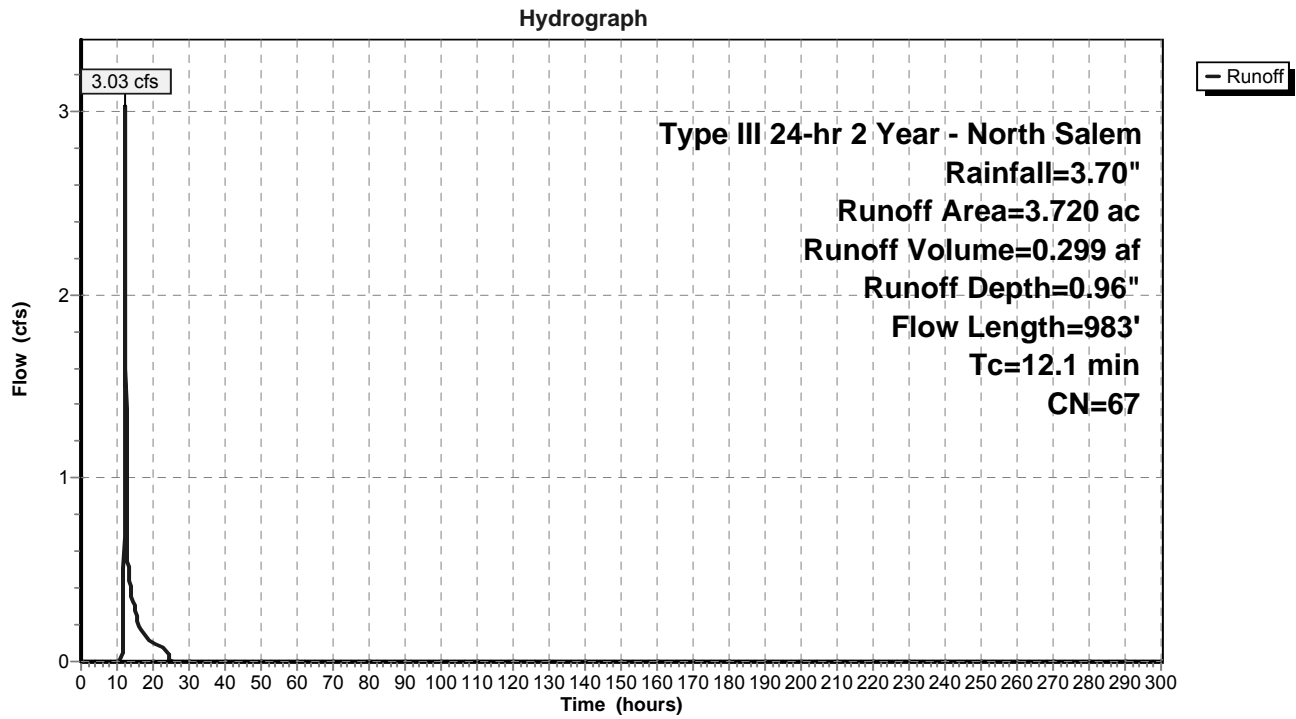
Runoff = 3.03 cfs @ 12.19 hrs, Volume= 0.299 af, Depth= 0.96"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 0.56 cfs @ 12.27 hrs, Volume= 0.082 af, Depth= 0.49"

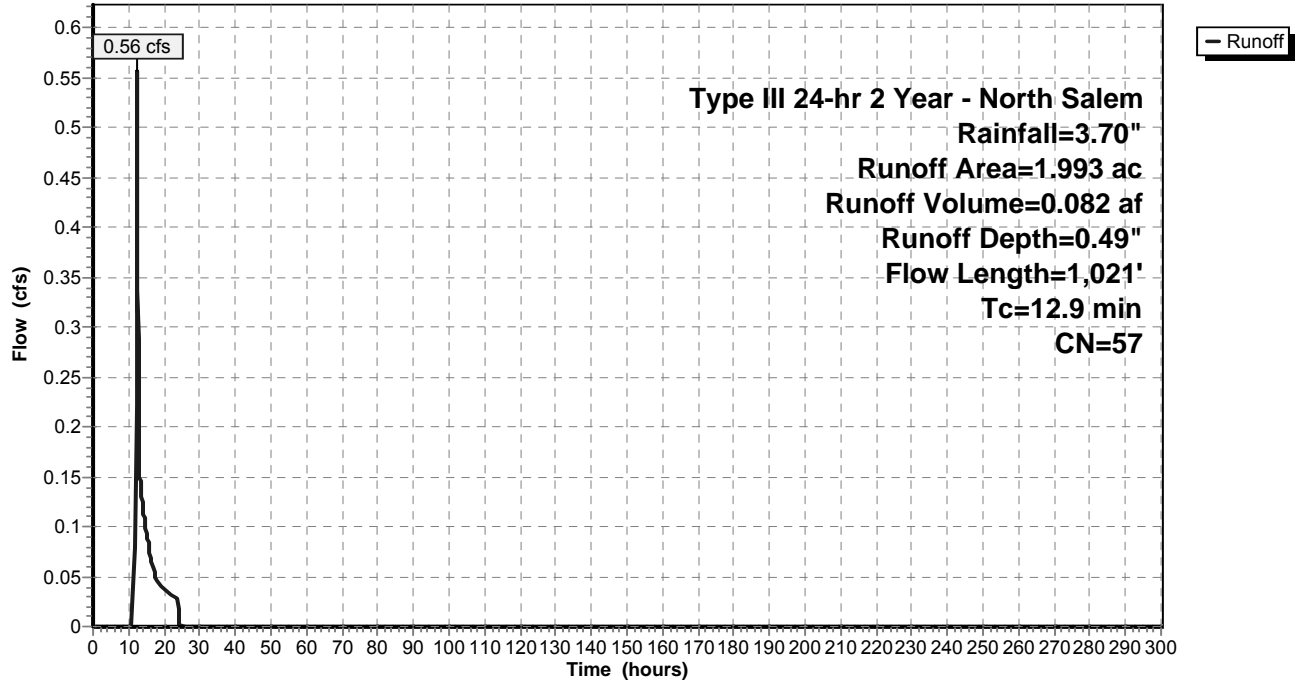
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

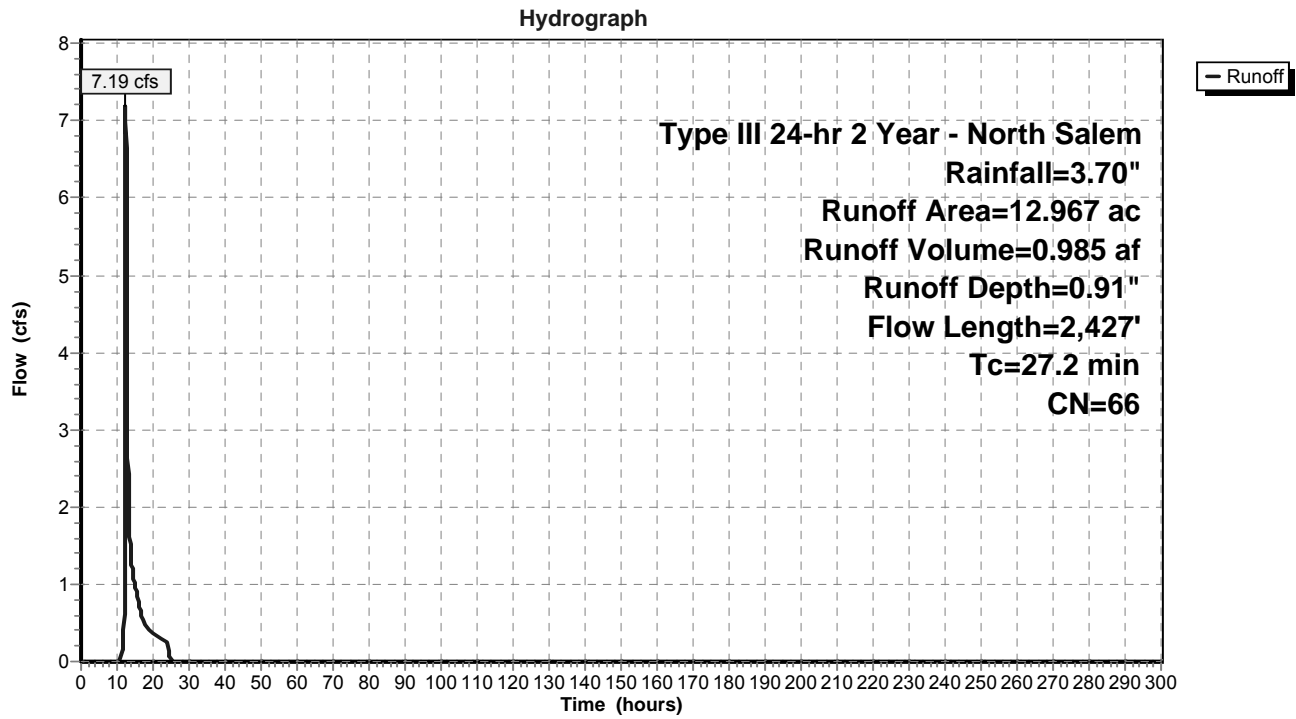
Runoff = 7.19 cfs @ 12.44 hrs, Volume= 0.985 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b



Summary for Pond B-G1: Dry Basin - G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.04" for 2 Year - North Salem event
 Inflow = 0.66 cfs @ 12.16 hrs, Volume= 0.008 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 512.73' @ 12.35 hrs Surf.Area= 1,473 sf Storage= 945 cf (327 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

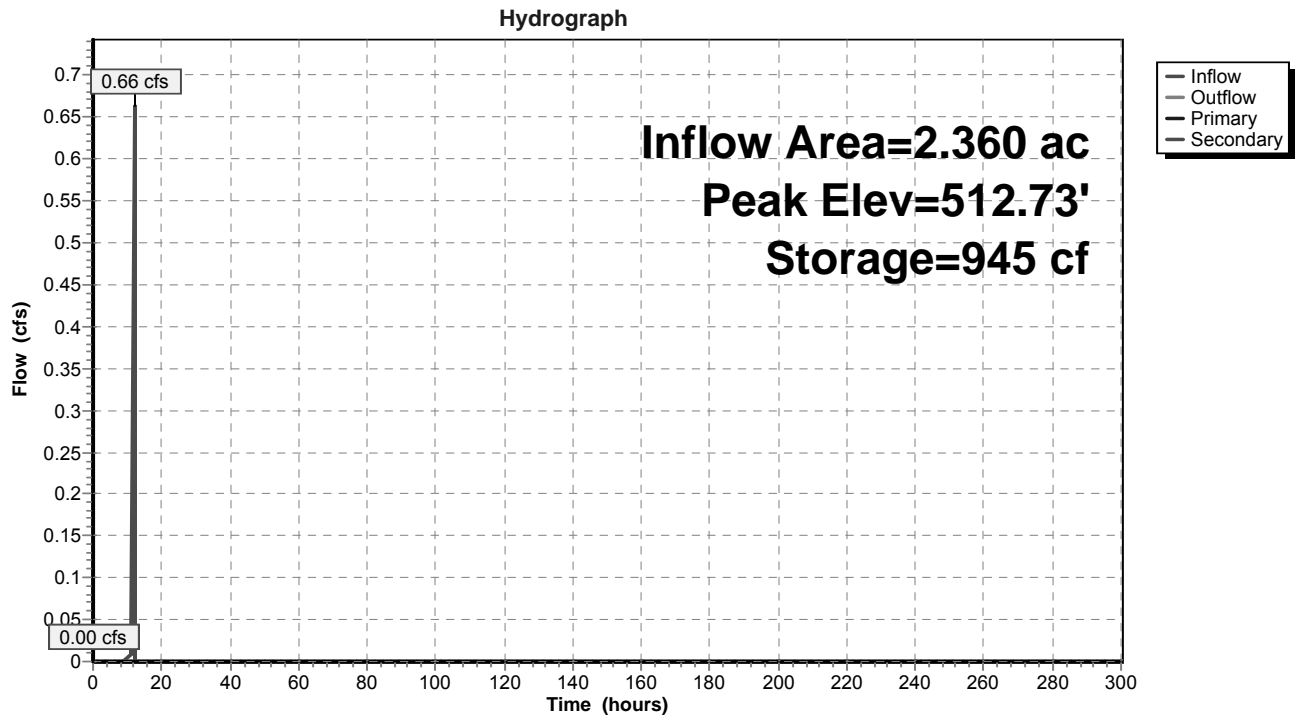
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 0.17" for 2 Year - North Salem event
 Inflow = 0.56 cfs @ 12.27 hrs, Volume= 0.082 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 422.81' @ 24.80 hrs Surf.Area= 1,999 sf Storage= 3,568 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert X 0.00 L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

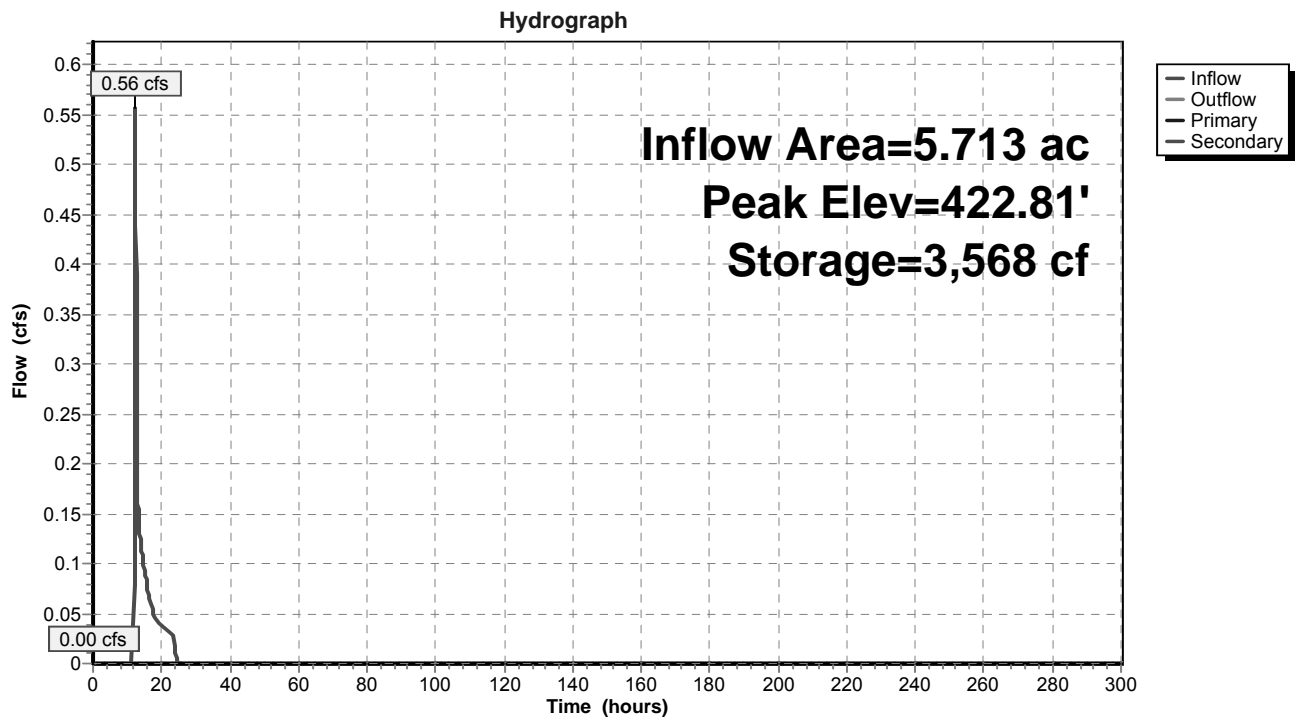
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 1=Culvert (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Controls 0.00 cfs)

Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

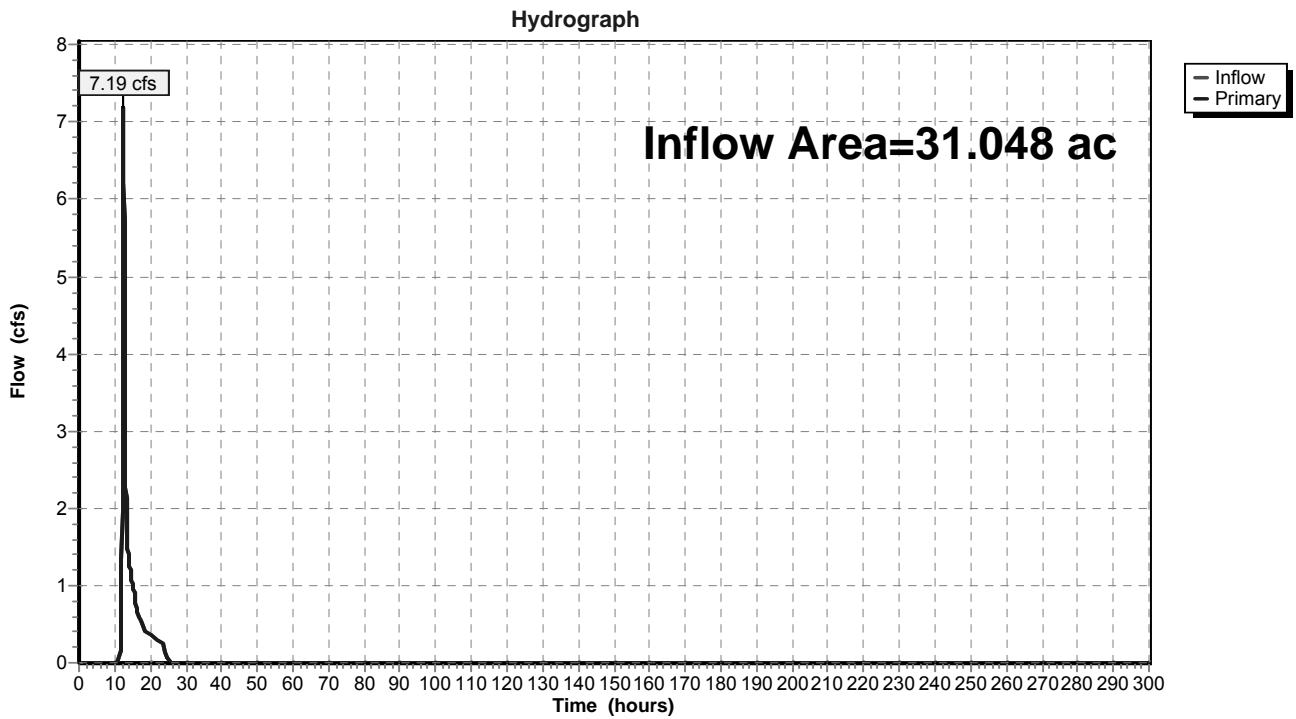
Summary for Pond DP 7-1: Design Point 7-1

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 0.38" for 2 Year - North Salem event
 Inflow = 7.19 cfs @ 12.44 hrs, Volume= 0.985 af
 Primary = 7.19 cfs @ 12.44 hrs, Volume= 0.985 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.19" for 2 Year - North Salem event
 Inflow = 2.68 cfs @ 12.16 hrs, Volume= 0.235 af
 Outflow = 2.68 cfs @ 12.16 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.01 cfs @ 12.16 hrs, Volume= 0.227 af
 Secondary = 0.66 cfs @ 12.16 hrs, Volume= 0.008 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 524.89' @ 12.16 hrs
 Flood Elev= 527.50'

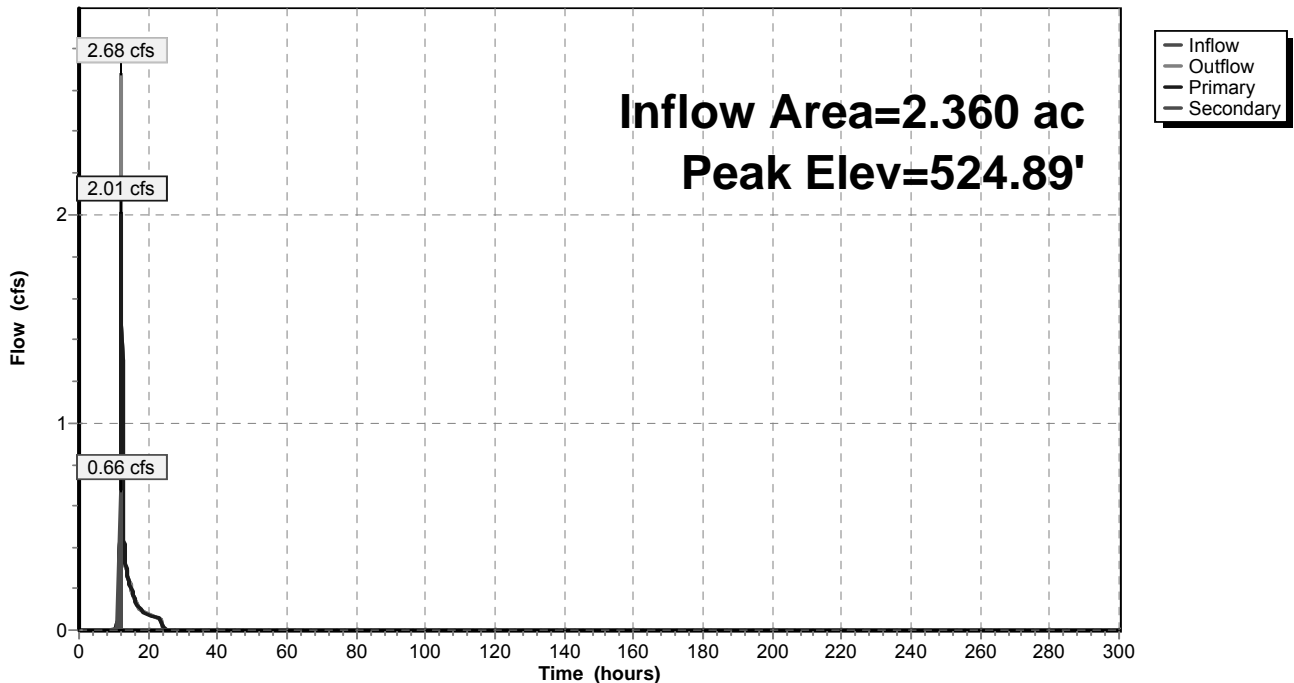
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 ' S= 0.1233 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.01 cfs @ 12.16 hrs HW=524.88' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.01 cfs @ 5.75 fps)

Secondary OutFlow Max=0.63 cfs @ 12.16 hrs HW=524.88' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.63 cfs @ 2.02 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 1.32" for 2 Year - North Salem event
 Inflow = 8.52 cfs @ 12.15 hrs, Volume= 0.731 af
 Outflow = 3.93 cfs @ 12.45 hrs, Volume= 0.731 af, Atten= 54%, Lag= 18.0 min
 Discarded = 3.93 cfs @ 12.45 hrs, Volume= 0.731 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 448.59' @ 12.45 hrs Surf.Area= 7,081 sf Storage= 4,043 cf

Plug-Flow detention time= 5.8 min calculated for 0.731 af (100% of inflow)
 Center-of-Mass det. time= 5.8 min (866.0 - 860.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

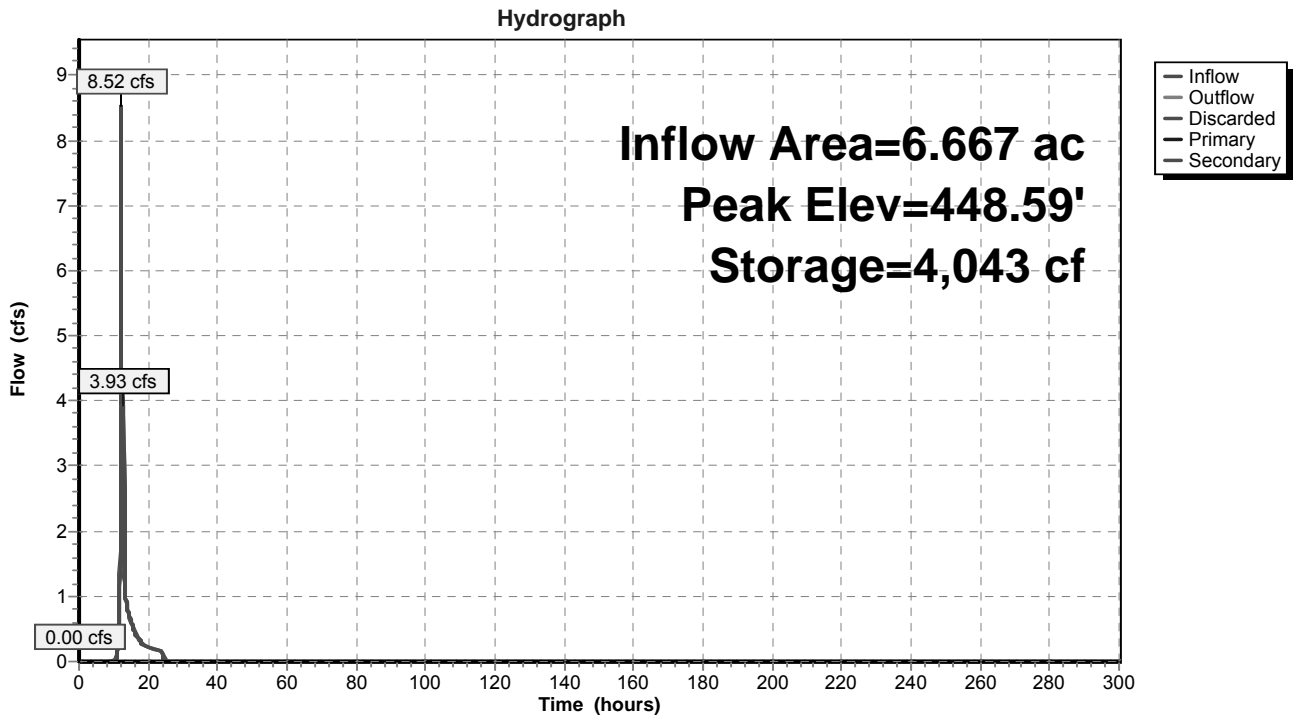
Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=3.93 cfs @ 12.45 hrs HW=448.59' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 3.93 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 1.65" for 2 Year - North Salem event
 Inflow = 4.80 cfs @ 12.22 hrs, Volume= 0.460 af
 Outflow = 1.18 cfs @ 12.76 hrs, Volume= 0.460 af, Atten= 75%, Lag= 32.7 min
 Discarded = 1.18 cfs @ 12.76 hrs, Volume= 0.460 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 400.86' @ 12.76 hrs Surf.Area= 6,557 sf Storage= 5,412 cf

Plug-Flow detention time= 31.8 min calculated for 0.460 af (100% of inflow)
 Center-of-Mass det. time= 31.8 min (881.8 - 849.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

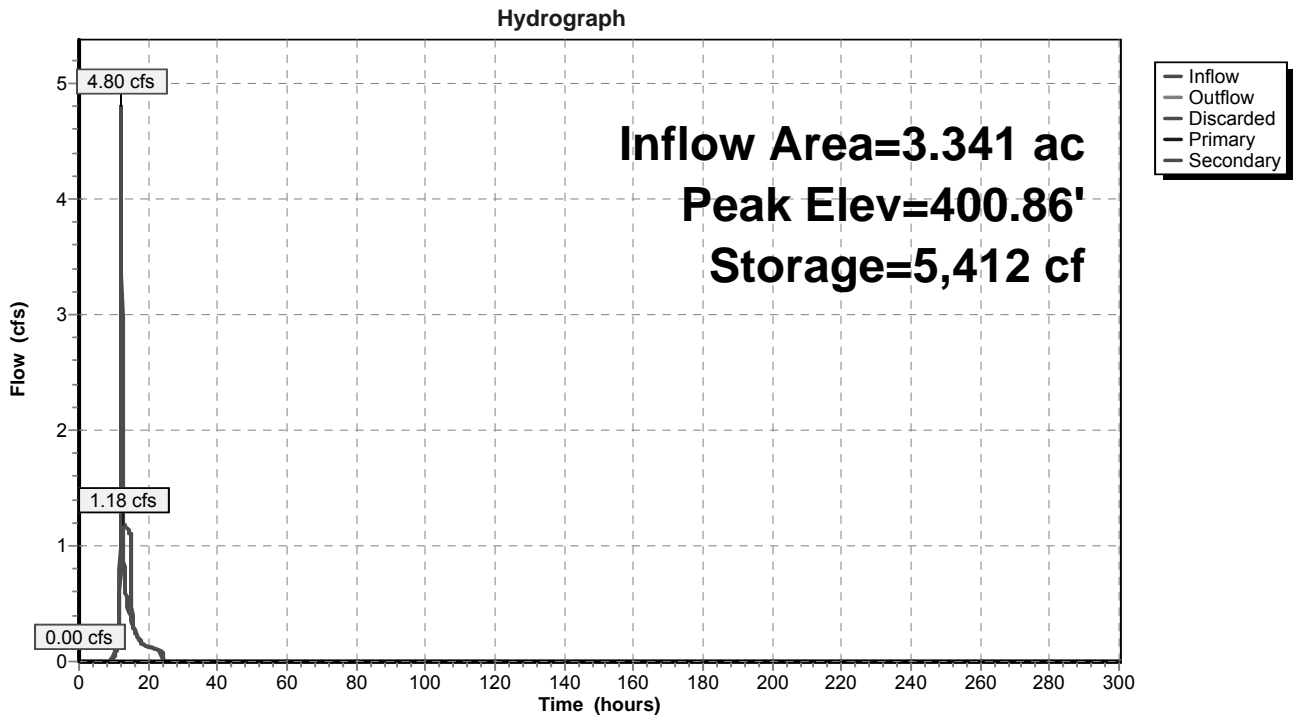
Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.18 cfs @ 12.76 hrs HW=400.86' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.18 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 0.96" for 2 Year - North Salem event
 Inflow = 3.03 cfs @ 12.19 hrs, Volume= 0.299 af
 Outflow = 1.16 cfs @ 12.60 hrs, Volume= 0.299 af, Atten= 62%, Lag= 24.4 min
 Discarded = 1.16 cfs @ 12.60 hrs, Volume= 0.299 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 440.46' @ 12.60 hrs Surf.Area= 4,947 sf Storage= 2,205 cf

Plug-Flow detention time= 11.2 min calculated for 0.299 af (100% of inflow)
 Center-of-Mass det. time= 11.2 min (892.2 - 880.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
440.00	4,681	292.0	0	0	4,681
442.00	5,898	317.0	10,556	10,556	6,037
443.00	6,543	330.0	6,218	16,773	6,780
444.00	7,214	342.0	6,876	23,649	7,505

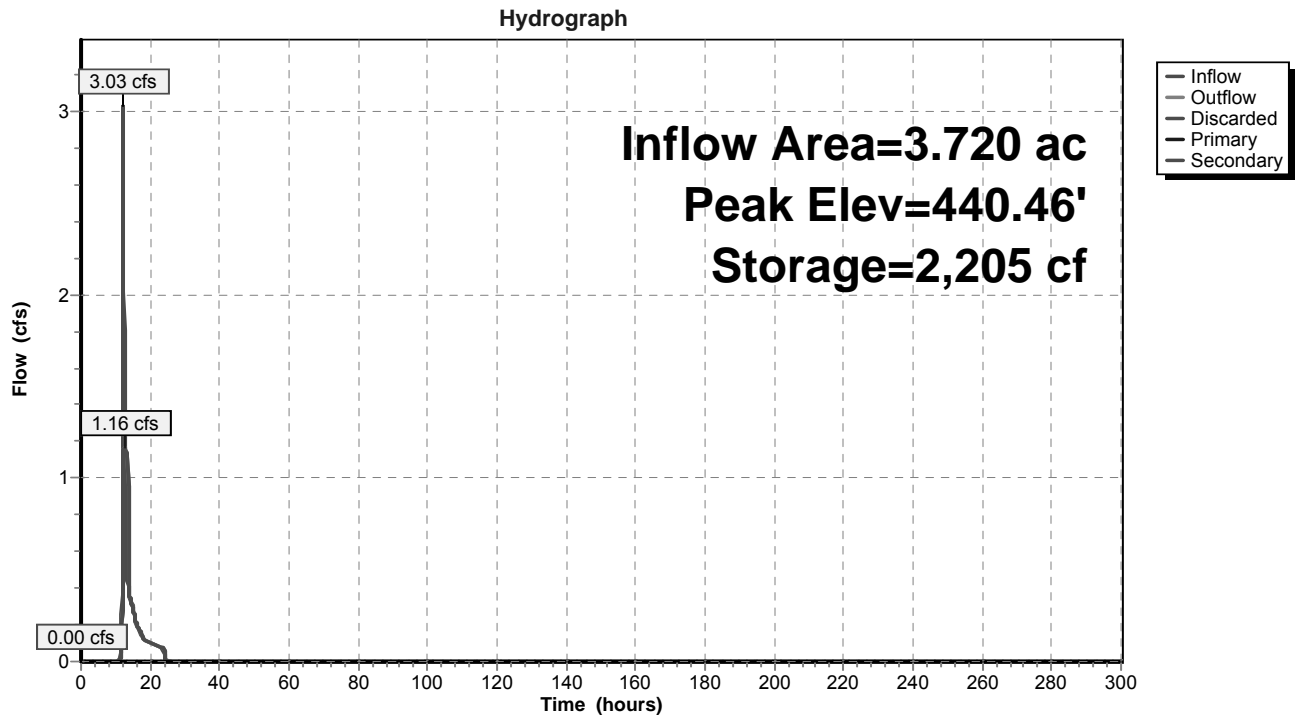
Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.16 cfs @ 12.60 hrs HW=440.46' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.16 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 INLET by 0.31'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 0.81" for 2 Year - North Salem event
 Inflow = 1.57 cfs @ 12.42 hrs, Volume= 0.160 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 520.31' @ 25.95 hrs Surf.Area= 3,617 sf Storage= 6,979 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe X 0.00 L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

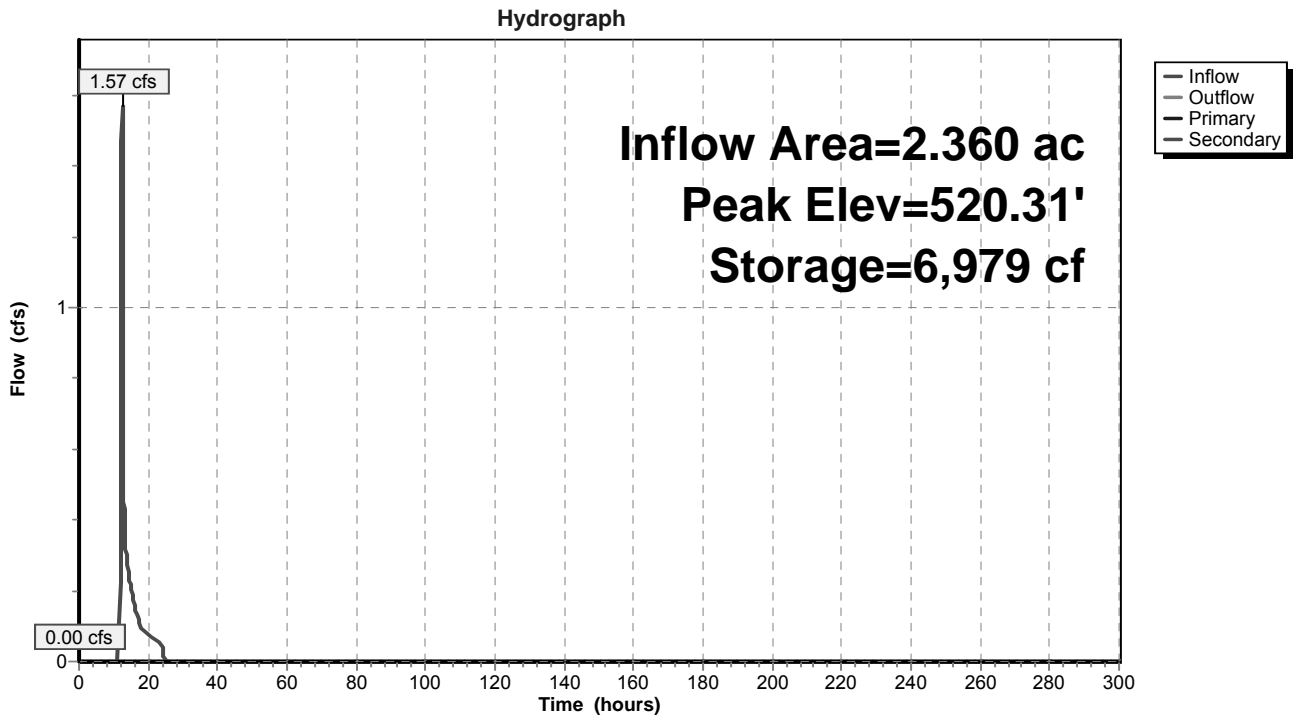
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

[79] Warning: Submerged Pond FS G1 Primary device # 1 INLET by 0.02'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.15" for 2 Year - North Salem event
 Inflow = 2.01 cfs @ 12.16 hrs, Volume= 0.227 af
 Outflow = 1.57 cfs @ 12.42 hrs, Volume= 0.160 af, Atten= 22%, Lag= 15.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.57 cfs @ 12.42 hrs, Volume= 0.160 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 523.15' @ 12.42 hrs Surf.Area= 1,395 sf Storage= 3,121 cf

Plug-Flow detention time= 169.4 min calculated for 0.160 af (71% of inflow)
 Center-of-Mass det. time= 65.0 min (935.8 - 870.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

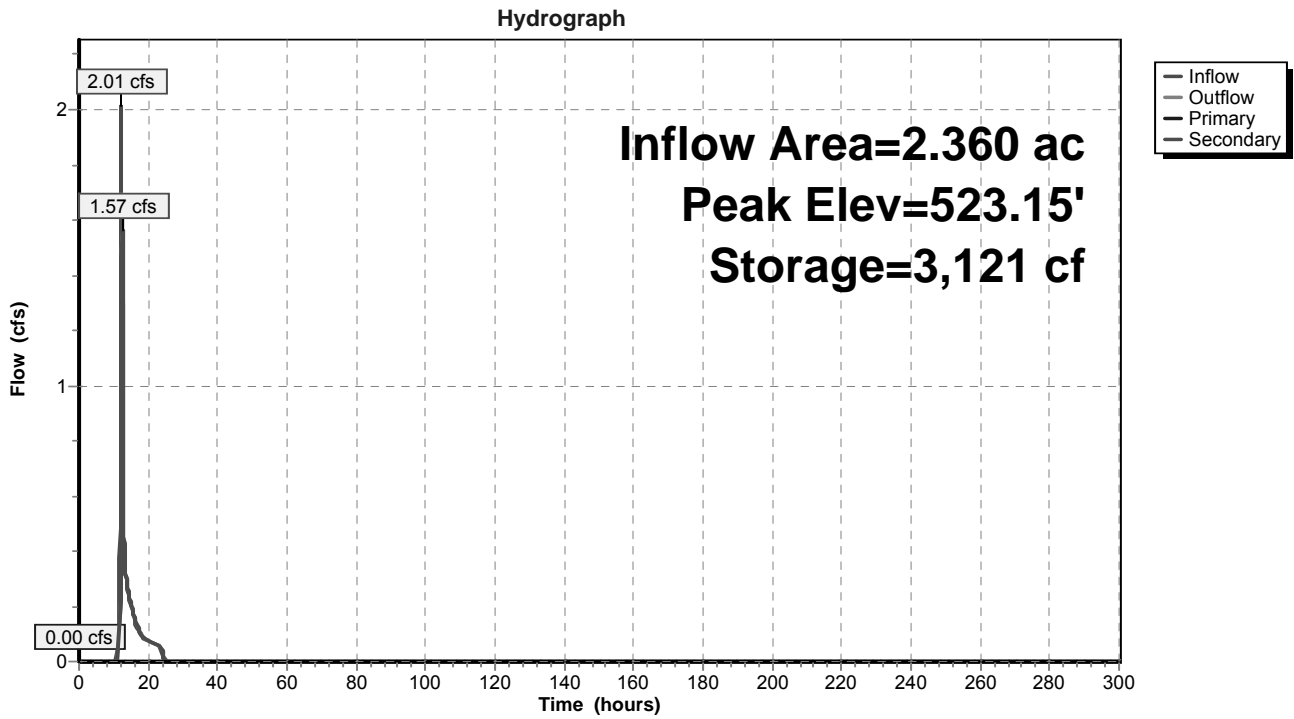
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.42 cfs @ 12.42 hrs HW=523.14' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 1.42 cfs @ 1.27 fps)

Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Woodlands Post-Dev DP 7 - Part 1 WOR Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=2.50"
Flow Length=184' Tc=10.2 min CN=71 Runoff=5.90 cfs 0.492 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=2.68"
Flow Length=619' Tc=10.1 min CN=73 Runoff=17.97 cfs 1.488 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=3.14"
Flow Length=770' Tc=15.1 min CN=78 Runoff=9.25 cfs 0.875 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=2.16"
Flow Length=983' Tc=12.1 min CN=67 Runoff=7.41 cfs 0.669 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=1.38"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=2.25 cfs 0.229 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=2.08"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=18.04 cfs 2.244 af

Pond B-G1: Dry Basin - G1 Peak Elev=516.15' Storage=9,518 cf Inflow=3.54 cfs 0.204 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond B-G4a: Dry Basin - G4a Peak Elev=425.01' Storage=9,617 cf Inflow=2.25 cfs 0.229 af
Primary=0.00 cfs 0.000 af Secondary=0.06 cfs 0.009 af Outflow=0.06 cfs 0.009 af

Pond DP 7-1: Design Point 7-1 Inflow=18.04 cfs 2.253 af
Primary=18.04 cfs 2.253 af

Pond FS G1: Flow Splitter G1 Peak Elev=525.42' Inflow=5.90 cfs 0.492 af
Primary=2.36 cfs 0.413 af Secondary=3.54 cfs 0.079 af Outflow=5.90 cfs 0.492 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=450.20' Storage=16,304 cf Inflow=17.97 cfs 1.488 af
Discarded=4.52 cfs 1.488 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=4.52 cfs 1.488 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=402.09' Storage=13,989 cf Inflow=9.25 cfs 0.875 af
Discarded=1.33 cfs 0.875 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.33 cfs 0.875 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=441.75' Storage=9,122 cf Inflow=7.41 cfs 0.669 af
Discarded=1.35 cfs 0.669 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.35 cfs 0.669 af

Pond SF-G1: Sand Filter - G1 Peak Elev=521.05' Storage=9,801 cf Inflow=2.35 cfs 0.346 af
Primary=0.00 cfs 0.000 af Secondary=0.33 cfs 0.125 af Outflow=0.33 cfs 0.125 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=523.19' Storage=3,183 cf Inflow=2.36 cfs 0.413 af
Primary=0.00 cfs 0.000 af Secondary=2.35 cfs 0.346 af Outflow=2.35 cfs 0.346 af

Total Runoff Area = 31.048 ac Runoff Volume = 5.997 af Average Runoff Depth = 2.32"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 5.90 cfs @ 12.15 hrs, Volume= 0.492 af, Depth= 2.50"

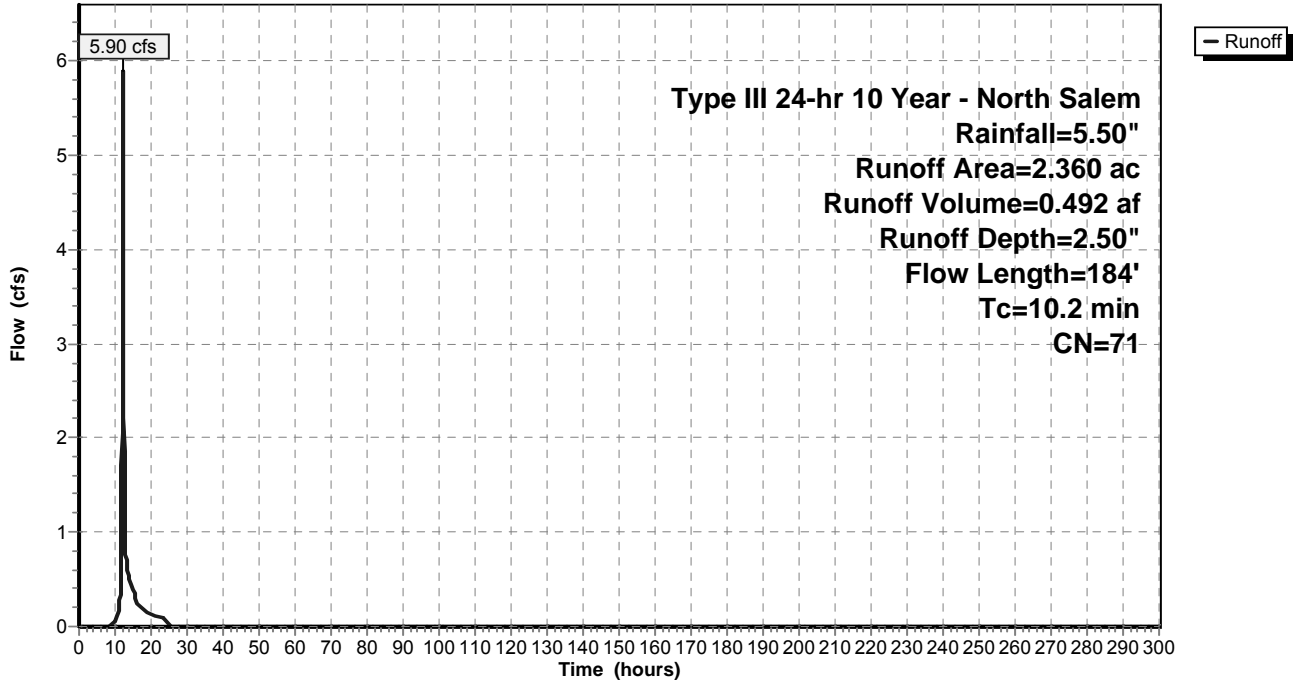
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 17.97 cfs @ 12.15 hrs, Volume= 1.488 af, Depth= 2.68"

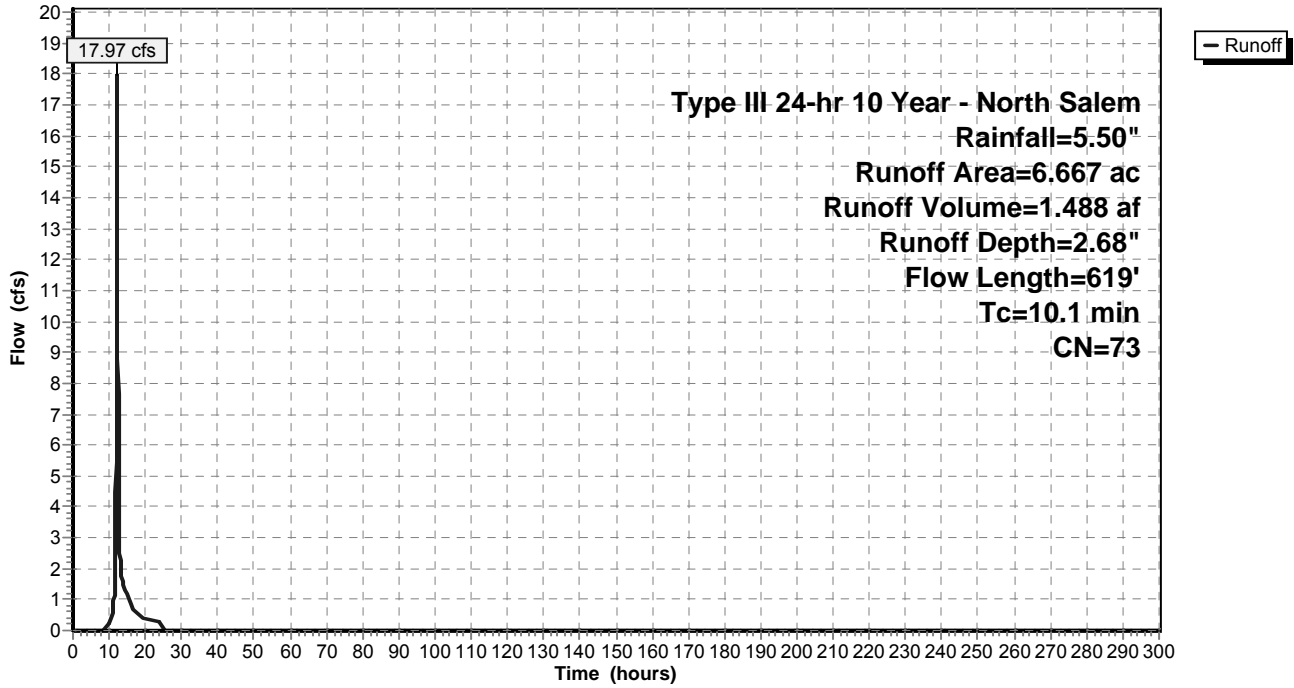
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 9.25 cfs @ 12.21 hrs, Volume= 0.875 af, Depth= 3.14"

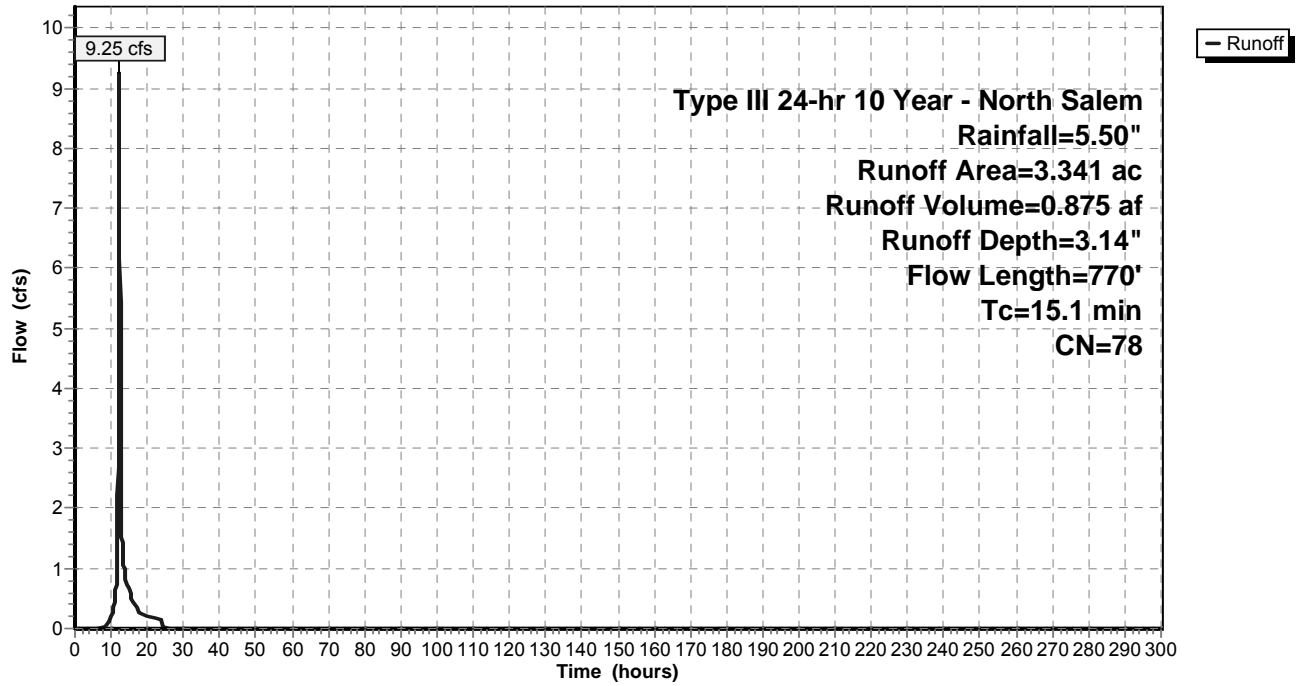
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

Runoff = 7.41 cfs @ 12.18 hrs, Volume= 0.669 af, Depth= 2.16"

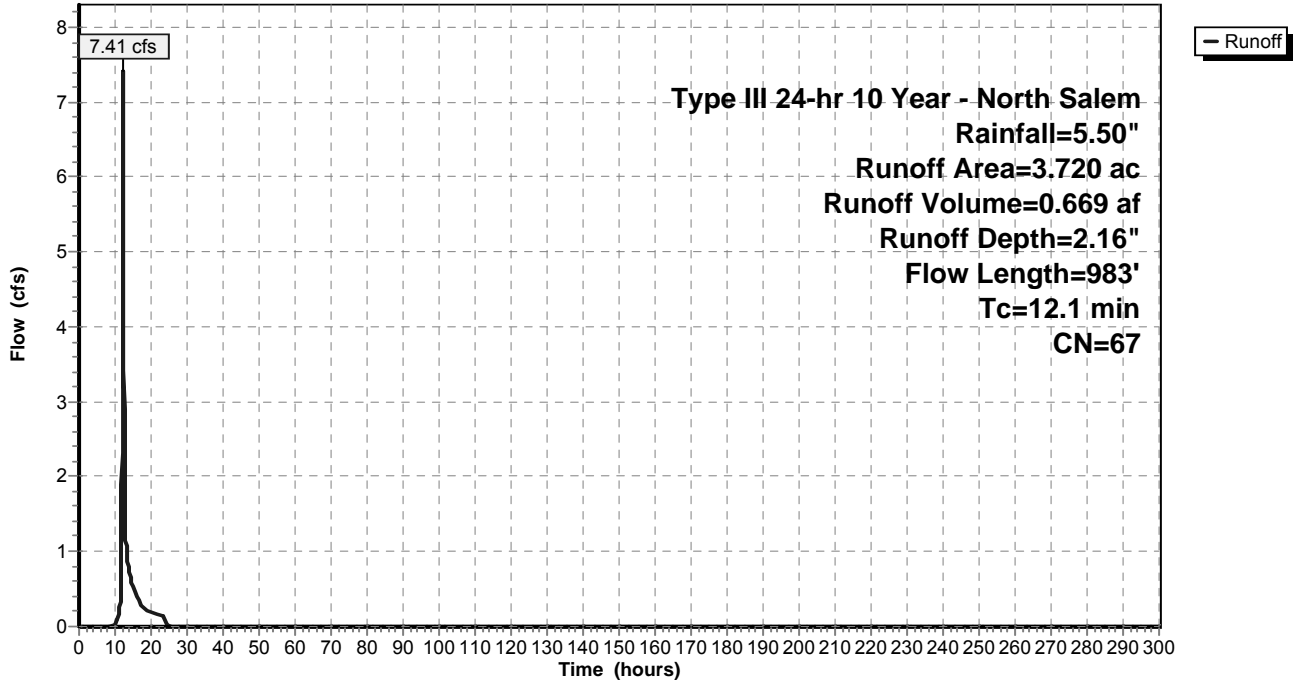
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b

Hydrograph



Summary for Subcatchment G4a: Post-Development G4a

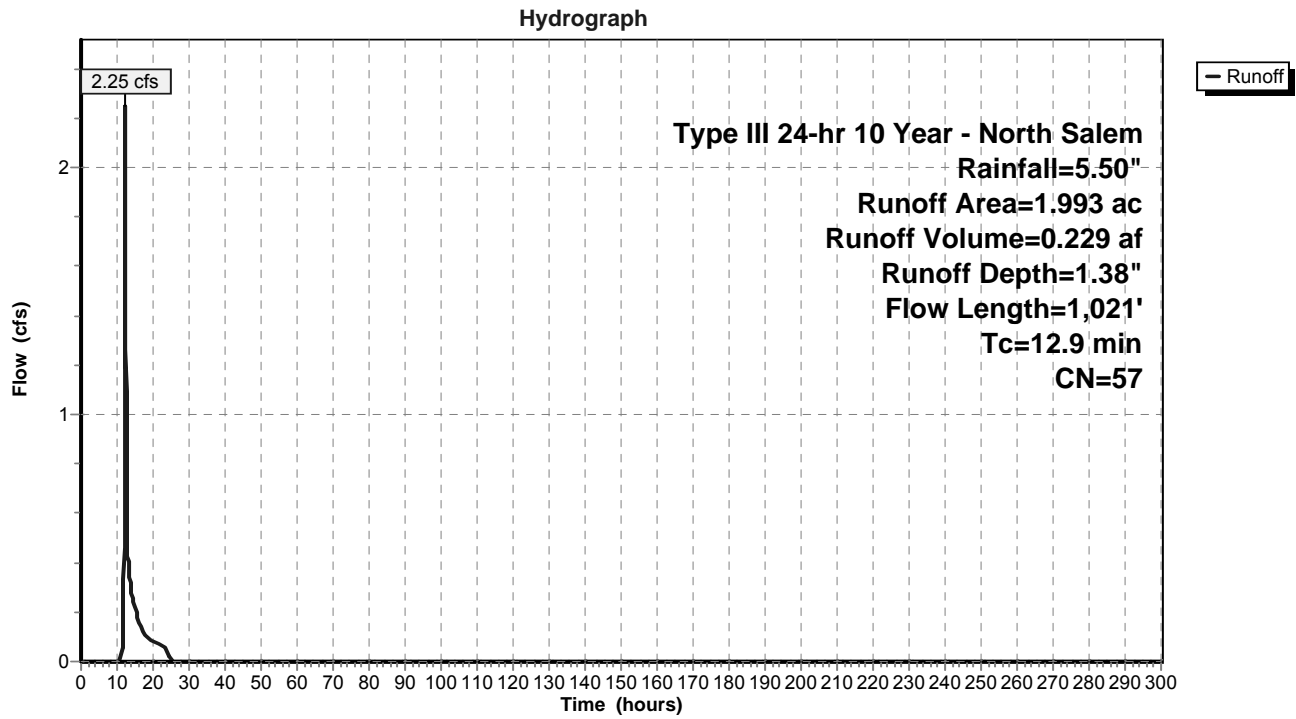
Runoff = 2.25 cfs @ 12.21 hrs, Volume= 0.229 af, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 18.04 cfs @ 12.40 hrs, Volume= 2.244 af, Depth= 2.08"

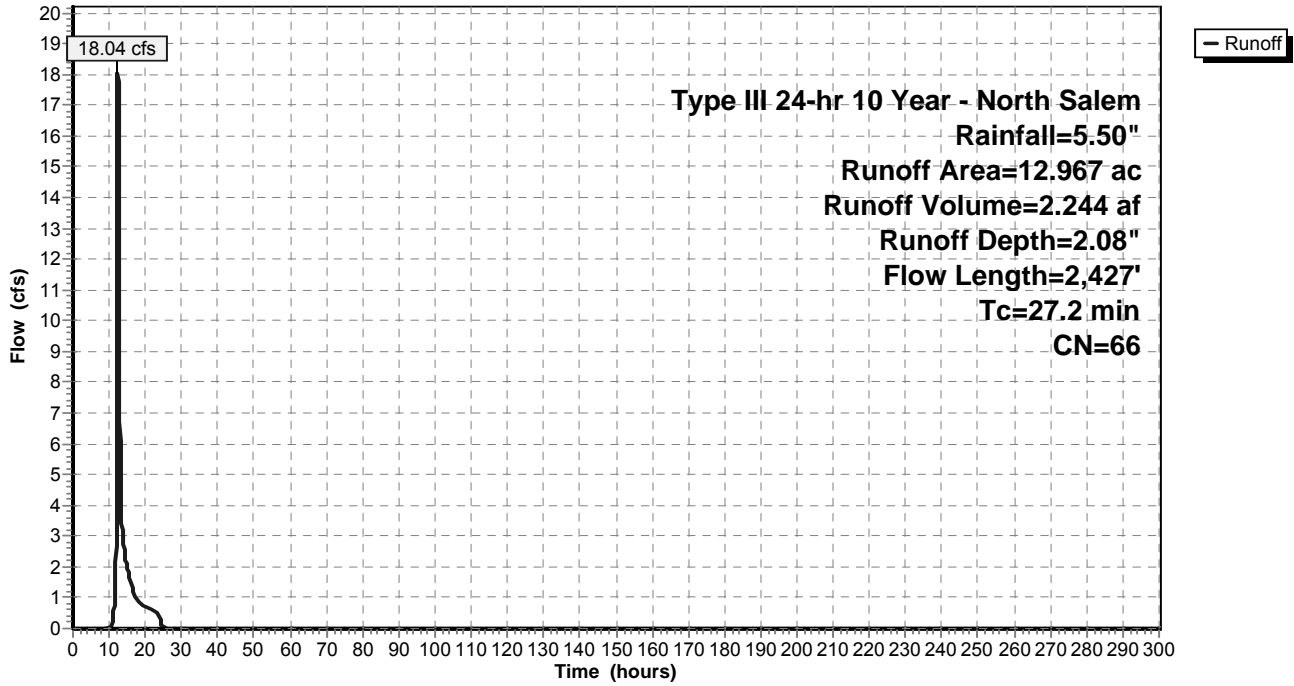
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

[79] Warning: Submerged Pond SF-G1 Primary device # 1 INLET by 0.65'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.04" for 10 Year - North Salem event
 Inflow = 3.54 cfs @ 12.15 hrs, Volume= 0.204 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 516.15' @ 299.55 hrs Surf.Area= 3,674 sf Storage= 9,518 cf (8,899 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

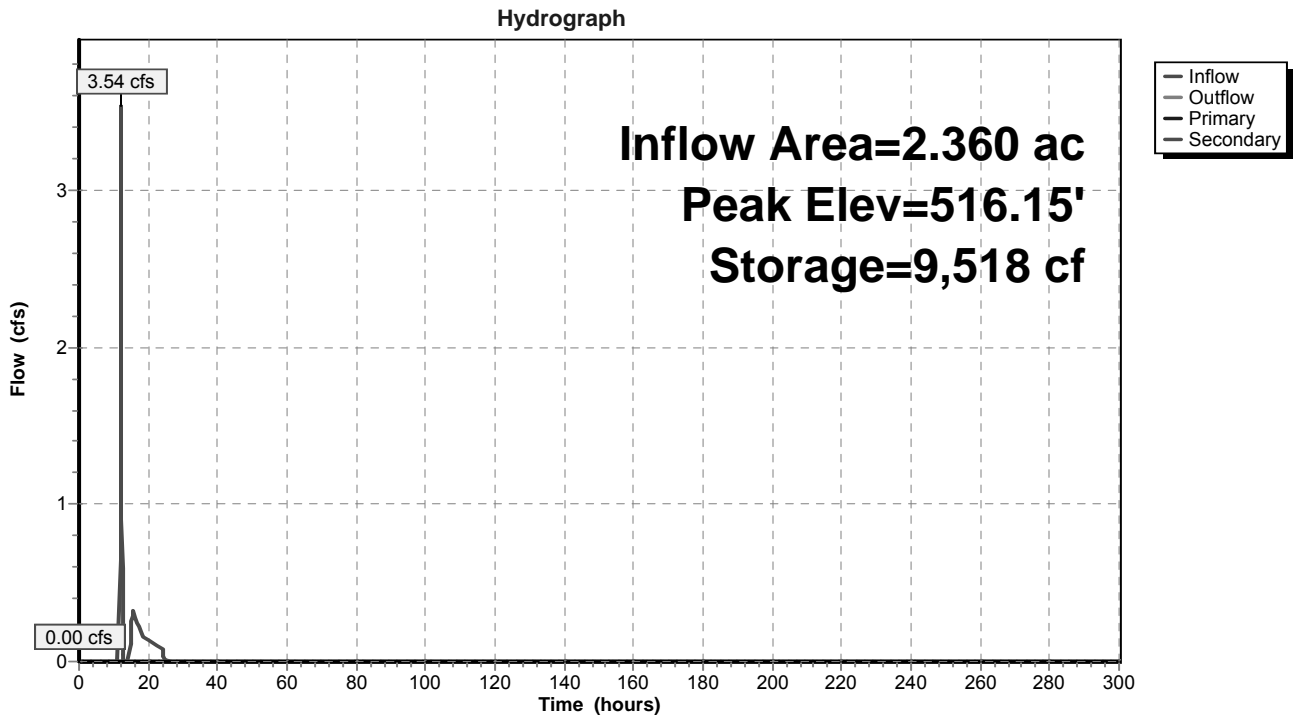
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 0.48" for 10 Year - North Salem event
 Inflow = 2.25 cfs @ 12.21 hrs, Volume= 0.229 af
 Outflow = 0.06 cfs @ 22.95 hrs, Volume= 0.009 af, Atten= 97%, Lag= 644.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.06 cfs @ 22.95 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 425.01' @ 22.95 hrs Surf.Area= 3,567 sf Storage= 9,617 cf

Plug-Flow detention time= 689.3 min calculated for 0.009 af (4% of inflow)
 Center-of-Mass det. time= 518.7 min (1,402.7 - 884.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert X 0.00 L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

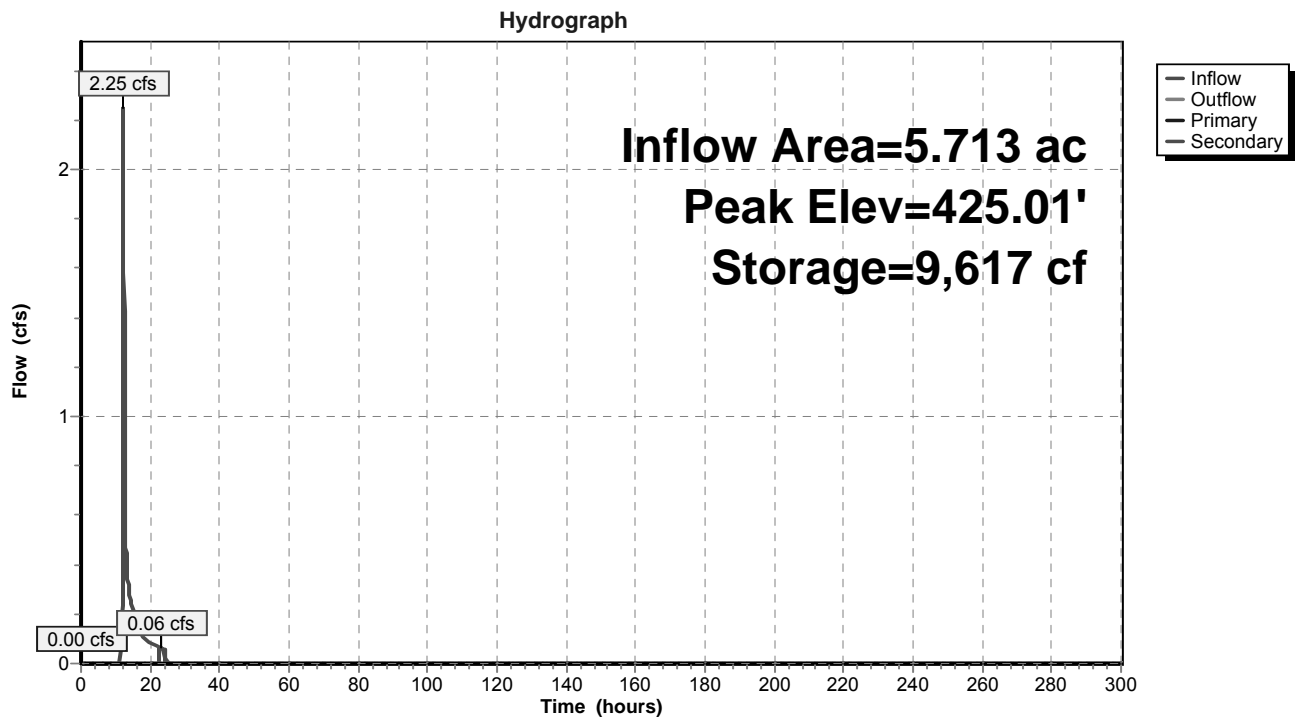
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 1=Culvert (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.03 cfs @ 22.95 hrs HW=425.01' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Weir Controls 0.03 cfs @ 0.32 fps)

Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

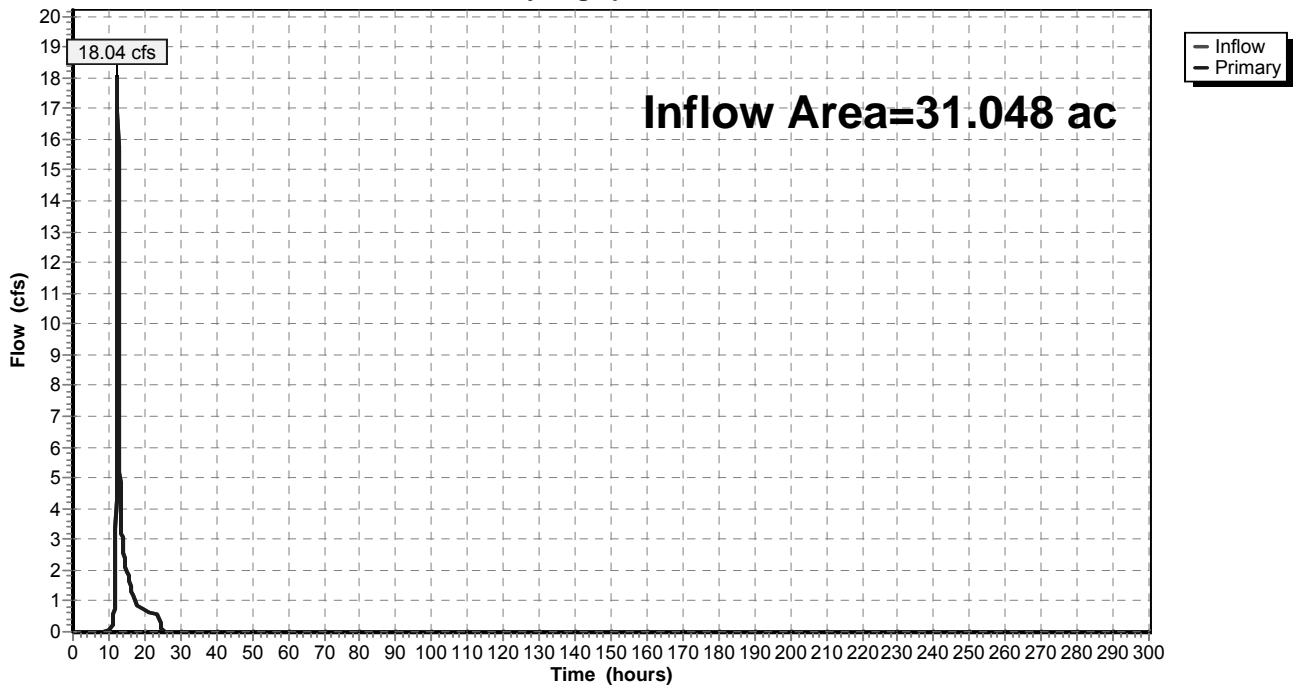
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 0.87" for 10 Year - North Salem event
Inflow = 18.04 cfs @ 12.40 hrs, Volume= 2.253 af
Primary = 18.04 cfs @ 12.40 hrs, Volume= 2.253 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.50" for 10 Year - North Salem event
 Inflow = 5.90 cfs @ 12.15 hrs, Volume= 0.492 af
 Outflow = 5.90 cfs @ 12.15 hrs, Volume= 0.492 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.36 cfs @ 12.15 hrs, Volume= 0.413 af
 Secondary = 3.54 cfs @ 12.15 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 525.42' @ 12.15 hrs
 Flood Elev= 527.50'

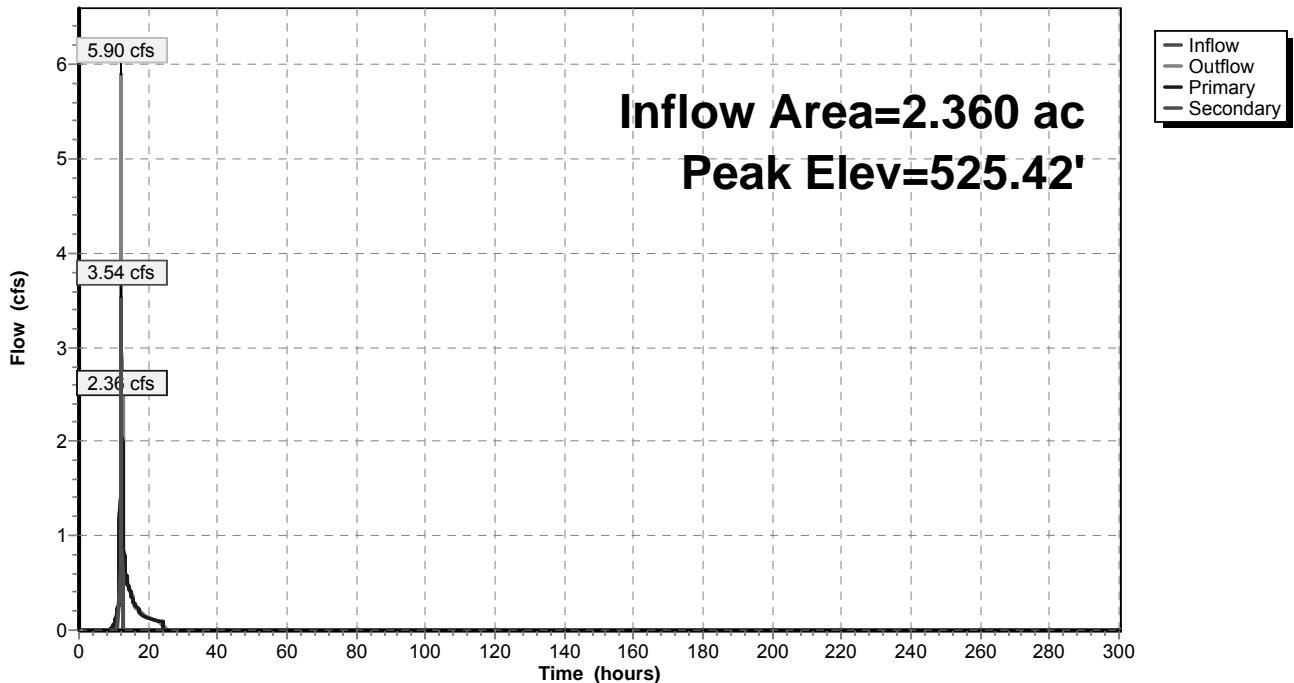
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.36 cfs @ 12.15 hrs HW=525.42' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.36 cfs @ 6.76 fps)

Secondary OutFlow Max=3.53 cfs @ 12.15 hrs HW=525.42' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 3.53 cfs @ 3.22 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 2.68" for 10 Year - North Salem event
 Inflow = 17.97 cfs @ 12.15 hrs, Volume= 1.488 af
 Outflow = 4.52 cfs @ 12.60 hrs, Volume= 1.488 af, Atten= 75%, Lag= 27.2 min
 Discarded = 4.52 cfs @ 12.60 hrs, Volume= 1.488 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.20' @ 12.60 hrs Surf.Area= 8,142 sf Storage= 16,304 cf

Plug-Flow detention time= 23.3 min calculated for 1.488 af (100% of inflow)
 Center-of-Mass det. time= 23.3 min (862.4 - 839.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

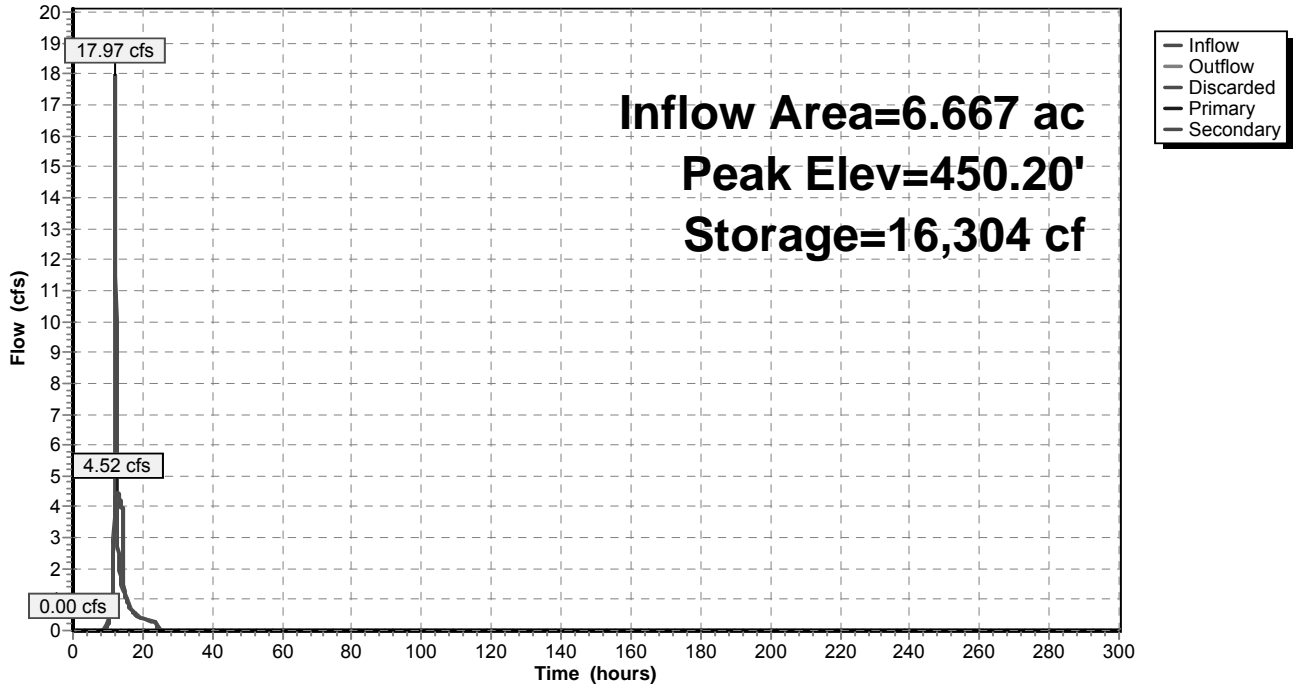
Discarded OutFlow Max=4.52 cfs @ 12.60 hrs HW=450.20' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 4.52 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2

Hydrograph



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 3.14" for 10 Year - North Salem event
 Inflow = 9.25 cfs @ 12.21 hrs, Volume= 0.875 af
 Outflow = 1.33 cfs @ 13.06 hrs, Volume= 0.875 af, Atten= 86%, Lag= 51.1 min
 Discarded = 1.33 cfs @ 13.06 hrs, Volume= 0.875 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 402.09' @ 13.06 hrs Surf.Area= 7,368 sf Storage= 13,989 cf

Plug-Flow detention time= 90.1 min calculated for 0.874 af (100% of inflow)
 Center-of-Mass det. time= 90.1 min (921.4 - 831.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.33 cfs @ 13.06 hrs HW=402.09' (Free Discharge)

↳ **4=Exfiltration** (Exfiltration Controls 1.33 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)

↳ **1=Outlet Pipe** (Controls 0.00 cfs)

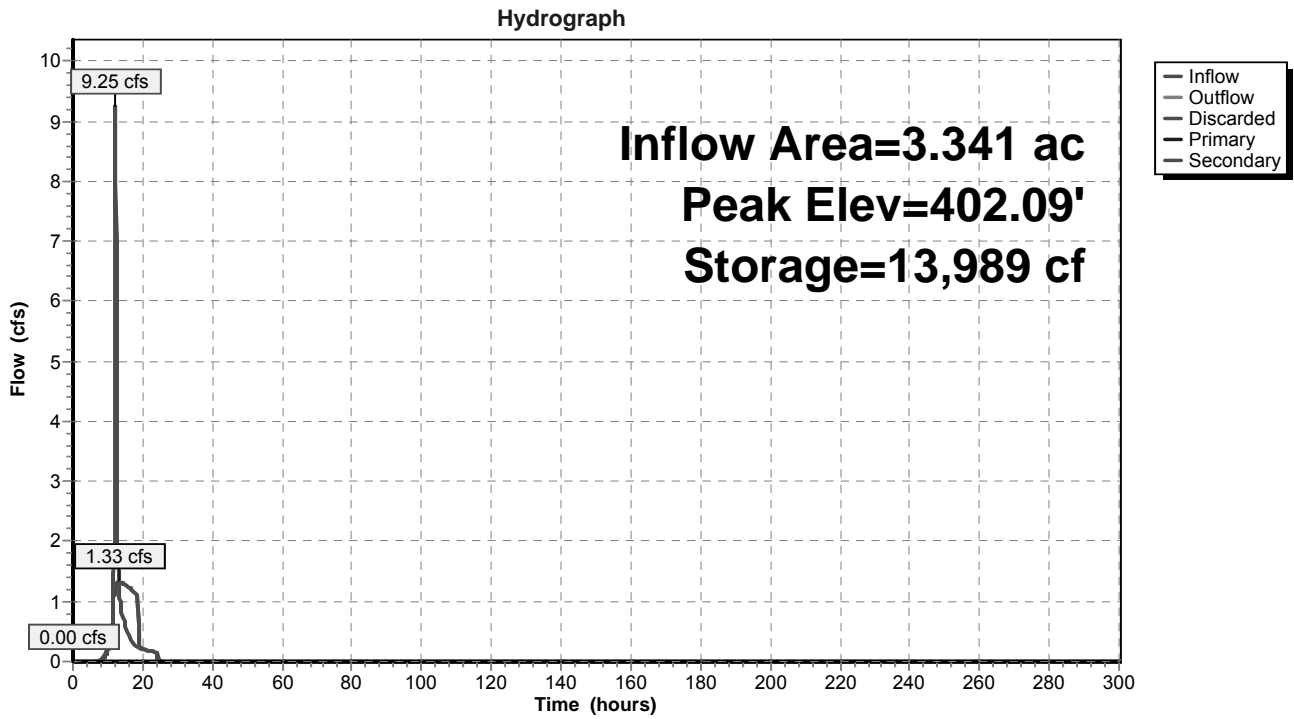
↳ **2=Orifice #1** (Controls 0.00 cfs)

↳ **3=Top of Outlet Box** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)

↳ **5=Emergency Overflow** (Controls 0.00 cfs)

Pond I-G3a: Infiltration Basin-G3a



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 2.16" for 10 Year - North Salem event
 Inflow = 7.41 cfs @ 12.18 hrs, Volume= 0.669 af
 Outflow = 1.35 cfs @ 12.85 hrs, Volume= 0.669 af, Atten= 82%, Lag= 40.6 min
 Discarded = 1.35 cfs @ 12.85 hrs, Volume= 0.669 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 441.75' @ 12.85 hrs Surf.Area= 5,740 sf Storage= 9,122 cf

Plug-Flow detention time= 55.0 min calculated for 0.669 af (100% of inflow)
 Center-of-Mass det. time= 55.0 min (910.7 - 855.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
440.00	4,681	292.0	0	0	4,681
442.00	5,898	317.0	10,556	10,556	6,037
443.00	6,543	330.0	6,218	16,773	6,780
444.00	7,214	342.0	6,876	23,649	7,505

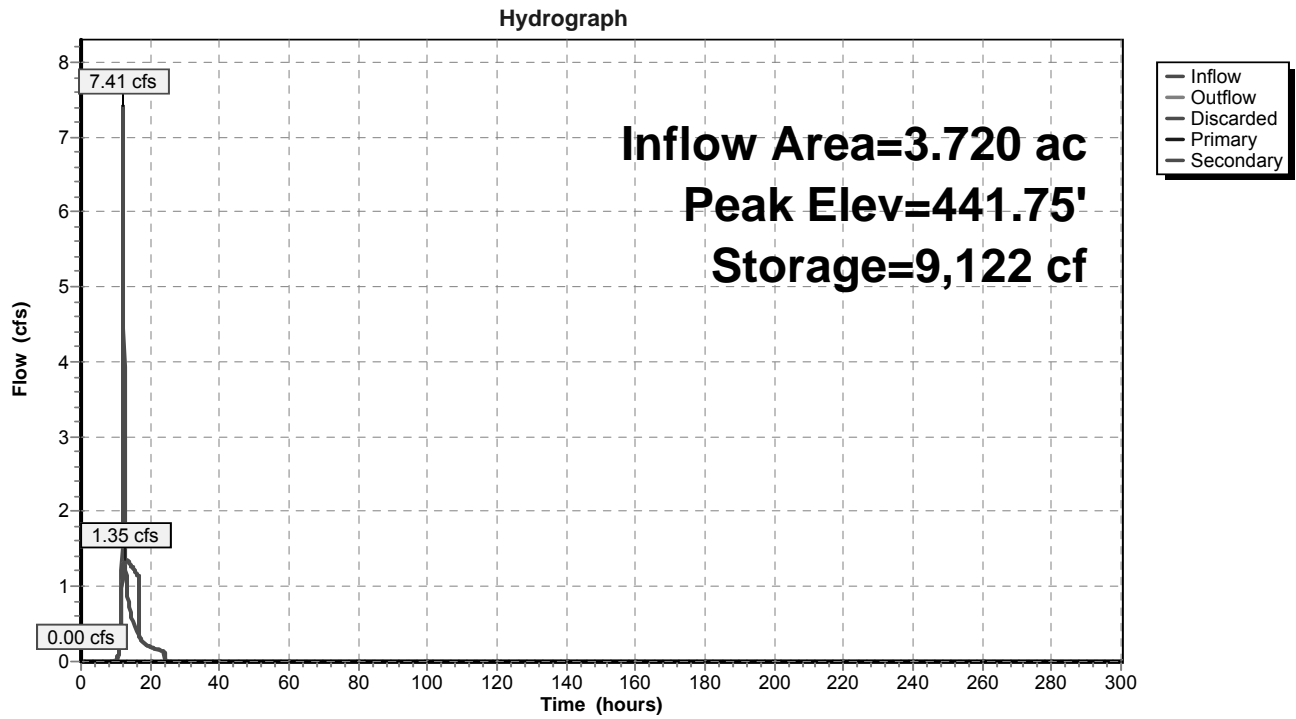
Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.35 cfs @ 12.85 hrs HW=441.75' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.35 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 INLET by 1.05'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 1.76" for 10 Year - North Salem event
 Inflow = 2.35 cfs @ 12.17 hrs, Volume= 0.346 af
 Outflow = 0.33 cfs @ 15.48 hrs, Volume= 0.125 af, Atten= 86%, Lag= 198.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.33 cfs @ 15.48 hrs, Volume= 0.125 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 521.05' @ 15.48 hrs Surf.Area= 4,071 sf Storage= 9,801 cf

Plug-Flow detention time= 382.1 min calculated for 0.125 af (36% of inflow)
 Center-of-Mass det. time= 223.1 min (1,125.3 - 902.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe X 0.00 L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

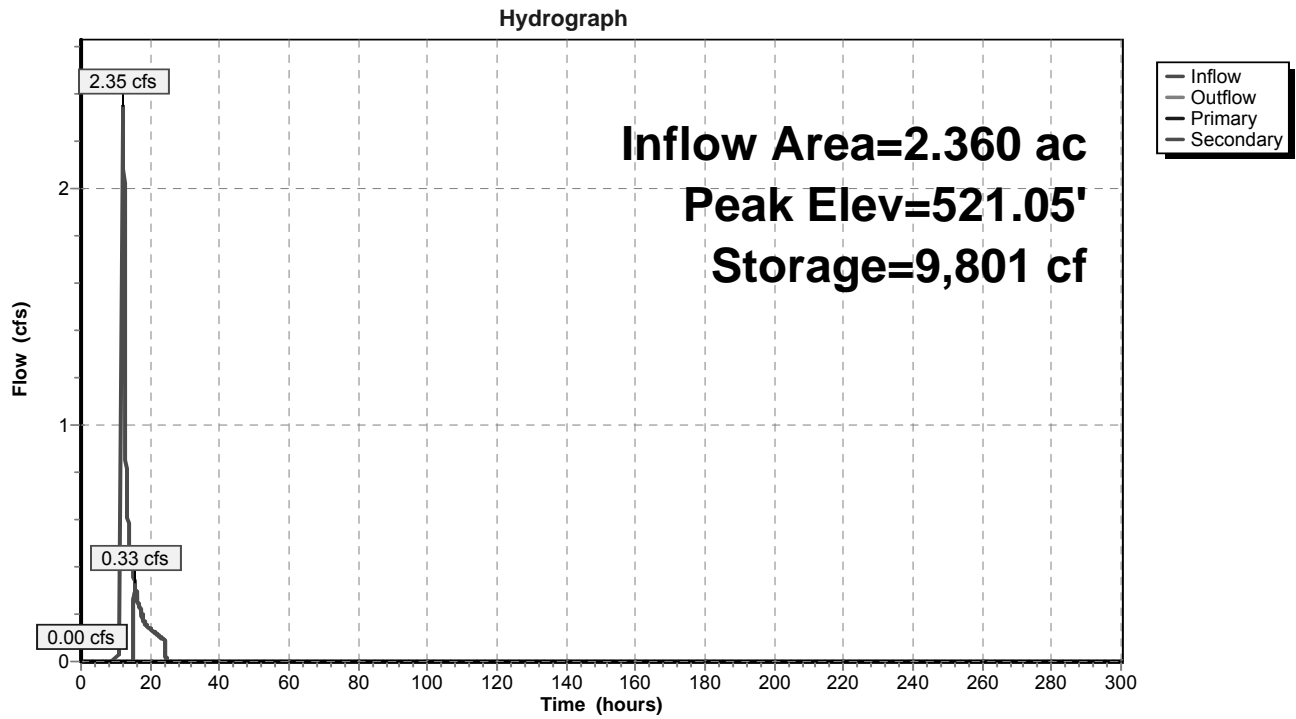
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.32 cfs @ 15.48 hrs HW=521.05' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.32 cfs @ 0.70 fps)

Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

[79] Warning: Submerged Pond FS G1 Primary device # 1 INLET by 0.07'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.10" for 10 Year - North Salem event
 Inflow = 2.36 cfs @ 12.15 hrs, Volume= 0.413 af
 Outflow = 2.35 cfs @ 12.17 hrs, Volume= 0.346 af, Atten= 1%, Lag= 1.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.35 cfs @ 12.17 hrs, Volume= 0.346 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 523.19' @ 12.17 hrs Surf.Area= 1,408 sf Storage= 3,183 cf

Plug-Flow detention time= 107.9 min calculated for 0.346 af (84% of inflow)
 Center-of-Mass det. time= 36.7 min (902.2 - 865.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

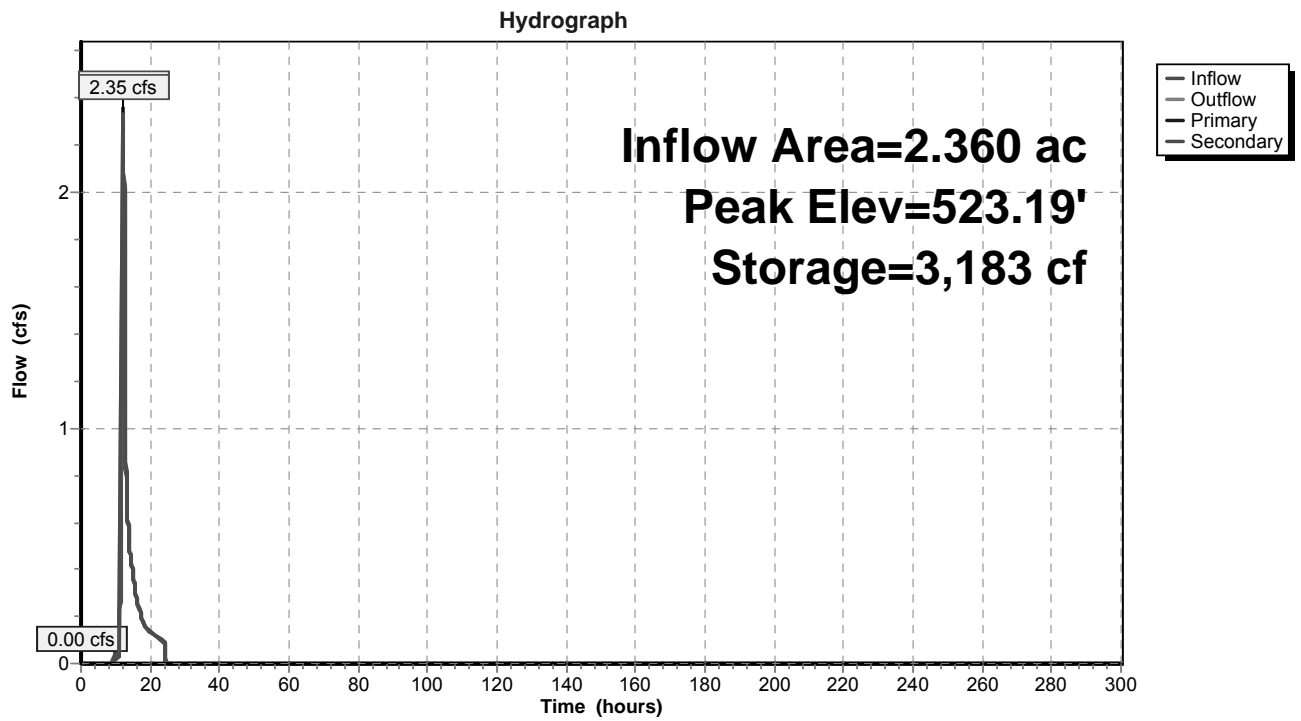
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.33 cfs @ 12.17 hrs HW=523.19' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 2.33 cfs @ 1.51 fps)

Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Woodlands Post-Dev DP 7 - Part 1 WOR Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=3.72"
Flow Length=184' Tc=10.2 min CN=71 Runoff=8.85 cfs 0.732 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=3.94"
Flow Length=619' Tc=10.1 min CN=73 Runoff=26.50 cfs 2.186 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=4.47"
Flow Length=770' Tc=15.1 min CN=78 Runoff=13.13 cfs 1.246 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=3.31"
Flow Length=983' Tc=12.1 min CN=67 Runoff=11.66 cfs 1.025 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=2.31"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=4.05 cfs 0.384 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=3.20"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=28.46 cfs 3.463 af

Pond B-G1: Dry Basin - G1 Peak Elev=517.05' Storage=13,137 cf Inflow=6.26 cfs 0.445 af
Primary=0.00 cfs 0.000 af Secondary=0.42 cfs 0.162 af Outflow=0.42 cfs 0.162 af

Pond B-G4a: Dry Basin - G4a Peak Elev=425.06' Storage=9,782 cf Inflow=4.05 cfs 0.384 af
Primary=0.00 cfs 0.000 af Secondary=0.47 cfs 0.164 af Outflow=0.47 cfs 0.164 af

Pond DP 7-1: Design Point 7-1 Inflow=28.46 cfs 3.816 af
Primary=28.46 cfs 3.816 af

Pond FS G1: Flow Splitter G1 Peak Elev=525.82' Inflow=8.85 cfs 0.732 af
Primary=2.59 cfs 0.563 af Secondary=6.26 cfs 0.169 af Outflow=8.85 cfs 0.732 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=451.68' Storage=29,119 cf Inflow=26.50 cfs 2.186 af
Discarded=5.10 cfs 2.186 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=5.10 cfs 2.186 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=403.07' Storage=21,532 cf Inflow=13.13 cfs 1.246 af
Discarded=1.51 cfs 1.220 af Primary=0.00 cfs 0.000 af Secondary=0.65 cfs 0.026 af Outflow=2.15 cfs 1.246 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=442.99' Storage=16,686 cf Inflow=11.66 cfs 1.025 af
Discarded=1.54 cfs 1.025 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=1.54 cfs 1.025 af

Pond SF-G1: Sand Filter - G1 Peak Elev=521.09' Storage=9,962 cf Inflow=2.58 cfs 0.496 af
Primary=0.00 cfs 0.000 af Secondary=0.83 cfs 0.276 af Outflow=0.83 cfs 0.276 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=523.21' Storage=3,200 cf Inflow=2.59 cfs 0.563 af
Primary=0.00 cfs 0.000 af Secondary=2.58 cfs 0.496 af Outflow=2.58 cfs 0.496 af

Total Runoff Area = 31.048 ac Runoff Volume = 9.037 af Average Runoff Depth = 3.49"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 8.85 cfs @ 12.15 hrs, Volume= 0.732 af, Depth= 3.72"

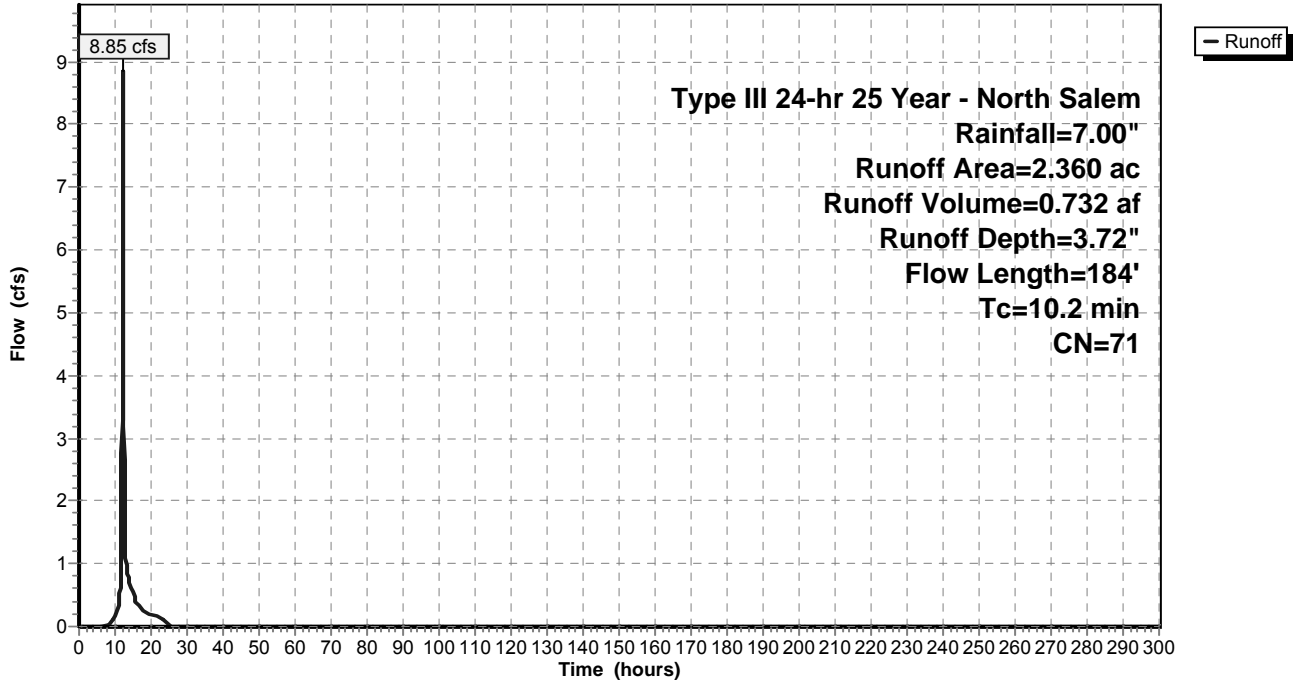
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 26.50 cfs @ 12.15 hrs, Volume= 2.186 af, Depth= 3.94"

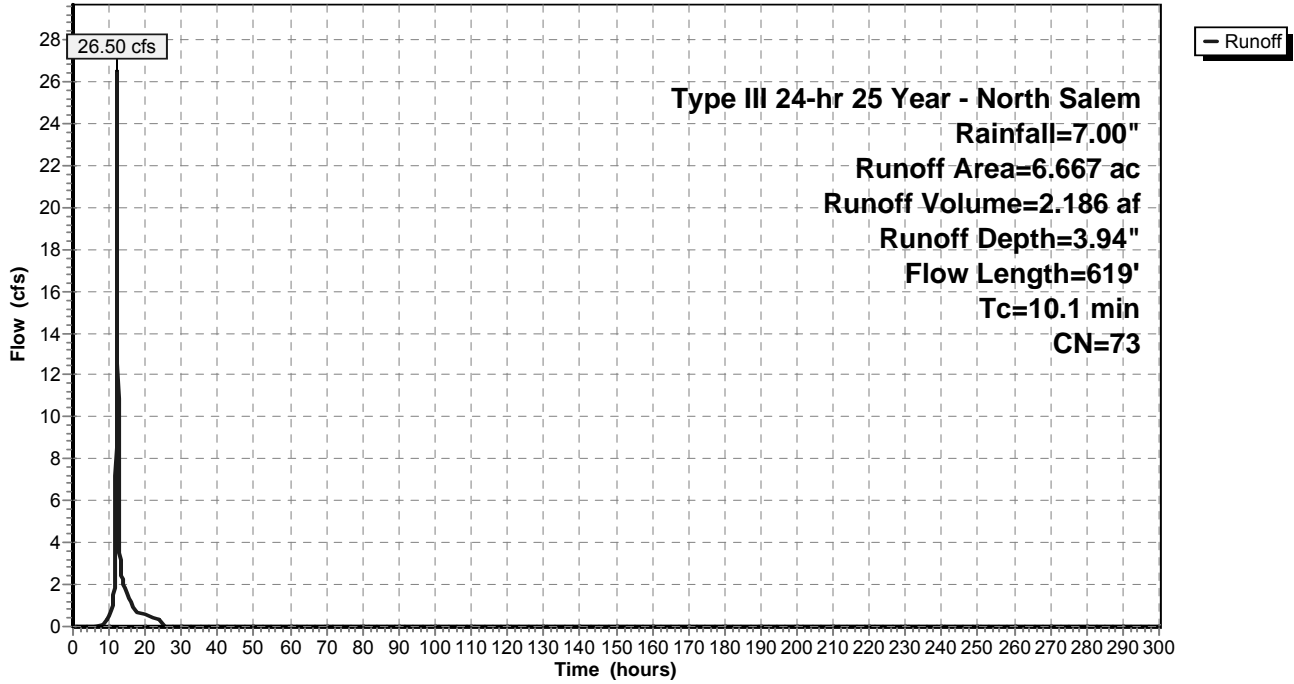
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 13.13 cfs @ 12.21 hrs, Volume= 1.246 af, Depth= 4.47"

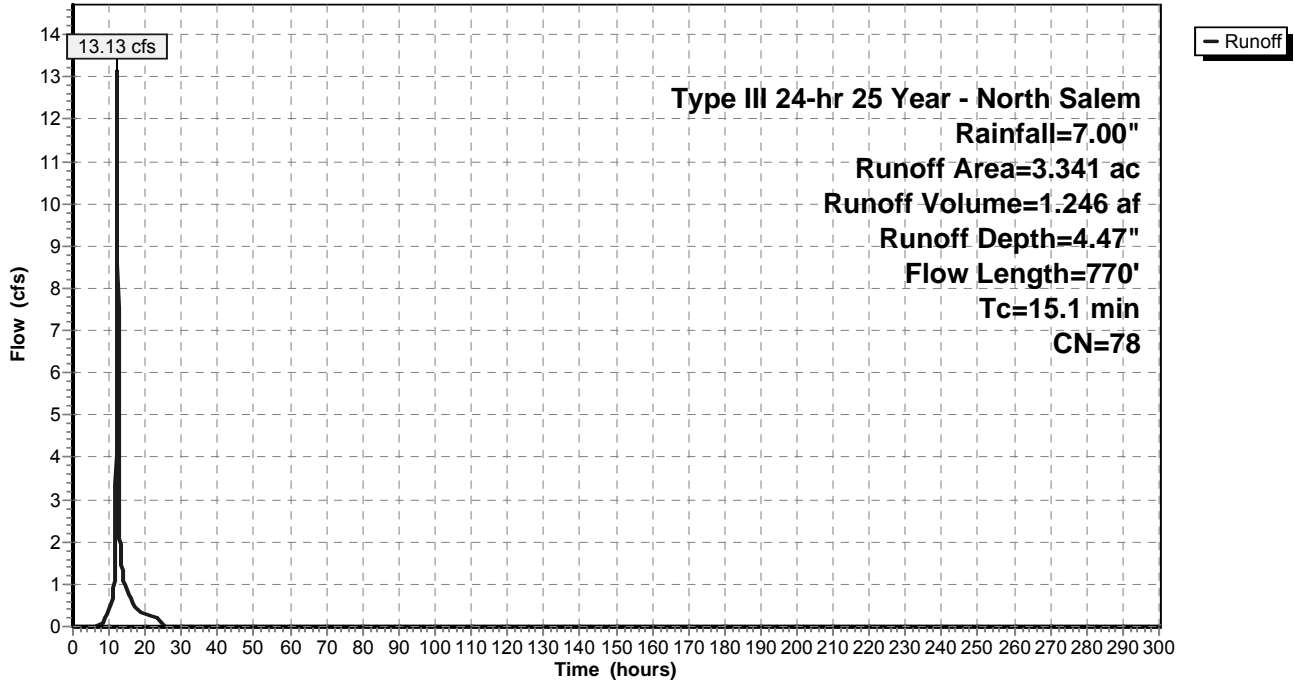
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

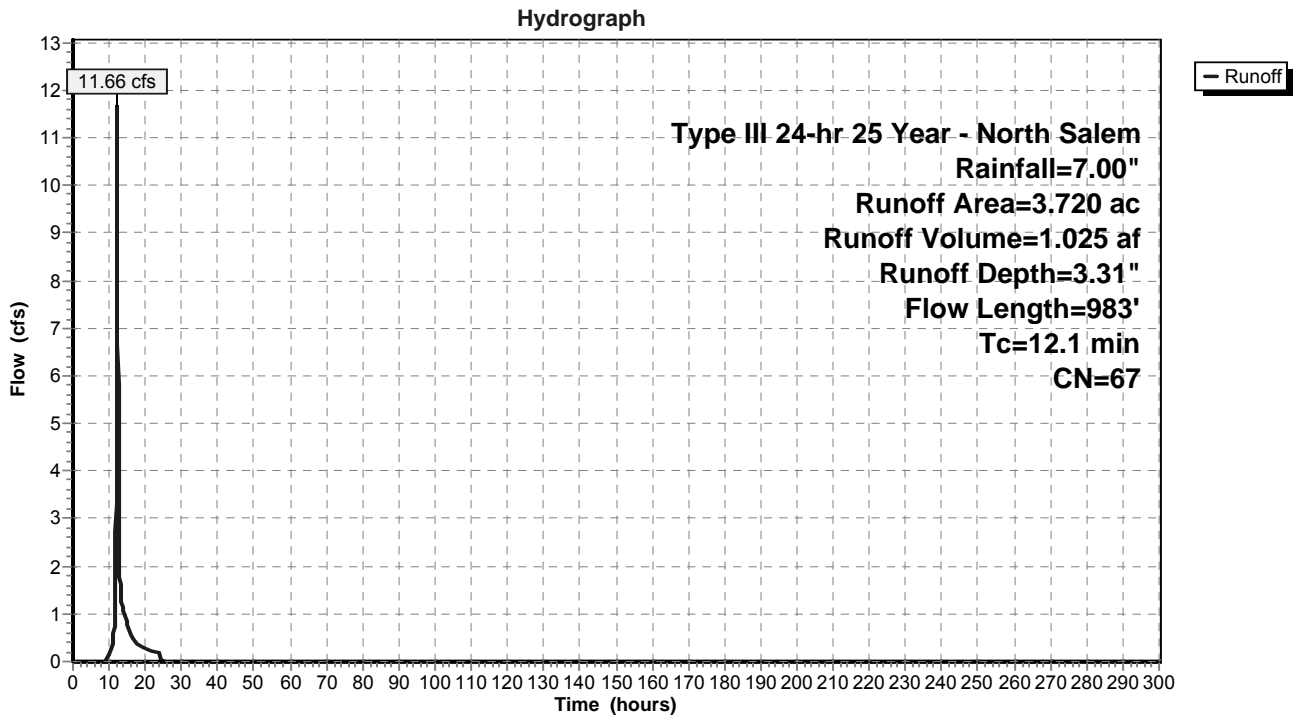
Runoff = 11.66 cfs @ 12.17 hrs, Volume= 1.025 af, Depth= 3.31"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b



Summary for Subcatchment G4a: Post-Development G4a

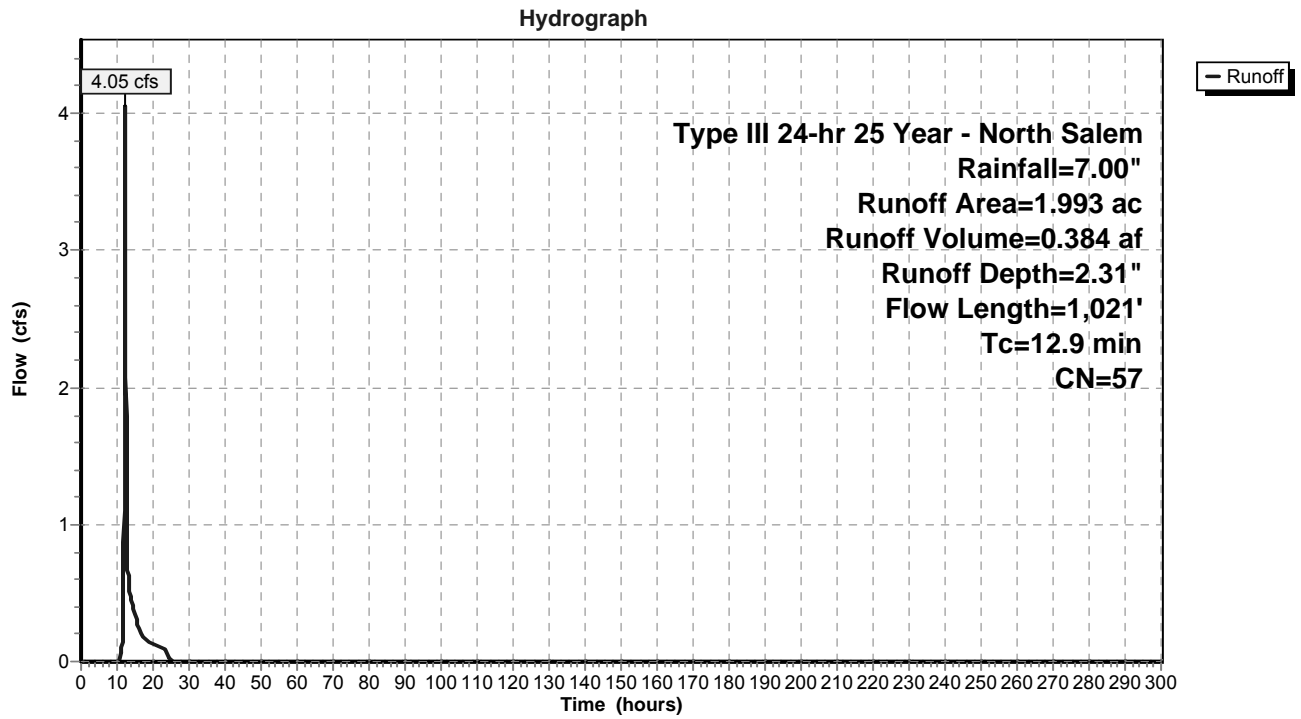
Runoff = 4.05 cfs @ 12.20 hrs, Volume= 0.384 af, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 28.46 cfs @ 12.39 hrs, Volume= 3.463 af, Depth= 3.20"

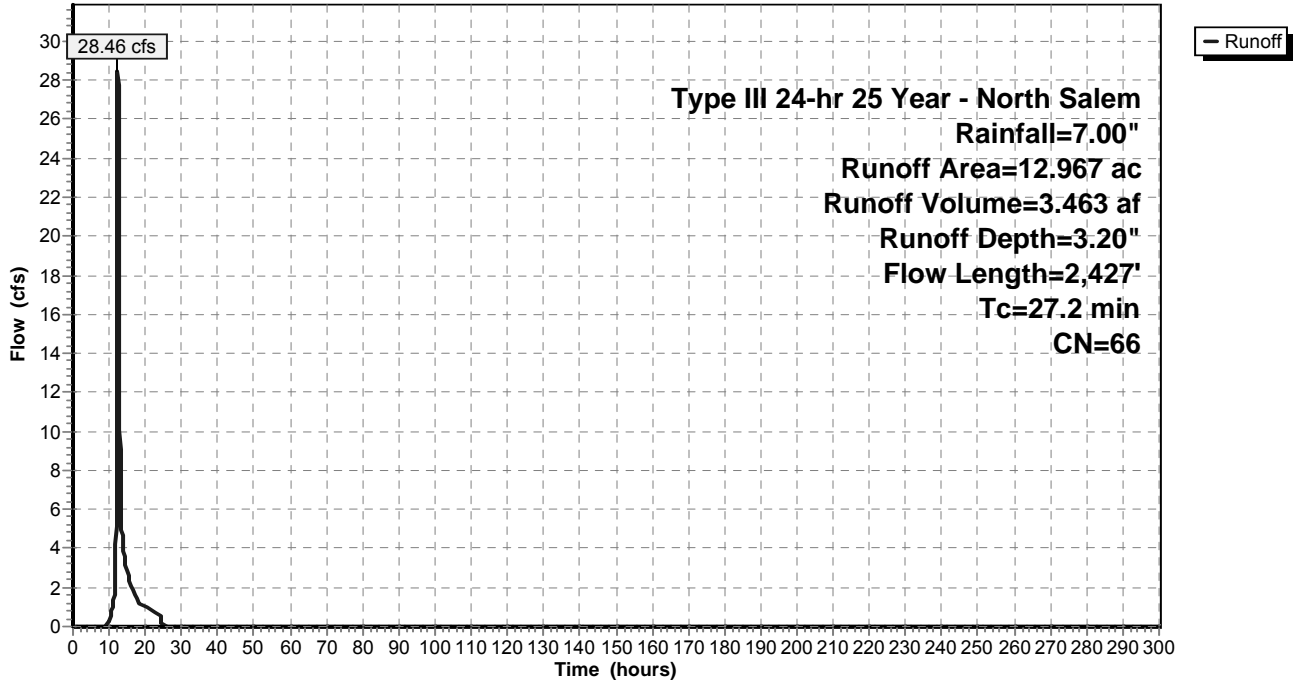
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

[79] Warning: Submerged Pond SF-G1 Primary device # 1 INLET by 1.55'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.26" for 25 Year - North Salem event
 Inflow = 6.26 cfs @ 12.15 hrs, Volume= 0.445 af
 Outflow = 0.42 cfs @ 15.82 hrs, Volume= 0.162 af, Atten= 93%, Lag= 220.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.42 cfs @ 15.82 hrs, Volume= 0.162 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 517.05' @ 15.82 hrs Surf.Area= 4,371 sf Storage= 13,137 cf (12,519 cf above start)

Plug-Flow detention time= 438.8 min calculated for 0.148 af (33% of inflow)
 Center-of-Mass det. time= 236.1 min (1,147.8 - 911.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

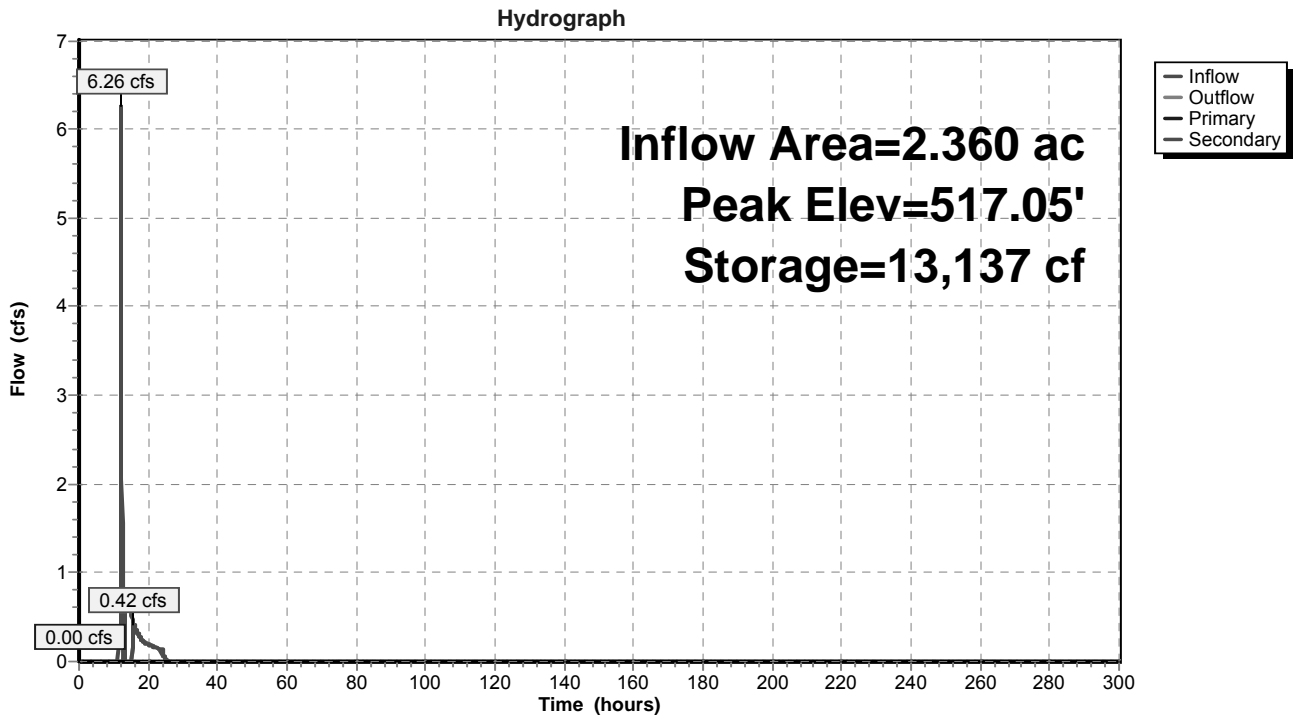
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.39 cfs @ 15.82 hrs HW=517.05' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.39 cfs @ 0.75 fps)

Pond B-G1: Dry Basin - G1



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 0.81" for 25 Year - North Salem event
 Inflow = 4.05 cfs @ 12.20 hrs, Volume= 0.384 af
 Outflow = 0.47 cfs @ 13.85 hrs, Volume= 0.164 af, Atten= 89%, Lag= 99.4 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.47 cfs @ 13.85 hrs, Volume= 0.164 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 425.06' @ 13.85 hrs Surf.Area= 3,604 sf Storage= 9,782 cf

Plug-Flow detention time= 309.2 min calculated for 0.164 af (43% of inflow)
 Center-of-Mass det. time= 173.9 min (1,041.2 - 867.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert X 0.00 L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

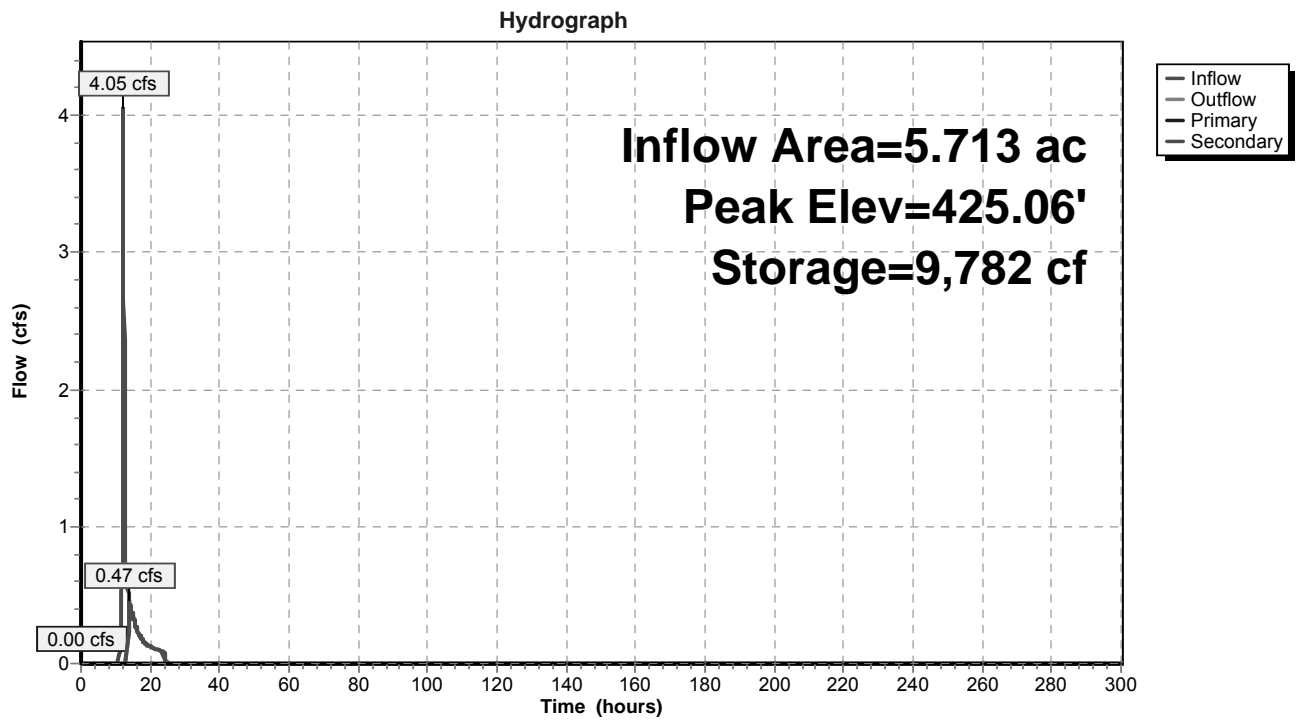
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

- ↑ 1=Culvert (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.43 cfs @ 13.85 hrs HW=425.06' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Weir Controls 0.43 cfs @ 0.78 fps)

Pond B-G4a: Dry Basin - G4a



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

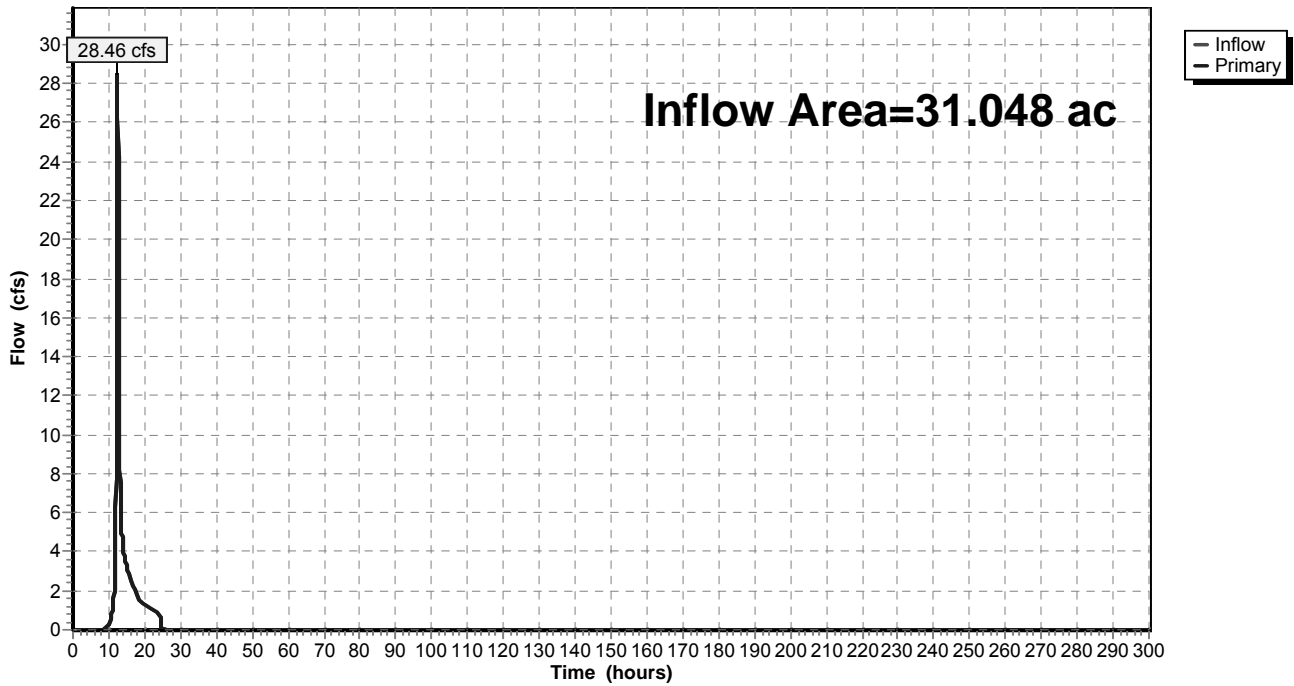
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 1.47" for 25 Year - North Salem event
Inflow = 28.46 cfs @ 12.39 hrs, Volume= 3.816 af
Primary = 28.46 cfs @ 12.39 hrs, Volume= 3.816 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 3.72" for 25 Year - North Salem event
 Inflow = 8.85 cfs @ 12.15 hrs, Volume= 0.732 af
 Outflow = 8.85 cfs @ 12.15 hrs, Volume= 0.732 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.59 cfs @ 12.15 hrs, Volume= 0.563 af
 Secondary = 6.26 cfs @ 12.15 hrs, Volume= 0.169 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 525.82' @ 12.15 hrs
 Flood Elev= 527.50'

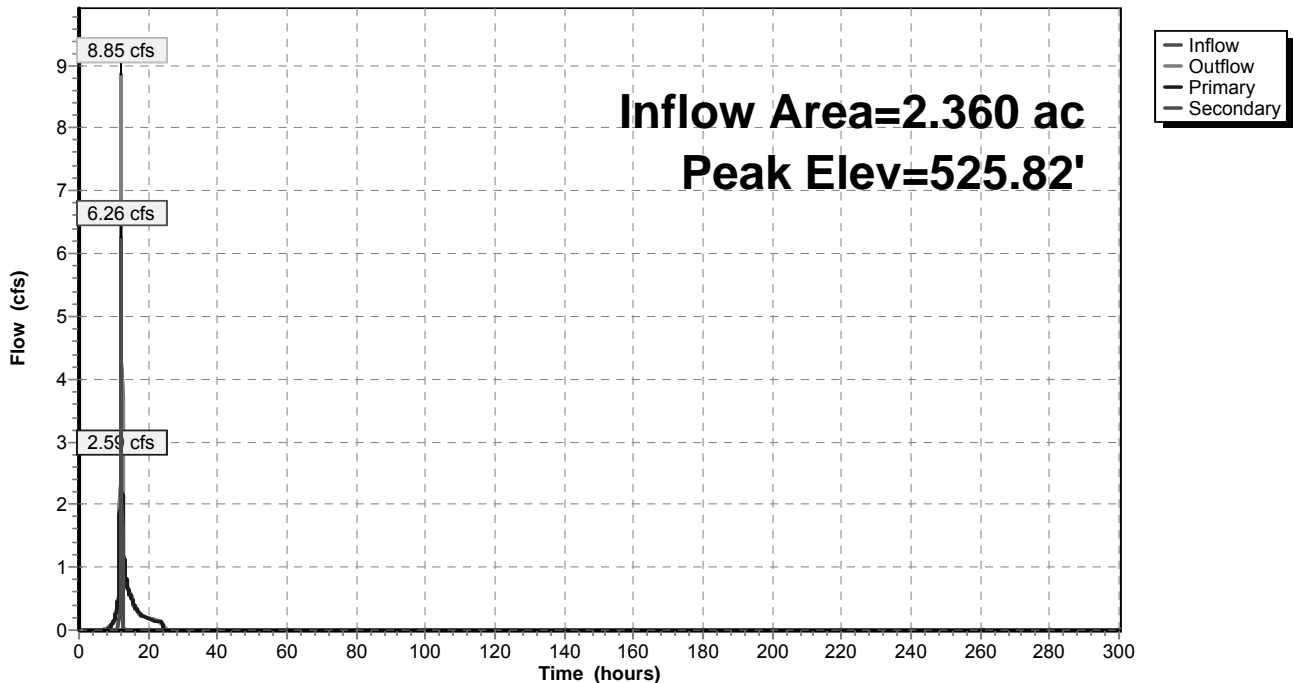
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.58 cfs @ 12.15 hrs HW=525.82' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.58 cfs @ 7.40 fps)

Secondary OutFlow Max=6.23 cfs @ 12.15 hrs HW=525.82' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 6.23 cfs @ 3.86 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 3.94" for 25 Year - North Salem event
 Inflow = 26.50 cfs @ 12.15 hrs, Volume= 2.186 af
 Outflow = 5.10 cfs @ 12.67 hrs, Volume= 2.186 af, Atten= 81%, Lag= 31.3 min
 Discarded = 5.10 cfs @ 12.67 hrs, Volume= 2.186 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 451.68' @ 12.67 hrs Surf.Area= 9,174 sf Storage= 29,119 cf

Plug-Flow detention time= 42.6 min calculated for 2.186 af (100% of inflow)
 Center-of-Mass det. time= 42.6 min (870.6 - 828.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

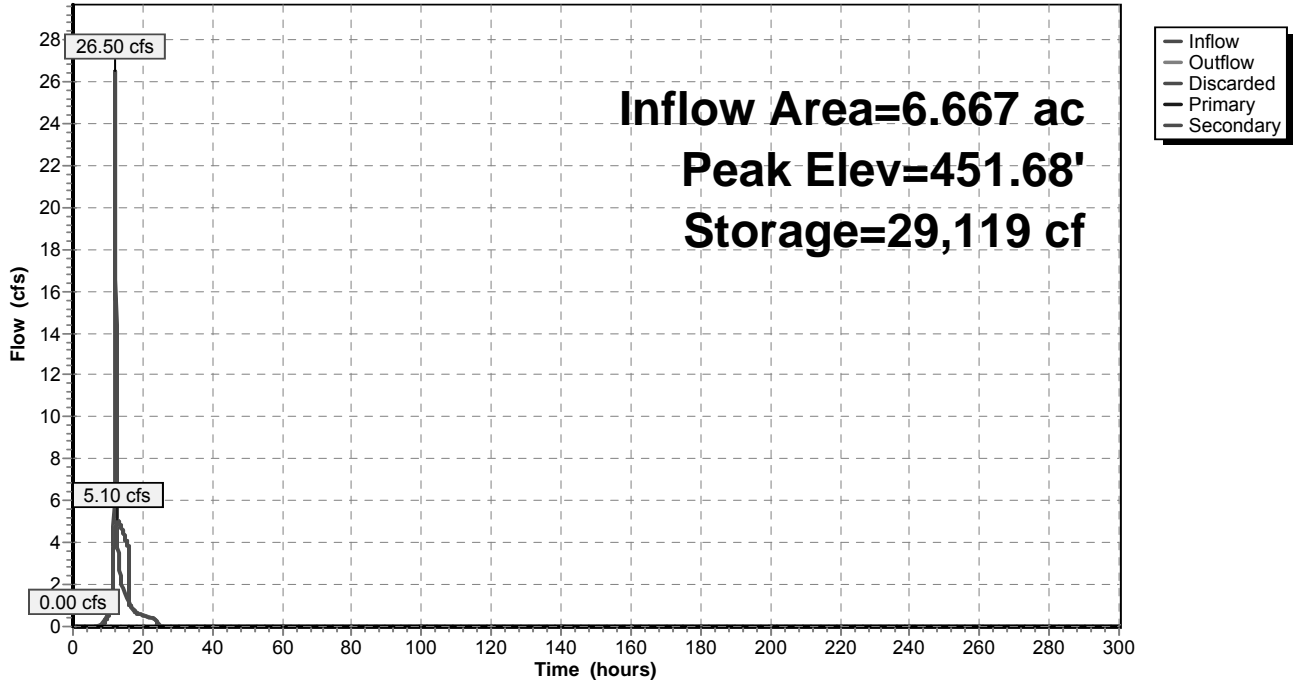
Discarded OutFlow Max=5.10 cfs @ 12.67 hrs HW=451.68' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 5.10 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G2: Infiltration Basin-G2

Hydrograph



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 4.47" for 25 Year - North Salem event
 Inflow = 13.13 cfs @ 12.21 hrs, Volume= 1.246 af
 Outflow = 2.15 cfs @ 12.92 hrs, Volume= 1.246 af, Atten= 84%, Lag= 42.8 min
 Discarded = 1.51 cfs @ 12.92 hrs, Volume= 1.220 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.65 cfs @ 12.92 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 403.07' @ 12.92 hrs Surf.Area= 8,346 sf Storage= 21,532 cf

Plug-Flow detention time= 132.3 min calculated for 1.246 af (100% of inflow)
 Center-of-Mass det. time= 132.3 min (953.5 - 821.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

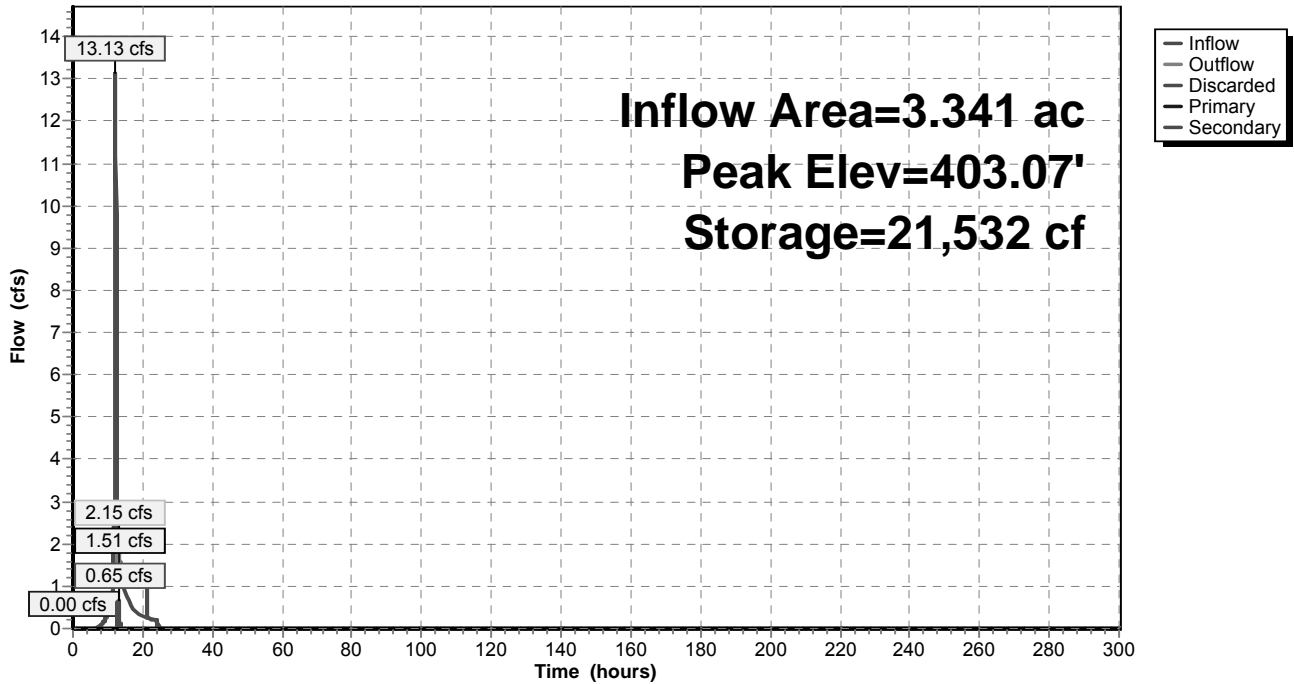
Discarded OutFlow Max=1.51 cfs @ 12.92 hrs HW=403.07' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.51 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.63 cfs @ 12.92 hrs HW=403.07' (Free Discharge)
 ↳5=Emergency Overflow (Weir Controls 0.63 cfs @ 0.88 fps)

Pond I-G3a: Infiltration Basin-G3a

Hydrograph



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 3.31" for 25 Year - North Salem event
 Inflow = 11.66 cfs @ 12.17 hrs, Volume= 1.025 af
 Outflow = 1.54 cfs @ 13.09 hrs, Volume= 1.025 af, Atten= 87%, Lag= 54.8 min
 Discarded = 1.54 cfs @ 13.09 hrs, Volume= 1.025 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 442.99' @ 13.09 hrs Surf.Area= 6,534 sf Storage= 16,686 cf

Plug-Flow detention time= 100.9 min calculated for 1.025 af (100% of inflow)
 Center-of-Mass det. time= 100.9 min (944.1 - 843.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
440.00	4,681	292.0	0	0	4,681
442.00	5,898	317.0	10,556	10,556	6,037
443.00	6,543	330.0	6,218	16,773	6,780
444.00	7,214	342.0	6,876	23,649	7,505

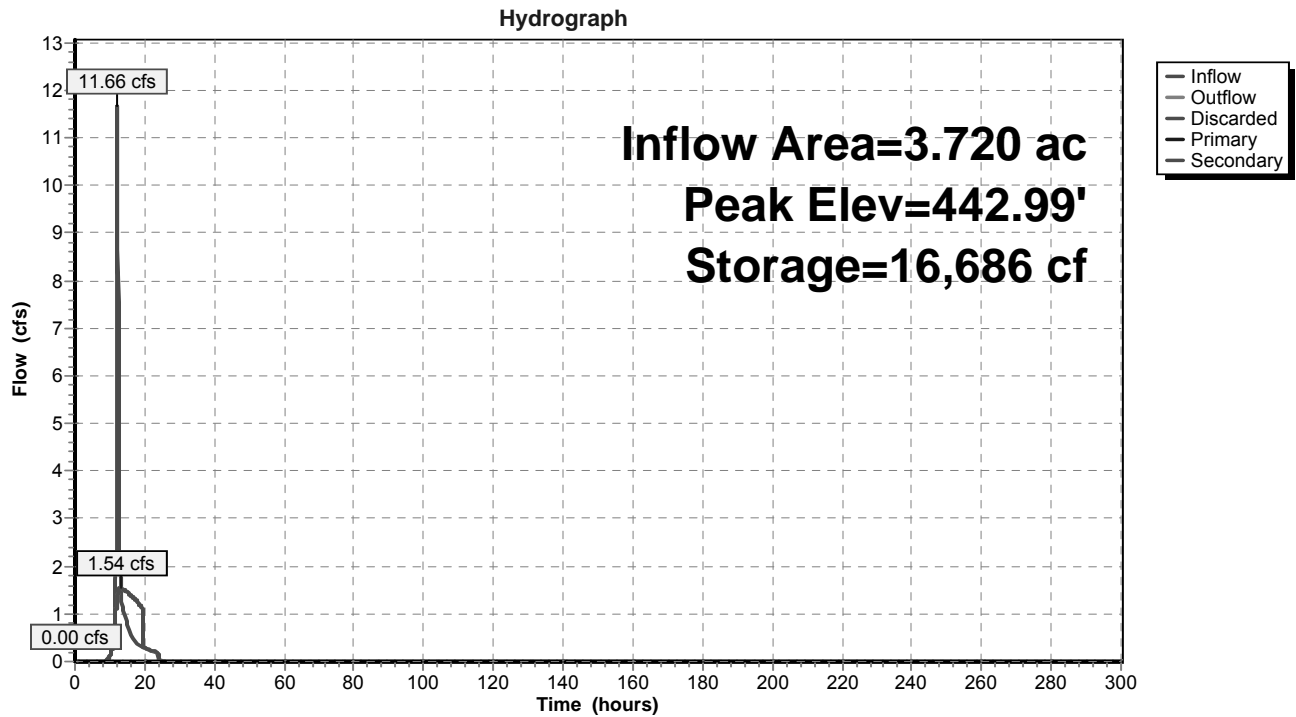
Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.54 cfs @ 13.09 hrs HW=442.99' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.54 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳5=Emergency Overflow (Controls 0.00 cfs)

Pond I-G3b: Infiltration Basin-G3b



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 INLET by 1.09'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.52" for 25 Year - North Salem event
 Inflow = 2.58 cfs @ 12.17 hrs, Volume= 0.496 af
 Outflow = 0.83 cfs @ 13.58 hrs, Volume= 0.276 af, Atten= 68%, Lag= 84.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.83 cfs @ 13.58 hrs, Volume= 0.276 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 521.09' @ 13.58 hrs Surf.Area= 4,090 sf Storage= 9,962 cf

Plug-Flow detention time= 262.9 min calculated for 0.276 af (56% of inflow)
 Center-of-Mass det. time= 128.4 min (1,022.0 - 893.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
518.00	2,523	196.0	0	0	2,523
518.50	2,722	203.0	1,311	1,311	2,767
519.50	3,139	215.0	2,928	4,239	3,217
521.00	4,049	240.0	5,377	9,616	4,185
522.00	4,541	253.0	4,293	13,908	4,751

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe X 0.00 L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

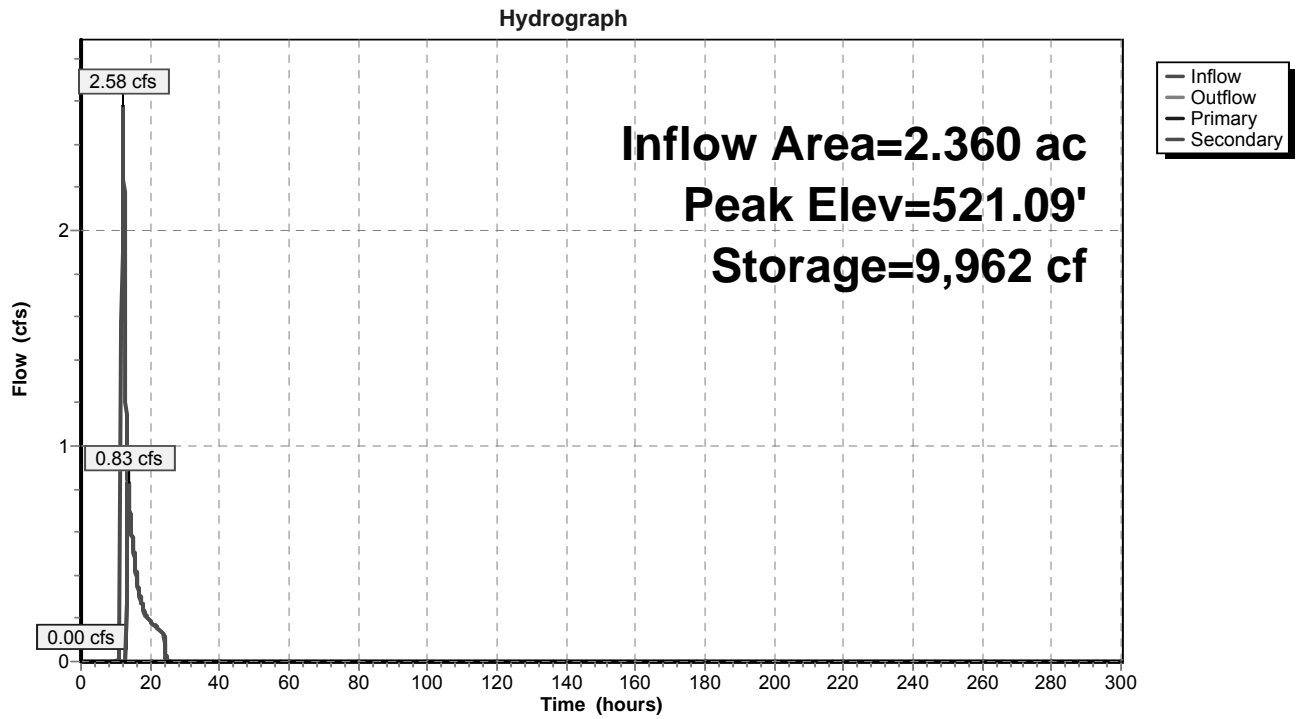
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Exfiltration (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.82 cfs @ 13.58 hrs HW=521.09' (Free Discharge)

- 5=Emergency Overflow (Weir Controls 0.82 cfs @ 0.96 fps)

Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

[79] Warning: Submerged Pond FS G1 Primary device # 1 INLET by 0.09'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 2.86" for 25 Year - North Salem event
 Inflow = 2.59 cfs @ 12.15 hrs, Volume= 0.563 af
 Outflow = 2.58 cfs @ 12.17 hrs, Volume= 0.496 af, Atten= 0%, Lag= 1.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.58 cfs @ 12.17 hrs, Volume= 0.496 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 523.21' @ 12.17 hrs Surf.Area= 1,411 sf Storage= 3,200 cf

Plug-Flow detention time= 87.6 min calculated for 0.496 af (88% of inflow)
 Center-of-Mass det. time= 30.9 min (893.6 - 862.8)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

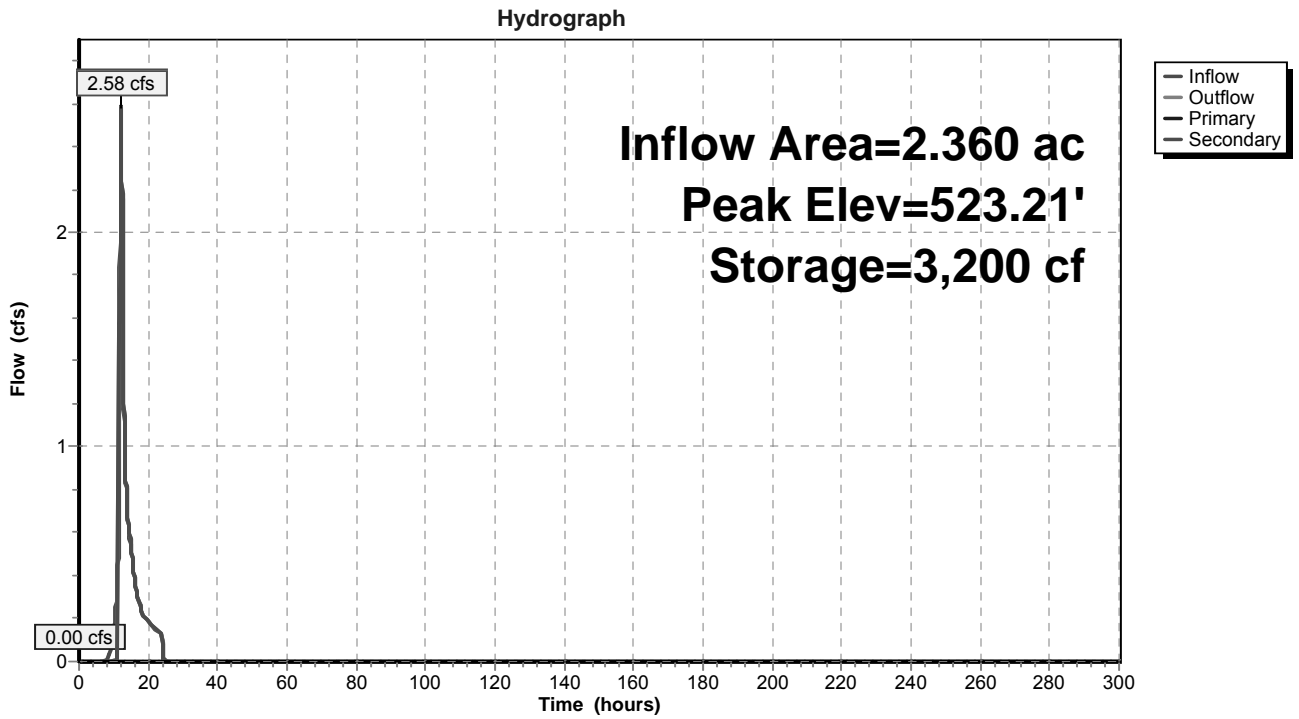
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.56 cfs @ 12.17 hrs HW=523.21' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 2.56 cfs @ 1.56 fps)

Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			

Woodlands Post-Dev DP 7 - Part 1 WO Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G1: Post-Development G1 Runoff Area=2.360 ac 19.11% Impervious Runoff Depth=5.46"
Flow Length=184' Tc=10.2 min CN=71 Runoff=12.95 cfs 1.074 af

Subcatchment G2: Post-Development G2 Runoff Area=6.667 ac 23.94% Impervious Runoff Depth=5.71"
Flow Length=619' Tc=10.1 min CN=73 Runoff=38.25 cfs 3.170 af

Subcatchment G3a: Post-Development G3a Runoff Area=3.341 ac 35.74% Impervious Runoff Depth=6.32"
Flow Length=770' Tc=15.1 min CN=78 Runoff=18.38 cfs 1.760 af

Subcatchment G3b: Post-Development G3b Runoff Area=3.720 ac 22.04% Impervious Runoff Depth=4.96"
Flow Length=983' Tc=12.1 min CN=67 Runoff=17.63 cfs 1.539 af

Subcatchment G4a: Post-Development G4a Runoff Area=1.993 ac 0.00% Impervious Runoff Depth=3.73"
Flow Length=1,021' Tc=12.9 min CN=57 Runoff=6.78 cfs 0.620 af

Subcatchment G4b: Post-Development G4b Runoff Area=12.967 ac 1.23% Impervious Runoff Depth=4.84"
Flow Length=2,427' Tc=27.2 min CN=66 Runoff=43.38 cfs 5.231 af

Pond B-G1: Dry Basin - G1 Peak Elev=517.15' Storage=13,561 cf Inflow=9.95 cfs 0.786 af
Primary=0.00 cfs 0.000 af Secondary=1.92 cfs 0.504 af Outflow=1.92 cfs 0.504 af

Pond B-G4a: Dry Basin - G4a Peak Elev=425.49' Storage=11,418 cf Inflow=12.25 cfs 0.906 af
Primary=0.00 cfs 0.000 af Secondary=11.73 cfs 0.686 af Outflow=11.73 cfs 0.686 af

Pond DP 7-1: Design Point 7-1 Inflow=64.24 cfs 6.865 af
Primary=64.24 cfs 6.865 af

Pond FS G1: Flow Splitter G1 Peak Elev=526.65' Inflow=12.95 cfs 1.074 af
Primary=3.00 cfs 0.762 af Secondary=9.95 cfs 0.311 af Outflow=12.95 cfs 1.074 af

Pond I-G2: Infiltration Basin-G2 Peak Elev=453.29' Storage=44,809 cf Inflow=38.25 cfs 3.170 af
Discarded=5.75 cfs 3.045 af Primary=0.00 cfs 0.000 af Secondary=5.18 cfs 0.124 af Outflow=10.93 cfs 3.170 af

Pond I-G3a: Infiltration Basin-G3a Peak Elev=403.38' Storage=24,314 cf Inflow=18.38 cfs 1.760 af
Discarded=1.80 cfs 1.441 af Primary=0.00 cfs 0.000 af Secondary=7.84 cfs 0.319 af Outflow=9.63 cfs 1.760 af

Pond I-G3b: Infiltration Basin-G3b Peak Elev=443.38' Storage=19,333 cf Inflow=17.63 cfs 1.539 af
Discarded=1.60 cfs 1.253 af Primary=0.00 cfs 0.000 af Secondary=8.09 cfs 0.286 af Outflow=9.69 cfs 1.539 af

Pond SF-G1: Sand Filter - G1 Peak Elev=521.15' Storage=10,210 cf Inflow=2.98 cfs 0.695 af
Primary=0.00 cfs 0.000 af Secondary=1.86 cfs 0.474 af Outflow=1.86 cfs 0.474 af

Pond SFF-G1: Sand Filter Forebay - G1 Peak Elev=523.23' Storage=3,228 cf Inflow=3.00 cfs 0.762 af
Primary=0.00 cfs 0.000 af Secondary=2.98 cfs 0.695 af Outflow=2.98 cfs 0.695 af

Total Runoff Area = 31.048 ac Runoff Volume = 13.393 af Average Runoff Depth = 5.18"
86.40% Pervious = 26.827 ac 13.60% Impervious = 4.221 ac

Summary for Subcatchment G1: Post-Development G1

Runoff = 12.95 cfs @ 12.15 hrs, Volume= 1.074 af, Depth= 5.46"

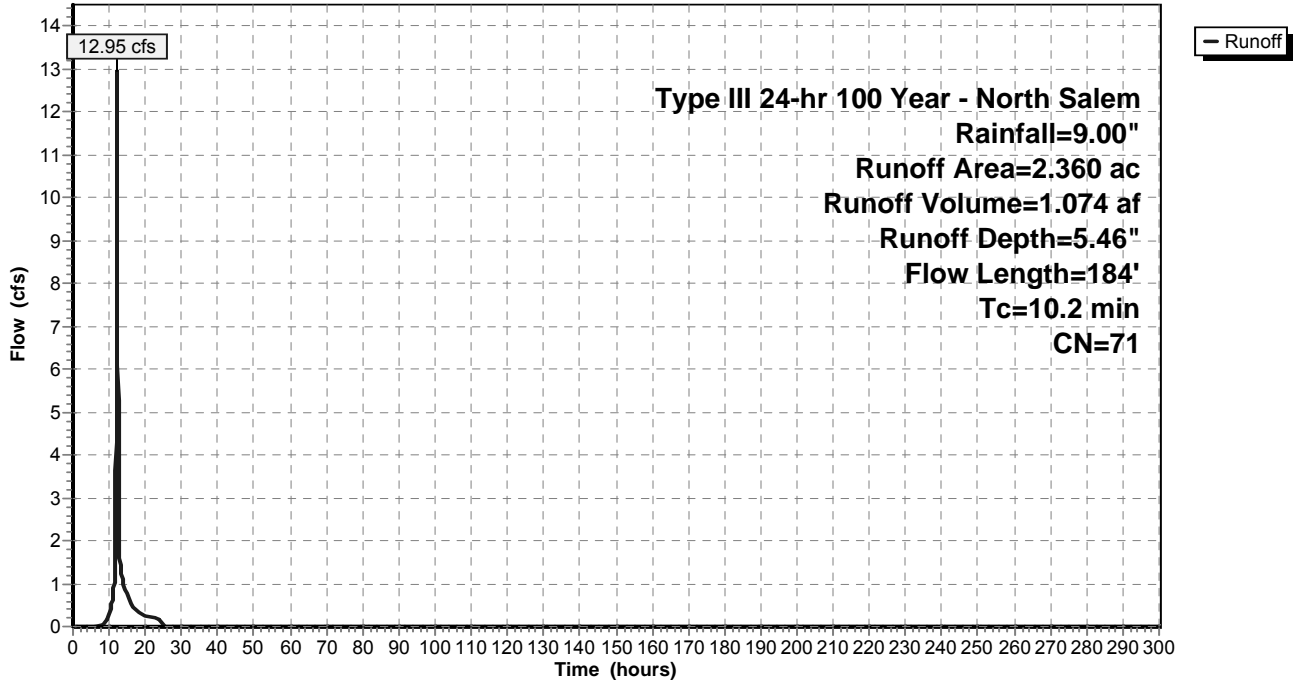
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.127	98	Roof/Walkway
* 0.183	98	Driveway
0.131	55	Woods, Good, HSG B
* 0.208	61	Basin, HSG B
0.914	61	>75% Grass cover, Good, HSG B
* 0.119	98	Road
* 0.022	98	Sidewalk
0.128	70	Woods, Good, HSG C
* 0.192	74	Basin, C
0.336	74	>75% Grass cover, Good, HSG C
2.360	71	Weighted Average
1.909		80.89% Pervious Area
0.451		19.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	52	0.1000	0.21		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
5.8	48	0.1000	0.14		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	84	0.0909	4.85		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
10.2	184	Total			

Subcatchment G1: Post-Development G1

Hydrograph



Summary for Subcatchment G2: Post-Development G2

Runoff = 38.25 cfs @ 12.14 hrs, Volume= 3.170 af, Depth= 5.71"

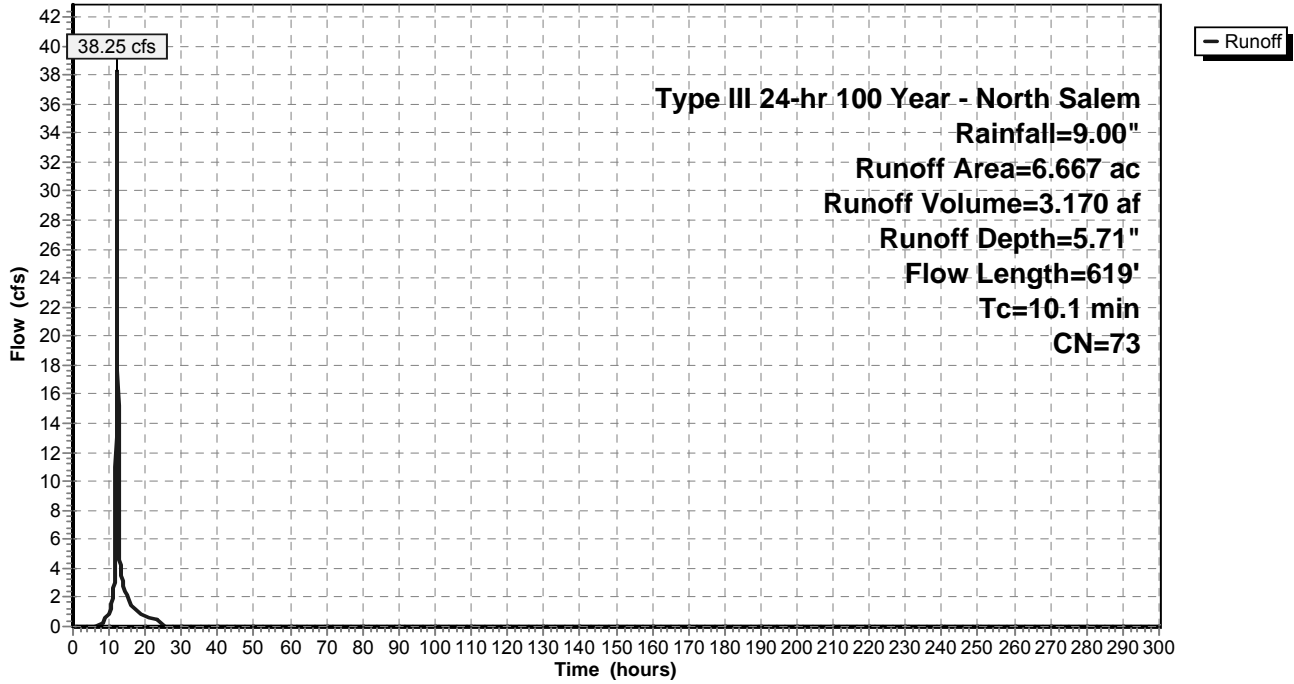
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.511	98	Roof/Walkway
* 0.567	98	Driveway
* 0.438	98	Road
* 0.080	98	Sidewalk
0.605	70	Woods, Good, HSG C
0.185	55	Woods, Good, HSG B
* 0.351	61	Basin, HSG B
1.518	74	>75% Grass cover, Good, HSG C
2.412	61	>75% Grass cover, Good, HSG B
6.667	73	Weighted Average
5.071		76.06% Pervious Area
1.596		23.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	22	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.0	25	0.4000	10.18		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.2	390	0.1200	5.58		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.1	82	0.1000	12.22	21.59	Pipe Channel, E-F 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
10.1	619	Total			

Subcatchment G2: Post-Development G2

Hydrograph



Summary for Subcatchment G3a: Post-Development G3a

Runoff = 18.38 cfs @ 12.21 hrs, Volume= 1.760 af, Depth= 6.32"

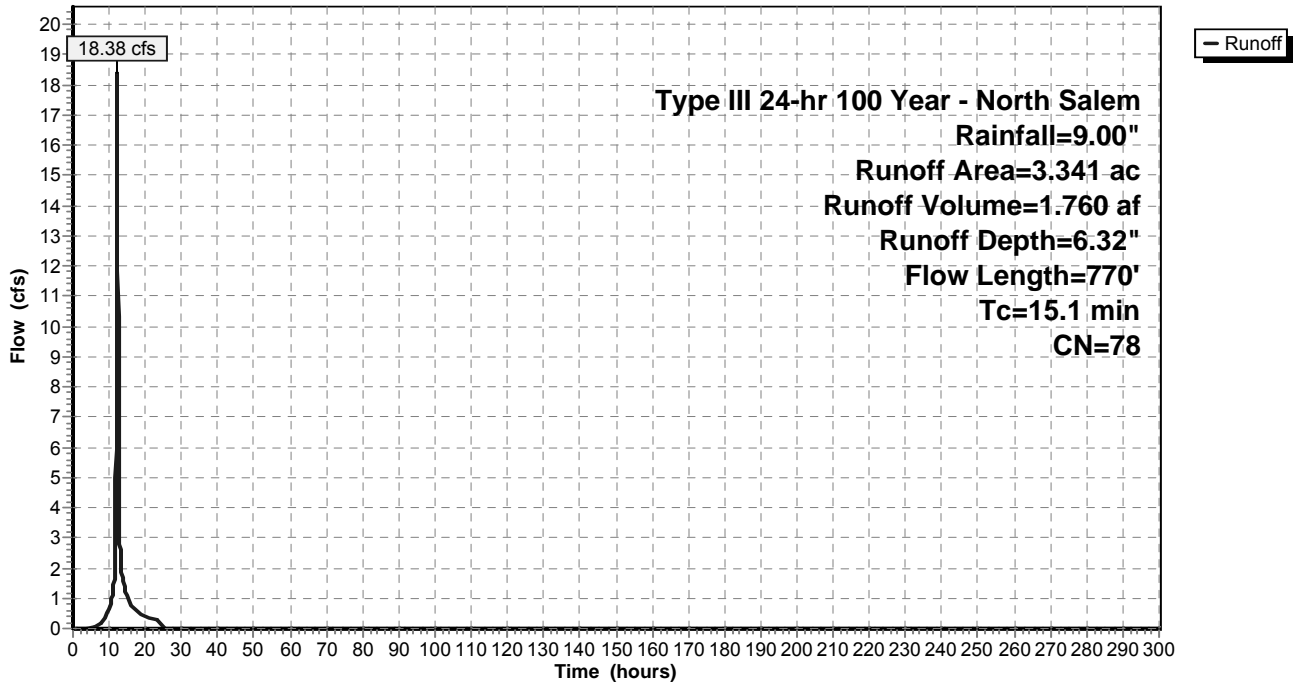
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.206	98	Recreation Center
* 0.681	98	Road
* 0.141	98	Driveway
* 0.102	98	Sidewalk
* 0.305	61	Basin, HSG B
0.938	74	>75% Grass cover, Good, HSG C
0.904	61	>75% Grass cover, Good, HSG B
* 0.064	98	Roof/Walkway
3.341	78	Weighted Average
2.147		64.26% Pervious Area
1.194		35.74% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	50	0.1200	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
7.6	50	0.0200	0.11		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.6	95	0.0263	2.61		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.5	175	0.1000	6.42		Shallow Concentrated Flow, D-E Paved Kv= 20.3 fps
0.1	100	0.1000	16.65	20.43	Pipe Channel, E-F 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.4	200	0.0200	7.44	9.14	Pipe Channel, F-G 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
0.3	100	0.0100	5.26	6.46	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.013 Concrete pipe, bends & connections
15.1	770	Total			

Subcatchment G3a: Post-Development G3a

Hydrograph



Summary for Subcatchment G3b: Post-Development G3b

Runoff = 17.63 cfs @ 12.17 hrs, Volume= 1.539 af, Depth= 4.96"

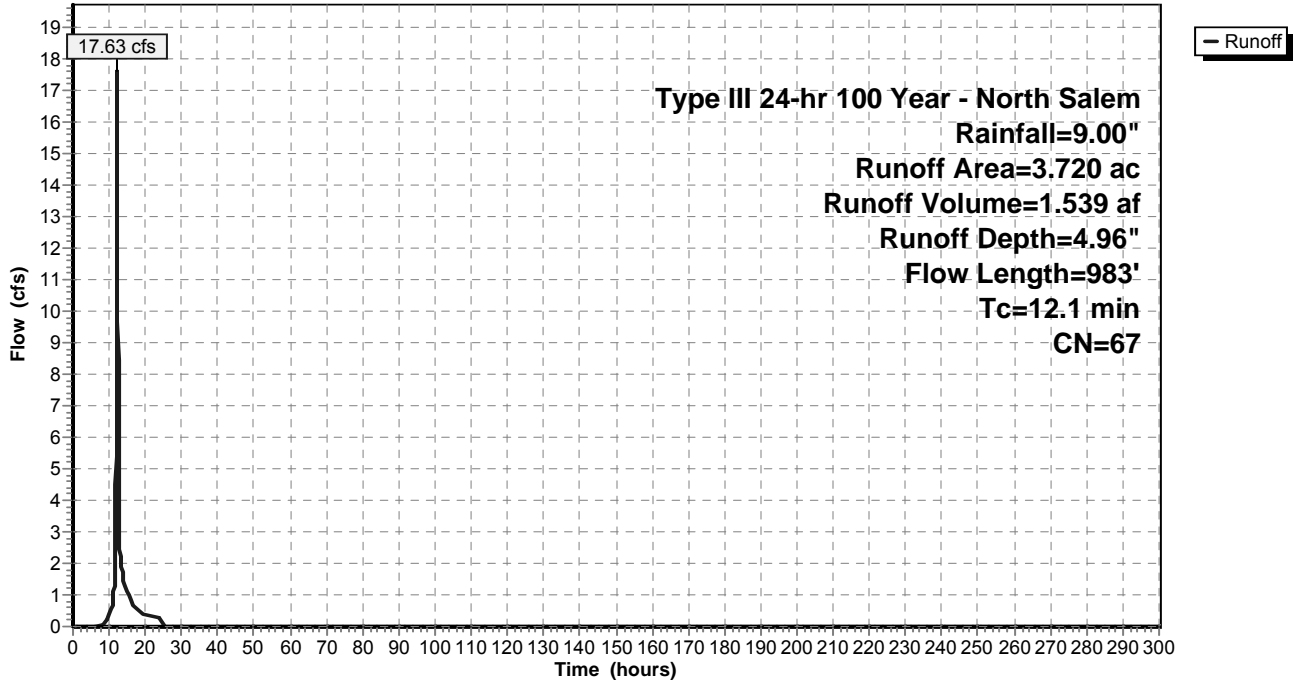
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.216	98	Driveway
1.154	55	Woods, Good, HSG B
* 0.192	98	Roof/Walkway
* 0.310	61	Basin, HSG B
1.436	61	>75% Grass cover, Good, HSG B
* 0.381	98	Road
* 0.031	98	Sidewalk
3.720	67	Weighted Average
2.900		77.96% Pervious Area
0.820		22.04% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.1600	0.19		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.4	160	0.1750	6.74		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	32	0.0625	4.03		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.0	32	0.5000	11.38		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.5	87	0.0345	2.99		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
1.0	127	0.0157	2.02		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.9	275	0.1018	5.14		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.5	170	0.1059	5.24		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
12.1	983	Total			

Subcatchment G3b: Post-Development G3b

Hydrograph



Summary for Subcatchment G4a: Post-Development G4a

Runoff = 6.78 cfs @ 12.19 hrs, Volume= 0.620 af, Depth= 3.73"

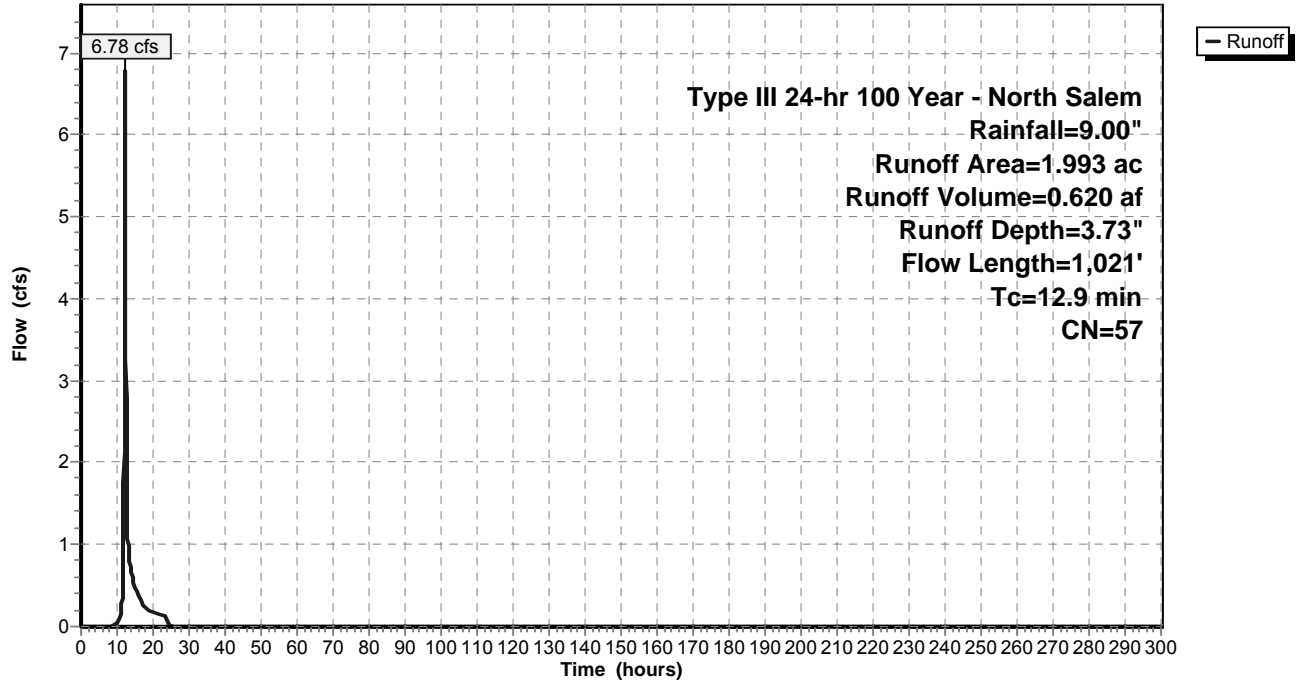
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
1.389	55	Woods, Good, HSG B
0.604	61	>75% Grass cover, Good, HSG B
1.993	57	Weighted Average
1.993		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	215	0.1600	6.44		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	54	0.2590	8.19		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	327	0.1162	5.49		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	170	0.1000	5.09		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.4	60	0.0300	2.81	0.08	Pipe Channel, F-G 2.0" x 2.0" Box Area= 0.0 sf Perim= 0.7' r= 0.04' n= 0.011 Concrete pipe, straight & clean
0.4	95	0.0526	3.69		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
12.9	1,021	Total			

Subcatchment G4a: Post-Development G4a

Hydrograph



Summary for Subcatchment G4b: Post-Development G4b

Runoff = 43.38 cfs @ 12.38 hrs, Volume= 5.231 af, Depth= 4.84"

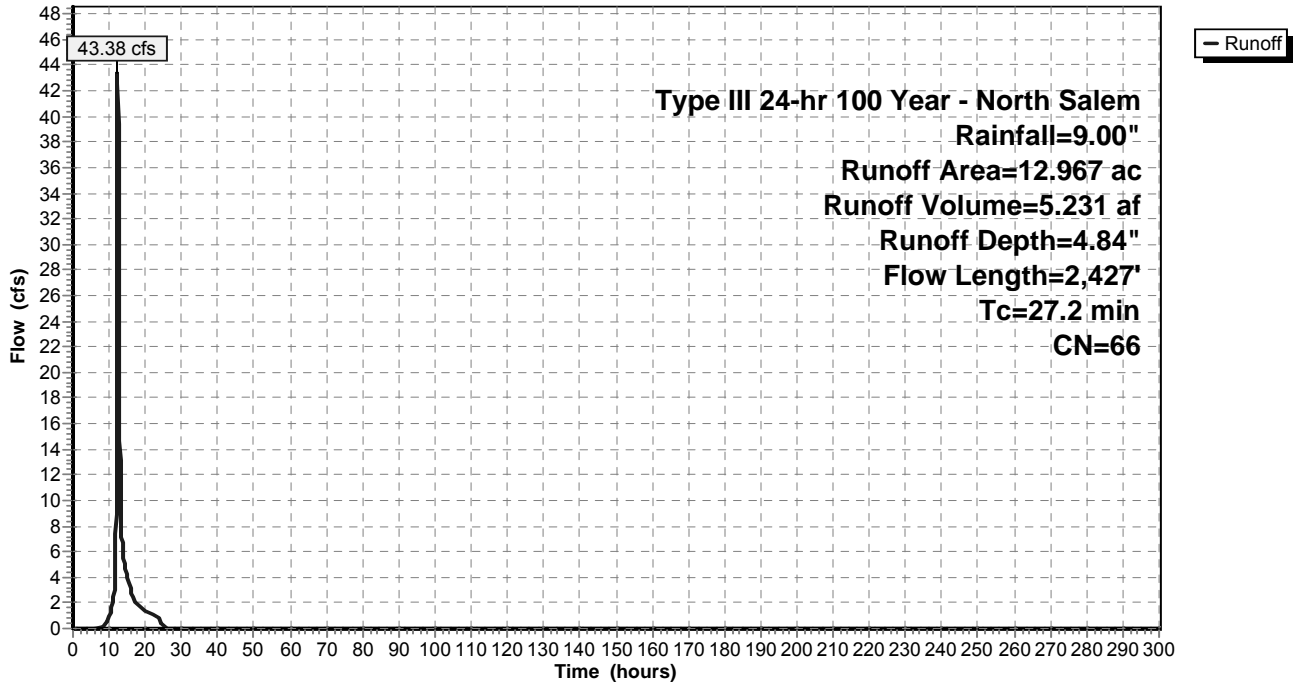
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.160	98	Asphalt Driveway (Capucci/Bryson Property)
* 0.400	61	>75% Grass cover, Good, HSG B, CrC, (Capucci/Bryson Property)
* 4.924	58	Woods/grass comb, Good, HSG B
* 2.288	72	Woods/grass comb., Good, HSG C
* 1.963	77	Woods, Poor, HSG C, LcB Soils (Wetlands)
1.015	74	>75% Grass cover, Good, HSG C
1.202	61	>75% Grass cover, Good, HSG B
0.493	70	Woods, Good, HSG C
0.522	55	Woods, Good, HSG B
12.967	66	Weighted Average
12.807		98.77% Pervious Area
0.160		1.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	75	0.0533	0.12		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
4.9	30	0.0600	0.10		Sheet Flow, B-C Woods: Light underbrush n= 0.400 P2= 3.70"
0.3	70	0.0600	3.94		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	64	0.0650	3.82		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
4.0	590	0.0270	2.46		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.0	225	0.0600	3.67		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.3	64	0.0800	4.24		Shallow Concentrated Flow, G-H Grassed Waterway Kv= 15.0 fps
1.7	318	0.0450	3.18		Shallow Concentrated Flow, H-I Grassed Waterway Kv= 15.0 fps
1.6	340	0.0590	3.64		Shallow Concentrated Flow, I-J Grassed Waterway Kv= 15.0 fps
0.4	117	0.0926	4.56		Shallow Concentrated Flow, J-K Grassed Waterway Kv= 15.0 fps
1.0	196	0.0472	3.26		Shallow Concentrated Flow, K-L Grassed Waterway Kv= 15.0 fps
0.2	86	0.1395	6.01		Shallow Concentrated Flow, L-M Unpaved Kv= 16.1 fps
0.8	252	0.1032	5.17		Shallow Concentrated Flow, M-N Unpaved Kv= 16.1 fps
27.2	2,427	Total			

Subcatchment G4b: Post-Development G4b

Hydrograph



Summary for Pond B-G1: Dry Basin - G1

[79] Warning: Submerged Pond SF-G1 Primary device # 1 INLET by 1.65'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 4.00" for 100 Year - North Salem event
 Inflow = 9.95 cfs @ 12.15 hrs, Volume= 0.786 af
 Outflow = 1.92 cfs @ 12.82 hrs, Volume= 0.504 af, Atten= 81%, Lag= 40.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.92 cfs @ 12.82 hrs, Volume= 0.504 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 512.50' Surf.Area= 1,356 sf Storage= 618 cf
 Peak Elev= 517.15' @ 12.82 hrs Surf.Area= 4,448 sf Storage= 13,561 cf (12,943 cf above start)

Plug-Flow detention time= 216.0 min calculated for 0.489 af (62% of inflow)
 Center-of-Mass det. time= 90.2 min (966.3 - 876.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	17,646 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,120	153.0	0	0	1,120
514.00	2,201	206.0	3,261	3,261	2,676
516.00	3,562	247.0	5,709	8,969	4,222
517.00	4,330	266.0	3,940	12,909	5,039
518.00	5,155	285.0	4,737	17,646	5,916

Device	Routing	Invert	Outlet Devices
#1	Primary	511.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 509.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	512.50'	4.0" Vert. Orifice #1 C= 0.600
#3	Device 1	514.00'	28.0" W x 18.0" H Vert. Orifice #2 C= 0.600
#4	Device 1	516.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	517.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=512.50' (Free Discharge)

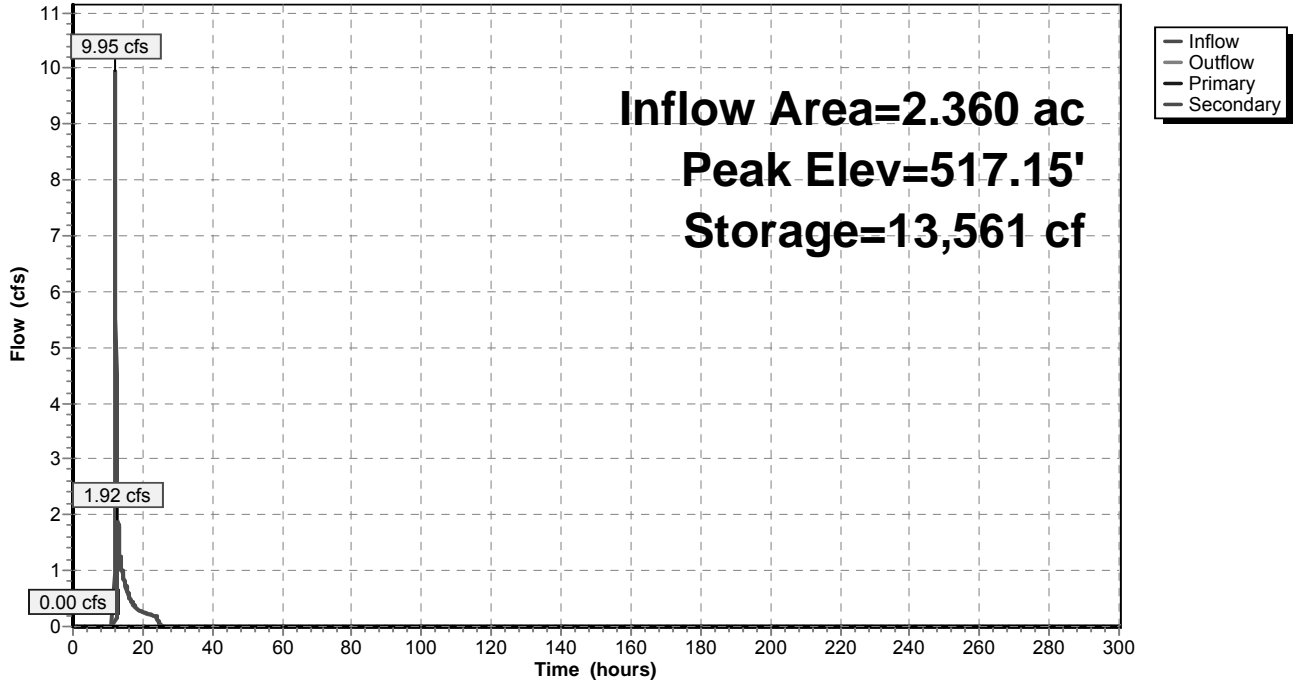
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.89 cfs @ 12.82 hrs HW=517.15' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.89 cfs @ 1.28 fps)

Pond B-G1: Dry Basin - G1

Hydrograph



Stage-Area-Storage for Pond B-G1: Dry Basin - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,120	0	513.06	1,648	1,458
512.02	1,129	22	513.08	1,659	1,491
512.04	1,138	45	513.10	1,670	1,524
512.06	1,147	68	513.12	1,681	1,558
512.08	1,156	91	513.14	1,692	1,592
512.10	1,165	114	513.16	1,703	1,626
512.12	1,175	138	513.18	1,714	1,660
512.14	1,184	161	513.20	1,725	1,694
512.16	1,193	185	513.22	1,736	1,729
512.18	1,202	209	513.24	1,748	1,764
512.20	1,212	233	513.26	1,759	1,799
512.22	1,221	257	513.28	1,770	1,834
512.24	1,231	282	513.30	1,782	1,869
512.26	1,240	307	513.32	1,793	1,905
512.28	1,250	332	513.34	1,804	1,941
512.30	1,259	357	513.36	1,816	1,977
512.32	1,269	382	513.38	1,827	2,014
512.34	1,278	407	513.40	1,839	2,050
512.36	1,288	433	513.42	1,850	2,087
512.38	1,298	459	513.44	1,862	2,124
512.40	1,307	485	513.46	1,873	2,162
512.42	1,317	511	513.48	1,885	2,199
512.44	1,327	538	513.50	1,897	2,237
512.46	1,337	564	513.52	1,909	2,275
512.48	1,346	591	513.54	1,920	2,314
512.50	1,356	618	513.56	1,932	2,352
512.52	1,366	645	513.58	1,944	2,391
512.54	1,376	673	513.60	1,956	2,430
512.56	1,386	700	513.62	1,968	2,469
512.58	1,396	728	513.64	1,980	2,509
512.60	1,406	756	513.66	1,992	2,548
512.62	1,416	784	513.68	2,004	2,588
512.64	1,427	813	513.70	2,016	2,628
512.66	1,437	842	513.72	2,028	2,669
512.68	1,447	870	513.74	2,040	2,710
512.70	1,457	899	513.76	2,052	2,750
512.72	1,467	929	513.78	2,064	2,792
512.74	1,478	958	513.80	2,077	2,833
512.76	1,488	988	513.82	2,089	2,875
512.78	1,499	1,018	513.84	2,101	2,917
512.80	1,509	1,048	513.86	2,114	2,959
512.82	1,519	1,078	513.88	2,126	3,001
512.84	1,530	1,109	513.90	2,138	3,044
512.86	1,541	1,139	513.92	2,151	3,087
512.88	1,551	1,170	513.94	2,163	3,130
512.90	1,562	1,201	513.96	2,176	3,173
512.92	1,572	1,233	513.98	2,188	3,217
512.94	1,583	1,264	514.00	2,201	3,261
512.96	1,594	1,296	514.02	2,213	3,305
512.98	1,604	1,328	514.04	2,225	3,349
513.00	1,615	1,360	514.06	2,237	3,394
513.02	1,626	1,393	514.08	2,249	3,439
513.04	1,637	1,425	514.10	2,261	3,484

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,273	3,529	515.18	2,965	6,297
514.14	2,286	3,575	515.20	2,978	6,357
514.16	2,298	3,621	515.22	2,992	6,416
514.18	2,310	3,667	515.24	3,006	6,476
514.20	2,322	3,713	515.26	3,020	6,537
514.22	2,335	3,760	515.28	3,034	6,597
514.24	2,347	3,806	515.30	3,049	6,658
514.26	2,359	3,853	515.32	3,063	6,719
514.28	2,372	3,901	515.34	3,077	6,781
514.30	2,384	3,948	515.36	3,091	6,842
514.32	2,397	3,996	515.38	3,105	6,904
514.34	2,409	4,044	515.40	3,119	6,966
514.36	2,422	4,093	515.42	3,134	7,029
514.38	2,435	4,141	515.44	3,148	7,092
514.40	2,447	4,190	515.46	3,162	7,155
514.42	2,460	4,239	515.48	3,177	7,218
514.44	2,472	4,288	515.50	3,191	7,282
514.46	2,485	4,338	515.52	3,206	7,346
514.48	2,498	4,388	515.54	3,220	7,410
514.50	2,511	4,438	515.56	3,235	7,475
514.52	2,523	4,488	515.58	3,249	7,540
514.54	2,536	4,539	515.60	3,264	7,605
514.56	2,549	4,590	515.62	3,278	7,670
514.58	2,562	4,641	515.64	3,293	7,736
514.60	2,575	4,692	515.66	3,308	7,802
514.62	2,588	4,744	515.68	3,322	7,868
514.64	2,601	4,796	515.70	3,337	7,935
514.66	2,614	4,848	515.72	3,352	8,002
514.68	2,627	4,900	515.74	3,367	8,069
514.70	2,640	4,953	515.76	3,381	8,136
514.72	2,653	5,006	515.78	3,396	8,204
514.74	2,667	5,059	515.80	3,411	8,272
514.76	2,680	5,112	515.82	3,426	8,340
514.78	2,693	5,166	515.84	3,441	8,409
514.80	2,706	5,220	515.86	3,456	8,478
514.82	2,720	5,274	515.88	3,471	8,547
514.84	2,733	5,329	515.90	3,486	8,617
514.86	2,746	5,384	515.92	3,501	8,687
514.88	2,760	5,439	515.94	3,516	8,757
514.90	2,773	5,494	515.96	3,532	8,828
514.92	2,787	5,550	515.98	3,547	8,898
514.94	2,800	5,606	516.00	3,562	8,969
514.96	2,814	5,662	516.02	3,577	9,041
514.98	2,827	5,718	516.04	3,591	9,112
515.00	2,841	5,775	516.06	3,606	9,184
515.02	2,854	5,832	516.08	3,621	9,257
515.04	2,868	5,889	516.10	3,635	9,329
515.06	2,882	5,946	516.12	3,650	9,402
515.08	2,895	6,004	516.14	3,665	9,475
515.10	2,909	6,062	516.16	3,680	9,549
515.12	2,923	6,121	516.18	3,695	9,622
515.14	2,937	6,179	516.20	3,710	9,696
515.16	2,951	6,238	516.22	3,725	9,771

Stage-Area-Storage for Pond B-G1: Dry Basin - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	3,739	9,845	517.30	4,570	14,244
516.26	3,754	9,920	517.32	4,586	14,336
516.28	3,769	9,996	517.34	4,602	14,427
516.30	3,785	10,071	517.36	4,619	14,520
516.32	3,800	10,147	517.38	4,635	14,612
516.34	3,815	10,223	517.40	4,651	14,705
516.36	3,830	10,300	517.42	4,668	14,798
516.38	3,845	10,376	517.44	4,684	14,892
516.40	3,860	10,453	517.46	4,701	14,986
516.42	3,875	10,531	517.48	4,717	15,080
516.44	3,891	10,608	517.50	4,734	15,174
516.46	3,906	10,686	517.52	4,750	15,269
516.48	3,921	10,765	517.54	4,767	15,364
516.50	3,937	10,843	517.56	4,783	15,460
516.52	3,952	10,922	517.58	4,800	15,556
516.54	3,967	11,001	517.60	4,816	15,652
516.56	3,983	11,081	517.62	4,833	15,748
516.58	3,998	11,161	517.64	4,850	15,845
516.60	4,014	11,241	517.66	4,866	15,942
516.62	4,029	11,321	517.68	4,883	16,040
516.64	4,045	11,402	517.70	4,900	16,138
516.66	4,060	11,483	517.72	4,917	16,236
516.68	4,076	11,564	517.74	4,934	16,334
516.70	4,092	11,646	517.76	4,950	16,433
516.72	4,107	11,728	517.78	4,967	16,532
516.74	4,123	11,810	517.80	4,984	16,632
516.76	4,139	11,893	517.82	5,001	16,732
516.78	4,155	11,976	517.84	5,018	16,832
516.80	4,170	12,059	517.86	5,035	16,932
516.82	4,186	12,143	517.88	5,052	17,033
516.84	4,202	12,227	517.90	5,069	17,134
516.86	4,218	12,311	517.92	5,086	17,236
516.88	4,234	12,395	517.94	5,103	17,338
516.90	4,250	12,480	517.96	5,121	17,440
516.92	4,266	12,565	517.98	5,138	17,543
516.94	4,282	12,651	518.00	5,155	17,646
516.96	4,298	12,737			
516.98	4,314	12,823			
517.00	4,330	12,909			
517.02	4,346	12,996			
517.04	4,362	13,083			
517.06	4,377	13,170			
517.08	4,393	13,258			
517.10	4,409	13,346			
517.12	4,425	13,434			
517.14	4,441	13,523			
517.16	4,457	13,612			
517.18	4,473	13,701			
517.20	4,489	13,791			
517.22	4,505	13,881			
517.24	4,521	13,971			
517.26	4,538	14,062			
517.28	4,554	14,153			

Summary for Pond B-G4a: Dry Basin - G4a

Inflow Area = 5.713 ac, 14.35% Impervious, Inflow Depth = 1.90" for 100 Year - North Salem event
 Inflow = 12.25 cfs @ 12.40 hrs, Volume= 0.906 af
 Outflow = 11.73 cfs @ 12.45 hrs, Volume= 0.686 af, Atten= 4%, Lag= 3.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 11.73 cfs @ 12.45 hrs, Volume= 0.686 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 425.49' @ 12.45 hrs Surf.Area= 3,957 sf Storage= 11,418 cf

Plug-Flow detention time= 111.0 min calculated for 0.686 af (76% of inflow)
 Center-of-Mass det. time= 37.8 min (860.8 - 823.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	13,554 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	668	117.0	0	0	668
422.00	1,536	175.0	2,145	2,145	2,047
424.00	2,795	242.0	4,269	6,413	4,309
425.00	3,560	263.0	3,170	9,583	5,190
426.00	4,396	283.0	3,971	13,554	6,101

Device	Routing	Invert	Outlet Devices
#1	Primary	418.00'	48.0" W x 24.0" H Box Culvert X 0.00 L= 70.0' RCP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0286 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean
#2	Device 1	420.00'	1.0" Vert. Orifice #1 C= 0.600
#3	Device 1	422.75'	5.0" Vert. Orifice #2 C= 0.600
#4	Device 1	424.00'	20.0" W x 10.0" H Vert. Orifice #3 X 2.00 C= 0.600
#5	Device 1	424.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	425.00'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.00' (Free Discharge)

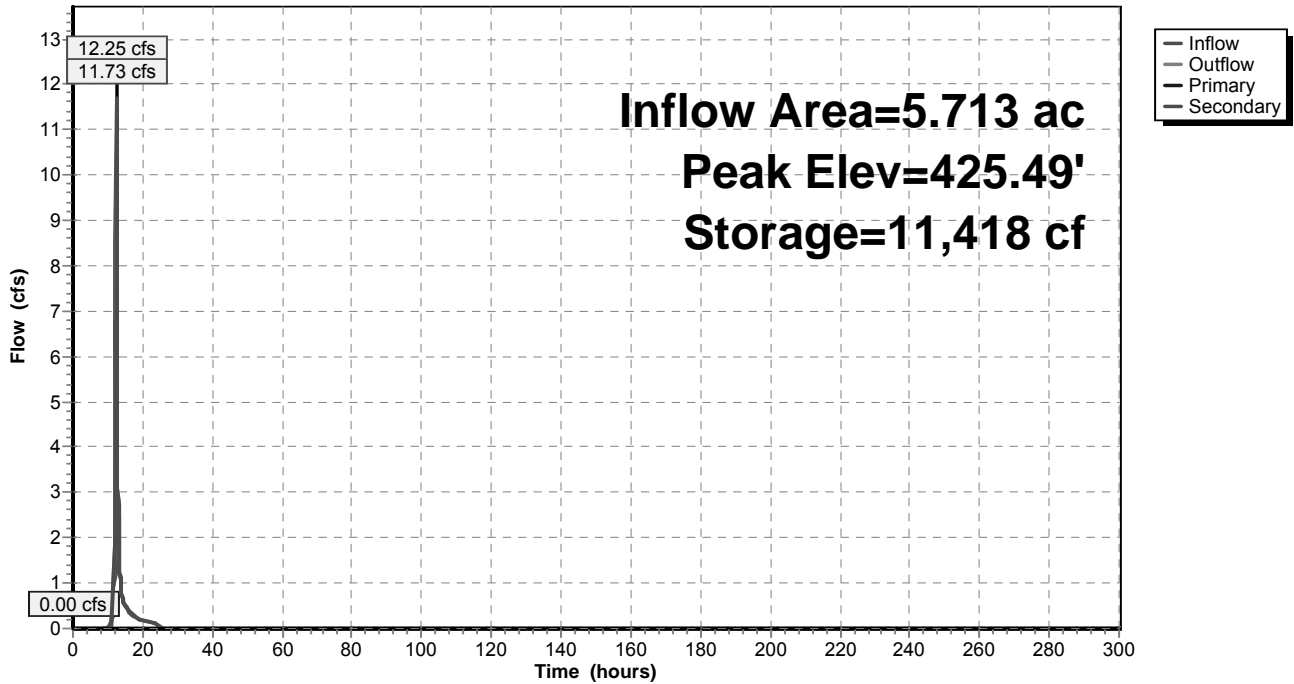
- ↑ 1=Culvert (Controls 0.00 cfs)
- ↑ 2=Orifice #1 (Controls 0.00 cfs)
- ↑ 3=Orifice #2 (Controls 0.00 cfs)
- ↑ 4=Orifice #3 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=11.65 cfs @ 12.45 hrs HW=425.49' (Free Discharge)

- ↑ 6=Emergency Overflow Weir (Weir Controls 11.65 cfs @ 2.42 fps)

Pond B-G4a: Dry Basin - G4a

Hydrograph



Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	668	0	421.06	1,084	920
420.02	675	13	421.08	1,092	941
420.04	682	27	421.10	1,101	963
420.06	689	41	421.12	1,110	985
420.08	696	55	421.14	1,119	1,008
420.10	703	69	421.16	1,128	1,030
420.12	710	83	421.18	1,137	1,053
420.14	717	97	421.20	1,146	1,076
420.16	724	111	421.22	1,155	1,099
420.18	732	126	421.24	1,164	1,122
420.20	739	141	421.26	1,173	1,145
420.22	746	155	421.28	1,182	1,169
420.24	753	170	421.30	1,192	1,192
420.26	761	186	421.32	1,201	1,216
420.28	768	201	421.34	1,210	1,241
420.30	775	216	421.36	1,219	1,265
420.32	783	232	421.38	1,229	1,289
420.34	790	248	421.40	1,238	1,314
420.36	798	264	421.42	1,248	1,339
420.38	806	280	421.44	1,257	1,364
420.40	813	296	421.46	1,267	1,389
420.42	821	312	421.48	1,276	1,415
420.44	828	329	421.50	1,286	1,440
420.46	836	345	421.52	1,295	1,466
420.48	844	362	421.54	1,305	1,492
420.50	852	379	421.56	1,314	1,518
420.52	859	396	421.58	1,324	1,545
420.54	867	413	421.60	1,334	1,571
420.56	875	431	421.62	1,344	1,598
420.58	883	448	421.64	1,353	1,625
420.60	891	466	421.66	1,363	1,652
420.62	899	484	421.68	1,373	1,679
420.64	907	502	421.70	1,383	1,707
420.66	915	520	421.72	1,393	1,735
420.68	923	539	421.74	1,403	1,763
420.70	931	557	421.76	1,413	1,791
420.72	939	576	421.78	1,423	1,819
420.74	948	595	421.80	1,433	1,848
420.76	956	614	421.82	1,443	1,877
420.78	964	633	421.84	1,453	1,906
420.80	972	652	421.86	1,464	1,935
420.82	981	672	421.88	1,474	1,964
420.84	989	692	421.90	1,484	1,994
420.86	998	711	421.92	1,494	2,023
420.88	1,006	732	421.94	1,505	2,053
420.90	1,015	752	421.96	1,515	2,084
420.92	1,023	772	421.98	1,526	2,114
420.94	1,032	793	422.00	1,536	2,145
420.96	1,040	813	422.02	1,547	2,175
420.98	1,049	834	422.04	1,558	2,206
421.00	1,057	855	422.06	1,568	2,238
421.02	1,066	877	422.08	1,579	2,269
421.04	1,075	898	422.10	1,590	2,301

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,601	2,333	423.18	2,234	4,356
422.14	1,612	2,365	423.20	2,247	4,401
422.16	1,623	2,397	423.22	2,259	4,446
422.18	1,634	2,430	423.24	2,273	4,491
422.20	1,645	2,463	423.26	2,286	4,537
422.22	1,656	2,496	423.28	2,299	4,582
422.24	1,667	2,529	423.30	2,312	4,629
422.26	1,679	2,562	423.32	2,325	4,675
422.28	1,690	2,596	423.34	2,338	4,722
422.30	1,701	2,630	423.36	2,351	4,768
422.32	1,712	2,664	423.38	2,365	4,816
422.34	1,724	2,698	423.40	2,378	4,863
422.36	1,735	2,733	423.42	2,391	4,911
422.38	1,746	2,768	423.44	2,405	4,959
422.40	1,758	2,803	423.46	2,418	5,007
422.42	1,769	2,838	423.48	2,432	5,055
422.44	1,781	2,874	423.50	2,445	5,104
422.46	1,792	2,909	423.52	2,459	5,153
422.48	1,804	2,945	423.54	2,472	5,203
422.50	1,816	2,982	423.56	2,486	5,252
422.52	1,827	3,018	423.58	2,500	5,302
422.54	1,839	3,055	423.60	2,513	5,352
422.56	1,851	3,092	423.62	2,527	5,403
422.58	1,863	3,129	423.64	2,541	5,453
422.60	1,874	3,166	423.66	2,555	5,504
422.62	1,886	3,204	423.68	2,568	5,555
422.64	1,898	3,242	423.70	2,582	5,607
422.66	1,910	3,280	423.72	2,596	5,659
422.68	1,922	3,318	423.74	2,610	5,711
422.70	1,934	3,356	423.76	2,624	5,763
422.72	1,946	3,395	423.78	2,638	5,816
422.74	1,958	3,434	423.80	2,652	5,869
422.76	1,970	3,474	423.82	2,666	5,922
422.78	1,983	3,513	423.84	2,681	5,975
422.80	1,995	3,553	423.86	2,695	6,029
422.82	2,007	3,593	423.88	2,709	6,083
422.84	2,019	3,633	423.90	2,723	6,137
422.86	2,032	3,674	423.92	2,737	6,192
422.88	2,044	3,714	423.94	2,752	6,247
422.90	2,056	3,755	423.96	2,766	6,302
422.92	2,069	3,797	423.98	2,781	6,358
422.94	2,081	3,838	424.00	2,795	6,413
422.96	2,094	3,880	424.02	2,809	6,469
422.98	2,106	3,922	424.04	2,824	6,526
423.00	2,119	3,964	424.06	2,838	6,582
423.02	2,131	4,007	424.08	2,853	6,639
423.04	2,144	4,049	424.10	2,867	6,696
423.06	2,157	4,092	424.12	2,882	6,754
423.08	2,169	4,136	424.14	2,897	6,812
423.10	2,182	4,179	424.16	2,911	6,870
423.12	2,195	4,223	424.18	2,926	6,928
423.14	2,208	4,267	424.20	2,941	6,987
423.16	2,221	4,311	424.22	2,955	7,046

Stage-Area-Storage for Pond B-G4a: Dry Basin - G4a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	2,970	7,105	425.30	3,802	10,687
424.26	2,985	7,165	425.32	3,818	10,763
424.28	3,000	7,224	425.34	3,834	10,840
424.30	3,015	7,285	425.36	3,851	10,917
424.32	3,030	7,345	425.38	3,867	10,994
424.34	3,045	7,406	425.40	3,884	11,071
424.36	3,060	7,467	425.42	3,900	11,149
424.38	3,075	7,528	425.44	3,917	11,227
424.40	3,090	7,590	425.46	3,934	11,306
424.42	3,105	7,652	425.48	3,950	11,385
424.44	3,120	7,714	425.50	3,967	11,464
424.46	3,135	7,777	425.52	3,984	11,543
424.48	3,151	7,839	425.54	4,000	11,623
424.50	3,166	7,903	425.56	4,017	11,703
424.52	3,181	7,966	425.58	4,034	11,784
424.54	3,197	8,030	425.60	4,051	11,865
424.56	3,212	8,094	425.62	4,068	11,946
424.58	3,227	8,158	425.64	4,085	12,028
424.60	3,243	8,223	425.66	4,102	12,109
424.62	3,258	8,288	425.68	4,119	12,192
424.64	3,274	8,353	425.70	4,136	12,274
424.66	3,290	8,419	425.72	4,153	12,357
424.68	3,305	8,485	425.74	4,170	12,440
424.70	3,321	8,551	425.76	4,187	12,524
424.72	3,336	8,618	425.78	4,205	12,608
424.74	3,352	8,685	425.80	4,222	12,692
424.76	3,368	8,752	425.82	4,239	12,777
424.78	3,384	8,819	425.84	4,256	12,862
424.80	3,400	8,887	425.86	4,274	12,947
424.82	3,415	8,955	425.88	4,291	13,033
424.84	3,431	9,024	425.90	4,308	13,119
424.86	3,447	9,093	425.92	4,326	13,205
424.88	3,463	9,162	425.94	4,343	13,292
424.90	3,479	9,231	425.96	4,361	13,379
424.92	3,495	9,301	425.98	4,378	13,466
424.94	3,511	9,371	426.00	4,396	13,554
424.96	3,528	9,441			
424.98	3,544	9,512			
425.00	3,560	9,583			
425.02	3,576	9,654			
425.04	3,592	9,726			
425.06	3,608	9,798			
425.08	3,624	9,870			
425.10	3,640	9,943			
425.12	3,656	10,016			
425.14	3,672	10,089			
425.16	3,688	10,163			
425.18	3,704	10,237			
425.20	3,720	10,311			
425.22	3,736	10,386			
425.24	3,753	10,460			
425.26	3,769	10,536			
425.28	3,785	10,611			

Summary for Pond DP 7-1: Design Point 7-1

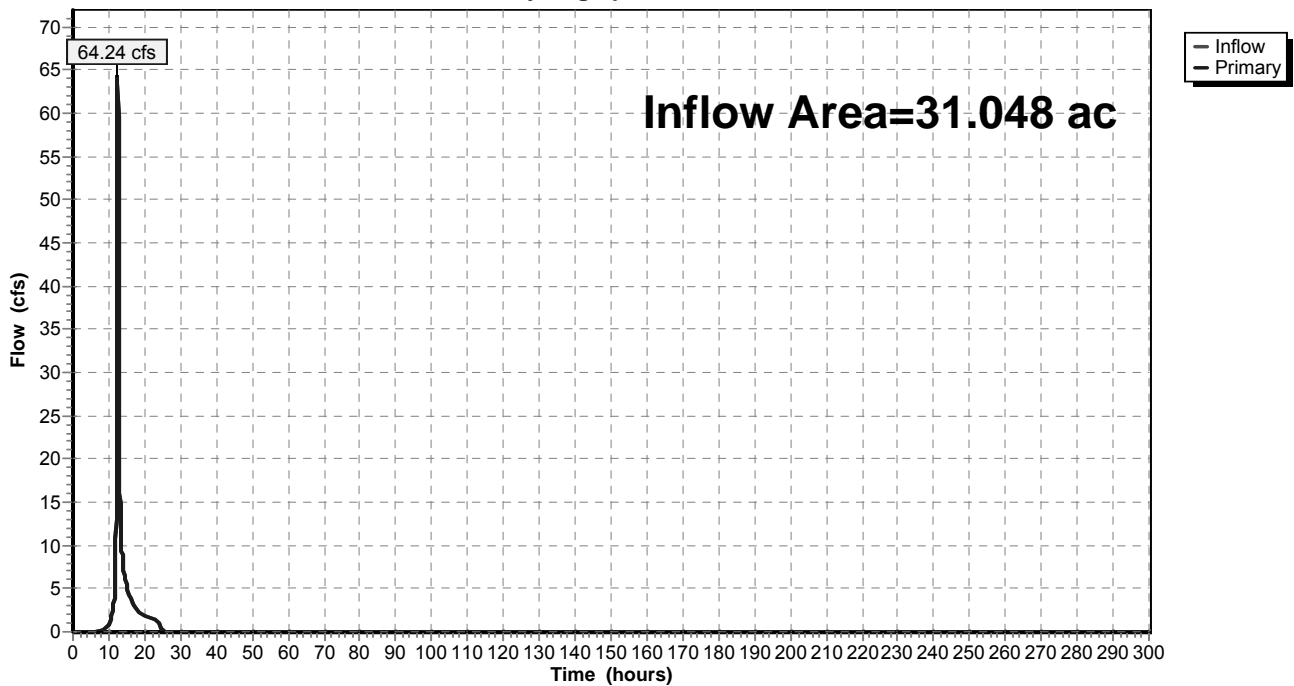
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 31.048 ac, 13.60% Impervious, Inflow Depth = 2.65" for 100 Year - North Salem event
Inflow = 64.24 cfs @ 12.47 hrs, Volume= 6.865 af
Primary = 64.24 cfs @ 12.47 hrs, Volume= 6.865 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7-1: Design Point 7-1

Hydrograph



Summary for Pond FS G1: Flow Splitter G1

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 5.46" for 100 Year - North Salem event
 Inflow = 12.95 cfs @ 12.15 hrs, Volume= 1.074 af
 Outflow = 12.95 cfs @ 12.15 hrs, Volume= 1.074 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.00 cfs @ 12.15 hrs, Volume= 0.762 af
 Secondary = 9.95 cfs @ 12.15 hrs, Volume= 0.311 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 526.65' @ 12.15 hrs
 Flood Elev= 527.50'

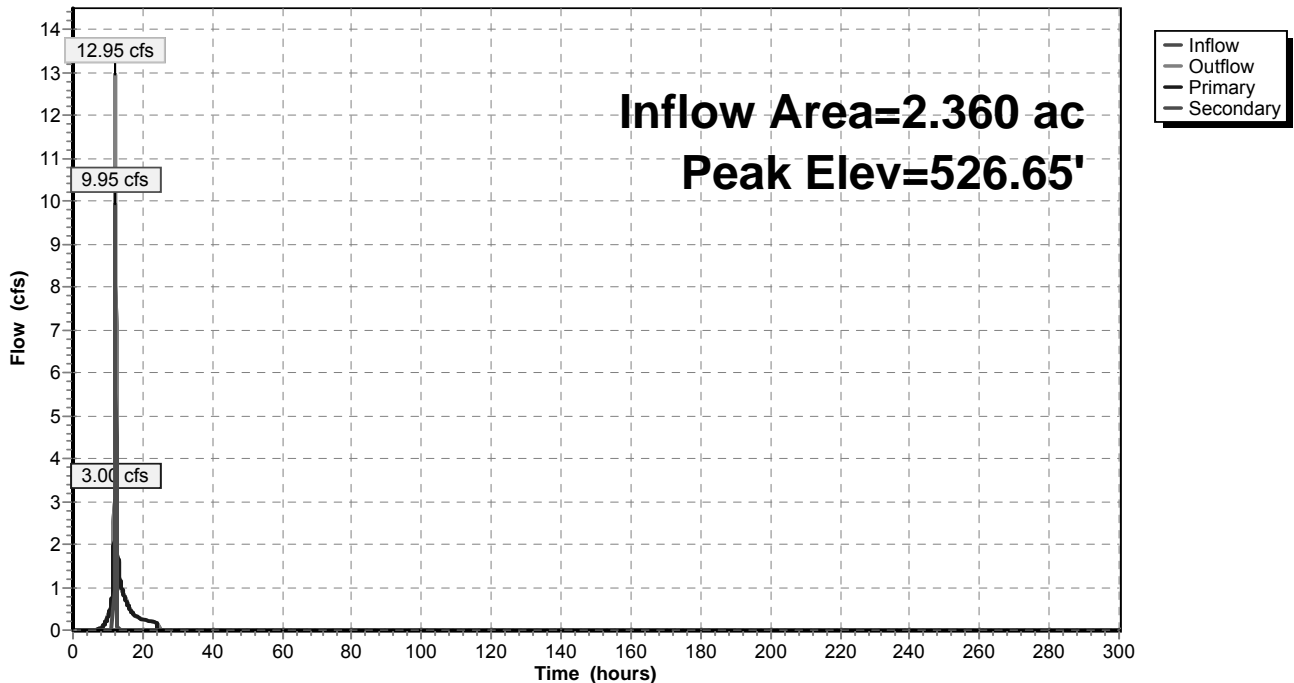
Device	Routing	Invert	Outlet Devices
#1	Primary	523.12'	8.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 523.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	524.53'	18.0" Round Outlet to Dry Basin L= 57.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 517.50' S= 0.1233 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=2.99 cfs @ 12.15 hrs HW=526.62' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.99 cfs @ 8.57 fps)

Secondary OutFlow Max=9.86 cfs @ 12.15 hrs HW=526.62' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 9.86 cfs @ 5.58 fps)

Pond FS G1: Flow Splitter G1

Hydrograph



Stage-Area-Storage for Pond FS G1: Flow Splitter G1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.12	0	523.65	0	524.18	0
523.13	0	523.66	0	524.19	0
523.14	0	523.67	0	524.20	0
523.15	0	523.68	0	524.21	0
523.16	0	523.69	0	524.22	0
523.17	0	523.70	0	524.23	0
523.18	0	523.71	0	524.24	0
523.19	0	523.72	0	524.25	0
523.20	0	523.73	0	524.26	0
523.21	0	523.74	0	524.27	0
523.22	0	523.75	0	524.28	0
523.23	0	523.76	0	524.29	0
523.24	0	523.77	0	524.30	0
523.25	0	523.78	0	524.31	0
523.26	0	523.79	0	524.32	0
523.27	0	523.80	0	524.33	0
523.28	0	523.81	0	524.34	0
523.29	0	523.82	0	524.35	0
523.30	0	523.83	0	524.36	0
523.31	0	523.84	0	524.37	0
523.32	0	523.85	0	524.38	0
523.33	0	523.86	0	524.39	0
523.34	0	523.87	0	524.40	0
523.35	0	523.88	0	524.41	0
523.36	0	523.89	0	524.42	0
523.37	0	523.90	0	524.43	0
523.38	0	523.91	0	524.44	0
523.39	0	523.92	0	524.45	0
523.40	0	523.93	0	524.46	0
523.41	0	523.94	0	524.47	0
523.42	0	523.95	0	524.48	0
523.43	0	523.96	0	524.49	0
523.44	0	523.97	0	524.50	0
523.45	0	523.98	0	524.51	0
523.46	0	523.99	0	524.52	0
523.47	0	524.00	0	524.53	0
523.48	0	524.01	0	524.54	0
523.49	0	524.02	0	524.55	0
523.50	0	524.03	0	524.56	0
523.51	0	524.04	0	524.57	0
523.52	0	524.05	0	524.58	0
523.53	0	524.06	0	524.59	0
523.54	0	524.07	0	524.60	0
523.55	0	524.08	0	524.61	0
523.56	0	524.09	0	524.62	0
523.57	0	524.10	0	524.63	0
523.58	0	524.11	0	524.64	0
523.59	0	524.12	0	524.65	0
523.60	0	524.13	0	524.66	0
523.61	0	524.14	0	524.67	0
523.62	0	524.15	0	524.68	0
523.63	0	524.16	0	524.69	0
523.64	0	524.17	0	524.70	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
524.71	0	525.24	0	525.77	0
524.72	0	525.25	0	525.78	0
524.73	0	525.26	0	525.79	0
524.74	0	525.27	0	525.80	0
524.75	0	525.28	0	525.81	0
524.76	0	525.29	0	525.82	0
524.77	0	525.30	0	525.83	0
524.78	0	525.31	0	525.84	0
524.79	0	525.32	0	525.85	0
524.80	0	525.33	0	525.86	0
524.81	0	525.34	0	525.87	0
524.82	0	525.35	0	525.88	0
524.83	0	525.36	0	525.89	0
524.84	0	525.37	0	525.90	0
524.85	0	525.38	0	525.91	0
524.86	0	525.39	0	525.92	0
524.87	0	525.40	0	525.93	0
524.88	0	525.41	0	525.94	0
524.89	0	525.42	0	525.95	0
524.90	0	525.43	0	525.96	0
524.91	0	525.44	0	525.97	0
524.92	0	525.45	0	525.98	0
524.93	0	525.46	0	525.99	0
524.94	0	525.47	0	526.00	0
524.95	0	525.48	0	526.01	0
524.96	0	525.49	0	526.02	0
524.97	0	525.50	0	526.03	0
524.98	0	525.51	0	526.04	0
524.99	0	525.52	0	526.05	0
525.00	0	525.53	0	526.06	0
525.01	0	525.54	0	526.07	0
525.02	0	525.55	0	526.08	0
525.03	0	525.56	0	526.09	0
525.04	0	525.57	0	526.10	0
525.05	0	525.58	0	526.11	0
525.06	0	525.59	0	526.12	0
525.07	0	525.60	0	526.13	0
525.08	0	525.61	0	526.14	0
525.09	0	525.62	0	526.15	0
525.10	0	525.63	0	526.16	0
525.11	0	525.64	0	526.17	0
525.12	0	525.65	0	526.18	0
525.13	0	525.66	0	526.19	0
525.14	0	525.67	0	526.20	0
525.15	0	525.68	0	526.21	0
525.16	0	525.69	0	526.22	0
525.17	0	525.70	0	526.23	0
525.18	0	525.71	0	526.24	0
525.19	0	525.72	0	526.25	0
525.20	0	525.73	0	526.26	0
525.21	0	525.74	0	526.27	0
525.22	0	525.75	0	526.28	0
525.23	0	525.76	0	526.29	0

Stage-Area-Storage for Pond FS G1: Flow Splitter G1 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
526.30	0	526.83	0	527.36	0
526.31	0	526.84	0	527.37	0
526.32	0	526.85	0	527.38	0
526.33	0	526.86	0	527.39	0
526.34	0	526.87	0	527.40	0
526.35	0	526.88	0	527.41	0
526.36	0	526.89	0	527.42	0
526.37	0	526.90	0	527.43	0
526.38	0	526.91	0	527.44	0
526.39	0	526.92	0	527.45	0
526.40	0	526.93	0	527.46	0
526.41	0	526.94	0	527.47	0
526.42	0	526.95	0	527.48	0
526.43	0	526.96	0	527.49	0
526.44	0	526.97	0	527.50	0
526.45	0	526.98	0		
526.46	0	526.99	0		
526.47	0	527.00	0		
526.48	0	527.01	0		
526.49	0	527.02	0		
526.50	0	527.03	0		
526.51	0	527.04	0		
526.52	0	527.05	0		
526.53	0	527.06	0		
526.54	0	527.07	0		
526.55	0	527.08	0		
526.56	0	527.09	0		
526.57	0	527.10	0		
526.58	0	527.11	0		
526.59	0	527.12	0		
526.60	0	527.13	0		
526.61	0	527.14	0		
526.62	0	527.15	0		
526.63	0	527.16	0		
526.64	0	527.17	0		
526.65	0	527.18	0		
526.66	0	527.19	0		
526.67	0	527.20	0		
526.68	0	527.21	0		
526.69	0	527.22	0		
526.70	0	527.23	0		
526.71	0	527.24	0		
526.72	0	527.25	0		
526.73	0	527.26	0		
526.74	0	527.27	0		
526.75	0	527.28	0		
526.76	0	527.29	0		
526.77	0	527.30	0		
526.78	0	527.31	0		
526.79	0	527.32	0		
526.80	0	527.33	0		
526.81	0	527.34	0		
526.82	0	527.35	0		

Summary for Pond I-G2: Infiltration Basin-G2

Inflow Area = 6.667 ac, 23.94% Impervious, Inflow Depth = 5.71" for 100 Year - North Salem event
 Inflow = 38.25 cfs @ 12.14 hrs, Volume= 3.170 af
 Outflow = 10.93 cfs @ 12.55 hrs, Volume= 3.170 af, Atten= 71%, Lag= 24.6 min
 Discarded = 5.75 cfs @ 12.55 hrs, Volume= 3.045 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 5.18 cfs @ 12.55 hrs, Volume= 0.124 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 453.29' @ 12.55 hrs Surf.Area= 10,356 sf Storage= 44,809 cf

Plug-Flow detention time= 59.6 min calculated for 3.170 af (100% of inflow)
 Center-of-Mass det. time= 59.6 min (877.0 - 817.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	52,387 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	6,713	311.0	0	0	6,713
450.00	8,009	336.0	14,703	14,703	8,154
452.00	9,405	362.0	17,395	32,098	9,758
453.00	10,140	375.0	9,770	41,868	10,604
454.00	10,901	387.0	10,518	52,387	11,426

Device	Routing	Invert	Outlet Devices
#1	Primary	447.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 437.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	451.50'	24.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#3	Device 1	453.00'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	448.00'	24.000 in/hr Exfiltration over Surface area
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

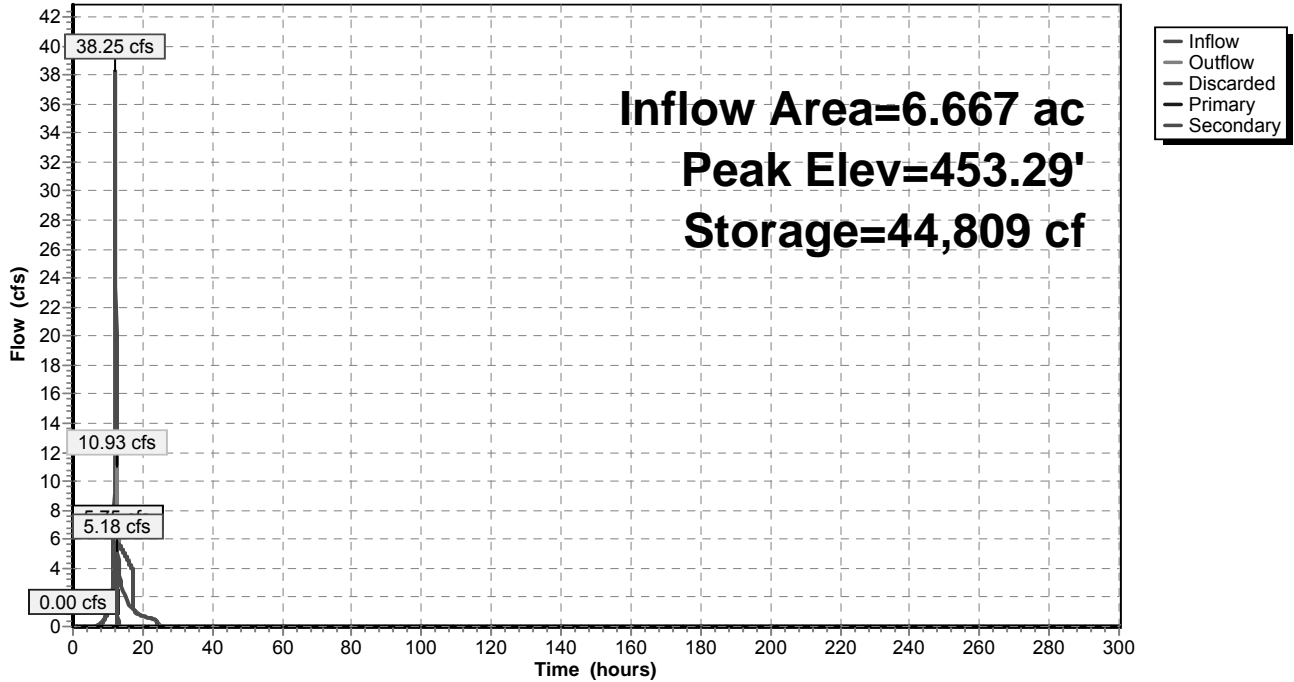
Discarded OutFlow Max=5.75 cfs @ 12.55 hrs HW=453.29' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 5.75 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=5.14 cfs @ 12.55 hrs HW=453.29' (Free Discharge)
 ↳5=Emergency Overflow (Weir Controls 5.14 cfs @ 1.81 fps)

Pond I-G2: Infiltration Basin-G2

Hydrograph



Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	6,713	0	449.06	7,386	7,469
448.02	6,725	134	449.08	7,399	7,617
448.04	6,738	269	449.10	7,412	7,765
448.06	6,750	404	449.12	7,425	7,914
448.08	6,763	539	449.14	7,438	8,062
448.10	6,775	674	449.16	7,451	8,211
448.12	6,788	810	449.18	7,464	8,360
448.14	6,800	946	449.20	7,477	8,510
448.16	6,812	1,082	449.22	7,490	8,659
448.18	6,825	1,218	449.24	7,503	8,809
448.20	6,837	1,355	449.26	7,516	8,960
448.22	6,850	1,492	449.28	7,529	9,110
448.24	6,862	1,629	449.30	7,542	9,261
448.26	6,875	1,766	449.32	7,556	9,412
448.28	6,888	1,904	449.34	7,569	9,563
448.30	6,900	2,042	449.36	7,582	9,715
448.32	6,913	2,180	449.38	7,595	9,866
448.34	6,925	2,318	449.40	7,608	10,018
448.36	6,938	2,457	449.42	7,621	10,171
448.38	6,950	2,596	449.44	7,635	10,323
448.40	6,963	2,735	449.46	7,648	10,476
448.42	6,976	2,874	449.48	7,661	10,629
448.44	6,988	3,014	449.50	7,674	10,782
448.46	7,001	3,154	449.52	7,688	10,936
448.48	7,014	3,294	449.54	7,701	11,090
448.50	7,026	3,435	449.56	7,714	11,244
448.52	7,039	3,575	449.58	7,727	11,398
448.54	7,052	3,716	449.60	7,741	11,553
448.56	7,064	3,857	449.62	7,754	11,708
448.58	7,077	3,999	449.64	7,767	11,863
448.60	7,090	4,140	449.66	7,781	12,019
448.62	7,103	4,282	449.68	7,794	12,175
448.64	7,115	4,424	449.70	7,807	12,331
448.66	7,128	4,567	449.72	7,821	12,487
448.68	7,141	4,710	449.74	7,834	12,643
448.70	7,154	4,852	449.76	7,847	12,800
448.72	7,166	4,996	449.78	7,861	12,957
448.74	7,179	5,139	449.80	7,874	13,115
448.76	7,192	5,283	449.82	7,888	13,272
448.78	7,205	5,427	449.84	7,901	13,430
448.80	7,218	5,571	449.86	7,915	13,588
448.82	7,231	5,716	449.88	7,928	13,747
448.84	7,243	5,860	449.90	7,941	13,905
448.86	7,256	6,005	449.92	7,955	14,064
448.88	7,269	6,151	449.94	7,968	14,224
448.90	7,282	6,296	449.96	7,982	14,383
448.92	7,295	6,442	449.98	7,995	14,543
448.94	7,308	6,588	450.00	8,009	14,703
448.96	7,321	6,734	450.02	8,022	14,863
448.98	7,334	6,881	450.04	8,036	15,024
449.00	7,347	7,027	450.06	8,049	15,185
449.02	7,360	7,175	450.08	8,063	15,346
449.04	7,373	7,322	450.10	8,076	15,507

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	8,090	15,669	451.18	8,819	24,628
450.14	8,103	15,831	451.20	8,833	24,804
450.16	8,117	15,993	451.22	8,847	24,981
450.18	8,130	16,155	451.24	8,861	25,158
450.20	8,144	16,318	451.26	8,875	25,335
450.22	8,157	16,481	451.28	8,890	25,513
450.24	8,171	16,644	451.30	8,904	25,691
450.26	8,184	16,808	451.32	8,918	25,869
450.28	8,198	16,972	451.34	8,932	26,048
450.30	8,211	17,136	451.36	8,946	26,227
450.32	8,225	17,300	451.38	8,960	26,406
450.34	8,238	17,465	451.40	8,974	26,585
450.36	8,252	17,630	451.42	8,989	26,765
450.38	8,266	17,795	451.44	9,003	26,944
450.40	8,279	17,960	451.46	9,017	27,125
450.42	8,293	18,126	451.48	9,031	27,305
450.44	8,307	18,292	451.50	9,045	27,486
450.46	8,320	18,458	451.52	9,060	27,667
450.48	8,334	18,625	451.54	9,074	27,848
450.50	8,347	18,792	451.56	9,088	28,030
450.52	8,361	18,959	451.58	9,103	28,212
450.54	8,375	19,126	451.60	9,117	28,394
450.56	8,389	19,294	451.62	9,131	28,577
450.58	8,402	19,462	451.64	9,145	28,759
450.60	8,416	19,630	451.66	9,160	28,942
450.62	8,430	19,798	451.68	9,174	29,126
450.64	8,444	19,967	451.70	9,188	29,309
450.66	8,457	20,136	451.72	9,203	29,493
450.68	8,471	20,305	451.74	9,217	29,677
450.70	8,485	20,475	451.76	9,232	29,862
450.72	8,499	20,645	451.78	9,246	30,047
450.74	8,512	20,815	451.80	9,260	30,232
450.76	8,526	20,985	451.82	9,275	30,417
450.78	8,540	21,156	451.84	9,289	30,603
450.80	8,554	21,327	451.86	9,304	30,789
450.82	8,568	21,498	451.88	9,318	30,975
450.84	8,582	21,670	451.90	9,333	31,161
450.86	8,596	21,841	451.92	9,347	31,348
450.88	8,609	22,013	451.94	9,361	31,535
450.90	8,623	22,186	451.96	9,376	31,723
450.92	8,637	22,358	451.98	9,390	31,910
450.94	8,651	22,531	452.00	9,405	32,098
450.96	8,665	22,704	452.02	9,419	32,287
450.98	8,679	22,878	452.04	9,434	32,475
451.00	8,693	23,052	452.06	9,448	32,664
451.02	8,707	23,226	452.08	9,463	32,853
451.04	8,721	23,400	452.10	9,477	33,042
451.06	8,735	23,574	452.12	9,492	33,232
451.08	8,749	23,749	452.14	9,506	33,422
451.10	8,763	23,924	452.16	9,521	33,612
451.12	8,777	24,100	452.18	9,535	33,803
451.14	8,791	24,275	452.20	9,550	33,994
451.16	8,805	24,451	452.22	9,564	34,185

Stage-Area-Storage for Pond I-G2: Infiltration Basin-G2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	9,579	34,376	453.30	10,365	44,944
452.26	9,593	34,568	453.32	10,381	45,152
452.28	9,608	34,760	453.34	10,396	45,359
452.30	9,623	34,952	453.36	10,411	45,567
452.32	9,637	35,145	453.38	10,426	45,776
452.34	9,652	35,338	453.40	10,441	45,985
452.36	9,666	35,531	453.42	10,456	46,194
452.38	9,681	35,724	453.44	10,471	46,403
452.40	9,696	35,918	453.46	10,487	46,612
452.42	9,710	36,112	453.48	10,502	46,822
452.44	9,725	36,307	453.50	10,517	47,032
452.46	9,740	36,501	453.52	10,532	47,243
452.48	9,754	36,696	453.54	10,548	47,454
452.50	9,769	36,891	453.56	10,563	47,665
452.52	9,784	37,087	453.58	10,578	47,876
452.54	9,798	37,283	453.60	10,593	48,088
452.56	9,813	37,479	453.62	10,609	48,300
452.58	9,828	37,675	453.64	10,624	48,512
452.60	9,843	37,872	453.66	10,639	48,725
452.62	9,857	38,069	453.68	10,654	48,938
452.64	9,872	38,266	453.70	10,670	49,151
452.66	9,887	38,464	453.72	10,685	49,365
452.68	9,902	38,662	453.74	10,700	49,579
452.70	9,917	38,860	453.76	10,716	49,793
452.72	9,931	39,059	453.78	10,731	50,007
452.74	9,946	39,257	453.80	10,747	50,222
452.76	9,961	39,456	453.82	10,762	50,437
452.78	9,976	39,656	453.84	10,777	50,652
452.80	9,991	39,855	453.86	10,793	50,868
452.82	10,006	40,055	453.88	10,808	51,084
452.84	10,021	40,256	453.90	10,824	51,300
452.86	10,035	40,456	453.92	10,839	51,517
452.88	10,050	40,657	453.94	10,855	51,734
452.90	10,065	40,858	453.96	10,870	51,951
452.92	10,080	41,060	453.98	10,886	52,169
452.94	10,095	41,261	454.00	10,901	52,387
452.96	10,110	41,463			
452.98	10,125	41,666			
453.00	10,140	41,868			
453.02	10,155	42,071			
453.04	10,170	42,275			
453.06	10,185	42,478			
453.08	10,200	42,682			
453.10	10,215	42,886			
453.12	10,230	43,091			
453.14	10,245	43,295			
453.16	10,260	43,500			
453.18	10,275	43,706			
453.20	10,290	43,911			
453.22	10,305	44,117			
453.24	10,320	44,324			
453.26	10,335	44,530			
453.28	10,350	44,737			

Summary for Pond I-G3a: Infiltration Basin-G3a

Inflow Area = 3.341 ac, 35.74% Impervious, Inflow Depth = 6.32" for 100 Year - North Salem event
 Inflow = 18.38 cfs @ 12.21 hrs, Volume= 1.760 af
 Outflow = 9.63 cfs @ 12.48 hrs, Volume= 1.760 af, Atten= 48%, Lag= 16.5 min
 Discarded = 1.80 cfs @ 12.48 hrs, Volume= 1.441 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 7.84 cfs @ 12.48 hrs, Volume= 0.319 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 403.38' @ 12.48 hrs Surf.Area= 9,959 sf Storage= 24,314 cf

Plug-Flow detention time= 114.7 min calculated for 1.760 af (100% of inflow)
 Center-of-Mass det. time= 114.7 min (926.1 - 811.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	400.00'	31,667 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
400.00	6,017	310.0	0	0	6,017
402.00	7,306	335.0	13,302	13,302	7,453
403.00	7,987	347.0	7,644	20,946	8,188
404.00	13,710	508.0	10,720	31,667	19,151

Device	Routing	Invert	Outlet Devices
#1	Primary	399.00'	18.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 389.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	402.42'	24.0" W x 7.0" H Vert. Orifice #1 X 3.00 C= 0.600
#3	Device 1	402.85'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	400.00'	7.800 in/hr Exfiltration over Surface area
#5	Secondary	403.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Discarded OutFlow Max=1.80 cfs @ 12.48 hrs HW=403.37' (Free Discharge)

↳ **4=Exfiltration** (Exfiltration Controls 1.80 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=400.00' (Free Discharge)

↳ **1=Outlet Pipe** (Controls 0.00 cfs)

↳ **2=Orifice #1** (Controls 0.00 cfs)

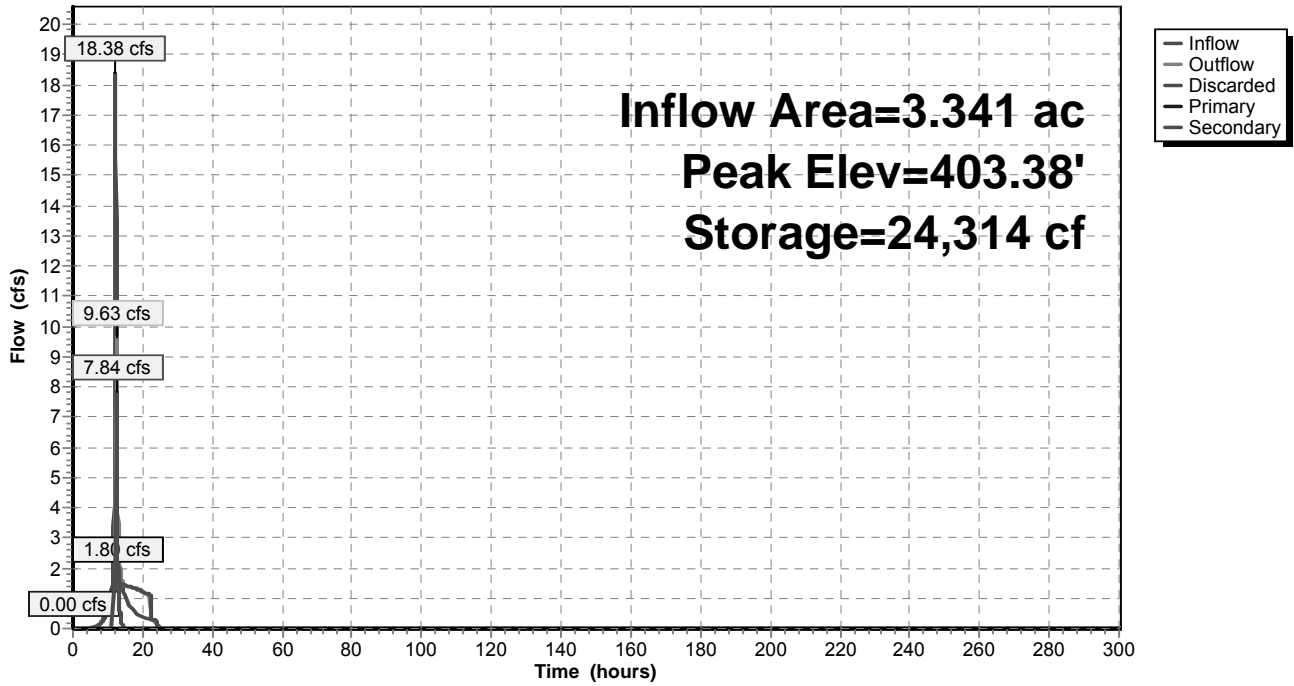
↳ **3=Top of Outlet Box** (Controls 0.00 cfs)

Secondary OutFlow Max=7.75 cfs @ 12.48 hrs HW=403.37' (Free Discharge)

↳ **5=Emergency Overflow** (Weir Controls 7.75 cfs @ 2.09 fps)

Pond I-G3a: Infiltration Basin-G3a

Hydrograph



Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
400.00	6,017	0	400.53	6,346	3,276
400.01	6,023	60	400.54	6,353	3,339
400.02	6,029	120	400.55	6,359	3,403
400.03	6,035	181	400.56	6,365	3,467
400.04	6,042	241	400.57	6,372	3,530
400.05	6,048	302	400.58	6,378	3,594
400.06	6,054	362	400.59	6,384	3,658
400.07	6,060	423	400.60	6,391	3,722
400.08	6,066	483	400.61	6,397	3,786
400.09	6,072	544	400.62	6,403	3,850
400.10	6,078	605	400.63	6,410	3,914
400.11	6,085	666	400.64	6,416	3,978
400.12	6,091	726	400.65	6,422	4,042
400.13	6,097	787	400.66	6,429	4,106
400.14	6,103	848	400.67	6,435	4,171
400.15	6,109	909	400.68	6,441	4,235
400.16	6,116	971	400.69	6,448	4,299
400.17	6,122	1,032	400.70	6,454	4,364
400.18	6,128	1,093	400.71	6,460	4,429
400.19	6,134	1,154	400.72	6,467	4,493
400.20	6,140	1,216	400.73	6,473	4,558
400.21	6,146	1,277	400.74	6,479	4,623
400.22	6,153	1,339	400.75	6,486	4,687
400.23	6,159	1,400	400.76	6,492	4,752
400.24	6,165	1,462	400.77	6,498	4,817
400.25	6,171	1,523	400.78	6,505	4,882
400.26	6,178	1,585	400.79	6,511	4,947
400.27	6,184	1,647	400.80	6,518	5,013
400.28	6,190	1,709	400.81	6,524	5,078
400.29	6,196	1,771	400.82	6,530	5,143
400.30	6,202	1,833	400.83	6,537	5,208
400.31	6,209	1,895	400.84	6,543	5,274
400.32	6,215	1,957	400.85	6,550	5,339
400.33	6,221	2,019	400.86	6,556	5,405
400.34	6,227	2,081	400.87	6,562	5,470
400.35	6,234	2,144	400.88	6,569	5,536
400.36	6,240	2,206	400.89	6,575	5,602
400.37	6,246	2,269	400.90	6,582	5,667
400.38	6,252	2,331	400.91	6,588	5,733
400.39	6,259	2,394	400.92	6,594	5,799
400.40	6,265	2,456	400.93	6,601	5,865
400.41	6,271	2,519	400.94	6,607	5,931
400.42	6,277	2,582	400.95	6,614	5,997
400.43	6,284	2,644	400.96	6,620	6,064
400.44	6,290	2,707	400.97	6,627	6,130
400.45	6,296	2,770	400.98	6,633	6,196
400.46	6,302	2,833	400.99	6,639	6,262
400.47	6,309	2,896	401.00	6,646	6,329
400.48	6,315	2,959	401.01	6,652	6,395
400.49	6,321	3,023	401.02	6,659	6,462
400.50	6,328	3,086	401.03	6,665	6,528
400.51	6,334	3,149	401.04	6,672	6,595
400.52	6,340	3,212	401.05	6,678	6,662

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
401.06	6,685	6,729	401.59	7,032	10,363
401.07	6,691	6,796	401.60	7,038	10,433
401.08	6,698	6,863	401.61	7,045	10,504
401.09	6,704	6,930	401.62	7,051	10,574
401.10	6,710	6,997	401.63	7,058	10,645
401.11	6,717	7,064	401.64	7,065	10,716
401.12	6,723	7,131	401.65	7,071	10,786
401.13	6,730	7,198	401.66	7,078	10,857
401.14	6,736	7,266	401.67	7,085	10,928
401.15	6,743	7,333	401.68	7,091	10,999
401.16	6,749	7,400	401.69	7,098	11,070
401.17	6,756	7,468	401.70	7,105	11,141
401.18	6,762	7,536	401.71	7,111	11,212
401.19	6,769	7,603	401.72	7,118	11,283
401.20	6,775	7,671	401.73	7,125	11,354
401.21	6,782	7,739	401.74	7,131	11,425
401.22	6,788	7,807	401.75	7,138	11,497
401.23	6,795	7,874	401.76	7,145	11,568
401.24	6,801	7,942	401.77	7,151	11,640
401.25	6,808	8,011	401.78	7,158	11,711
401.26	6,815	8,079	401.79	7,165	11,783
401.27	6,821	8,147	401.80	7,171	11,854
401.28	6,828	8,215	401.81	7,178	11,926
401.29	6,834	8,283	401.82	7,185	11,998
401.30	6,841	8,352	401.83	7,192	12,070
401.31	6,847	8,420	401.84	7,198	12,142
401.32	6,854	8,489	401.85	7,205	12,214
401.33	6,860	8,557	401.86	7,212	12,286
401.34	6,867	8,626	401.87	7,218	12,358
401.35	6,873	8,695	401.88	7,225	12,430
401.36	6,880	8,763	401.89	7,232	12,503
401.37	6,886	8,832	401.90	7,239	12,575
401.38	6,893	8,901	401.91	7,245	12,647
401.39	6,900	8,970	401.92	7,252	12,720
401.40	6,906	9,039	401.93	7,259	12,792
401.41	6,913	9,108	401.94	7,266	12,865
401.42	6,919	9,177	401.95	7,272	12,938
401.43	6,926	9,247	401.96	7,279	13,010
401.44	6,932	9,316	401.97	7,286	13,083
401.45	6,939	9,385	401.98	7,292	13,156
401.46	6,946	9,455	401.99	7,299	13,229
401.47	6,952	9,524	402.00	7,306	13,302
401.48	6,959	9,594	402.01	7,313	13,375
401.49	6,965	9,663	402.02	7,319	13,448
401.50	6,972	9,733	402.03	7,326	13,522
401.51	6,979	9,803	402.04	7,333	13,595
401.52	6,985	9,873	402.05	7,339	13,668
401.53	6,992	9,942	402.06	7,346	13,742
401.54	6,998	10,012	402.07	7,353	13,815
401.55	7,005	10,082	402.08	7,359	13,889
401.56	7,012	10,152	402.09	7,366	13,962
401.57	7,018	10,223	402.10	7,373	14,036
401.58	7,025	10,293	402.11	7,379	14,110

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
402.12	7,386	14,184	402.65	7,745	18,193
402.13	7,393	14,258	402.66	7,752	18,271
402.14	7,400	14,332	402.67	7,759	18,348
402.15	7,406	14,406	402.68	7,766	18,426
402.16	7,413	14,480	402.69	7,773	18,503
402.17	7,420	14,554	402.70	7,780	18,581
402.18	7,426	14,628	402.71	7,786	18,659
402.19	7,433	14,702	402.72	7,793	18,737
402.20	7,440	14,777	402.73	7,800	18,815
402.21	7,446	14,851	402.74	7,807	18,893
402.22	7,453	14,926	402.75	7,814	18,971
402.23	7,460	15,000	402.76	7,821	19,049
402.24	7,467	15,075	402.77	7,828	19,127
402.25	7,473	15,150	402.78	7,835	19,206
402.26	7,480	15,224	402.79	7,841	19,284
402.27	7,487	15,299	402.80	7,848	19,363
402.28	7,494	15,374	402.81	7,855	19,441
402.29	7,500	15,449	402.82	7,862	19,520
402.30	7,507	15,524	402.83	7,869	19,598
402.31	7,514	15,599	402.84	7,876	19,677
402.32	7,521	15,674	402.85	7,883	19,756
402.33	7,527	15,750	402.86	7,890	19,835
402.34	7,534	15,825	402.87	7,897	19,914
402.35	7,541	15,900	402.88	7,904	19,993
402.36	7,548	15,976	402.89	7,911	20,072
402.37	7,554	16,051	402.90	7,918	20,151
402.38	7,561	16,127	402.91	7,924	20,230
402.39	7,568	16,202	402.92	7,931	20,309
402.40	7,575	16,278	402.93	7,938	20,389
402.41	7,582	16,354	402.94	7,945	20,468
402.42	7,588	16,430	402.95	7,952	20,548
402.43	7,595	16,506	402.96	7,959	20,627
402.44	7,602	16,582	402.97	7,966	20,707
402.45	7,609	16,658	402.98	7,973	20,787
402.46	7,615	16,734	402.99	7,980	20,866
402.47	7,622	16,810	403.00	7,987	20,946
402.48	7,629	16,886	403.01	8,037	21,026
402.49	7,636	16,963	403.02	8,086	21,107
402.50	7,643	17,039	403.03	8,136	21,188
402.51	7,650	17,115	403.04	8,186	21,270
402.52	7,656	17,192	403.05	8,237	21,352
402.53	7,663	17,269	403.06	8,287	21,434
402.54	7,670	17,345	403.07	8,338	21,517
402.55	7,677	17,422	403.08	8,388	21,601
402.56	7,684	17,499	403.09	8,439	21,685
402.57	7,690	17,576	403.10	8,490	21,770
402.58	7,697	17,653	403.11	8,541	21,855
402.59	7,704	17,730	403.12	8,593	21,941
402.60	7,711	17,807	403.13	8,644	22,027
402.61	7,718	17,884	403.14	8,696	22,114
402.62	7,725	17,961	403.15	8,747	22,201
402.63	7,731	18,038	403.16	8,799	22,289
402.64	7,738	18,116	403.17	8,851	22,377

Stage-Area-Storage for Pond I-G3a: Infiltration Basin-G3a (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
403.18	8,904	22,466	403.71	11,892	27,957
403.19	8,956	22,555	403.72	11,953	28,077
403.20	9,009	22,645	403.73	12,013	28,196
403.21	9,061	22,735	403.74	12,074	28,317
403.22	9,114	22,826	403.75	12,135	28,438
403.23	9,167	22,917	403.76	12,196	28,560
403.24	9,220	23,009	403.77	12,258	28,682
403.25	9,274	23,102	403.78	12,319	28,805
403.26	9,327	23,195	403.79	12,381	28,928
403.27	9,381	23,288	403.80	12,442	29,052
403.28	9,435	23,382	403.81	12,504	29,177
403.29	9,488	23,477	403.82	12,566	29,302
403.30	9,543	23,572	403.83	12,629	29,428
403.31	9,597	23,668	403.84	12,691	29,555
403.32	9,651	23,764	403.85	12,754	29,682
403.33	9,706	23,861	403.86	12,816	29,810
403.34	9,760	23,958	403.87	12,879	29,939
403.35	9,815	24,056	403.88	12,942	30,068
403.36	9,870	24,154	403.89	13,005	30,197
403.37	9,925	24,253	403.90	13,069	30,328
403.38	9,981	24,353	403.91	13,132	30,459
403.39	10,036	24,453	403.92	13,196	30,590
403.40	10,092	24,554	403.93	13,259	30,723
403.41	10,148	24,655	403.94	13,323	30,856
403.42	10,203	24,757	403.95	13,387	30,989
403.43	10,260	24,859	403.96	13,452	31,123
403.44	10,316	24,962	403.97	13,516	31,258
403.45	10,372	25,065	403.98	13,580	31,394
403.46	10,429	25,169	403.99	13,645	31,530
403.47	10,485	25,274	404.00	13,710	31,667
403.48	10,542	25,379			
403.49	10,599	25,485			
403.50	10,656	25,591			
403.51	10,714	25,698			
403.52	10,771	25,805			
403.53	10,829	25,913			
403.54	10,887	26,022			
403.55	10,944	26,131			
403.56	11,003	26,241			
403.57	11,061	26,351			
403.58	11,119	26,462			
403.59	11,178	26,573			
403.60	11,236	26,685			
403.61	11,295	26,798			
403.62	11,354	26,911			
403.63	11,413	27,025			
403.64	11,473	27,140			
403.65	11,532	27,255			
403.66	11,592	27,370			
403.67	11,652	27,487			
403.68	11,711	27,603			
403.69	11,772	27,721			
403.70	11,832	27,839			

Summary for Pond I-G3b: Infiltration Basin-G3b

Inflow Area = 3.720 ac, 22.04% Impervious, Inflow Depth = 4.96" for 100 Year - North Salem event
 Inflow = 17.63 cfs @ 12.17 hrs, Volume= 1.539 af
 Outflow = 9.69 cfs @ 12.41 hrs, Volume= 1.539 af, Atten= 45%, Lag= 14.6 min
 Discarded = 1.60 cfs @ 12.41 hrs, Volume= 1.253 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 8.09 cfs @ 12.41 hrs, Volume= 0.286 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 443.38' @ 12.41 hrs Surf.Area= 6,797 sf Storage= 19,333 cf

Plug-Flow detention time= 88.8 min calculated for 1.539 af (100% of inflow)
 Center-of-Mass det. time= 88.8 min (920.2 - 831.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	440.00'	23,649 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
440.00	4,681	292.0	0	0	4,681
442.00	5,898	317.0	10,556	10,556	6,037
443.00	6,543	330.0	6,218	16,773	6,780
444.00	7,214	342.0	6,876	23,649	7,505

Device	Routing	Invert	Outlet Devices
#1	Primary	439.00'	15.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 429.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	442.08'	18.0" W x 11.0" H Vert. Orifice #1 X 2.00 C= 0.600
#3	Device 1	442.96'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Discarded	440.00'	10.170 in/hr Exfiltration over Surface area
#5	Secondary	443.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

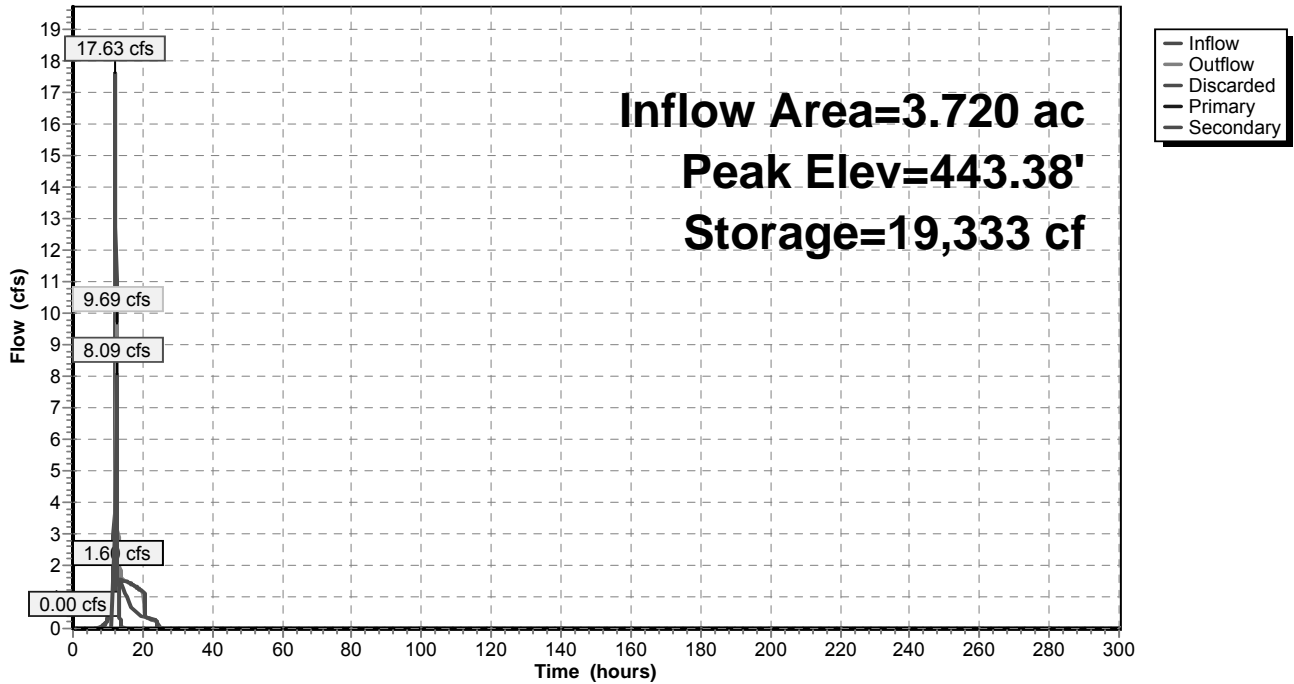
Discarded OutFlow Max=1.60 cfs @ 12.41 hrs HW=443.38' (Free Discharge)
 ↳4=Exfiltration (Exfiltration Controls 1.60 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=440.00' (Free Discharge)
 ↳1=Outlet Pipe (Controls 0.00 cfs)
 ↳2=Orifice #1 (Controls 0.00 cfs)
 ↳3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=7.94 cfs @ 12.41 hrs HW=443.38' (Free Discharge)
 ↳5=Emergency Overflow (Weir Controls 7.94 cfs @ 2.11 fps)

Pond I-G3b: Infiltration Basin-G3b

Hydrograph



Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
440.00	4,681	0	440.53	4,990	2,562
440.01	4,687	47	440.54	4,996	2,612
440.02	4,692	94	440.55	5,002	2,662
440.03	4,698	141	440.56	5,008	2,712
440.04	4,704	188	440.57	5,014	2,762
440.05	4,710	235	440.58	5,019	2,813
440.06	4,715	282	440.59	5,025	2,863
440.07	4,721	329	440.60	5,031	2,913
440.08	4,727	376	440.61	5,037	2,963
440.09	4,733	424	440.62	5,043	3,014
440.10	4,739	471	440.63	5,049	3,064
440.11	4,744	518	440.64	5,055	3,115
440.12	4,750	566	440.65	5,061	3,165
440.13	4,756	613	440.66	5,067	3,216
440.14	4,762	661	440.67	5,073	3,267
440.15	4,767	709	440.68	5,079	3,317
440.16	4,773	756	440.69	5,085	3,368
440.17	4,779	804	440.70	5,091	3,419
440.18	4,785	852	440.71	5,097	3,470
440.19	4,791	900	440.72	5,103	3,521
440.20	4,796	948	440.73	5,109	3,572
440.21	4,802	996	440.74	5,115	3,623
440.22	4,808	1,044	440.75	5,121	3,674
440.23	4,814	1,092	440.76	5,127	3,726
440.24	4,820	1,140	440.77	5,133	3,777
440.25	4,825	1,188	440.78	5,139	3,828
440.26	4,831	1,237	440.79	5,145	3,880
440.27	4,837	1,285	440.80	5,151	3,931
440.28	4,843	1,333	440.81	5,157	3,983
440.29	4,849	1,382	440.82	5,163	4,034
440.30	4,855	1,430	440.83	5,169	4,086
440.31	4,860	1,479	440.84	5,175	4,138
440.32	4,866	1,527	440.85	5,181	4,190
440.33	4,872	1,576	440.86	5,187	4,241
440.34	4,878	1,625	440.87	5,193	4,293
440.35	4,884	1,674	440.88	5,199	4,345
440.36	4,890	1,723	440.89	5,205	4,397
440.37	4,896	1,772	440.90	5,211	4,449
440.38	4,901	1,820	440.91	5,217	4,502
440.39	4,907	1,870	440.92	5,223	4,554
440.40	4,913	1,919	440.93	5,229	4,606
440.41	4,919	1,968	440.94	5,235	4,658
440.42	4,925	2,017	440.95	5,242	4,711
440.43	4,931	2,066	440.96	5,248	4,763
440.44	4,937	2,116	440.97	5,254	4,816
440.45	4,943	2,165	440.98	5,260	4,868
440.46	4,948	2,214	440.99	5,266	4,921
440.47	4,954	2,264	441.00	5,272	4,974
440.48	4,960	2,314	441.01	5,278	5,026
440.49	4,966	2,363	441.02	5,284	5,079
440.50	4,972	2,413	441.03	5,290	5,132
440.51	4,978	2,463	441.04	5,296	5,185
440.52	4,984	2,512	441.05	5,302	5,238

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
441.06	5,309	5,291	441.59	5,637	8,191
441.07	5,315	5,344	441.60	5,643	8,248
441.08	5,321	5,397	441.61	5,650	8,304
441.09	5,327	5,450	441.62	5,656	8,360
441.10	5,333	5,504	441.63	5,662	8,417
441.11	5,339	5,557	441.64	5,669	8,474
441.12	5,345	5,611	441.65	5,675	8,530
441.13	5,351	5,664	441.66	5,681	8,587
441.14	5,357	5,718	441.67	5,688	8,644
441.15	5,364	5,771	441.68	5,694	8,701
441.16	5,370	5,825	441.69	5,700	8,758
441.17	5,376	5,879	441.70	5,706	8,815
441.18	5,382	5,932	441.71	5,713	8,872
441.19	5,388	5,986	441.72	5,719	8,929
441.20	5,394	6,040	441.73	5,726	8,986
441.21	5,401	6,094	441.74	5,732	9,044
441.22	5,407	6,148	441.75	5,738	9,101
441.23	5,413	6,202	441.76	5,745	9,159
441.24	5,419	6,256	441.77	5,751	9,216
441.25	5,425	6,311	441.78	5,757	9,274
441.26	5,431	6,365	441.79	5,764	9,331
441.27	5,438	6,419	441.80	5,770	9,389
441.28	5,444	6,474	441.81	5,776	9,447
441.29	5,450	6,528	441.82	5,783	9,504
441.30	5,456	6,583	441.83	5,789	9,562
441.31	5,462	6,637	441.84	5,795	9,620
441.32	5,468	6,692	441.85	5,802	9,678
441.33	5,475	6,747	441.86	5,808	9,736
441.34	5,481	6,801	441.87	5,815	9,794
441.35	5,487	6,856	441.88	5,821	9,852
441.36	5,493	6,911	441.89	5,827	9,911
441.37	5,499	6,966	441.90	5,834	9,969
441.38	5,506	7,021	441.91	5,840	10,027
441.39	5,512	7,076	441.92	5,847	10,086
441.40	5,518	7,131	441.93	5,853	10,144
441.41	5,524	7,187	441.94	5,859	10,203
441.42	5,531	7,242	441.95	5,866	10,261
441.43	5,537	7,297	441.96	5,872	10,320
441.44	5,543	7,353	441.97	5,879	10,379
441.45	5,549	7,408	441.98	5,885	10,438
441.46	5,556	7,464	441.99	5,892	10,497
441.47	5,562	7,519	442.00	5,898	10,556
441.48	5,568	7,575	442.01	5,904	10,615
441.49	5,574	7,631	442.02	5,911	10,674
441.50	5,581	7,686	442.03	5,917	10,733
441.51	5,587	7,742	442.04	5,923	10,792
441.52	5,593	7,798	442.05	5,929	10,851
441.53	5,599	7,854	442.06	5,936	10,911
441.54	5,606	7,910	442.07	5,942	10,970
441.55	5,612	7,966	442.08	5,948	11,029
441.56	5,618	8,022	442.09	5,955	11,089
441.57	5,624	8,078	442.10	5,961	11,149
441.58	5,631	8,135	442.11	5,967	11,208

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
442.12	5,974	11,268	442.65	6,313	14,524
442.13	5,980	11,328	442.66	6,320	14,587
442.14	5,986	11,387	442.67	6,326	14,650
442.15	5,993	11,447	442.68	6,333	14,713
442.16	5,999	11,507	442.69	6,339	14,777
442.17	6,005	11,567	442.70	6,346	14,840
442.18	6,012	11,627	442.71	6,353	14,904
442.19	6,018	11,688	442.72	6,359	14,967
442.20	6,024	11,748	442.73	6,366	15,031
442.21	6,031	11,808	442.74	6,372	15,094
442.22	6,037	11,868	442.75	6,379	15,158
442.23	6,043	11,929	442.76	6,385	15,222
442.24	6,050	11,989	442.77	6,392	15,286
442.25	6,056	12,050	442.78	6,398	15,350
442.26	6,062	12,110	442.79	6,405	15,414
442.27	6,069	12,171	442.80	6,411	15,478
442.28	6,075	12,232	442.81	6,418	15,542
442.29	6,082	12,293	442.82	6,424	15,606
442.30	6,088	12,353	442.83	6,431	15,671
442.31	6,094	12,414	442.84	6,438	15,735
442.32	6,101	12,475	442.85	6,444	15,799
442.33	6,107	12,536	442.86	6,451	15,864
442.34	6,114	12,597	442.87	6,457	15,928
442.35	6,120	12,659	442.88	6,464	15,993
442.36	6,126	12,720	442.89	6,470	16,058
442.37	6,133	12,781	442.90	6,477	16,122
442.38	6,139	12,842	442.91	6,484	16,187
442.39	6,146	12,904	442.92	6,490	16,252
442.40	6,152	12,965	442.93	6,497	16,317
442.41	6,158	13,027	442.94	6,503	16,382
442.42	6,165	13,089	442.95	6,510	16,447
442.43	6,171	13,150	442.96	6,517	16,512
442.44	6,178	13,212	442.97	6,523	16,577
442.45	6,184	13,274	442.98	6,530	16,643
442.46	6,191	13,336	442.99	6,536	16,708
442.47	6,197	13,398	443.00	6,543	16,773
442.48	6,203	13,460	443.01	6,550	16,839
442.49	6,210	13,522	443.02	6,556	16,904
442.50	6,216	13,584	443.03	6,563	16,970
442.51	6,223	13,646	443.04	6,569	17,036
442.52	6,229	13,708	443.05	6,576	17,101
442.53	6,236	13,771	443.06	6,582	17,167
442.54	6,242	13,833	443.07	6,589	17,233
442.55	6,249	13,895	443.08	6,595	17,299
442.56	6,255	13,958	443.09	6,602	17,365
442.57	6,262	14,021	443.10	6,609	17,431
442.58	6,268	14,083	443.11	6,615	17,497
442.59	6,275	14,146	443.12	6,622	17,563
442.60	6,281	14,209	443.13	6,628	17,629
442.61	6,287	14,272	443.14	6,635	17,696
442.62	6,294	14,334	443.15	6,642	17,762
442.63	6,300	14,397	443.16	6,648	17,829
442.64	6,307	14,460	443.17	6,655	17,895

Stage-Area-Storage for Pond I-G3b: Infiltration Basin-G3b (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
443.18	6,661	17,962	443.71	7,016	21,586
443.19	6,668	18,028	443.72	7,023	21,656
443.20	6,675	18,095	443.73	7,030	21,726
443.21	6,681	18,162	443.74	7,036	21,797
443.22	6,688	18,229	443.75	7,043	21,867
443.23	6,694	18,296	443.76	7,050	21,937
443.24	6,701	18,363	443.77	7,057	22,008
443.25	6,708	18,430	443.78	7,064	22,079
443.26	6,714	18,497	443.79	7,070	22,149
443.27	6,721	18,564	443.80	7,077	22,220
443.28	6,728	18,631	443.81	7,084	22,291
443.29	6,734	18,698	443.82	7,091	22,362
443.30	6,741	18,766	443.83	7,098	22,433
443.31	6,748	18,833	443.84	7,104	22,504
443.32	6,754	18,901	443.85	7,111	22,575
443.33	6,761	18,968	443.86	7,118	22,646
443.34	6,767	19,036	443.87	7,125	22,717
443.35	6,774	19,104	443.88	7,132	22,788
443.36	6,781	19,171	443.89	7,139	22,860
443.37	6,787	19,239	443.90	7,145	22,931
443.38	6,794	19,307	443.91	7,152	23,003
443.39	6,801	19,375	443.92	7,159	23,074
443.40	6,807	19,443	443.93	7,166	23,146
443.41	6,814	19,511	443.94	7,173	23,217
443.42	6,821	19,580	443.95	7,180	23,289
443.43	6,828	19,648	443.96	7,187	23,361
443.44	6,834	19,716	443.97	7,193	23,433
443.45	6,841	19,784	443.98	7,200	23,505
443.46	6,848	19,853	443.99	7,207	23,577
443.47	6,854	19,921	444.00	7,214	23,649
443.48	6,861	19,990			
443.49	6,868	20,059			
443.50	6,874	20,127			
443.51	6,881	20,196			
443.52	6,888	20,265			
443.53	6,895	20,334			
443.54	6,901	20,403			
443.55	6,908	20,472			
443.56	6,915	20,541			
443.57	6,921	20,610			
443.58	6,928	20,679			
443.59	6,935	20,749			
443.60	6,942	20,818			
443.61	6,948	20,888			
443.62	6,955	20,957			
443.63	6,962	21,027			
443.64	6,969	21,096			
443.65	6,975	21,166			
443.66	6,982	21,236			
443.67	6,989	21,306			
443.68	6,996	21,376			
443.69	7,002	21,446			
443.70	7,009	21,516			

Summary for Pond SF-G1: Sand Filter - G1

[79] Warning: Submerged Pond SFF-G1 Primary device # 1 INLET by 1.15'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 3.53" for 100 Year - North Salem event
 Inflow = 2.98 cfs @ 12.17 hrs, Volume= 0.695 af
 Outflow = 1.86 cfs @ 12.81 hrs, Volume= 0.474 af, Atten= 38%, Lag= 38.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.86 cfs @ 12.81 hrs, Volume= 0.474 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 521.15' @ 12.81 hrs Surf.Area= 4,119 sf Storage= 10,210 cf

Plug-Flow detention time= 197.8 min calculated for 0.474 af (68% of inflow)
 Center-of-Mass det. time= 85.3 min (970.9 - 885.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	518.00'	13,908 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
518.00	2,523	196.0	0	0	2,523	
518.50	2,722	203.0	1,311	1,311	2,767	
519.50	3,139	215.0	2,928	4,239	3,217	
521.00	4,049	240.0	5,377	9,616	4,185	
522.00	4,541	253.0	4,293	13,908	4,751	

Device	Routing	Invert	Outlet Devices
#1	Primary	515.50'	12.0" Round Outlet Pipe X 0.00 L= 76.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 515.12' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	518.00'	1.750 in/hr Exfiltration over Surface area above 518.00' Excluded Surface area = 2,523 sf
#3	Device 1	519.50'	12.0" W x 12.0" H Vert. Orifice #1 C= 0.600
#4	Device 1	520.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	521.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

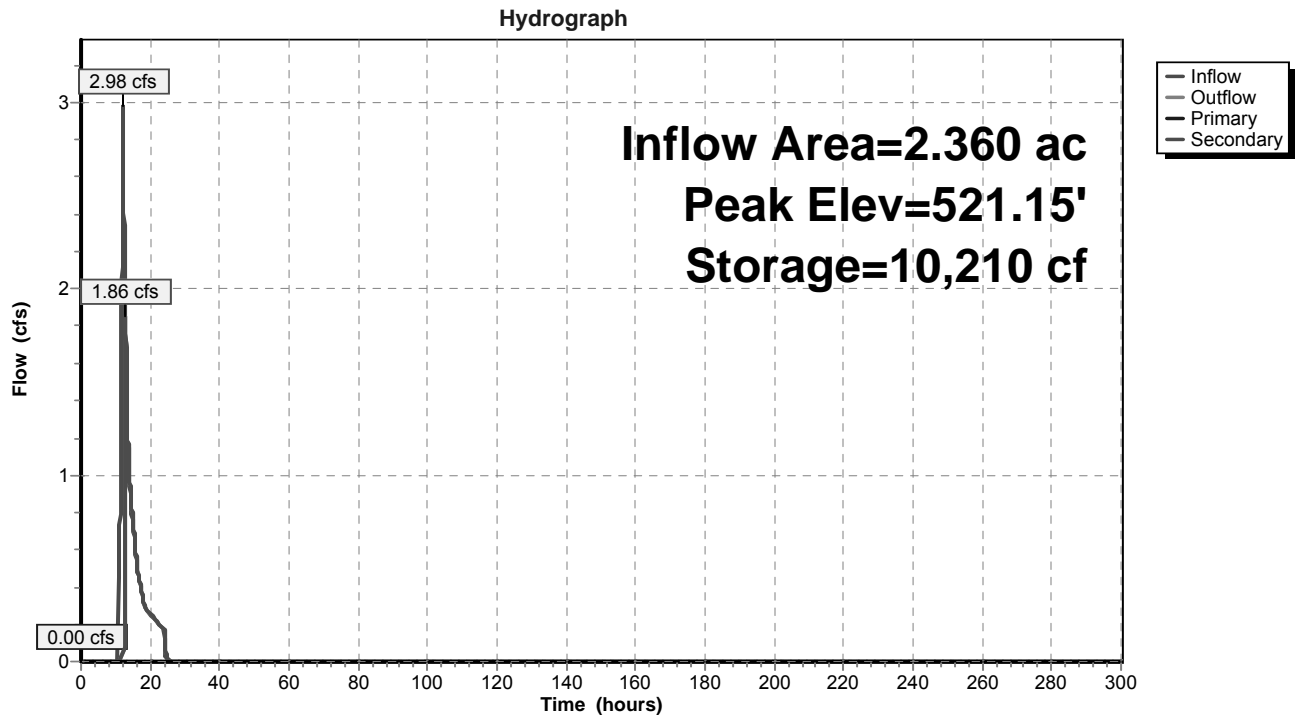
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=518.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.84 cfs @ 12.81 hrs HW=521.15' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.84 cfs @ 1.27 fps)

Pond SF-G1: Sand Filter - G1



Stage-Area-Storage for Pond SF-G1: Sand Filter - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.00	2,523	0	518.53	2,734	1,393
518.01	2,527	25	518.54	2,738	1,420
518.02	2,531	51	518.55	2,742	1,448
518.03	2,535	76	518.56	2,746	1,475
518.04	2,539	101	518.57	2,750	1,502
518.05	2,543	127	518.58	2,754	1,530
518.06	2,546	152	518.59	2,758	1,558
518.07	2,550	178	518.60	2,762	1,585
518.08	2,554	203	518.61	2,766	1,613
518.09	2,558	229	518.62	2,770	1,640
518.10	2,562	254	518.63	2,775	1,668
518.11	2,566	280	518.64	2,779	1,696
518.12	2,570	306	518.65	2,783	1,724
518.13	2,574	331	518.66	2,787	1,752
518.14	2,578	357	518.67	2,791	1,780
518.15	2,582	383	518.68	2,795	1,807
518.16	2,586	409	518.69	2,799	1,835
518.17	2,590	435	518.70	2,803	1,863
518.18	2,594	460	518.71	2,807	1,891
518.19	2,598	486	518.72	2,811	1,920
518.20	2,602	512	518.73	2,815	1,948
518.21	2,606	538	518.74	2,819	1,976
518.22	2,610	565	518.75	2,823	2,004
518.23	2,614	591	518.76	2,828	2,032
518.24	2,618	617	518.77	2,832	2,061
518.25	2,622	643	518.78	2,836	2,089
518.26	2,626	669	518.79	2,840	2,117
518.27	2,630	696	518.80	2,844	2,146
518.28	2,634	722	518.81	2,848	2,174
518.29	2,638	748	518.82	2,852	2,203
518.30	2,641	775	518.83	2,856	2,231
518.31	2,645	801	518.84	2,860	2,260
518.32	2,649	828	518.85	2,865	2,288
518.33	2,653	854	518.86	2,869	2,317
518.34	2,657	881	518.87	2,873	2,346
518.35	2,662	907	518.88	2,877	2,375
518.36	2,666	934	518.89	2,881	2,403
518.37	2,670	960	518.90	2,885	2,432
518.38	2,674	987	518.91	2,889	2,461
518.39	2,678	1,014	518.92	2,894	2,490
518.40	2,682	1,041	518.93	2,898	2,519
518.41	2,686	1,068	518.94	2,902	2,548
518.42	2,690	1,094	518.95	2,906	2,577
518.43	2,694	1,121	518.96	2,910	2,606
518.44	2,698	1,148	518.97	2,914	2,635
518.45	2,702	1,175	518.98	2,918	2,664
518.46	2,706	1,202	518.99	2,923	2,694
518.47	2,710	1,229	519.00	2,927	2,723
518.48	2,714	1,257	519.01	2,931	2,752
518.49	2,718	1,284	519.02	2,935	2,781
518.50	2,722	1,311	519.03	2,939	2,811
518.51	2,726	1,338	519.04	2,943	2,840
518.52	2,730	1,365	519.05	2,948	2,870

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
519.06	2,952	2,899	519.59	3,190	4,524
519.07	2,956	2,929	519.60	3,196	4,556
519.08	2,960	2,958	519.61	3,202	4,588
519.09	2,964	2,988	519.62	3,208	4,620
519.10	2,969	3,018	519.63	3,213	4,652
519.11	2,973	3,047	519.64	3,219	4,684
519.12	2,977	3,077	519.65	3,225	4,716
519.13	2,981	3,107	519.66	3,231	4,749
519.14	2,985	3,137	519.67	3,236	4,781
519.15	2,990	3,167	519.68	3,242	4,813
519.16	2,994	3,196	519.69	3,248	4,846
519.17	2,998	3,226	519.70	3,254	4,878
519.18	3,002	3,256	519.71	3,259	4,911
519.19	3,007	3,286	519.72	3,265	4,943
519.20	3,011	3,317	519.73	3,271	4,976
519.21	3,015	3,347	519.74	3,277	5,009
519.22	3,019	3,377	519.75	3,283	5,042
519.23	3,023	3,407	519.76	3,288	5,074
519.24	3,028	3,437	519.77	3,294	5,107
519.25	3,032	3,468	519.78	3,300	5,140
519.26	3,036	3,498	519.79	3,306	5,173
519.27	3,040	3,528	519.80	3,312	5,206
519.28	3,045	3,559	519.81	3,318	5,240
519.29	3,049	3,589	519.82	3,323	5,273
519.30	3,053	3,620	519.83	3,329	5,306
519.31	3,057	3,650	519.84	3,335	5,339
519.32	3,062	3,681	519.85	3,341	5,373
519.33	3,066	3,712	519.86	3,347	5,406
519.34	3,070	3,742	519.87	3,353	5,440
519.35	3,075	3,773	519.88	3,359	5,473
519.36	3,079	3,804	519.89	3,364	5,507
519.37	3,083	3,835	519.90	3,370	5,541
519.38	3,087	3,865	519.91	3,376	5,574
519.39	3,092	3,896	519.92	3,382	5,608
519.40	3,096	3,927	519.93	3,388	5,642
519.41	3,100	3,958	519.94	3,394	5,676
519.42	3,105	3,989	519.95	3,400	5,710
519.43	3,109	4,020	519.96	3,406	5,744
519.44	3,113	4,051	519.97	3,412	5,778
519.45	3,117	4,083	519.98	3,418	5,812
519.46	3,122	4,114	519.99	3,424	5,846
519.47	3,126	4,145	520.00	3,429	5,881
519.48	3,130	4,176	520.01	3,435	5,915
519.49	3,135	4,208	520.02	3,441	5,949
519.50	3,139	4,239	520.03	3,447	5,984
519.51	3,145	4,270	520.04	3,453	6,018
519.52	3,150	4,302	520.05	3,459	6,053
519.53	3,156	4,333	520.06	3,465	6,087
519.54	3,162	4,365	520.07	3,471	6,122
519.55	3,167	4,397	520.08	3,477	6,157
519.56	3,173	4,428	520.09	3,483	6,192
519.57	3,179	4,460	520.10	3,489	6,226
519.58	3,185	4,492	520.11	3,495	6,261

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.12	3,501	6,296	520.65	3,826	8,238
520.13	3,507	6,331	520.66	3,833	8,276
520.14	3,513	6,367	520.67	3,839	8,314
520.15	3,519	6,402	520.68	3,845	8,353
520.16	3,525	6,437	520.69	3,851	8,391
520.17	3,531	6,472	520.70	3,858	8,430
520.18	3,537	6,508	520.71	3,864	8,468
520.19	3,543	6,543	520.72	3,870	8,507
520.20	3,549	6,578	520.73	3,877	8,546
520.21	3,555	6,614	520.74	3,883	8,584
520.22	3,561	6,649	520.75	3,889	8,623
520.23	3,567	6,685	520.76	3,896	8,662
520.24	3,573	6,721	520.77	3,902	8,701
520.25	3,580	6,757	520.78	3,908	8,740
520.26	3,586	6,792	520.79	3,915	8,779
520.27	3,592	6,828	520.80	3,921	8,819
520.28	3,598	6,864	520.81	3,927	8,858
520.29	3,604	6,900	520.82	3,934	8,897
520.30	3,610	6,936	520.83	3,940	8,936
520.31	3,616	6,972	520.84	3,946	8,976
520.32	3,622	7,009	520.85	3,953	9,015
520.33	3,628	7,045	520.86	3,959	9,055
520.34	3,634	7,081	520.87	3,966	9,095
520.35	3,640	7,118	520.88	3,972	9,134
520.36	3,647	7,154	520.89	3,978	9,174
520.37	3,653	7,191	520.90	3,985	9,214
520.38	3,659	7,227	520.91	3,991	9,254
520.39	3,665	7,264	520.92	3,998	9,294
520.40	3,671	7,300	520.93	4,004	9,334
520.41	3,677	7,337	520.94	4,010	9,374
520.42	3,683	7,374	520.95	4,017	9,414
520.43	3,690	7,411	520.96	4,023	9,454
520.44	3,696	7,448	520.97	4,030	9,494
520.45	3,702	7,485	520.98	4,036	9,535
520.46	3,708	7,522	520.99	4,043	9,575
520.47	3,714	7,559	521.00	4,049	9,616
520.48	3,720	7,596	521.01	4,054	9,656
520.49	3,727	7,633	521.02	4,059	9,697
520.50	3,733	7,671	521.03	4,063	9,737
520.51	3,739	7,708	521.04	4,068	9,778
520.52	3,745	7,745	521.05	4,073	9,819
520.53	3,751	7,783	521.06	4,078	9,859
520.54	3,758	7,820	521.07	4,083	9,900
520.55	3,764	7,858	521.08	4,087	9,941
520.56	3,770	7,896	521.09	4,092	9,982
520.57	3,776	7,933	521.10	4,097	10,023
520.58	3,783	7,971	521.11	4,102	10,064
520.59	3,789	8,009	521.12	4,107	10,105
520.60	3,795	8,047	521.13	4,111	10,146
520.61	3,801	8,085	521.14	4,116	10,187
520.62	3,808	8,123	521.15	4,121	10,228
520.63	3,814	8,161	521.16	4,126	10,269
520.64	3,820	8,199	521.17	4,131	10,311

Stage-Area-Storage for Pond SF-G1: Sand Filter - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.18	4,135	10,352	521.71	4,395	12,612
521.19	4,140	10,393	521.72	4,400	12,656
521.20	4,145	10,435	521.73	4,405	12,700
521.21	4,150	10,476	521.74	4,410	12,745
521.22	4,155	10,518	521.75	4,415	12,789
521.23	4,160	10,559	521.76	4,420	12,833
521.24	4,165	10,601	521.77	4,425	12,877
521.25	4,169	10,643	521.78	4,430	12,921
521.26	4,174	10,684	521.79	4,435	12,966
521.27	4,179	10,726	521.80	4,440	13,010
521.28	4,184	10,768	521.81	4,445	13,054
521.29	4,189	10,810	521.82	4,450	13,099
521.30	4,194	10,852	521.83	4,455	13,143
521.31	4,199	10,894	521.84	4,460	13,188
521.32	4,203	10,936	521.85	4,465	13,233
521.33	4,208	10,978	521.86	4,470	13,277
521.34	4,213	11,020	521.87	4,475	13,322
521.35	4,218	11,062	521.88	4,480	13,367
521.36	4,223	11,104	521.89	4,485	13,412
521.37	4,228	11,147	521.90	4,491	13,457
521.38	4,233	11,189	521.91	4,496	13,502
521.39	4,238	11,231	521.92	4,501	13,546
521.40	4,242	11,274	521.93	4,506	13,592
521.41	4,247	11,316	521.94	4,511	13,637
521.42	4,252	11,359	521.95	4,516	13,682
521.43	4,257	11,401	521.96	4,521	13,727
521.44	4,262	11,444	521.97	4,526	13,772
521.45	4,267	11,486	521.98	4,531	13,817
521.46	4,272	11,529	521.99	4,536	13,863
521.47	4,277	11,572	522.00	4,541	13,908
521.48	4,282	11,615			
521.49	4,287	11,657			
521.50	4,291	11,700			
521.51	4,296	11,743			
521.52	4,301	11,786			
521.53	4,306	11,829			
521.54	4,311	11,872			
521.55	4,316	11,916			
521.56	4,321	11,959			
521.57	4,326	12,002			
521.58	4,331	12,045			
521.59	4,336	12,089			
521.60	4,341	12,132			
521.61	4,346	12,175			
521.62	4,351	12,219			
521.63	4,356	12,262			
521.64	4,361	12,306			
521.65	4,366	12,350			
521.66	4,371	12,393			
521.67	4,376	12,437			
521.68	4,380	12,481			
521.69	4,385	12,525			
521.70	4,390	12,568			

Summary for Pond SFF-G1: Sand Filter Forebay - G1

[79] Warning: Submerged Pond FS G1 Primary device # 1 INLET by 0.11'

Inflow Area = 2.360 ac, 19.11% Impervious, Inflow Depth = 3.87" for 100 Year - North Salem event
 Inflow = 3.00 cfs @ 12.15 hrs, Volume= 0.762 af
 Outflow = 2.98 cfs @ 12.17 hrs, Volume= 0.695 af, Atten= 1%, Lag= 1.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.98 cfs @ 12.17 hrs, Volume= 0.695 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 523.23' @ 12.17 hrs Surf.Area= 1,417 sf Storage= 3,228 cf

Plug-Flow detention time= 71.9 min calculated for 0.695 af (91% of inflow)
 Center-of-Mass det. time= 27.3 min (885.6 - 858.3)

Volume	Invert	Avail.Storage	Storage Description			
#1	520.00'	4,411 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
520.00	630	102.0	0	0	630	
522.00	1,087	128.0	1,696	1,696	1,159	
523.00	1,353	140.0	1,218	2,914	1,447	
524.00	1,645	153.0	1,497	4,411	1,784	

Device	Routing	Invert	Outlet Devices
#1	Primary	520.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 519.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	520.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	522.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	522.90'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	523.00'	8.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 0.5' Crest Height

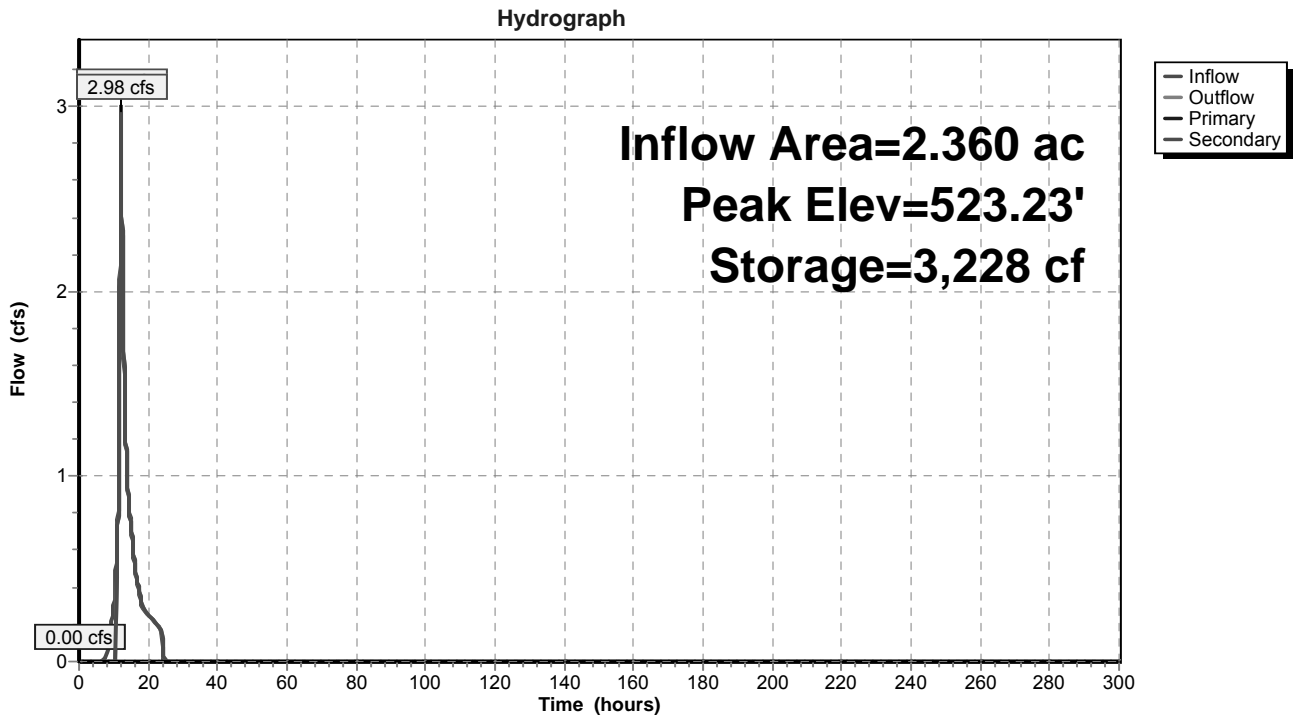
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=520.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.94 cfs @ 12.17 hrs HW=523.23' (Free Discharge)

- ↑ 5=Sharp-Crested Rectangular Weir (Weir Controls 2.94 cfs @ 1.64 fps)

Pond SFF-G1: Sand Filter Forebay - G1



Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	630	0	520.53	739	362
520.01	632	6	520.54	741	370
520.02	634	13	520.55	743	377
520.03	636	19	520.56	745	385
520.04	638	25	520.57	748	392
520.05	640	32	520.58	750	400
520.06	642	38	520.59	752	407
520.07	644	45	520.60	754	415
520.08	646	51	520.61	756	422
520.09	648	58	520.62	758	430
520.10	650	64	520.63	761	437
520.11	652	71	520.64	763	445
520.12	654	77	520.65	765	453
520.13	656	84	520.66	767	460
520.14	658	90	520.67	769	468
520.15	660	97	520.68	771	476
520.16	662	103	520.69	774	483
520.17	664	110	520.70	776	491
520.18	666	117	520.71	778	499
520.19	668	123	520.72	780	507
520.20	670	130	520.73	782	515
520.21	672	137	520.74	785	522
520.22	674	143	520.75	787	530
520.23	676	150	520.76	789	538
520.24	678	157	520.77	791	546
520.25	680	164	520.78	793	554
520.26	682	171	520.79	796	562
520.27	684	177	520.80	798	570
520.28	687	184	520.81	800	578
520.29	689	191	520.82	802	586
520.30	691	198	520.83	805	594
520.31	693	205	520.84	807	602
520.32	695	212	520.85	809	610
520.33	697	219	520.86	811	618
520.34	699	226	520.87	814	626
520.35	701	233	520.88	816	634
520.36	703	240	520.89	818	643
520.37	705	247	520.90	820	651
520.38	707	254	520.91	823	659
520.39	709	261	520.92	825	667
520.40	711	268	520.93	827	675
520.41	714	275	520.94	829	684
520.42	716	282	520.95	832	692
520.43	718	290	520.96	834	700
520.44	720	297	520.97	836	709
520.45	722	304	520.98	838	717
520.46	724	311	520.99	841	726
520.47	726	318	521.00	843	734
520.48	728	326	521.01	845	742
520.49	731	333	521.02	848	751
520.50	733	340	521.03	850	759
520.51	735	348	521.04	852	768
520.52	737	355	521.05	854	776

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

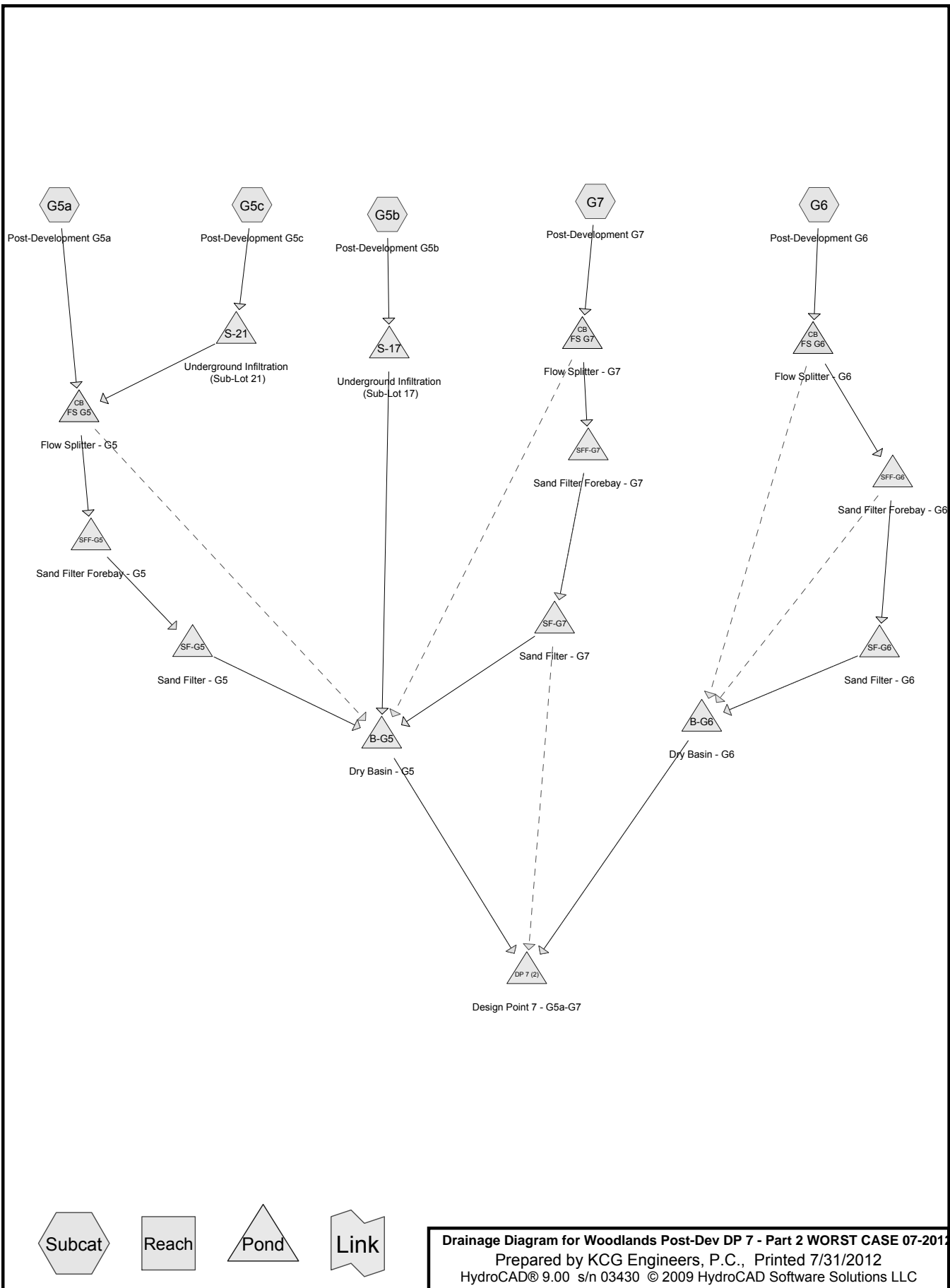
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
521.06	857	785	521.59	983	1,272
521.07	859	794	521.60	986	1,282
521.08	861	802	521.61	988	1,292
521.09	864	811	521.62	991	1,302
521.10	866	819	521.63	993	1,312
521.11	868	828	521.64	996	1,322
521.12	871	837	521.65	998	1,332
521.13	873	845	521.66	1,001	1,342
521.14	875	854	521.67	1,003	1,352
521.15	878	863	521.68	1,006	1,362
521.16	880	872	521.69	1,008	1,372
521.17	882	881	521.70	1,011	1,382
521.18	885	889	521.71	1,013	1,392
521.19	887	898	521.72	1,016	1,402
521.20	889	907	521.73	1,018	1,412
521.21	892	916	521.74	1,021	1,422
521.22	894	925	521.75	1,023	1,433
521.23	896	934	521.76	1,026	1,443
521.24	899	943	521.77	1,028	1,453
521.25	901	952	521.78	1,031	1,463
521.26	903	961	521.79	1,033	1,474
521.27	906	970	521.80	1,036	1,484
521.28	908	979	521.81	1,038	1,494
521.29	911	988	521.82	1,041	1,505
521.30	913	997	521.83	1,043	1,515
521.31	915	1,006	521.84	1,046	1,526
521.32	918	1,016	521.85	1,048	1,536
521.33	920	1,025	521.86	1,051	1,547
521.34	922	1,034	521.87	1,054	1,557
521.35	925	1,043	521.88	1,056	1,568
521.36	927	1,052	521.89	1,059	1,578
521.37	930	1,062	521.90	1,061	1,589
521.38	932	1,071	521.91	1,064	1,600
521.39	934	1,080	521.92	1,066	1,610
521.40	937	1,090	521.93	1,069	1,621
521.41	939	1,099	521.94	1,071	1,632
521.42	942	1,109	521.95	1,074	1,642
521.43	944	1,118	521.96	1,077	1,653
521.44	947	1,127	521.97	1,079	1,664
521.45	949	1,137	521.98	1,082	1,675
521.46	951	1,146	521.99	1,084	1,685
521.47	954	1,156	522.00	1,087	1,696
521.48	956	1,165	522.01	1,090	1,707
521.49	959	1,175	522.02	1,092	1,718
521.50	961	1,185	522.03	1,095	1,729
521.51	964	1,194	522.04	1,097	1,740
521.52	966	1,204	522.05	1,100	1,751
521.53	968	1,214	522.06	1,102	1,762
521.54	971	1,223	522.07	1,105	1,773
521.55	973	1,233	522.08	1,107	1,784
521.56	976	1,243	522.09	1,110	1,795
521.57	978	1,253	522.10	1,112	1,806
521.58	981	1,262	522.11	1,115	1,817

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
522.12	1,117	1,829	522.65	1,257	2,457
522.13	1,120	1,840	522.66	1,259	2,470
522.14	1,122	1,851	522.67	1,262	2,483
522.15	1,125	1,862	522.68	1,265	2,495
522.16	1,128	1,874	522.69	1,267	2,508
522.17	1,130	1,885	522.70	1,270	2,521
522.18	1,133	1,896	522.71	1,273	2,533
522.19	1,135	1,907	522.72	1,276	2,546
522.20	1,138	1,919	522.73	1,278	2,559
522.21	1,140	1,930	522.74	1,281	2,572
522.22	1,143	1,942	522.75	1,284	2,584
522.23	1,146	1,953	522.76	1,287	2,597
522.24	1,148	1,965	522.77	1,289	2,610
522.25	1,151	1,976	522.78	1,292	2,623
522.26	1,153	1,988	522.79	1,295	2,636
522.27	1,156	1,999	522.80	1,297	2,649
522.28	1,159	2,011	522.81	1,300	2,662
522.29	1,161	2,022	522.82	1,303	2,675
522.30	1,164	2,034	522.83	1,306	2,688
522.31	1,166	2,046	522.84	1,308	2,701
522.32	1,169	2,057	522.85	1,311	2,714
522.33	1,172	2,069	522.86	1,314	2,727
522.34	1,174	2,081	522.87	1,317	2,740
522.35	1,177	2,092	522.88	1,320	2,754
522.36	1,179	2,104	522.89	1,322	2,767
522.37	1,182	2,116	522.90	1,325	2,780
522.38	1,185	2,128	522.91	1,328	2,793
522.39	1,187	2,140	522.92	1,331	2,807
522.40	1,190	2,152	522.93	1,333	2,820
522.41	1,193	2,163	522.94	1,336	2,833
522.42	1,195	2,175	522.95	1,339	2,847
522.43	1,198	2,187	522.96	1,342	2,860
522.44	1,200	2,199	522.97	1,345	2,873
522.45	1,203	2,211	522.98	1,347	2,887
522.46	1,206	2,223	522.99	1,350	2,900
522.47	1,208	2,236	523.00	1,353	2,914
522.48	1,211	2,248	523.01	1,356	2,927
522.49	1,214	2,260	523.02	1,359	2,941
522.50	1,216	2,272	523.03	1,361	2,955
522.51	1,219	2,284	523.04	1,364	2,968
522.52	1,222	2,296	523.05	1,367	2,982
522.53	1,224	2,309	523.06	1,370	2,996
522.54	1,227	2,321	523.07	1,373	3,009
522.55	1,230	2,333	523.08	1,375	3,023
522.56	1,232	2,345	523.09	1,378	3,037
522.57	1,235	2,358	523.10	1,381	3,051
522.58	1,238	2,370	523.11	1,384	3,064
522.59	1,240	2,382	523.12	1,387	3,078
522.60	1,243	2,395	523.13	1,389	3,092
522.61	1,246	2,407	523.14	1,392	3,106
522.62	1,248	2,420	523.15	1,395	3,120
522.63	1,251	2,432	523.16	1,398	3,134
522.64	1,254	2,445	523.17	1,401	3,148

Stage-Area-Storage for Pond SFF-G1: Sand Filter Forebay - G1 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
523.18	1,403	3,162	523.71	1,557	3,946
523.19	1,406	3,176	523.72	1,560	3,962
523.20	1,409	3,190	523.73	1,563	3,977
523.21	1,412	3,204	523.74	1,566	3,993
523.22	1,415	3,218	523.75	1,569	4,009
523.23	1,418	3,233	523.76	1,572	4,025
523.24	1,420	3,247	523.77	1,575	4,040
523.25	1,423	3,261	523.78	1,578	4,056
523.26	1,426	3,275	523.79	1,581	4,072
523.27	1,429	3,289	523.80	1,584	4,088
523.28	1,432	3,304	523.81	1,587	4,104
523.29	1,435	3,318	523.82	1,590	4,119
523.30	1,438	3,332	523.83	1,593	4,135
523.31	1,440	3,347	523.84	1,596	4,151
523.32	1,443	3,361	523.85	1,599	4,167
523.33	1,446	3,376	523.86	1,602	4,183
523.34	1,449	3,390	523.87	1,605	4,199
523.35	1,452	3,405	523.88	1,608	4,215
523.36	1,455	3,419	523.89	1,611	4,231
523.37	1,458	3,434	523.90	1,615	4,248
523.38	1,461	3,448	523.91	1,618	4,264
523.39	1,463	3,463	523.92	1,621	4,280
523.40	1,466	3,478	523.93	1,624	4,296
523.41	1,469	3,492	523.94	1,627	4,312
523.42	1,472	3,507	523.95	1,630	4,329
523.43	1,475	3,522	523.96	1,633	4,345
523.44	1,478	3,537	523.97	1,636	4,361
523.45	1,481	3,551	523.98	1,639	4,378
523.46	1,484	3,566	523.99	1,642	4,394
523.47	1,487	3,581	524.00	1,645	4,411
523.48	1,490	3,596			
523.49	1,493	3,611			
523.50	1,495	3,626			
523.51	1,498	3,641			
523.52	1,501	3,656			
523.53	1,504	3,671			
523.54	1,507	3,686			
523.55	1,510	3,701			
523.56	1,513	3,716			
523.57	1,516	3,731			
523.58	1,519	3,746			
523.59	1,522	3,762			
523.60	1,525	3,777			
523.61	1,528	3,792			
523.62	1,531	3,807			
523.63	1,534	3,823			
523.64	1,537	3,838			
523.65	1,540	3,853			
523.66	1,543	3,869			
523.67	1,545	3,884			
523.68	1,548	3,900			
523.69	1,551	3,915			
523.70	1,554	3,931			



Woodlands Post-Dev DP 7 - Part 2 WORST CASE 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.250	61	>75% Grass cover, Good, HSG B (G5a, G5c)
0.506	61	Basin, HSG B (G5a)
0.566	70	Woods, Good, HSG C (G6, G7)
2.992	74	>75% Grass cover, Good, HSG C (G6, G7)
0.517	74	Basin, HSG C (G6, G7)
0.511	98	Driveway (G5a, G5b, G5c, G6, G7)
0.365	98	Road & Emergency Access (G6)
0.353	98	Roadway (G5a)
0.013	98	Roof (Water Plant) (G6)
0.337	98	Roof/Walkway (G5b, G5c, G6, G7)
0.100	98	Sidewalk (G6, G7)
7.510		TOTAL AREA

Woodlands Post-Dev DP 7 - Part 2 WORSType III 24-hr 1 Year - North Salem Rainfall=3.10"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=0.68"
Flow Length=833' Tc=13.0 min CN=68 Runoff=1.13 cfs 0.122 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=2.87"
Flow Length=245' Tc=2.0 min CN=98 Runoff=0.50 cfs 0.037 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=2.45"
Flow Length=245' Tc=2.0 min CN=94 Runoff=0.43 cfs 0.029 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=1.20"
Flow Length=917' Tc=20.9 min CN=78 Runoff=3.18 cfs 0.352 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=1.20"
Flow Length=649' Tc=14.6 min CN=78 Runoff=1.61 cfs 0.154 af

Pond B-G5: Dry Basin - G5 Peak Elev=420.50' Storage=225 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond B-G6: Dry Basin - G6 Peak Elev=453.00' Storage=11,161 cf Inflow=2.30 cfs 0.244 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Pond FS G5: Flow Splitter - G5 Peak Elev=437.83' Inflow=1.13 cfs 0.122 af
Primary=1.13 cfs 0.122 af Secondary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.122 af

Pond FS G6: Flow Splitter - G6 Peak Elev=464.76' Inflow=3.18 cfs 0.352 af
Primary=3.18 cfs 0.352 af Secondary=0.00 cfs 0.000 af Outflow=3.18 cfs 0.352 af

Pond FS G7: Flow Splitter - G7 Peak Elev=456.82' Inflow=1.61 cfs 0.154 af
Primary=1.61 cfs 0.154 af Secondary=0.00 cfs 0.000 af Outflow=1.61 cfs 0.154 af

Pond S-17: Underground Infiltration Peak Elev=433.01' Storage=0.000 af Inflow=0.50 cfs 0.037 af
Discarded=0.49 cfs 0.037 af Primary=0.00 cfs 0.000 af Outflow=0.49 cfs 0.037 af

Pond S-21: Underground Infiltration Peak Elev=499.01' Storage=0.000 af Inflow=0.43 cfs 0.029 af
Discarded=0.43 cfs 0.029 af Primary=0.00 cfs 0.000 af Outflow=0.43 cfs 0.029 af

Pond SF-G5: Sand Filter - G5 Peak Elev=430.18' Storage=3,006 cf Inflow=0.21 cfs 0.069 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-G6: Sand Filter - G6 Peak Elev=456.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-G7: Sand Filter - G7 Peak Elev=450.23' Storage=4,030 cf Inflow=0.78 cfs 0.093 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Woodlands Post-Dev DP 7 - Part 2 WORSType III 24-hr 1 Year - North Salem Rainfall=3.10"

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=435.03' Storage=2,339 cf Inflow=1.13 cfs 0.122 af
Primary=0.00 cfs 0.000 af Secondary=0.21 cfs 0.069 af Outflow=0.21 cfs 0.069 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=463.17' Storage=5,073 cf Inflow=3.18 cfs 0.352 af
Primary=0.00 cfs 0.000 af Secondary=2.30 cfs 0.244 af Outflow=2.30 cfs 0.244 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=455.08' Storage=2,796 cf Inflow=1.61 cfs 0.154 af
Primary=0.00 cfs 0.000 af Secondary=0.78 cfs 0.093 af Outflow=0.78 cfs 0.093 af

Total Runoff Area = 7.510 ac Runoff Volume = 0.694 af Average Runoff Depth = 1.11"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

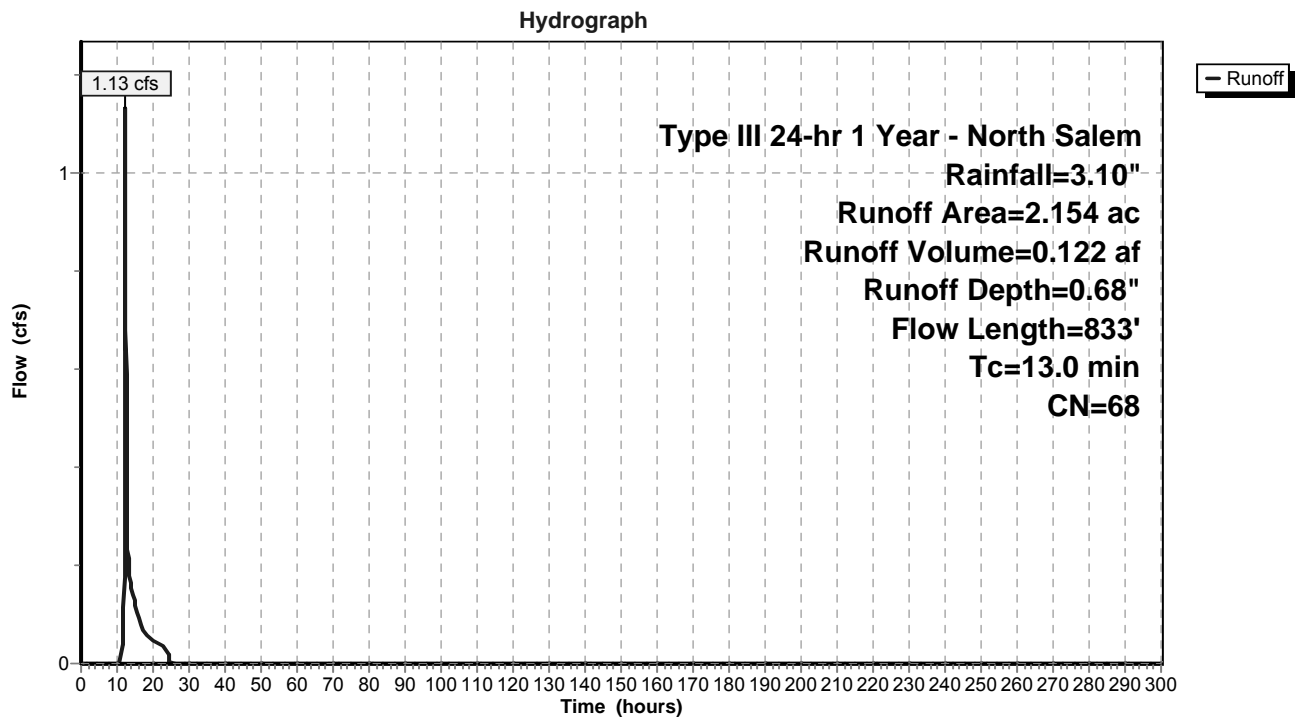
Runoff = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.50 cfs @ 12.03 hrs, Volume= 0.037 af, Depth= 2.87"

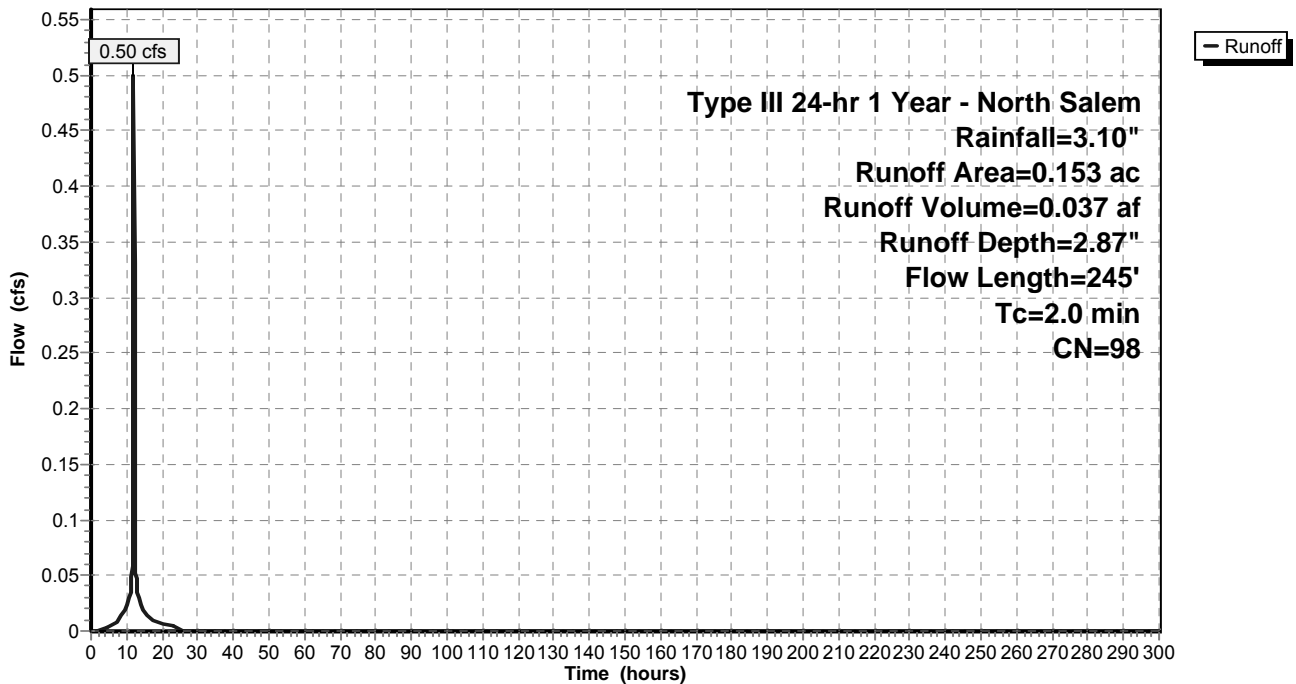
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

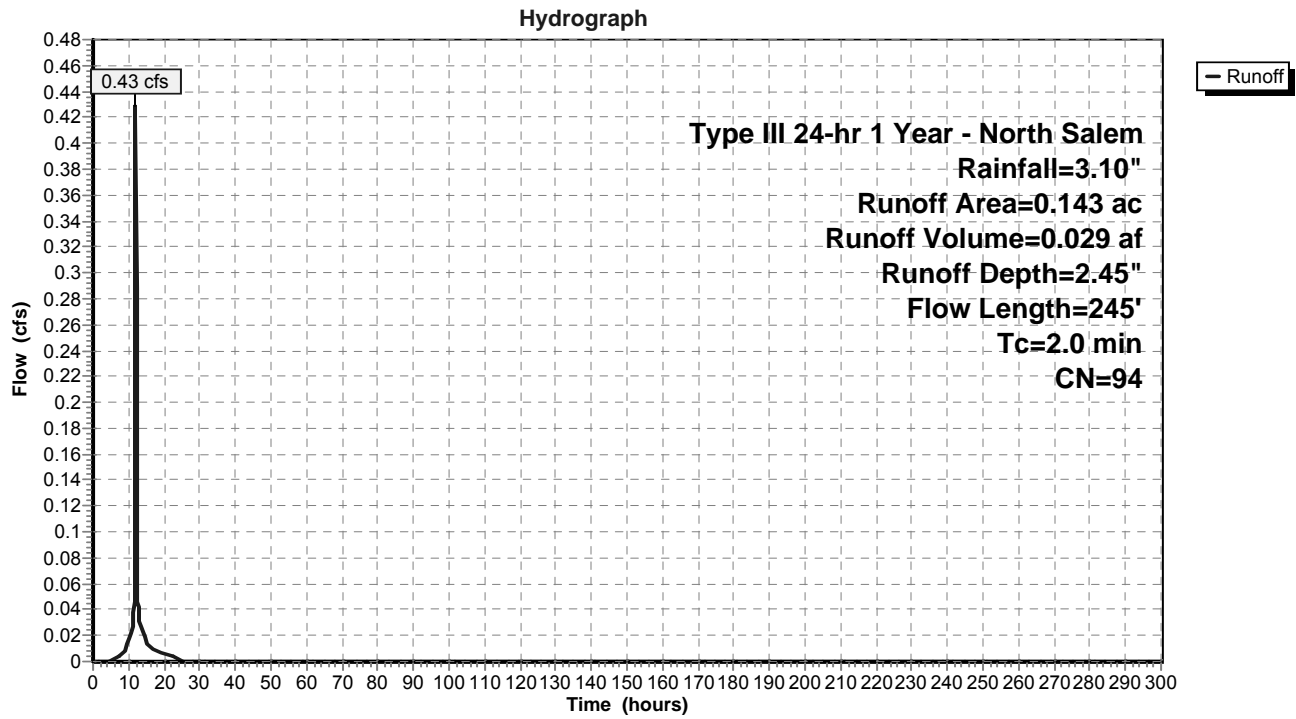
Runoff = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af, Depth= 2.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c



Summary for Subcatchment G6: Post-Development G6

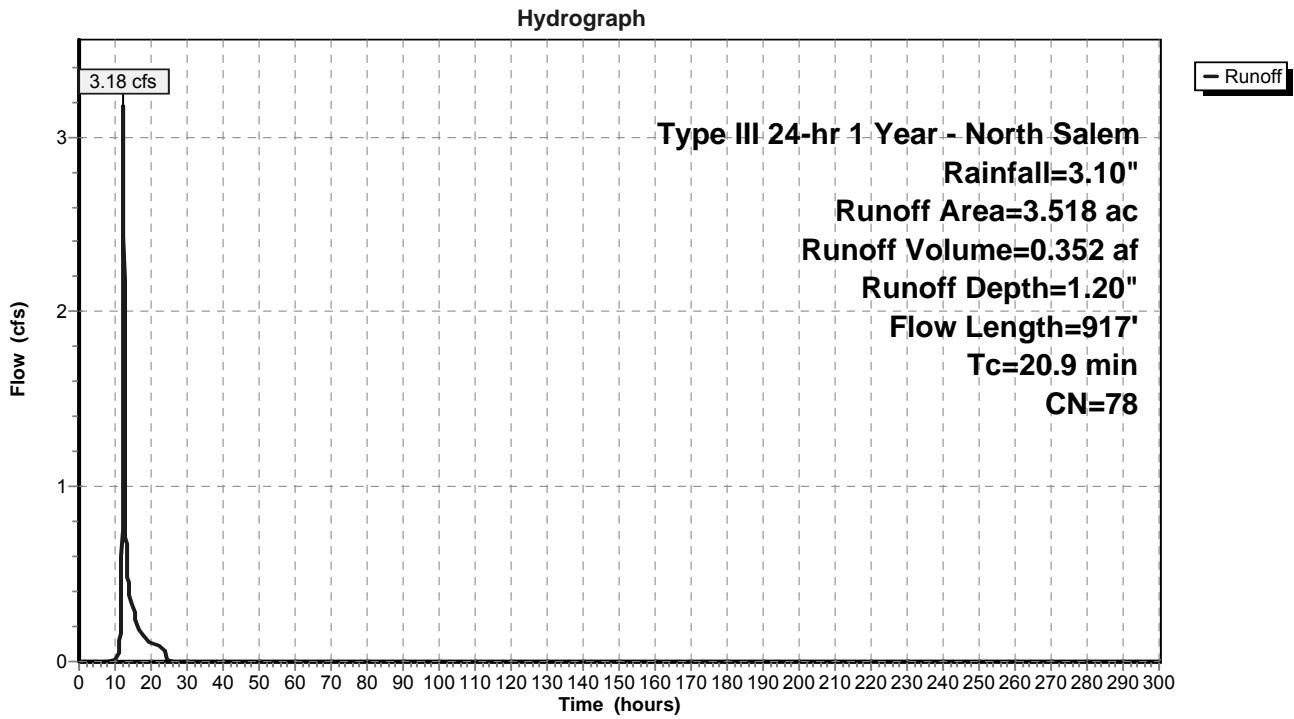
Runoff = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6



Summary for Subcatchment G7: Post-Development G7

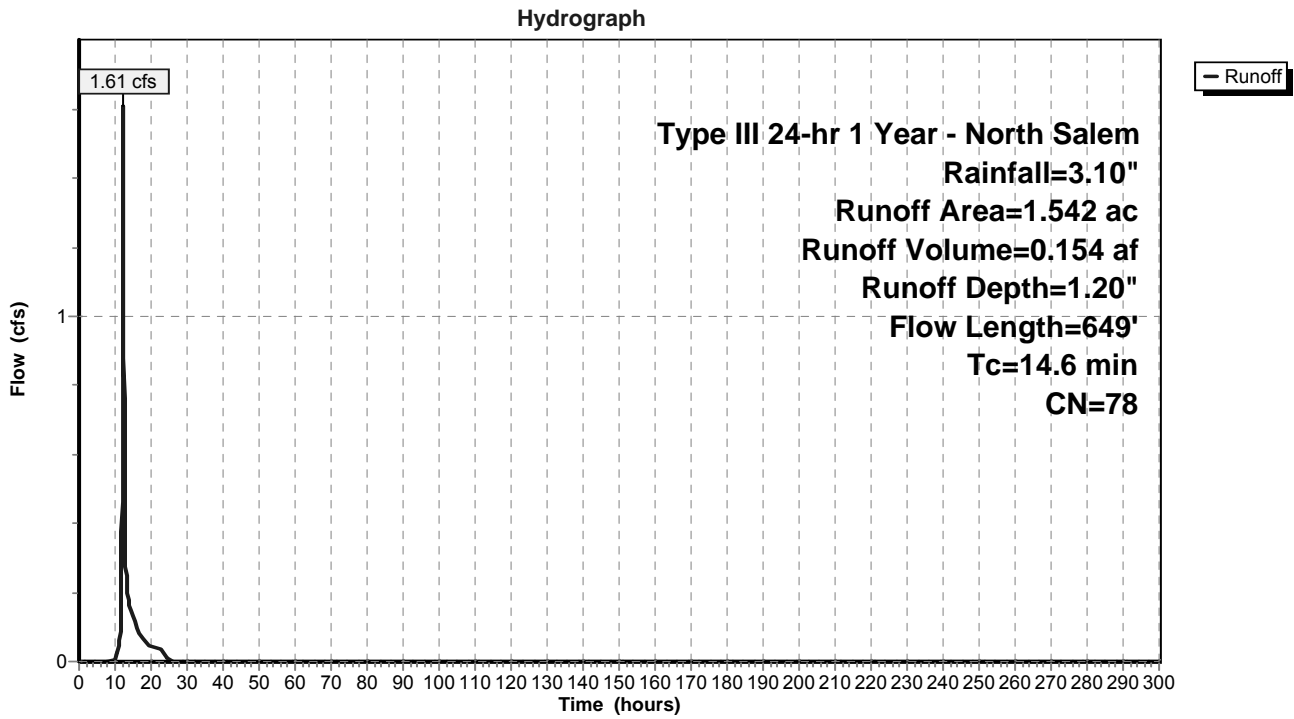
Runoff = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af, Depth= 1.20"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 0.00" for 1 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 420.50' @ 0.00 hrs Surf.Area= 561 sf Storage= 225 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

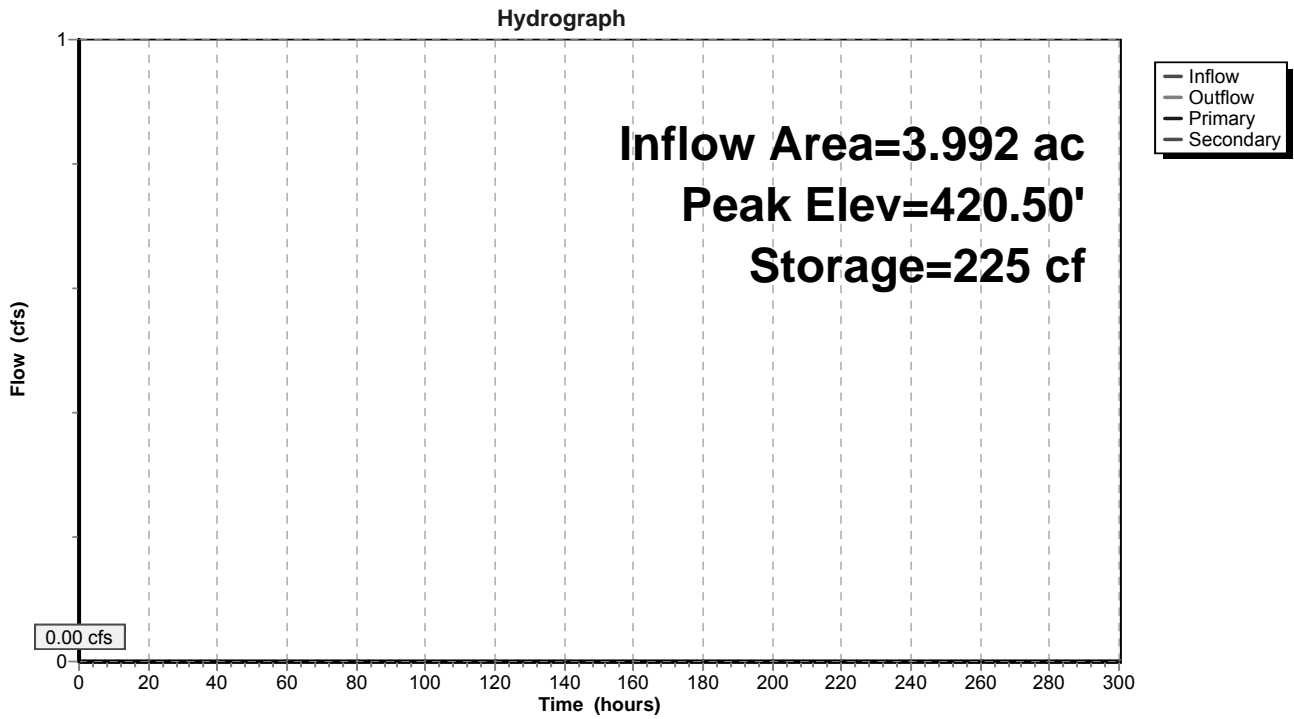
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 0.83" for 1 Year - North Salem event
 Inflow = 2.30 cfs @ 12.54 hrs, Volume= 0.244 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 453.00' @ 26.95 hrs Surf.Area= 3,807 sf Storage= 11,161 cf (10,624 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

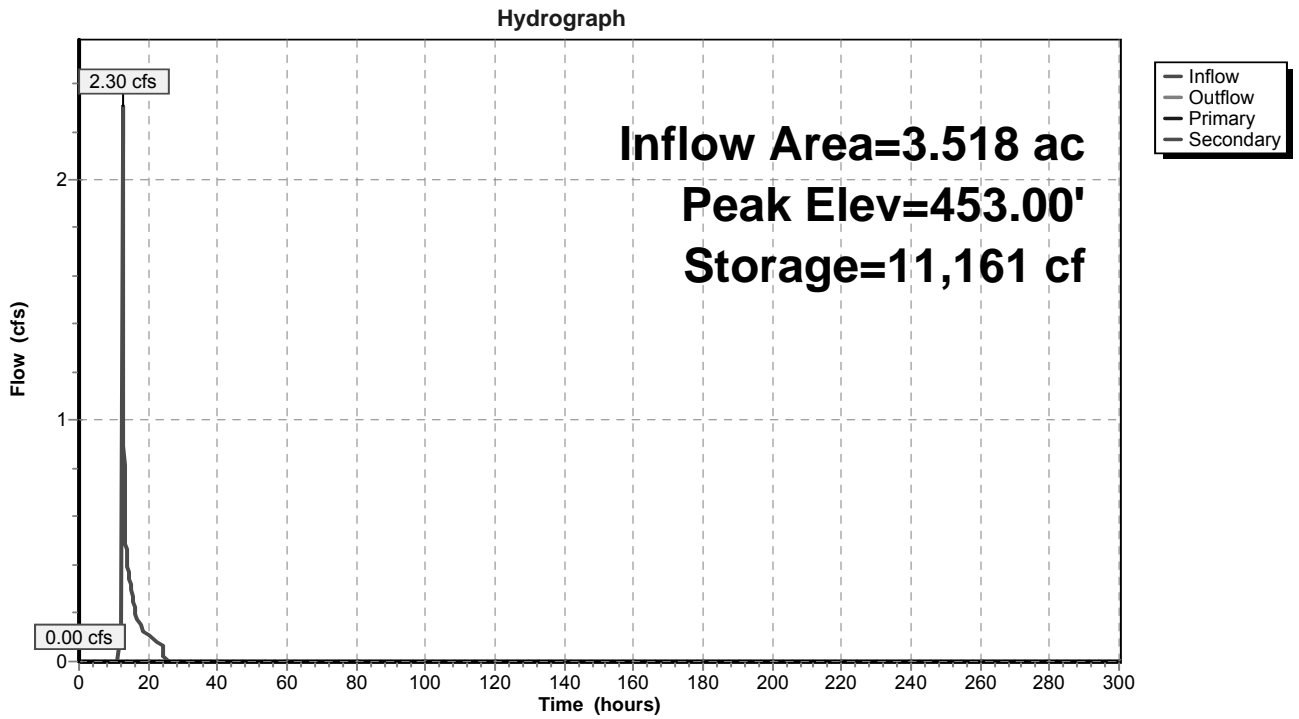
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

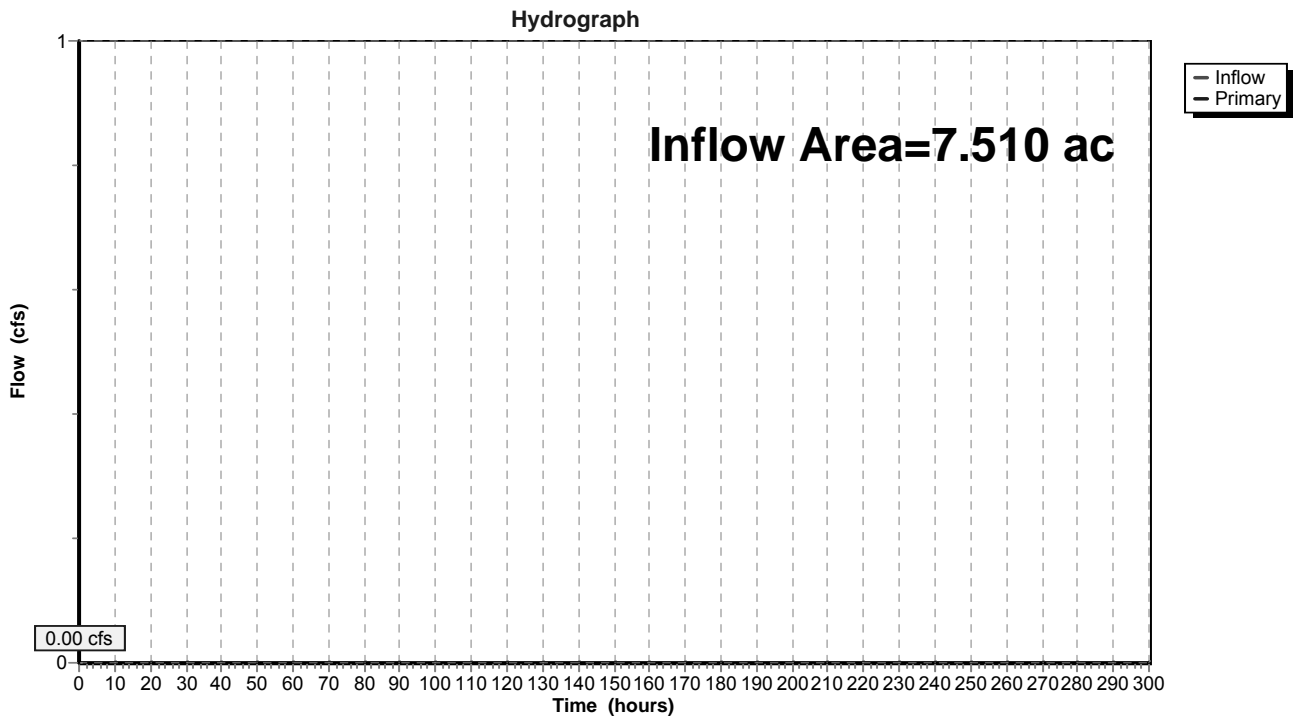
Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth = 0.00" for 1 Year - North Salem event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af
 Outflow = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 437.83' @ 12.21 hrs
 Flood Elev= 527.50'

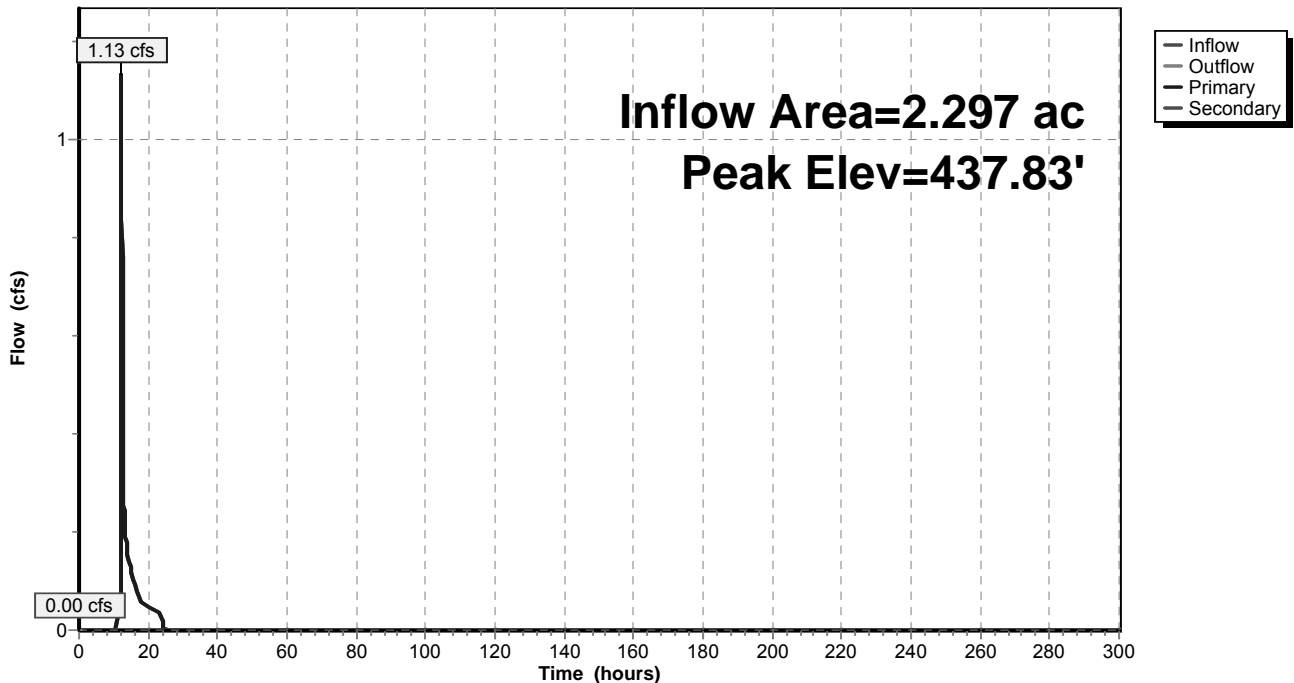
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.13 cfs @ 12.21 hrs HW=437.80' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.13 cfs @ 5.75 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=436.12' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G5: Flow Splitter - G5

Hydrograph



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af
 Outflow = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 464.76' @ 12.31 hrs
 Flood Elev= 554.50'

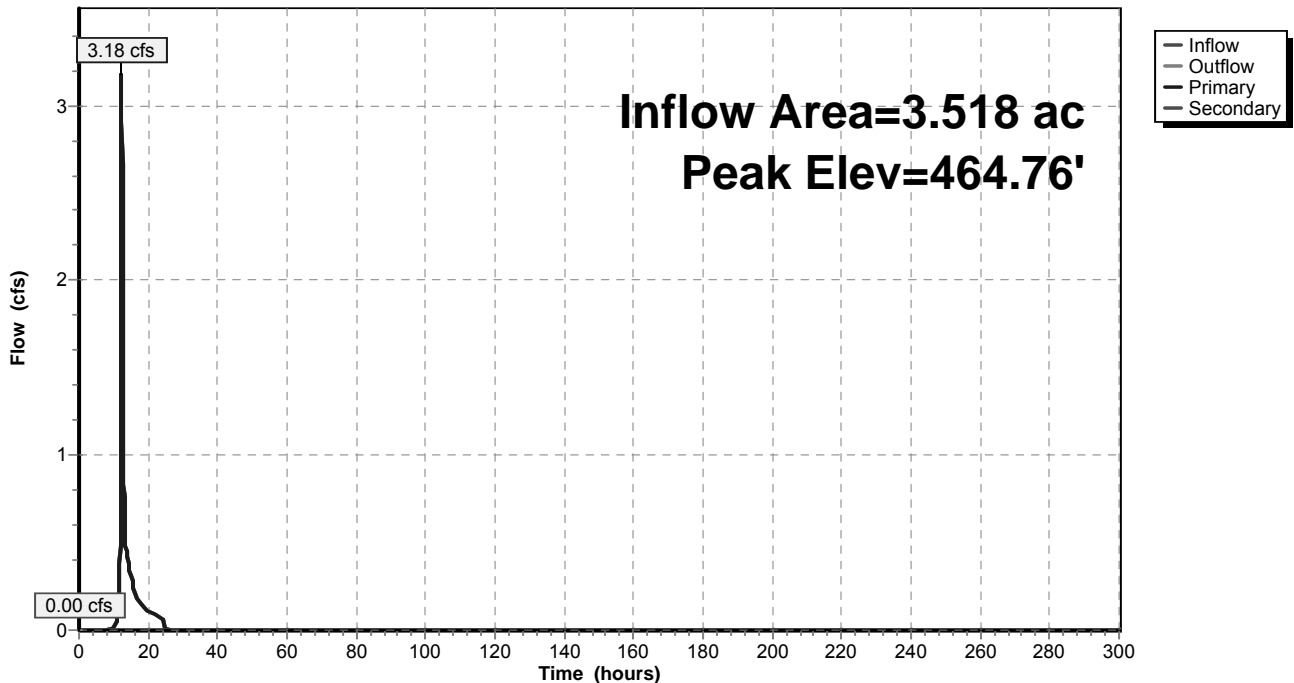
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=3.17 cfs @ 12.31 hrs HW=464.76' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 3.17 cfs @ 4.04 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=463.35' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G6: Flow Splitter - G6

Hydrograph



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af
 Outflow = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 456.82' @ 12.21 hrs
 Flood Elev= 554.50'

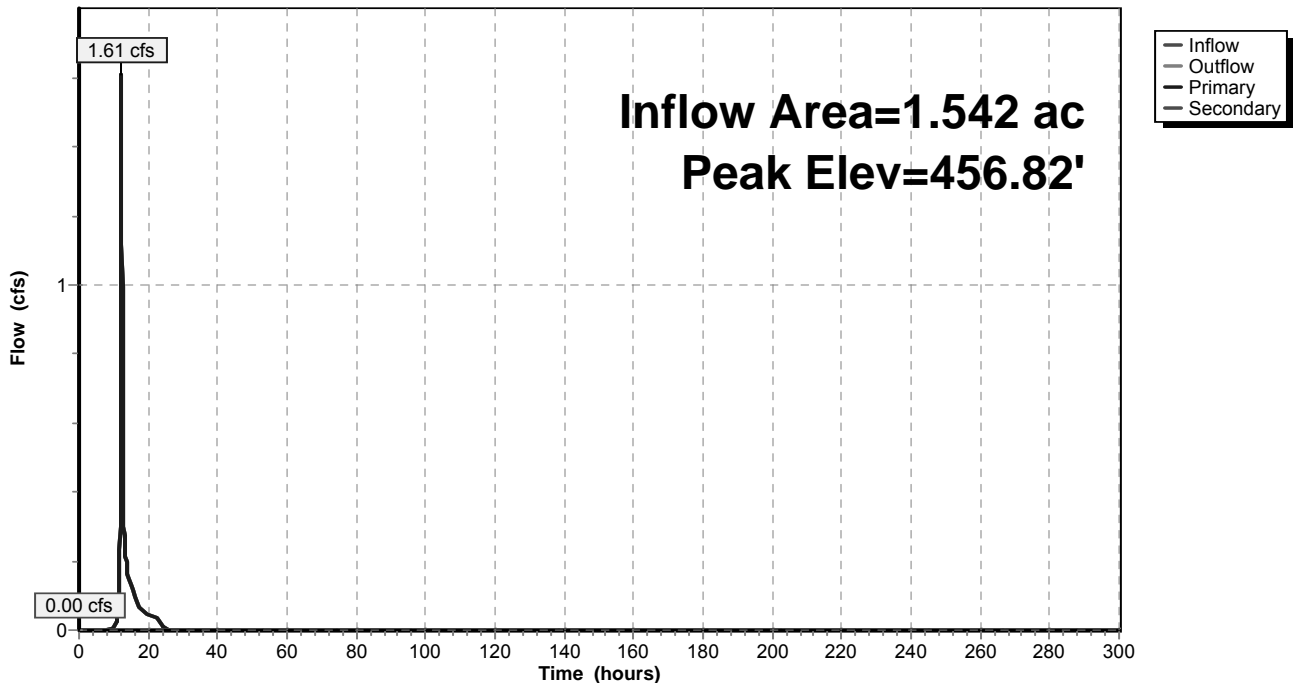
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 ' ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 ' ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=1.60 cfs @ 12.21 hrs HW=456.79' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.60 cfs @ 4.57 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=455.30' (Free Discharge)
 ↳2=Outlet to Dry Basin (Controls 0.00 cfs)

Pond FS G7: Flow Splitter - G7

Hydrograph



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 2.87" for 1 Year - North Salem event
 Inflow = 0.50 cfs @ 12.03 hrs, Volume= 0.037 af
 Outflow = 0.49 cfs @ 12.03 hrs, Volume= 0.037 af, Atten= 1%, Lag= 0.1 min
 Discarded = 0.49 cfs @ 12.03 hrs, Volume= 0.037 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.01' @ 12.03 hrs Surf.Area= 0.022 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.037 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (753.5 - 753.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

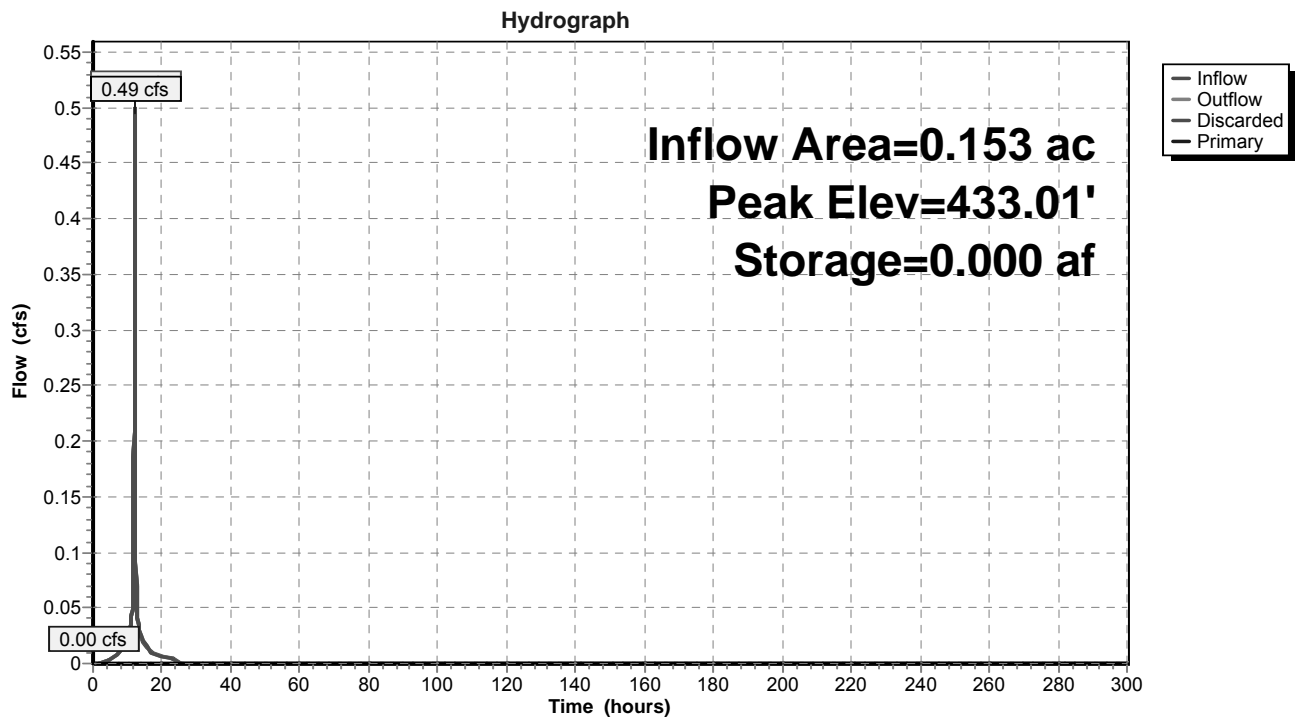
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.90 cfs @ 12.03 hrs HW=433.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 2.45" for 1 Year - North Salem event
 Inflow = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af
 Outflow = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.43 cfs @ 12.03 hrs, Volume= 0.029 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.01' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.029 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (784.5 - 784.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

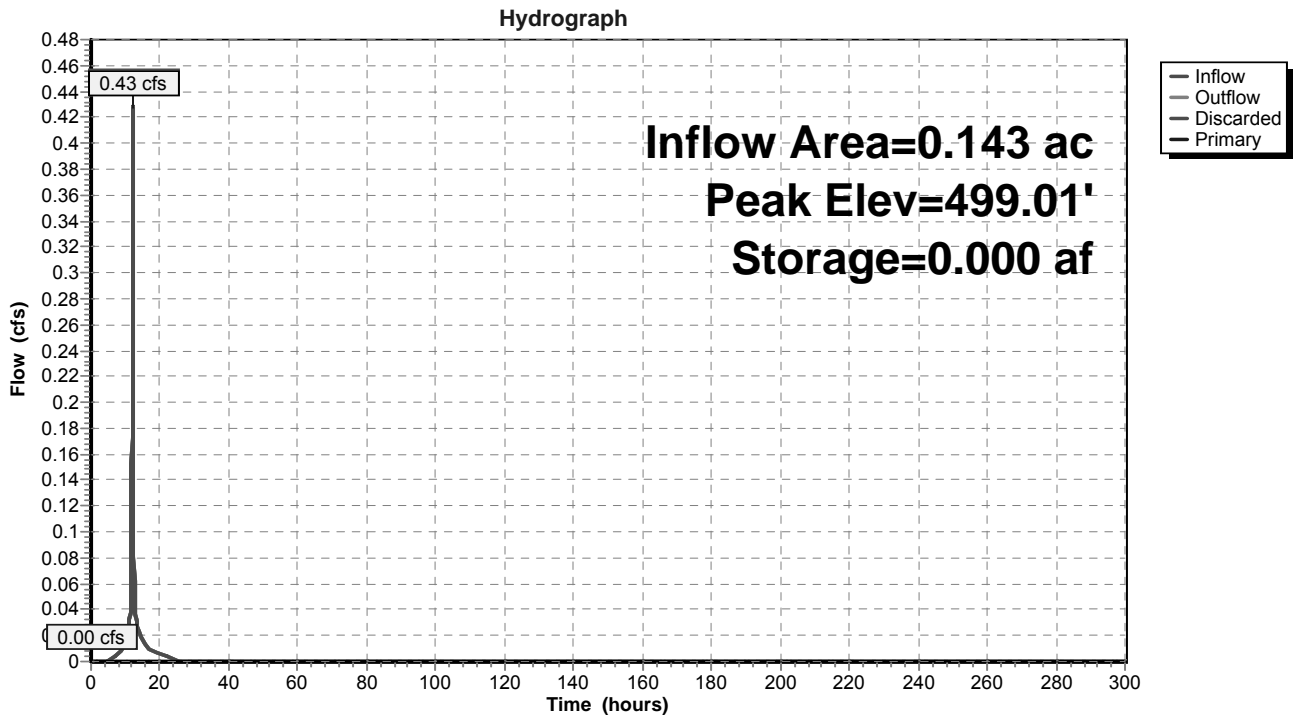
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.36" for 1 Year - North Salem event
 Inflow = 0.21 cfs @ 13.17 hrs, Volume= 0.069 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 430.18' @ 25.55 hrs Surf.Area= 1,684 sf Storage= 3,006 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

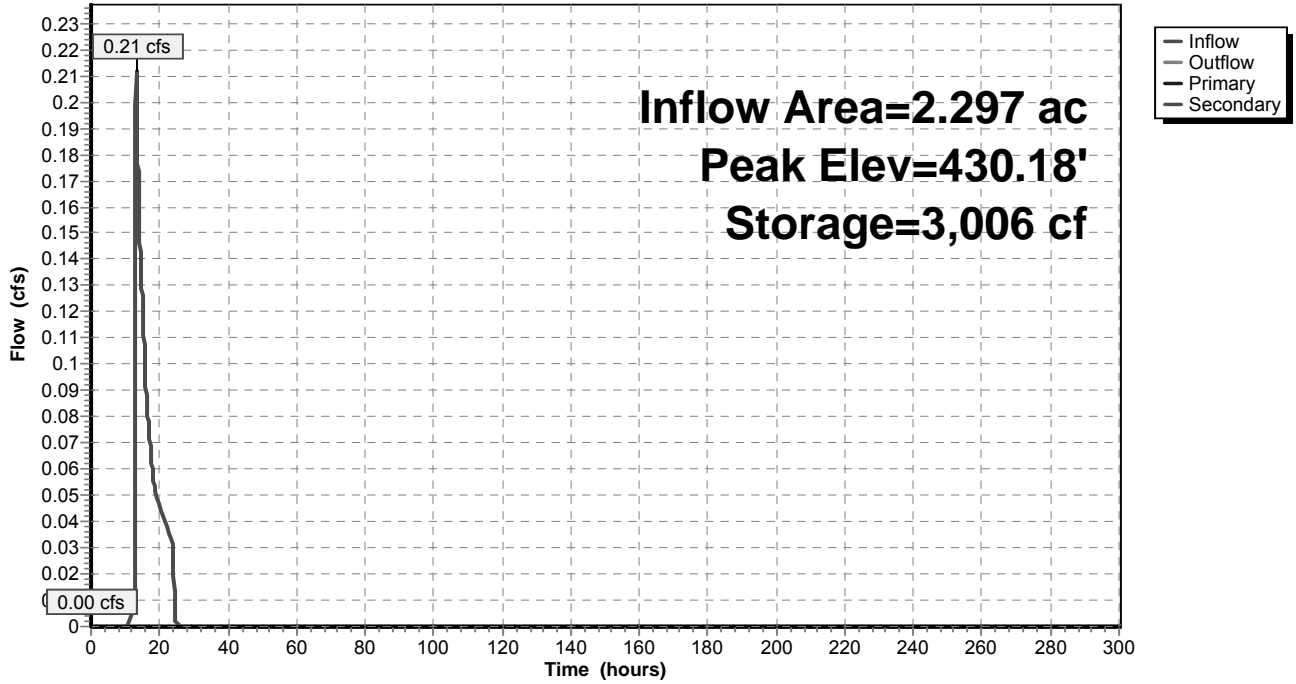
Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe X 0.00 L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G5: Sand Filter - G5

Hydrograph



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 0.00" for 1 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 456.00' @ 0.00 hrs Surf.Area= 3,512 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe X 0.00 L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

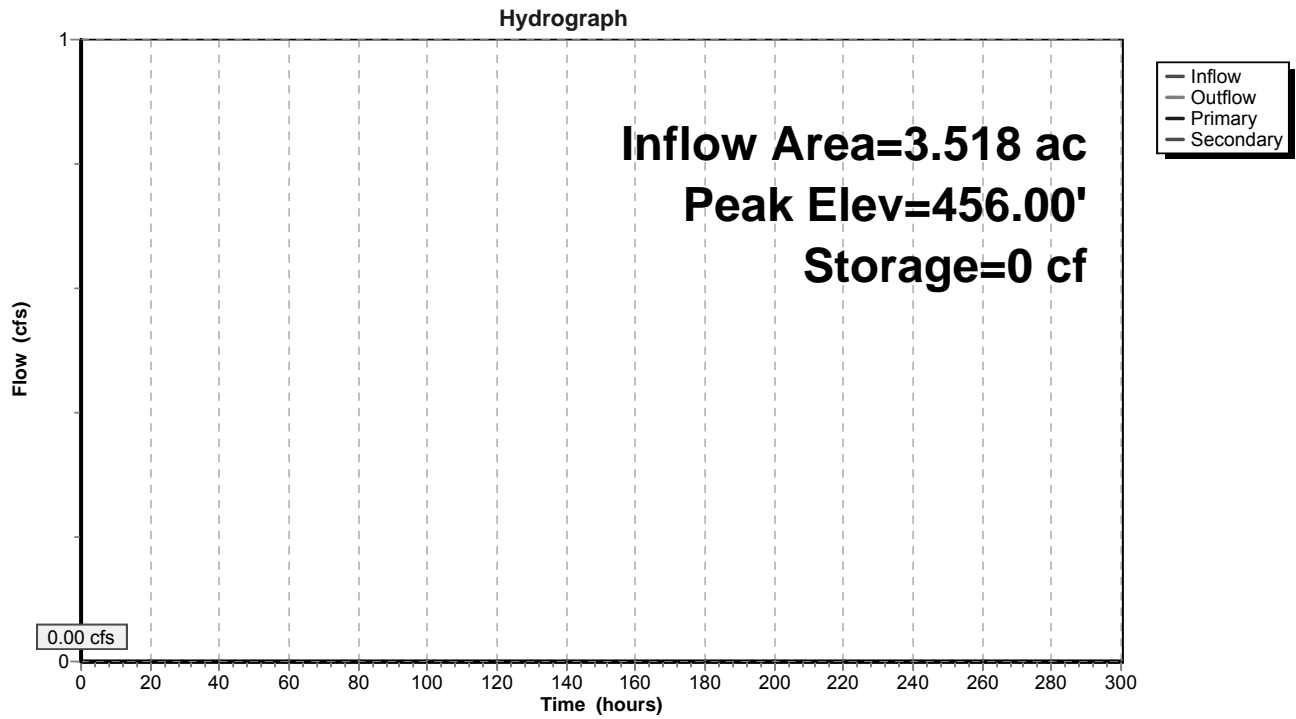
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 0.72" for 1 Year - North Salem event
 Inflow = 0.78 cfs @ 12.57 hrs, Volume= 0.093 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 450.23' @ 295.80 hrs Surf.Area= 2,185 sf Storage= 4,030 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

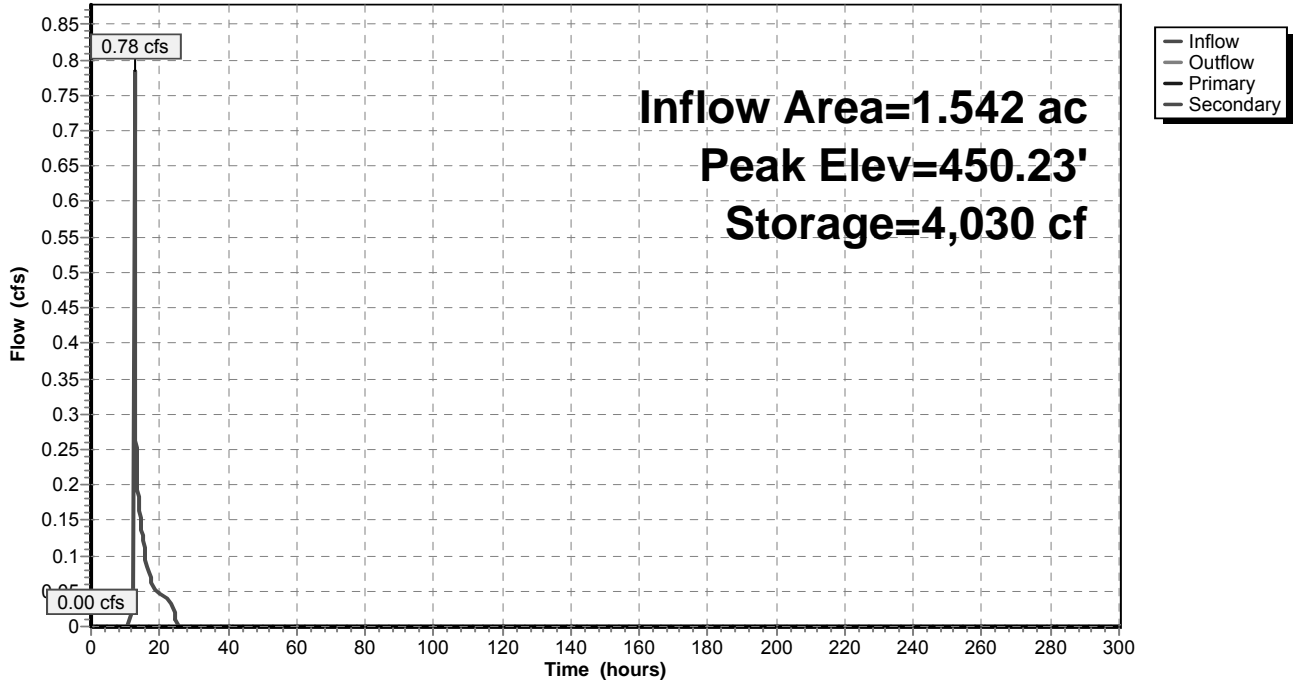
Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G7: Sand Filter - G7

Hydrograph



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.64" for 1 Year - North Salem event
 Inflow = 1.13 cfs @ 12.21 hrs, Volume= 0.122 af
 Outflow = 0.21 cfs @ 13.17 hrs, Volume= 0.069 af, Atten= 81%, Lag= 57.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.21 cfs @ 13.17 hrs, Volume= 0.069 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 435.03' @ 13.17 hrs Surf.Area= 1,126 sf Storage= 2,339 cf

Plug-Flow detention time= 251.1 min calculated for 0.069 af (57% of inflow)
 Center-of-Mass det. time= 117.4 min (1,009.7 - 892.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

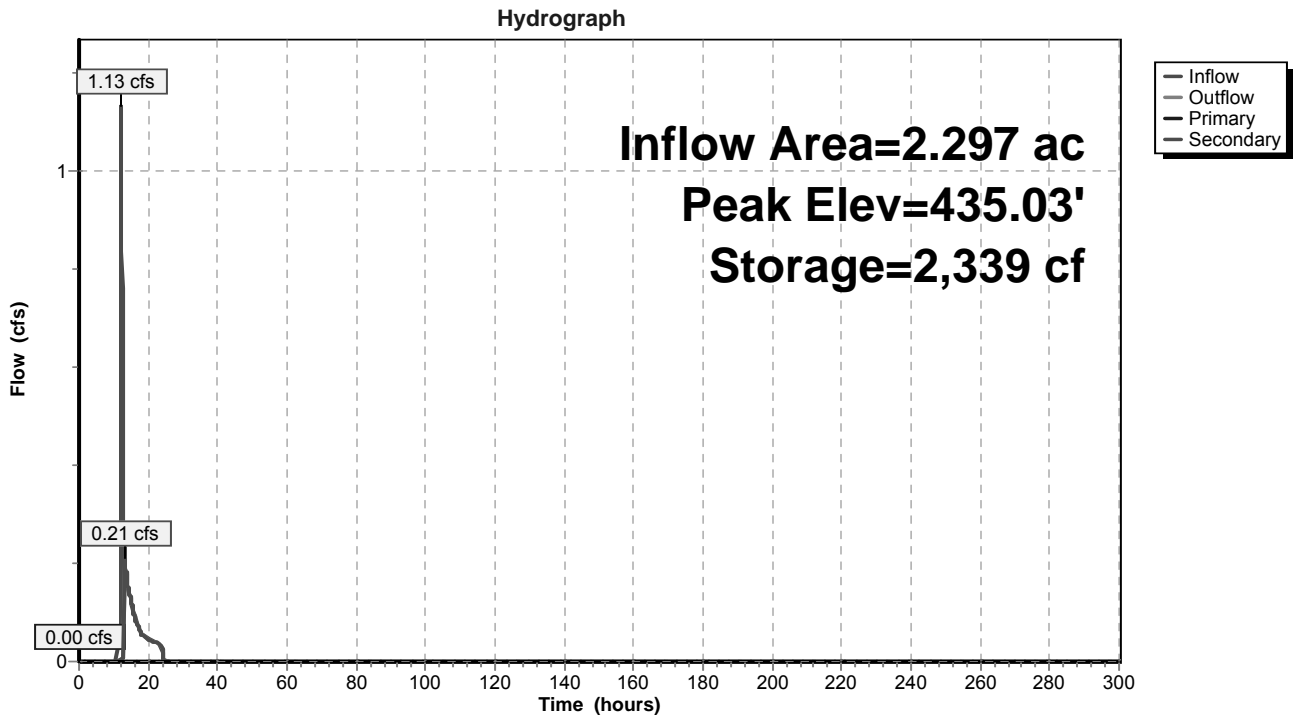
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.19 cfs @ 13.17 hrs HW=435.03' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.19 cfs @ 0.59 fps)

Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

[79] Warning: Submerged Pond FS G6 Primary device # 1 OUTLET by 0.02'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 3.18 cfs @ 12.31 hrs, Volume= 0.352 af
 Outflow = 2.30 cfs @ 12.54 hrs, Volume= 0.244 af, Atten= 28%, Lag= 14.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.30 cfs @ 12.54 hrs, Volume= 0.244 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 463.17' @ 12.54 hrs Surf.Area= 2,211 sf Storage= 5,073 cf

Plug-Flow detention time= 169.6 min calculated for 0.244 af (69% of inflow)
 Center-of-Mass det. time= 65.5 min (930.2 - 864.7)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

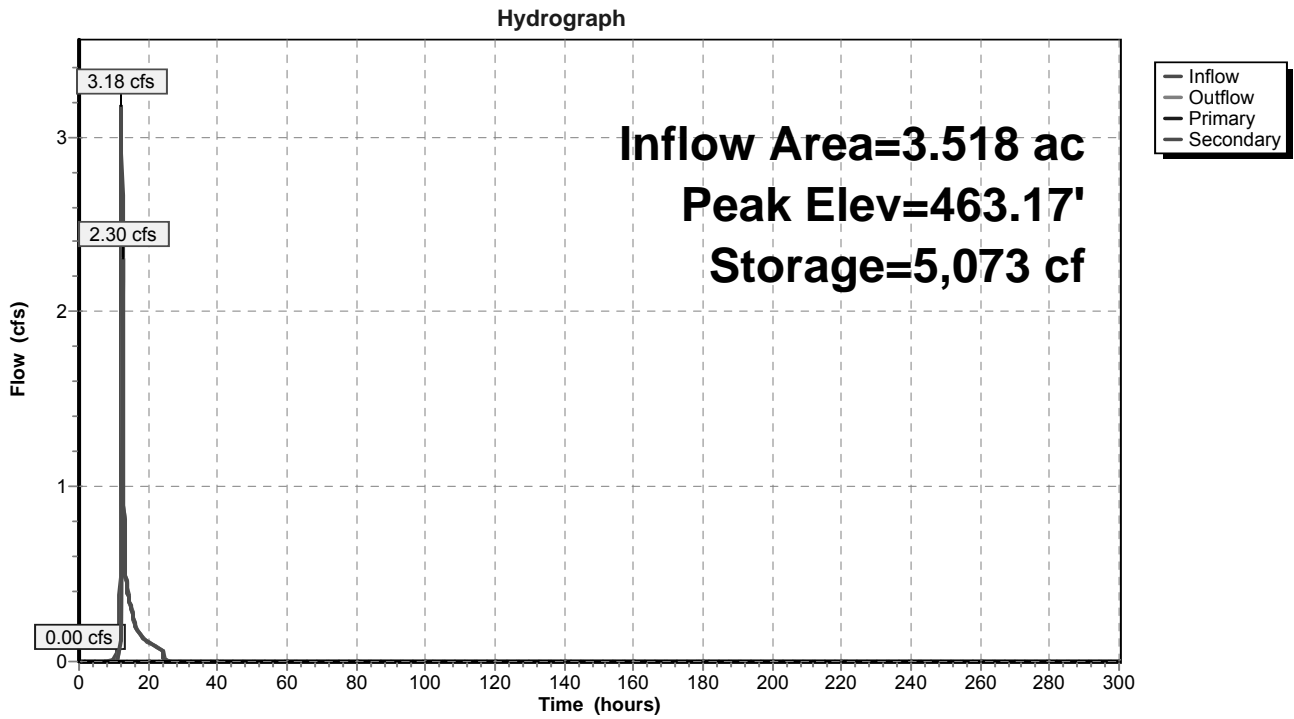
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.27 cfs @ 12.54 hrs HW=463.17' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 2.27 cfs @ 1.36 fps)

Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.20" for 1 Year - North Salem event
 Inflow = 1.61 cfs @ 12.21 hrs, Volume= 0.154 af
 Outflow = 0.78 cfs @ 12.57 hrs, Volume= 0.093 af, Atten= 51%, Lag= 21.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.78 cfs @ 12.57 hrs, Volume= 0.093 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 455.08' @ 12.57 hrs Surf.Area= 1,273 sf Storage= 2,796 cf

Plug-Flow detention time= 207.5 min calculated for 0.093 af (60% of inflow)
 Center-of-Mass det. time= 90.9 min (949.9 - 858.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
452.00	581	93.0	0	0	581
454.00	1,003	118.0	1,565	1,565	1,051
455.00	1,251	130.0	1,125	2,690	1,318
456.00	1,525	143.0	1,386	4,075	1,632

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

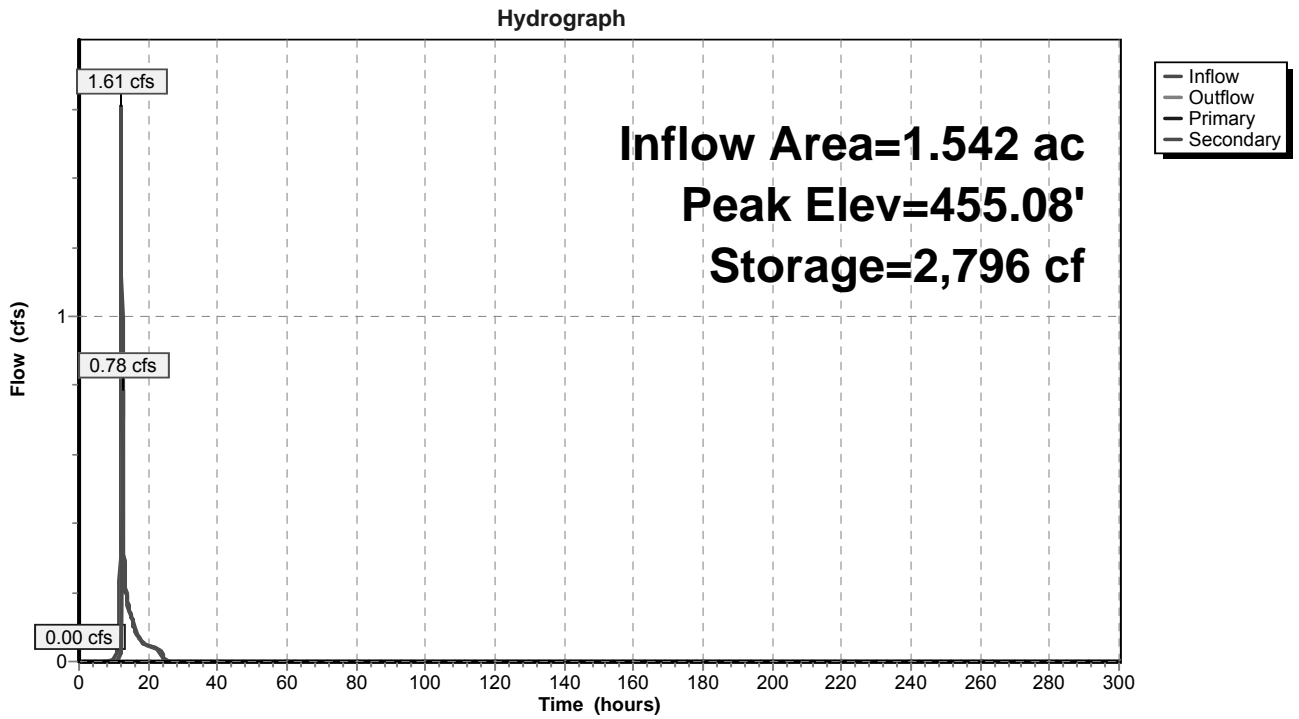
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.71 cfs @ 12.57 hrs HW=455.08' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.71 cfs @ 0.92 fps)

Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=1.02"
Flow Length=833' Tc=13.0 min CN=68 Runoff=1.84 cfs 0.183 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=3.47"
Flow Length=245' Tc=2.0 min CN=98 Runoff=0.60 cfs 0.044 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=3.03"
Flow Length=245' Tc=2.0 min CN=94 Runoff=0.52 cfs 0.036 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=1.65"
Flow Length=917' Tc=20.9 min CN=78 Runoff=4.44 cfs 0.484 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=1.65"
Flow Length=649' Tc=14.6 min CN=78 Runoff=2.25 cfs 0.212 af

Pond B-G5: Dry Basin - G5 Peak Elev=421.92' Storage=1,604 cf Inflow=1.03 cfs 0.032 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond B-G6: Dry Basin - G6 Peak Elev=453.05' Storage=11,346 cf Inflow=4.08 cfs 0.376 af
Primary=0.00 cfs 0.000 af Secondary=0.36 cfs 0.132 af Outflow=0.36 cfs 0.132 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=0.36 cfs 0.143 af
Primary=0.36 cfs 0.143 af

Pond FS G5: Flow Splitter - G5 Peak Elev=438.15' Inflow=1.84 cfs 0.183 af
Primary=1.26 cfs 0.174 af Secondary=0.59 cfs 0.009 af Outflow=1.84 cfs 0.183 af

Pond FS G6: Flow Splitter - G6 Peak Elev=465.12' Inflow=4.44 cfs 0.484 af
Primary=3.76 cfs 0.472 af Secondary=0.68 cfs 0.012 af Outflow=4.44 cfs 0.484 af

Pond FS G7: Flow Splitter - G7 Peak Elev=457.12' Inflow=2.25 cfs 0.212 af
Primary=1.80 cfs 0.207 af Secondary=0.44 cfs 0.006 af Outflow=2.25 cfs 0.212 af

Pond S-17: Underground Infiltration Peak Elev=433.02' Storage=0.000 af Inflow=0.60 cfs 0.044 af
Discarded=0.59 cfs 0.044 af Primary=0.00 cfs 0.000 af Outflow=0.59 cfs 0.044 af

Pond S-21: Underground Infiltration Peak Elev=499.01' Storage=0.000 af Inflow=0.52 cfs 0.036 af
Discarded=0.52 cfs 0.036 af Primary=0.00 cfs 0.000 af Outflow=0.52 cfs 0.036 af

Pond SF-G5: Sand Filter - G5 Peak Elev=431.03' Storage=4,557 cf Inflow=0.98 cfs 0.121 af
Primary=0.00 cfs 0.000 af Secondary=0.06 cfs 0.017 af Outflow=0.06 cfs 0.017 af

Pond SF-G6: Sand Filter - G6 Peak Elev=456.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-G7: Sand Filter - G7 Peak Elev=451.01' Storage=5,836 cf Inflow=1.80 cfs 0.145 af
Primary=0.00 cfs 0.000 af Secondary=0.05 cfs 0.011 af Outflow=0.05 cfs 0.011 af

Woodlands Post-Dev DP 7 - Part 2 WORSType III 24-hr 2 Year - North Salem Rainfall=3.70"

Prepared by KCG Engineers, P.C.

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=435.09' Storage=2,410 cf Inflow=1.26 cfs 0.174 af
Primary=0.00 cfs 0.000 af Secondary=0.98 cfs 0.121 af Outflow=0.98 cfs 0.121 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=463.23' Storage=5,205 cf Inflow=3.76 cfs 0.472 af
Primary=0.00 cfs 0.000 af Secondary=3.64 cfs 0.364 af Outflow=3.64 cfs 0.364 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=455.13' Storage=2,858 cf Inflow=1.80 cfs 0.207 af
Primary=0.00 cfs 0.000 af Secondary=1.80 cfs 0.145 af Outflow=1.80 cfs 0.145 af

Total Runoff Area = 7.510 ac Runoff Volume = 0.959 af Average Runoff Depth = 1.53"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

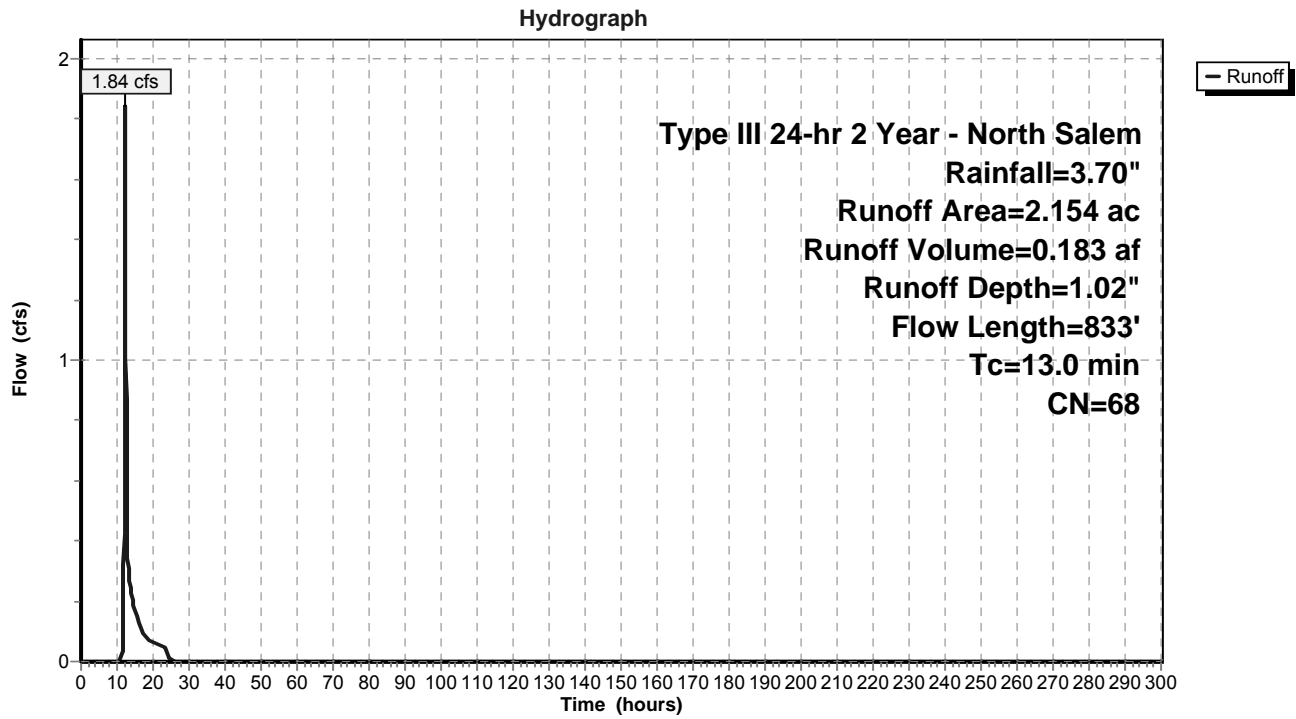
Runoff = 1.84 cfs @ 12.20 hrs, Volume= 0.183 af, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: $T_c < 2dt$ may require smaller dt

Runoff = 0.60 cfs @ 12.03 hrs, Volume= 0.044 af, Depth= 3.47"

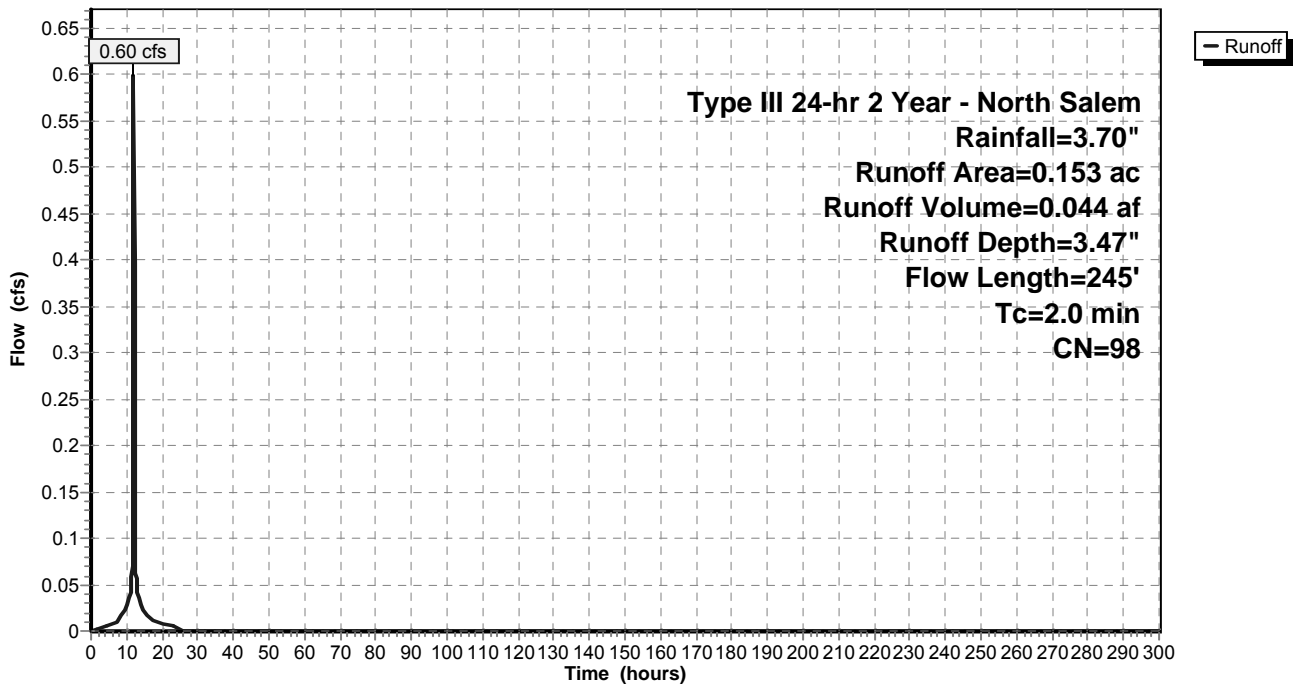
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af, Depth= 3.03"

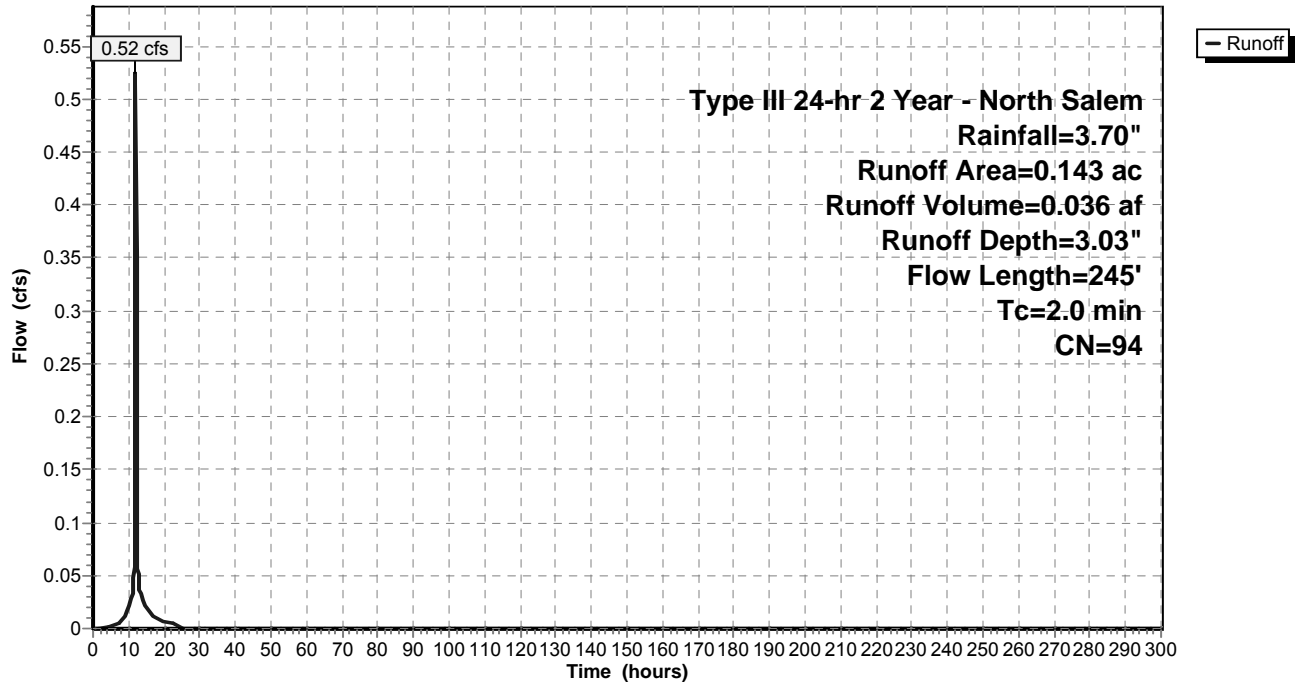
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c

Hydrograph



Summary for Subcatchment G6: Post-Development G6

Runoff = 4.44 cfs @ 12.30 hrs, Volume= 0.484 af, Depth= 1.65"

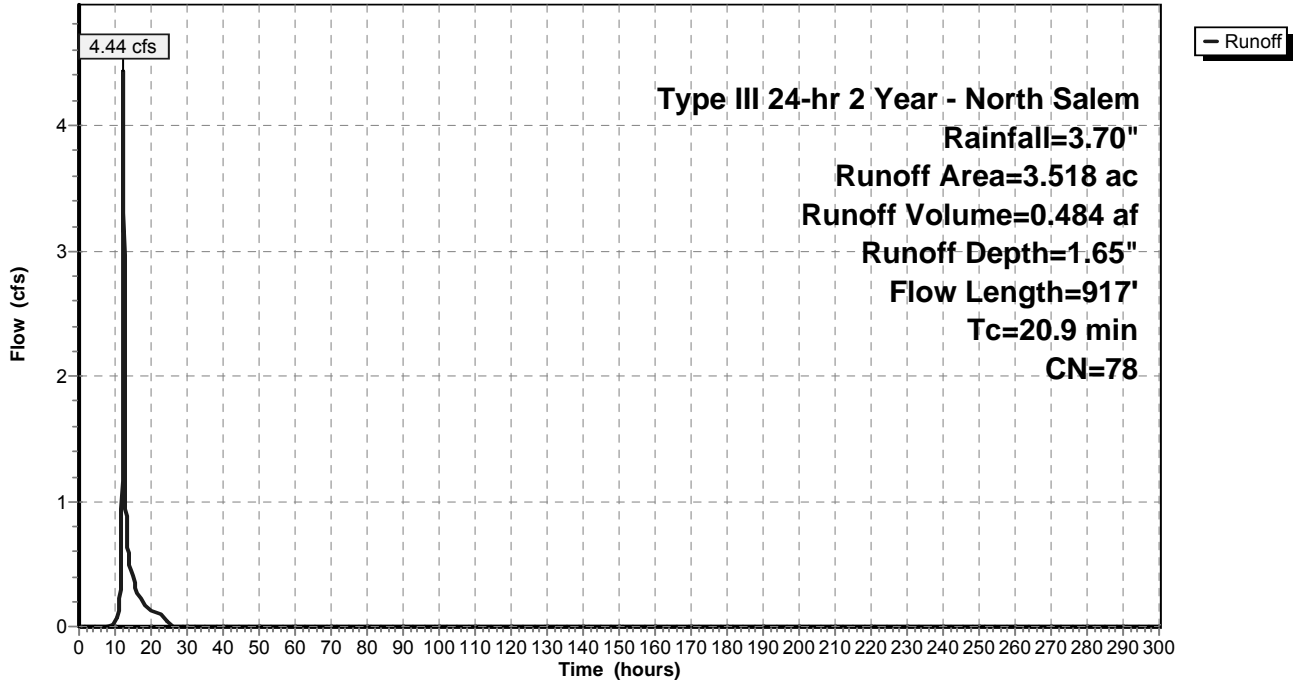
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6

Hydrograph



Summary for Subcatchment G7: Post-Development G7

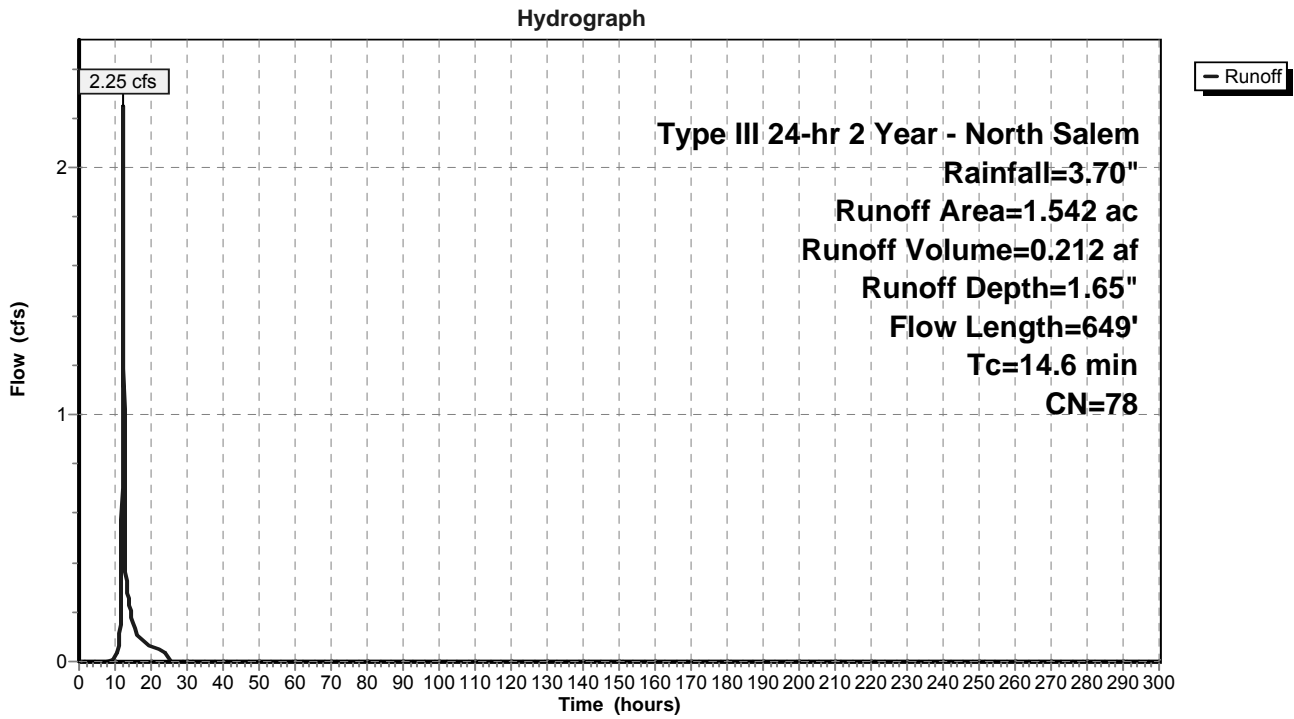
Runoff = 2.25 cfs @ 12.21 hrs, Volume= 0.212 af, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 0.10" for 2 Year - North Salem event
 Inflow = 1.03 cfs @ 12.21 hrs, Volume= 0.032 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 421.92' @ 284.90 hrs Surf.Area= 1,448 sf Storage= 1,604 cf (1,379 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

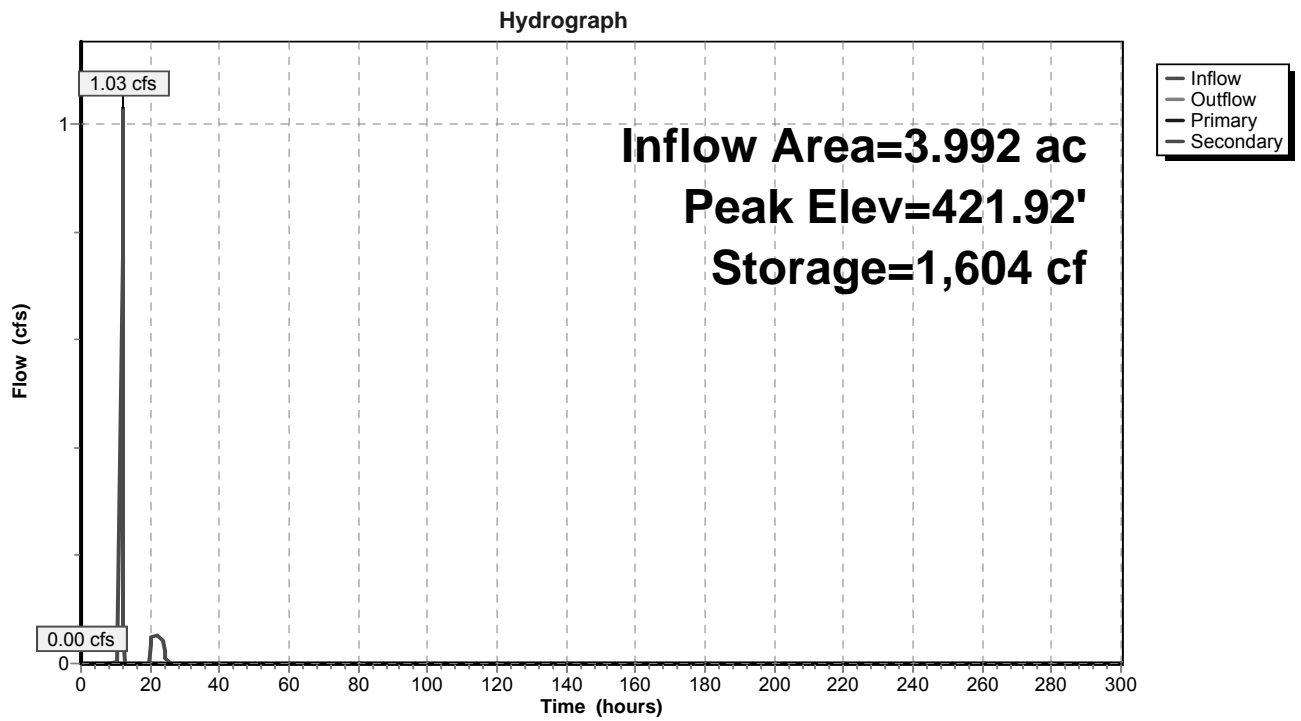
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

[79] Warning: Submerged Pond FS G6 Secondary device # 2 OUTLET by 0.05'

[79] Warning: Submerged Pond SF-G6 Primary device # 1 OUTLET by 0.05'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.28" for 2 Year - North Salem event
 Inflow = 4.08 cfs @ 12.39 hrs, Volume= 0.376 af
 Outflow = 0.36 cfs @ 15.40 hrs, Volume= 0.132 af, Atten= 91%, Lag= 180.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.36 cfs @ 15.40 hrs, Volume= 0.132 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 453.05' @ 15.40 hrs Surf.Area= 3,843 sf Storage= 11,346 cf (10,810 cf above start)

Plug-Flow detention time= 396.5 min calculated for 0.120 af (32% of inflow)
 Center-of-Mass det. time= 223.8 min (1,123.6 - 899.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

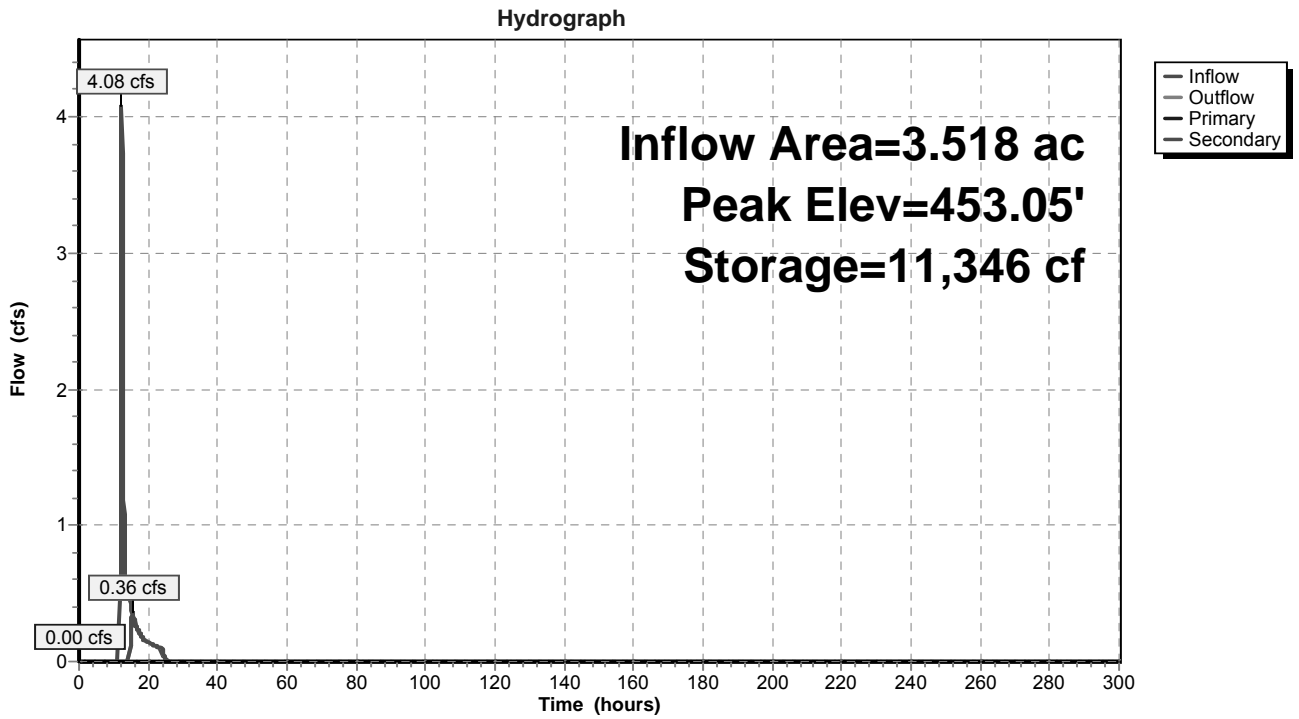
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=0.34 cfs @ 15.40 hrs HW=453.05' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.34 cfs @ 0.71 fps)

Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

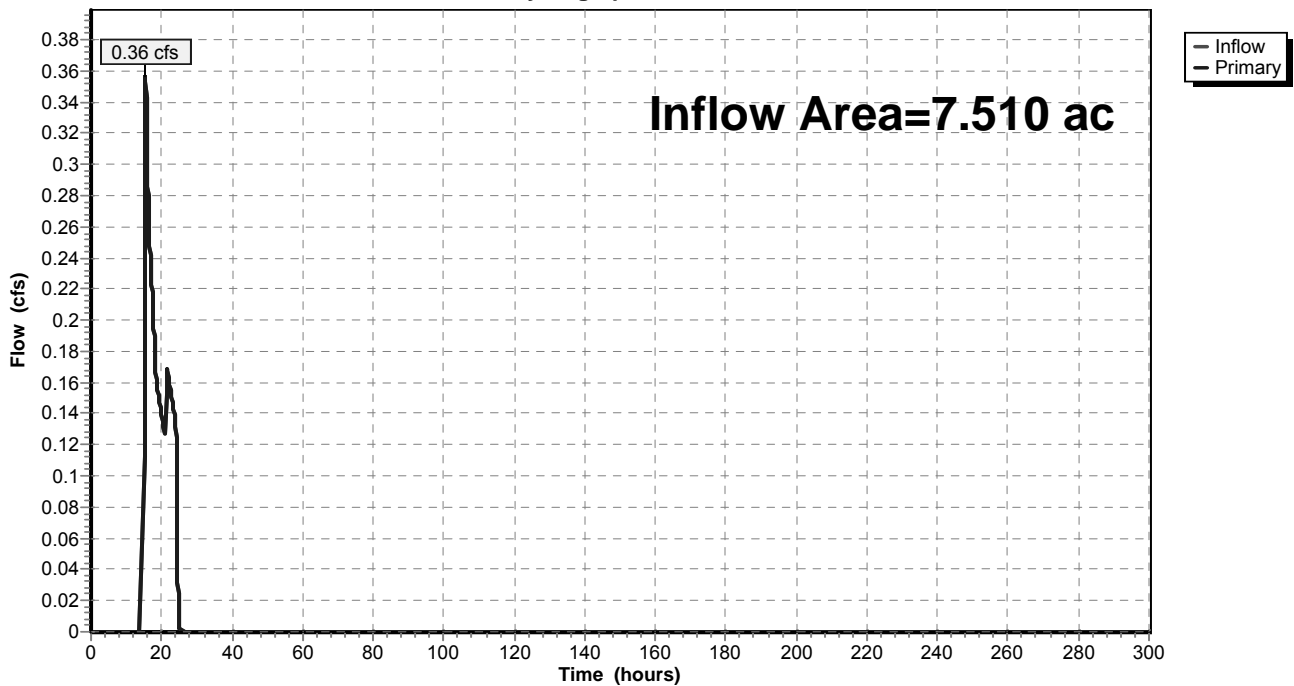
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth = 0.23" for 2 Year - North Salem event
Inflow = 0.36 cfs @ 15.40 hrs, Volume= 0.143 af
Primary = 0.36 cfs @ 15.40 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7

Hydrograph



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.96" for 2 Year - North Salem event
 Inflow = 1.84 cfs @ 12.20 hrs, Volume= 0.183 af
 Outflow = 1.84 cfs @ 12.20 hrs, Volume= 0.183 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.26 cfs @ 12.20 hrs, Volume= 0.174 af
 Secondary = 0.59 cfs @ 12.20 hrs, Volume= 0.009 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 438.15' @ 12.20 hrs
 Flood Elev= 527.50'

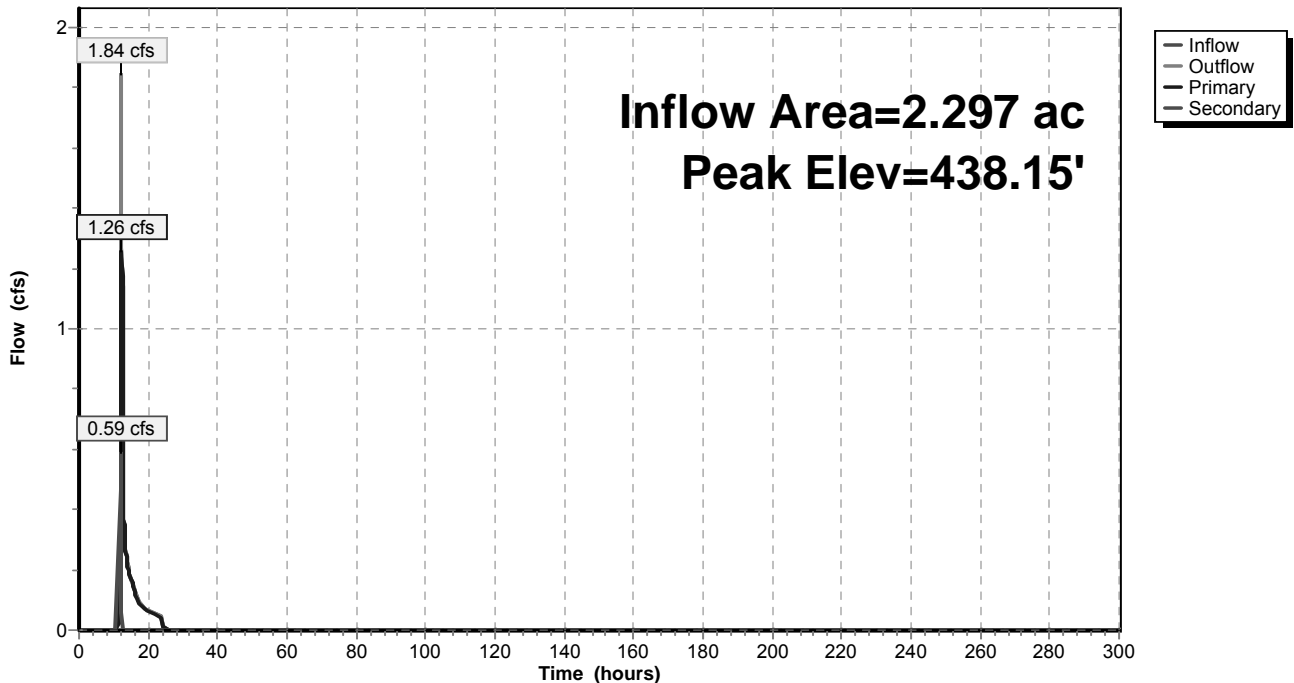
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.26 cfs @ 12.20 hrs HW=438.15' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.26 cfs @ 6.43 fps)

Secondary OutFlow Max=0.12 cfs @ 12.20 hrs HW=438.15' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.12 cfs @ 1.32 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.65" for 2 Year - North Salem event
 Inflow = 4.44 cfs @ 12.30 hrs, Volume= 0.484 af
 Outflow = 4.44 cfs @ 12.30 hrs, Volume= 0.484 af, Atten= 0%, Lag= 0.0 min
 Primary = 3.76 cfs @ 12.30 hrs, Volume= 0.472 af
 Secondary = 0.68 cfs @ 12.30 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.12' @ 12.30 hrs
 Flood Elev= 554.50'

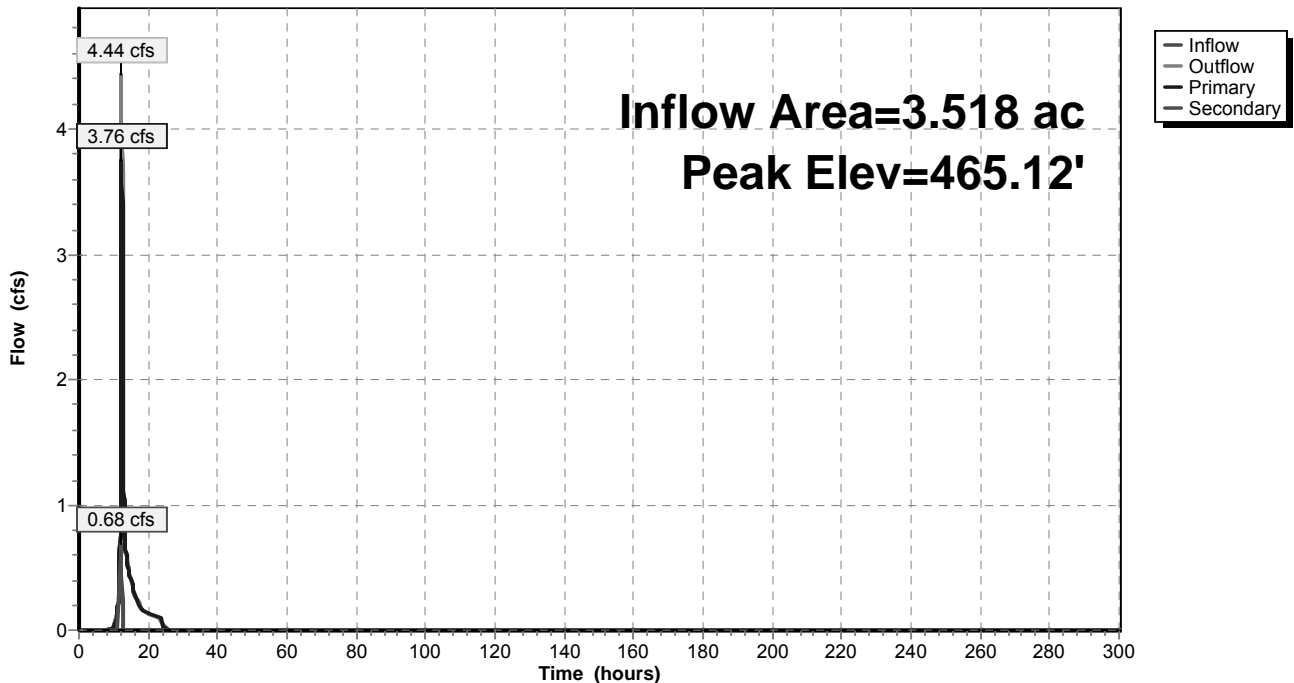
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=3.76 cfs @ 12.30 hrs HW=465.12' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 3.76 cfs @ 4.79 fps)

Secondary OutFlow Max=0.59 cfs @ 12.30 hrs HW=465.12' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.59 cfs @ 1.73 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.65" for 2 Year - North Salem event
 Inflow = 2.25 cfs @ 12.21 hrs, Volume= 0.212 af
 Outflow = 2.25 cfs @ 12.21 hrs, Volume= 0.212 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.80 cfs @ 12.21 hrs, Volume= 0.207 af
 Secondary = 0.44 cfs @ 12.21 hrs, Volume= 0.006 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 457.12' @ 12.21 hrs
 Flood Elev= 554.50'

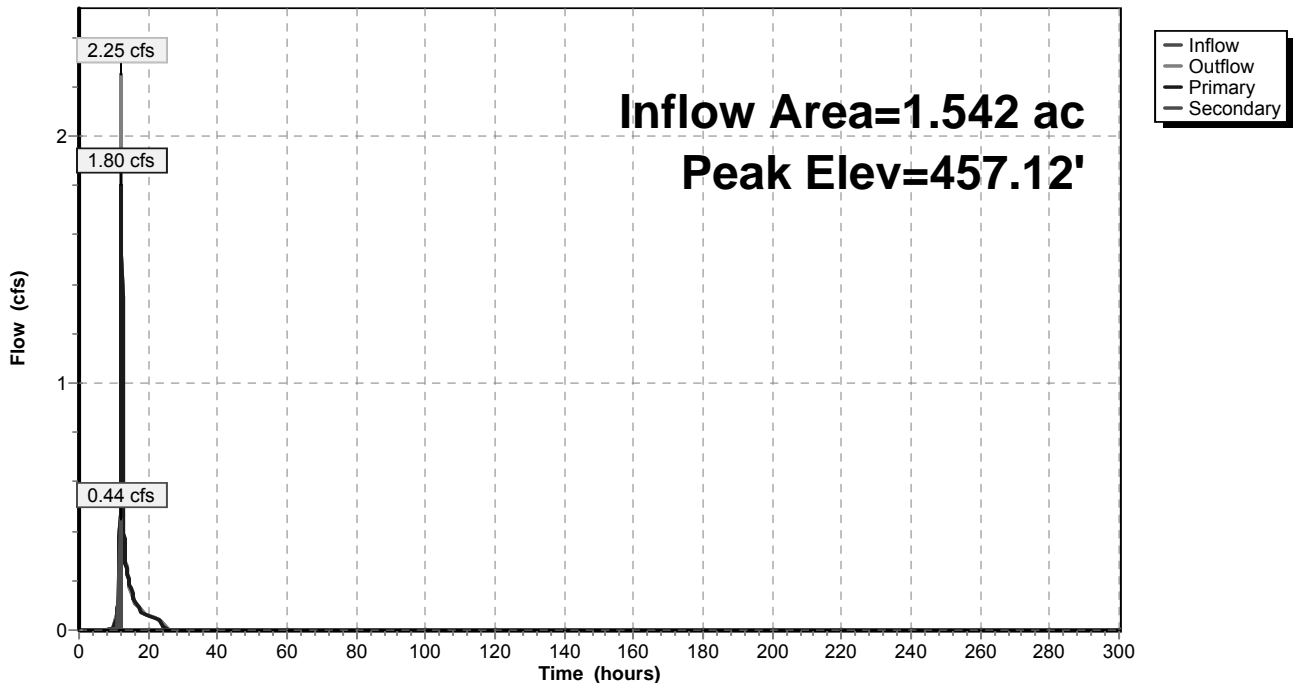
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 ' S= 0.0807 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=1.80 cfs @ 12.21 hrs HW=457.11' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.80 cfs @ 5.16 fps)

Secondary OutFlow Max=0.24 cfs @ 12.21 hrs HW=457.11' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 0.24 cfs @ 1.37 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 3.47" for 2 Year - North Salem event
 Inflow = 0.60 cfs @ 12.03 hrs, Volume= 0.044 af
 Outflow = 0.59 cfs @ 12.03 hrs, Volume= 0.044 af, Atten= 1%, Lag= 0.1 min
 Discarded = 0.59 cfs @ 12.03 hrs, Volume= 0.044 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.02' @ 12.03 hrs Surf.Area= 0.022 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.044 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (749.9 - 749.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

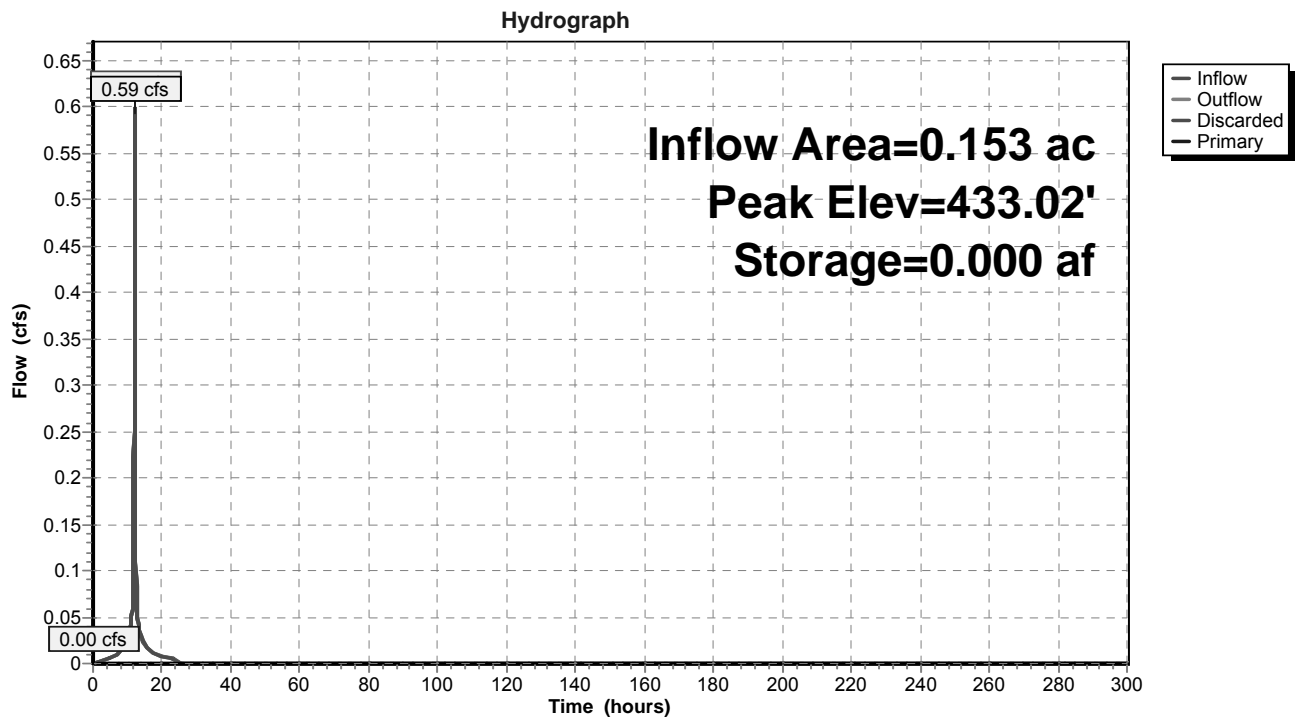
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.90 cfs @ 12.03 hrs HW=433.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 3.03" for 2 Year - North Salem event
 Inflow = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af
 Outflow = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.52 cfs @ 12.03 hrs, Volume= 0.036 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.01' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.036 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (778.8 - 778.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

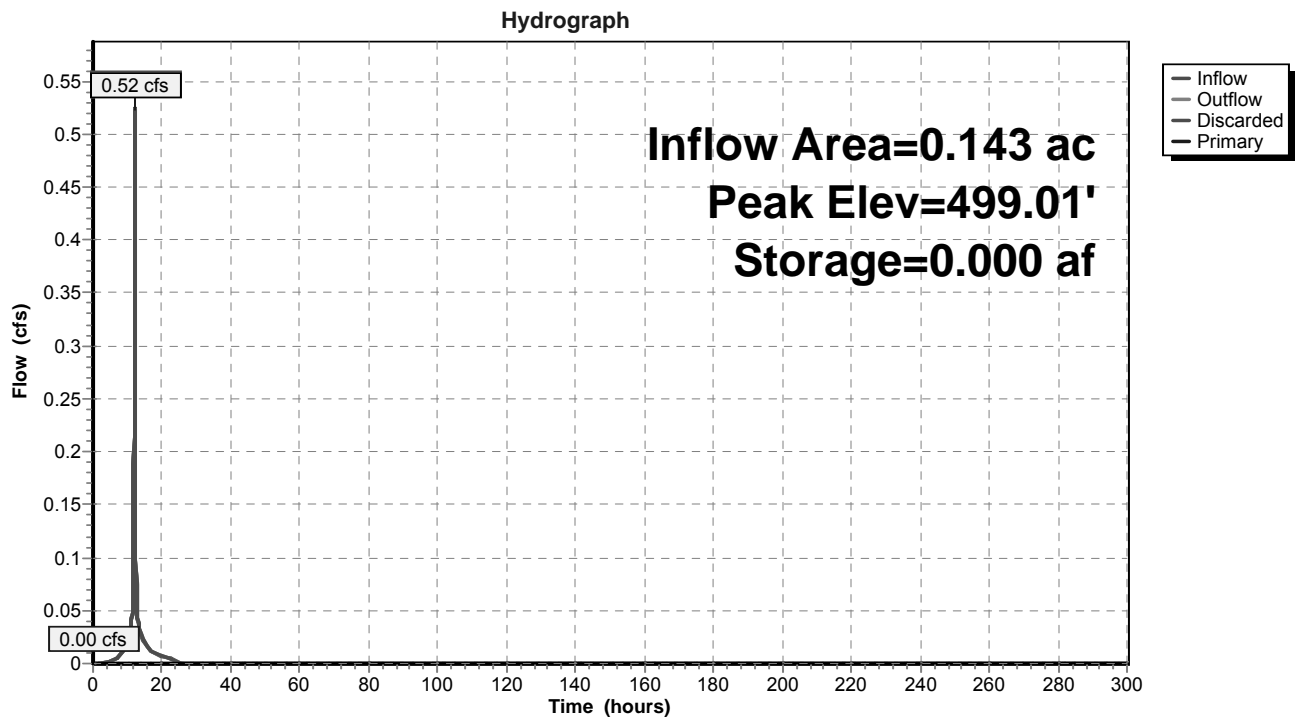
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.63" for 2 Year - North Salem event
 Inflow = 0.98 cfs @ 12.56 hrs, Volume= 0.121 af
 Outflow = 0.06 cfs @ 20.79 hrs, Volume= 0.017 af, Atten= 94%, Lag= 493.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.06 cfs @ 20.79 hrs, Volume= 0.017 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.03' @ 20.79 hrs Surf.Area= 1,971 sf Storage= 4,557 cf

Plug-Flow detention time= 577.6 min calculated for 0.017 af (14% of inflow)
 Center-of-Mass det. time= 377.8 min (1,334.0 - 956.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe X 0.00 L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

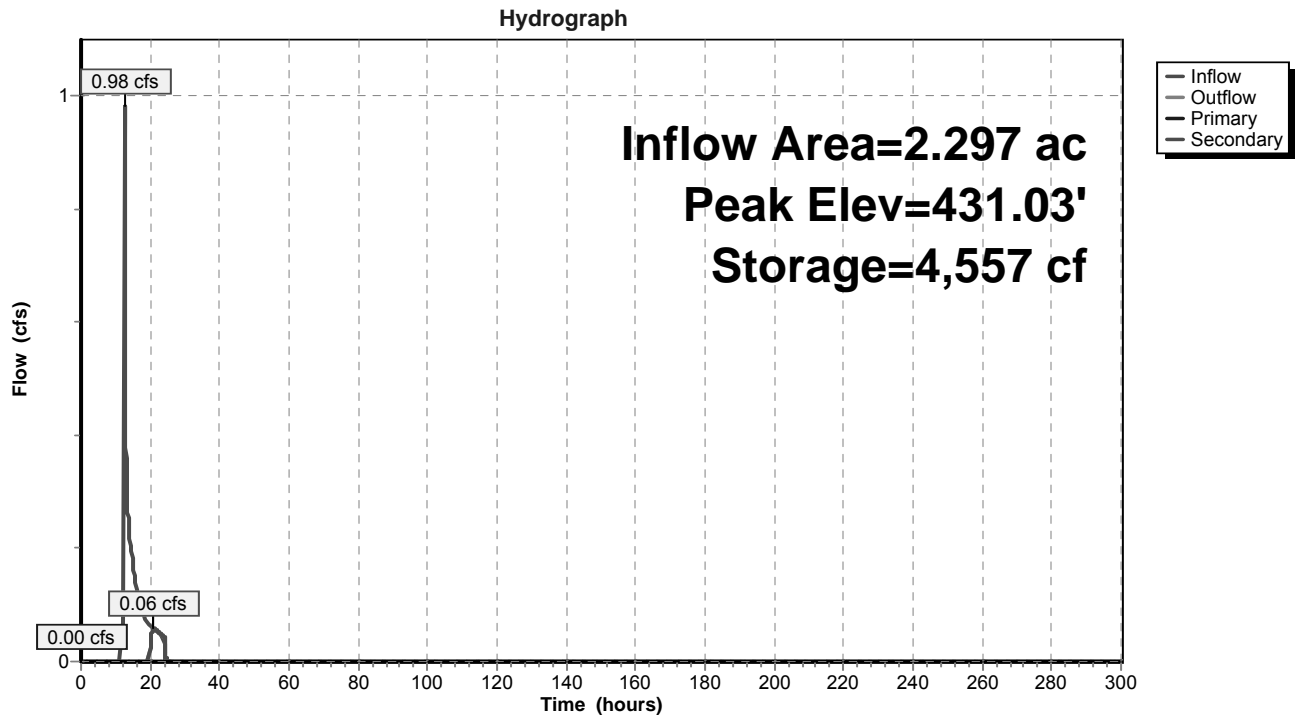
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.05 cfs @ 20.79 hrs HW=431.03' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 0.05 cfs @ 0.37 fps)

Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 0.00" for 2 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 456.00' @ 0.00 hrs Surf.Area= 3,512 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe X 0.00 L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

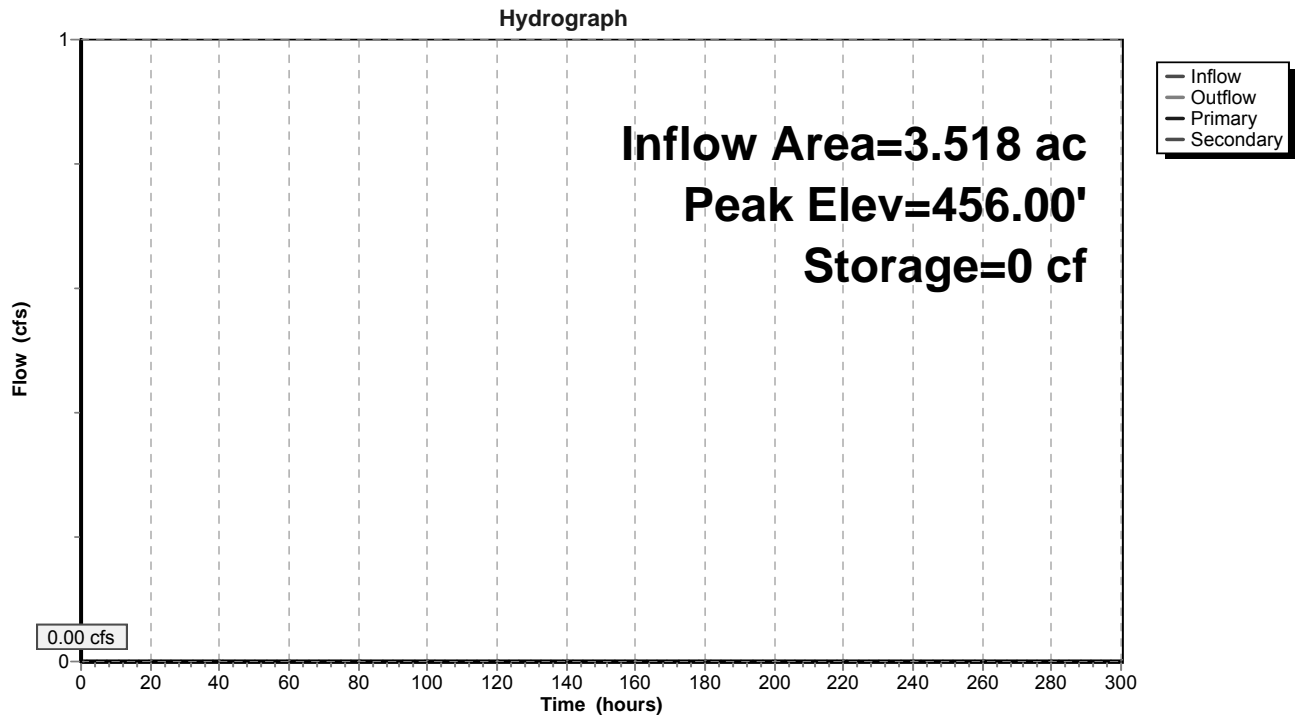
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.13" for 2 Year - North Salem event
 Inflow = 1.80 cfs @ 12.37 hrs, Volume= 0.145 af
 Outflow = 0.05 cfs @ 21.74 hrs, Volume= 0.011 af, Atten= 97%, Lag= 562.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.05 cfs @ 21.74 hrs, Volume= 0.011 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 451.01' @ 21.74 hrs Surf.Area= 2,470 sf Storage= 5,836 cf

Plug-Flow detention time= 626.8 min calculated for 0.011 af (8% of inflow)
 Center-of-Mass det. time= 453.6 min (1,367.6 - 914.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

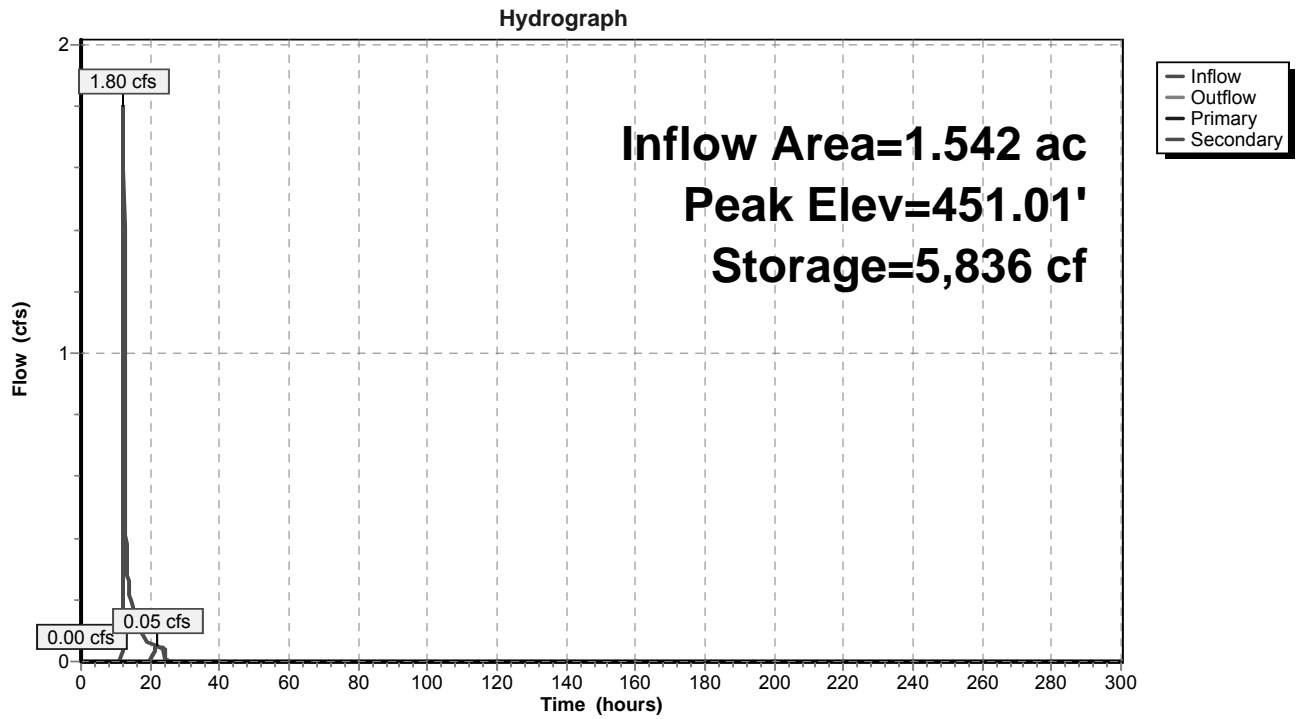
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.02 cfs @ 21.74 hrs HW=451.01' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 0.02 cfs @ 0.29 fps)

Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 0.91" for 2 Year - North Salem event
 Inflow = 1.26 cfs @ 12.20 hrs, Volume= 0.174 af
 Outflow = 0.98 cfs @ 12.56 hrs, Volume= 0.121 af, Atten= 22%, Lag= 21.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.98 cfs @ 12.56 hrs, Volume= 0.121 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 435.09' @ 12.56 hrs Surf.Area= 1,142 sf Storage= 2,410 cf

Plug-Flow detention time= 178.9 min calculated for 0.121 af (70% of inflow)
 Center-of-Mass det. time= 70.2 min (956.3 - 886.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

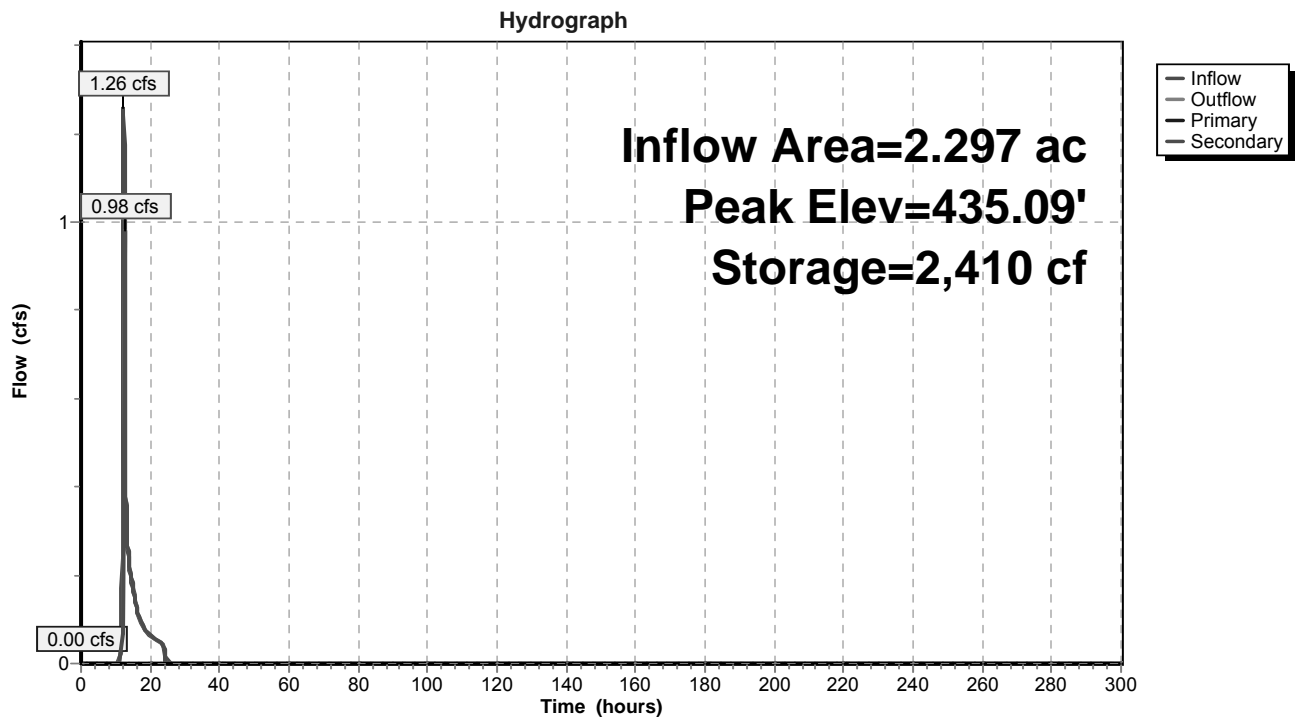
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.90 cfs @ 12.56 hrs HW=435.09' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.90 cfs @ 1.00 fps)

Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

[79] Warning: Submerged Pond FS G6 Primary device # 1 OUTLET by 0.08'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 1.61" for 2 Year - North Salem event
 Inflow = 3.76 cfs @ 12.30 hrs, Volume= 0.472 af
 Outflow = 3.64 cfs @ 12.41 hrs, Volume= 0.364 af, Atten= 3%, Lag= 6.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 3.64 cfs @ 12.41 hrs, Volume= 0.364 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 463.23' @ 12.41 hrs Surf.Area= 2,235 sf Storage= 5,205 cf

Plug-Flow detention time= 134.1 min calculated for 0.364 af (77% of inflow)
 Center-of-Mass det. time= 46.9 min (905.2 - 858.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

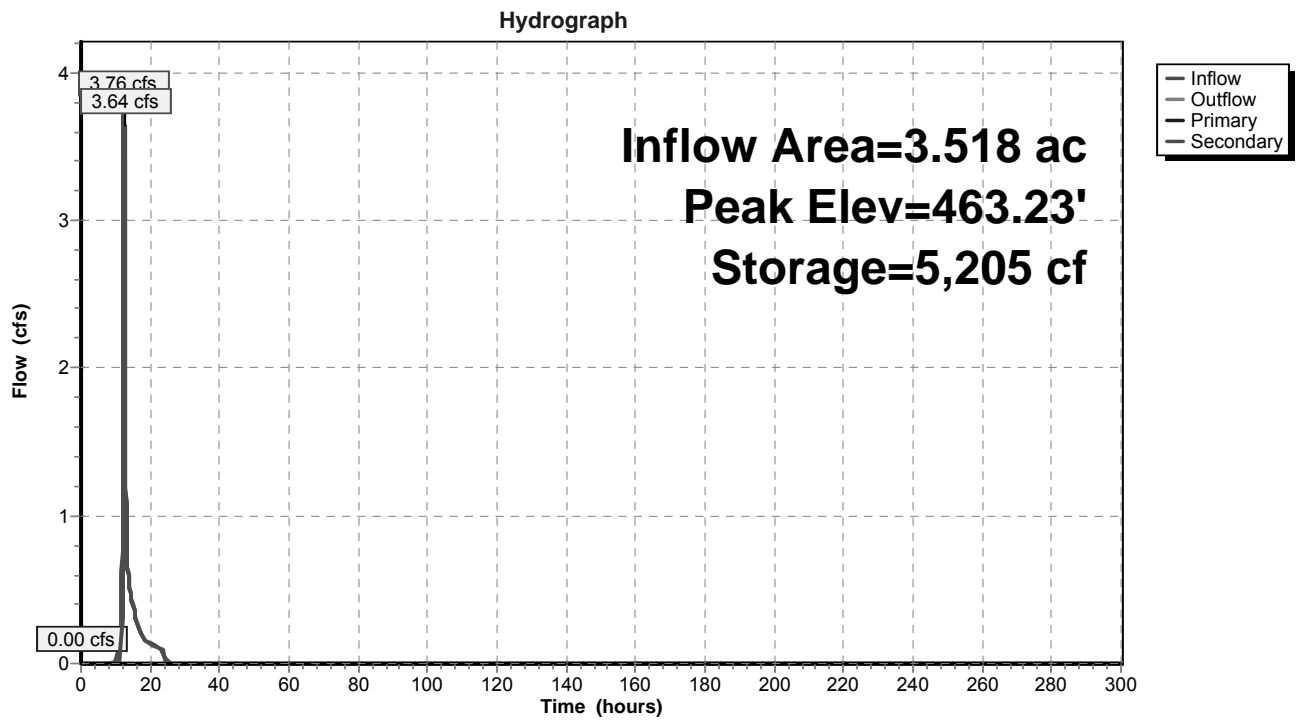
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=3.60 cfs @ 12.41 hrs HW=463.23' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 3.60 cfs @ 1.60 fps)

Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

[79] Warning: Submerged Pond FS G7 Primary device # 1 OUTLET by 0.03'

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 1.61" for 2 Year - North Salem event
 Inflow = 1.80 cfs @ 12.21 hrs, Volume= 0.207 af
 Outflow = 1.80 cfs @ 12.37 hrs, Volume= 0.145 af, Atten= 0%, Lag= 9.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.80 cfs @ 12.37 hrs, Volume= 0.145 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 455.13' @ 12.35 hrs Surf.Area= 1,286 sf Storage= 2,858 cf

Plug-Flow detention time= 162.0 min calculated for 0.145 af (70% of inflow)
 Center-of-Mass det. time= 61.4 min (914.0 - 852.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
452.00	581	93.0	0	0	581	
454.00	1,003	118.0	1,565	1,565	1,051	
455.00	1,251	130.0	1,125	2,690	1,318	
456.00	1,525	143.0	1,386	4,075	1,632	

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

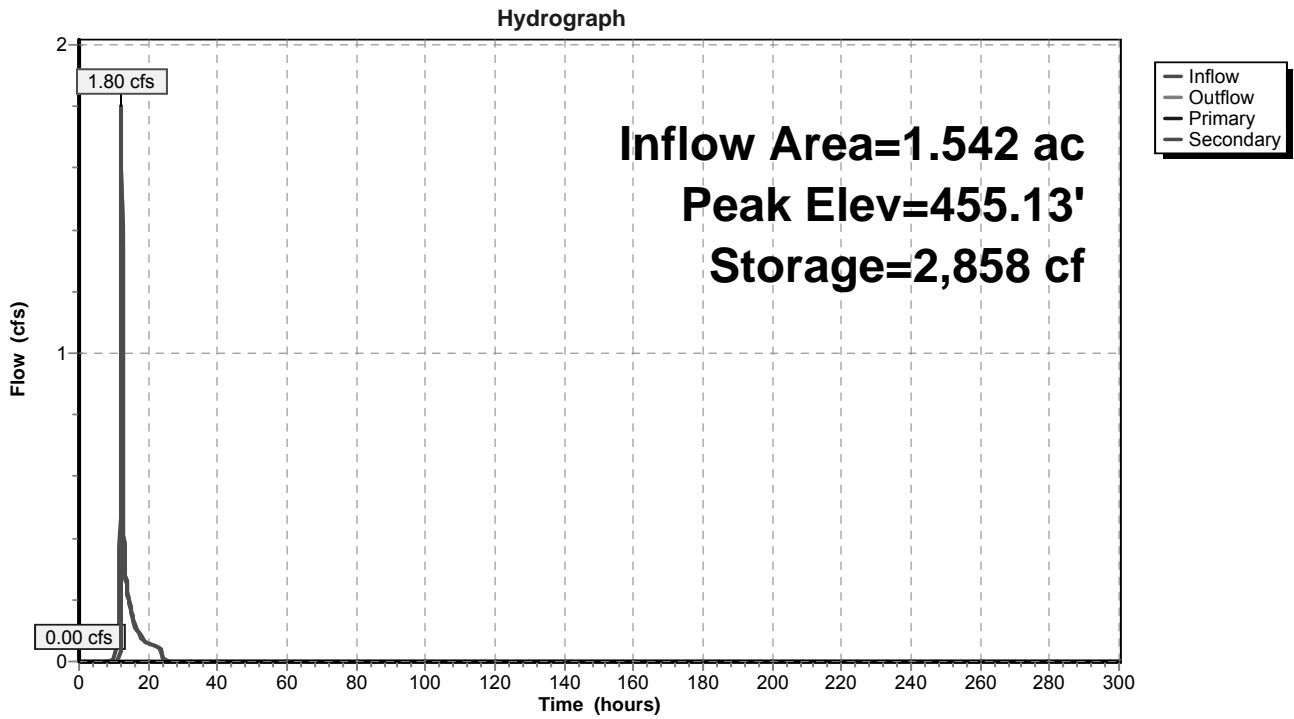
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.59 cfs @ 12.37 hrs HW=455.13' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.59 cfs @ 1.21 fps)

Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Woodlands Post-Dev DP 7 - Part 2 WOR Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=2.24"
Flow Length=833' Tc=13.0 min CN=68 Runoff=4.38 cfs 0.403 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=5.26"
Flow Length=245' Tc=2.0 min CN=98 Runoff=0.89 cfs 0.067 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=4.80"
Flow Length=245' Tc=2.0 min CN=94 Runoff=0.81 cfs 0.057 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=3.14"
Flow Length=917' Tc=20.9 min CN=78 Runoff=8.55 cfs 0.921 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=3.14"
Flow Length=649' Tc=14.6 min CN=78 Runoff=4.32 cfs 0.404 af

Pond B-G5: Dry Basin - G5 Peak Elev=425.03' Storage=10,243 cf Inflow=5.23 cfs 0.301 af
Primary=0.00 cfs 0.000 af Secondary=0.18 cfs 0.074 af Outflow=0.18 cfs 0.074 af

Pond B-G6: Dry Basin - G6 Peak Elev=453.30' Storage=12,344 cf Inflow=8.53 cfs 0.813 af
Primary=0.00 cfs 0.000 af Secondary=5.57 cfs 0.569 af Outflow=5.57 cfs 0.569 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=5.57 cfs 0.795 af
Primary=5.57 cfs 0.795 af

Pond FS G5: Flow Splitter - G5 Peak Elev=438.76' Inflow=4.38 cfs 0.403 af
Primary=1.46 cfs 0.319 af Secondary=2.92 cfs 0.083 af Outflow=4.38 cfs 0.403 af

Pond FS G6: Flow Splitter - G6 Peak Elev=465.64' Inflow=8.55 cfs 0.921 af
Primary=4.42 cfs 0.796 af Secondary=4.13 cfs 0.124 af Outflow=8.55 cfs 0.921 af

Pond FS G7: Flow Splitter - G7 Peak Elev=457.49' Inflow=4.32 cfs 0.404 af
Primary=2.01 cfs 0.348 af Secondary=2.31 cfs 0.055 af Outflow=4.32 cfs 0.404 af

Pond S-17: Underground Infiltration Peak Elev=433.03' Storage=0.000 af Inflow=0.89 cfs 0.067 af
Discarded=0.89 cfs 0.067 af Primary=0.00 cfs 0.000 af Outflow=0.89 cfs 0.067 af

Pond S-21: Underground Infiltration Peak Elev=499.01' Storage=0.000 af Inflow=0.81 cfs 0.057 af
Discarded=0.80 cfs 0.057 af Primary=0.00 cfs 0.000 af Outflow=0.80 cfs 0.057 af

Pond SF-G5: Sand Filter - G5 Peak Elev=431.08' Storage=4,651 cf Inflow=1.63 cfs 0.266 af
Primary=0.00 cfs 0.000 af Secondary=0.49 cfs 0.162 af Outflow=0.49 cfs 0.162 af

Pond SF-G6: Sand Filter - G6 Peak Elev=456.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-G7: Sand Filter - G7 Peak Elev=451.06' Storage=5,962 cf Inflow=2.01 cfs 0.287 af
Primary=0.00 cfs 0.000 af Secondary=0.49 cfs 0.153 af Outflow=0.49 cfs 0.153 af

Woodlands Post-Dev DP 7 - Part 2 WOR Type III 24-hr 10 Year - North Salem Rainfall=5.50"

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=435.13' Storage=2,447 cf Inflow=1.46 cfs 0.319 af
Primary=0.00 cfs 0.000 af Secondary=1.63 cfs 0.266 af Outflow=1.63 cfs 0.266 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=463.26' Storage=5,274 cf Inflow=4.42 cfs 0.796 af
Primary=0.00 cfs 0.000 af Secondary=4.42 cfs 0.688 af Outflow=4.42 cfs 0.688 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=455.15' Storage=2,885 cf Inflow=2.01 cfs 0.348 af
Primary=0.00 cfs 0.000 af Secondary=2.01 cfs 0.287 af Outflow=2.01 cfs 0.287 af

Total Runoff Area = 7.510 ac Runoff Volume = 1.851 af Average Runoff Depth = 2.96"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

Runoff = 4.38 cfs @ 12.19 hrs, Volume= 0.403 af, Depth= 2.24"

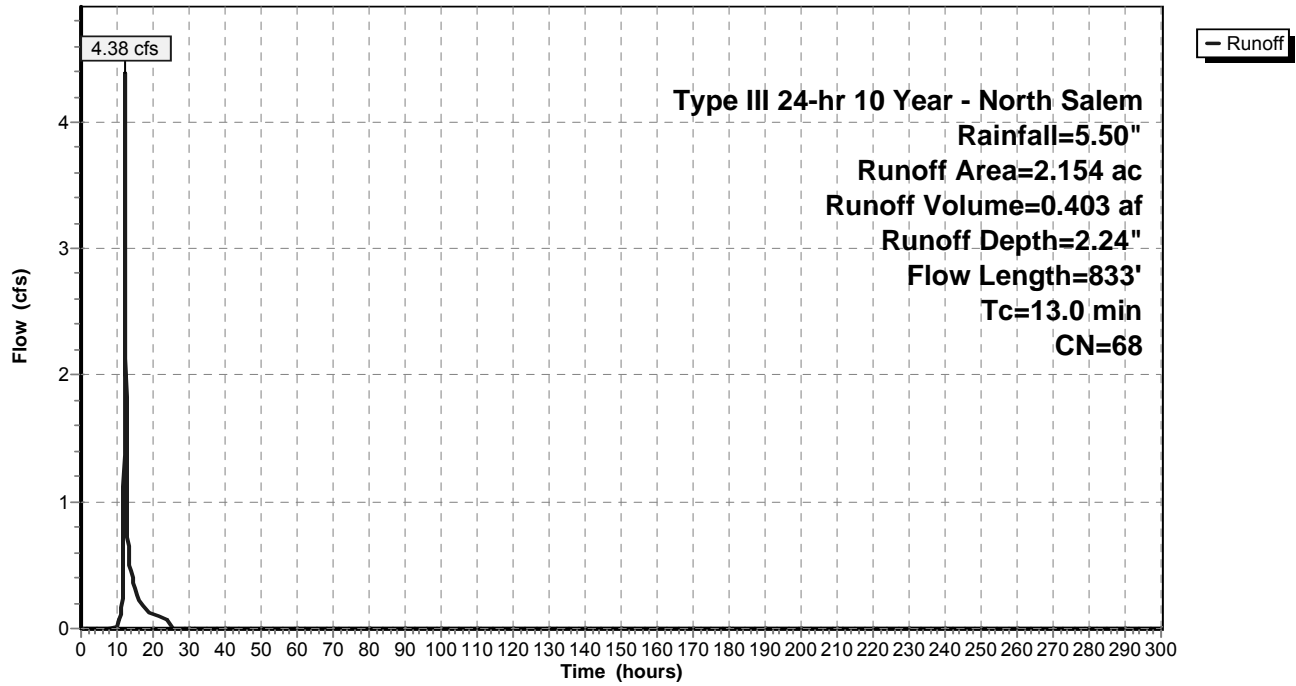
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a

Hydrograph



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

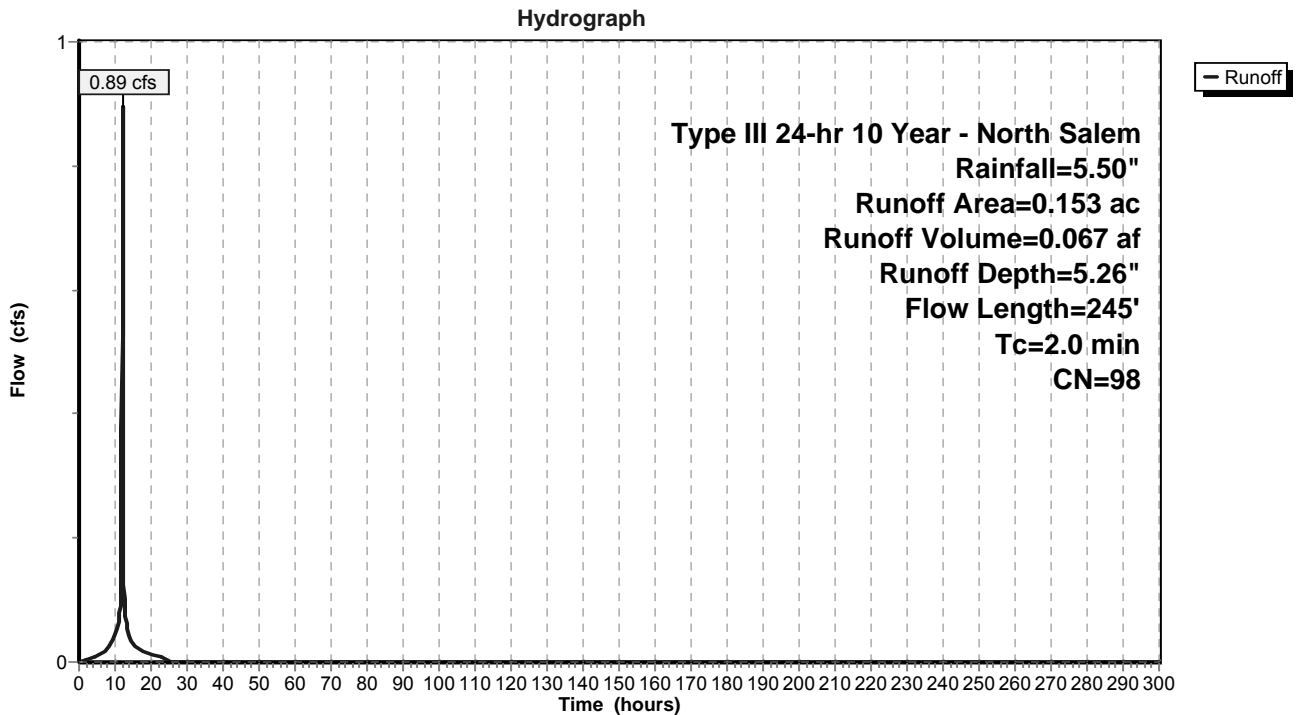
Runoff = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.81 cfs @ 12.03 hrs, Volume= 0.057 af, Depth= 4.80"

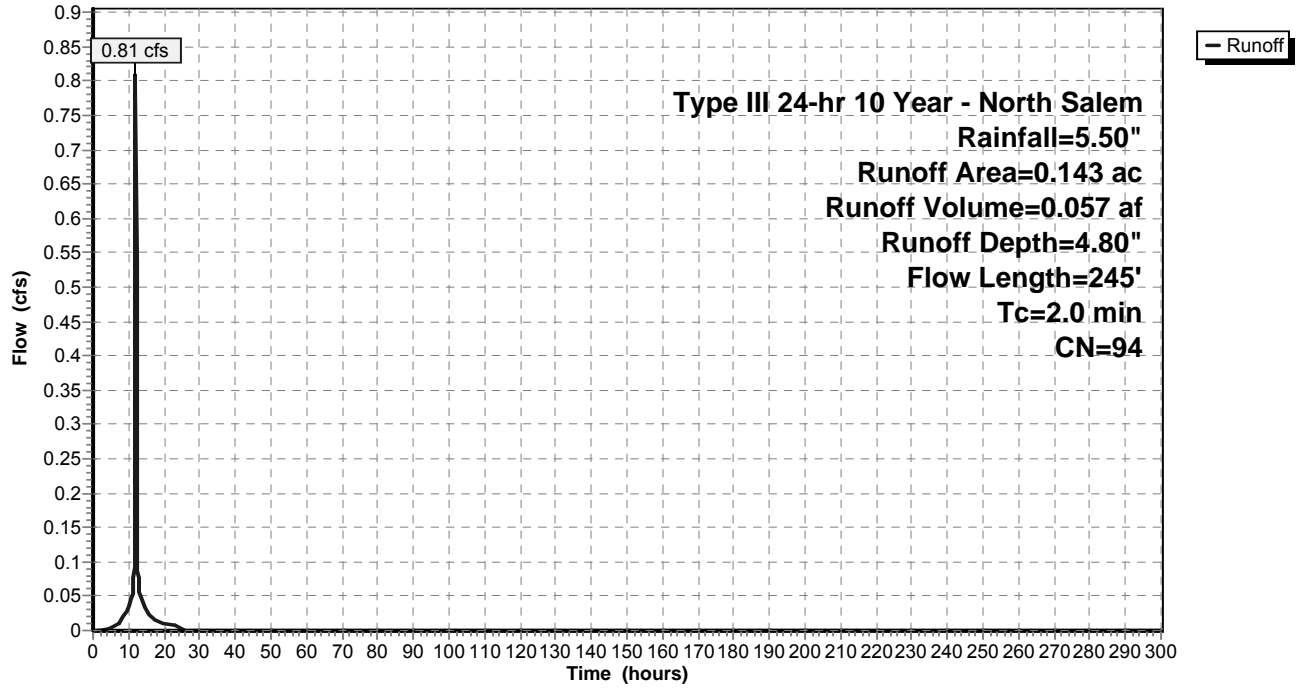
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c

Hydrograph



Summary for Subcatchment G6: Post-Development G6

Runoff = 8.55 cfs @ 12.29 hrs, Volume= 0.921 af, Depth= 3.14"

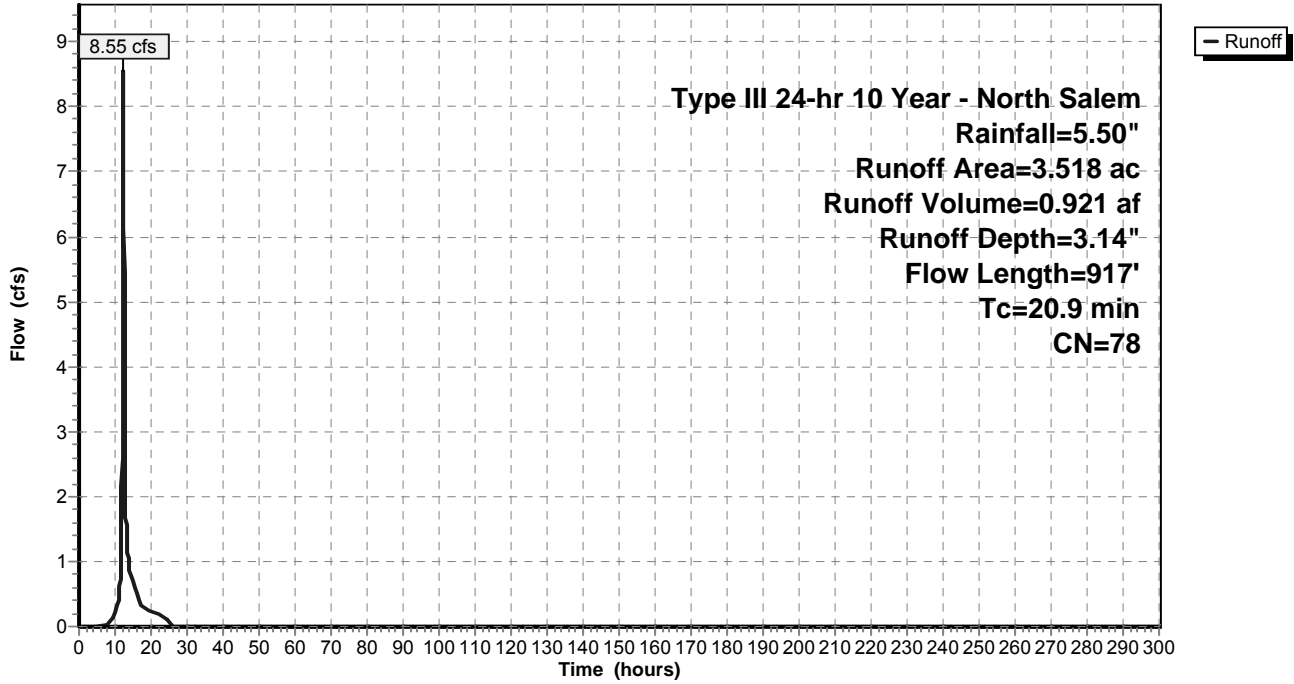
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6

Hydrograph



Summary for Subcatchment G7: Post-Development G7

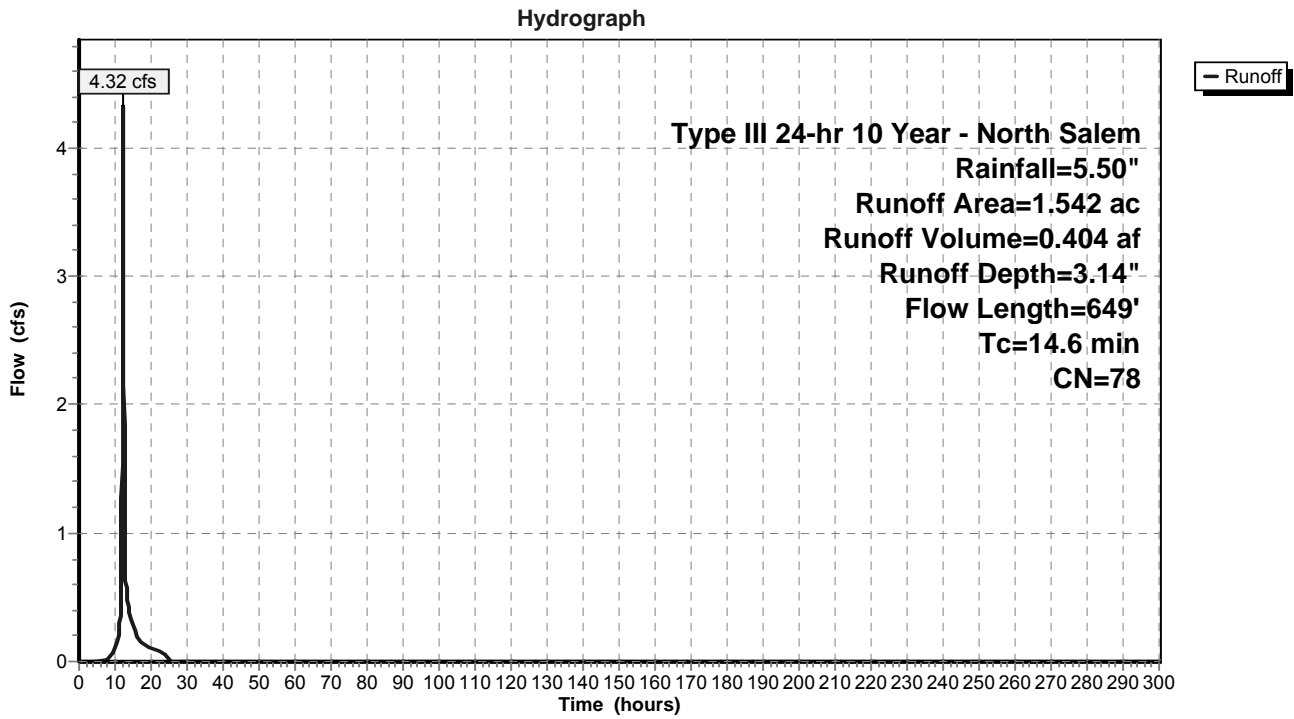
Runoff = 4.32 cfs @ 12.20 hrs, Volume= 0.404 af, Depth= 3.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7



Summary for Pond B-G5: Dry Basin - G5

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 0.90" for 10 Year - North Salem event
 Inflow = 5.23 cfs @ 12.20 hrs, Volume= 0.301 af
 Outflow = 0.18 cfs @ 17.39 hrs, Volume= 0.074 af, Atten= 97%, Lag= 311.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.18 cfs @ 17.39 hrs, Volume= 0.074 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf

Peak Elev= 425.03' @ 17.39 hrs Surf.Area= 4,279 sf Storage= 10,243 cf (10,018 cf above start)

Plug-Flow detention time= 498.1 min calculated for 0.068 af (23% of inflow)

Center-of-Mass det. time= 316.6 min (1,212.5 - 895.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
420.00	347	128.0	0	0	347
422.00	1,509	251.0	1,720	1,720	4,076
424.00	3,264	321.0	4,662	6,381	7,313
425.00	4,253	340.0	3,748	10,129	8,366
426.00	5,302	360.0	4,768	14,897	9,534

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

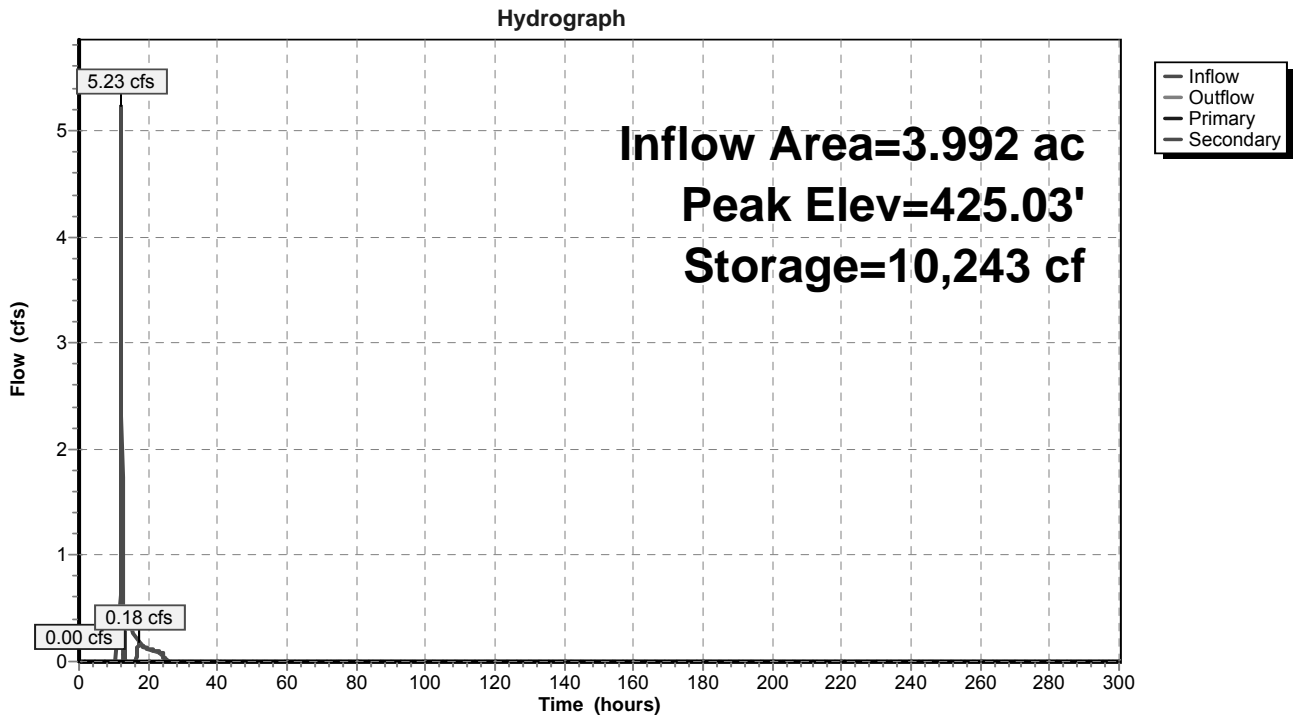
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=0.14 cfs @ 17.39 hrs HW=425.03' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.14 cfs @ 0.54 fps)

Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

[79] Warning: Submerged Pond FS G6 Secondary device # 2 OUTLET by 0.30'

[79] Warning: Submerged Pond SF-G6 Primary device # 1 OUTLET by 0.30'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 2.77" for 10 Year - North Salem event
 Inflow = 8.53 cfs @ 12.29 hrs, Volume= 0.813 af
 Outflow = 5.57 cfs @ 12.56 hrs, Volume= 0.569 af, Atten= 35%, Lag= 16.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 5.57 cfs @ 12.56 hrs, Volume= 0.569 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 453.30' @ 12.56 hrs Surf.Area= 4,035 sf Storage= 12,344 cf (11,808 cf above start)

Plug-Flow detention time= 166.4 min calculated for 0.556 af (68% of inflow)
 Center-of-Mass det. time= 61.5 min (924.2 - 862.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
448.00	975	126.0	0	0	975	
450.00	1,880	175.0	2,806	2,806	2,187	
452.00	3,088	228.0	4,918	7,724	3,933	
453.00	3,808	251.0	3,442	11,166	4,842	
454.00	4,588	270.0	4,192	15,358	5,672	

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

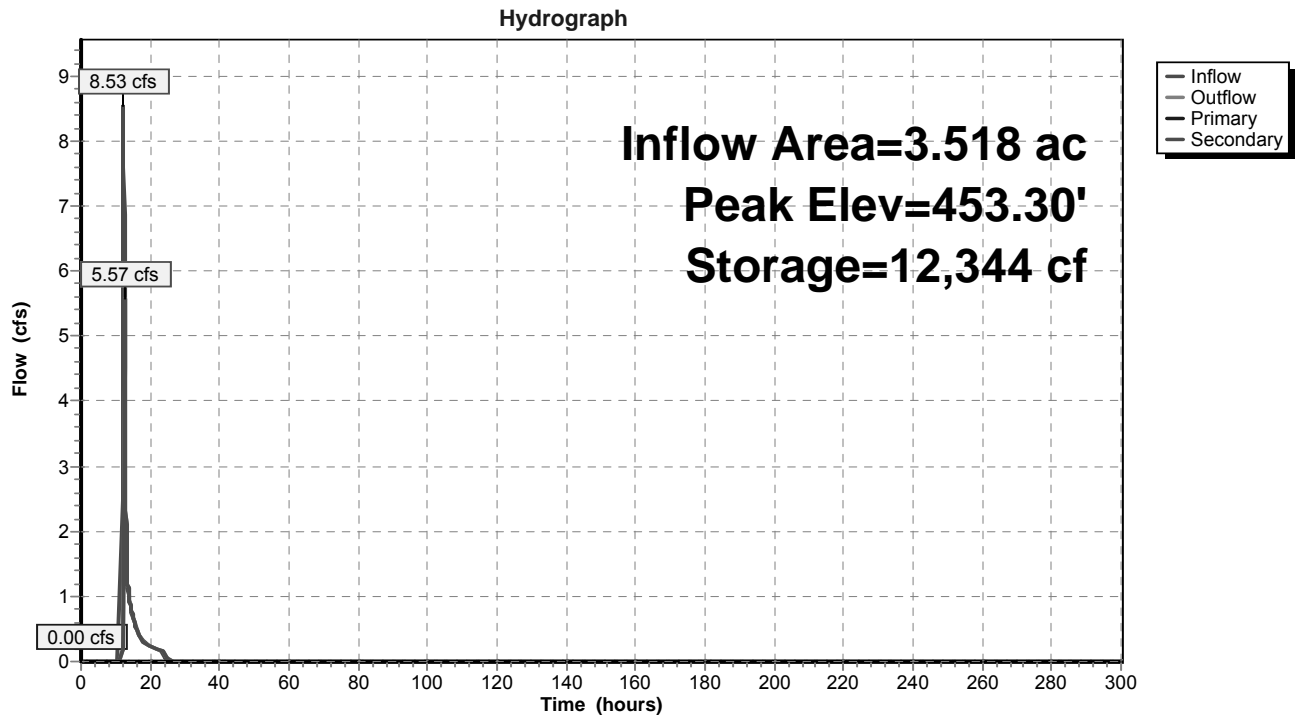
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=5.42 cfs @ 12.56 hrs HW=453.30' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 5.42 cfs @ 1.84 fps)

Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

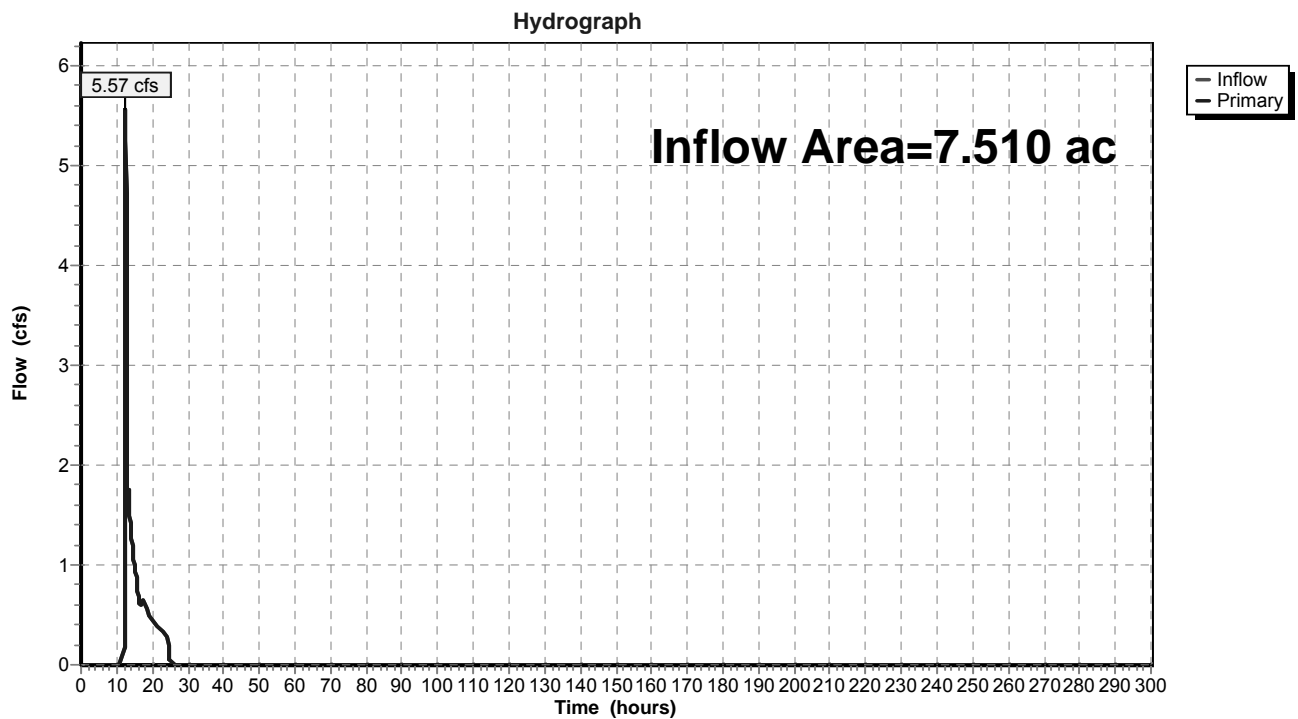
Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth = 1.27" for 10 Year - North Salem event
 Inflow = 5.57 cfs @ 12.56 hrs, Volume= 0.795 af
 Primary = 5.57 cfs @ 12.56 hrs, Volume= 0.795 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 2.10" for 10 Year - North Salem event
 Inflow = 4.38 cfs @ 12.19 hrs, Volume= 0.403 af
 Outflow = 4.38 cfs @ 12.19 hrs, Volume= 0.403 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.46 cfs @ 12.19 hrs, Volume= 0.319 af
 Secondary = 2.92 cfs @ 12.19 hrs, Volume= 0.083 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 438.76' @ 12.19 hrs
 Flood Elev= 527.50'

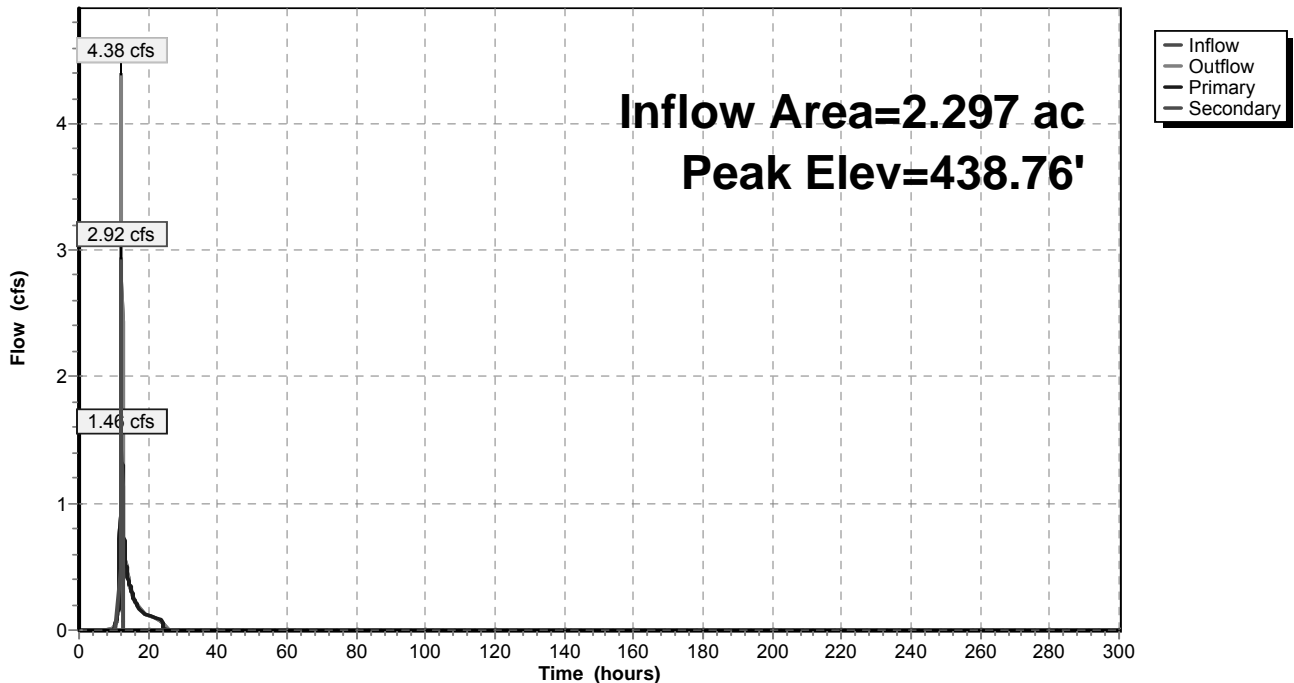
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.46 cfs @ 12.19 hrs HW=438.75' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.46 cfs @ 7.43 fps)

Secondary OutFlow Max=2.60 cfs @ 12.19 hrs HW=438.75' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 2.60 cfs @ 2.95 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 3.14" for 10 Year - North Salem event
 Inflow = 8.55 cfs @ 12.29 hrs, Volume= 0.921 af
 Outflow = 8.55 cfs @ 12.29 hrs, Volume= 0.921 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.42 cfs @ 12.29 hrs, Volume= 0.796 af
 Secondary = 4.13 cfs @ 12.29 hrs, Volume= 0.124 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.64' @ 12.29 hrs
 Flood Elev= 554.50'

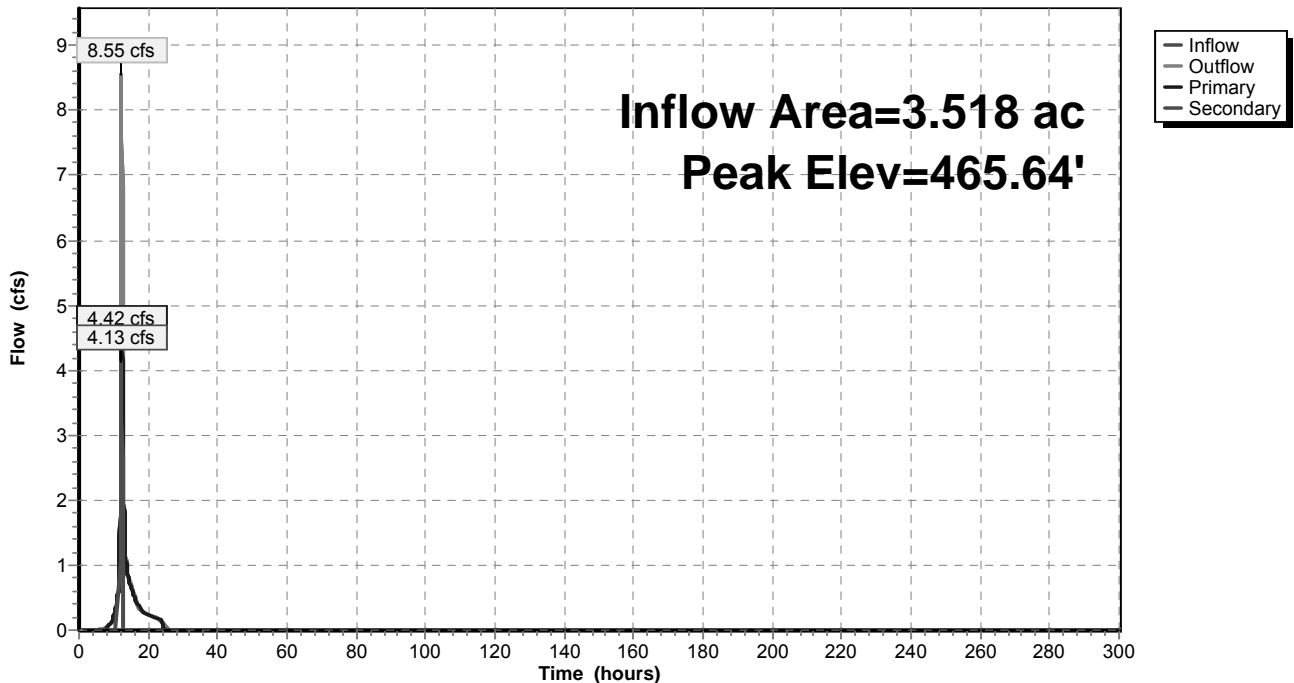
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' /' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' /' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=4.45 cfs @ 12.29 hrs HW=465.63' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 4.45 cfs @ 5.67 fps)

Secondary OutFlow Max=3.47 cfs @ 12.29 hrs HW=465.63' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 3.47 cfs @ 2.76 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 3.14" for 10 Year - North Salem event
 Inflow = 4.32 cfs @ 12.20 hrs, Volume= 0.404 af
 Outflow = 4.32 cfs @ 12.20 hrs, Volume= 0.404 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.01 cfs @ 12.20 hrs, Volume= 0.348 af
 Secondary = 2.31 cfs @ 12.20 hrs, Volume= 0.055 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 457.49' @ 12.20 hrs
 Flood Elev= 554.50'

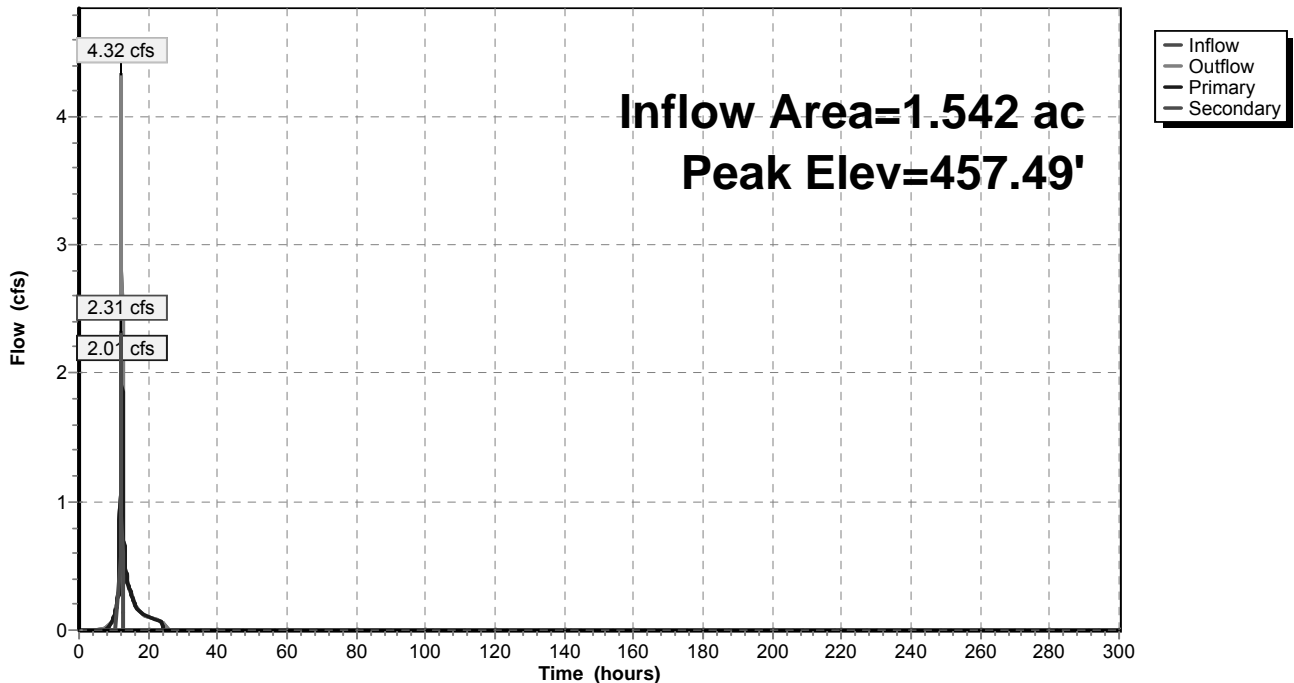
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 ' ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 ' ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=2.02 cfs @ 12.20 hrs HW=457.49' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.02 cfs @ 5.79 fps)

Secondary OutFlow Max=1.78 cfs @ 12.20 hrs HW=457.49' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 1.78 cfs @ 2.30 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 5.26" for 10 Year - North Salem event
 Inflow = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af
 Outflow = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af, Atten= 1%, Lag= 0.1 min
 Discarded = 0.89 cfs @ 12.03 hrs, Volume= 0.067 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.03' @ 12.03 hrs Surf.Area= 0.022 ac Storage= 0.000 af

Plug-Flow detention time= 0.2 min calculated for 0.067 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (742.9 - 742.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

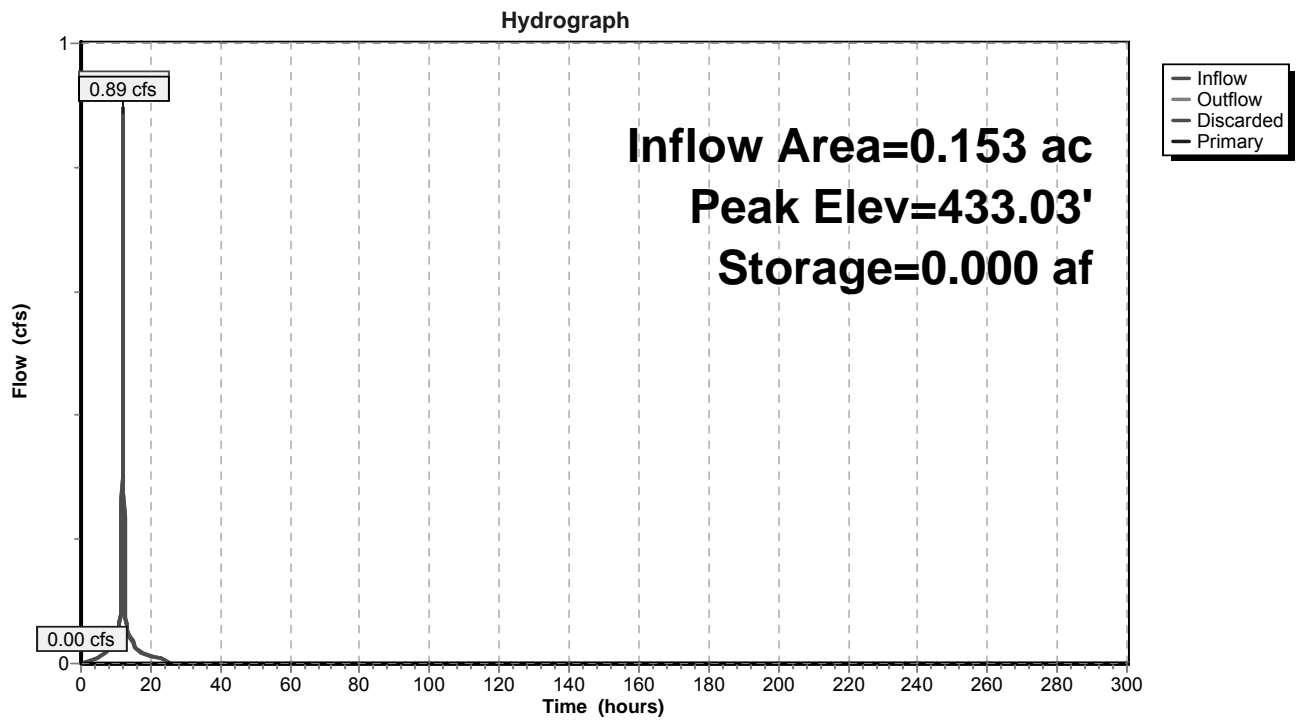
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.90 cfs @ 12.03 hrs HW=433.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 4.80" for 10 Year - North Salem event
 Inflow = 0.81 cfs @ 12.03 hrs, Volume= 0.057 af
 Outflow = 0.80 cfs @ 12.03 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.80 cfs @ 12.03 hrs, Volume= 0.057 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.01' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.057 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (767.2 - 767.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

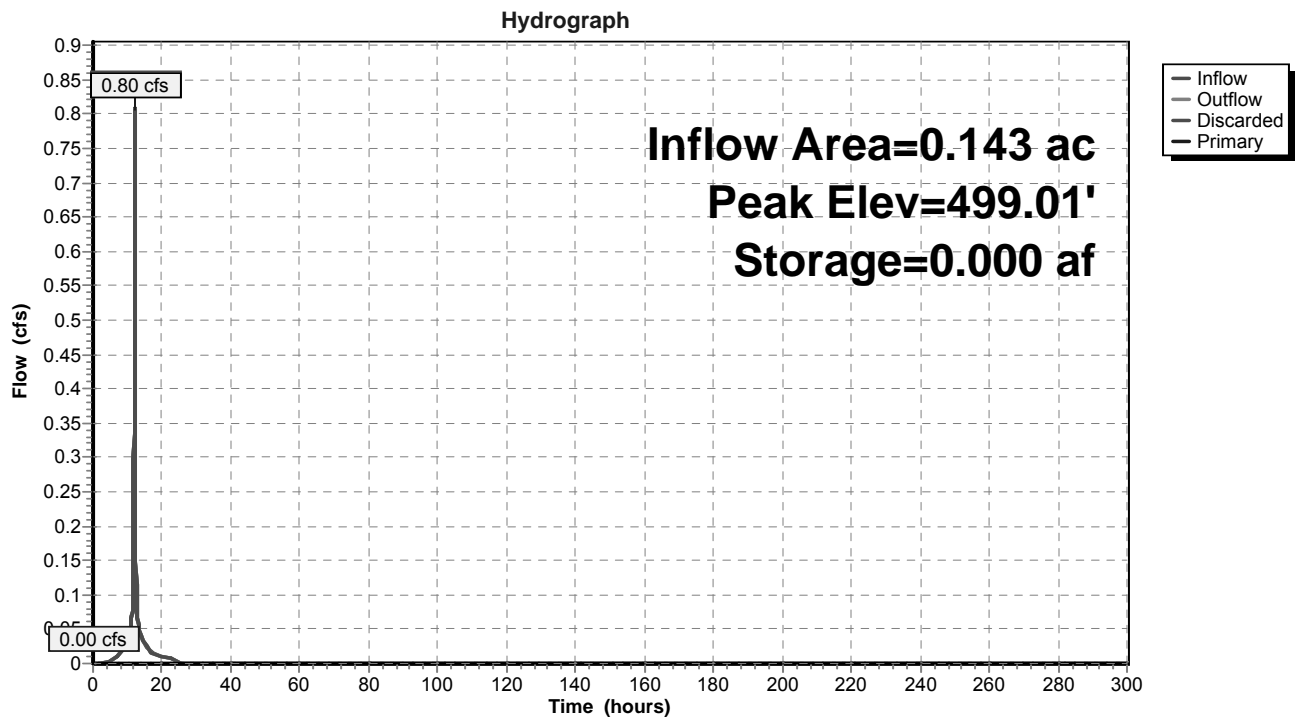
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 1.39" for 10 Year - North Salem event
 Inflow = 1.63 cfs @ 12.22 hrs, Volume= 0.266 af
 Outflow = 0.49 cfs @ 13.69 hrs, Volume= 0.162 af, Atten= 70%, Lag= 88.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.49 cfs @ 13.69 hrs, Volume= 0.162 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.08' @ 13.69 hrs Surf.Area= 1,988 sf Storage= 4,651 cf

Plug-Flow detention time= 238.5 min calculated for 0.162 af (61% of inflow)
 Center-of-Mass det. time= 109.7 min (1,033.2 - 923.5)

Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe X 0.00 L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

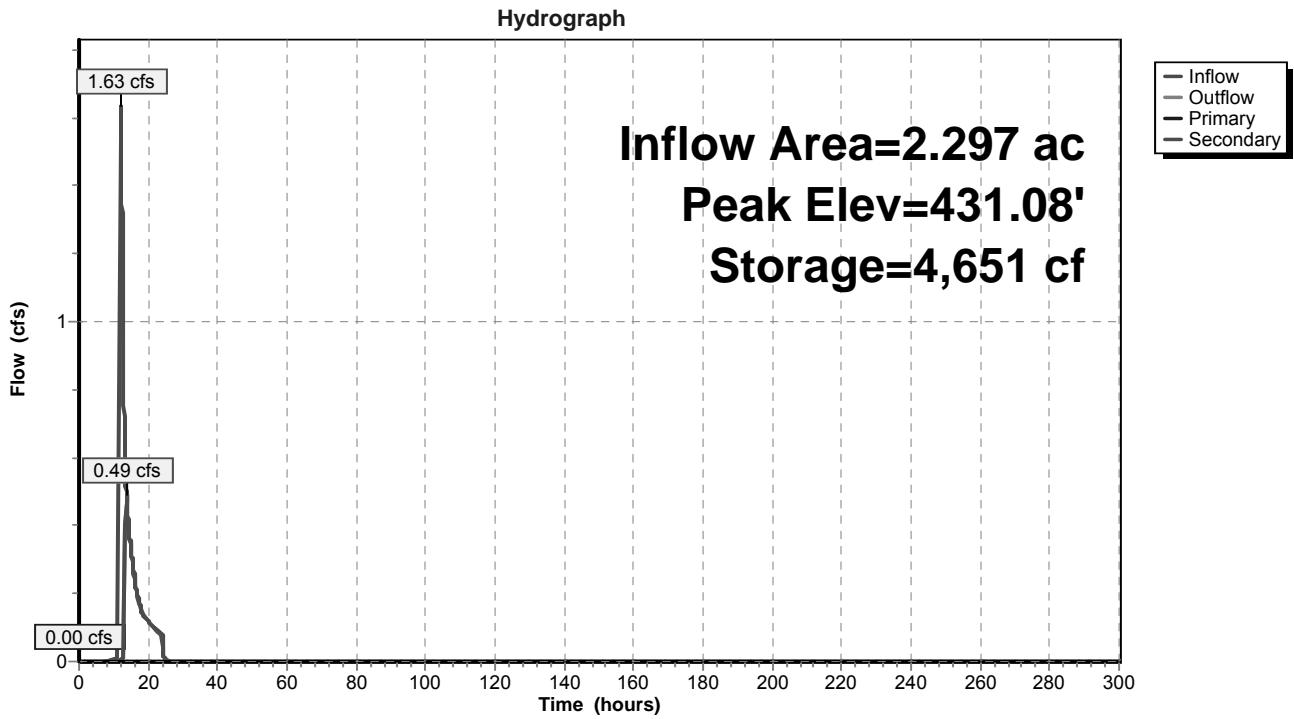
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.49 cfs @ 13.69 hrs HW=431.08' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 0.49 cfs @ 0.81 fps)

Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 0.00" for 10 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 456.00' @ 0.00 hrs Surf.Area= 3,512 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

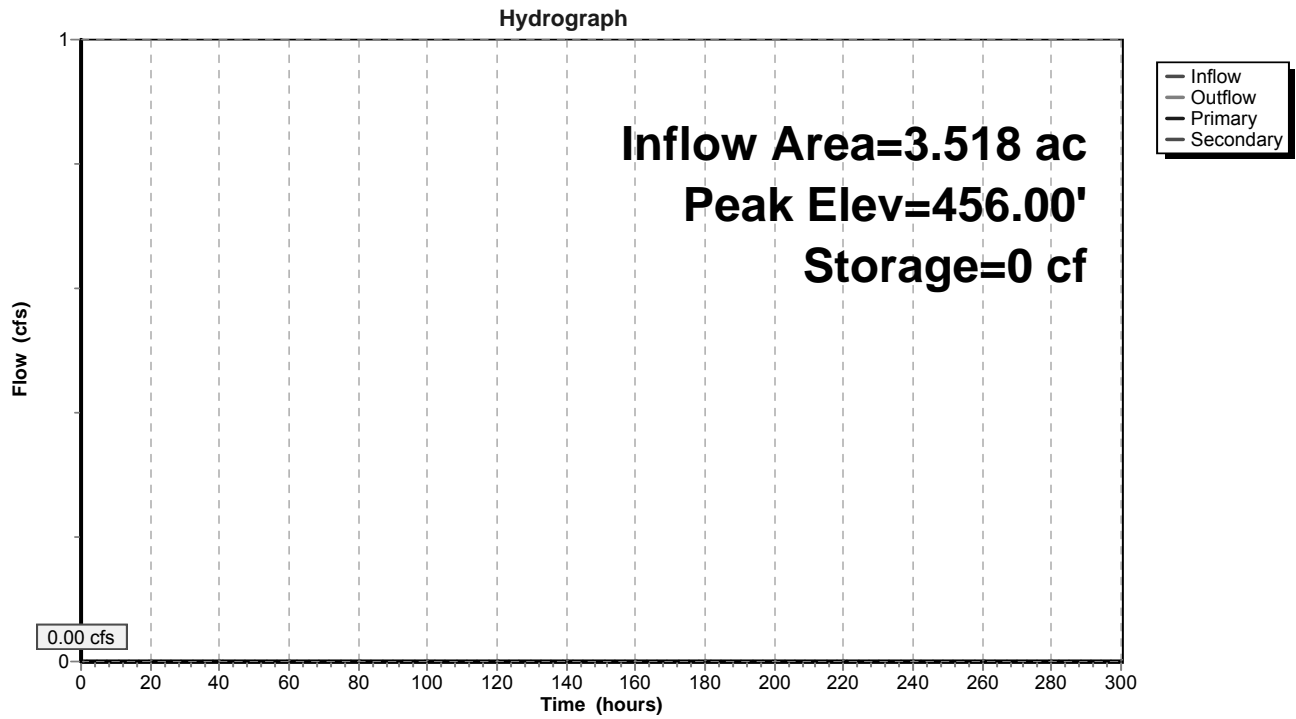
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe X 0.00 L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 2.23" for 10 Year - North Salem event
 Inflow = 2.01 cfs @ 12.22 hrs, Volume= 0.287 af
 Outflow = 0.49 cfs @ 13.41 hrs, Volume= 0.153 af, Atten= 76%, Lag= 71.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.49 cfs @ 13.41 hrs, Volume= 0.153 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 451.06' @ 13.41 hrs Surf.Area= 2,489 sf Storage= 5,962 cf

Plug-Flow detention time= 258.0 min calculated for 0.153 af (53% of inflow)
 Center-of-Mass det. time= 126.6 min (1,012.7 - 886.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

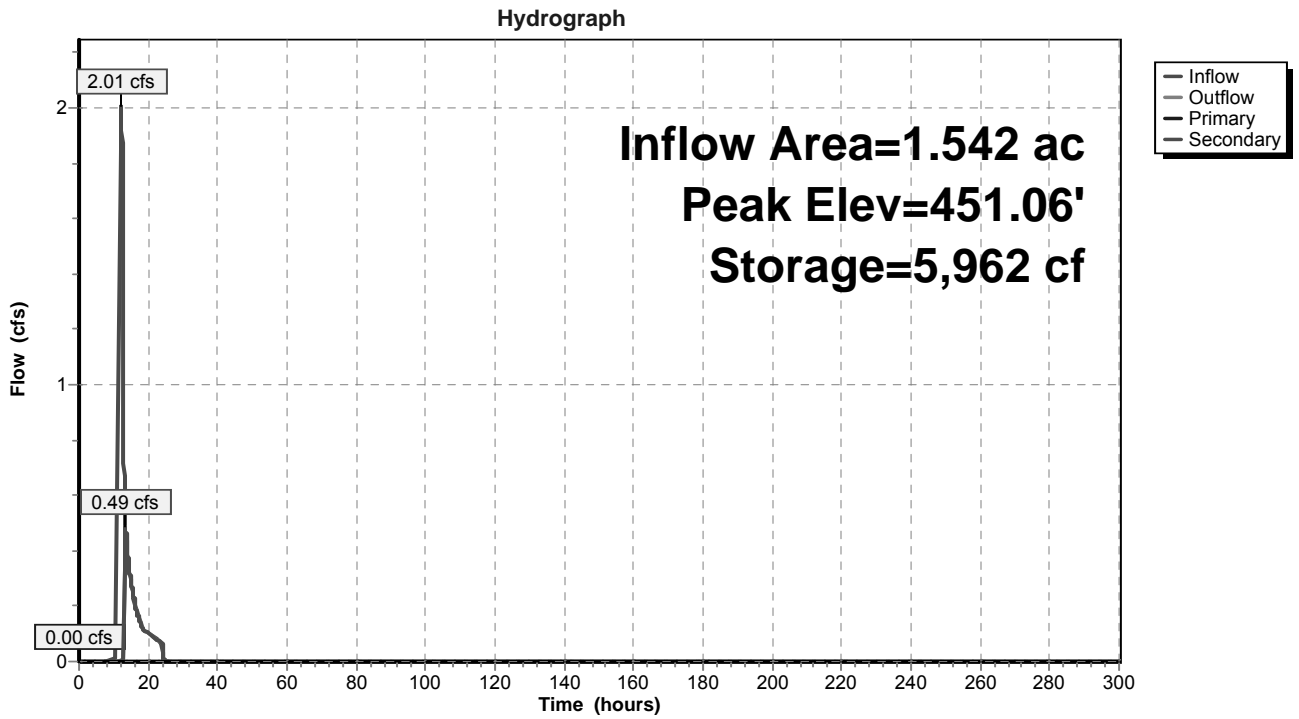
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.46 cfs @ 13.41 hrs HW=451.06' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 0.46 cfs @ 0.80 fps)

Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

[88] Warning: Qout>Qin may require Finer Routing>1

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 1.67" for 10 Year - North Salem event
 Inflow = 1.46 cfs @ 12.19 hrs, Volume= 0.319 af
 Outflow = 1.63 cfs @ 12.22 hrs, Volume= 0.266 af, Atten= 0%, Lag= 1.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.63 cfs @ 12.22 hrs, Volume= 0.266 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 435.13' @ 12.20 hrs Surf.Area= 1,150 sf Storage= 2,447 cf

Plug-Flow detention time= 111.7 min calculated for 0.266 af (83% of inflow)
 Center-of-Mass det. time= 38.5 min (923.5 - 885.1)

Volume	Invert	Avail.Storage	Storage Description			
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
432.00	460	91.0	0	0	460	
434.00	872	116.0	1,310	1,310	921	
435.00	1,118	128.0	992	2,303	1,184	
436.00	1,385	141.0	1,249	3,552	1,493	

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

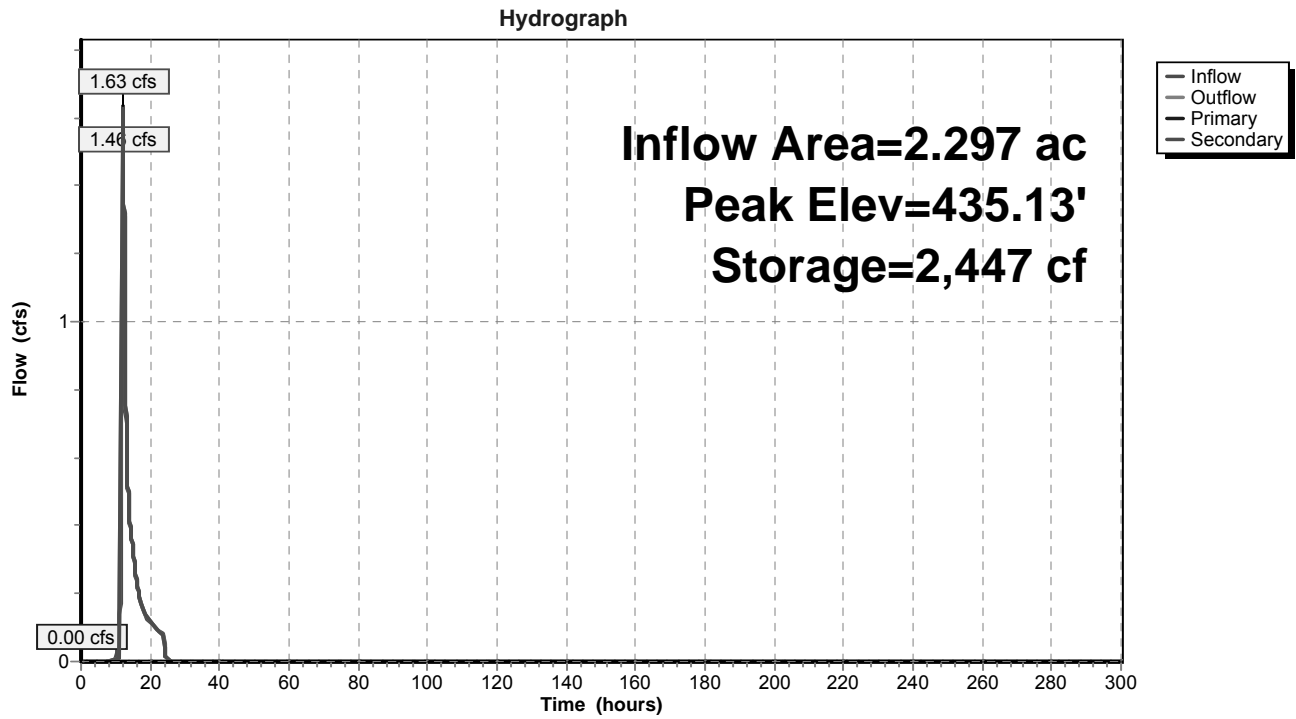
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.49 cfs @ 12.22 hrs HW=435.13' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.49 cfs @ 1.19 fps)

Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

[79] Warning: Submerged Pond FS G6 Primary device # 1 OUTLET by 0.11'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 2.72" for 10 Year - North Salem event
 Inflow = 4.42 cfs @ 12.29 hrs, Volume= 0.796 af
 Outflow = 4.42 cfs @ 12.32 hrs, Volume= 0.688 af, Atten= 0%, Lag= 1.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 4.42 cfs @ 12.32 hrs, Volume= 0.688 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 463.26' @ 12.32 hrs Surf.Area= 2,248 sf Storage= 5,274 cf

Plug-Flow detention time= 95.3 min calculated for 0.688 af (86% of inflow)
 Center-of-Mass det. time= 33.0 min (884.8 - 851.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

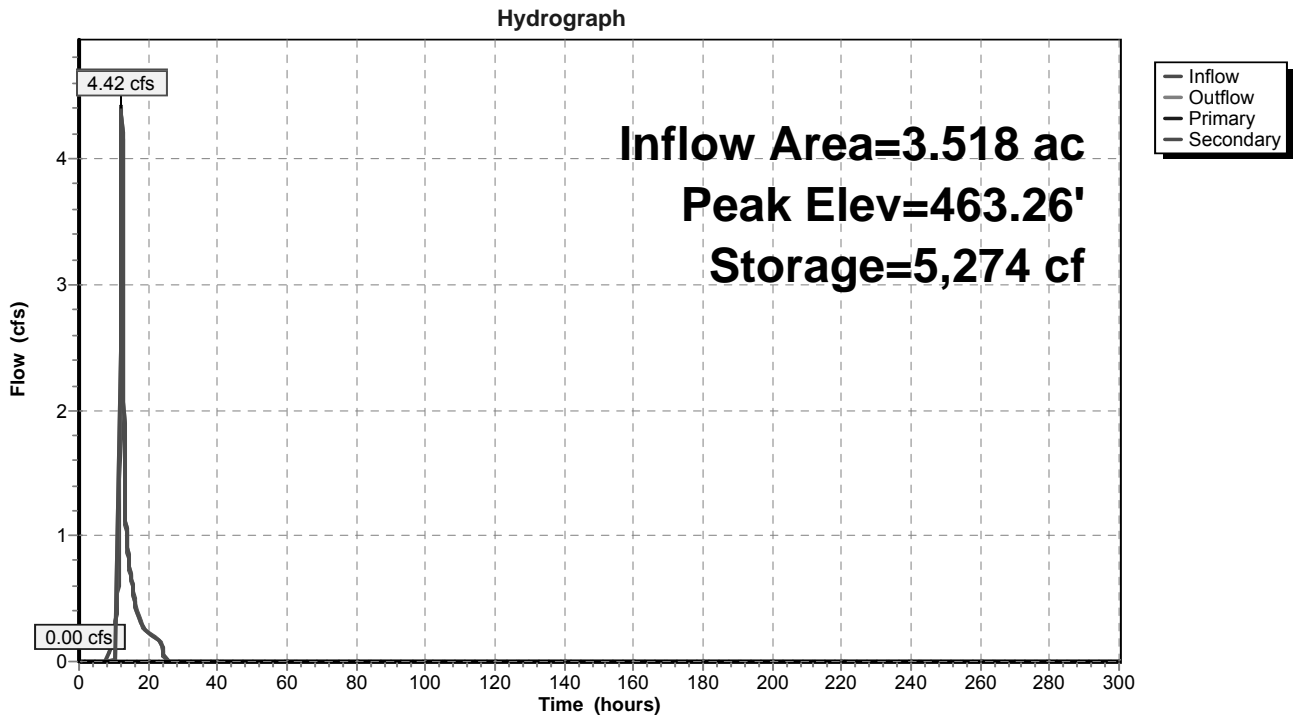
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=4.40 cfs @ 12.32 hrs HW=463.26' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 4.40 cfs @ 1.71 fps)

Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

[79] Warning: Submerged Pond FS G7 Primary device # 1 OUTLET by 0.05'

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 2.71" for 10 Year - North Salem event
 Inflow = 2.01 cfs @ 12.20 hrs, Volume= 0.348 af
 Outflow = 2.01 cfs @ 12.22 hrs, Volume= 0.287 af, Atten= 0%, Lag= 1.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.01 cfs @ 12.22 hrs, Volume= 0.287 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 455.15' @ 12.22 hrs Surf.Area= 1,291 sf Storage= 2,885 cf

Plug-Flow detention time= 115.1 min calculated for 0.287 af (82% of inflow)
 Center-of-Mass det. time= 40.1 min (886.1 - 846.1)

Volume	Invert	Avail.Storage	Storage Description			
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
452.00	581	93.0	0	0	581	
454.00	1,003	118.0	1,565	1,565	1,051	
455.00	1,251	130.0	1,125	2,690	1,318	
456.00	1,525	143.0	1,386	4,075	1,632	

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

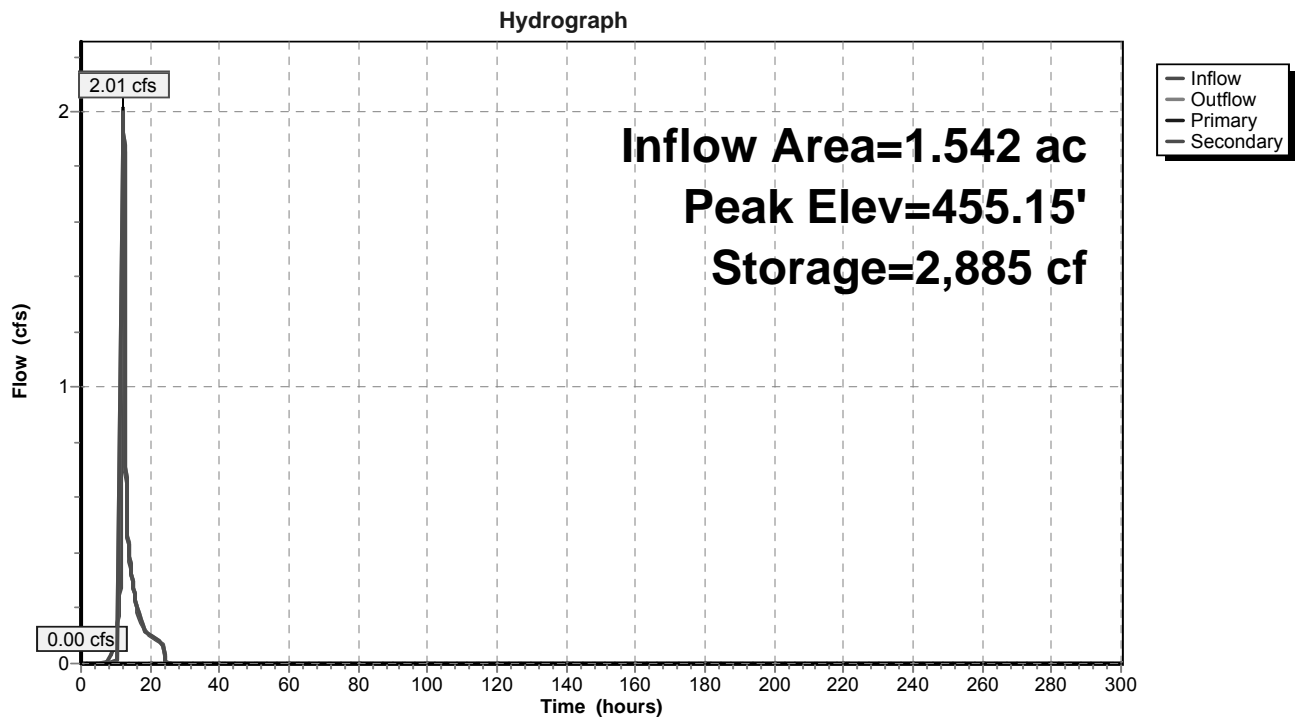
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.00 cfs @ 12.22 hrs HW=455.15' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 2.00 cfs @ 1.30 fps)

Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Woodlands Post-Dev DP 7 - Part 2 WOR Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=3.41"
Flow Length=833' Tc=13.0 min CN=68 Runoff=6.77 cfs 0.612 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=6.76"
Flow Length=245' Tc=2.0 min CN=98 Runoff=1.14 cfs 0.086 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=6.29"
Flow Length=245' Tc=2.0 min CN=94 Runoff=1.04 cfs 0.075 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=4.47"
Flow Length=917' Tc=20.9 min CN=78 Runoff=12.14 cfs 1.312 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=4.47"
Flow Length=649' Tc=14.6 min CN=78 Runoff=6.14 cfs 0.575 af

Pond B-G5: Dry Basin - G5 Peak Elev=425.19' Storage=10,970 cf Inflow=9.18 cfs 0.571 af
Primary=0.00 cfs 0.000 af Secondary=2.86 cfs 0.343 af Outflow=2.86 cfs 0.343 af

Pond B-G6: Dry Basin - G6 Peak Elev=453.49' Storage=13,113 cf Inflow=12.12 cfs 1.204 af
Primary=0.00 cfs 0.000 af Secondary=11.70 cfs 0.960 af Outflow=11.70 cfs 0.960 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=12.53 cfs 1.567 af
Primary=12.53 cfs 1.567 af

Pond FS G5: Flow Splitter - G5 Peak Elev=439.18' Inflow=6.77 cfs 0.612 af
Primary=1.58 cfs 0.440 af Secondary=5.19 cfs 0.173 af Outflow=6.77 cfs 0.612 af

Pond FS G6: Flow Splitter - G6 Peak Elev=466.06' Inflow=12.14 cfs 1.312 af
Primary=4.96 cfs 1.055 af Secondary=7.18 cfs 0.257 af Outflow=12.14 cfs 1.312 af

Pond FS G7: Flow Splitter - G7 Peak Elev=457.72' Inflow=6.14 cfs 0.575 af
Primary=2.13 cfs 0.459 af Secondary=4.01 cfs 0.116 af Outflow=6.14 cfs 0.575 af

Pond S-17: Underground Infiltration Peak Elev=433.19' Storage=0.001 af Inflow=1.14 cfs 0.086 af
Discarded=0.90 cfs 0.088 af Primary=0.00 cfs 0.000 af Outflow=0.90 cfs 0.088 af

Pond S-21: Underground Infiltration Peak Elev=499.02' Storage=0.000 af Inflow=1.04 cfs 0.075 af
Discarded=1.04 cfs 0.075 af Primary=0.00 cfs 0.000 af Outflow=1.04 cfs 0.075 af

Pond SF-G5: Sand Filter - G5 Peak Elev=431.13' Storage=4,744 cf Inflow=1.58 cfs 0.387 af
Primary=0.00 cfs 0.000 af Secondary=1.16 cfs 0.283 af Outflow=1.16 cfs 0.283 af

Pond SF-G6: Sand Filter - G6 Peak Elev=456.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-G7: Sand Filter - G7 Peak Elev=451.13' Storage=6,147 cf Inflow=2.12 cfs 0.398 af
Primary=0.00 cfs 0.000 af Secondary=1.61 cfs 0.264 af Outflow=1.61 cfs 0.264 af

Woodlands Post-Dev DP 7 - Part 2 WOR Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Prepared by KCG Engineers, P.C.

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=435.13' Storage=2,450 cf Inflow=1.58 cfs 0.440 af
Primary=0.00 cfs 0.000 af Secondary=1.58 cfs 0.387 af Outflow=1.58 cfs 0.387 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=463.28' Storage=5,320 cf Inflow=4.96 cfs 1.055 af
Primary=0.00 cfs 0.000 af Secondary=4.95 cfs 0.947 af Outflow=4.95 cfs 0.947 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=455.16' Storage=2,893 cf Inflow=2.13 cfs 0.459 af
Primary=0.00 cfs 0.000 af Secondary=2.12 cfs 0.398 af Outflow=2.12 cfs 0.398 af

Total Runoff Area = 7.510 ac Runoff Volume = 2.660 af Average Runoff Depth = 4.25"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

Runoff = 6.77 cfs @ 12.19 hrs, Volume= 0.612 af, Depth= 3.41"

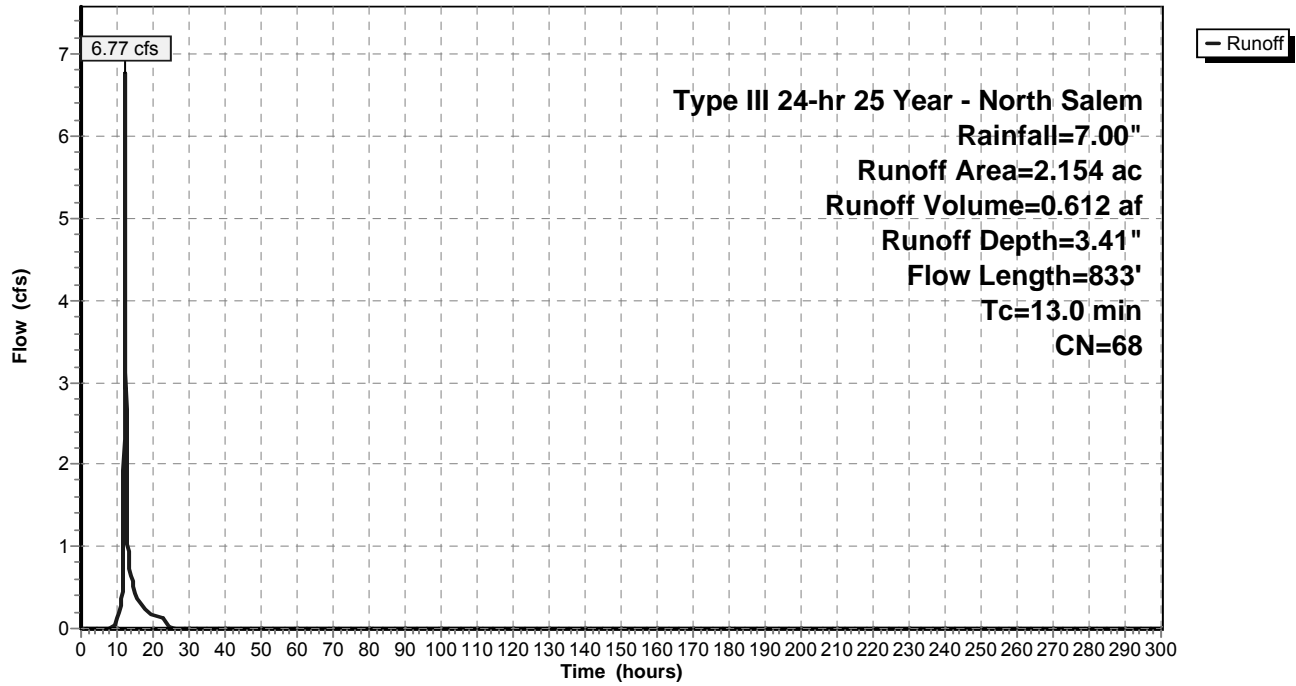
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a

Hydrograph



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.14 cfs @ 12.03 hrs, Volume= 0.086 af, Depth= 6.76"

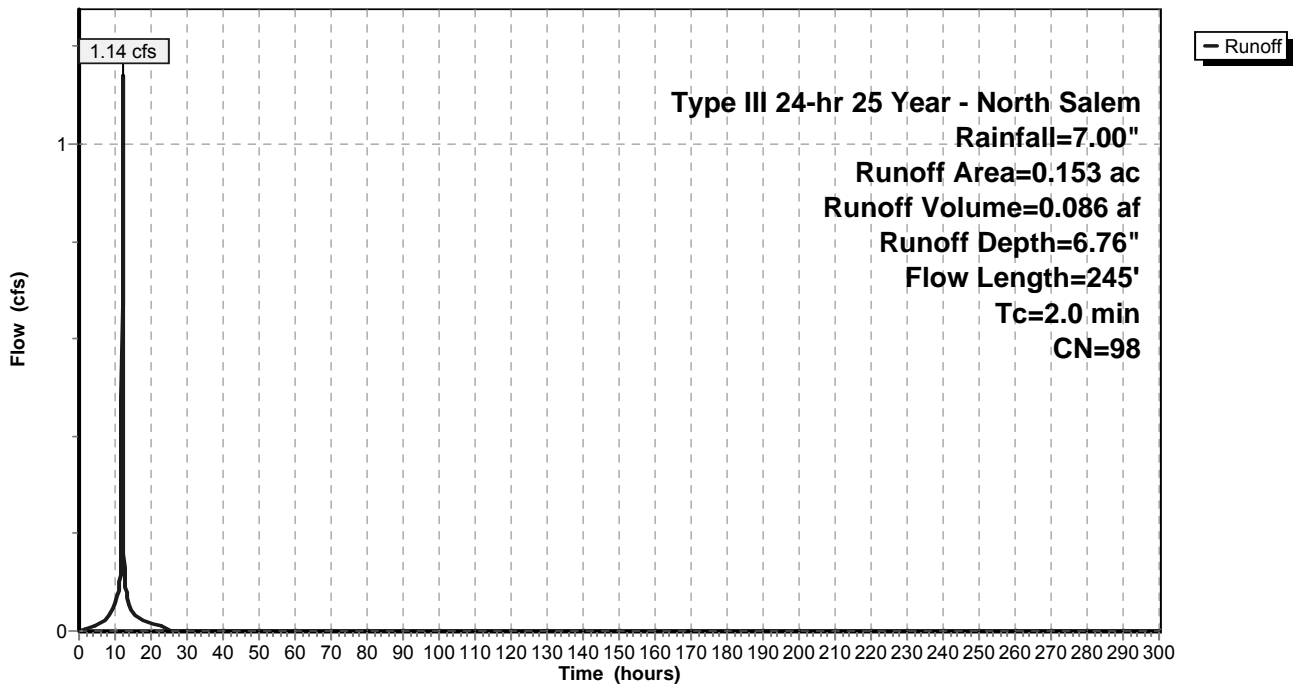
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

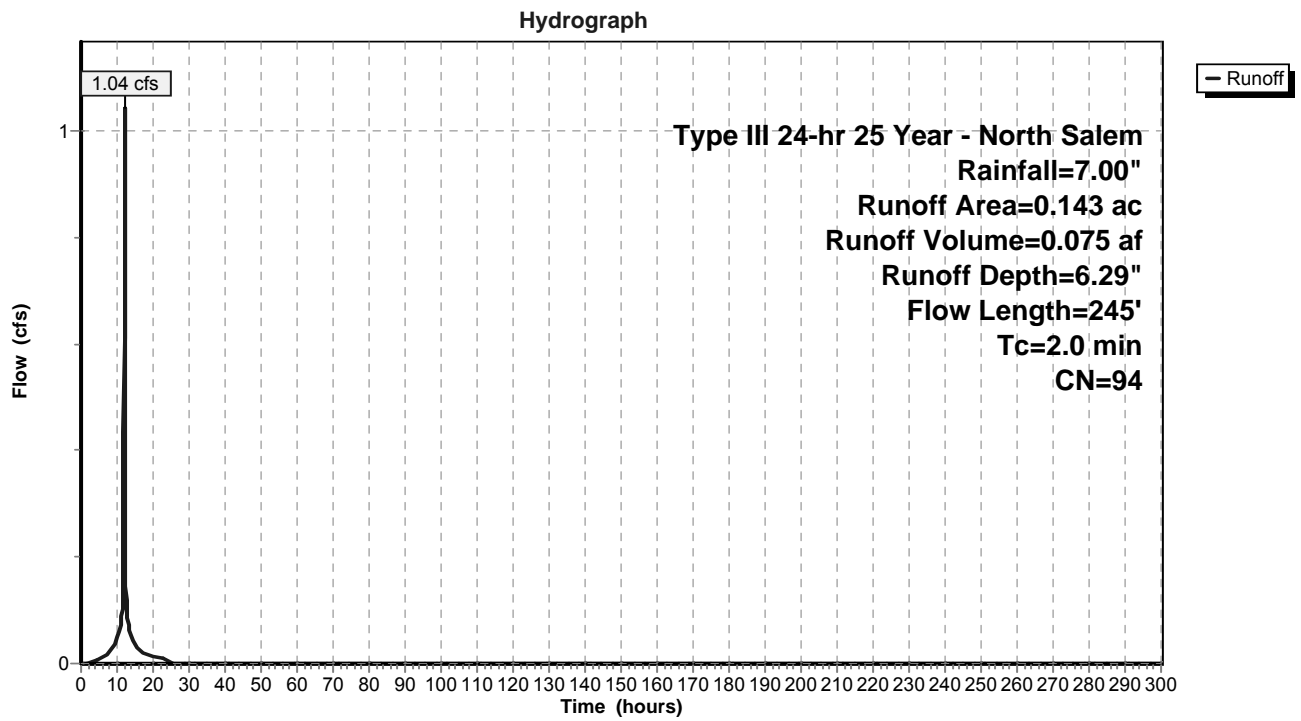
Runoff = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af, Depth= 6.29"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c



Summary for Subcatchment G6: Post-Development G6

Runoff = 12.14 cfs @ 12.29 hrs, Volume= 1.312 af, Depth= 4.47"

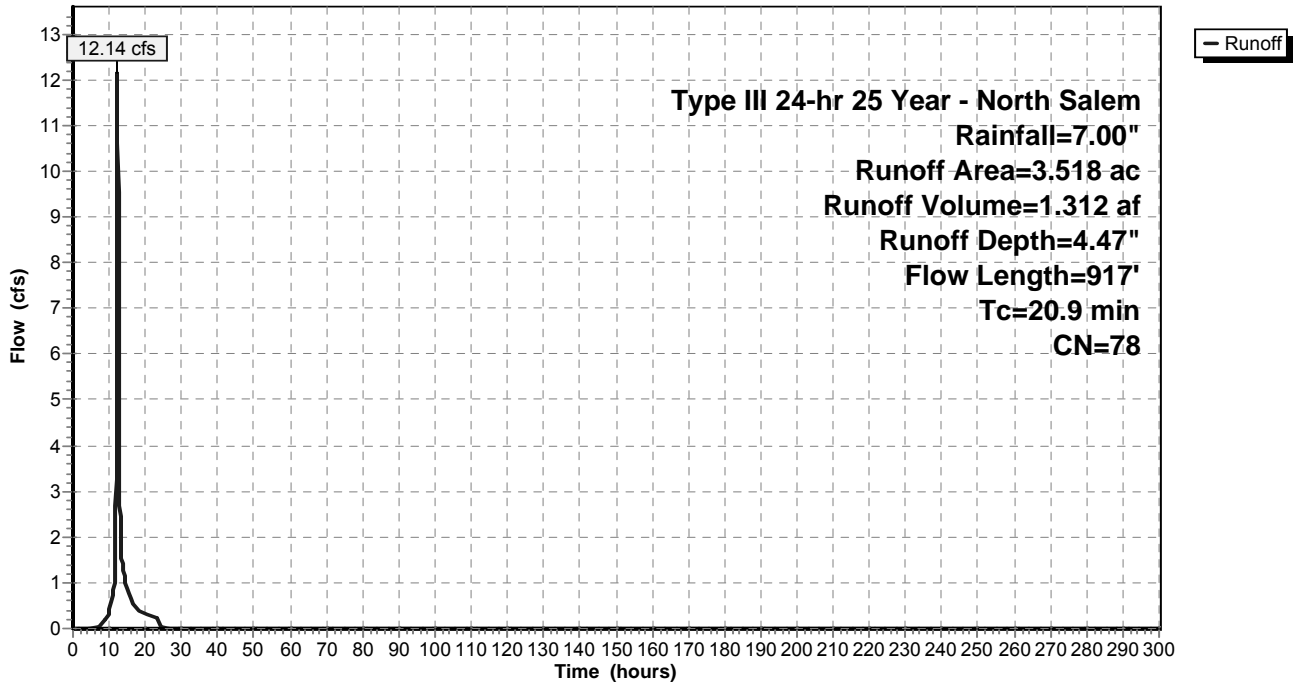
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6

Hydrograph



Summary for Subcatchment G7: Post-Development G7

Runoff = 6.14 cfs @ 12.20 hrs, Volume= 0.575 af, Depth= 4.47"

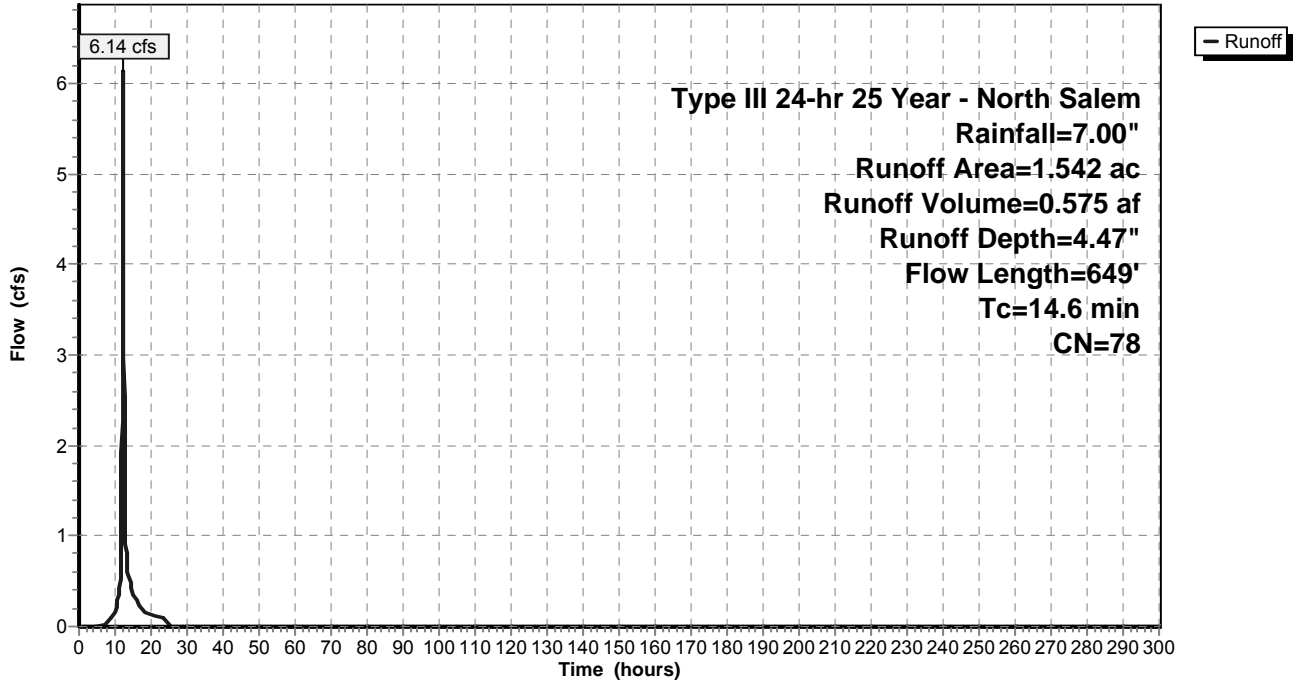
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7

Hydrograph



Summary for Pond B-G5: Dry Basin - G5

[79] Warning: Submerged Pond SF-G5 Primary device # 1 OUTLET by 0.04'

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 1.72" for 25 Year - North Salem event
 Inflow = 9.18 cfs @ 12.19 hrs, Volume= 0.571 af
 Outflow = 2.86 cfs @ 12.51 hrs, Volume= 0.343 af, Atten= 69%, Lag= 19.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.86 cfs @ 12.51 hrs, Volume= 0.343 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 425.19' @ 12.51 hrs Surf.Area= 4,447 sf Storage= 10,970 cf (10,746 cf above start)

Plug-Flow detention time= 211.9 min calculated for 0.338 af (59% of inflow)
 Center-of-Mass det. time= 92.9 min (951.4 - 858.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
420.00	347	128.0	0	0	347	
422.00	1,509	251.0	1,720	1,720	4,076	
424.00	3,264	321.0	4,662	6,381	7,313	
425.00	4,253	340.0	3,748	10,129	8,366	
426.00	5,302	360.0	4,768	14,897	9,534	

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

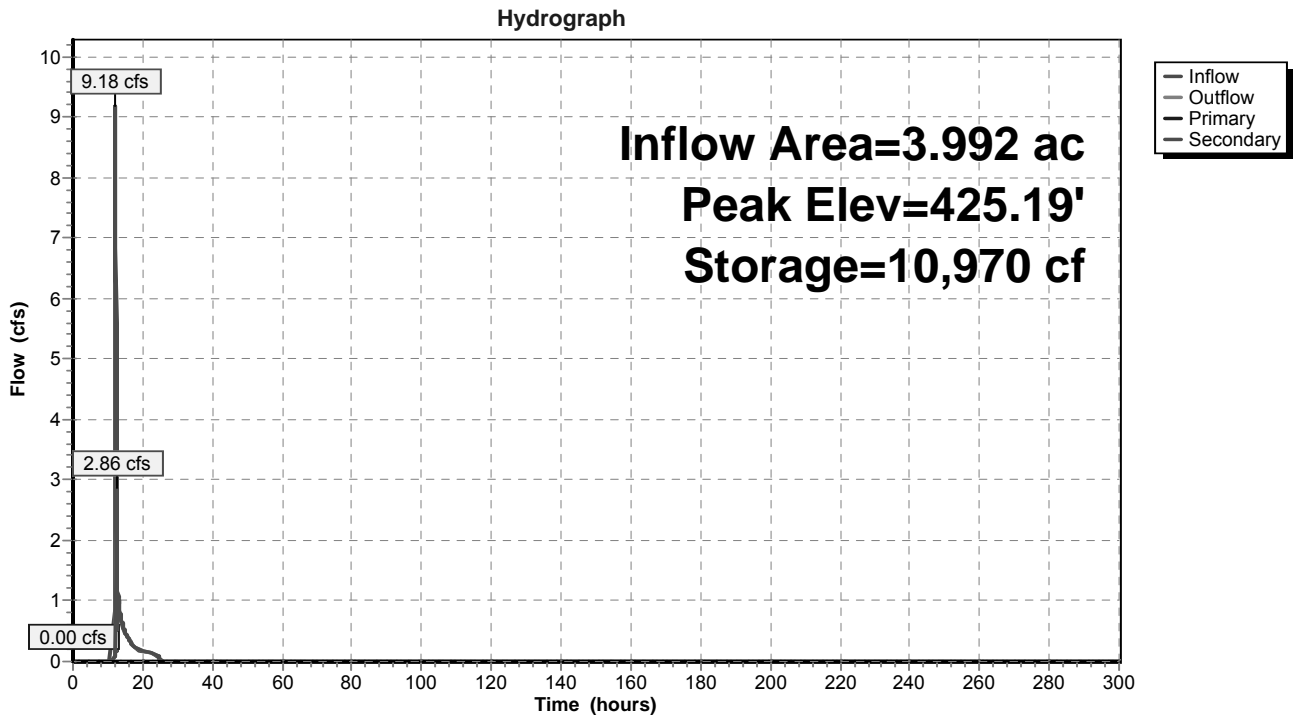
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=2.77 cfs @ 12.51 hrs HW=425.19' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 2.77 cfs @ 1.46 fps)

Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

[79] Warning: Submerged Pond FS G6 Secondary device # 2 OUTLET by 0.48'

[79] Warning: Submerged Pond SF-G6 Primary device # 1 OUTLET by 0.48'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 4.11" for 25 Year - North Salem event
 Inflow = 12.12 cfs @ 12.29 hrs, Volume= 1.204 af
 Outflow = 11.70 cfs @ 12.37 hrs, Volume= 0.960 af, Atten= 3%, Lag= 4.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 11.70 cfs @ 12.37 hrs, Volume= 0.960 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 453.49' @ 12.37 hrs Surf.Area= 4,179 sf Storage= 13,113 cf (12,577 cf above start)

Plug-Flow detention time= 119.5 min calculated for 0.947 af (79% of inflow)
 Center-of-Mass det. time= 37.9 min (886.1 - 848.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	975	126.0	0	0	975
450.00	1,880	175.0	2,806	2,806	2,187
452.00	3,088	228.0	4,918	7,724	3,933
453.00	3,808	251.0	3,442	11,166	4,842
454.00	4,588	270.0	4,192	15,358	5,672

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

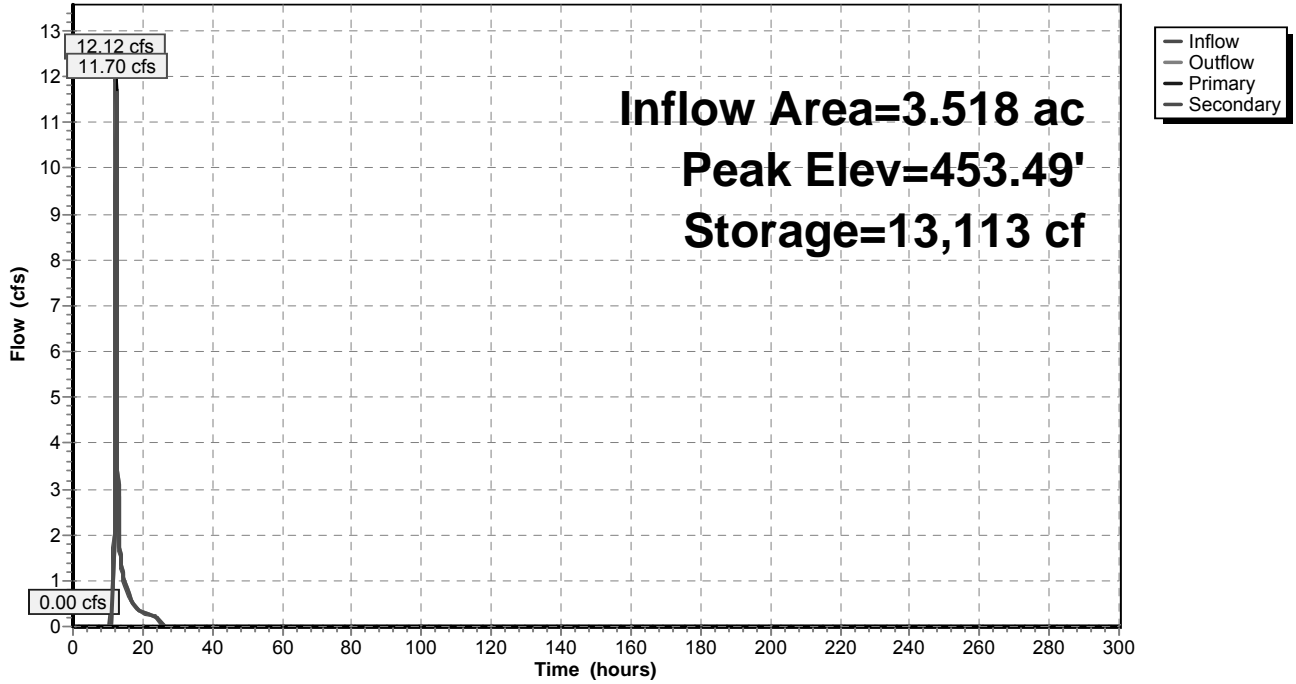
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=11.43 cfs @ 12.37 hrs HW=453.48' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 11.43 cfs @ 2.40 fps)

Pond B-G6: Dry Basin - G6

Hydrograph



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

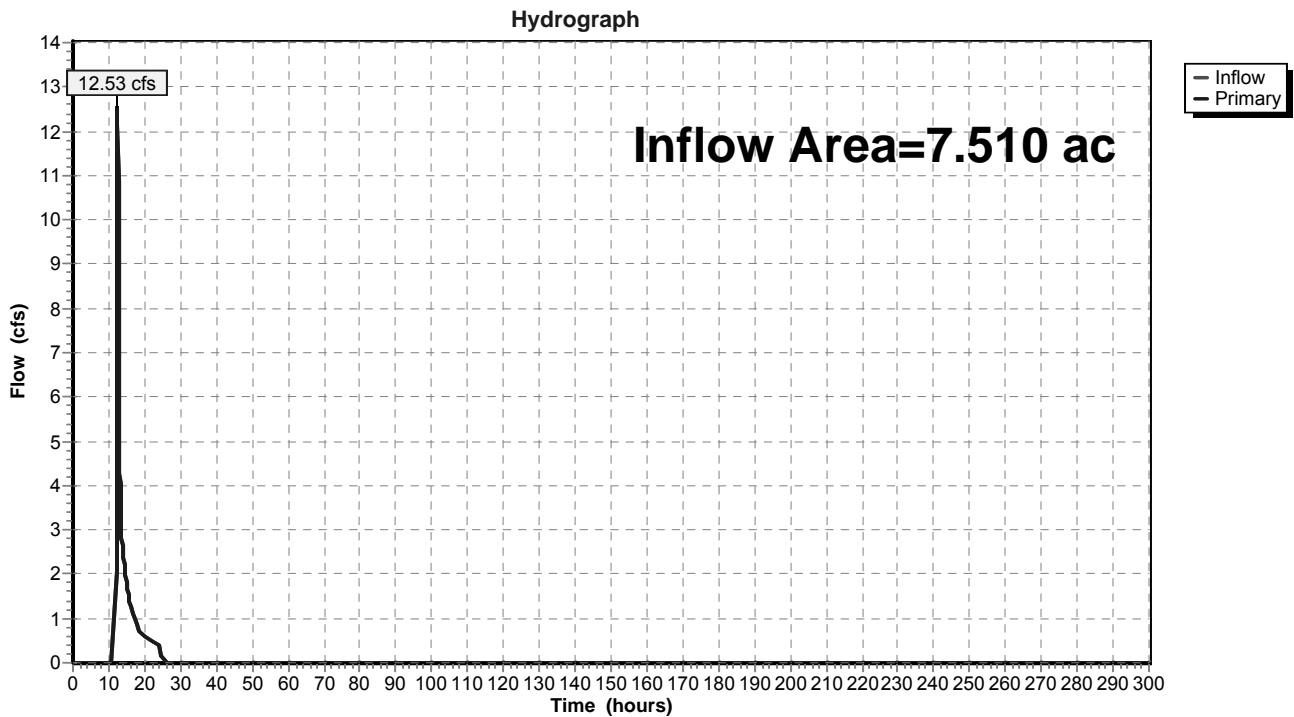
Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth = 2.50" for 25 Year - North Salem event
Inflow = 12.53 cfs @ 12.46 hrs, Volume= 1.567 af
Primary = 12.53 cfs @ 12.46 hrs, Volume= 1.567 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 3.20" for 25 Year - North Salem event
 Inflow = 6.77 cfs @ 12.19 hrs, Volume= 0.612 af
 Outflow = 6.77 cfs @ 12.19 hrs, Volume= 0.612 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.58 cfs @ 12.19 hrs, Volume= 0.440 af
 Secondary = 5.19 cfs @ 12.19 hrs, Volume= 0.173 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 439.18' @ 12.19 hrs
 Flood Elev= 527.50'

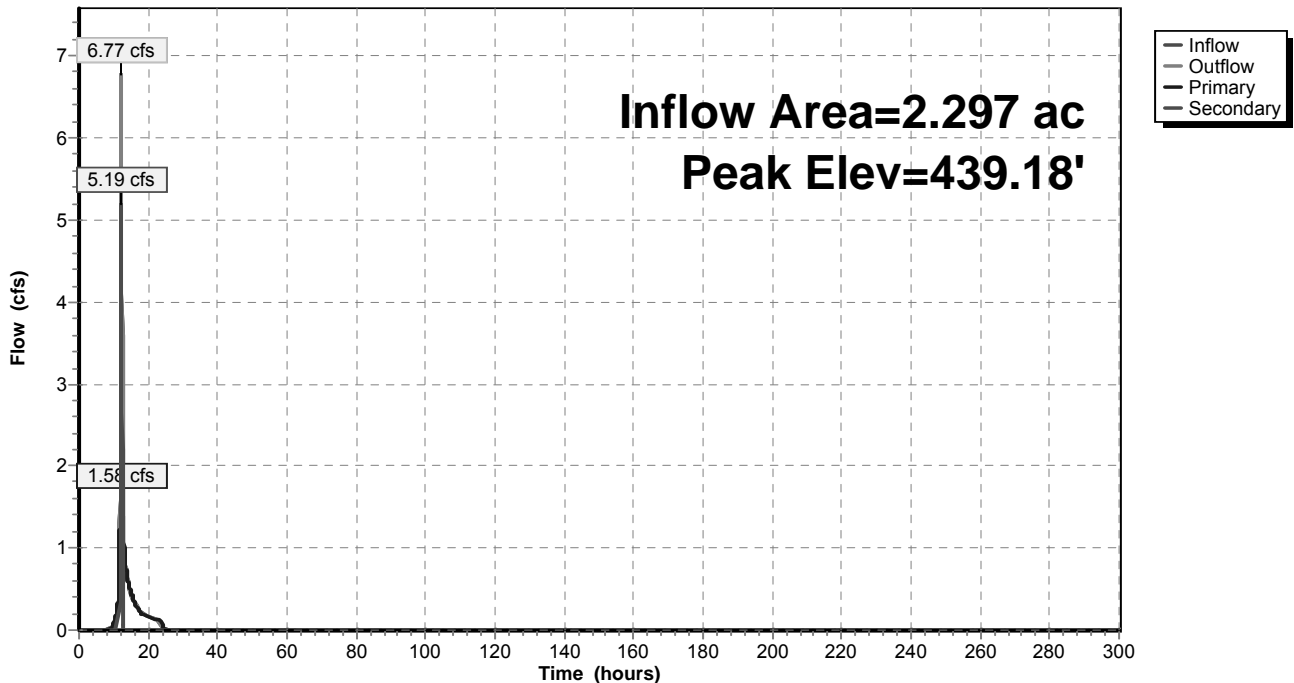
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.58 cfs @ 12.19 hrs HW=439.17' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.58 cfs @ 8.06 fps)

Secondary OutFlow Max=5.46 cfs @ 12.19 hrs HW=439.17' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 5.46 cfs @ 3.68 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 4.47" for 25 Year - North Salem event
 Inflow = 12.14 cfs @ 12.29 hrs, Volume= 1.312 af
 Outflow = 12.14 cfs @ 12.29 hrs, Volume= 1.312 af, Atten= 0%, Lag= 0.0 min
 Primary = 4.96 cfs @ 12.29 hrs, Volume= 1.055 af
 Secondary = 7.18 cfs @ 12.29 hrs, Volume= 0.257 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 466.06' @ 12.29 hrs
 Flood Elev= 554.50'

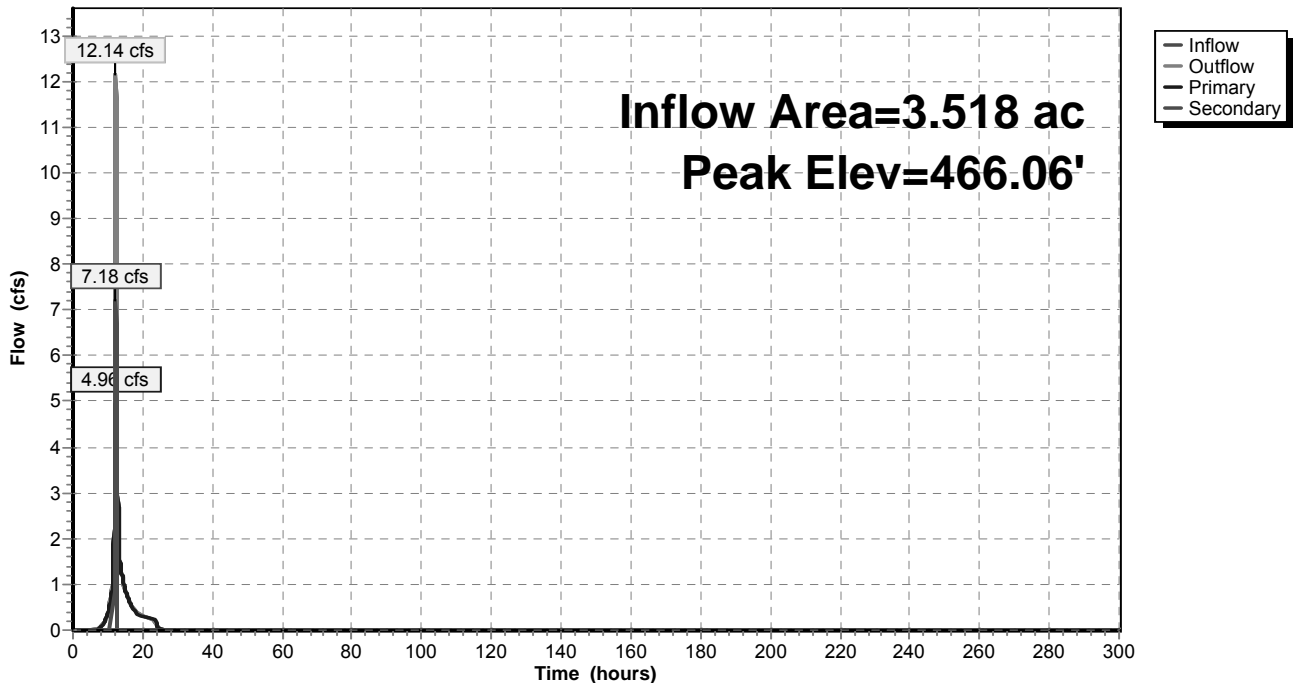
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 ' S= 0.0250 ' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 ' S= 0.0974 ' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=4.95 cfs @ 12.29 hrs HW=466.05' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 4.95 cfs @ 6.31 fps)

Secondary OutFlow Max=7.05 cfs @ 12.29 hrs HW=466.05' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 7.05 cfs @ 3.38 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 4.47" for 25 Year - North Salem event
 Inflow = 6.14 cfs @ 12.20 hrs, Volume= 0.575 af
 Outflow = 6.14 cfs @ 12.20 hrs, Volume= 0.575 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.13 cfs @ 12.20 hrs, Volume= 0.459 af
 Secondary = 4.01 cfs @ 12.20 hrs, Volume= 0.116 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 457.72' @ 12.20 hrs
 Flood Elev= 554.50'

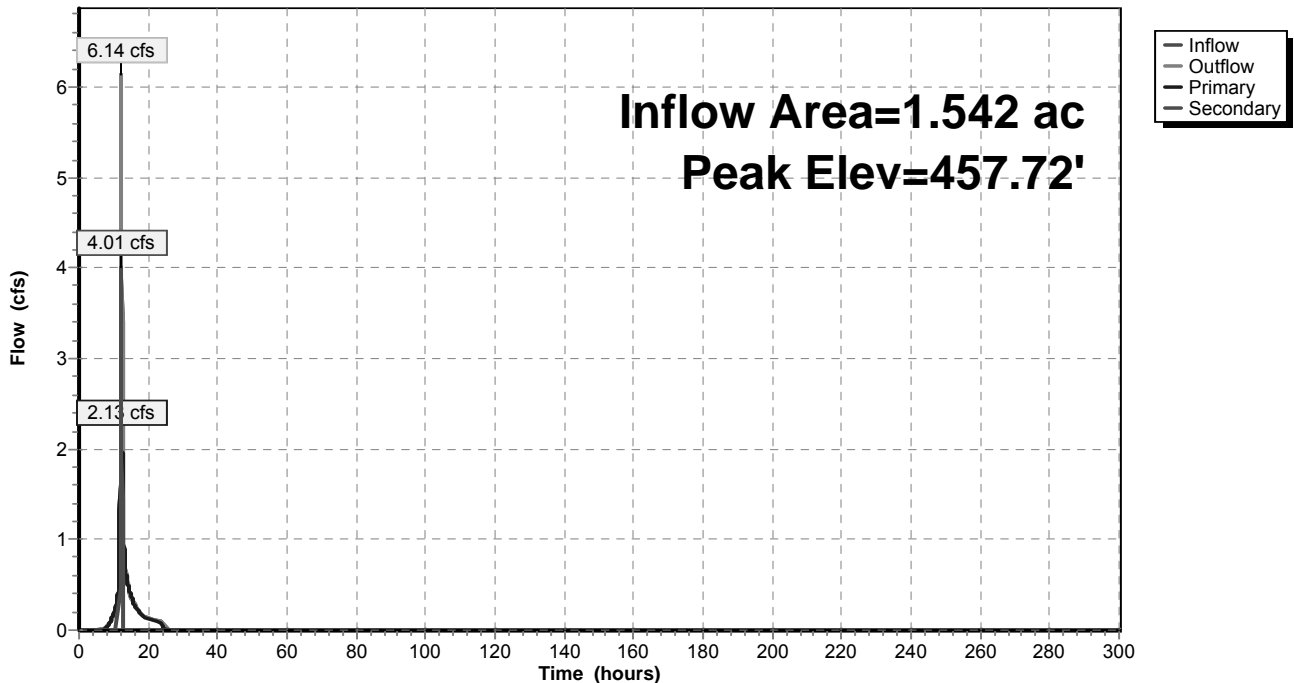
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=2.14 cfs @ 12.20 hrs HW=457.72' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.14 cfs @ 6.13 fps)

Secondary OutFlow Max=3.29 cfs @ 12.20 hrs HW=457.72' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 3.29 cfs @ 2.72 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 6.76" for 25 Year - North Salem event
 Inflow = 1.14 cfs @ 12.03 hrs, Volume= 0.086 af
 Outflow = 0.90 cfs @ 12.00 hrs, Volume= 0.088 af, Atten= 21%, Lag= 0.0 min
 Discarded = 0.90 cfs @ 12.00 hrs, Volume= 0.088 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.19' @ 12.08 hrs Surf.Area= 0.022 ac Storage= 0.001 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.1 min (739.3 - 739.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

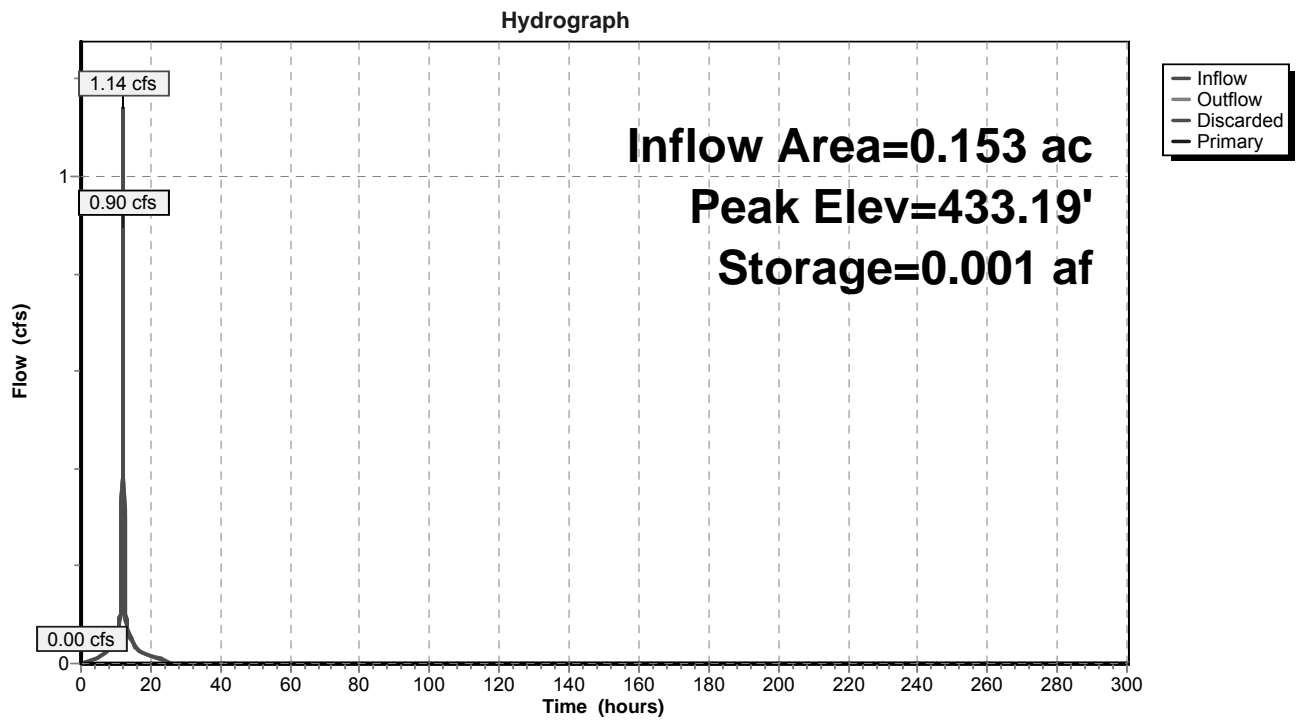
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.90 cfs @ 12.00 hrs HW=433.05' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 6.29" for 25 Year - North Salem event
 Inflow = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af
 Outflow = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
 Discarded = 1.04 cfs @ 12.03 hrs, Volume= 0.075 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.02' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.075 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (760.9 - 760.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

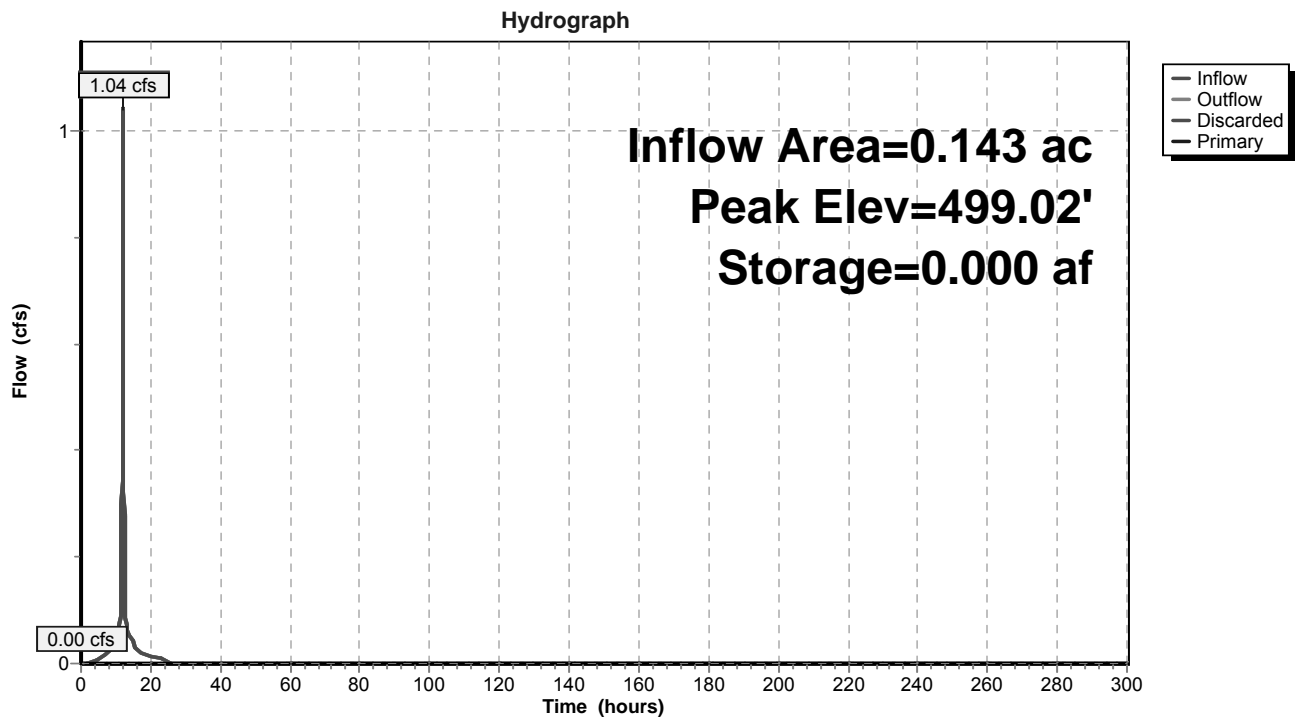
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.01' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 2.02" for 25 Year - North Salem event
 Inflow = 1.58 cfs @ 12.20 hrs, Volume= 0.387 af
 Outflow = 1.16 cfs @ 12.92 hrs, Volume= 0.283 af, Atten= 26%, Lag= 42.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.16 cfs @ 12.92 hrs, Volume= 0.283 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.13' @ 12.92 hrs Surf.Area= 2,004 sf Storage= 4,744 cf

Plug-Flow detention time= 171.4 min calculated for 0.283 af (73% of inflow)
 Center-of-Mass det. time= 69.3 min (984.3 - 915.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe X 0.00 L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

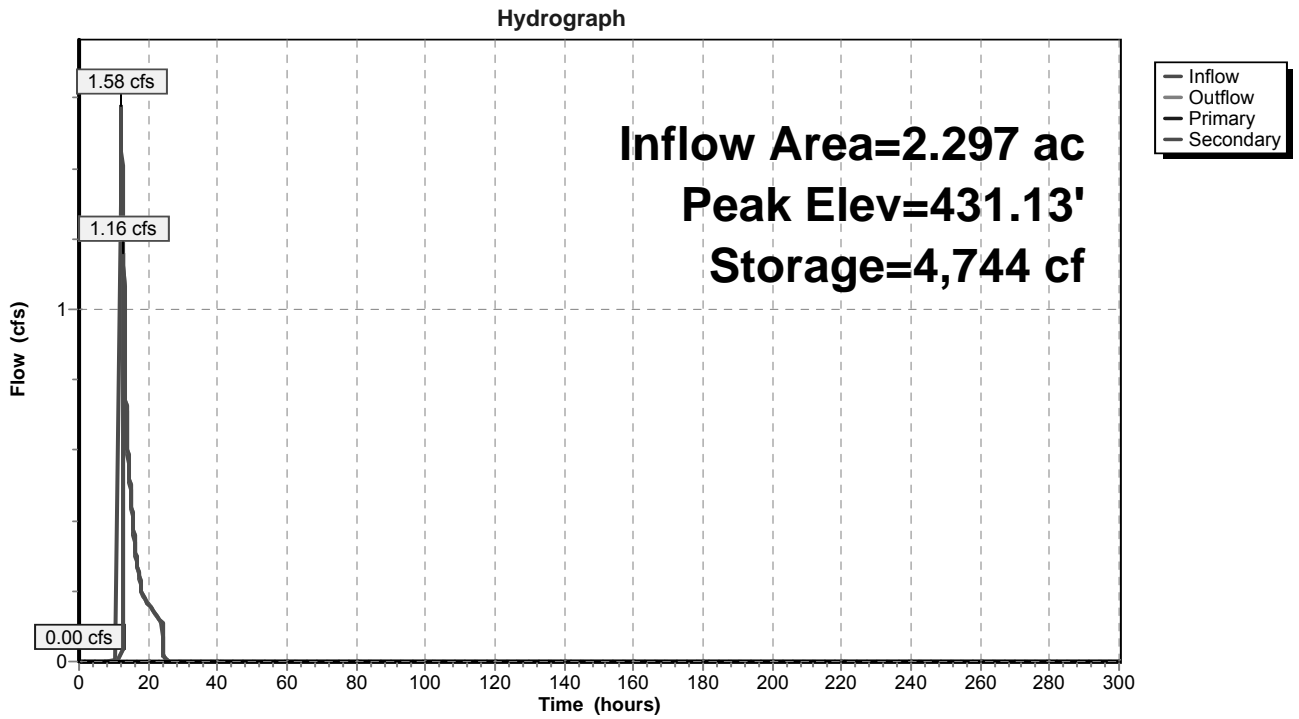
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.14 cfs @ 12.92 hrs HW=431.13' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 1.14 cfs @ 1.08 fps)

Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 0.00" for 25 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 456.00' @ 0.00 hrs Surf.Area= 3,512 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

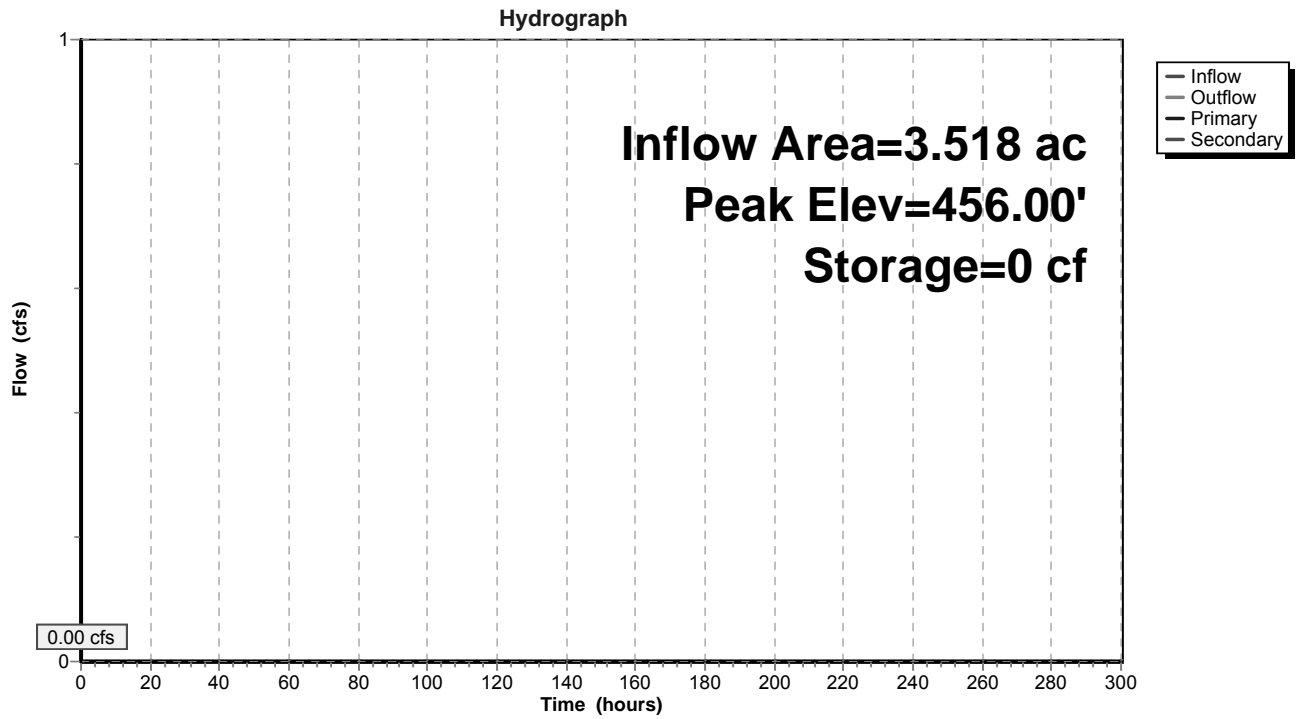
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe X 0.00 L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 3.09" for 25 Year - North Salem event
 Inflow = 2.12 cfs @ 12.22 hrs, Volume= 0.398 af
 Outflow = 1.61 cfs @ 12.71 hrs, Volume= 0.264 af, Atten= 24%, Lag= 29.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.61 cfs @ 12.71 hrs, Volume= 0.264 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 451.13' @ 12.71 hrs Surf.Area= 2,517 sf Storage= 6,147 cf

Plug-Flow detention time= 192.0 min calculated for 0.264 af (66% of inflow)
 Center-of-Mass det. time= 80.4 min (958.6 - 878.2)

Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

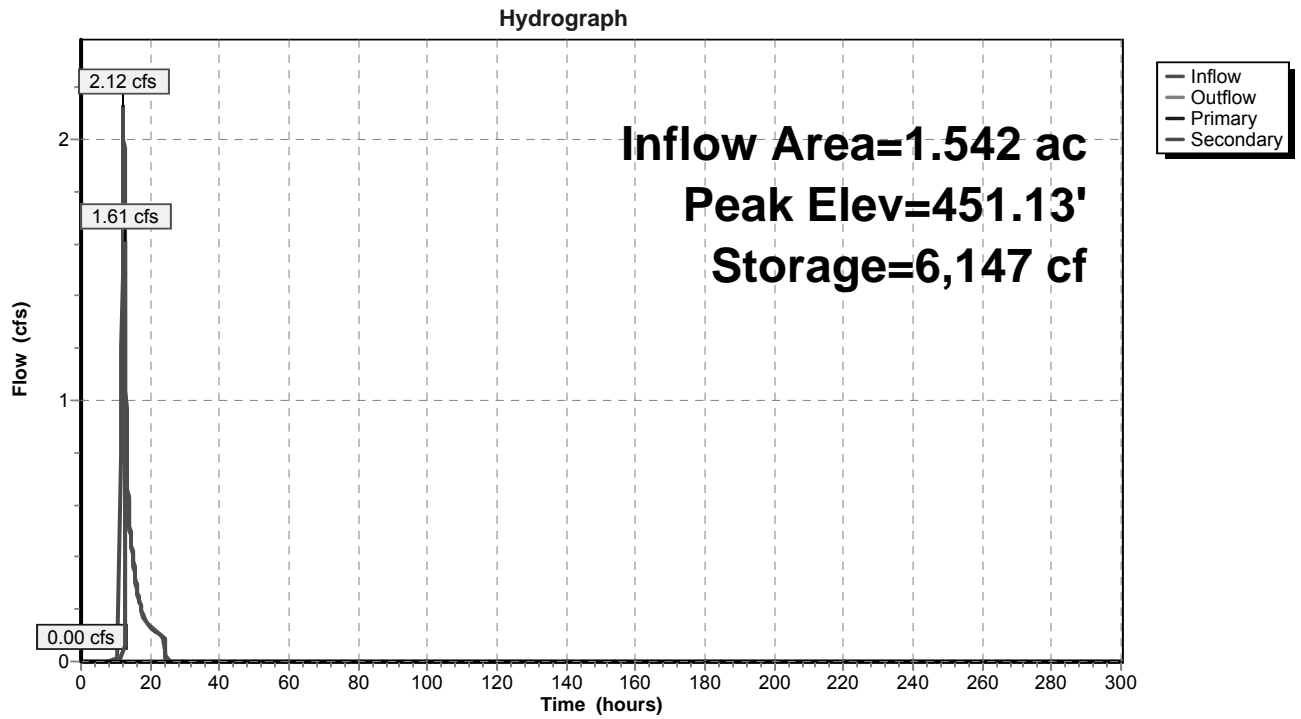
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.57 cfs @ 12.71 hrs HW=451.13' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 1.57 cfs @ 1.20 fps)

Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 2.30" for 25 Year - North Salem event
 Inflow = 1.58 cfs @ 12.19 hrs, Volume= 0.440 af
 Outflow = 1.58 cfs @ 12.20 hrs, Volume= 0.387 af, Atten= 0%, Lag= 1.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.58 cfs @ 12.20 hrs, Volume= 0.387 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 435.13' @ 12.20 hrs Surf.Area= 1,151 sf Storage= 2,450 cf

Plug-Flow detention time= 88.3 min calculated for 0.387 af (88% of inflow)
 Center-of-Mass det. time= 31.4 min (915.0 - 883.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

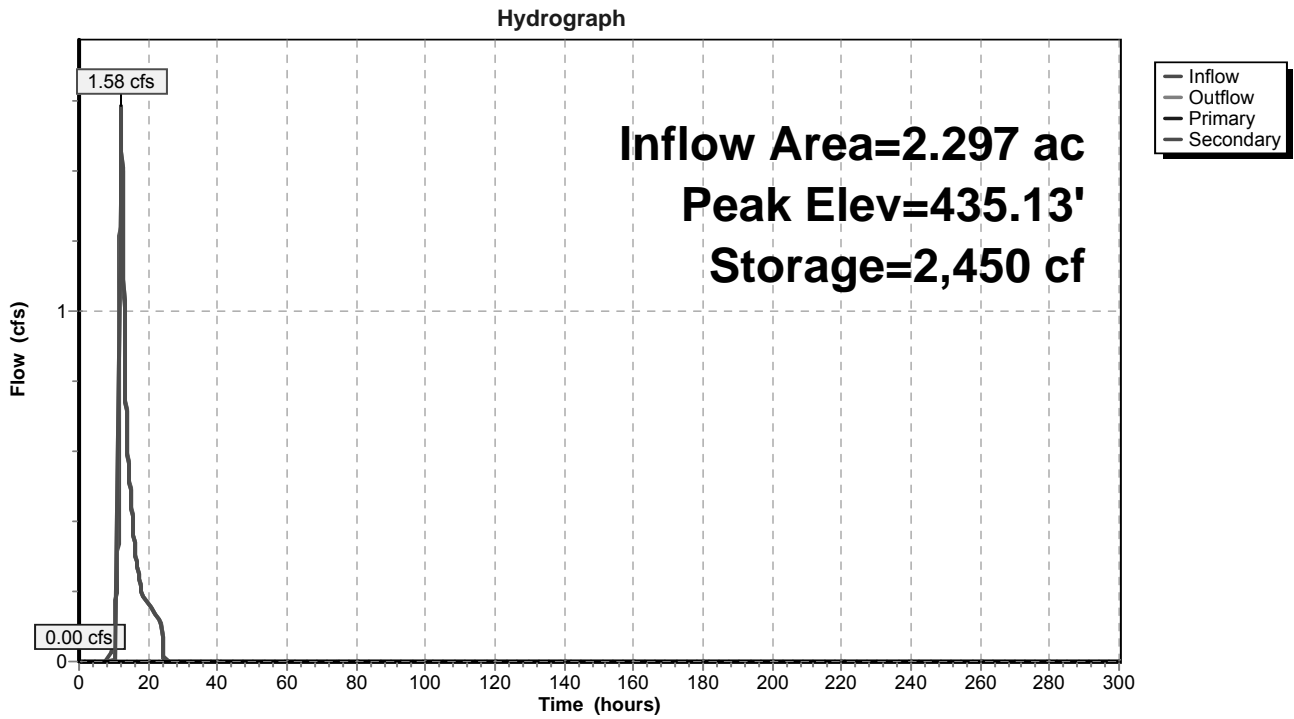
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.57 cfs @ 12.20 hrs HW=435.13' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.57 cfs @ 1.21 fps)

Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

[79] Warning: Submerged Pond FS G6 Primary device # 1 OUTLET by 0.13'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 3.60" for 25 Year - North Salem event
 Inflow = 4.96 cfs @ 12.29 hrs, Volume= 1.055 af
 Outflow = 4.95 cfs @ 12.31 hrs, Volume= 0.947 af, Atten= 0%, Lag= 1.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 4.95 cfs @ 12.31 hrs, Volume= 0.947 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 463.28' @ 12.31 hrs Surf.Area= 2,257 sf Storage= 5,320 cf

Plug-Flow detention time= 80.6 min calculated for 0.947 af (90% of inflow)
 Center-of-Mass det. time= 29.9 min (877.4 - 847.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

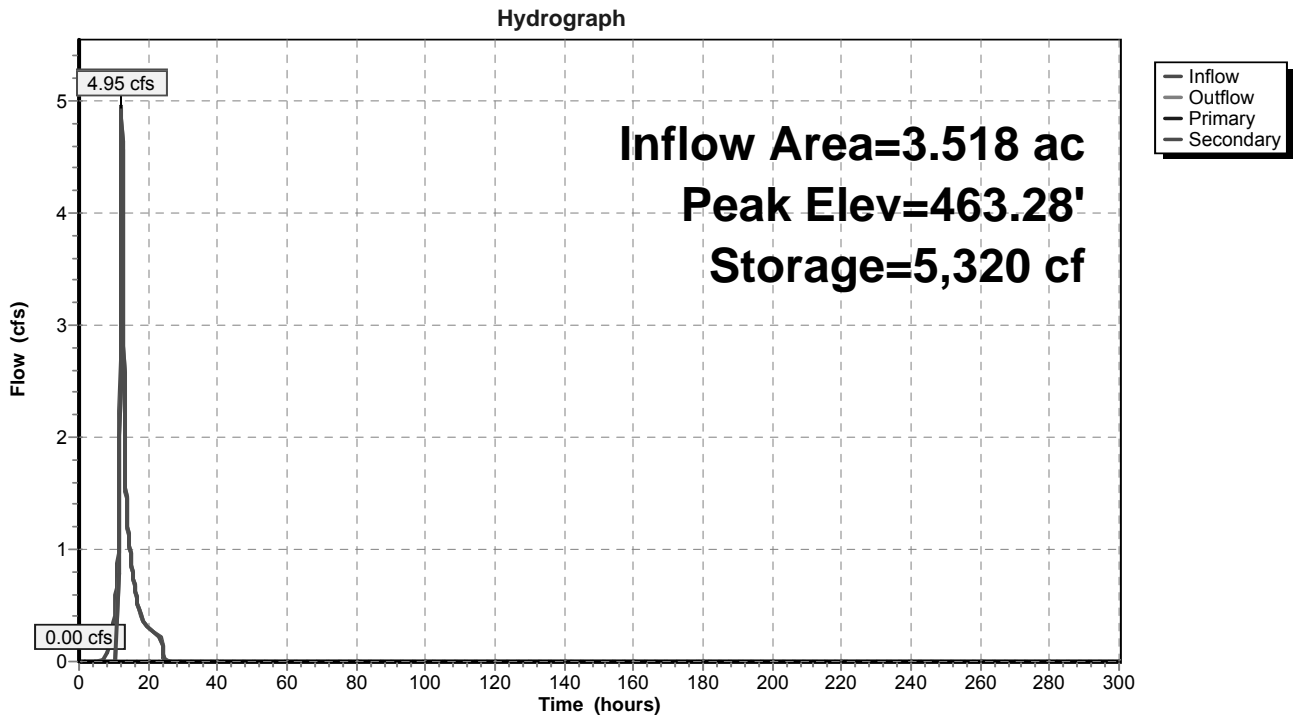
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Standpipe Openings (Controls 0.00 cfs)
- 3=Top of Standpipe (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=4.94 cfs @ 12.31 hrs HW=463.28' (Free Discharge)

- 5=Emergency Overflow (Weir Controls 4.94 cfs @ 1.78 fps)

Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

[79] Warning: Submerged Pond FS G7 Primary device # 1 OUTLET by 0.06'

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 3.58" for 25 Year - North Salem event
 Inflow = 2.13 cfs @ 12.20 hrs, Volume= 0.459 af
 Outflow = 2.12 cfs @ 12.22 hrs, Volume= 0.398 af, Atten= 0%, Lag= 1.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.12 cfs @ 12.22 hrs, Volume= 0.398 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 455.16' @ 12.22 hrs Surf.Area= 1,293 sf Storage= 2,893 cf

Plug-Flow detention time= 98.5 min calculated for 0.398 af (87% of inflow)
 Center-of-Mass det. time= 35.8 min (878.2 - 842.4)

Volume	Invert	Avail.Storage	Storage Description			
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
452.00	581	93.0	0	0	581	
454.00	1,003	118.0	1,565	1,565	1,051	
455.00	1,251	130.0	1,125	2,690	1,318	
456.00	1,525	143.0	1,386	4,075	1,632	

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

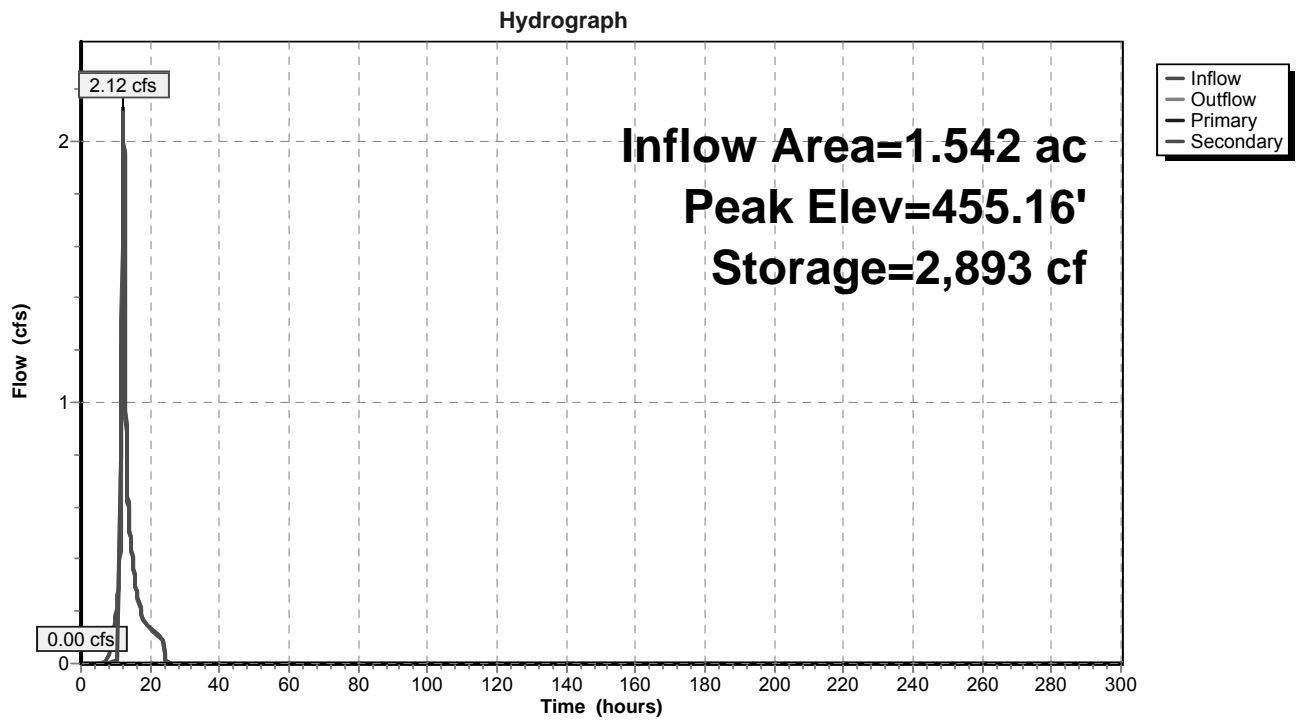
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.12 cfs @ 12.22 hrs HW=455.16' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 2.12 cfs @ 1.33 fps)

Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			

Woodlands Post-Dev DP 7 - Part 2 WO Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind method - Pond routing by Stor-Ind method

Subcatchment G5a: Post-Development G5a Runoff Area=2.154 ac 19.17% Impervious Runoff Depth=5.09"
Flow Length=833' Tc=13.0 min CN=68 Runoff=10.15 cfs 0.913 af

Subcatchment G5b: Post-Development Runoff Area=0.153 ac 100.00% Impervious Runoff Depth=8.76"
Flow Length=245' Tc=2.0 min CN=98 Runoff=1.47 cfs 0.112 af

Subcatchment G5c: Post-Development G5c Runoff Area=0.143 ac 89.51% Impervious Runoff Depth=8.28"
Flow Length=245' Tc=2.0 min CN=94 Runoff=1.35 cfs 0.099 af

Subcatchment G6: Post-Development G6 Runoff Area=3.518 ac 19.41% Impervious Runoff Depth=6.32"
Flow Length=917' Tc=20.9 min CN=78 Runoff=17.00 cfs 1.853 af

Subcatchment G7: Post-Development G7 Runoff Area=1.542 ac 19.58% Impervious Runoff Depth=6.32"
Flow Length=649' Tc=14.6 min CN=78 Runoff=8.59 cfs 0.812 af

Pond B-G5: Dry Basin - G5 Peak Elev=425.48' Storage=12,305 cf Inflow=14.69 cfs 0.966 af
Primary=0.00 cfs 0.000 af Secondary=11.53 cfs 0.738 af Outflow=11.53 cfs 0.738 af

Pond B-G6: Dry Basin - G6 Peak Elev=453.62' Storage=13,658 cf Inflow=16.98 cfs 1.745 af
Primary=0.00 cfs 0.000 af Secondary=16.83 cfs 1.501 af Outflow=16.83 cfs 1.501 af

Pond DP 7 (2): Design Point 7 - G5a-G7 Inflow=30.35 cfs 2.647 af
Primary=30.35 cfs 2.647 af

Pond FS G5: Flow Splitter - G5 Peak Elev=439.74' Inflow=10.15 cfs 0.913 af
Primary=1.74 cfs 0.596 af Secondary=8.42 cfs 0.317 af Outflow=10.15 cfs 0.913 af

Pond FS G6: Flow Splitter - G6 Peak Elev=466.60' Inflow=17.00 cfs 1.853 af
Primary=5.51 cfs 1.390 af Secondary=11.49 cfs 0.464 af Outflow=17.00 cfs 1.853 af

Pond FS G7: Flow Splitter - G7 Peak Elev=458.03' Inflow=8.59 cfs 0.812 af
Primary=2.29 cfs 0.603 af Secondary=6.30 cfs 0.209 af Outflow=8.59 cfs 0.812 af

Pond S-17: Underground Infiltration Peak Elev=433.55' Storage=0.005 af Inflow=1.47 cfs 0.112 af
Discarded=0.90 cfs 0.112 af Primary=0.00 cfs 0.000 af Outflow=0.90 cfs 0.112 af

Pond S-21: Underground Infiltration Peak Elev=499.02' Storage=0.000 af Inflow=1.35 cfs 0.099 af
Discarded=1.35 cfs 0.099 af Primary=0.00 cfs 0.000 af Outflow=1.35 cfs 0.099 af

Pond SF-G5: Sand Filter - G5 Peak Elev=431.15' Storage=4,787 cf Inflow=1.73 cfs 0.543 af
Primary=0.00 cfs 0.000 af Secondary=1.53 cfs 0.439 af Outflow=1.53 cfs 0.439 af

Pond SF-G6: Sand Filter - G6 Peak Elev=456.00' Storage=0 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-G7: Sand Filter - G7 Peak Elev=451.16' Storage=6,216 cf Inflow=2.28 cfs 0.541 af
Primary=0.00 cfs 0.000 af Secondary=2.12 cfs 0.408 af Outflow=2.12 cfs 0.408 af

Woodlands Post-Dev DP 7 - Part 2 WO Type III 24-hr 100 Year - North Salem Rainfall=9.00"

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Pond SFF-G5: Sand Filter Forebay - G5 Peak Elev=435.14' Storage=2,459 cf Inflow=1.74 cfs 0.596 af
Primary=0.00 cfs 0.000 af Secondary=1.73 cfs 0.543 af Outflow=1.73 cfs 0.543 af

Pond SFF-G6: Sand Filter Forebay - G6 Peak Elev=463.30' Storage=5,365 cf Inflow=5.51 cfs 1.390 af
Primary=0.00 cfs 0.000 af Secondary=5.51 cfs 1.282 af Outflow=5.51 cfs 1.282 af

Pond SFF-G7: Sand Filter Forebay - G7 Peak Elev=455.17' Storage=2,903 cf Inflow=2.29 cfs 0.603 af
Primary=0.00 cfs 0.000 af Secondary=2.28 cfs 0.541 af Outflow=2.28 cfs 0.541 af

Total Runoff Area = 7.510 ac Runoff Volume = 3.789 af Average Runoff Depth = 6.05"
77.64% Pervious = 5.831 ac 22.36% Impervious = 1.679 ac

Summary for Subcatchment G5a: Post-Development G5a

Runoff = 10.15 cfs @ 12.18 hrs, Volume= 0.913 af, Depth= 5.09"

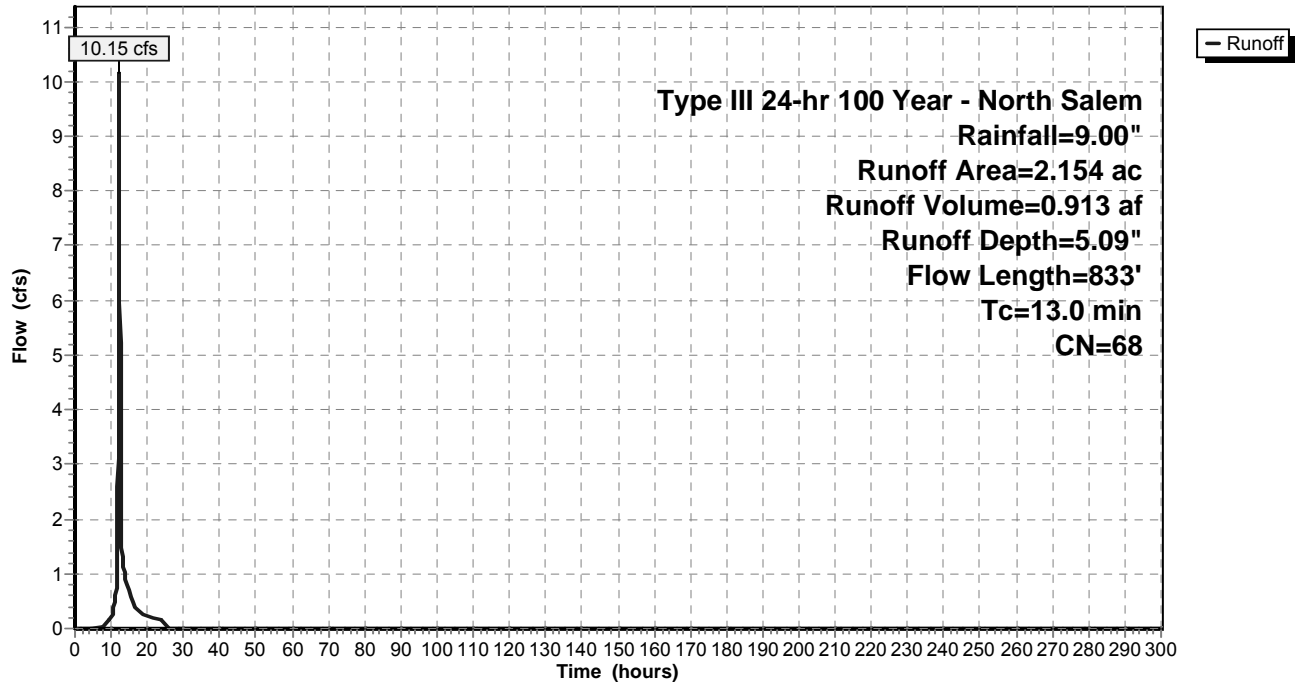
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.060	98	Driveway
* 0.506	61	Basin, HSG B
1.235	61	>75% Grass cover, Good, HSG B
* 0.353	98	Roadway
2.154	68	Weighted Average
1.741		80.83% Pervious Area
0.413		19.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	100	0.0350	0.16		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
0.3	72	0.0800	4.55		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.9	581	0.1000	5.09		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.2	80	0.0200	5.46	9.66	Pipe Channel, D-E 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.020 Corrugated PE, corrugated interior
13.0	833	Total			

Subcatchment G5a: Post-Development G5a

Hydrograph



Summary for Subcatchment G5b: Post-Development G5b

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.47 cfs @ 12.03 hrs, Volume= 0.112 af, Depth= 8.76"

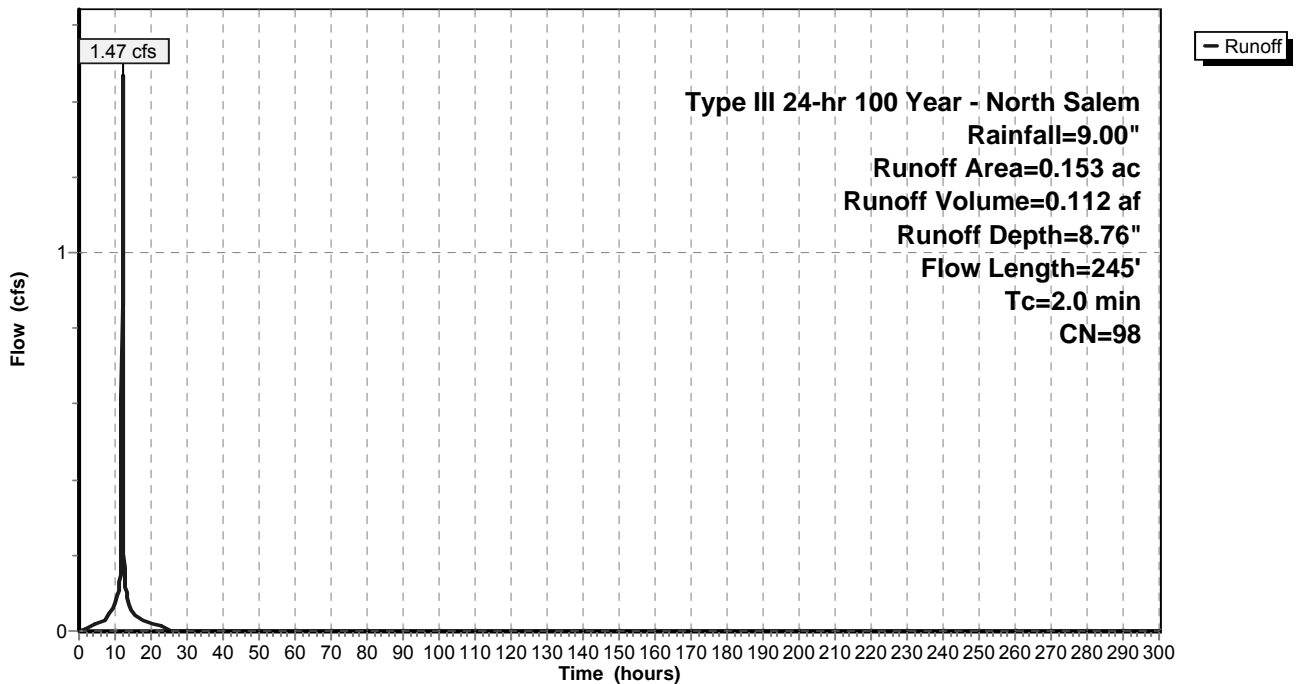
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.090	98	Driveway
0.153	98	Weighted Average
0.153		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5b: Post-Development G5b

Hydrograph



Summary for Subcatchment G5c: Post-Development G5c

[49] Hint: Tc<2dt may require smaller dt

Runoff = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af, Depth= 8.28"

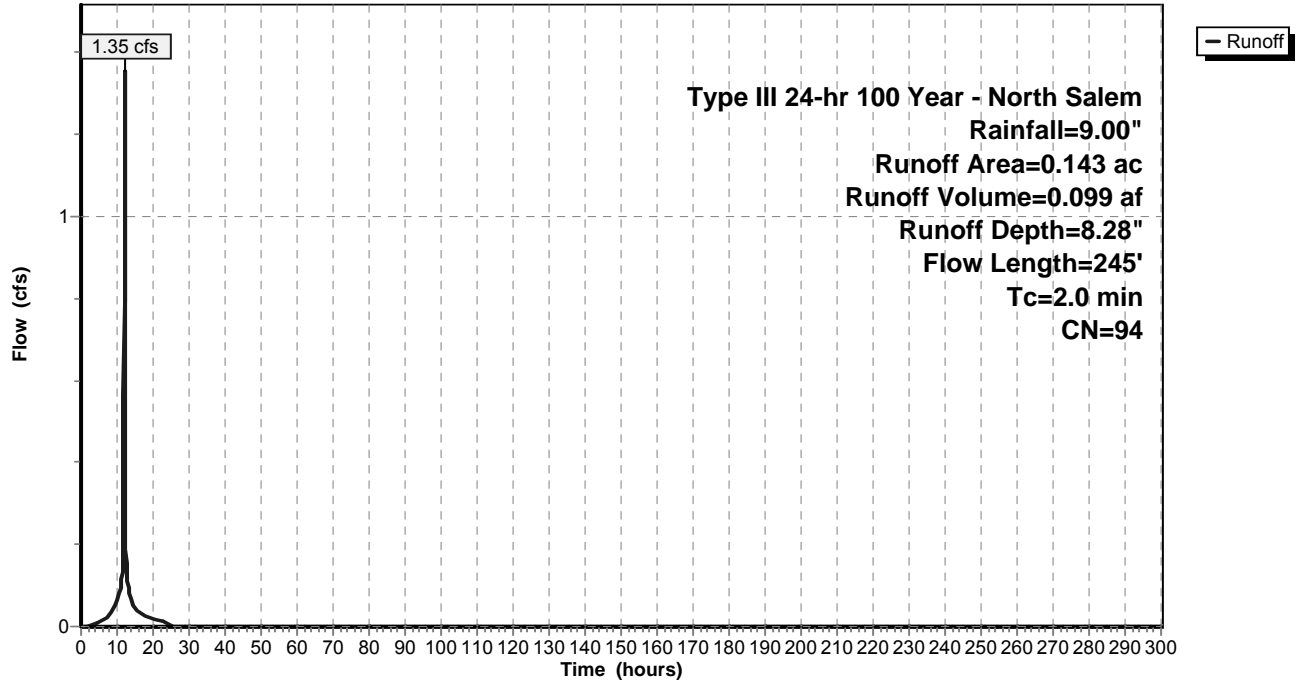
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.063	98	Roof/Walkway
* 0.065	98	Driveway
0.015	61	>75% Grass cover, Good, HSG B
0.143	94	Weighted Average
0.015		10.49% Pervious Area
0.128		89.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	100	0.0150	1.32		Sheet Flow, A-B Smooth surfaces n= 0.011 P2= 3.70"
0.3	65	0.0300	3.52		Shallow Concentrated Flow, B-C Paved Kv= 20.3 fps
0.4	80	0.0100	3.46	1.21	Pipe Channel, C-D 8.0" Round Area= 0.3 sf Perim= 2.1' r= 0.17' n= 0.013 Corrugated PE, smooth interior
2.0	245	Total			

Subcatchment G5c: Post-Development G5c

Hydrograph



Summary for Subcatchment G6: Post-Development G6

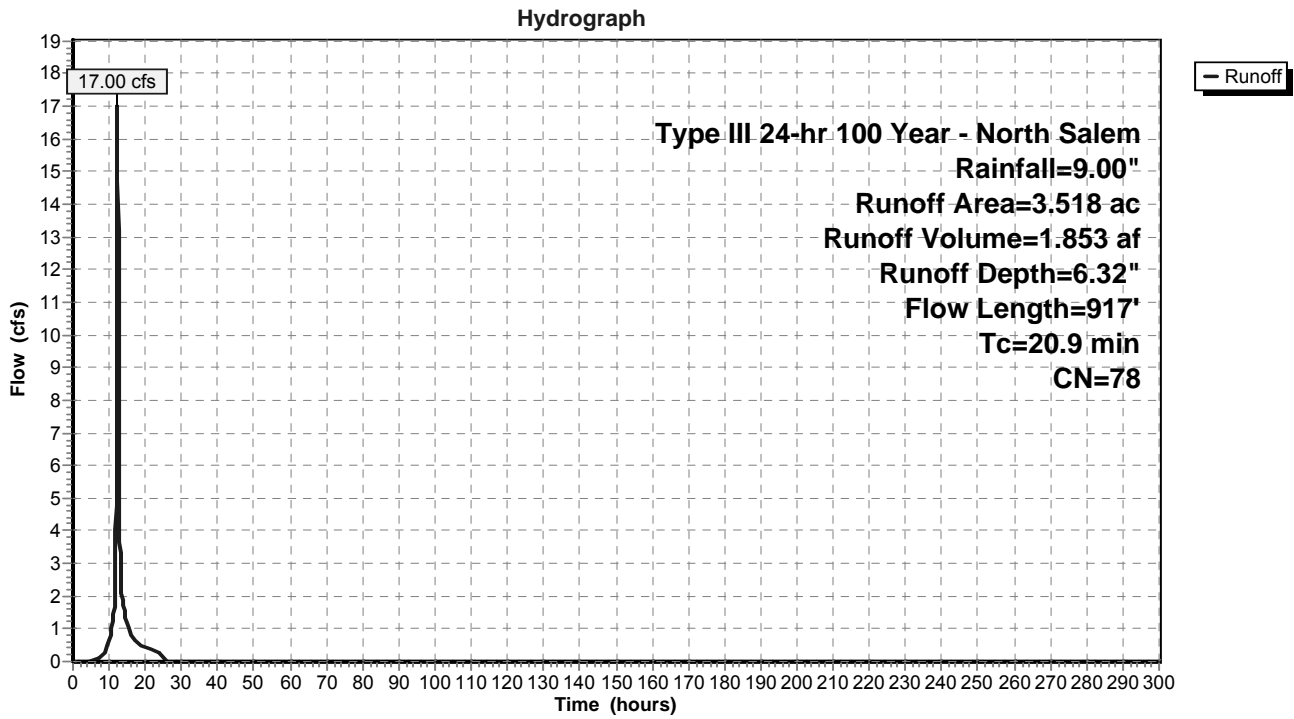
Runoff = 17.00 cfs @ 12.28 hrs, Volume= 1.853 af, Depth= 6.32"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.147	98	Roof/Walkway
* 0.117	98	Driveway
* 0.365	98	Road & Emergency Access
* 0.013	98	Roof (Water Plant)
* 0.041	98	Sidewalk
2.021	74	>75% Grass cover, Good, HSG C
0.487	70	Woods, Good, HSG C
* 0.327	74	Basin, HSG C
3.518	78	Weighted Average
2.835		80.59% Pervious Area
0.683		19.41% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0350	0.10		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	41	0.1951	7.11		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
3.1	381	0.0157	2.02		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.5	329	0.0547	3.77		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	66	0.0909	4.85		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
20.9	917	Total			

Subcatchment G6: Post-Development G6



Summary for Subcatchment G7: Post-Development G7

Runoff = 8.59 cfs @ 12.20 hrs, Volume= 0.812 af, Depth= 6.32"

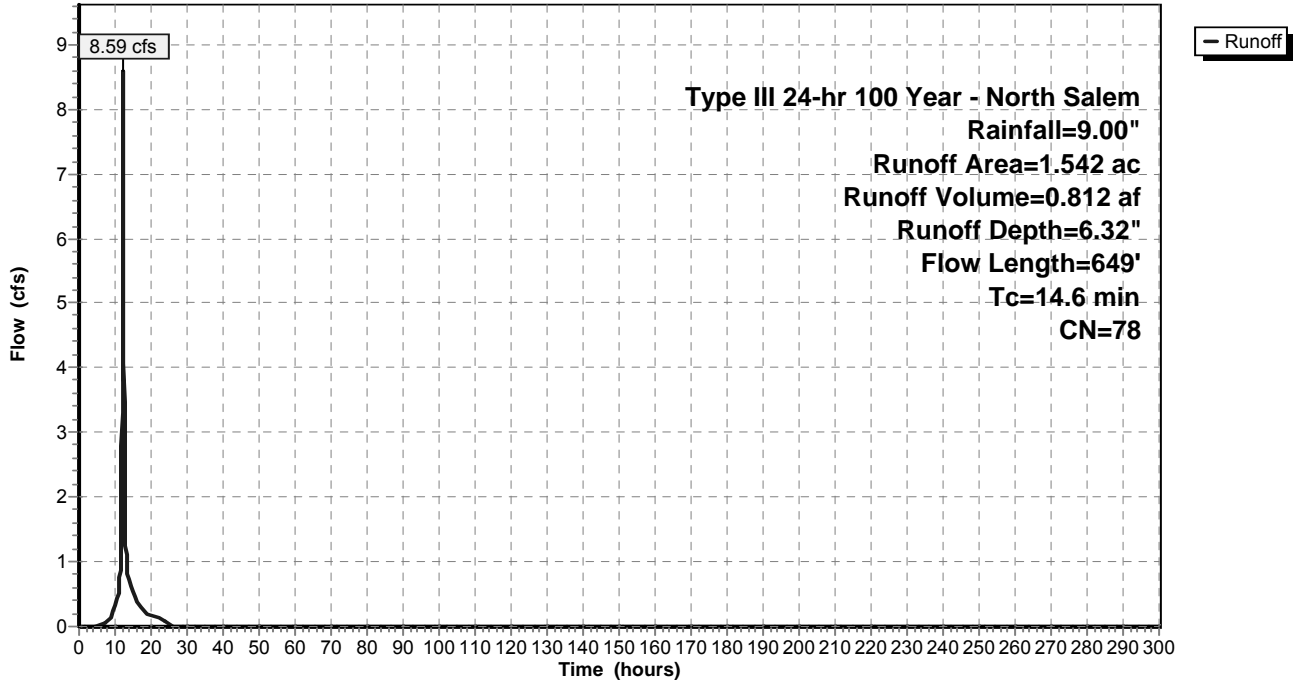
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.064	98	Roof/Walkway
* 0.179	98	Driveway
0.971	74	>75% Grass cover, Good, HSG C
* 0.190	74	Basin, HSG C
0.079	70	Woods, Good, HSG C
* 0.059	98	Sidewalk
1.542	78	Weighted Average
1.240		80.42% Pervious Area
0.302		19.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.1	100	0.0700	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	90	0.0222	2.40		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.3	77	0.0790	4.53		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
1.0	297	0.1000	5.09		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	85	0.0235	2.47		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
14.6	649	Total			

Subcatchment G7: Post-Development G7

Hydrograph



Summary for Pond B-G5: Dry Basin - G5

[79] Warning: Submerged Pond SF-G5 Primary device # 1 OUTLET by 0.33'

Inflow Area = 3.992 ac, 24.95% Impervious, Inflow Depth = 2.90" for 100 Year - North Salem event
 Inflow = 14.69 cfs @ 12.19 hrs, Volume= 0.966 af
 Outflow = 11.53 cfs @ 12.32 hrs, Volume= 0.738 af, Atten= 21%, Lag= 7.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 11.53 cfs @ 12.32 hrs, Volume= 0.738 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 420.50' Surf.Area= 561 sf Storage= 225 cf
 Peak Elev= 425.48' @ 12.32 hrs Surf.Area= 4,746 sf Storage= 12,305 cf (12,080 cf above start)

Plug-Flow detention time= 125.8 min calculated for 0.733 af (76% of inflow)
 Center-of-Mass det. time= 40.9 min (877.5 - 836.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	420.00'	14,897 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
420.00	347	128.0	0	0	347	
422.00	1,509	251.0	1,720	1,720	4,076	
424.00	3,264	321.0	4,662	6,381	7,313	
425.00	4,253	340.0	3,748	10,129	8,366	
426.00	5,302	360.0	4,768	14,897	9,534	

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	24.0" Round Outlet Pipe X 0.00 L= 65.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 416.00' S= 0.0462 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	420.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	424.00'	21.4" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	425.00'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	425.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

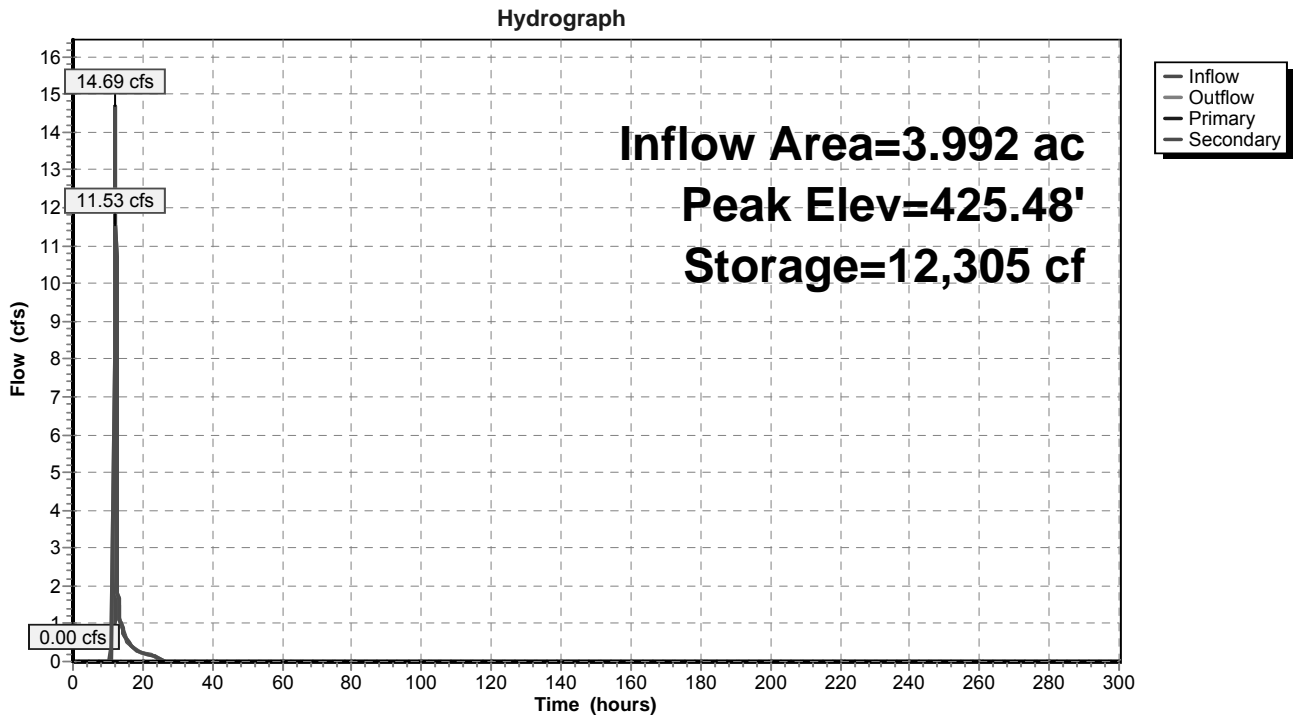
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=420.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=11.08 cfs @ 12.32 hrs HW=425.47' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 11.08 cfs @ 2.37 fps)

Pond B-G5: Dry Basin - G5



Stage-Area-Storage for Pond B-G5: Dry Basin - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
420.00	347	0	421.06	861	620
420.02	355	7	421.08	873	637
420.04	362	14	421.10	885	655
420.06	370	22	421.12	897	673
420.08	378	29	421.14	909	691
420.10	386	37	421.16	921	709
420.12	394	44	421.18	934	728
420.14	402	52	421.20	946	746
420.16	410	60	421.22	959	765
420.18	418	69	421.24	971	785
420.20	426	77	421.26	984	804
420.22	435	86	421.28	997	824
420.24	443	95	421.30	1,009	844
420.26	452	104	421.32	1,022	864
420.28	460	113	421.34	1,035	885
420.30	469	122	421.36	1,048	906
420.32	478	131	421.38	1,061	927
420.34	487	141	421.40	1,075	948
420.36	496	151	421.42	1,088	970
420.38	505	161	421.44	1,101	992
420.40	514	171	421.46	1,115	1,014
420.42	523	181	421.48	1,128	1,036
420.44	532	192	421.50	1,142	1,059
420.46	542	203	421.52	1,156	1,082
420.48	551	214	421.54	1,169	1,105
420.50	561	225	421.56	1,183	1,129
420.52	570	236	421.58	1,197	1,153
420.54	580	248	421.60	1,211	1,177
420.56	590	259	421.62	1,225	1,201
420.58	600	271	421.64	1,240	1,226
420.60	610	283	421.66	1,254	1,251
420.62	620	296	421.68	1,268	1,276
420.64	630	308	421.70	1,283	1,301
420.66	640	321	421.72	1,297	1,327
420.68	650	334	421.74	1,312	1,353
420.70	661	347	421.76	1,326	1,380
420.72	671	360	421.78	1,341	1,406
420.74	682	374	421.80	1,356	1,433
420.76	692	387	421.82	1,371	1,461
420.78	703	401	421.84	1,386	1,488
420.80	714	416	421.86	1,401	1,516
420.82	725	430	421.88	1,416	1,544
420.84	735	445	421.90	1,431	1,573
420.86	746	459	421.92	1,447	1,602
420.88	758	474	421.94	1,462	1,631
420.90	769	490	421.96	1,478	1,660
420.92	780	505	421.98	1,493	1,690
420.94	791	521	422.00	1,509	1,720
420.96	803	537	422.02	1,523	1,750
420.98	814	553	422.04	1,538	1,781
421.00	826	569	422.06	1,552	1,812
421.02	837	586	422.08	1,566	1,843
421.04	849	603	422.10	1,581	1,874

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
422.12	1,595	1,906	423.18	2,464	4,041
422.14	1,610	1,938	423.20	2,482	4,090
422.16	1,625	1,970	423.22	2,500	4,140
422.18	1,640	2,003	423.24	2,518	4,190
422.20	1,654	2,036	423.26	2,537	4,241
422.22	1,669	2,069	423.28	2,555	4,292
422.24	1,684	2,103	423.30	2,574	4,343
422.26	1,699	2,137	423.32	2,592	4,395
422.28	1,714	2,171	423.34	2,611	4,447
422.30	1,730	2,205	423.36	2,630	4,499
422.32	1,745	2,240	423.38	2,648	4,552
422.34	1,760	2,275	423.40	2,667	4,605
422.36	1,776	2,310	423.42	2,686	4,658
422.38	1,791	2,346	423.44	2,705	4,712
422.40	1,807	2,382	423.46	2,724	4,767
422.42	1,822	2,418	423.48	2,743	4,821
422.44	1,838	2,455	423.50	2,763	4,876
422.46	1,853	2,492	423.52	2,782	4,932
422.48	1,869	2,529	423.54	2,801	4,988
422.50	1,885	2,567	423.56	2,821	5,044
422.52	1,901	2,604	423.58	2,840	5,100
422.54	1,917	2,643	423.60	2,860	5,157
422.56	1,933	2,681	423.62	2,879	5,215
422.58	1,949	2,720	423.64	2,899	5,273
422.60	1,965	2,759	423.66	2,918	5,331
422.62	1,982	2,798	423.68	2,938	5,389
422.64	1,998	2,838	423.70	2,958	5,448
422.66	2,014	2,878	423.72	2,978	5,508
422.68	2,031	2,919	423.74	2,998	5,567
422.70	2,047	2,960	423.76	3,018	5,628
422.72	2,064	3,001	423.78	3,038	5,688
422.74	2,080	3,042	423.80	3,058	5,749
422.76	2,097	3,084	423.82	3,079	5,811
422.78	2,114	3,126	423.84	3,099	5,872
422.80	2,131	3,169	423.86	3,119	5,934
422.82	2,148	3,211	423.88	3,140	5,997
422.84	2,165	3,254	423.90	3,160	6,060
422.86	2,182	3,298	423.92	3,181	6,123
422.88	2,199	3,342	423.94	3,202	6,187
422.90	2,216	3,386	423.96	3,222	6,252
422.92	2,233	3,430	423.98	3,243	6,316
422.94	2,251	3,475	424.00	3,264	6,381
422.96	2,268	3,520	424.02	3,282	6,447
422.98	2,285	3,566	424.04	3,301	6,513
423.00	2,303	3,612	424.06	3,320	6,579
423.02	2,320	3,658	424.08	3,338	6,645
423.04	2,338	3,705	424.10	3,357	6,712
423.06	2,356	3,752	424.12	3,376	6,780
423.08	2,374	3,799	424.14	3,395	6,847
423.10	2,391	3,846	424.16	3,413	6,915
423.12	2,409	3,894	424.18	3,432	6,984
423.14	2,427	3,943	424.20	3,451	7,053
423.16	2,445	3,992	424.22	3,470	7,122

Stage-Area-Storage for Pond B-G5: Dry Basin - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.24	3,489	7,192	425.30	4,556	11,450
424.26	3,509	7,262	425.32	4,576	11,541
424.28	3,528	7,332	425.34	4,597	11,633
424.30	3,547	7,403	425.36	4,617	11,725
424.32	3,566	7,474	425.38	4,638	11,818
424.34	3,586	7,545	425.40	4,659	11,911
424.36	3,605	7,617	425.42	4,680	12,004
424.38	3,624	7,689	425.44	4,700	12,098
424.40	3,644	7,762	425.46	4,721	12,192
424.42	3,663	7,835	425.48	4,742	12,287
424.44	3,683	7,909	425.50	4,763	12,382
424.46	3,703	7,983	425.52	4,784	12,477
424.48	3,722	8,057	425.54	4,805	12,573
424.50	3,742	8,131	425.56	4,826	12,669
424.52	3,762	8,207	425.58	4,847	12,766
424.54	3,782	8,282	425.60	4,869	12,863
424.56	3,802	8,358	425.62	4,890	12,961
424.58	3,822	8,434	425.64	4,911	13,059
424.60	3,842	8,511	425.66	4,932	13,157
424.62	3,862	8,588	425.68	4,954	13,256
424.64	3,882	8,665	425.70	4,975	13,355
424.66	3,902	8,743	425.72	4,997	13,455
424.68	3,922	8,821	425.74	5,018	13,555
424.70	3,943	8,900	425.76	5,040	13,656
424.72	3,963	8,979	425.78	5,061	13,757
424.74	3,983	9,058	425.80	5,083	13,858
424.76	4,004	9,138	425.82	5,105	13,960
424.78	4,024	9,219	425.84	5,126	14,063
424.80	4,045	9,299	425.86	5,148	14,165
424.82	4,065	9,380	425.88	5,170	14,268
424.84	4,086	9,462	425.90	5,192	14,372
424.86	4,107	9,544	425.92	5,214	14,476
424.88	4,127	9,626	425.94	5,236	14,581
424.90	4,148	9,709	425.96	5,258	14,686
424.92	4,169	9,792	425.98	5,280	14,791
424.94	4,190	9,876	426.00	5,302	14,897
424.96	4,211	9,960			
424.98	4,232	10,044			
425.00	4,253	10,129			
425.02	4,273	10,214			
425.04	4,293	10,300			
425.06	4,313	10,386			
425.08	4,333	10,472			
425.10	4,353	10,559			
425.12	4,373	10,646			
425.14	4,393	10,734			
425.16	4,413	10,822			
425.18	4,433	10,911			
425.20	4,454	10,999			
425.22	4,474	11,089			
425.24	4,494	11,178			
425.26	4,515	11,269			
425.28	4,535	11,359			

Summary for Pond B-G6: Dry Basin - G6

[79] Warning: Submerged Pond FS G6 Secondary device # 2 OUTLET by 0.62'

[79] Warning: Submerged Pond SF-G6 Primary device # 1 INLET by 0.12'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 5.95" for 100 Year - North Salem event
 Inflow = 16.98 cfs @ 12.29 hrs, Volume= 1.745 af
 Outflow = 16.83 cfs @ 12.32 hrs, Volume= 1.501 af, Atten= 1%, Lag= 1.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 16.83 cfs @ 12.32 hrs, Volume= 1.501 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 448.50' Surf.Area= 1,174 sf Storage= 536 cf
 Peak Elev= 453.62' @ 12.32 hrs Surf.Area= 4,280 sf Storage= 13,658 cf (13,122 cf above start)

Plug-Flow detention time= 91.8 min calculated for 1.489 af (85% of inflow)
 Center-of-Mass det. time= 27.7 min (862.9 - 835.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	448.00'	15,358 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
448.00	975	126.0	0	0	975	
450.00	1,880	175.0	2,806	2,806	2,187	
452.00	3,088	228.0	4,918	7,724	3,933	
453.00	3,808	251.0	3,442	11,166	4,842	
454.00	4,588	270.0	4,192	15,358	5,672	

Device	Routing	Invert	Outlet Devices
#1	Primary	447.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 446.50' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Device 1	448.50'	4.0" Vert. Low Flow Orifice C= 0.600
#3	Device 1	451.90'	24.0" W x 12.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 1	452.90'	36.0" x 36.0" Horiz. Top of Box Elevation C= 0.600 Limited to weir flow at low heads
#5	Secondary	453.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

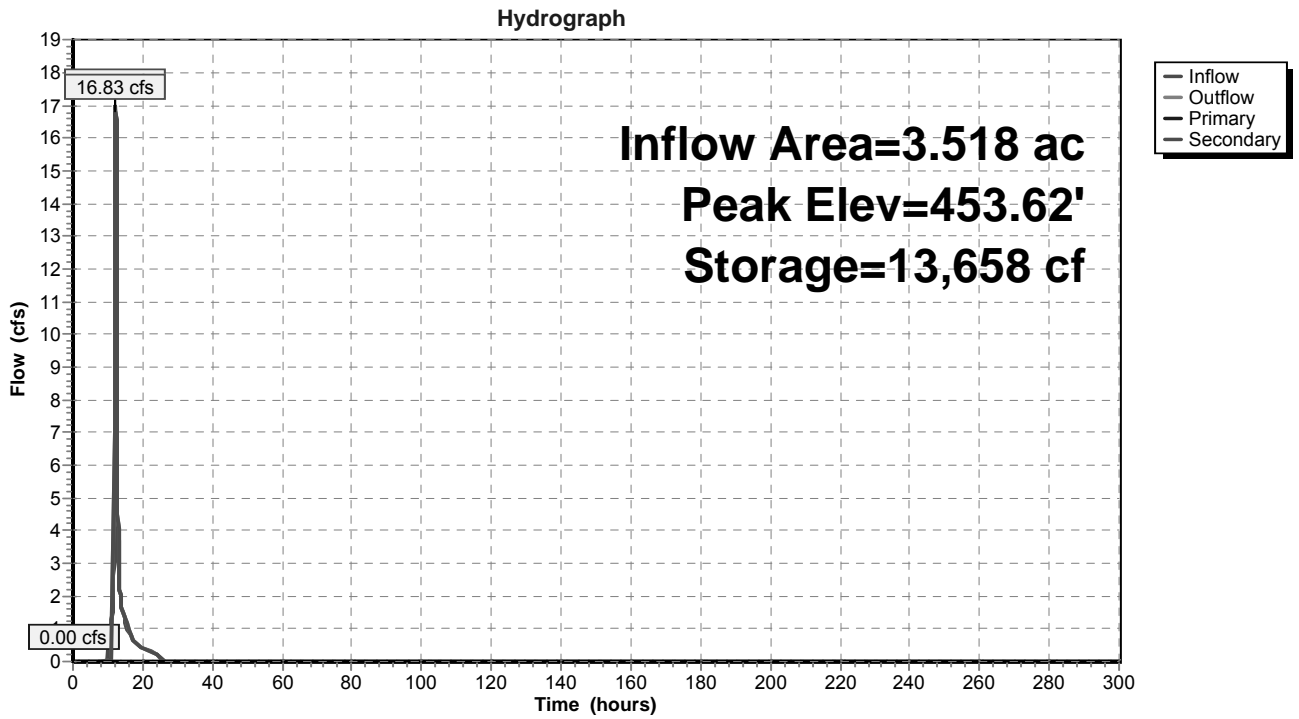
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.50' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Low Flow Orifice (Controls 0.00 cfs)
- ↑ 3=Orifice/Grate (Controls 0.00 cfs)
- ↑ 4=Top of Box Elevation (Controls 0.00 cfs)

Secondary OutFlow Max=16.69 cfs @ 12.32 hrs HW=453.61' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 16.69 cfs @ 2.75 fps)

Pond B-G6: Dry Basin - G6



Stage-Area-Storage for Pond B-G6: Dry Basin - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	975	0	449.06	1,418	1,261
448.02	983	20	449.08	1,427	1,289
448.04	990	39	449.10	1,436	1,318
448.06	998	59	449.12	1,446	1,347
448.08	1,006	79	449.14	1,455	1,376
448.10	1,013	99	449.16	1,464	1,405
448.12	1,021	120	449.18	1,473	1,434
448.14	1,029	140	449.20	1,483	1,464
448.16	1,037	161	449.22	1,492	1,494
448.18	1,044	182	449.24	1,501	1,524
448.20	1,052	203	449.26	1,511	1,554
448.22	1,060	224	449.28	1,520	1,584
448.24	1,068	245	449.30	1,530	1,615
448.26	1,076	267	449.32	1,539	1,645
448.28	1,084	288	449.34	1,549	1,676
448.30	1,092	310	449.36	1,558	1,707
448.32	1,100	332	449.38	1,568	1,739
448.34	1,108	354	449.40	1,578	1,770
448.36	1,116	376	449.42	1,587	1,802
448.38	1,124	399	449.44	1,597	1,833
448.40	1,132	421	449.46	1,607	1,865
448.42	1,141	444	449.48	1,616	1,898
448.44	1,149	467	449.50	1,626	1,930
448.46	1,157	490	449.52	1,636	1,963
448.48	1,165	513	449.54	1,646	1,996
448.50	1,174	536	449.56	1,656	2,029
448.52	1,182	560	449.58	1,666	2,062
448.54	1,190	584	449.60	1,675	2,095
448.56	1,199	608	449.62	1,685	2,129
448.58	1,207	632	449.64	1,695	2,163
448.60	1,216	656	449.66	1,705	2,197
448.62	1,224	680	449.68	1,715	2,231
448.64	1,233	705	449.70	1,725	2,265
448.66	1,241	730	449.72	1,736	2,300
448.68	1,250	754	449.74	1,746	2,335
448.70	1,258	780	449.76	1,756	2,370
448.72	1,267	805	449.78	1,766	2,405
448.74	1,276	830	449.80	1,776	2,440
448.76	1,284	856	449.82	1,786	2,476
448.78	1,293	882	449.84	1,797	2,512
448.80	1,302	908	449.86	1,807	2,548
448.82	1,310	934	449.88	1,817	2,584
448.84	1,319	960	449.90	1,828	2,621
448.86	1,328	986	449.92	1,838	2,657
448.88	1,337	1,013	449.94	1,849	2,694
448.90	1,346	1,040	449.96	1,859	2,731
448.92	1,355	1,067	449.98	1,869	2,768
448.94	1,364	1,094	450.00	1,880	2,806
448.96	1,373	1,121	450.02	1,891	2,844
448.98	1,382	1,149	450.04	1,901	2,882
449.00	1,391	1,177	450.06	1,912	2,920
449.02	1,400	1,205	450.08	1,923	2,958
449.04	1,409	1,233	450.10	1,933	2,997

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	1,944	3,035	451.18	2,557	5,413
450.14	1,955	3,074	451.20	2,569	5,465
450.16	1,966	3,114	451.22	2,581	5,516
450.18	1,977	3,153	451.24	2,594	5,568
450.20	1,987	3,193	451.26	2,606	5,620
450.22	1,998	3,232	451.28	2,619	5,672
450.24	2,009	3,273	451.30	2,631	5,725
450.26	2,020	3,313	451.32	2,644	5,777
450.28	2,031	3,353	451.34	2,656	5,830
450.30	2,042	3,394	451.36	2,669	5,884
450.32	2,053	3,435	451.38	2,682	5,937
450.34	2,064	3,476	451.40	2,694	5,991
450.36	2,075	3,518	451.42	2,707	6,045
450.38	2,087	3,559	451.44	2,720	6,099
450.40	2,098	3,601	451.46	2,732	6,154
450.42	2,109	3,643	451.48	2,745	6,208
450.44	2,120	3,685	451.50	2,758	6,263
450.46	2,131	3,728	451.52	2,771	6,319
450.48	2,143	3,771	451.54	2,784	6,374
450.50	2,154	3,814	451.56	2,797	6,430
450.52	2,165	3,857	451.58	2,810	6,486
450.54	2,177	3,900	451.60	2,823	6,543
450.56	2,188	3,944	451.62	2,836	6,599
450.58	2,200	3,988	451.64	2,849	6,656
450.60	2,211	4,032	451.66	2,862	6,713
450.62	2,223	4,076	451.68	2,875	6,770
450.64	2,234	4,121	451.70	2,888	6,828
450.66	2,246	4,166	451.72	2,901	6,886
450.68	2,257	4,211	451.74	2,914	6,944
450.70	2,269	4,256	451.76	2,927	7,002
450.72	2,281	4,301	451.78	2,941	7,061
450.74	2,292	4,347	451.80	2,954	7,120
450.76	2,304	4,393	451.82	2,967	7,179
450.78	2,316	4,439	451.84	2,980	7,239
450.80	2,327	4,486	451.86	2,994	7,299
450.82	2,339	4,532	451.88	3,007	7,359
450.84	2,351	4,579	451.90	3,021	7,419
450.86	2,363	4,626	451.92	3,034	7,479
450.88	2,375	4,674	451.94	3,047	7,540
450.90	2,387	4,721	451.96	3,061	7,601
450.92	2,399	4,769	451.98	3,074	7,663
450.94	2,411	4,817	452.00	3,088	7,724
450.96	2,423	4,866	452.02	3,102	7,786
450.98	2,435	4,914	452.04	3,115	7,848
451.00	2,447	4,963	452.06	3,129	7,911
451.02	2,459	5,012	452.08	3,143	7,973
451.04	2,471	5,061	452.10	3,157	8,036
451.06	2,483	5,111	452.12	3,170	8,100
451.08	2,495	5,161	452.14	3,184	8,163
451.10	2,507	5,211	452.16	3,198	8,227
451.12	2,520	5,261	452.18	3,212	8,291
451.14	2,532	5,312	452.20	3,226	8,356
451.16	2,544	5,362	452.22	3,240	8,420

Stage-Area-Storage for Pond B-G6: Dry Basin - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.24	3,254	8,485	453.30	4,034	12,342
452.26	3,268	8,550	453.32	4,050	12,423
452.28	3,282	8,616	453.34	4,065	12,504
452.30	3,296	8,682	453.36	4,080	12,586
452.32	3,310	8,748	453.38	4,096	12,667
452.34	3,324	8,814	453.40	4,111	12,749
452.36	3,339	8,881	453.42	4,127	12,832
452.38	3,353	8,948	453.44	4,142	12,914
452.40	3,367	9,015	453.46	4,158	12,997
452.42	3,381	9,082	453.48	4,173	13,081
452.44	3,396	9,150	453.50	4,189	13,164
452.46	3,410	9,218	453.52	4,205	13,248
452.48	3,424	9,286	453.54	4,220	13,333
452.50	3,439	9,355	453.56	4,236	13,417
452.52	3,453	9,424	453.58	4,252	13,502
452.54	3,467	9,493	453.60	4,267	13,587
452.56	3,482	9,563	453.62	4,283	13,673
452.58	3,496	9,632	453.64	4,299	13,759
452.60	3,511	9,703	453.66	4,315	13,845
452.62	3,526	9,773	453.68	4,330	13,931
452.64	3,540	9,844	453.70	4,346	14,018
452.66	3,555	9,915	453.72	4,362	14,105
452.68	3,569	9,986	453.74	4,378	14,192
452.70	3,584	10,057	453.76	4,394	14,280
452.72	3,599	10,129	453.78	4,410	14,368
452.74	3,614	10,201	453.80	4,426	14,457
452.76	3,628	10,274	453.82	4,442	14,545
452.78	3,643	10,346	453.84	4,458	14,634
452.80	3,658	10,419	453.86	4,474	14,724
452.82	3,673	10,493	453.88	4,491	14,813
452.84	3,688	10,566	453.90	4,507	14,903
452.86	3,703	10,640	453.92	4,523	14,993
452.88	3,718	10,714	453.94	4,539	15,084
452.90	3,733	10,789	453.96	4,555	15,175
452.92	3,748	10,864	453.98	4,572	15,266
452.94	3,763	10,939	454.00	4,588	15,358
452.96	3,778	11,014			
452.98	3,793	11,090			
453.00	3,808	11,166			
453.02	3,823	11,242			
453.04	3,838	11,319			
453.06	3,853	11,396			
453.08	3,868	11,473			
453.10	3,883	11,550			
453.12	3,898	11,628			
453.14	3,913	11,706			
453.16	3,928	11,785			
453.18	3,943	11,863			
453.20	3,958	11,943			
453.22	3,973	12,022			
453.24	3,989	12,101			
453.26	4,004	12,181			
453.28	4,019	12,262			

Summary for Pond DP 7 (2): Design Point 7 - G5a-G7

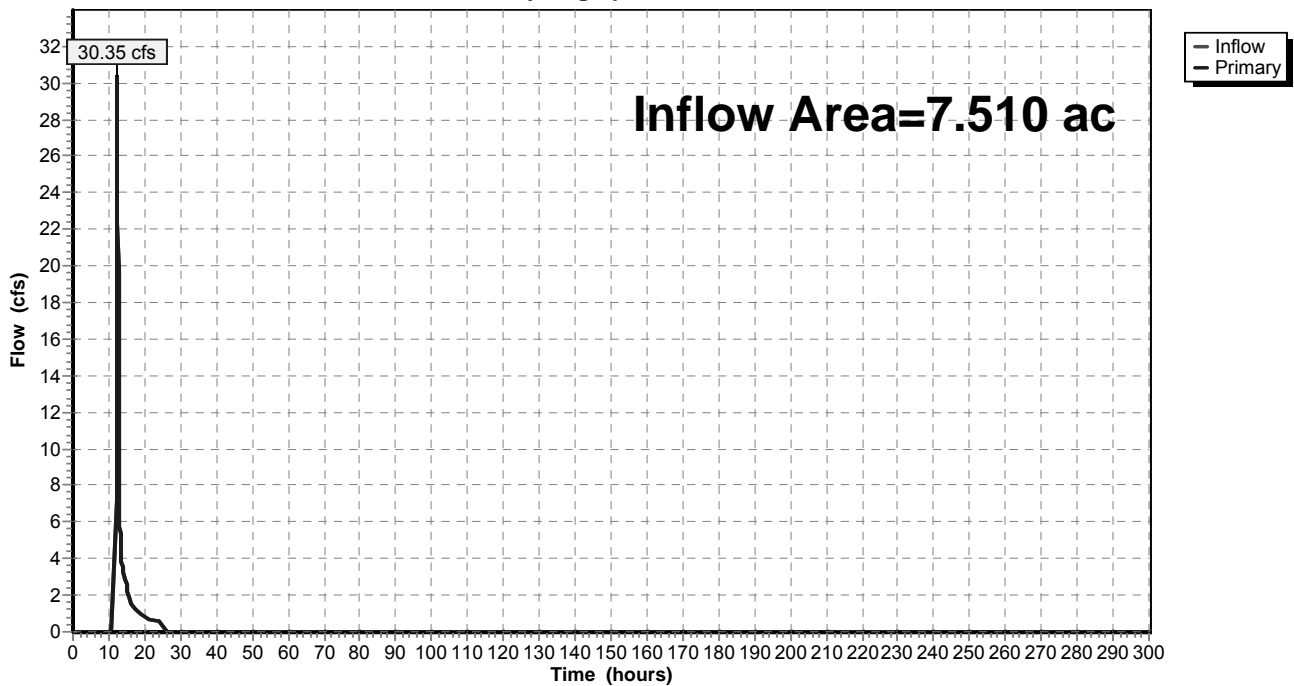
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 7.510 ac, 22.36% Impervious, Inflow Depth = 4.23" for 100 Year - North Salem event
Inflow = 30.35 cfs @ 12.32 hrs, Volume= 2.647 af
Primary = 30.35 cfs @ 12.32 hrs, Volume= 2.647 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 7 (2): Design Point 7 - G5a-G7

Hydrograph



Summary for Pond FS G5: Flow Splitter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 4.77" for 100 Year - North Salem event
 Inflow = 10.15 cfs @ 12.18 hrs, Volume= 0.913 af
 Outflow = 10.15 cfs @ 12.18 hrs, Volume= 0.913 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.74 cfs @ 12.18 hrs, Volume= 0.596 af
 Secondary = 8.42 cfs @ 12.18 hrs, Volume= 0.317 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 439.74' @ 12.18 hrs
 Flood Elev= 527.50'

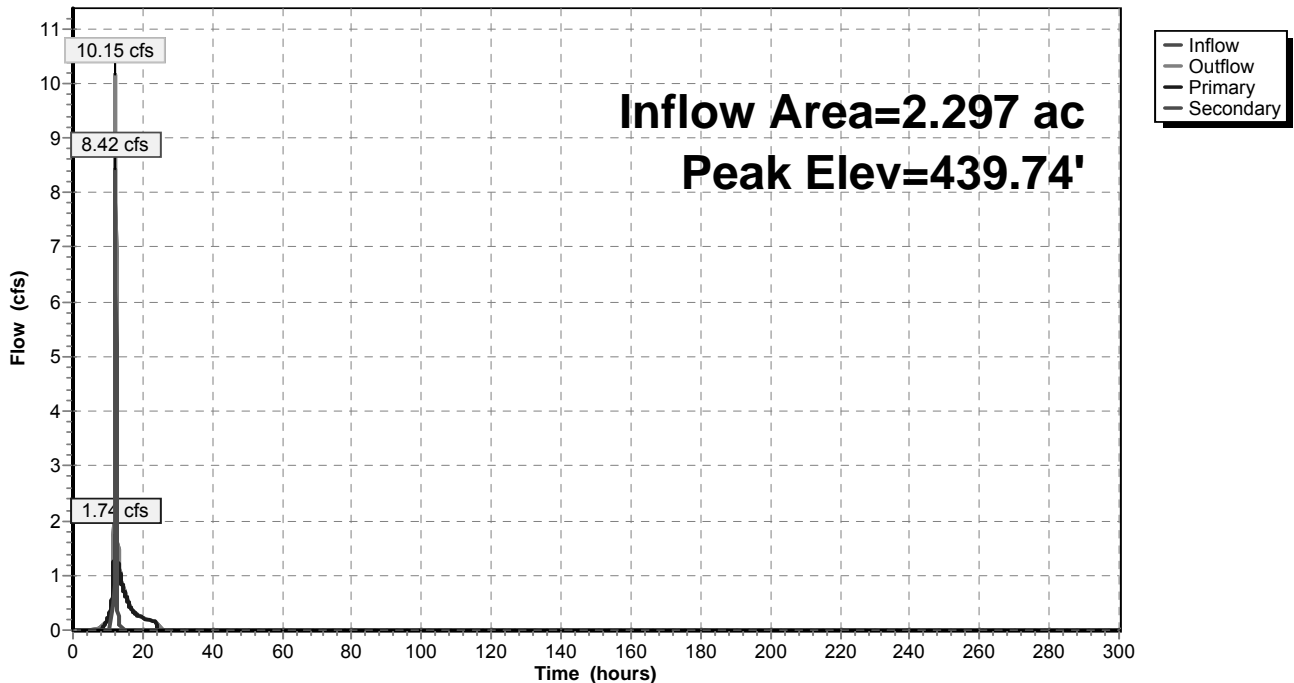
Device	Routing	Invert	Outlet Devices
#1	Primary	436.12'	6.0" Round Outlet to Sand Filter L= 12.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 436.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	438.00'	18.0" Round Outlet to Dry Basin L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 432.00' S= 0.1000 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=1.73 cfs @ 12.18 hrs HW=439.72' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 1.73 cfs @ 8.81 fps)

Secondary OutFlow Max=8.37 cfs @ 12.18 hrs HW=439.72' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 8.37 cfs @ 4.74 fps)

Pond FS G5: Flow Splitter - G5

Hydrograph



Stage-Area-Storage for Pond FS G5: Flow Splitter - G5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
436.12	0	446.19	0	456.26	0
436.31	0	446.38	0	456.45	0
436.50	0	446.57	0	456.64	0
436.69	0	446.76	0	456.83	0
436.88	0	446.95	0	457.02	0
437.07	0	447.14	0	457.21	0
437.26	0	447.33	0	457.40	0
437.45	0	447.52	0	457.59	0
437.64	0	447.71	0	457.78	0
437.83	0	447.90	0	457.97	0
438.02	0	448.09	0	458.16	0
438.21	0	448.28	0	458.35	0
438.40	0	448.47	0	458.54	0
438.59	0	448.66	0	458.73	0
438.78	0	448.85	0	458.92	0
438.97	0	449.04	0	459.11	0
439.16	0	449.23	0	459.30	0
439.35	0	449.42	0	459.49	0
439.54	0	449.61	0	459.68	0
439.73	0	449.80	0	459.87	0
439.92	0	449.99	0	460.06	0
440.11	0	450.18	0	460.25	0
440.30	0	450.37	0	460.44	0
440.49	0	450.56	0	460.63	0
440.68	0	450.75	0	460.82	0
440.87	0	450.94	0	461.01	0
441.06	0	451.13	0	461.20	0
441.25	0	451.32	0	461.39	0
441.44	0	451.51	0	461.58	0
441.63	0	451.70	0	461.77	0
441.82	0	451.89	0	461.96	0
442.01	0	452.08	0	462.15	0
442.20	0	452.27	0	462.34	0
442.39	0	452.46	0	462.53	0
442.58	0	452.65	0	462.72	0
442.77	0	452.84	0	462.91	0
442.96	0	453.03	0	463.10	0
443.15	0	453.22	0	463.29	0
443.34	0	453.41	0	463.48	0
443.53	0	453.60	0	463.67	0
443.72	0	453.79	0	463.86	0
443.91	0	453.98	0	464.05	0
444.10	0	454.17	0	464.24	0
444.29	0	454.36	0	464.43	0
444.48	0	454.55	0	464.62	0
444.67	0	454.74	0	464.81	0
444.86	0	454.93	0	465.00	0
445.05	0	455.12	0	465.19	0
445.24	0	455.31	0	465.38	0
445.43	0	455.50	0	465.57	0
445.62	0	455.69	0	465.76	0
445.81	0	455.88	0	465.95	0
446.00	0	456.07	0	466.14	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
466.33	0	476.40	0	486.47	0
466.52	0	476.59	0	486.66	0
466.71	0	476.78	0	486.85	0
466.90	0	476.97	0	487.04	0
467.09	0	477.16	0	487.23	0
467.28	0	477.35	0	487.42	0
467.47	0	477.54	0	487.61	0
467.66	0	477.73	0	487.80	0
467.85	0	477.92	0	487.99	0
468.04	0	478.11	0	488.18	0
468.23	0	478.30	0	488.37	0
468.42	0	478.49	0	488.56	0
468.61	0	478.68	0	488.75	0
468.80	0	478.87	0	488.94	0
468.99	0	479.06	0	489.13	0
469.18	0	479.25	0	489.32	0
469.37	0	479.44	0	489.51	0
469.56	0	479.63	0	489.70	0
469.75	0	479.82	0	489.89	0
469.94	0	480.01	0	490.08	0
470.13	0	480.20	0	490.27	0
470.32	0	480.39	0	490.46	0
470.51	0	480.58	0	490.65	0
470.70	0	480.77	0	490.84	0
470.89	0	480.96	0	491.03	0
471.08	0	481.15	0	491.22	0
471.27	0	481.34	0	491.41	0
471.46	0	481.53	0	491.60	0
471.65	0	481.72	0	491.79	0
471.84	0	481.91	0	491.98	0
472.03	0	482.10	0	492.17	0
472.22	0	482.29	0	492.36	0
472.41	0	482.48	0	492.55	0
472.60	0	482.67	0	492.74	0
472.79	0	482.86	0	492.93	0
472.98	0	483.05	0	493.12	0
473.17	0	483.24	0	493.31	0
473.36	0	483.43	0	493.50	0
473.55	0	483.62	0	493.69	0
473.74	0	483.81	0	493.88	0
473.93	0	484.00	0	494.07	0
474.12	0	484.19	0	494.26	0
474.31	0	484.38	0	494.45	0
474.50	0	484.57	0	494.64	0
474.69	0	484.76	0	494.83	0
474.88	0	484.95	0	495.02	0
475.07	0	485.14	0	495.21	0
475.26	0	485.33	0	495.40	0
475.45	0	485.52	0	495.59	0
475.64	0	485.71	0	495.78	0
475.83	0	485.90	0	495.97	0
476.02	0	486.09	0	496.16	0
476.21	0	486.28	0	496.35	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
496.54	0	506.61	0	516.68	0
496.73	0	506.80	0	516.87	0
496.92	0	506.99	0	517.06	0
497.11	0	507.18	0	517.25	0
497.30	0	507.37	0	517.44	0
497.49	0	507.56	0	517.63	0
497.68	0	507.75	0	517.82	0
497.87	0	507.94	0	518.01	0
498.06	0	508.13	0	518.20	0
498.25	0	508.32	0	518.39	0
498.44	0	508.51	0	518.58	0
498.63	0	508.70	0	518.77	0
498.82	0	508.89	0	518.96	0
499.01	0	509.08	0	519.15	0
499.20	0	509.27	0	519.34	0
499.39	0	509.46	0	519.53	0
499.58	0	509.65	0	519.72	0
499.77	0	509.84	0	519.91	0
499.96	0	510.03	0	520.10	0
500.15	0	510.22	0	520.29	0
500.34	0	510.41	0	520.48	0
500.53	0	510.60	0	520.67	0
500.72	0	510.79	0	520.86	0
500.91	0	510.98	0	521.05	0
501.10	0	511.17	0	521.24	0
501.29	0	511.36	0	521.43	0
501.48	0	511.55	0	521.62	0
501.67	0	511.74	0	521.81	0
501.86	0	511.93	0	522.00	0
502.05	0	512.12	0	522.19	0
502.24	0	512.31	0	522.38	0
502.43	0	512.50	0	522.57	0
502.62	0	512.69	0	522.76	0
502.81	0	512.88	0	522.95	0
503.00	0	513.07	0	523.14	0
503.19	0	513.26	0	523.33	0
503.38	0	513.45	0	523.52	0
503.57	0	513.64	0	523.71	0
503.76	0	513.83	0	523.90	0
503.95	0	514.02	0	524.09	0
504.14	0	514.21	0	524.28	0
504.33	0	514.40	0	524.47	0
504.52	0	514.59	0	524.66	0
504.71	0	514.78	0	524.85	0
504.90	0	514.97	0	525.04	0
505.09	0	515.16	0	525.23	0
505.28	0	515.35	0	525.42	0
505.47	0	515.54	0	525.61	0
505.66	0	515.73	0	525.80	0
505.85	0	515.92	0	525.99	0
506.04	0	516.11	0	526.18	0
506.23	0	516.30	0	526.37	0
506.42	0	516.49	0	526.56	0

Stage-Area-Storage for Pond FS G5: Flow Splitter - G5 (continued)

Elevation (feet)	Storage (cubic-feet)
526.75	0
526.94	0
527.13	0
527.32	0

Summary for Pond FS G6: Flow Splitter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 6.32" for 100 Year - North Salem event
 Inflow = 17.00 cfs @ 12.28 hrs, Volume= 1.853 af
 Outflow = 17.00 cfs @ 12.28 hrs, Volume= 1.853 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.51 cfs @ 12.28 hrs, Volume= 1.390 af
 Secondary = 11.49 cfs @ 12.28 hrs, Volume= 0.464 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 466.60' @ 12.28 hrs
 Flood Elev= 554.50'

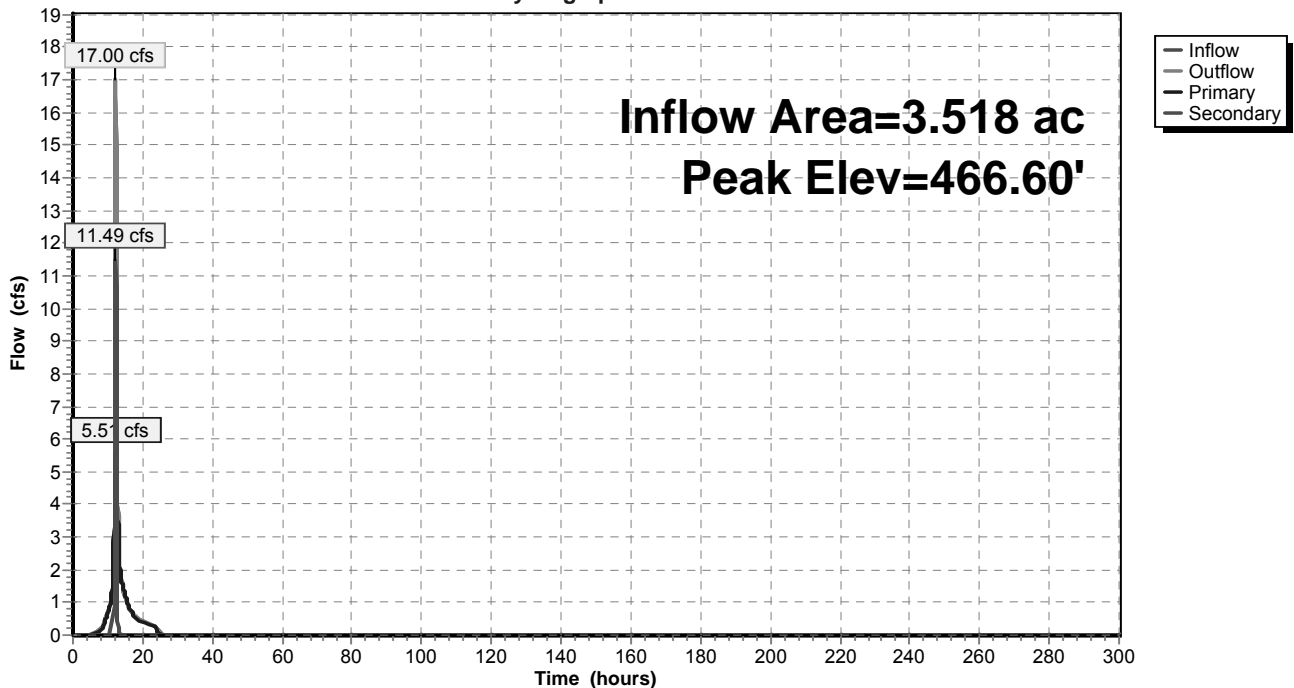
Device	Routing	Invert	Outlet Devices
#1	Primary	463.35'	12.0" Round Outlet to Sand Filter L= 8.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 463.15' S= 0.0250 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	464.79'	24.0" Round Outlet to Dry Basin L= 121.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0974 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior

Primary OutFlow Max=5.52 cfs @ 12.28 hrs HW=466.59' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 5.52 cfs @ 7.03 fps)

Secondary OutFlow Max=11.99 cfs @ 12.28 hrs HW=466.59' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 11.99 cfs @ 4.03 fps)

Pond FS G6: Flow Splitter - G6

Hydrograph



Stage-Area-Storage for Pond FS G6: Flow Splitter - G6

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
463.35	0	473.42	0	483.49	0
463.54	0	473.61	0	483.68	0
463.73	0	473.80	0	483.87	0
463.92	0	473.99	0	484.06	0
464.11	0	474.18	0	484.25	0
464.30	0	474.37	0	484.44	0
464.49	0	474.56	0	484.63	0
464.68	0	474.75	0	484.82	0
464.87	0	474.94	0	485.01	0
465.06	0	475.13	0	485.20	0
465.25	0	475.32	0	485.39	0
465.44	0	475.51	0	485.58	0
465.63	0	475.70	0	485.77	0
465.82	0	475.89	0	485.96	0
466.01	0	476.08	0	486.15	0
466.20	0	476.27	0	486.34	0
466.39	0	476.46	0	486.53	0
466.58	0	476.65	0	486.72	0
466.77	0	476.84	0	486.91	0
466.96	0	477.03	0	487.10	0
467.15	0	477.22	0	487.29	0
467.34	0	477.41	0	487.48	0
467.53	0	477.60	0	487.67	0
467.72	0	477.79	0	487.86	0
467.91	0	477.98	0	488.05	0
468.10	0	478.17	0	488.24	0
468.29	0	478.36	0	488.43	0
468.48	0	478.55	0	488.62	0
468.67	0	478.74	0	488.81	0
468.86	0	478.93	0	489.00	0
469.05	0	479.12	0	489.19	0
469.24	0	479.31	0	489.38	0
469.43	0	479.50	0	489.57	0
469.62	0	479.69	0	489.76	0
469.81	0	479.88	0	489.95	0
470.00	0	480.07	0	490.14	0
470.19	0	480.26	0	490.33	0
470.38	0	480.45	0	490.52	0
470.57	0	480.64	0	490.71	0
470.76	0	480.83	0	490.90	0
470.95	0	481.02	0	491.09	0
471.14	0	481.21	0	491.28	0
471.33	0	481.40	0	491.47	0
471.52	0	481.59	0	491.66	0
471.71	0	481.78	0	491.85	0
471.90	0	481.97	0	492.04	0
472.09	0	482.16	0	492.23	0
472.28	0	482.35	0	492.42	0
472.47	0	482.54	0	492.61	0
472.66	0	482.73	0	492.80	0
472.85	0	482.92	0	492.99	0
473.04	0	483.11	0	493.18	0
473.23	0	483.30	0	493.37	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
493.56	0	503.63	0	513.70	0
493.75	0	503.82	0	513.89	0
493.94	0	504.01	0	514.08	0
494.13	0	504.20	0	514.27	0
494.32	0	504.39	0	514.46	0
494.51	0	504.58	0	514.65	0
494.70	0	504.77	0	514.84	0
494.89	0	504.96	0	515.03	0
495.08	0	505.15	0	515.22	0
495.27	0	505.34	0	515.41	0
495.46	0	505.53	0	515.60	0
495.65	0	505.72	0	515.79	0
495.84	0	505.91	0	515.98	0
496.03	0	506.10	0	516.17	0
496.22	0	506.29	0	516.36	0
496.41	0	506.48	0	516.55	0
496.60	0	506.67	0	516.74	0
496.79	0	506.86	0	516.93	0
496.98	0	507.05	0	517.12	0
497.17	0	507.24	0	517.31	0
497.36	0	507.43	0	517.50	0
497.55	0	507.62	0	517.69	0
497.74	0	507.81	0	517.88	0
497.93	0	508.00	0	518.07	0
498.12	0	508.19	0	518.26	0
498.31	0	508.38	0	518.45	0
498.50	0	508.57	0	518.64	0
498.69	0	508.76	0	518.83	0
498.88	0	508.95	0	519.02	0
499.07	0	509.14	0	519.21	0
499.26	0	509.33	0	519.40	0
499.45	0	509.52	0	519.59	0
499.64	0	509.71	0	519.78	0
499.83	0	509.90	0	519.97	0
500.02	0	510.09	0	520.16	0
500.21	0	510.28	0	520.35	0
500.40	0	510.47	0	520.54	0
500.59	0	510.66	0	520.73	0
500.78	0	510.85	0	520.92	0
500.97	0	511.04	0	521.11	0
501.16	0	511.23	0	521.30	0
501.35	0	511.42	0	521.49	0
501.54	0	511.61	0	521.68	0
501.73	0	511.80	0	521.87	0
501.92	0	511.99	0	522.06	0
502.11	0	512.18	0	522.25	0
502.30	0	512.37	0	522.44	0
502.49	0	512.56	0	522.63	0
502.68	0	512.75	0	522.82	0
502.87	0	512.94	0	523.01	0
503.06	0	513.13	0	523.20	0
503.25	0	513.32	0	523.39	0
503.44	0	513.51	0	523.58	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
523.77	0	533.84	0	543.91	0
523.96	0	534.03	0	544.10	0
524.15	0	534.22	0	544.29	0
524.34	0	534.41	0	544.48	0
524.53	0	534.60	0	544.67	0
524.72	0	534.79	0	544.86	0
524.91	0	534.98	0	545.05	0
525.10	0	535.17	0	545.24	0
525.29	0	535.36	0	545.43	0
525.48	0	535.55	0	545.62	0
525.67	0	535.74	0	545.81	0
525.86	0	535.93	0	546.00	0
526.05	0	536.12	0	546.19	0
526.24	0	536.31	0	546.38	0
526.43	0	536.50	0	546.57	0
526.62	0	536.69	0	546.76	0
526.81	0	536.88	0	546.95	0
527.00	0	537.07	0	547.14	0
527.19	0	537.26	0	547.33	0
527.38	0	537.45	0	547.52	0
527.57	0	537.64	0	547.71	0
527.76	0	537.83	0	547.90	0
527.95	0	538.02	0	548.09	0
528.14	0	538.21	0	548.28	0
528.33	0	538.40	0	548.47	0
528.52	0	538.59	0	548.66	0
528.71	0	538.78	0	548.85	0
528.90	0	538.97	0	549.04	0
529.09	0	539.16	0	549.23	0
529.28	0	539.35	0	549.42	0
529.47	0	539.54	0	549.61	0
529.66	0	539.73	0	549.80	0
529.85	0	539.92	0	549.99	0
530.04	0	540.11	0	550.18	0
530.23	0	540.30	0	550.37	0
530.42	0	540.49	0	550.56	0
530.61	0	540.68	0	550.75	0
530.80	0	540.87	0	550.94	0
530.99	0	541.06	0	551.13	0
531.18	0	541.25	0	551.32	0
531.37	0	541.44	0	551.51	0
531.56	0	541.63	0	551.70	0
531.75	0	541.82	0	551.89	0
531.94	0	542.01	0	552.08	0
532.13	0	542.20	0	552.27	0
532.32	0	542.39	0	552.46	0
532.51	0	542.58	0	552.65	0
532.70	0	542.77	0	552.84	0
532.89	0	542.96	0	553.03	0
533.08	0	543.15	0	553.22	0
533.27	0	543.34	0	553.41	0
533.46	0	543.53	0	553.60	0
533.65	0	543.72	0	553.79	0

Stage-Area-Storage for Pond FS G6: Flow Splitter - G6 (continued)

Elevation (feet)	Storage (cubic-feet)
553.98	0
554.17	0
554.36	0

Summary for Pond FS G7: Flow Splitter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 6.32" for 100 Year - North Salem event
 Inflow = 8.59 cfs @ 12.20 hrs, Volume= 0.812 af
 Outflow = 8.59 cfs @ 12.20 hrs, Volume= 0.812 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.29 cfs @ 12.20 hrs, Volume= 0.603 af
 Secondary = 6.30 cfs @ 12.20 hrs, Volume= 0.209 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 458.03' @ 12.20 hrs
 Flood Elev= 554.50'

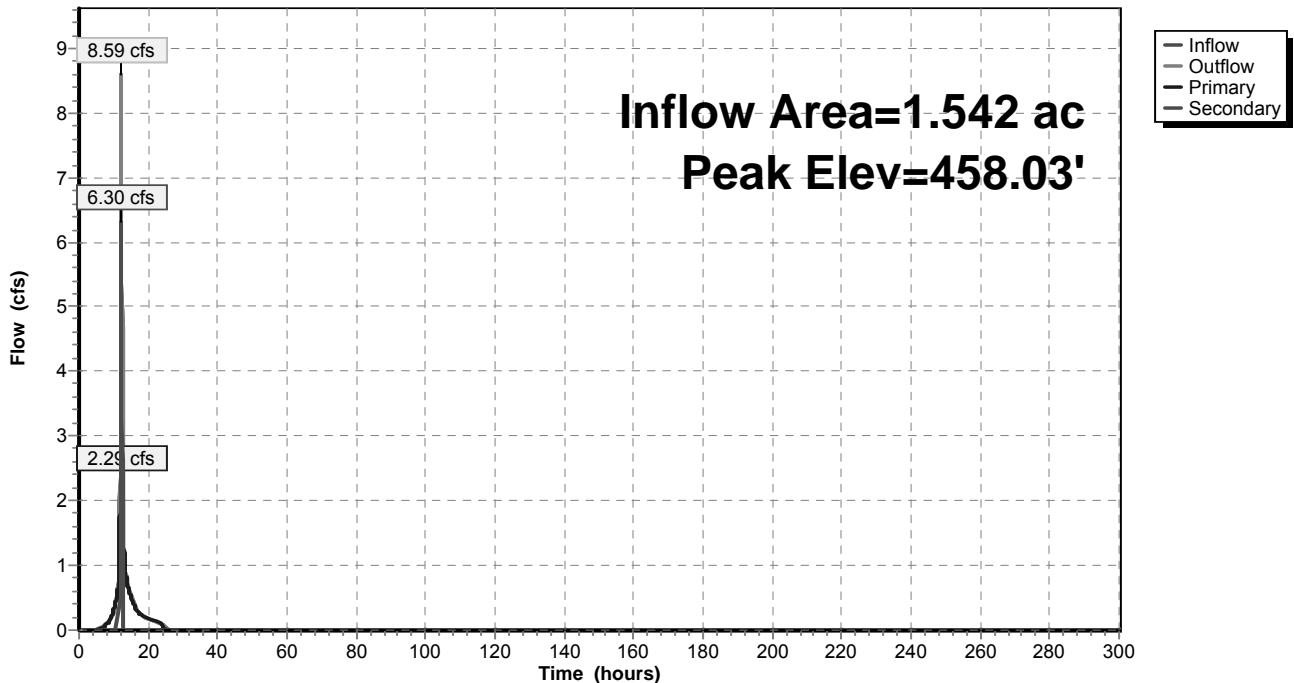
Device	Routing	Invert	Outlet Devices
#1	Primary	455.30'	8.0" Round Outlet to Sand Filter L= 20.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.10' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Secondary	456.90'	24.0" Round Outlet to Dry Basin L= 135.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 446.00' S= 0.0807 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=2.30 cfs @ 12.20 hrs HW=458.03' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 2.30 cfs @ 6.58 fps)

Secondary OutFlow Max=5.83 cfs @ 12.20 hrs HW=458.03' (Free Discharge)
 ↳2=Outlet to Dry Basin (Inlet Controls 5.83 cfs @ 3.19 fps)

Pond FS G7: Flow Splitter - G7

Hydrograph



Stage-Area-Storage for Pond FS G7: Flow Splitter - G7

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
455.30	0	465.90	0	476.50	0
455.50	0	466.10	0	476.70	0
455.70	0	466.30	0	476.90	0
455.90	0	466.50	0	477.10	0
456.10	0	466.70	0	477.30	0
456.30	0	466.90	0	477.50	0
456.50	0	467.10	0	477.70	0
456.70	0	467.30	0	477.90	0
456.90	0	467.50	0	478.10	0
457.10	0	467.70	0	478.30	0
457.30	0	467.90	0	478.50	0
457.50	0	468.10	0	478.70	0
457.70	0	468.30	0	478.90	0
457.90	0	468.50	0	479.10	0
458.10	0	468.70	0	479.30	0
458.30	0	468.90	0	479.50	0
458.50	0	469.10	0	479.70	0
458.70	0	469.30	0	479.90	0
458.90	0	469.50	0	480.10	0
459.10	0	469.70	0	480.30	0
459.30	0	469.90	0	480.50	0
459.50	0	470.10	0	480.70	0
459.70	0	470.30	0	480.90	0
459.90	0	470.50	0	481.10	0
460.10	0	470.70	0	481.30	0
460.30	0	470.90	0	481.50	0
460.50	0	471.10	0	481.70	0
460.70	0	471.30	0	481.90	0
460.90	0	471.50	0	482.10	0
461.10	0	471.70	0	482.30	0
461.30	0	471.90	0	482.50	0
461.50	0	472.10	0	482.70	0
461.70	0	472.30	0	482.90	0
461.90	0	472.50	0	483.10	0
462.10	0	472.70	0	483.30	0
462.30	0	472.90	0	483.50	0
462.50	0	473.10	0	483.70	0
462.70	0	473.30	0	483.90	0
462.90	0	473.50	0	484.10	0
463.10	0	473.70	0	484.30	0
463.30	0	473.90	0	484.50	0
463.50	0	474.10	0	484.70	0
463.70	0	474.30	0	484.90	0
463.90	0	474.50	0	485.10	0
464.10	0	474.70	0	485.30	0
464.30	0	474.90	0	485.50	0
464.50	0	475.10	0	485.70	0
464.70	0	475.30	0	485.90	0
464.90	0	475.50	0	486.10	0
465.10	0	475.70	0	486.30	0
465.30	0	475.90	0	486.50	0
465.50	0	476.10	0	486.70	0
465.70	0	476.30	0	486.90	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
487.10	0	497.70	0	508.30	0
487.30	0	497.90	0	508.50	0
487.50	0	498.10	0	508.70	0
487.70	0	498.30	0	508.90	0
487.90	0	498.50	0	509.10	0
488.10	0	498.70	0	509.30	0
488.30	0	498.90	0	509.50	0
488.50	0	499.10	0	509.70	0
488.70	0	499.30	0	509.90	0
488.90	0	499.50	0	510.10	0
489.10	0	499.70	0	510.30	0
489.30	0	499.90	0	510.50	0
489.50	0	500.10	0	510.70	0
489.70	0	500.30	0	510.90	0
489.90	0	500.50	0	511.10	0
490.10	0	500.70	0	511.30	0
490.30	0	500.90	0	511.50	0
490.50	0	501.10	0	511.70	0
490.70	0	501.30	0	511.90	0
490.90	0	501.50	0	512.10	0
491.10	0	501.70	0	512.30	0
491.30	0	501.90	0	512.50	0
491.50	0	502.10	0	512.70	0
491.70	0	502.30	0	512.90	0
491.90	0	502.50	0	513.10	0
492.10	0	502.70	0	513.30	0
492.30	0	502.90	0	513.50	0
492.50	0	503.10	0	513.70	0
492.70	0	503.30	0	513.90	0
492.90	0	503.50	0	514.10	0
493.10	0	503.70	0	514.30	0
493.30	0	503.90	0	514.50	0
493.50	0	504.10	0	514.70	0
493.70	0	504.30	0	514.90	0
493.90	0	504.50	0	515.10	0
494.10	0	504.70	0	515.30	0
494.30	0	504.90	0	515.50	0
494.50	0	505.10	0	515.70	0
494.70	0	505.30	0	515.90	0
494.90	0	505.50	0	516.10	0
495.10	0	505.70	0	516.30	0
495.30	0	505.90	0	516.50	0
495.50	0	506.10	0	516.70	0
495.70	0	506.30	0	516.90	0
495.90	0	506.50	0	517.10	0
496.10	0	506.70	0	517.30	0
496.30	0	506.90	0	517.50	0
496.50	0	507.10	0	517.70	0
496.70	0	507.30	0	517.90	0
496.90	0	507.50	0	518.10	0
497.10	0	507.70	0	518.30	0
497.30	0	507.90	0	518.50	0
497.50	0	508.10	0	518.70	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
518.90	0	529.50	0	540.10	0
519.10	0	529.70	0	540.30	0
519.30	0	529.90	0	540.50	0
519.50	0	530.10	0	540.70	0
519.70	0	530.30	0	540.90	0
519.90	0	530.50	0	541.10	0
520.10	0	530.70	0	541.30	0
520.30	0	530.90	0	541.50	0
520.50	0	531.10	0	541.70	0
520.70	0	531.30	0	541.90	0
520.90	0	531.50	0	542.10	0
521.10	0	531.70	0	542.30	0
521.30	0	531.90	0	542.50	0
521.50	0	532.10	0	542.70	0
521.70	0	532.30	0	542.90	0
521.90	0	532.50	0	543.10	0
522.10	0	532.70	0	543.30	0
522.30	0	532.90	0	543.50	0
522.50	0	533.10	0	543.70	0
522.70	0	533.30	0	543.90	0
522.90	0	533.50	0	544.10	0
523.10	0	533.70	0	544.30	0
523.30	0	533.90	0	544.50	0
523.50	0	534.10	0	544.70	0
523.70	0	534.30	0	544.90	0
523.90	0	534.50	0	545.10	0
524.10	0	534.70	0	545.30	0
524.30	0	534.90	0	545.50	0
524.50	0	535.10	0	545.70	0
524.70	0	535.30	0	545.90	0
524.90	0	535.50	0	546.10	0
525.10	0	535.70	0	546.30	0
525.30	0	535.90	0	546.50	0
525.50	0	536.10	0	546.70	0
525.70	0	536.30	0	546.90	0
525.90	0	536.50	0	547.10	0
526.10	0	536.70	0	547.30	0
526.30	0	536.90	0	547.50	0
526.50	0	537.10	0	547.70	0
526.70	0	537.30	0	547.90	0
526.90	0	537.50	0	548.10	0
527.10	0	537.70	0	548.30	0
527.30	0	537.90	0	548.50	0
527.50	0	538.10	0	548.70	0
527.70	0	538.30	0	548.90	0
527.90	0	538.50	0	549.10	0
528.10	0	538.70	0	549.30	0
528.30	0	538.90	0	549.50	0
528.50	0	539.10	0	549.70	0
528.70	0	539.30	0	549.90	0
528.90	0	539.50	0	550.10	0
529.10	0	539.70	0	550.30	0
529.30	0	539.90	0	550.50	0

Stage-Area-Storage for Pond FS G7: Flow Splitter - G7 (continued)

Elevation (feet)	Storage (cubic-feet)
550.70	0
550.90	0
551.10	0
551.30	0
551.50	0
551.70	0
551.90	0
552.10	0
552.30	0
552.50	0
552.70	0
552.90	0
553.10	0
553.30	0
553.50	0
553.70	0
553.90	0
554.10	0
554.30	0
554.50	0

Summary for Pond S-17: Underground Infiltration (Sub-Lot 17)

Inflow Area = 0.153 ac, 100.00% Impervious, Inflow Depth = 8.76" for 100 Year - North Salem event
 Inflow = 1.47 cfs @ 12.03 hrs, Volume= 0.112 af
 Outflow = 0.90 cfs @ 12.00 hrs, Volume= 0.112 af, Atten= 39%, Lag= 0.0 min
 Discarded = 0.90 cfs @ 12.00 hrs, Volume= 0.112 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 433.55' @ 12.12 hrs Surf.Area= 0.022 ac Storage= 0.005 af

Plug-Flow detention time= 1.5 min calculated for 0.112 af (100% of inflow)
 Center-of-Mass det. time= 0.6 min (736.7 - 736.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	433.00'	0.013 af	17.75'W x 54.50'L x 2.54'H Field A 0.056 af Overall - 0.016 af Embedded = 0.040 af x 33.3% Voids
#2A	433.50'	0.016 af	Cultec R-150 x 35 Inside #1 Effective Size= 29.8"W x 18.0"H => 2.65 sf x 7.50'L = 19.9 cf Overall Size= 33.0"W x 18.5"H x 8.50'L with 1.00' Overlap
		0.029 af	Total Available Storage

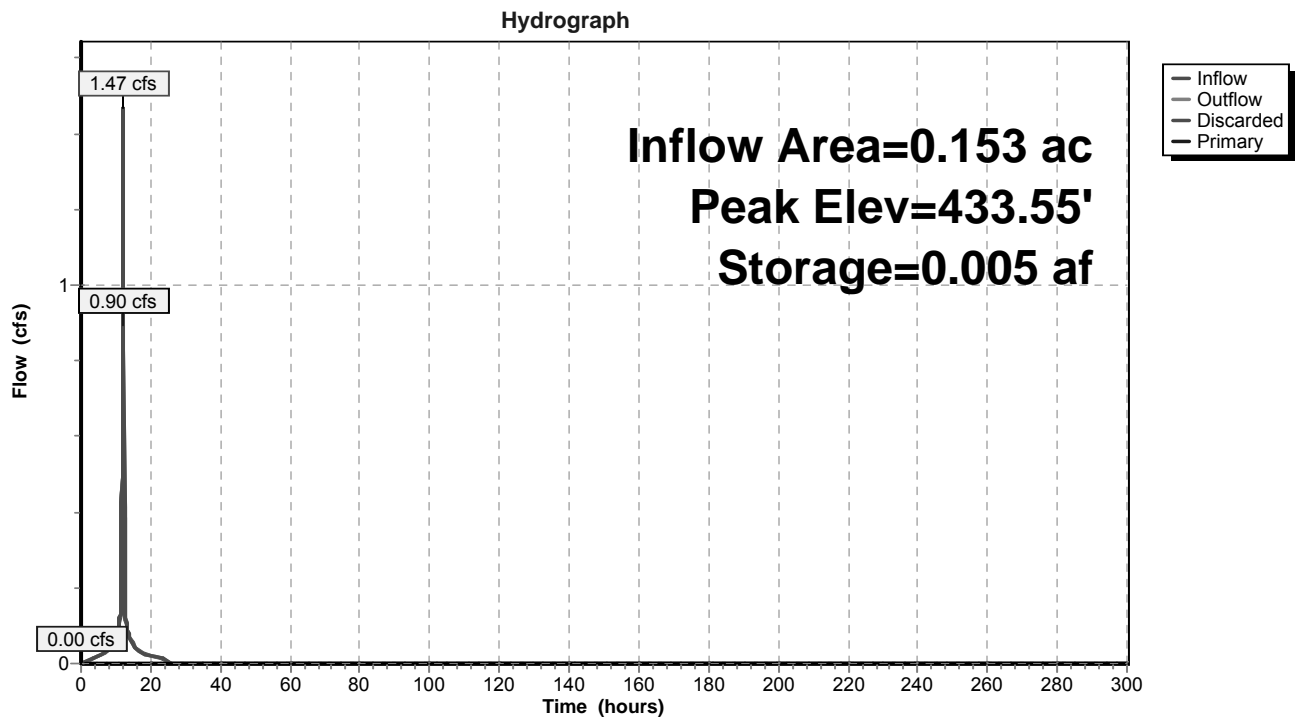
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	433.00'	40.000 in/hr Exfiltration over Surface area
#2	Primary	434.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=0.90 cfs @ 12.00 hrs HW=433.15' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=433.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-17: Underground Infiltration (Sub-Lot 17)



Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
433.00	0.022	0.000	433.53	0.022	0.004
433.01	0.022	0.000	433.54	0.022	0.004
433.02	0.022	0.000	433.55	0.022	0.005
433.03	0.022	0.000	433.56	0.022	0.005
433.04	0.022	0.000	433.57	0.022	0.005
433.05	0.022	0.000	433.58	0.022	0.005
433.06	0.022	0.000	433.59	0.022	0.005
433.07	0.022	0.001	433.60	0.022	0.005
433.08	0.022	0.001	433.61	0.022	0.006
433.09	0.022	0.001	433.62	0.022	0.006
433.10	0.022	0.001	433.63	0.022	0.006
433.11	0.022	0.001	433.64	0.022	0.006
433.12	0.022	0.001	433.65	0.022	0.006
433.13	0.022	0.001	433.66	0.022	0.006
433.14	0.022	0.001	433.67	0.022	0.007
433.15	0.022	0.001	433.68	0.022	0.007
433.16	0.022	0.001	433.69	0.022	0.007
433.17	0.022	0.001	433.70	0.022	0.007
433.18	0.022	0.001	433.71	0.022	0.007
433.19	0.022	0.001	433.72	0.022	0.007
433.20	0.022	0.001	433.73	0.022	0.008
433.21	0.022	0.002	433.74	0.022	0.008
433.22	0.022	0.002	433.75	0.022	0.008
433.23	0.022	0.002	433.76	0.022	0.008
433.24	0.022	0.002	433.77	0.022	0.008
433.25	0.022	0.002	433.78	0.022	0.008
433.26	0.022	0.002	433.79	0.022	0.009
433.27	0.022	0.002	433.80	0.022	0.009
433.28	0.022	0.002	433.81	0.022	0.009
433.29	0.022	0.002	433.82	0.022	0.009
433.30	0.022	0.002	433.83	0.022	0.009
433.31	0.022	0.002	433.84	0.022	0.009
433.32	0.022	0.002	433.85	0.022	0.010
433.33	0.022	0.002	433.86	0.022	0.010
433.34	0.022	0.003	433.87	0.022	0.010
433.35	0.022	0.003	433.88	0.022	0.010
433.36	0.022	0.003	433.89	0.022	0.010
433.37	0.022	0.003	433.90	0.022	0.010
433.38	0.022	0.003	433.91	0.022	0.011
433.39	0.022	0.003	433.92	0.022	0.011
433.40	0.022	0.003	433.93	0.022	0.011
433.41	0.022	0.003	433.94	0.022	0.011
433.42	0.022	0.003	433.95	0.022	0.011
433.43	0.022	0.003	433.96	0.022	0.011
433.44	0.022	0.003	433.97	0.022	0.012
433.45	0.022	0.003	433.98	0.022	0.012
433.46	0.022	0.003	433.99	0.022	0.012
433.47	0.022	0.003	434.00	0.022	0.012
433.48	0.022	0.004	434.01	0.022	0.012
433.49	0.022	0.004	434.02	0.022	0.012
433.50	0.022	0.004	434.03	0.022	0.013
433.51	0.022	0.004	434.04	0.022	0.013
433.52	0.022	0.004	434.05	0.022	0.013

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
434.06	0.022	0.013	434.59	0.022	0.021
434.07	0.022	0.013	434.60	0.022	0.021
434.08	0.022	0.013	434.61	0.022	0.021
434.09	0.022	0.014	434.62	0.022	0.021
434.10	0.022	0.014	434.63	0.022	0.022
434.11	0.022	0.014	434.64	0.022	0.022
434.12	0.022	0.014	434.65	0.022	0.022
434.13	0.022	0.014	434.66	0.022	0.022
434.14	0.022	0.014	434.67	0.022	0.022
434.15	0.022	0.015	434.68	0.022	0.022
434.16	0.022	0.015	434.69	0.022	0.022
434.17	0.022	0.015	434.70	0.022	0.022
434.18	0.022	0.015	434.71	0.022	0.023
434.19	0.022	0.015	434.72	0.022	0.023
434.20	0.022	0.015	434.73	0.022	0.023
434.21	0.022	0.015	434.74	0.022	0.023
434.22	0.022	0.016	434.75	0.022	0.023
434.23	0.022	0.016	434.76	0.022	0.023
434.24	0.022	0.016	434.77	0.022	0.023
434.25	0.022	0.016	434.78	0.022	0.023
434.26	0.022	0.016	434.79	0.022	0.024
434.27	0.022	0.016	434.80	0.022	0.024
434.28	0.022	0.017	434.81	0.022	0.024
434.29	0.022	0.017	434.82	0.022	0.024
434.30	0.022	0.017	434.83	0.022	0.024
434.31	0.022	0.017	434.84	0.022	0.024
434.32	0.022	0.017	434.85	0.022	0.024
434.33	0.022	0.017	434.86	0.022	0.024
434.34	0.022	0.017	434.87	0.022	0.024
434.35	0.022	0.018	434.88	0.022	0.024
434.36	0.022	0.018	434.89	0.022	0.025
434.37	0.022	0.018	434.90	0.022	0.025
434.38	0.022	0.018	434.91	0.022	0.025
434.39	0.022	0.018	434.92	0.022	0.025
434.40	0.022	0.018	434.93	0.022	0.025
434.41	0.022	0.019	434.94	0.022	0.025
434.42	0.022	0.019	434.95	0.022	0.025
434.43	0.022	0.019	434.96	0.022	0.025
434.44	0.022	0.019	434.97	0.022	0.025
434.45	0.022	0.019	434.98	0.022	0.025
434.46	0.022	0.019	434.99	0.022	0.025
434.47	0.022	0.019	435.00	0.022	0.025
434.48	0.022	0.020	435.01	0.022	0.026
434.49	0.022	0.020	435.02	0.022	0.026
434.50	0.022	0.020	435.03	0.022	0.026
434.51	0.022	0.020	435.04	0.022	0.026
434.52	0.022	0.020	435.05	0.022	0.026
434.53	0.022	0.020	435.06	0.022	0.026
434.54	0.022	0.020	435.07	0.022	0.026
434.55	0.022	0.021	435.08	0.022	0.026
434.56	0.022	0.021	435.09	0.022	0.026
434.57	0.022	0.021	435.10	0.022	0.026
434.58	0.022	0.021	435.11	0.022	0.026

Stage-Area-Storage for Pond S-17: Underground Infiltration (Sub-Lot 17) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)
435.12	0.022	0.026
435.13	0.022	0.026
435.14	0.022	0.026
435.15	0.022	0.027
435.16	0.022	0.027
435.17	0.022	0.027
435.18	0.022	0.027
435.19	0.022	0.027
435.20	0.022	0.027
435.21	0.022	0.027
435.22	0.022	0.027
435.23	0.022	0.027
435.24	0.022	0.027
435.25	0.022	0.027
435.26	0.022	0.027
435.27	0.022	0.027
435.28	0.022	0.028
435.29	0.022	0.028
435.30	0.022	0.028
435.31	0.022	0.028
435.32	0.022	0.028
435.33	0.022	0.028
435.34	0.022	0.028
435.35	0.022	0.028
435.36	0.022	0.028
435.37	0.022	0.028
435.38	0.022	0.028
435.39	0.022	0.028
435.40	0.022	0.028
435.41	0.022	0.028
435.42	0.022	0.029
435.43	0.022	0.029
435.44	0.022	0.029
435.45	0.022	0.029
435.46	0.022	0.029
435.47	0.022	0.029
435.48	0.022	0.029
435.49	0.022	0.029
435.50	0.022	0.029
435.51	0.022	0.029
435.52	0.022	0.029
435.53	0.022	0.029
435.54	0.022	0.029

Summary for Pond S-21: Underground Infiltration (Sub-Lot 21)

Inflow Area = 0.143 ac, 89.51% Impervious, Inflow Depth = 8.28" for 100 Year - North Salem event
 Inflow = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af
 Outflow = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
 Discarded = 1.35 cfs @ 12.03 hrs, Volume= 0.099 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 499.02' @ 12.03 hrs Surf.Area= 0.023 ac Storage= 0.000 af

Plug-Flow detention time= 0.1 min calculated for 0.099 af (100% of inflow)
 Center-of-Mass det. time= 0.1 min (755.1 - 755.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	499.00'	0.012 af	25.00'W x 39.50'L x 2.04'H Field A 0.046 af Overall - 0.011 af Embedded = 0.035 af x 33.3% Voids
#2A	499.50'	0.011 af	Cultec C-100 x 35 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
		0.023 af	Total Available Storage

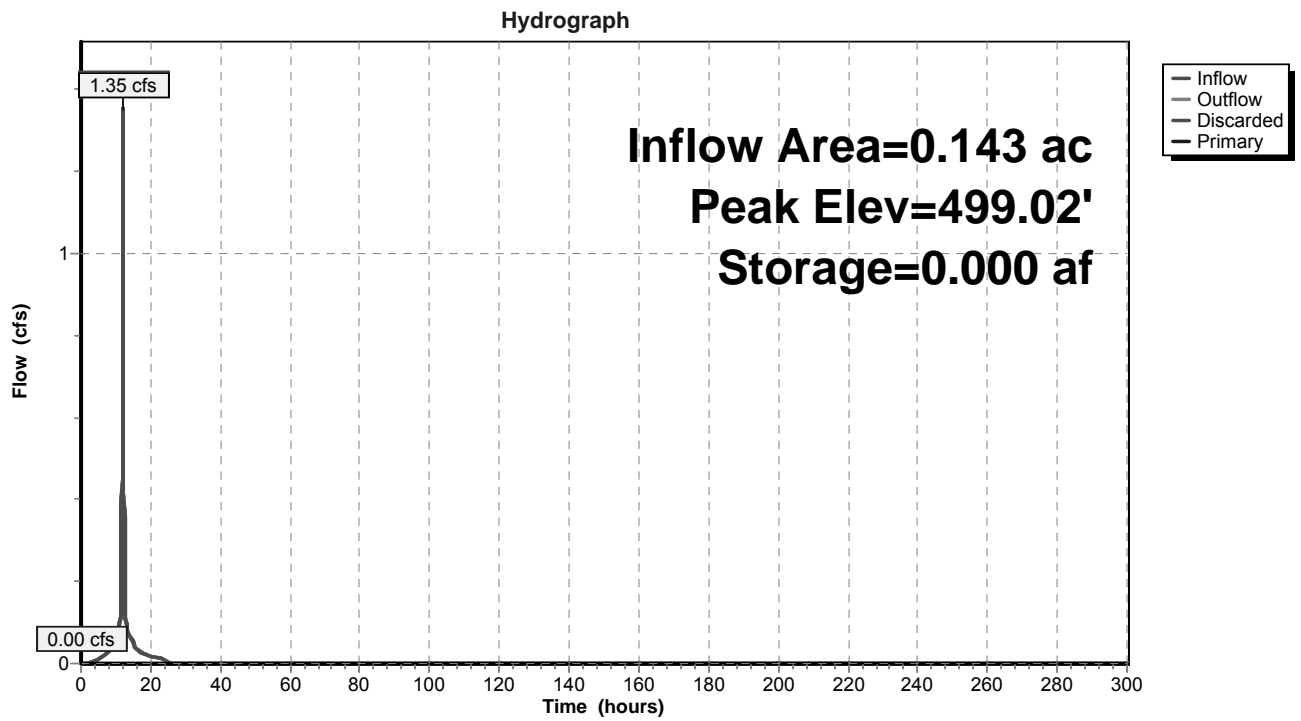
Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	499.00'	60.000 in/hr Exfiltration over Surface area
#2	Primary	500.50'	4.0" Vert. Orifice/Grate C= 0.600

Discarded OutFlow Max=1.37 cfs @ 12.03 hrs HW=499.02' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 1.37 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=499.00' (Free Discharge)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Pond S-21: Underground Infiltration (Sub-Lot 21)



Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
499.00	0.023	0.000	499.53	0.023	0.004
499.01	0.023	0.000	499.54	0.023	0.005
499.02	0.023	0.000	499.55	0.023	0.005
499.03	0.023	0.000	499.56	0.023	0.005
499.04	0.023	0.000	499.57	0.023	0.005
499.05	0.023	0.000	499.58	0.023	0.005
499.06	0.023	0.000	499.59	0.023	0.005
499.07	0.023	0.001	499.60	0.023	0.006
499.08	0.023	0.001	499.61	0.023	0.006
499.09	0.023	0.001	499.62	0.023	0.006
499.10	0.023	0.001	499.63	0.023	0.006
499.11	0.023	0.001	499.64	0.023	0.006
499.12	0.023	0.001	499.65	0.023	0.006
499.13	0.023	0.001	499.66	0.023	0.007
499.14	0.023	0.001	499.67	0.023	0.007
499.15	0.023	0.001	499.68	0.023	0.007
499.16	0.023	0.001	499.69	0.023	0.007
499.17	0.023	0.001	499.70	0.023	0.007
499.18	0.023	0.001	499.71	0.023	0.007
499.19	0.023	0.001	499.72	0.023	0.008
499.20	0.023	0.002	499.73	0.023	0.008
499.21	0.023	0.002	499.74	0.023	0.008
499.22	0.023	0.002	499.75	0.023	0.008
499.23	0.023	0.002	499.76	0.023	0.008
499.24	0.023	0.002	499.77	0.023	0.009
499.25	0.023	0.002	499.78	0.023	0.009
499.26	0.023	0.002	499.79	0.023	0.009
499.27	0.023	0.002	499.80	0.023	0.009
499.28	0.023	0.002	499.81	0.023	0.009
499.29	0.023	0.002	499.82	0.023	0.009
499.30	0.023	0.002	499.83	0.023	0.010
499.31	0.023	0.002	499.84	0.023	0.010
499.32	0.023	0.002	499.85	0.023	0.010
499.33	0.023	0.002	499.86	0.023	0.010
499.34	0.023	0.003	499.87	0.023	0.010
499.35	0.023	0.003	499.88	0.023	0.010
499.36	0.023	0.003	499.89	0.023	0.011
499.37	0.023	0.003	499.90	0.023	0.011
499.38	0.023	0.003	499.91	0.023	0.011
499.39	0.023	0.003	499.92	0.023	0.011
499.40	0.023	0.003	499.93	0.023	0.011
499.41	0.023	0.003	499.94	0.023	0.011
499.42	0.023	0.003	499.95	0.023	0.012
499.43	0.023	0.003	499.96	0.023	0.012
499.44	0.023	0.003	499.97	0.023	0.012
499.45	0.023	0.003	499.98	0.023	0.012
499.46	0.023	0.003	499.99	0.023	0.012
499.47	0.023	0.004	500.00	0.023	0.012
499.48	0.023	0.004	500.01	0.023	0.013
499.49	0.023	0.004	500.02	0.023	0.013
499.50	0.023	0.004	500.03	0.023	0.013
499.51	0.023	0.004	500.04	0.023	0.013
499.52	0.023	0.004	500.05	0.023	0.013

Stage-Area-Storage for Pond S-21: Underground Infiltration (Sub-Lot 21) (continued)

Elevation (feet)	Surface (acres)	Storage (acre-feet)	Elevation (feet)	Surface (acres)	Storage (acre-feet)
500.06	0.023	0.013	500.59	0.023	0.019
500.07	0.023	0.014	500.60	0.023	0.020
500.08	0.023	0.014	500.61	0.023	0.020
500.09	0.023	0.014	500.62	0.023	0.020
500.10	0.023	0.014	500.63	0.023	0.020
500.11	0.023	0.014	500.64	0.023	0.020
500.12	0.023	0.014	500.65	0.023	0.020
500.13	0.023	0.014	500.66	0.023	0.020
500.14	0.023	0.015	500.67	0.023	0.020
500.15	0.023	0.015	500.68	0.023	0.020
500.16	0.023	0.015	500.69	0.023	0.020
500.17	0.023	0.015	500.70	0.023	0.020
500.18	0.023	0.015	500.71	0.023	0.020
500.19	0.023	0.015	500.72	0.023	0.020
500.20	0.023	0.015	500.73	0.023	0.021
500.21	0.023	0.016	500.74	0.023	0.021
500.22	0.023	0.016	500.75	0.023	0.021
500.23	0.023	0.016	500.76	0.023	0.021
500.24	0.023	0.016	500.77	0.023	0.021
500.25	0.023	0.016	500.78	0.023	0.021
500.26	0.023	0.016	500.79	0.023	0.021
500.27	0.023	0.016	500.80	0.023	0.021
500.28	0.023	0.017	500.81	0.023	0.021
500.29	0.023	0.017	500.82	0.023	0.021
500.30	0.023	0.017	500.83	0.023	0.021
500.31	0.023	0.017	500.84	0.023	0.021
500.32	0.023	0.017	500.85	0.023	0.021
500.33	0.023	0.017	500.86	0.023	0.022
500.34	0.023	0.017	500.87	0.023	0.022
500.35	0.023	0.017	500.88	0.023	0.022
500.36	0.023	0.018	500.89	0.023	0.022
500.37	0.023	0.018	500.90	0.023	0.022
500.38	0.023	0.018	500.91	0.023	0.022
500.39	0.023	0.018	500.92	0.023	0.022
500.40	0.023	0.018	500.93	0.023	0.022
500.41	0.023	0.018	500.94	0.023	0.022
500.42	0.023	0.018	500.95	0.023	0.022
500.43	0.023	0.018	500.96	0.023	0.022
500.44	0.023	0.018	500.97	0.023	0.022
500.45	0.023	0.018	500.98	0.023	0.022
500.46	0.023	0.018	500.99	0.023	0.023
500.47	0.023	0.019	501.00	0.023	0.023
500.48	0.023	0.019	501.01	0.023	0.023
500.49	0.023	0.019	501.02	0.023	0.023
500.50	0.023	0.019	501.03	0.023	0.023
500.51	0.023	0.019	501.04	0.023	0.023
500.52	0.023	0.019			
500.53	0.023	0.019			
500.54	0.023	0.019			
500.55	0.023	0.019			
500.56	0.023	0.019			
500.57	0.023	0.019			
500.58	0.023	0.019			

Summary for Pond SF-G5: Sand Filter - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 2.84" for 100 Year - North Salem event
 Inflow = 1.73 cfs @ 12.20 hrs, Volume= 0.543 af
 Outflow = 1.53 cfs @ 12.46 hrs, Volume= 0.439 af, Atten= 12%, Lag= 15.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.53 cfs @ 12.46 hrs, Volume= 0.439 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 431.15' @ 12.46 hrs Surf.Area= 2,011 sf Storage= 4,787 cf

Plug-Flow detention time= 131.4 min calculated for 0.439 af (81% of inflow)
 Center-of-Mass det. time= 50.1 min (958.2 - 908.0)

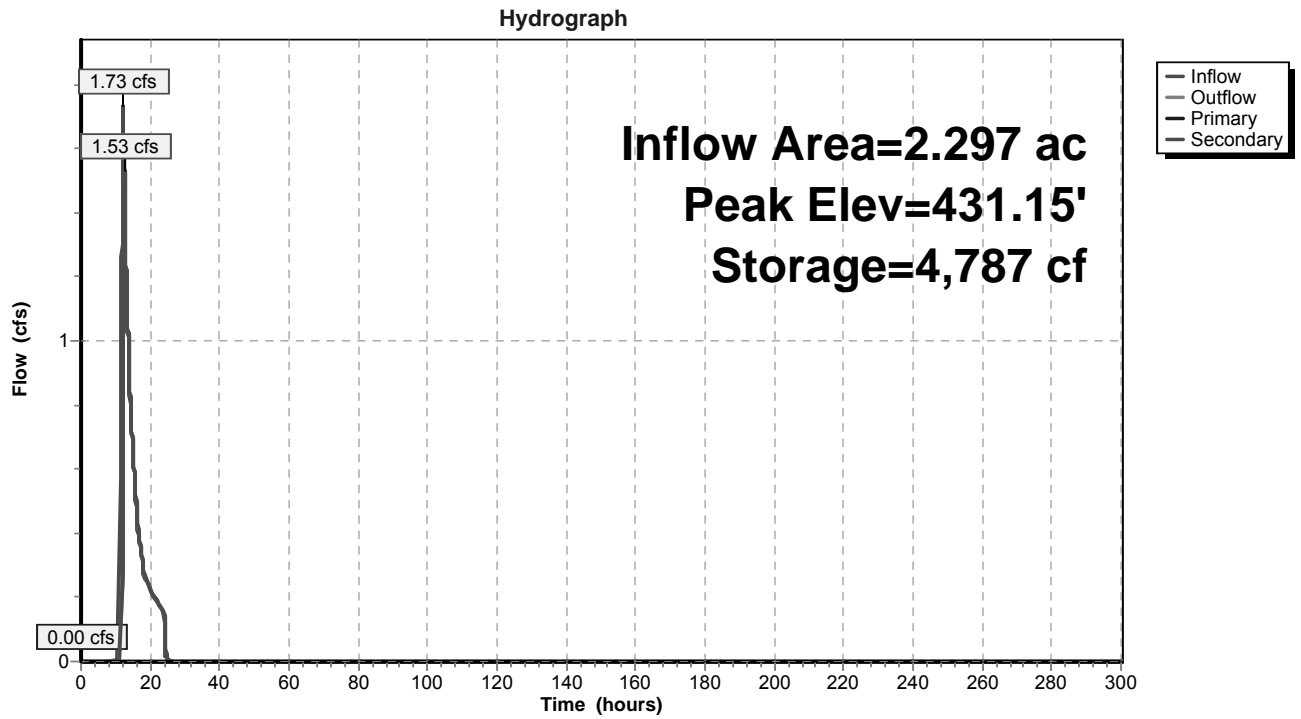
Volume	Invert	Avail.Storage	Storage Description		
#1	428.00'	6,629 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
428.00	1,095	136.0	0	0	1,095
430.00	1,625	161.0	2,703	2,703	1,756
431.00	1,960	173.0	1,790	4,493	2,116
432.00	2,317	186.0	2,136	6,629	2,529

Device	Routing	Invert	Outlet Devices
#1	Primary	425.50'	12.0" Round Outlet Pipe X 0.00 L= 35.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 425.15' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	428.00'	1.750 in/hr Exfiltration over Surface area above 428.00' Excluded Surface area = 1,095 sf
#3	Device 1	430.90'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	431.02'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=428.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.51 cfs @ 12.46 hrs HW=431.15' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 1.51 cfs @ 1.19 fps)

Pond SF-G5: Sand Filter - G5



Stage-Area-Storage for Pond SF-G5: Sand Filter - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
428.00	1,095	0	428.53	1,225	615
428.01	1,097	11	428.54	1,228	627
428.02	1,100	22	428.55	1,230	639
428.03	1,102	33	428.56	1,233	651
428.04	1,105	44	428.57	1,235	664
428.05	1,107	55	428.58	1,238	676
428.06	1,109	66	428.59	1,241	689
428.07	1,112	77	428.60	1,243	701
428.08	1,114	88	428.61	1,246	713
428.09	1,117	100	428.62	1,248	726
428.10	1,119	111	428.63	1,251	738
428.11	1,121	122	428.64	1,253	751
428.12	1,124	133	428.65	1,256	763
428.13	1,126	144	428.66	1,258	776
428.14	1,129	156	428.67	1,261	789
428.15	1,131	167	428.68	1,264	801
428.16	1,134	178	428.69	1,266	814
428.17	1,136	190	428.70	1,269	827
428.18	1,138	201	428.71	1,271	839
428.19	1,141	212	428.72	1,274	852
428.20	1,143	224	428.73	1,276	865
428.21	1,146	235	428.74	1,279	877
428.22	1,148	247	428.75	1,282	890
428.23	1,151	258	428.76	1,284	903
428.24	1,153	270	428.77	1,287	916
428.25	1,156	281	428.78	1,289	929
428.26	1,158	293	428.79	1,292	942
428.27	1,160	304	428.80	1,294	955
428.28	1,163	316	428.81	1,297	968
428.29	1,165	328	428.82	1,300	981
428.30	1,168	339	428.83	1,302	994
428.31	1,170	351	428.84	1,305	1,007
428.32	1,173	363	428.85	1,308	1,020
428.33	1,175	375	428.86	1,310	1,033
428.34	1,178	386	428.87	1,313	1,046
428.35	1,180	398	428.88	1,315	1,059
428.36	1,183	410	428.89	1,318	1,072
428.37	1,185	422	428.90	1,321	1,085
428.38	1,188	434	428.91	1,323	1,099
428.39	1,190	445	428.92	1,326	1,112
428.40	1,193	457	428.93	1,328	1,125
428.41	1,195	469	428.94	1,331	1,138
428.42	1,198	481	428.95	1,334	1,152
428.43	1,200	493	428.96	1,336	1,165
428.44	1,203	505	428.97	1,339	1,179
428.45	1,205	517	428.98	1,342	1,192
428.46	1,208	529	428.99	1,344	1,205
428.47	1,210	541	429.00	1,347	1,219
428.48	1,213	554	429.01	1,350	1,232
428.49	1,215	566	429.02	1,352	1,246
428.50	1,218	578	429.03	1,355	1,259
428.51	1,220	590	429.04	1,358	1,273
428.52	1,223	602	429.05	1,360	1,286

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
429.06	1,363	1,300	429.59	1,508	2,061
429.07	1,366	1,314	429.60	1,511	2,076
429.08	1,368	1,327	429.61	1,513	2,091
429.09	1,371	1,341	429.62	1,516	2,106
429.10	1,374	1,355	429.63	1,519	2,121
429.11	1,376	1,369	429.64	1,522	2,136
429.12	1,379	1,382	429.65	1,525	2,152
429.13	1,382	1,396	429.66	1,528	2,167
429.14	1,384	1,410	429.67	1,530	2,182
429.15	1,387	1,424	429.68	1,533	2,197
429.16	1,390	1,438	429.69	1,536	2,213
429.17	1,392	1,452	429.70	1,539	2,228
429.18	1,395	1,466	429.71	1,542	2,244
429.19	1,398	1,480	429.72	1,545	2,259
429.20	1,400	1,494	429.73	1,547	2,274
429.21	1,403	1,508	429.74	1,550	2,290
429.22	1,406	1,522	429.75	1,553	2,305
429.23	1,409	1,536	429.76	1,556	2,321
429.24	1,411	1,550	429.77	1,559	2,337
429.25	1,414	1,564	429.78	1,562	2,352
429.26	1,417	1,578	429.79	1,564	2,368
429.27	1,419	1,592	429.80	1,567	2,383
429.28	1,422	1,606	429.81	1,570	2,399
429.29	1,425	1,621	429.82	1,573	2,415
429.30	1,428	1,635	429.83	1,576	2,431
429.31	1,430	1,649	429.84	1,579	2,446
429.32	1,433	1,664	429.85	1,582	2,462
429.33	1,436	1,678	429.86	1,585	2,478
429.34	1,439	1,692	429.87	1,587	2,494
429.35	1,441	1,707	429.88	1,590	2,510
429.36	1,444	1,721	429.89	1,593	2,526
429.37	1,447	1,736	429.90	1,596	2,542
429.38	1,450	1,750	429.91	1,599	2,558
429.39	1,452	1,765	429.92	1,602	2,574
429.40	1,455	1,779	429.93	1,605	2,590
429.41	1,458	1,794	429.94	1,608	2,606
429.42	1,461	1,808	429.95	1,610	2,622
429.43	1,463	1,823	429.96	1,613	2,638
429.44	1,466	1,837	429.97	1,616	2,654
429.45	1,469	1,852	429.98	1,619	2,670
429.46	1,472	1,867	429.99	1,622	2,686
429.47	1,474	1,882	430.00	1,625	2,703
429.48	1,477	1,896	430.01	1,628	2,719
429.49	1,480	1,911	430.02	1,631	2,735
429.50	1,483	1,926	430.03	1,635	2,752
429.51	1,486	1,941	430.04	1,638	2,768
429.52	1,488	1,956	430.05	1,641	2,784
429.53	1,491	1,971	430.06	1,644	2,801
429.54	1,494	1,985	430.07	1,647	2,817
429.55	1,497	2,000	430.08	1,651	2,834
429.56	1,499	2,015	430.09	1,654	2,850
429.57	1,502	2,030	430.10	1,657	2,867
429.58	1,505	2,045	430.11	1,660	2,883

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.12	1,664	2,900	430.65	1,839	3,828
430.13	1,667	2,917	430.66	1,843	3,846
430.14	1,670	2,933	430.67	1,846	3,865
430.15	1,673	2,950	430.68	1,849	3,883
430.16	1,676	2,967	430.69	1,853	3,902
430.17	1,680	2,984	430.70	1,856	3,920
430.18	1,683	3,000	430.71	1,860	3,939
430.19	1,686	3,017	430.72	1,863	3,957
430.20	1,689	3,034	430.73	1,866	3,976
430.21	1,693	3,051	430.74	1,870	3,995
430.22	1,696	3,068	430.75	1,873	4,013
430.23	1,699	3,085	430.76	1,877	4,032
430.24	1,703	3,102	430.77	1,880	4,051
430.25	1,706	3,119	430.78	1,884	4,070
430.26	1,709	3,136	430.79	1,887	4,089
430.27	1,712	3,153	430.80	1,890	4,107
430.28	1,716	3,170	430.81	1,894	4,126
430.29	1,719	3,187	430.82	1,897	4,145
430.30	1,722	3,205	430.83	1,901	4,164
430.31	1,725	3,222	430.84	1,904	4,183
430.32	1,729	3,239	430.85	1,908	4,202
430.33	1,732	3,256	430.86	1,911	4,222
430.34	1,735	3,274	430.87	1,915	4,241
430.35	1,739	3,291	430.88	1,918	4,260
430.36	1,742	3,309	430.89	1,922	4,279
430.37	1,745	3,326	430.90	1,925	4,298
430.38	1,749	3,343	430.91	1,929	4,318
430.39	1,752	3,361	430.92	1,932	4,337
430.40	1,755	3,379	430.93	1,936	4,356
430.41	1,759	3,396	430.94	1,939	4,376
430.42	1,762	3,414	430.95	1,943	4,395
430.43	1,765	3,431	430.96	1,946	4,414
430.44	1,769	3,449	430.97	1,949	4,434
430.45	1,772	3,467	430.98	1,953	4,453
430.46	1,775	3,484	430.99	1,956	4,473
430.47	1,779	3,502	431.00	1,960	4,493
430.48	1,782	3,520	431.01	1,963	4,512
430.49	1,785	3,538	431.02	1,967	4,532
430.50	1,789	3,556	431.03	1,970	4,551
430.51	1,792	3,574	431.04	1,974	4,571
430.52	1,795	3,592	431.05	1,977	4,591
430.53	1,799	3,609	431.06	1,981	4,611
430.54	1,802	3,628	431.07	1,984	4,631
430.55	1,805	3,646	431.08	1,987	4,650
430.56	1,809	3,664	431.09	1,991	4,670
430.57	1,812	3,682	431.10	1,994	4,690
430.58	1,815	3,700	431.11	1,998	4,710
430.59	1,819	3,718	431.12	2,001	4,730
430.60	1,822	3,736	431.13	2,005	4,750
430.61	1,826	3,754	431.14	2,008	4,770
430.62	1,829	3,773	431.15	2,012	4,790
430.63	1,832	3,791	431.16	2,015	4,811
430.64	1,836	3,809	431.17	2,019	4,831

Stage-Area-Storage for Pond SF-G5: Sand Filter - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.18	2,022	4,851	431.71	2,210	5,972
431.19	2,026	4,871	431.72	2,214	5,994
431.20	2,029	4,891	431.73	2,218	6,016
431.21	2,032	4,912	431.74	2,221	6,039
431.22	2,036	4,932	431.75	2,225	6,061
431.23	2,039	4,952	431.76	2,229	6,083
431.24	2,043	4,973	431.77	2,232	6,105
431.25	2,046	4,993	431.78	2,236	6,128
431.26	2,050	5,014	431.79	2,240	6,150
431.27	2,053	5,034	431.80	2,243	6,173
431.28	2,057	5,055	431.81	2,247	6,195
431.29	2,060	5,075	431.82	2,251	6,217
431.30	2,064	5,096	431.83	2,254	6,240
431.31	2,067	5,117	431.84	2,258	6,263
431.32	2,071	5,137	431.85	2,262	6,285
431.33	2,075	5,158	431.86	2,265	6,308
431.34	2,078	5,179	431.87	2,269	6,330
431.35	2,082	5,200	431.88	2,273	6,353
431.36	2,085	5,221	431.89	2,276	6,376
431.37	2,089	5,241	431.90	2,280	6,399
431.38	2,092	5,262	431.91	2,284	6,421
431.39	2,096	5,283	431.92	2,287	6,444
431.40	2,099	5,304	431.93	2,291	6,467
431.41	2,103	5,325	431.94	2,295	6,490
431.42	2,106	5,346	431.95	2,298	6,513
431.43	2,110	5,367	431.96	2,302	6,536
431.44	2,113	5,388	431.97	2,306	6,559
431.45	2,117	5,410	431.98	2,310	6,582
431.46	2,121	5,431	431.99	2,313	6,605
431.47	2,124	5,452	432.00	2,317	6,629
431.48	2,128	5,473			
431.49	2,131	5,495			
431.50	2,135	5,516			
431.51	2,138	5,537			
431.52	2,142	5,559			
431.53	2,145	5,580			
431.54	2,149	5,602			
431.55	2,153	5,623			
431.56	2,156	5,645			
431.57	2,160	5,666			
431.58	2,163	5,688			
431.59	2,167	5,709			
431.60	2,171	5,731			
431.61	2,174	5,753			
431.62	2,178	5,775			
431.63	2,181	5,796			
431.64	2,185	5,818			
431.65	2,189	5,840			
431.66	2,192	5,862			
431.67	2,196	5,884			
431.68	2,200	5,906			
431.69	2,203	5,928			
431.70	2,207	5,950			

Summary for Pond SF-G6: Sand Filter - G6

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 0.00" for 100 Year - North Salem event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 456.00' @ 0.00 hrs Surf.Area= 3,512 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no inflow)

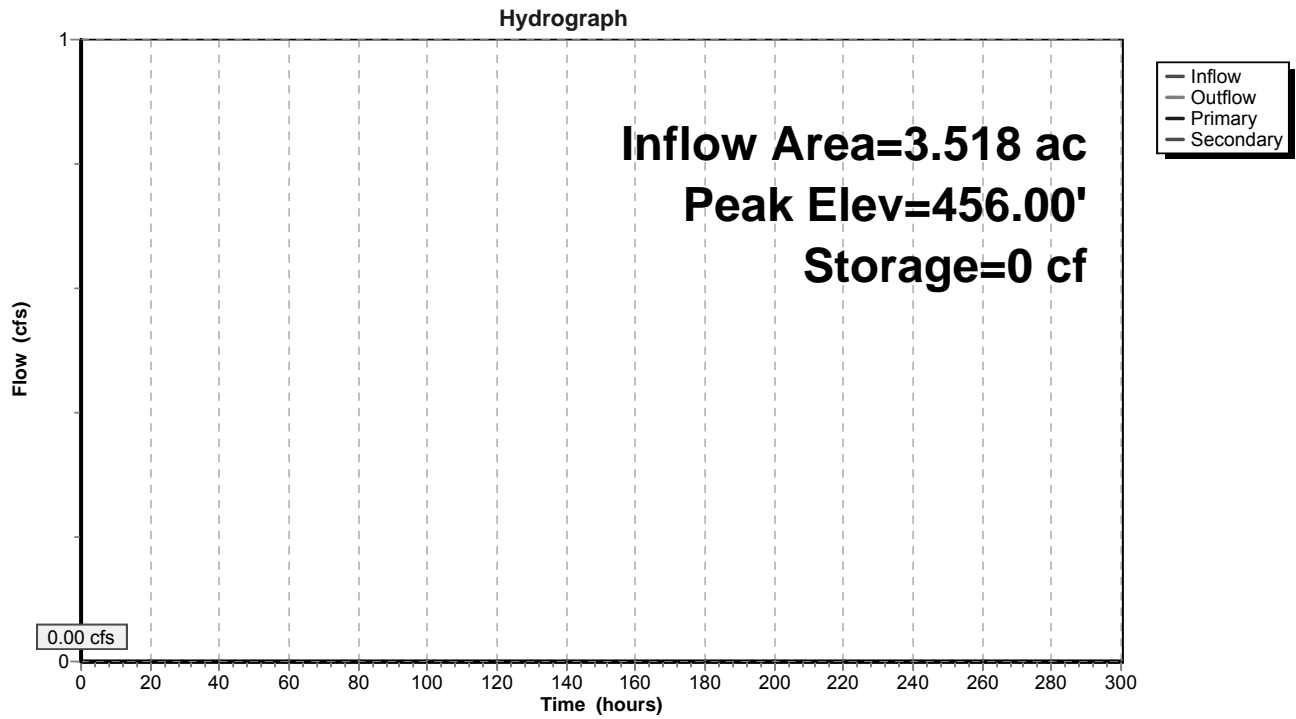
Volume	Invert	Avail.Storage	Storage Description		
#1	456.00'	17,875 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
456.00	3,512	223.0	0	0	3,512
458.00	4,452	248.0	7,945	7,945	4,561
459.00	4,961	260.0	4,704	12,650	5,108
460.00	5,494	273.0	5,225	17,875	5,721

Device	Routing	Invert	Outlet Devices
#1	Primary	453.50'	12.0" Round Outlet Pipe X 0.00 L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 453.00' S= 0.0200 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	456.00'	1.750 in/hr Exfiltration over Surface area above 456.00' Excluded Surface area = 3,512 sf
#3	Device 1	458.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	459.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=456.00' (Free Discharge)
 ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-G6: Sand Filter - G6



Stage-Area-Storage for Pond SF-G6: Sand Filter - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
456.00	3,512	0	456.53	3,750	1,924
456.01	3,516	35	456.54	3,755	1,962
456.02	3,521	70	456.55	3,759	1,999
456.03	3,525	106	456.56	3,764	2,037
456.04	3,530	141	456.57	3,769	2,075
456.05	3,534	176	456.58	3,773	2,112
456.06	3,539	212	456.59	3,778	2,150
456.07	3,543	247	456.60	3,782	2,188
456.08	3,547	282	456.61	3,787	2,226
456.09	3,552	318	456.62	3,791	2,264
456.10	3,556	353	456.63	3,796	2,301
456.11	3,561	389	456.64	3,801	2,339
456.12	3,565	425	456.65	3,805	2,377
456.13	3,570	460	456.66	3,810	2,416
456.14	3,574	496	456.67	3,814	2,454
456.15	3,579	532	456.68	3,819	2,492
456.16	3,583	568	456.69	3,824	2,530
456.17	3,588	603	456.70	3,828	2,568
456.18	3,592	639	456.71	3,833	2,607
456.19	3,597	675	456.72	3,838	2,645
456.20	3,601	711	456.73	3,842	2,683
456.21	3,605	747	456.74	3,847	2,722
456.22	3,610	783	456.75	3,851	2,760
456.23	3,614	820	456.76	3,856	2,799
456.24	3,619	856	456.77	3,861	2,837
456.25	3,623	892	456.78	3,865	2,876
456.26	3,628	928	456.79	3,870	2,915
456.27	3,632	964	456.80	3,875	2,953
456.28	3,637	1,001	456.81	3,879	2,992
456.29	3,641	1,037	456.82	3,884	3,031
456.30	3,646	1,074	456.83	3,889	3,070
456.31	3,650	1,110	456.84	3,893	3,109
456.32	3,655	1,147	456.85	3,898	3,148
456.33	3,659	1,183	456.86	3,903	3,187
456.34	3,664	1,220	456.87	3,907	3,226
456.35	3,668	1,256	456.88	3,912	3,265
456.36	3,673	1,293	456.89	3,917	3,304
456.37	3,678	1,330	456.90	3,921	3,343
456.38	3,682	1,367	456.91	3,926	3,382
456.39	3,687	1,404	456.92	3,931	3,422
456.40	3,691	1,440	456.93	3,935	3,461
456.41	3,696	1,477	456.94	3,940	3,500
456.42	3,700	1,514	456.95	3,945	3,540
456.43	3,705	1,551	456.96	3,949	3,579
456.44	3,709	1,588	456.97	3,954	3,619
456.45	3,714	1,626	456.98	3,959	3,658
456.46	3,718	1,663	456.99	3,963	3,698
456.47	3,723	1,700	457.00	3,968	3,738
456.48	3,727	1,737	457.01	3,973	3,777
456.49	3,732	1,775	457.02	3,977	3,817
456.50	3,737	1,812	457.03	3,982	3,857
456.51	3,741	1,849	457.04	3,987	3,897
456.52	3,746	1,887	457.05	3,992	3,937

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
457.06	3,996	3,977	457.59	4,250	6,162
457.07	4,001	4,017	457.60	4,255	6,204
457.08	4,006	4,057	457.61	4,260	6,247
457.09	4,010	4,097	457.62	4,265	6,289
457.10	4,015	4,137	457.63	4,270	6,332
457.11	4,020	4,177	457.64	4,275	6,375
457.12	4,025	4,217	457.65	4,279	6,418
457.13	4,029	4,258	457.66	4,284	6,460
457.14	4,034	4,298	457.67	4,289	6,503
457.15	4,039	4,338	457.68	4,294	6,546
457.16	4,044	4,379	457.69	4,299	6,589
457.17	4,048	4,419	457.70	4,304	6,632
457.18	4,053	4,460	457.71	4,309	6,675
457.19	4,058	4,500	457.72	4,314	6,718
457.20	4,063	4,541	457.73	4,319	6,761
457.21	4,067	4,581	457.74	4,324	6,805
457.22	4,072	4,622	457.75	4,328	6,848
457.23	4,077	4,663	457.76	4,333	6,891
457.24	4,082	4,704	457.77	4,338	6,935
457.25	4,086	4,745	457.78	4,343	6,978
457.26	4,091	4,785	457.79	4,348	7,021
457.27	4,096	4,826	457.80	4,353	7,065
457.28	4,101	4,867	457.81	4,358	7,109
457.29	4,106	4,908	457.82	4,363	7,152
457.30	4,110	4,949	457.83	4,368	7,196
457.31	4,115	4,991	457.84	4,373	7,239
457.32	4,120	5,032	457.85	4,378	7,283
457.33	4,125	5,073	457.86	4,383	7,327
457.34	4,129	5,114	457.87	4,388	7,371
457.35	4,134	5,156	457.88	4,392	7,415
457.36	4,139	5,197	457.89	4,397	7,459
457.37	4,144	5,238	457.90	4,402	7,503
457.38	4,149	5,280	457.91	4,407	7,547
457.39	4,153	5,321	457.92	4,412	7,591
457.40	4,158	5,363	457.93	4,417	7,635
457.41	4,163	5,404	457.94	4,422	7,679
457.42	4,168	5,446	457.95	4,427	7,723
457.43	4,173	5,488	457.96	4,432	7,768
457.44	4,178	5,530	457.97	4,437	7,812
457.45	4,182	5,571	457.98	4,442	7,857
457.46	4,187	5,613	457.99	4,447	7,901
457.47	4,192	5,655	458.00	4,452	7,945
457.48	4,197	5,697	458.01	4,457	7,990
457.49	4,202	5,739	458.02	4,462	8,035
457.50	4,207	5,781	458.03	4,467	8,079
457.51	4,211	5,823	458.04	4,472	8,124
457.52	4,216	5,865	458.05	4,477	8,169
457.53	4,221	5,908	458.06	4,482	8,213
457.54	4,226	5,950	458.07	4,487	8,258
457.55	4,231	5,992	458.08	4,492	8,303
457.56	4,236	6,034	458.09	4,497	8,348
457.57	4,241	6,077	458.10	4,502	8,393
457.58	4,245	6,119	458.11	4,507	8,438

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.12	4,512	8,483	458.65	4,780	10,945
458.13	4,517	8,528	458.66	4,785	10,993
458.14	4,522	8,574	458.67	4,790	11,041
458.15	4,527	8,619	458.68	4,795	11,089
458.16	4,532	8,664	458.69	4,800	11,137
458.17	4,537	8,709	458.70	4,805	11,185
458.18	4,542	8,755	458.71	4,811	11,233
458.19	4,547	8,800	458.72	4,816	11,281
458.20	4,552	8,846	458.73	4,821	11,329
458.21	4,557	8,891	458.74	4,826	11,377
458.22	4,562	8,937	458.75	4,831	11,426
458.23	4,567	8,983	458.76	4,836	11,474
458.24	4,572	9,028	458.77	4,841	11,522
458.25	4,577	9,074	458.78	4,847	11,571
458.26	4,582	9,120	458.79	4,852	11,619
458.27	4,587	9,166	458.80	4,857	11,668
458.28	4,592	9,212	458.81	4,862	11,716
458.29	4,597	9,257	458.82	4,867	11,765
458.30	4,602	9,303	458.83	4,873	11,814
458.31	4,607	9,349	458.84	4,878	11,863
458.32	4,612	9,396	458.85	4,883	11,911
458.33	4,617	9,442	458.86	4,888	11,960
458.34	4,622	9,488	458.87	4,893	12,009
458.35	4,627	9,534	458.88	4,898	12,058
458.36	4,632	9,580	458.89	4,904	12,107
458.37	4,637	9,627	458.90	4,909	12,156
458.38	4,642	9,673	458.91	4,914	12,205
458.39	4,647	9,720	458.92	4,919	12,254
458.40	4,652	9,766	458.93	4,924	12,304
458.41	4,657	9,813	458.94	4,930	12,353
458.42	4,662	9,859	458.95	4,935	12,402
458.43	4,667	9,906	458.96	4,940	12,452
458.44	4,673	9,953	458.97	4,945	12,501
458.45	4,678	9,999	458.98	4,951	12,551
458.46	4,683	10,046	458.99	4,956	12,600
458.47	4,688	10,093	459.00	4,961	12,650
458.48	4,693	10,140	459.01	4,966	12,699
458.49	4,698	10,187	459.02	4,971	12,749
458.50	4,703	10,234	459.03	4,977	12,799
458.51	4,708	10,281	459.04	4,982	12,849
458.52	4,713	10,328	459.05	4,987	12,898
458.53	4,718	10,375	459.06	4,992	12,948
458.54	4,723	10,422	459.07	4,997	12,998
458.55	4,729	10,470	459.08	5,003	13,048
458.56	4,734	10,517	459.09	5,008	13,098
458.57	4,739	10,564	459.10	5,013	13,148
458.58	4,744	10,612	459.11	5,018	13,199
458.59	4,749	10,659	459.12	5,024	13,249
458.60	4,754	10,707	459.13	5,029	13,299
458.61	4,759	10,754	459.14	5,034	13,349
458.62	4,764	10,802	459.15	5,039	13,400
458.63	4,769	10,850	459.16	5,044	13,450
458.64	4,775	10,897	459.17	5,050	13,501

Stage-Area-Storage for Pond SF-G6: Sand Filter - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.18	5,055	13,551	459.71	5,337	16,304
459.19	5,060	13,602	459.72	5,342	16,358
459.20	5,065	13,652	459.73	5,347	16,411
459.21	5,071	13,703	459.74	5,353	16,465
459.22	5,076	13,754	459.75	5,358	16,518
459.23	5,081	13,804	459.76	5,364	16,572
459.24	5,086	13,855	459.77	5,369	16,626
459.25	5,092	13,906	459.78	5,374	16,679
459.26	5,097	13,957	459.79	5,380	16,733
459.27	5,102	14,008	459.80	5,385	16,787
459.28	5,107	14,059	459.81	5,391	16,841
459.29	5,113	14,110	459.82	5,396	16,895
459.30	5,118	14,161	459.83	5,401	16,949
459.31	5,123	14,213	459.84	5,407	17,003
459.32	5,129	14,264	459.85	5,412	17,057
459.33	5,134	14,315	459.86	5,418	17,111
459.34	5,139	14,367	459.87	5,423	17,165
459.35	5,144	14,418	459.88	5,429	17,220
459.36	5,150	14,469	459.89	5,434	17,274
459.37	5,155	14,521	459.90	5,439	17,328
459.38	5,160	14,573	459.91	5,445	17,383
459.39	5,166	14,624	459.92	5,450	17,437
459.40	5,171	14,676	459.93	5,456	17,492
459.41	5,176	14,728	459.94	5,461	17,546
459.42	5,182	14,779	459.95	5,467	17,601
459.43	5,187	14,831	459.96	5,472	17,656
459.44	5,192	14,883	459.97	5,478	17,710
459.45	5,197	14,935	459.98	5,483	17,765
459.46	5,203	14,987	459.99	5,489	17,820
459.47	5,208	15,039	460.00	5,494	17,875
459.48	5,213	15,091			
459.49	5,219	15,143			
459.50	5,224	15,196			
459.51	5,229	15,248			
459.52	5,235	15,300			
459.53	5,240	15,353			
459.54	5,245	15,405			
459.55	5,251	15,458			
459.56	5,256	15,510			
459.57	5,261	15,563			
459.58	5,267	15,615			
459.59	5,272	15,668			
459.60	5,278	15,721			
459.61	5,283	15,774			
459.62	5,288	15,826			
459.63	5,294	15,879			
459.64	5,299	15,932			
459.65	5,304	15,985			
459.66	5,310	16,038			
459.67	5,315	16,091			
459.68	5,320	16,145			
459.69	5,326	16,198			
459.70	5,331	16,251			

Summary for Pond SF-G7: Sand Filter - G7

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 4.21" for 100 Year - North Salem event
 Inflow = 2.28 cfs @ 12.22 hrs, Volume= 0.541 af
 Outflow = 2.12 cfs @ 12.39 hrs, Volume= 0.408 af, Atten= 7%, Lag= 10.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.12 cfs @ 12.39 hrs, Volume= 0.408 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 451.16' @ 12.39 hrs Surf.Area= 2,527 sf Storage= 6,216 cf

Plug-Flow detention time= 153.6 min calculated for 0.408 af (75% of inflow)
 Center-of-Mass det. time= 59.1 min (929.3 - 870.2)

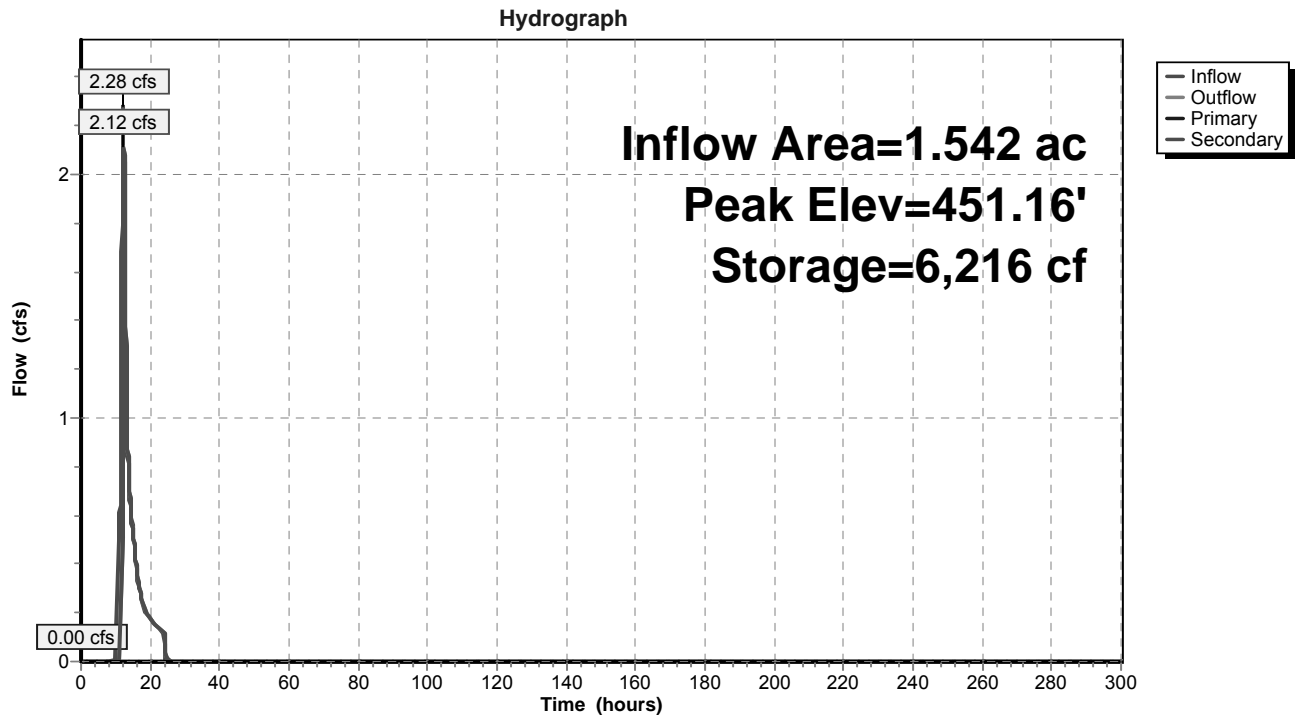
Volume	Invert	Avail.Storage	Storage Description		
#1	448.00'	8,477 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
448.00	1,452	150.0	0	0	1,452
450.00	2,103	175.0	3,535	3,535	2,176
451.00	2,467	188.0	2,283	5,818	2,593
452.00	2,856	201.0	2,659	8,477	3,040

Device	Routing	Invert	Outlet Devices
#1	Primary	445.50'	12.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 442.00' S= 0.0583 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	448.00'	1.750 in/hr Exfiltration over Surface area above 448.00' Excluded Surface area = 1,452 sf
#3	Device 1	450.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	451.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=448.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Exfiltration (Controls 0.00 cfs)
 ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.11 cfs @ 12.39 hrs HW=451.16' (Free Discharge)
 ↑ 4=Emergency Overflow (Weir Controls 2.11 cfs @ 1.33 fps)

Pond SF-G7: Sand Filter - G7



Stage-Area-Storage for Pond SF-G7: Sand Filter - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
448.00	1,452	0	448.53	1,613	812
448.01	1,455	15	448.54	1,616	828
448.02	1,458	29	448.55	1,619	844
448.03	1,461	44	448.56	1,622	860
448.04	1,464	58	448.57	1,625	877
448.05	1,467	73	448.58	1,628	893
448.06	1,470	88	448.59	1,632	909
448.07	1,473	102	448.60	1,635	925
448.08	1,476	117	448.61	1,638	942
448.09	1,479	132	448.62	1,641	958
448.10	1,482	147	448.63	1,644	975
448.11	1,485	162	448.64	1,647	991
448.12	1,488	176	448.65	1,650	1,008
448.13	1,491	191	448.66	1,654	1,024
448.14	1,494	206	448.67	1,657	1,041
448.15	1,497	221	448.68	1,660	1,057
448.16	1,500	236	448.69	1,663	1,074
448.17	1,503	251	448.70	1,666	1,091
448.18	1,506	266	448.71	1,669	1,107
448.19	1,509	281	448.72	1,673	1,124
448.20	1,512	296	448.73	1,676	1,141
448.21	1,515	311	448.74	1,679	1,157
448.22	1,518	327	448.75	1,682	1,174
448.23	1,521	342	448.76	1,685	1,191
448.24	1,524	357	448.77	1,688	1,208
448.25	1,527	372	448.78	1,692	1,225
448.26	1,530	388	448.79	1,695	1,242
448.27	1,533	403	448.80	1,698	1,259
448.28	1,536	418	448.81	1,701	1,276
448.29	1,539	434	448.82	1,704	1,293
448.30	1,542	449	448.83	1,708	1,310
448.31	1,545	464	448.84	1,711	1,327
448.32	1,548	480	448.85	1,714	1,344
448.33	1,551	495	448.86	1,717	1,361
448.34	1,554	511	448.87	1,720	1,378
448.35	1,557	527	448.88	1,724	1,396
448.36	1,560	542	448.89	1,727	1,413
448.37	1,563	558	448.90	1,730	1,430
448.38	1,566	573	448.91	1,733	1,447
448.39	1,570	589	448.92	1,737	1,465
448.40	1,573	605	448.93	1,740	1,482
448.41	1,576	620	448.94	1,743	1,500
448.42	1,579	636	448.95	1,746	1,517
448.43	1,582	652	448.96	1,749	1,534
448.44	1,585	668	448.97	1,753	1,552
448.45	1,588	684	448.98	1,756	1,570
448.46	1,591	700	448.99	1,759	1,587
448.47	1,594	716	449.00	1,762	1,605
448.48	1,597	732	449.01	1,766	1,622
448.49	1,600	748	449.02	1,769	1,640
448.50	1,603	764	449.03	1,772	1,658
448.51	1,607	780	449.04	1,776	1,675
448.52	1,610	796	449.05	1,779	1,693

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.06	1,782	1,711	449.59	1,960	2,702
449.07	1,785	1,729	449.60	1,963	2,722
449.08	1,789	1,747	449.61	1,967	2,742
449.09	1,792	1,765	449.62	1,970	2,761
449.10	1,795	1,783	449.63	1,974	2,781
449.11	1,798	1,801	449.64	1,977	2,801
449.12	1,802	1,819	449.65	1,980	2,820
449.13	1,805	1,837	449.66	1,984	2,840
449.14	1,808	1,855	449.67	1,987	2,860
449.15	1,812	1,873	449.68	1,991	2,880
449.16	1,815	1,891	449.69	1,994	2,900
449.17	1,818	1,909	449.70	1,998	2,920
449.18	1,822	1,927	449.71	2,001	2,940
449.19	1,825	1,946	449.72	2,005	2,960
449.20	1,828	1,964	449.73	2,008	2,980
449.21	1,831	1,982	449.74	2,012	3,000
449.22	1,835	2,000	449.75	2,015	3,020
449.23	1,838	2,019	449.76	2,019	3,040
449.24	1,841	2,037	449.77	2,022	3,061
449.25	1,845	2,056	449.78	2,026	3,081
449.26	1,848	2,074	449.79	2,029	3,101
449.27	1,851	2,093	449.80	2,032	3,121
449.28	1,855	2,111	449.81	2,036	3,142
449.29	1,858	2,130	449.82	2,039	3,162
449.30	1,861	2,148	449.83	2,043	3,183
449.31	1,865	2,167	449.84	2,046	3,203
449.32	1,868	2,186	449.85	2,050	3,223
449.33	1,872	2,204	449.86	2,054	3,244
449.34	1,875	2,223	449.87	2,057	3,265
449.35	1,878	2,242	449.88	2,061	3,285
449.36	1,882	2,261	449.89	2,064	3,306
449.37	1,885	2,279	449.90	2,068	3,326
449.38	1,888	2,298	449.91	2,071	3,347
449.39	1,892	2,317	449.92	2,075	3,368
449.40	1,895	2,336	449.93	2,078	3,389
449.41	1,898	2,355	449.94	2,082	3,409
449.42	1,902	2,374	449.95	2,085	3,430
449.43	1,905	2,393	449.96	2,089	3,451
449.44	1,909	2,412	449.97	2,092	3,472
449.45	1,912	2,431	449.98	2,096	3,493
449.46	1,915	2,450	449.99	2,099	3,514
449.47	1,919	2,470	450.00	2,103	3,535
449.48	1,922	2,489	450.01	2,106	3,556
449.49	1,926	2,508	450.02	2,110	3,577
449.50	1,929	2,527	450.03	2,113	3,598
449.51	1,932	2,547	450.04	2,117	3,619
449.52	1,936	2,566	450.05	2,121	3,641
449.53	1,939	2,585	450.06	2,124	3,662
449.54	1,943	2,605	450.07	2,128	3,683
449.55	1,946	2,624	450.08	2,131	3,704
449.56	1,949	2,644	450.09	2,135	3,726
449.57	1,953	2,663	450.10	2,138	3,747
449.58	1,956	2,683	450.11	2,142	3,768

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
450.12	2,145	3,790	450.65	2,336	4,977
450.13	2,149	3,811	450.66	2,340	5,000
450.14	2,152	3,833	450.67	2,344	5,024
450.15	2,156	3,854	450.68	2,347	5,047
450.16	2,159	3,876	450.69	2,351	5,071
450.17	2,163	3,898	450.70	2,355	5,094
450.18	2,166	3,919	450.71	2,358	5,118
450.19	2,170	3,941	450.72	2,362	5,142
450.20	2,173	3,963	450.73	2,366	5,165
450.21	2,177	3,984	450.74	2,370	5,189
450.22	2,181	4,006	450.75	2,373	5,213
450.23	2,184	4,028	450.76	2,377	5,236
450.24	2,188	4,050	450.77	2,381	5,260
450.25	2,191	4,072	450.78	2,384	5,284
450.26	2,195	4,094	450.79	2,388	5,308
450.27	2,198	4,116	450.80	2,392	5,332
450.28	2,202	4,138	450.81	2,396	5,356
450.29	2,206	4,160	450.82	2,399	5,380
450.30	2,209	4,182	450.83	2,403	5,404
450.31	2,213	4,204	450.84	2,407	5,428
450.32	2,216	4,226	450.85	2,411	5,452
450.33	2,220	4,248	450.86	2,414	5,476
450.34	2,224	4,270	450.87	2,418	5,500
450.35	2,227	4,293	450.88	2,422	5,524
450.36	2,231	4,315	450.89	2,426	5,548
450.37	2,234	4,337	450.90	2,429	5,573
450.38	2,238	4,360	450.91	2,433	5,597
450.39	2,242	4,382	450.92	2,437	5,621
450.40	2,245	4,404	450.93	2,441	5,646
450.41	2,249	4,427	450.94	2,444	5,670
450.42	2,252	4,449	450.95	2,448	5,695
450.43	2,256	4,472	450.96	2,452	5,719
450.44	2,260	4,495	450.97	2,456	5,744
450.45	2,263	4,517	450.98	2,459	5,768
450.46	2,267	4,540	450.99	2,463	5,793
450.47	2,270	4,562	451.00	2,467	5,818
450.48	2,274	4,585	451.01	2,471	5,842
450.49	2,278	4,608	451.02	2,475	5,867
450.50	2,281	4,631	451.03	2,478	5,892
450.51	2,285	4,654	451.04	2,482	5,917
450.52	2,289	4,676	451.05	2,486	5,941
450.53	2,292	4,699	451.06	2,490	5,966
450.54	2,296	4,722	451.07	2,493	5,991
450.55	2,300	4,745	451.08	2,497	6,016
450.56	2,303	4,768	451.09	2,501	6,041
450.57	2,307	4,791	451.10	2,505	6,066
450.58	2,311	4,814	451.11	2,508	6,091
450.59	2,314	4,838	451.12	2,512	6,116
450.60	2,318	4,861	451.13	2,516	6,141
450.61	2,322	4,884	451.14	2,520	6,167
450.62	2,325	4,907	451.15	2,524	6,192
450.63	2,329	4,930	451.16	2,527	6,217
450.64	2,333	4,954	451.17	2,531	6,242

Stage-Area-Storage for Pond SF-G7: Sand Filter - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.18	2,535	6,268	451.71	2,740	7,665
451.19	2,539	6,293	451.72	2,744	7,693
451.20	2,543	6,318	451.73	2,748	7,720
451.21	2,546	6,344	451.74	2,752	7,748
451.22	2,550	6,369	451.75	2,756	7,775
451.23	2,554	6,395	451.76	2,760	7,803
451.24	2,558	6,420	451.77	2,764	7,830
451.25	2,562	6,446	451.78	2,768	7,858
451.26	2,565	6,472	451.79	2,772	7,886
451.27	2,569	6,497	451.80	2,776	7,913
451.28	2,573	6,523	451.81	2,780	7,941
451.29	2,577	6,549	451.82	2,784	7,969
451.30	2,581	6,575	451.83	2,788	7,997
451.31	2,585	6,600	451.84	2,792	8,025
451.32	2,588	6,626	451.85	2,796	8,053
451.33	2,592	6,652	451.86	2,800	8,081
451.34	2,596	6,678	451.87	2,804	8,109
451.35	2,600	6,704	451.88	2,808	8,137
451.36	2,604	6,730	451.89	2,812	8,165
451.37	2,608	6,756	451.90	2,816	8,193
451.38	2,611	6,782	451.91	2,820	8,221
451.39	2,615	6,808	451.92	2,824	8,249
451.40	2,619	6,835	451.93	2,828	8,278
451.41	2,623	6,861	451.94	2,832	8,306
451.42	2,627	6,887	451.95	2,836	8,334
451.43	2,631	6,913	451.96	2,840	8,363
451.44	2,635	6,940	451.97	2,844	8,391
451.45	2,639	6,966	451.98	2,848	8,420
451.46	2,642	6,992	451.99	2,852	8,448
451.47	2,646	7,019	452.00	2,856	8,477
451.48	2,650	7,045			
451.49	2,654	7,072			
451.50	2,658	7,098			
451.51	2,662	7,125			
451.52	2,666	7,152			
451.53	2,670	7,178			
451.54	2,674	7,205			
451.55	2,677	7,232			
451.56	2,681	7,259			
451.57	2,685	7,285			
451.58	2,689	7,312			
451.59	2,693	7,339			
451.60	2,697	7,366			
451.61	2,701	7,393			
451.62	2,705	7,420			
451.63	2,709	7,447			
451.64	2,713	7,474			
451.65	2,717	7,502			
451.66	2,721	7,529			
451.67	2,724	7,556			
451.68	2,728	7,583			
451.69	2,732	7,611			
451.70	2,736	7,638			

Summary for Pond SFF-G5: Sand Filter Forebay - G5

Inflow Area = 2.297 ac, 23.55% Impervious, Inflow Depth = 3.11" for 100 Year - North Salem event
 Inflow = 1.74 cfs @ 12.18 hrs, Volume= 0.596 af
 Outflow = 1.73 cfs @ 12.20 hrs, Volume= 0.543 af, Atten= 0%, Lag= 1.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 1.73 cfs @ 12.20 hrs, Volume= 0.543 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 435.14' @ 12.20 hrs Surf.Area= 1,153 sf Storage= 2,459 cf

Plug-Flow detention time= 71.8 min calculated for 0.543 af (91% of inflow)
 Center-of-Mass det. time= 27.4 min (908.0 - 880.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	432.00'	3,552 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
432.00	460	91.0	0	0	460
434.00	872	116.0	1,310	1,310	921
435.00	1,118	128.0	992	2,303	1,184
436.00	1,385	141.0	1,249	3,552	1,493

Device	Routing	Invert	Outlet Devices
#1	Primary	432.00'	12.0" Round Outlet Pipe X 0.00 L= 10.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 431.50' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	432.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	434.90'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	434.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	435.00'	10.0' long Emergency Overflow 2 End Contraction(s) 0.5' Crest Height

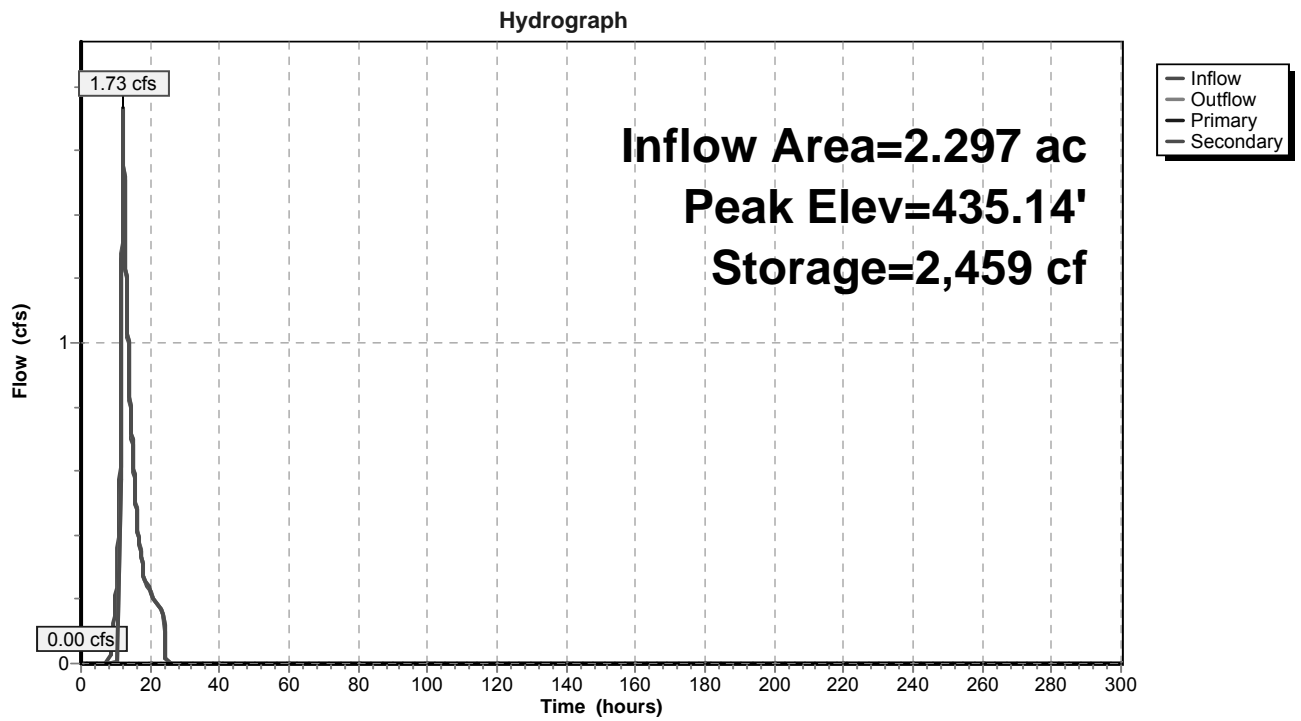
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=432.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=1.72 cfs @ 12.20 hrs HW=435.14' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 1.72 cfs @ 1.25 fps)

Pond SFF-G5: Sand Filter Forebay - G5



Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.00	460	0	432.53	556	269
432.01	462	5	432.54	558	275
432.02	463	9	432.55	560	280
432.03	465	14	432.56	562	286
432.04	467	19	432.57	564	291
432.05	469	23	432.58	566	297
432.06	470	28	432.59	568	303
432.07	472	33	432.60	570	308
432.08	474	37	432.61	572	314
432.09	476	42	432.62	574	320
432.10	477	47	432.63	576	326
432.11	479	52	432.64	578	331
432.12	481	56	432.65	580	337
432.13	483	61	432.66	582	343
432.14	485	66	432.67	583	349
432.15	486	71	432.68	585	355
432.16	488	76	432.69	587	360
432.17	490	81	432.70	589	366
432.18	492	86	432.71	591	372
432.19	494	91	432.72	593	378
432.20	495	96	432.73	595	384
432.21	497	100	432.74	597	390
432.22	499	105	432.75	599	396
432.23	501	110	432.76	601	402
432.24	503	115	432.77	603	408
432.25	504	121	432.78	605	414
432.26	506	126	432.79	607	420
432.27	508	131	432.80	609	426
432.28	510	136	432.81	611	432
432.29	512	141	432.82	613	438
432.30	513	146	432.83	615	445
432.31	515	151	432.84	617	451
432.32	517	156	432.85	619	457
432.33	519	161	432.86	621	463
432.34	521	167	432.87	623	469
432.35	523	172	432.88	625	476
432.36	525	177	432.89	627	482
432.37	526	182	432.90	629	488
432.38	528	188	432.91	631	494
432.39	530	193	432.92	633	501
432.40	532	198	432.93	635	507
432.41	534	204	432.94	637	514
432.42	536	209	432.95	639	520
432.43	538	214	432.96	641	526
432.44	539	220	432.97	644	533
432.45	541	225	432.98	646	539
432.46	543	230	432.99	648	546
432.47	545	236	433.00	650	552
432.48	547	241	433.01	652	559
432.49	549	247	433.02	654	565
432.50	551	252	433.03	656	572
432.51	553	258	433.04	658	578
432.52	555	263	433.05	660	585

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.06	662	591	433.59	777	972
433.07	664	598	433.60	779	980
433.08	666	605	433.61	781	988
433.09	668	611	433.62	784	996
433.10	670	618	433.63	786	1,004
433.11	673	625	433.64	788	1,012
433.12	675	632	433.65	790	1,019
433.13	677	638	433.66	793	1,027
433.14	679	645	433.67	795	1,035
433.15	681	652	433.68	797	1,043
433.16	683	659	433.69	800	1,051
433.17	685	666	433.70	802	1,059
433.18	687	672	433.71	804	1,067
433.19	689	679	433.72	806	1,075
433.20	692	686	433.73	809	1,083
433.21	694	693	433.74	811	1,091
433.22	696	700	433.75	813	1,100
433.23	698	707	433.76	816	1,108
433.24	700	714	433.77	818	1,116
433.25	702	721	433.78	820	1,124
433.26	704	728	433.79	823	1,132
433.27	706	735	433.80	825	1,141
433.28	709	742	433.81	827	1,149
433.29	711	749	433.82	830	1,157
433.30	713	756	433.83	832	1,165
433.31	715	764	433.84	834	1,174
433.32	717	771	433.85	837	1,182
433.33	719	778	433.86	839	1,190
433.34	722	785	433.87	841	1,199
433.35	724	792	433.88	844	1,207
433.36	726	800	433.89	846	1,216
433.37	728	807	433.90	848	1,224
433.38	730	814	433.91	851	1,233
433.39	732	821	433.92	853	1,241
433.40	735	829	433.93	855	1,250
433.41	737	836	433.94	858	1,258
433.42	739	844	433.95	860	1,267
433.43	741	851	433.96	862	1,276
433.44	743	858	433.97	865	1,284
433.45	746	866	433.98	867	1,293
433.46	748	873	433.99	870	1,302
433.47	750	881	434.00	872	1,310
433.48	752	888	434.01	874	1,319
433.49	755	896	434.02	877	1,328
433.50	757	903	434.03	879	1,336
433.51	759	911	434.04	881	1,345
433.52	761	919	434.05	884	1,354
433.53	763	926	434.06	886	1,363
433.54	766	934	434.07	888	1,372
433.55	768	941	434.08	891	1,381
433.56	770	949	434.09	893	1,390
433.57	772	957	434.10	895	1,399
433.58	775	965	434.11	898	1,408

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
434.12	900	1,417	434.65	1,028	1,927
434.13	902	1,426	434.66	1,031	1,937
434.14	905	1,435	434.67	1,033	1,948
434.15	907	1,444	434.68	1,036	1,958
434.16	909	1,453	434.69	1,038	1,969
434.17	912	1,462	434.70	1,041	1,979
434.18	914	1,471	434.71	1,044	1,989
434.19	916	1,480	434.72	1,046	2,000
434.20	919	1,489	434.73	1,049	2,010
434.21	921	1,498	434.74	1,051	2,021
434.22	924	1,508	434.75	1,054	2,031
434.23	926	1,517	434.76	1,056	2,042
434.24	928	1,526	434.77	1,059	2,052
434.25	931	1,536	434.78	1,061	2,063
434.26	933	1,545	434.79	1,064	2,074
434.27	935	1,554	434.80	1,066	2,084
434.28	938	1,564	434.81	1,069	2,095
434.29	940	1,573	434.82	1,071	2,106
434.30	943	1,582	434.83	1,074	2,116
434.31	945	1,592	434.84	1,077	2,127
434.32	947	1,601	434.85	1,079	2,138
434.33	950	1,611	434.86	1,082	2,149
434.34	952	1,620	434.87	1,084	2,160
434.35	955	1,630	434.88	1,087	2,170
434.36	957	1,639	434.89	1,089	2,181
434.37	959	1,649	434.90	1,092	2,192
434.38	962	1,659	434.91	1,095	2,203
434.39	964	1,668	434.92	1,097	2,214
434.40	967	1,678	434.93	1,100	2,225
434.41	969	1,687	434.94	1,102	2,236
434.42	972	1,697	434.95	1,105	2,247
434.43	974	1,707	434.96	1,108	2,258
434.44	976	1,717	434.97	1,110	2,269
434.45	979	1,726	434.98	1,113	2,280
434.46	981	1,736	434.99	1,115	2,292
434.47	984	1,746	435.00	1,118	2,303
434.48	986	1,756	435.01	1,121	2,314
434.49	989	1,766	435.02	1,123	2,325
434.50	991	1,776	435.03	1,126	2,336
434.51	994	1,786	435.04	1,128	2,348
434.52	996	1,796	435.05	1,131	2,359
434.53	999	1,806	435.06	1,133	2,370
434.54	1,001	1,816	435.07	1,136	2,382
434.55	1,004	1,826	435.08	1,138	2,393
434.56	1,006	1,836	435.09	1,141	2,404
434.57	1,008	1,846	435.10	1,143	2,416
434.58	1,011	1,856	435.11	1,146	2,427
434.59	1,013	1,866	435.12	1,149	2,439
434.60	1,016	1,876	435.13	1,151	2,450
434.61	1,018	1,886	435.14	1,154	2,462
434.62	1,021	1,896	435.15	1,156	2,473
434.63	1,023	1,907	435.16	1,159	2,485
434.64	1,026	1,917	435.17	1,161	2,496

Stage-Area-Storage for Pond SFF-G5: Sand Filter Forebay - G5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
435.18	1,164	2,508	435.71	1,305	3,162
435.19	1,167	2,520	435.72	1,307	3,175
435.20	1,169	2,531	435.73	1,310	3,188
435.21	1,172	2,543	435.74	1,313	3,201
435.22	1,174	2,555	435.75	1,316	3,214
435.23	1,177	2,567	435.76	1,318	3,227
435.24	1,179	2,578	435.77	1,321	3,241
435.25	1,182	2,590	435.78	1,324	3,254
435.26	1,185	2,602	435.79	1,327	3,267
435.27	1,187	2,614	435.80	1,329	3,280
435.28	1,190	2,626	435.81	1,332	3,294
435.29	1,192	2,638	435.82	1,335	3,307
435.30	1,195	2,650	435.83	1,338	3,320
435.31	1,198	2,662	435.84	1,340	3,334
435.32	1,200	2,674	435.85	1,343	3,347
435.33	1,203	2,686	435.86	1,346	3,361
435.34	1,206	2,698	435.87	1,349	3,374
435.35	1,208	2,710	435.88	1,351	3,388
435.36	1,211	2,722	435.89	1,354	3,401
435.37	1,213	2,734	435.90	1,357	3,415
435.38	1,216	2,746	435.91	1,360	3,428
435.39	1,219	2,758	435.92	1,363	3,442
435.40	1,221	2,770	435.93	1,365	3,456
435.41	1,224	2,783	435.94	1,368	3,469
435.42	1,227	2,795	435.95	1,371	3,483
435.43	1,229	2,807	435.96	1,374	3,497
435.44	1,232	2,819	435.97	1,377	3,510
435.45	1,235	2,832	435.98	1,379	3,524
435.46	1,237	2,844	435.99	1,382	3,538
435.47	1,240	2,857	436.00	1,385	3,552
435.48	1,243	2,869			
435.49	1,245	2,881			
435.50	1,248	2,894			
435.51	1,251	2,906			
435.52	1,253	2,919			
435.53	1,256	2,931			
435.54	1,259	2,944			
435.55	1,261	2,957			
435.56	1,264	2,969			
435.57	1,267	2,982			
435.58	1,269	2,995			
435.59	1,272	3,007			
435.60	1,275	3,020			
435.61	1,277	3,033			
435.62	1,280	3,046			
435.63	1,283	3,058			
435.64	1,286	3,071			
435.65	1,288	3,084			
435.66	1,291	3,097			
435.67	1,294	3,110			
435.68	1,296	3,123			
435.69	1,299	3,136			
435.70	1,302	3,149			

Summary for Pond SFF-G6: Sand Filter Forebay - G6

[79] Warning: Submerged Pond FS G6 Primary device # 1 OUTLET by 0.15'

Inflow Area = 3.518 ac, 19.41% Impervious, Inflow Depth = 4.74" for 100 Year - North Salem event
 Inflow = 5.51 cfs @ 12.28 hrs, Volume= 1.390 af
 Outflow = 5.51 cfs @ 12.31 hrs, Volume= 1.282 af, Atten= 0%, Lag= 1.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 5.51 cfs @ 12.31 hrs, Volume= 1.282 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 463.30' @ 12.31 hrs Surf.Area= 2,265 sf Storage= 5,365 cf

Plug-Flow detention time= 68.2 min calculated for 1.282 af (92% of inflow)
 Center-of-Mass det. time= 27.2 min (869.5 - 842.3)

Volume	Invert	Avail.Storage	Storage Description		
#1	460.00'	7,058 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
460.00	1,047	146.0	0	0	1,047
462.00	1,748	191.0	2,765	2,765	2,300
463.00	2,143	204.0	1,942	4,707	2,754
464.00	2,564	216.0	2,350	7,058	3,207

Device	Routing	Invert	Outlet Devices
#1	Primary	460.00'	12.0" Round Outlet Pipe X 0.00 L= 100.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 459.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	460.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	462.80'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	462.80'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	463.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

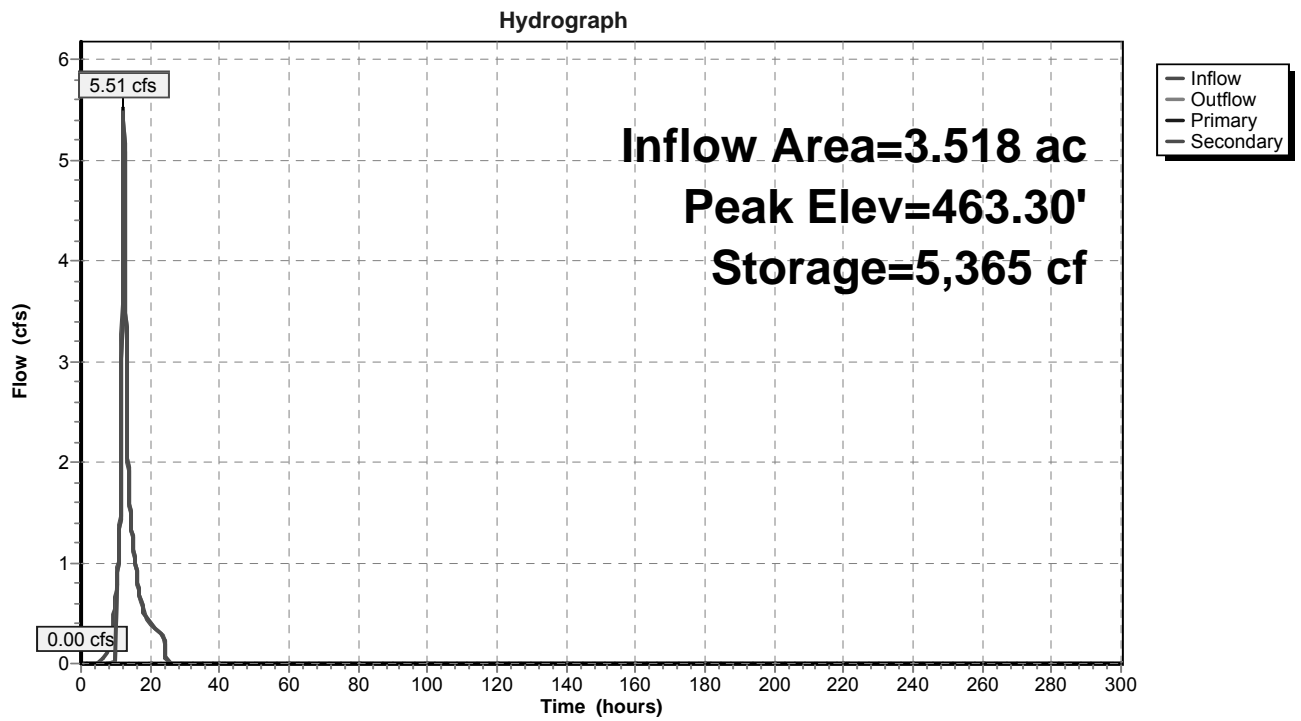
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=460.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=5.49 cfs @ 12.31 hrs HW=463.30' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 5.49 cfs @ 1.85 fps)

Pond SFF-G6: Sand Filter Forebay - G6



Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.00	1,047	0	460.53	1,215	599
460.01	1,050	10	460.54	1,219	611
460.02	1,053	21	460.55	1,222	623
460.03	1,056	32	460.56	1,225	636
460.04	1,059	42	460.57	1,229	648
460.05	1,062	53	460.58	1,232	660
460.06	1,065	63	460.59	1,235	672
460.07	1,069	74	460.60	1,239	685
460.08	1,072	85	460.61	1,242	697
460.09	1,075	95	460.62	1,245	710
460.10	1,078	106	460.63	1,249	722
460.11	1,081	117	460.64	1,252	735
460.12	1,084	128	460.65	1,255	747
460.13	1,087	139	460.66	1,259	760
460.14	1,090	150	460.67	1,262	772
460.15	1,093	161	460.68	1,265	785
460.16	1,097	171	460.69	1,269	798
460.17	1,100	182	460.70	1,272	810
460.18	1,103	193	460.71	1,275	823
460.19	1,106	205	460.72	1,279	836
460.20	1,109	216	460.73	1,282	849
460.21	1,112	227	460.74	1,286	862
460.22	1,115	238	460.75	1,289	874
460.23	1,119	249	460.76	1,292	887
460.24	1,122	260	460.77	1,296	900
460.25	1,125	271	460.78	1,299	913
460.26	1,128	283	460.79	1,303	926
460.27	1,131	294	460.80	1,306	939
460.28	1,134	305	460.81	1,309	952
460.29	1,138	317	460.82	1,313	965
460.30	1,141	328	460.83	1,316	979
460.31	1,144	339	460.84	1,320	992
460.32	1,147	351	460.85	1,323	1,005
460.33	1,150	362	460.86	1,327	1,018
460.34	1,154	374	460.87	1,330	1,032
460.35	1,157	386	460.88	1,333	1,045
460.36	1,160	397	460.89	1,337	1,058
460.37	1,163	409	460.90	1,340	1,072
460.38	1,166	420	460.91	1,344	1,085
460.39	1,170	432	460.92	1,347	1,098
460.40	1,173	444	460.93	1,351	1,112
460.41	1,176	455	460.94	1,354	1,125
460.42	1,179	467	460.95	1,358	1,139
460.43	1,183	479	460.96	1,361	1,153
460.44	1,186	491	460.97	1,365	1,166
460.45	1,189	503	460.98	1,368	1,180
460.46	1,192	515	460.99	1,372	1,194
460.47	1,196	527	461.00	1,375	1,207
460.48	1,199	539	461.01	1,379	1,221
460.49	1,202	551	461.02	1,382	1,235
460.50	1,205	563	461.03	1,386	1,249
460.51	1,209	575	461.04	1,389	1,263
460.52	1,212	587	461.05	1,393	1,277

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.06	1,396	1,291	461.59	1,590	2,081
461.07	1,400	1,304	461.60	1,594	2,097
461.08	1,403	1,318	461.61	1,597	2,113
461.09	1,407	1,333	461.62	1,601	2,129
461.10	1,410	1,347	461.63	1,605	2,145
461.11	1,414	1,361	461.64	1,609	2,161
461.12	1,418	1,375	461.65	1,612	2,177
461.13	1,421	1,389	461.66	1,616	2,193
461.14	1,425	1,403	461.67	1,620	2,210
461.15	1,428	1,418	461.68	1,624	2,226
461.16	1,432	1,432	461.69	1,628	2,242
461.17	1,435	1,446	461.70	1,631	2,258
461.18	1,439	1,461	461.71	1,635	2,275
461.19	1,443	1,475	461.72	1,639	2,291
461.20	1,446	1,489	461.73	1,643	2,308
461.21	1,450	1,504	461.74	1,647	2,324
461.22	1,453	1,518	461.75	1,651	2,340
461.23	1,457	1,533	461.76	1,654	2,357
461.24	1,461	1,548	461.77	1,658	2,374
461.25	1,464	1,562	461.78	1,662	2,390
461.26	1,468	1,577	461.79	1,666	2,407
461.27	1,471	1,592	461.80	1,670	2,423
461.28	1,475	1,606	461.81	1,674	2,440
461.29	1,479	1,621	461.82	1,678	2,457
461.30	1,482	1,636	461.83	1,681	2,474
461.31	1,486	1,651	461.84	1,685	2,491
461.32	1,490	1,666	461.85	1,689	2,507
461.33	1,493	1,681	461.86	1,693	2,524
461.34	1,497	1,695	461.87	1,697	2,541
461.35	1,501	1,710	461.88	1,701	2,558
461.36	1,504	1,725	461.89	1,705	2,575
461.37	1,508	1,741	461.90	1,709	2,592
461.38	1,512	1,756	461.91	1,713	2,609
461.39	1,515	1,771	461.92	1,717	2,627
461.40	1,519	1,786	461.93	1,720	2,644
461.41	1,523	1,801	461.94	1,724	2,661
461.42	1,526	1,816	461.95	1,728	2,678
461.43	1,530	1,832	461.96	1,732	2,696
461.44	1,534	1,847	461.97	1,736	2,713
461.45	1,537	1,862	461.98	1,740	2,730
461.46	1,541	1,878	461.99	1,744	2,748
461.47	1,545	1,893	462.00	1,748	2,765
461.48	1,549	1,909	462.01	1,752	2,783
461.49	1,552	1,924	462.02	1,756	2,800
461.50	1,556	1,940	462.03	1,759	2,818
461.51	1,560	1,955	462.04	1,763	2,835
461.52	1,563	1,971	462.05	1,767	2,853
461.53	1,567	1,987	462.06	1,771	2,871
461.54	1,571	2,002	462.07	1,774	2,889
461.55	1,575	2,018	462.08	1,778	2,906
461.56	1,578	2,034	462.09	1,782	2,924
461.57	1,582	2,050	462.10	1,786	2,942
461.58	1,586	2,065	462.11	1,789	2,960

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.12	1,793	2,978	462.65	2,000	3,982
462.13	1,797	2,996	462.66	2,004	4,002
462.14	1,801	3,014	462.67	2,008	4,023
462.15	1,805	3,032	462.68	2,012	4,043
462.16	1,808	3,050	462.69	2,016	4,063
462.17	1,812	3,068	462.70	2,020	4,083
462.18	1,816	3,086	462.71	2,024	4,103
462.19	1,820	3,104	462.72	2,028	4,123
462.20	1,824	3,122	462.73	2,032	4,144
462.21	1,828	3,141	462.74	2,036	4,164
462.22	1,831	3,159	462.75	2,040	4,184
462.23	1,835	3,177	462.76	2,045	4,205
462.24	1,839	3,196	462.77	2,049	4,225
462.25	1,843	3,214	462.78	2,053	4,246
462.26	1,847	3,232	462.79	2,057	4,266
462.27	1,851	3,251	462.80	2,061	4,287
462.28	1,855	3,270	462.81	2,065	4,308
462.29	1,858	3,288	462.82	2,069	4,328
462.30	1,862	3,307	462.83	2,073	4,349
462.31	1,866	3,325	462.84	2,077	4,370
462.32	1,870	3,344	462.85	2,081	4,391
462.33	1,874	3,363	462.86	2,085	4,411
462.34	1,878	3,381	462.87	2,089	4,432
462.35	1,882	3,400	462.88	2,093	4,453
462.36	1,886	3,419	462.89	2,098	4,474
462.37	1,889	3,438	462.90	2,102	4,495
462.38	1,893	3,457	462.91	2,106	4,516
462.39	1,897	3,476	462.92	2,110	4,537
462.40	1,901	3,495	462.93	2,114	4,558
462.41	1,905	3,514	462.94	2,118	4,580
462.42	1,909	3,533	462.95	2,122	4,601
462.43	1,913	3,552	462.96	2,126	4,622
462.44	1,917	3,571	462.97	2,131	4,643
462.45	1,921	3,590	462.98	2,135	4,665
462.46	1,925	3,610	462.99	2,139	4,686
462.47	1,929	3,629	463.00	2,143	4,707
462.48	1,933	3,648	463.01	2,147	4,729
462.49	1,937	3,668	463.02	2,151	4,750
462.50	1,940	3,687	463.03	2,155	4,772
462.51	1,944	3,706	463.04	2,159	4,793
462.52	1,948	3,726	463.05	2,163	4,815
462.53	1,952	3,745	463.06	2,167	4,837
462.54	1,956	3,765	463.07	2,171	4,858
462.55	1,960	3,784	463.08	2,175	4,880
462.56	1,964	3,804	463.09	2,179	4,902
462.57	1,968	3,824	463.10	2,183	4,924
462.58	1,972	3,843	463.11	2,187	4,946
462.59	1,976	3,863	463.12	2,192	4,967
462.60	1,980	3,883	463.13	2,196	4,989
462.61	1,984	3,903	463.14	2,200	5,011
462.62	1,988	3,923	463.15	2,204	5,033
462.63	1,992	3,943	463.16	2,208	5,055
462.64	1,996	3,962	463.17	2,212	5,078

Stage-Area-Storage for Pond SFF-G6: Sand Filter Forebay - G6 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.18	2,216	5,100	463.71	2,438	6,333
463.19	2,220	5,122	463.72	2,442	6,357
463.20	2,224	5,144	463.73	2,447	6,381
463.21	2,228	5,166	463.74	2,451	6,406
463.22	2,232	5,189	463.75	2,455	6,430
463.23	2,236	5,211	463.76	2,460	6,455
463.24	2,241	5,233	463.77	2,464	6,480
463.25	2,245	5,256	463.78	2,468	6,504
463.26	2,249	5,278	463.79	2,472	6,529
463.27	2,253	5,301	463.80	2,477	6,554
463.28	2,257	5,323	463.81	2,481	6,578
463.29	2,261	5,346	463.82	2,485	6,603
463.30	2,265	5,369	463.83	2,490	6,628
463.31	2,269	5,391	463.84	2,494	6,653
463.32	2,274	5,414	463.85	2,498	6,678
463.33	2,278	5,437	463.86	2,503	6,703
463.34	2,282	5,459	463.87	2,507	6,728
463.35	2,286	5,482	463.88	2,511	6,753
463.36	2,290	5,505	463.89	2,516	6,778
463.37	2,294	5,528	463.90	2,520	6,804
463.38	2,299	5,551	463.91	2,525	6,829
463.39	2,303	5,574	463.92	2,529	6,854
463.40	2,307	5,597	463.93	2,533	6,879
463.41	2,311	5,620	463.94	2,538	6,905
463.42	2,315	5,643	463.95	2,542	6,930
463.43	2,319	5,667	463.96	2,546	6,956
463.44	2,324	5,690	463.97	2,551	6,981
463.45	2,328	5,713	463.98	2,555	7,007
463.46	2,332	5,736	463.99	2,560	7,032
463.47	2,336	5,760	464.00	2,564	7,058
463.48	2,340	5,783			
463.49	2,345	5,806			
463.50	2,349	5,830			
463.51	2,353	5,853			
463.52	2,357	5,877			
463.53	2,361	5,901			
463.54	2,366	5,924			
463.55	2,370	5,948			
463.56	2,374	5,972			
463.57	2,378	5,995			
463.58	2,383	6,019			
463.59	2,387	6,043			
463.60	2,391	6,067			
463.61	2,395	6,091			
463.62	2,400	6,115			
463.63	2,404	6,139			
463.64	2,408	6,163			
463.65	2,412	6,187			
463.66	2,417	6,211			
463.67	2,421	6,235			
463.68	2,425	6,260			
463.69	2,429	6,284			
463.70	2,434	6,308			

Summary for Pond SFF-G7: Sand Filter Forebay - G7

[79] Warning: Submerged Pond FS G7 Primary device # 1 OUTLET by 0.07'

Inflow Area = 1.542 ac, 19.58% Impervious, Inflow Depth = 4.69" for 100 Year - North Salem event
 Inflow = 2.29 cfs @ 12.20 hrs, Volume= 0.603 af
 Outflow = 2.28 cfs @ 12.22 hrs, Volume= 0.541 af, Atten= 0%, Lag= 1.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.28 cfs @ 12.22 hrs, Volume= 0.541 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 455.17' @ 12.22 hrs Surf.Area= 1,295 sf Storage= 2,903 cf

Plug-Flow detention time= 84.3 min calculated for 0.541 af (90% of inflow)
 Center-of-Mass det. time= 32.7 min (870.2 - 837.5)

Volume	Invert	Avail.Storage	Storage Description			
#1	452.00'	4,075 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
452.00	581	93.0	0	0	581	
454.00	1,003	118.0	1,565	1,565	1,051	
455.00	1,251	130.0	1,125	2,690	1,318	
456.00	1,525	143.0	1,386	4,075	1,632	

Device	Routing	Invert	Outlet Devices
#1	Primary	452.00'	8.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 451.50' S= 0.0227 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	452.00'	1.0" Vert. Standpipe Openings X 4.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	454.80'	15.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	454.90'	24.0" x 24.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

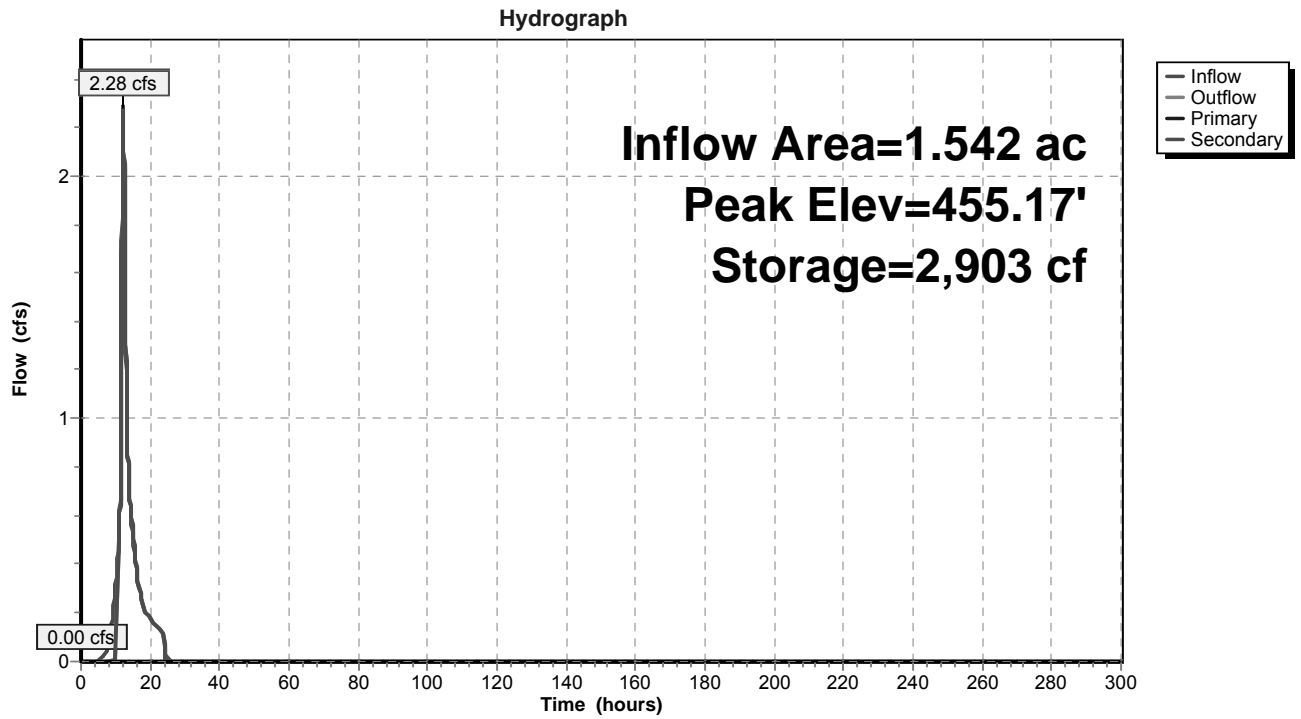
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=452.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.27 cfs @ 12.22 hrs HW=455.17' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 2.27 cfs @ 1.36 fps)

Pond SFF-G7: Sand Filter Forebay - G7



Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
452.00	581	0	452.53	682	334
452.01	583	6	452.54	684	341
452.02	585	12	452.55	686	348
452.03	586	18	452.56	688	355
452.04	588	23	452.57	690	362
452.05	590	29	452.58	692	369
452.06	592	35	452.59	694	376
452.07	594	41	452.60	696	382
452.08	596	47	452.61	698	389
452.09	598	53	452.62	700	396
452.10	599	59	452.63	702	403
452.11	601	65	452.64	704	410
452.12	603	71	452.65	706	417
452.13	605	77	452.66	708	425
452.14	607	83	452.67	710	432
452.15	609	89	452.68	712	439
452.16	611	95	452.69	714	446
452.17	612	101	452.70	716	453
452.18	614	108	452.71	718	460
452.19	616	114	452.72	720	467
452.20	618	120	452.73	722	475
452.21	620	126	452.74	724	482
452.22	622	132	452.75	726	489
452.23	624	139	452.76	728	496
452.24	626	145	452.77	730	504
452.25	627	151	452.78	732	511
452.26	629	157	452.79	734	518
452.27	631	164	452.80	736	526
452.28	633	170	452.81	738	533
452.29	635	176	452.82	740	540
452.30	637	183	452.83	742	548
452.31	639	189	452.84	744	555
452.32	641	195	452.85	746	563
452.33	643	202	452.86	748	570
452.34	645	208	452.87	750	578
452.35	647	215	452.88	753	585
452.36	649	221	452.89	755	593
452.37	650	228	452.90	757	600
452.38	652	234	452.91	759	608
452.39	654	241	452.92	761	615
452.40	656	247	452.93	763	623
452.41	658	254	452.94	765	631
452.42	660	260	452.95	767	638
452.43	662	267	452.96	769	646
452.44	664	274	452.97	771	654
452.45	666	280	452.98	773	661
452.46	668	287	452.99	776	669
452.47	670	294	453.00	778	677
452.48	672	300	453.01	780	685
452.49	674	307	453.02	782	693
452.50	676	314	453.03	784	700
452.51	678	321	453.04	786	708
452.52	680	327	453.05	788	716

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

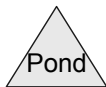
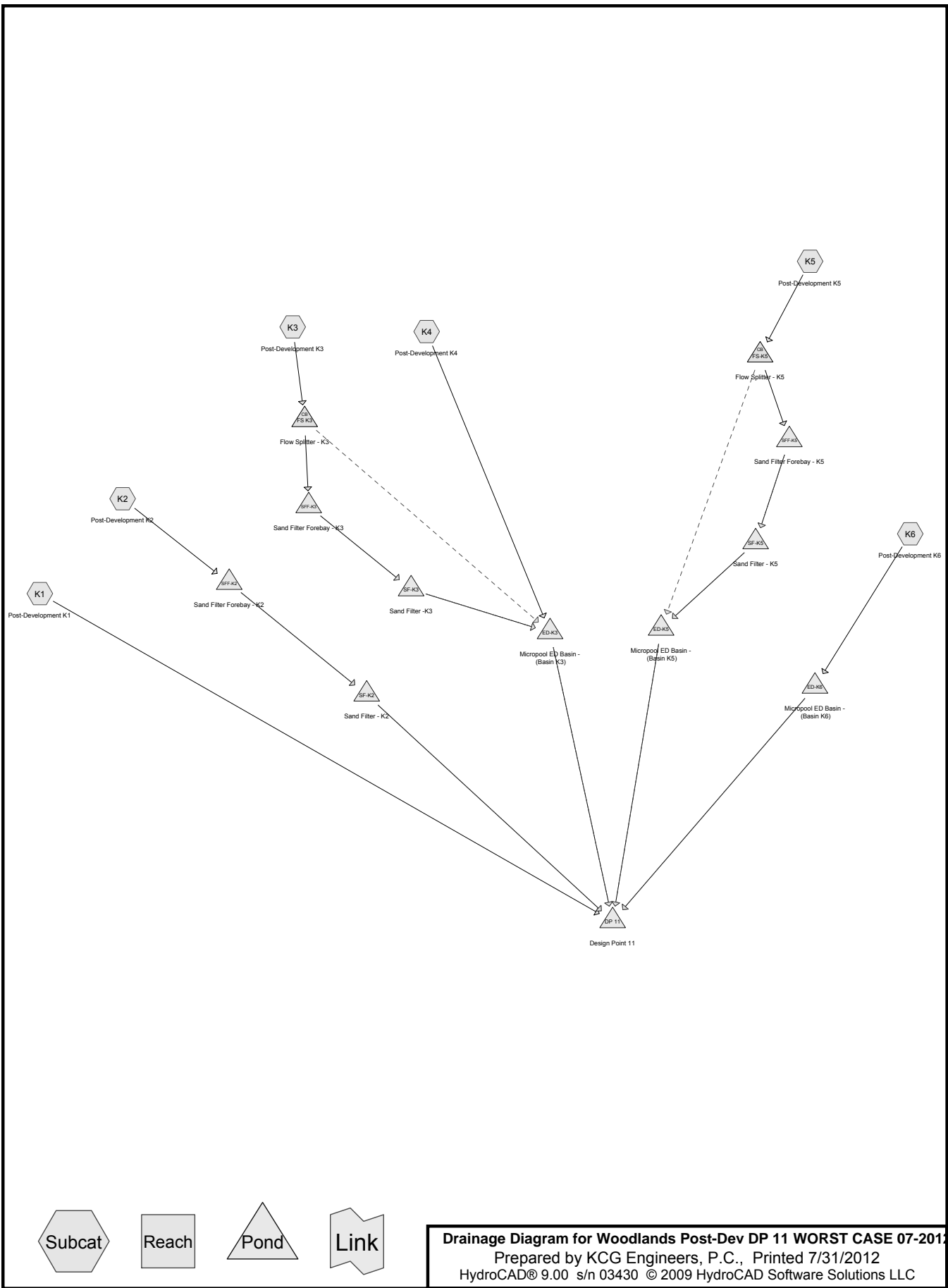
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.06	790	724	453.59	907	1,173
453.07	793	732	453.60	909	1,183
453.08	795	740	453.61	912	1,192
453.09	797	748	453.62	914	1,201
453.10	799	756	453.63	916	1,210
453.11	801	764	453.64	919	1,219
453.12	803	772	453.65	921	1,228
453.13	805	780	453.66	923	1,238
453.14	808	788	453.67	925	1,247
453.15	810	796	453.68	928	1,256
453.16	812	804	453.69	930	1,265
453.17	814	812	453.70	932	1,275
453.18	816	820	453.71	935	1,284
453.19	818	829	453.72	937	1,293
453.20	820	837	453.73	939	1,303
453.21	823	845	453.74	942	1,312
453.22	825	853	453.75	944	1,322
453.23	827	861	453.76	946	1,331
453.24	829	870	453.77	949	1,341
453.25	831	878	453.78	951	1,350
453.26	834	886	453.79	953	1,360
453.27	836	895	453.80	956	1,369
453.28	838	903	453.81	958	1,379
453.29	840	911	453.82	960	1,388
453.30	842	920	453.83	963	1,398
453.31	844	928	453.84	965	1,407
453.32	847	937	453.85	967	1,417
453.33	849	945	453.86	970	1,427
453.34	851	954	453.87	972	1,437
453.35	853	962	453.88	974	1,446
453.36	856	971	453.89	977	1,456
453.37	858	979	453.90	979	1,466
453.38	860	988	453.91	982	1,476
453.39	862	997	453.92	984	1,485
453.40	864	1,005	453.93	986	1,495
453.41	867	1,014	453.94	989	1,505
453.42	869	1,023	453.95	991	1,515
453.43	871	1,031	453.96	993	1,525
453.44	873	1,040	453.97	996	1,535
453.45	876	1,049	453.98	998	1,545
453.46	878	1,057	453.99	1,001	1,555
453.47	880	1,066	454.00	1,003	1,565
453.48	882	1,075	454.01	1,005	1,575
453.49	885	1,084	454.02	1,008	1,585
453.50	887	1,093	454.03	1,010	1,595
453.51	889	1,102	454.04	1,012	1,605
453.52	891	1,111	454.05	1,015	1,615
453.53	894	1,119	454.06	1,017	1,626
453.54	896	1,128	454.07	1,019	1,636
453.55	898	1,137	454.08	1,022	1,646
453.56	900	1,146	454.09	1,024	1,656
453.57	903	1,155	454.10	1,027	1,666
453.58	905	1,164	454.11	1,029	1,677

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
454.12	1,031	1,687	454.65	1,161	2,268
454.13	1,034	1,697	454.66	1,164	2,279
454.14	1,036	1,708	454.67	1,166	2,291
454.15	1,038	1,718	454.68	1,169	2,303
454.16	1,041	1,728	454.69	1,171	2,314
454.17	1,043	1,739	454.70	1,174	2,326
454.18	1,046	1,749	454.71	1,176	2,338
454.19	1,048	1,760	454.72	1,179	2,350
454.20	1,050	1,770	454.73	1,181	2,361
454.21	1,053	1,781	454.74	1,184	2,373
454.22	1,055	1,791	454.75	1,186	2,385
454.23	1,058	1,802	454.76	1,189	2,397
454.24	1,060	1,812	454.77	1,192	2,409
454.25	1,062	1,823	454.78	1,194	2,421
454.26	1,065	1,834	454.79	1,197	2,433
454.27	1,067	1,844	454.80	1,199	2,445
454.28	1,070	1,855	454.81	1,202	2,457
454.29	1,072	1,866	454.82	1,204	2,469
454.30	1,075	1,876	454.83	1,207	2,481
454.31	1,077	1,887	454.84	1,209	2,493
454.32	1,079	1,898	454.85	1,212	2,505
454.33	1,082	1,909	454.86	1,215	2,517
454.34	1,084	1,920	454.87	1,217	2,529
454.35	1,087	1,931	454.88	1,220	2,541
454.36	1,089	1,941	454.89	1,222	2,554
454.37	1,092	1,952	454.90	1,225	2,566
454.38	1,094	1,963	454.91	1,228	2,578
454.39	1,096	1,974	454.92	1,230	2,590
454.40	1,099	1,985	454.93	1,233	2,603
454.41	1,101	1,996	454.94	1,235	2,615
454.42	1,104	2,007	454.95	1,238	2,627
454.43	1,106	2,018	454.96	1,241	2,640
454.44	1,109	2,029	454.97	1,243	2,652
454.45	1,111	2,040	454.98	1,246	2,665
454.46	1,114	2,052	454.99	1,248	2,677
454.47	1,116	2,063	455.00	1,251	2,690
454.48	1,119	2,074	455.01	1,254	2,702
454.49	1,121	2,085	455.02	1,256	2,715
454.50	1,124	2,096	455.03	1,259	2,727
454.51	1,126	2,108	455.04	1,261	2,740
454.52	1,129	2,119	455.05	1,264	2,753
454.53	1,131	2,130	455.06	1,267	2,765
454.54	1,134	2,141	455.07	1,269	2,778
454.55	1,136	2,153	455.08	1,272	2,791
454.56	1,139	2,164	455.09	1,275	2,803
454.57	1,141	2,176	455.10	1,277	2,816
454.58	1,144	2,187	455.11	1,280	2,829
454.59	1,146	2,198	455.12	1,282	2,842
454.60	1,149	2,210	455.13	1,285	2,854
454.61	1,151	2,221	455.14	1,288	2,867
454.62	1,154	2,233	455.15	1,290	2,880
454.63	1,156	2,244	455.16	1,293	2,893
454.64	1,159	2,256	455.17	1,296	2,906

Stage-Area-Storage for Pond SFF-G7: Sand Filter Forebay - G7 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.18	1,298	2,919	455.71	1,443	3,645
455.19	1,301	2,932	455.72	1,446	3,660
455.20	1,304	2,945	455.73	1,448	3,674
455.21	1,306	2,958	455.74	1,451	3,689
455.22	1,309	2,971	455.75	1,454	3,703
455.23	1,312	2,984	455.76	1,457	3,718
455.24	1,314	2,997	455.77	1,460	3,732
455.25	1,317	3,011	455.78	1,462	3,747
455.26	1,320	3,024	455.79	1,465	3,761
455.27	1,322	3,037	455.80	1,468	3,776
455.28	1,325	3,050	455.81	1,471	3,791
455.29	1,328	3,063	455.82	1,474	3,806
455.30	1,330	3,077	455.83	1,477	3,820
455.31	1,333	3,090	455.84	1,479	3,835
455.32	1,336	3,103	455.85	1,482	3,850
455.33	1,338	3,117	455.86	1,485	3,865
455.34	1,341	3,130	455.87	1,488	3,880
455.35	1,344	3,144	455.88	1,491	3,894
455.36	1,347	3,157	455.89	1,494	3,909
455.37	1,349	3,171	455.90	1,496	3,924
455.38	1,352	3,184	455.91	1,499	3,939
455.39	1,355	3,198	455.92	1,502	3,954
455.40	1,357	3,211	455.93	1,505	3,969
455.41	1,360	3,225	455.94	1,508	3,984
455.42	1,363	3,238	455.95	1,511	3,999
455.43	1,365	3,252	455.96	1,514	4,015
455.44	1,368	3,266	455.97	1,516	4,030
455.45	1,371	3,279	455.98	1,519	4,045
455.46	1,374	3,293	455.99	1,522	4,060
455.47	1,376	3,307	456.00	1,525	4,075
455.48	1,379	3,321			
455.49	1,382	3,334			
455.50	1,385	3,348			
455.51	1,387	3,362			
455.52	1,390	3,376			
455.53	1,393	3,390			
455.54	1,396	3,404			
455.55	1,398	3,418			
455.56	1,401	3,432			
455.57	1,404	3,446			
455.58	1,407	3,460			
455.59	1,409	3,474			
455.60	1,412	3,488			
455.61	1,415	3,502			
455.62	1,418	3,516			
455.63	1,420	3,531			
455.64	1,423	3,545			
455.65	1,426	3,559			
455.66	1,429	3,573			
455.67	1,432	3,588			
455.68	1,434	3,602			
455.69	1,437	3,616			
455.70	1,440	3,631			



Drainage Diagram for Woodlands Post-Dev DP 11 WORST CASE 07-2012

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Woodlands Post-Dev DP 11 WORST CASE 07-2012

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
7.263	55	Woods, Good, HSG B (K1, K2, K4)
1.770	61	>75% Grass cover, Good, HSG B (K2, K3, K4)
0.113	61	Basin, HSG B (K2)
28.353	70	Woods, Good, HSG C (K1, K2, K3, K5, K6)
15.966	74	>75% Grass cover, Good, HSG C (K1, K2, K3, K5, K6)
1.223	74	Basin, HSG C (K3, K5, K6)
3.196	83	Woods, Poor, HSG D (K1)
0.367	85	Gravel roads, HSG B (Existing) (K1)
2.426	98	Driveway (K3, K5, K6)
0.237	98	Recreation Center (K3)
2.721	98	Road (K2, K3, K5)
0.052	98	Roof (Sewer Plant) (K2)
1.021	98	Roof/Walkway (K5, K6)
2.651	98	Roof/Walkway (MF Units) (K3)
0.079	98	Roofs (Existing) (K1)
0.174	98	Sidewalk (K3, K5)
0.115	100	Open Water (K1)
67.727		TOTAL AREA

Woodlands Post-Dev DP 11 WORST CAS Type III 24-hr 1 Year - North Salem Rainfall=3.10"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points

Runoff by SCS TR-20 method, UH=SCS

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-Development K1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=0.72"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=17.47 cfs 2.208 af

Subcatchment K2: Post-Development K2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=0.68"
Flow Length=799' Tc=13.0 min CN=68 Runoff=1.08 cfs 0.116 af

Subcatchment K3: Post-Development K3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=1.67"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=16.61 cfs 1.537 af

Subcatchment K4: Post-Development K4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=0.37"
Flow Length=281' Tc=11.3 min CN=60 Runoff=0.21 cfs 0.034 af

Subcatchment K5: Post-Development K5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=1.39"
Flow Length=542' Tc=22.2 min CN=81 Runoff=8.69 cfs 0.970 af

Subcatchment K6: Post-Development K6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=0.97"
Flow Length=981' Tc=12.4 min CN=74 Runoff=7.36 cfs 0.697 af

Pond DP 11: Design Point 11 Inflow=17.47 cfs 2.208 af
Primary=17.47 cfs 2.208 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=449.44' Storage=14,298 cf Inflow=0.21 cfs 0.034 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=482.00' Storage=7,612 cf Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=519.59' Storage=37,408 cf Inflow=7.36 cfs 0.697 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond FS K3: Flow Splitter - K3 Peak Elev=467.78' Inflow=16.61 cfs 1.537 af
Primary=16.61 cfs 1.537 af Secondary=0.00 cfs 0.000 af Outflow=16.61 cfs 1.537 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=506.52' Inflow=8.69 cfs 0.970 af
Primary=8.68 cfs 0.969 af Secondary=0.00 cfs 0.000 af Outflow=8.69 cfs 0.970 af

Pond SF-K2: Sand Filter - K2 Peak Elev=424.61' Storage=2,030 cf Inflow=0.13 cfs 0.047 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-K3: Sand Filter -K3 Peak Elev=460.67' Storage=42,082 cf Inflow=8.79 cfs 0.966 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-K5: Sand Filter - K5 Peak Elev=493.43' Storage=21,717 cf Inflow=2.23 cfs 0.499 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=433.02' Storage=3,041 cf Inflow=1.08 cfs 0.116 af
Primary=0.00 cfs 0.000 af Secondary=0.13 cfs 0.047 af Outflow=0.13 cfs 0.047 af

Woodlands Post-Dev DP 11 WORST CAS *Type III 24-hr 1 Year - North Salem Rainfall=3.10"*

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Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=465.41' Storage=27,959 cf Inflow=16.61 cfs 1.537 af
Primary=0.00 cfs 0.000 af Secondary=8.79 cfs 0.966 af Outflow=8.79 cfs 0.966 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=505.16' Storage=21,416 cf Inflow=8.68 cfs 0.969 af
Primary=0.00 cfs 0.000 af Secondary=2.23 cfs 0.499 af Outflow=2.23 cfs 0.499 af

Total Runoff Area = 67.727 ac Runoff Volume = 5.561 af Average Runoff Depth = 0.99"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 17.47 cfs @ 12.35 hrs, Volume= 2.208 af, Depth= 0.72"

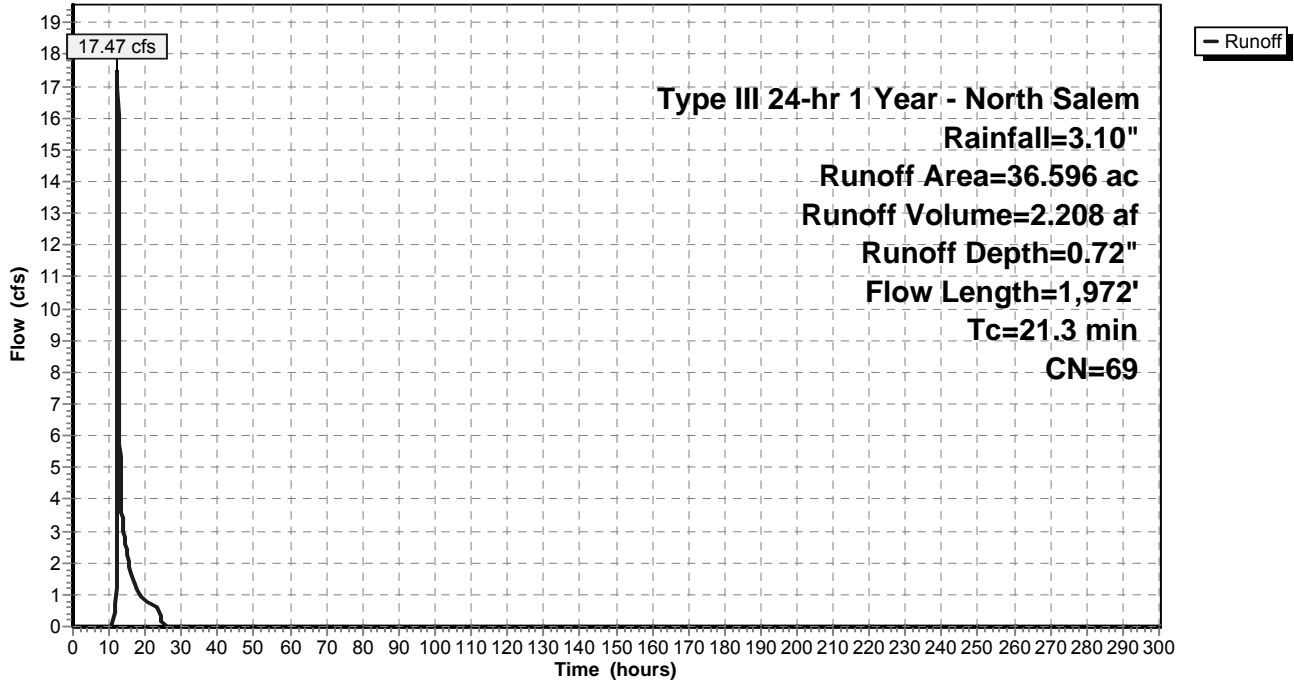
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

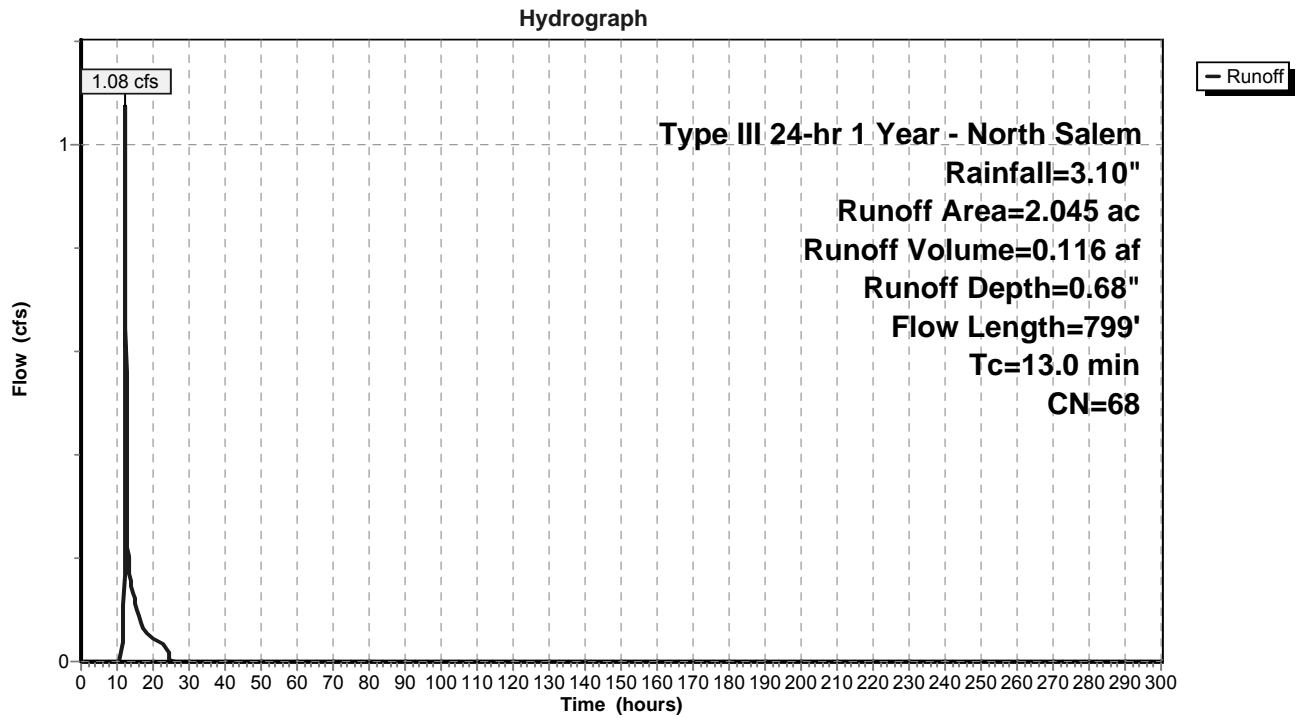
Runoff = 1.08 cfs @ 12.21 hrs, Volume= 0.116 af, Depth= 0.68"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2



Summary for Subcatchment K3: Post-Development K3

Runoff = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af, Depth= 1.67"

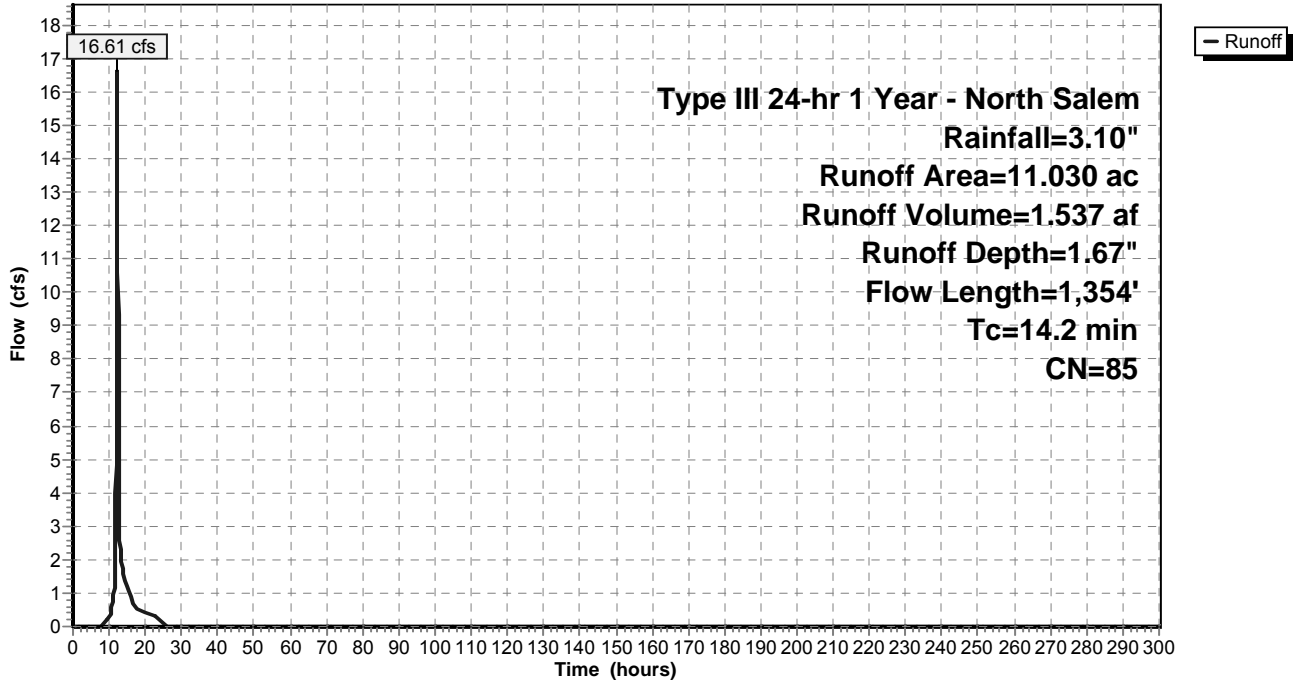
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

Runoff = 0.21 cfs @ 12.27 hrs, Volume= 0.034 af, Depth= 0.37"

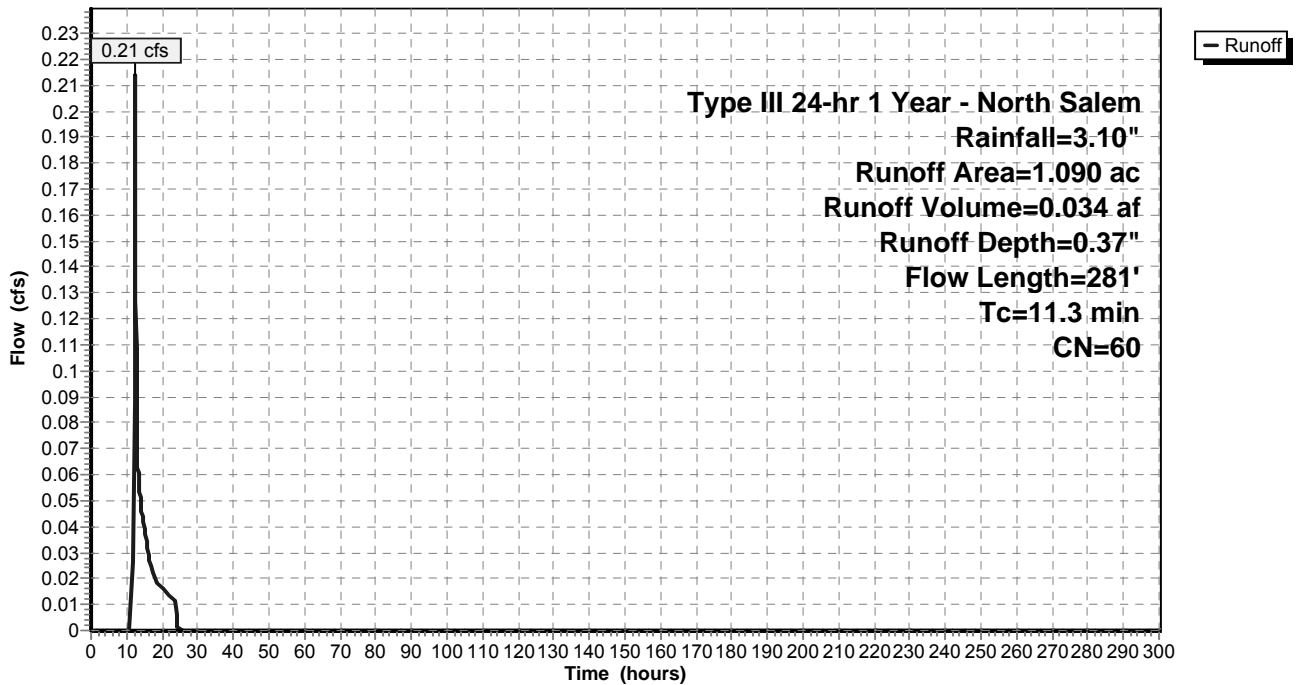
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 8.69 cfs @ 12.32 hrs, Volume= 0.970 af, Depth= 1.39"

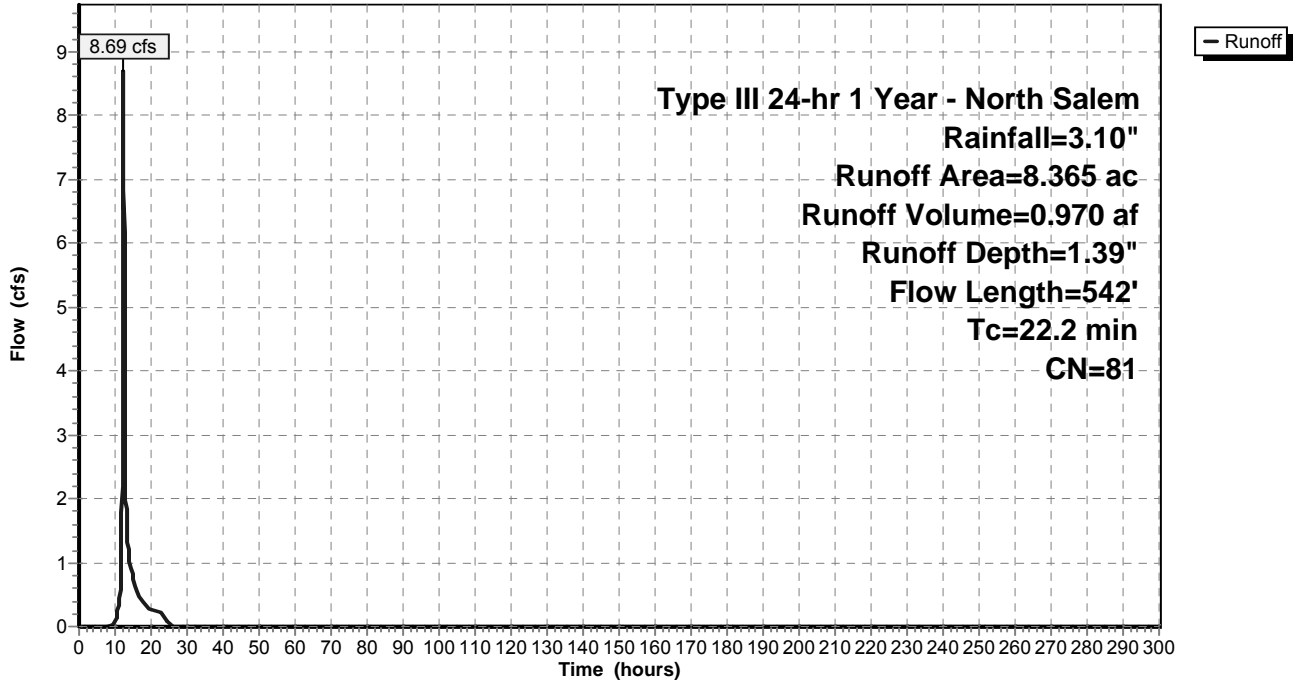
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

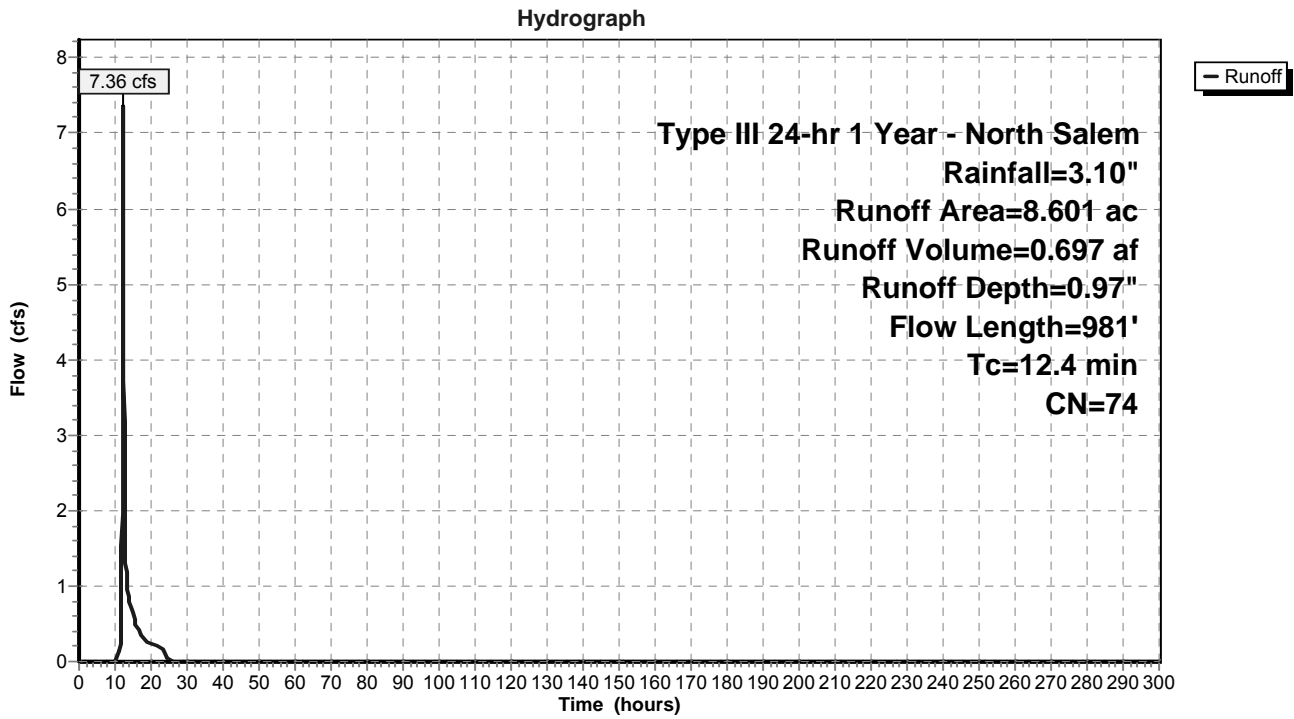
Runoff = 7.36 cfs @ 12.19 hrs, Volume= 0.697 af, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1 Year - North Salem Rainfall=3.10"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6



Summary for Pond DP 11: Design Point 11

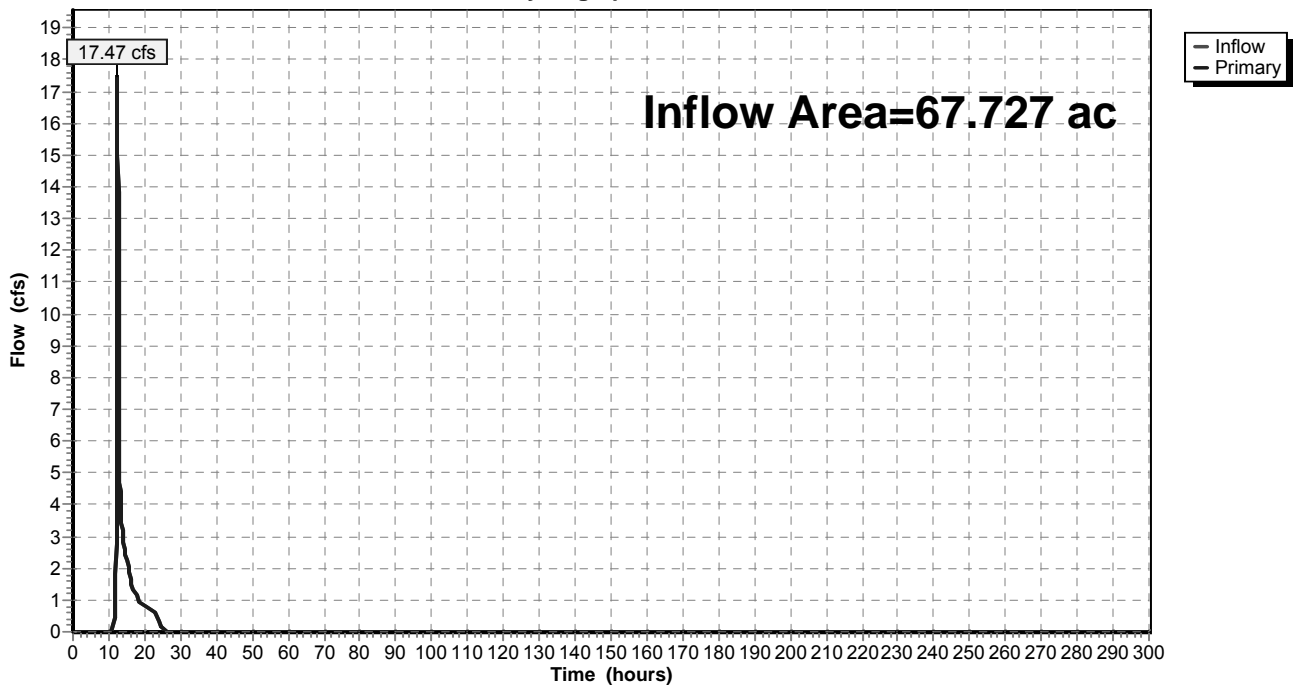
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth = 0.39" for 1 Year - North Salem event
Inflow = 17.47 cfs @ 12.35 hrs, Volume= 2.208 af
Primary = 17.47 cfs @ 12.35 hrs, Volume= 2.208 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth = 0.03" for 1 Year - North Salem event
 Inflow = 0.21 cfs @ 12.27 hrs, Volume= 0.034 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 449.44' @ 24.70 hrs Surf.Area= 7,844 sf Storage= 14,298 cf (1,463 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe X 0.00 L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

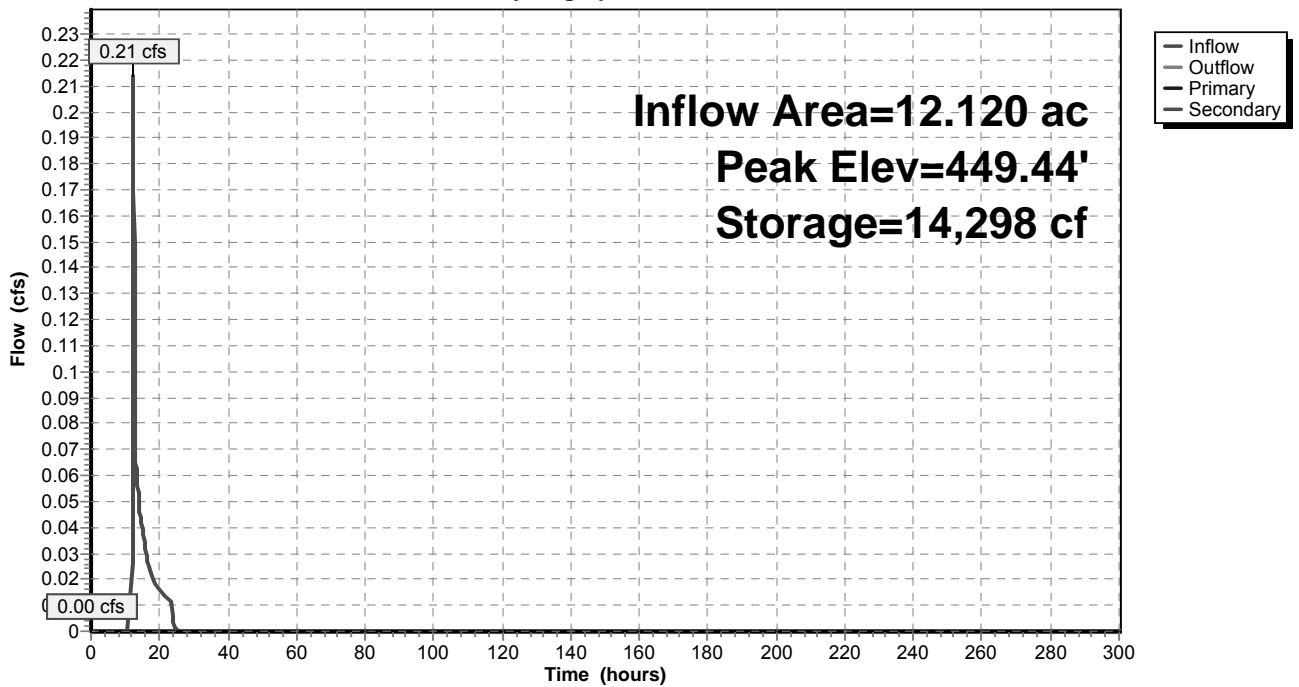
- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)

Hydrograph



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 0.00" for 1 Year - North Salem event
 Inflow = 0.00 cfs @ 12.31 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 482.00' @ 12.40 hrs Surf.Area= 5,213 sf Storage= 7,612 cf (1 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

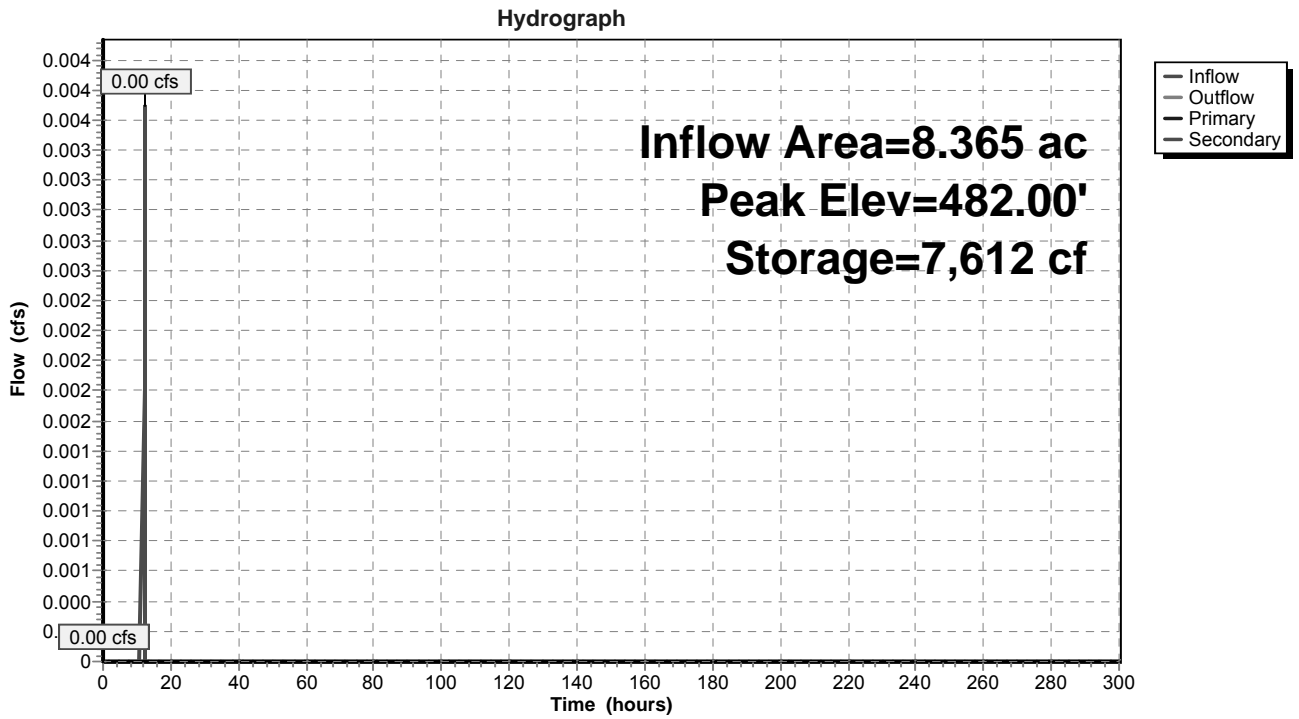
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 0.97" for 1 Year - North Salem event
 Inflow = 7.36 cfs @ 12.19 hrs, Volume= 0.697 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 519.59' @ 24.75 hrs Surf.Area= 9,462 sf Storage= 37,408 cf (30,356 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

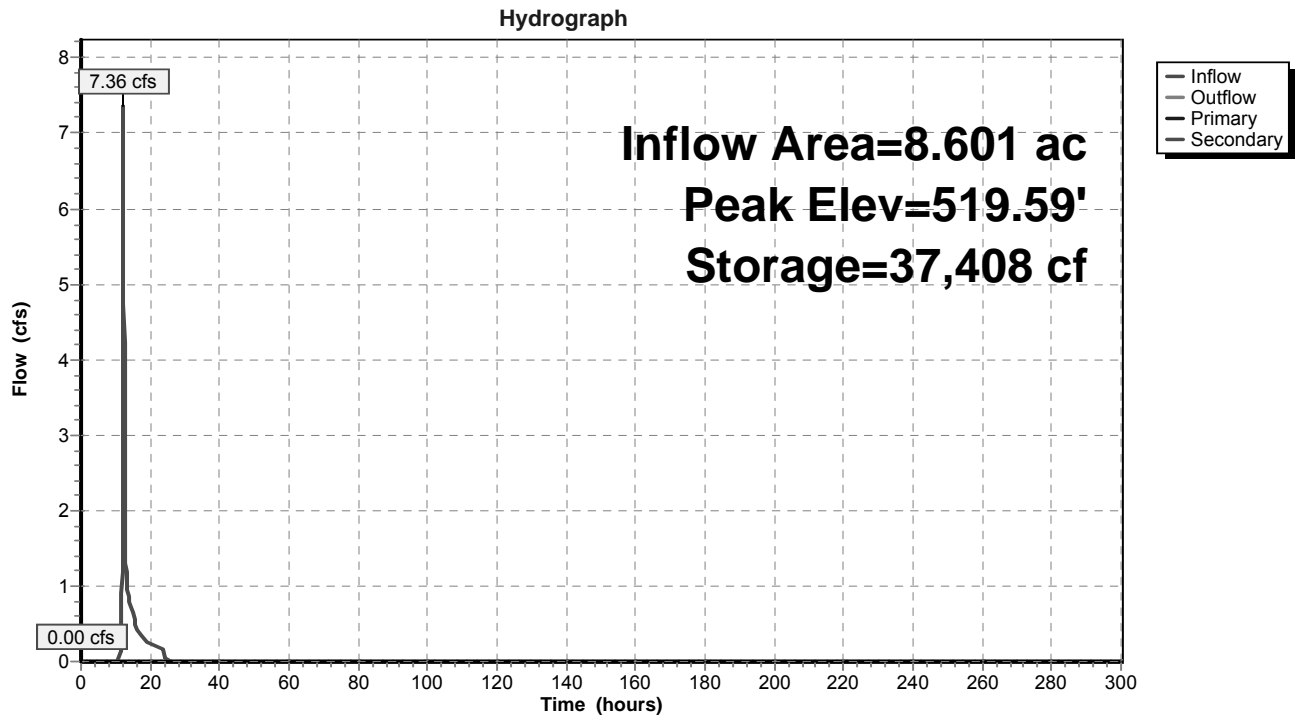
Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
 ↑ 3=Orifice #1 (Controls 0.00 cfs)
 ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K6: Micropool ED Basin - (Basin K6)



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 1.67" for 1 Year - North Salem event
 Inflow = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af
 Outflow = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af, Atten= 0%, Lag= 0.0 min
 Primary = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 467.78' @ 12.20 hrs
 Flood Elev= 556.50'

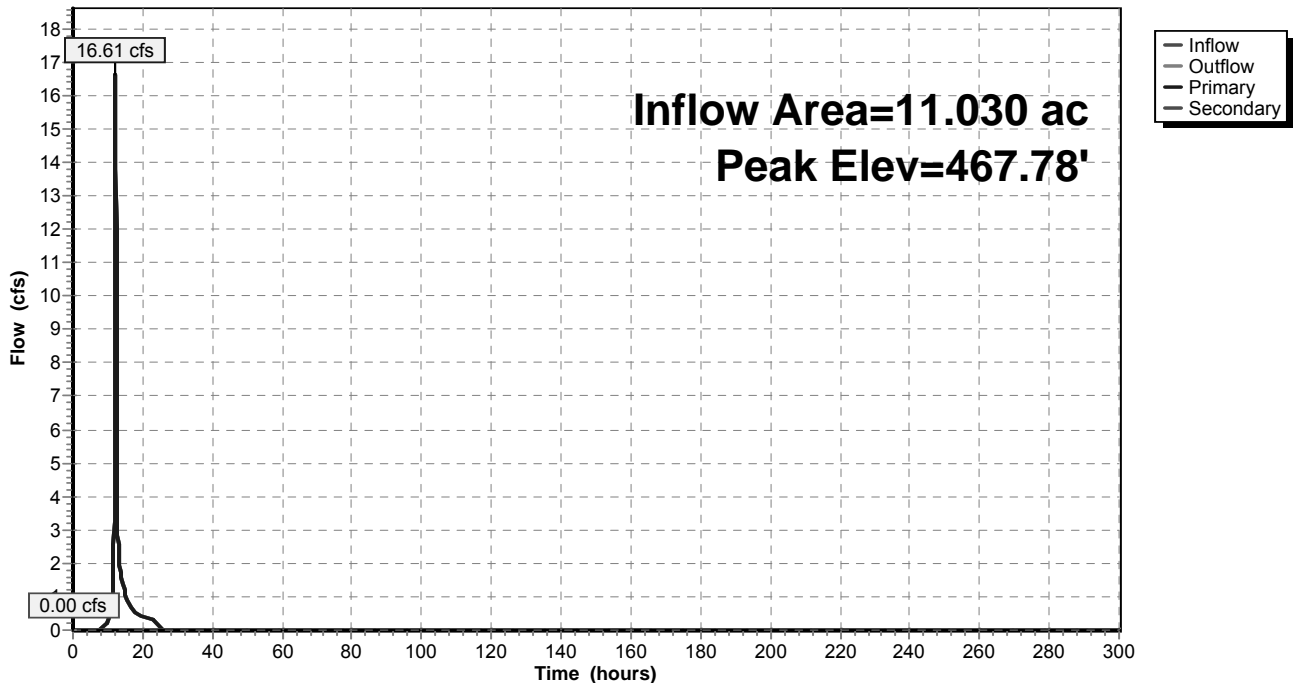
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=16.61 cfs @ 12.20 hrs HW=467.78' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 16.61 cfs @ 5.29 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=465.23' (Free Discharge)
 ↳2=Outlet to Basin K3 (Controls 0.00 cfs)

Pond FS K3: Flow Splitter - K3

Hydrograph



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.39" for 1 Year - North Salem event
 Inflow = 8.69 cfs @ 12.32 hrs, Volume= 0.970 af
 Outflow = 8.69 cfs @ 12.32 hrs, Volume= 0.970 af, Atten= 0%, Lag= 0.0 min
 Primary = 8.68 cfs @ 12.32 hrs, Volume= 0.969 af
 Secondary = 0.00 cfs @ 12.31 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 506.52' @ 12.32 hrs
 Flood Elev= 556.50'

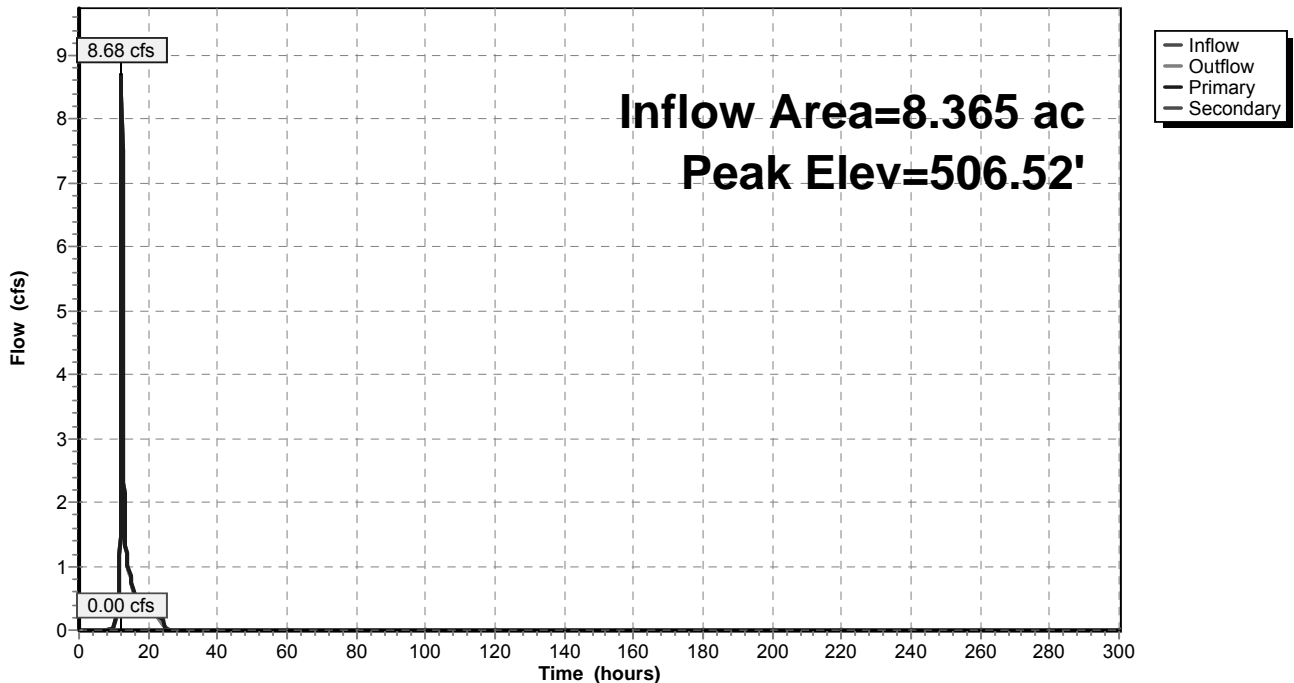
Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=8.62 cfs @ 12.32 hrs HW=506.51' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 8.62 cfs @ 4.69 fps)

Secondary OutFlow Max=0.00 cfs @ 12.31 hrs HW=506.51' (Free Discharge)
 ↳2=Outlet to Basin K5 (Inlet Controls 0.00 cfs @ 0.34 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 0.27" for 1 Year - North Salem event
 Inflow = 0.13 cfs @ 14.67 hrs, Volume= 0.047 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 424.61' @ 26.10 hrs Surf.Area= 1,524 sf Storage= 2,030 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

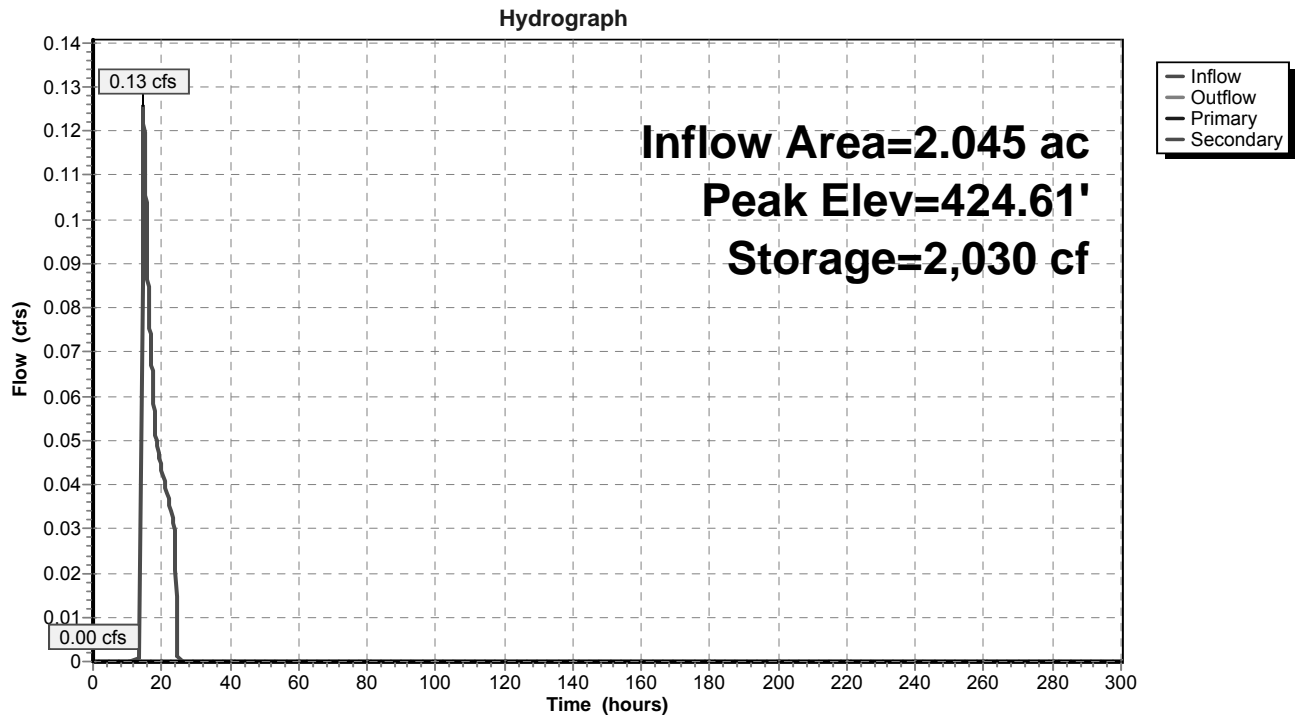
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 1.05" for 1 Year - North Salem event
 Inflow = 8.79 cfs @ 12.48 hrs, Volume= 0.966 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 460.67' @ 31.90 hrs Surf.Area= 17,545 sf Storage= 42,082 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
458.00	14,031	642.0	0	0	14,031
460.00	16,650	667.0	30,644	30,644	16,946
461.00	17,997	680.0	17,319	47,963	18,493
462.00	19,370	693.0	18,679	66,642	20,071
463.00	20,767	705.0	20,064	86,707	21,578

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

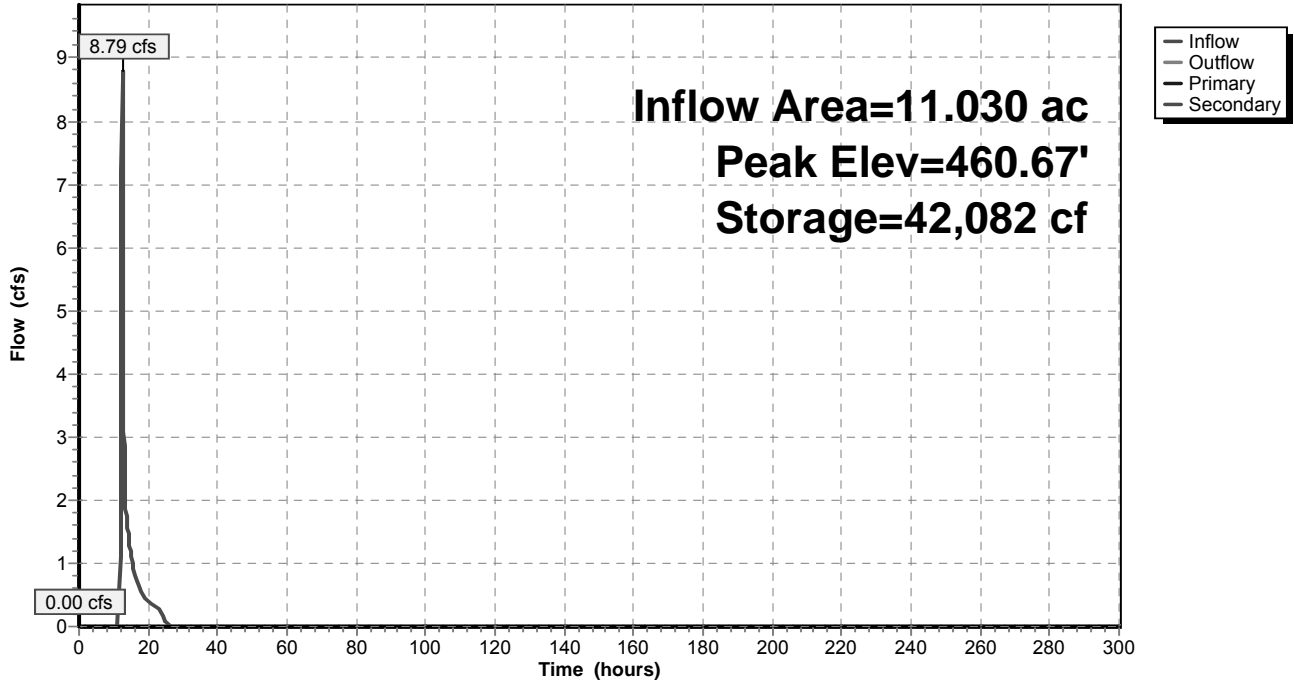
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K3: Sand Filter -K3

Hydrograph



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 0.72" for 1 Year - North Salem event
 Inflow = 2.23 cfs @ 12.98 hrs, Volume= 0.499 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 493.43' @ 297.40 hrs Surf.Area= 9,909 sf Storage= 21,717 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

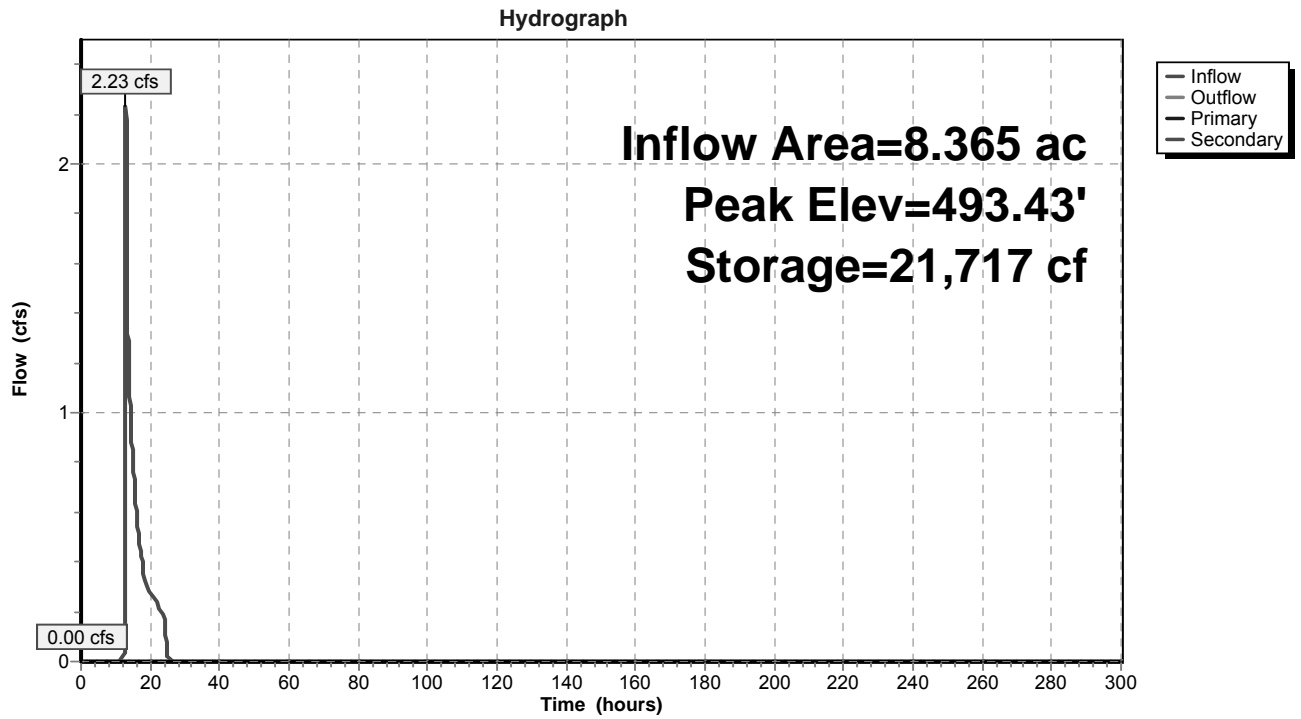
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K5: Sand Filter - K5



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 0.68" for 1 Year - North Salem event
 Inflow = 1.08 cfs @ 12.21 hrs, Volume= 0.116 af
 Outflow = 0.13 cfs @ 14.67 hrs, Volume= 0.047 af, Atten= 88%, Lag= 147.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.13 cfs @ 14.67 hrs, Volume= 0.047 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.02' @ 14.67 hrs Surf.Area= 1,640 sf Storage= 3,041 cf

Plug-Flow detention time= 347.2 min calculated for 0.047 af (40% of inflow)
 Center-of-Mass det. time= 195.3 min (1,087.6 - 892.3)

Volume	Invert	Avail.Storage	Storage Description			
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
430.00	440	165.0	0	0	440	
432.00	1,216	210.0	1,592	1,592	1,834	
434.00	2,107	235.0	3,282	4,874	2,825	

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

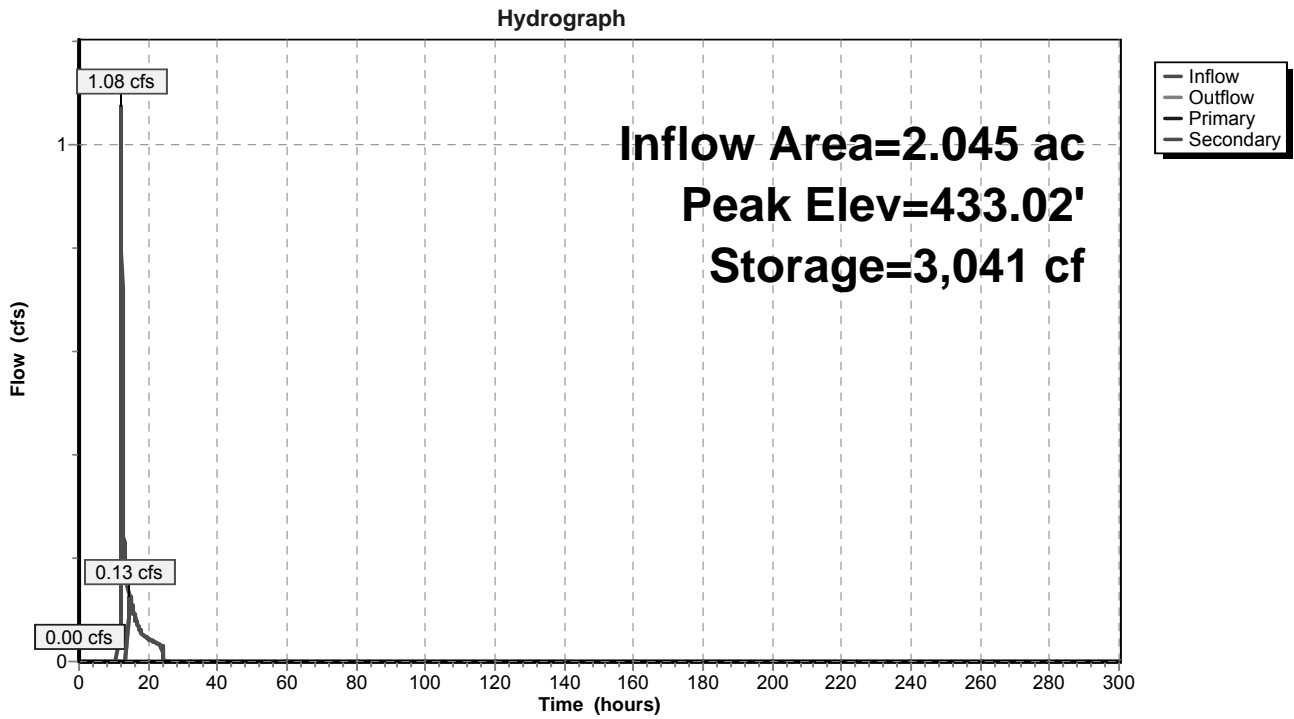
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.09 cfs @ 14.67 hrs HW=433.02' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.09 cfs @ 0.45 fps)

Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

[79] Warning: Submerged Pond FS K3 Primary device # 1 INLET by 0.17'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 1.67" for 1 Year - North Salem event
 Inflow = 16.61 cfs @ 12.20 hrs, Volume= 1.537 af
 Outflow = 8.79 cfs @ 12.48 hrs, Volume= 0.966 af, Atten= 47%, Lag= 16.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 8.79 cfs @ 12.48 hrs, Volume= 0.966 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.41' @ 12.48 hrs Surf.Area= 7,710 sf Storage= 27,959 cf

Plug-Flow detention time= 191.2 min calculated for 0.966 af (63% of inflow)
 Center-of-Mass det. time= 85.2 min (920.3 - 835.1)

Volume	Invert	Avail.Storage	Storage Description			
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
461.00	5,065	273.0	0	0	5,065	
462.00	5,623	285.0	5,342	5,342	5,666	
464.00	6,813	310.0	12,417	17,759	6,991	
464.50	7,126	319.0	3,484	21,243	7,468	
465.00	7,447	323.0	3,643	24,886	7,728	
466.00	8,104	336.0	7,773	32,659	8,486	

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

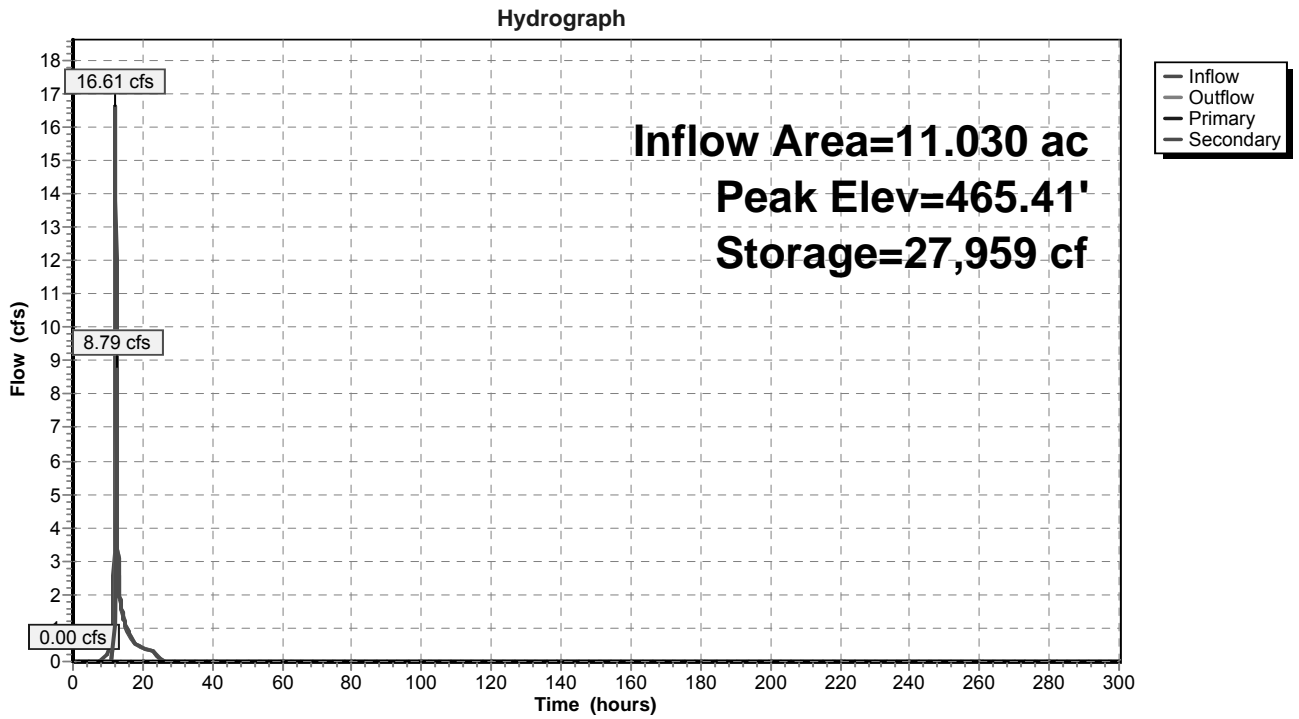
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=8.71 cfs @ 12.48 hrs HW=465.40' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 8.71 cfs @ 2.18 fps)

Pond SFF-K3: Sand Filter Forebay - K3



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

[81] Warning: Exceeded Pond FS-K5 by 0.01' @ 24.60 hrs

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.39" for 1 Year - North Salem event
 Inflow = 8.68 cfs @ 12.32 hrs, Volume= 0.969 af
 Outflow = 2.23 cfs @ 12.98 hrs, Volume= 0.499 af, Atten= 74%, Lag= 39.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.23 cfs @ 12.98 hrs, Volume= 0.499 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 505.16' @ 12.98 hrs Surf.Area= 5,529 sf Storage= 21,416 cf

Plug-Flow detention time= 246.6 min calculated for 0.498 af (51% of inflow)
 Center-of-Mass det. time= 126.0 min (982.2 - 856.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
500.00	2,880	224.0	0	0	2,880	
502.00	3,826	250.0	6,684	6,684	3,969	
504.00	4,874	275.0	8,679	15,363	5,138	
505.00	5,434	287.0	5,151	20,514	5,744	
506.00	6,021	300.0	5,725	26,239	6,418	

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe X 0.00 L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

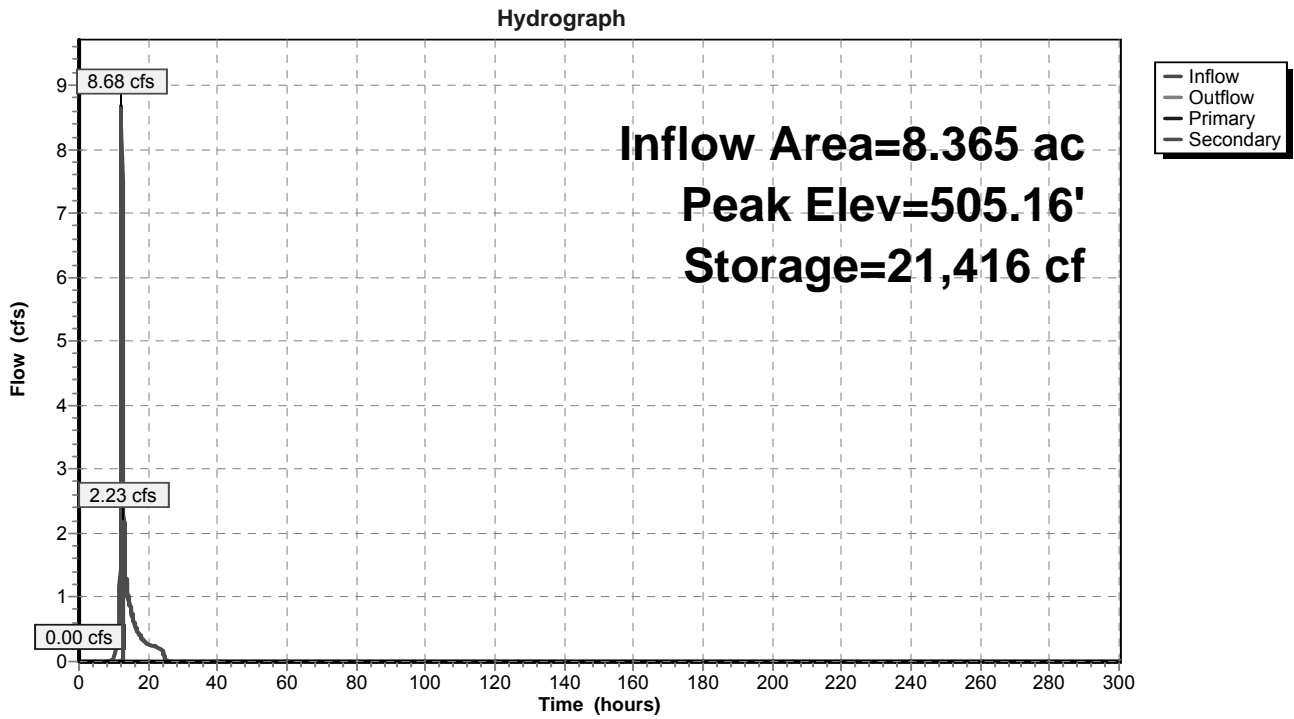
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.21 cfs @ 12.98 hrs HW=505.16' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 2.21 cfs @ 1.35 fps)

Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-Development K1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=1.08"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=27.73 cfs 3.281 af

Subcatchment K2: Post-Development K2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=1.02"
Flow Length=799' Tc=13.0 min CN=68 Runoff=1.75 cfs 0.174 af

Subcatchment K3: Post-Development K3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=2.19"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=21.76 cfs 2.014 af

Subcatchment K4: Post-Development K4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=0.62"
Flow Length=281' Tc=11.3 min CN=60 Runoff=0.47 cfs 0.056 af

Subcatchment K5: Post-Development K5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=1.87"
Flow Length=542' Tc=22.2 min CN=81 Runoff=11.79 cfs 1.305 af

Subcatchment K6: Post-Development K6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=1.38"
Flow Length=981' Tc=12.4 min CN=74 Runoff=10.79 cfs 0.989 af

Pond DP 11: Design Point 11 Inflow=27.73 cfs 3.469 af
Primary=27.73 cfs 3.469 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=449.70' Storage=16,425 cf Inflow=3.01 cfs 0.082 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=482.11' Storage=8,186 cf Inflow=0.75 cfs 0.013 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=520.09' Storage=42,352 cf Inflow=10.79 cfs 0.989 af
Primary=0.00 cfs 0.000 af Secondary=0.43 cfs 0.188 af Outflow=0.43 cfs 0.188 af

Pond FS K3: Flow Splitter - K3 Peak Elev=468.33' Inflow=21.76 cfs 2.014 af
Primary=19.23 cfs 1.988 af Secondary=2.53 cfs 0.026 af Outflow=21.76 cfs 2.014 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=506.78' Inflow=11.79 cfs 1.305 af
Primary=11.04 cfs 1.292 af Secondary=0.75 cfs 0.013 af Outflow=11.79 cfs 1.305 af

Pond SF-K2: Sand Filter - K2 Peak Elev=426.03' Storage=4,559 cf Inflow=0.47 cfs 0.105 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-K3: Sand Filter -K3 Peak Elev=461.74' Storage=61,725 cf Inflow=16.09 cfs 1.417 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SF-K5: Sand Filter - K5 Peak Elev=494.77' Storage=35,749 cf Inflow=7.29 cfs 0.821 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=433.06' Storage=3,104 cf Inflow=1.75 cfs 0.174 af
Primary=0.00 cfs 0.000 af Secondary=0.47 cfs 0.105 af Outflow=0.47 cfs 0.105 af

Woodlands Post-Dev DP 11 WORST CAS *Type III 24-hr 2 Year - North Salem Rainfall=3.70"*

Prepared by KCG Engineers, P.C.

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Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=465.60' Storage=29,466 cf Inflow=19.23 cfs 1.988 af
Primary=0.00 cfs 0.000 af Secondary=16.09 cfs 1.417 af Outflow=16.09 cfs 1.417 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=505.36' Storage=22,499 cf Inflow=11.04 cfs 1.292 af
Primary=0.00 cfs 0.000 af Secondary=7.29 cfs 0.821 af Outflow=7.29 cfs 0.821 af

Total Runoff Area = 67.727 ac Runoff Volume = 7.820 af Average Runoff Depth = 1.39"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 27.73 cfs @ 12.33 hrs, Volume= 3.281 af, Depth= 1.08"

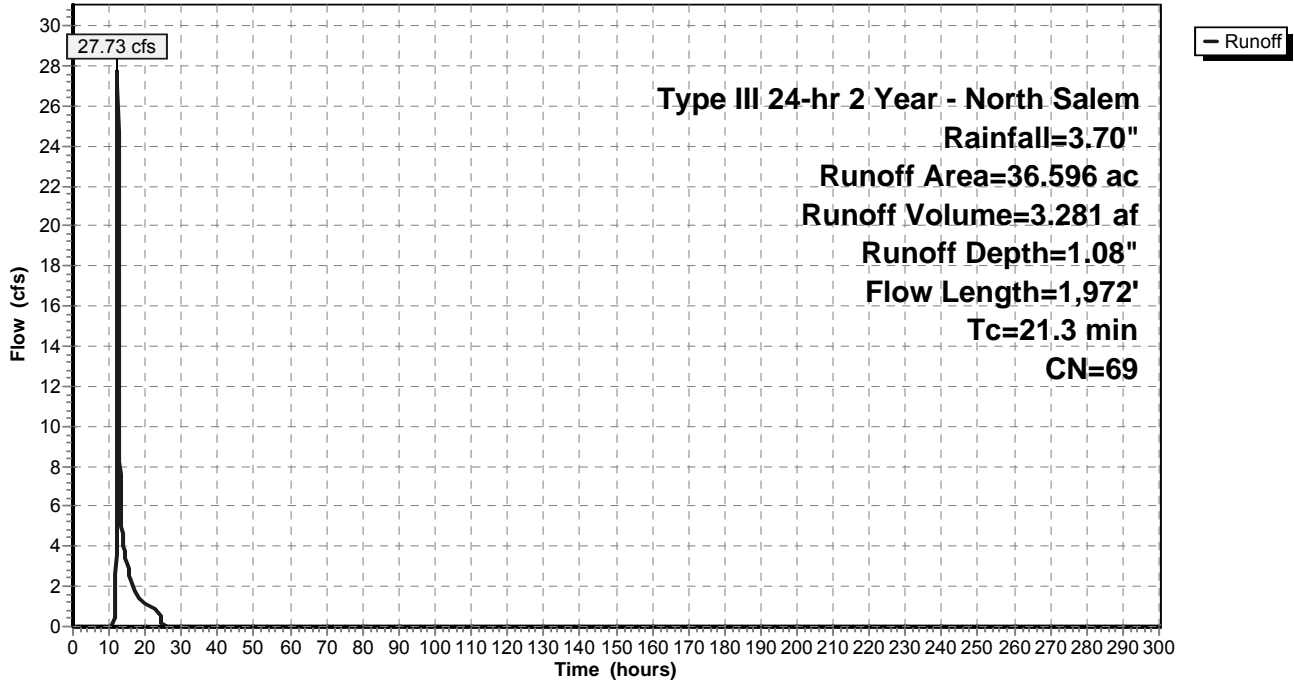
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

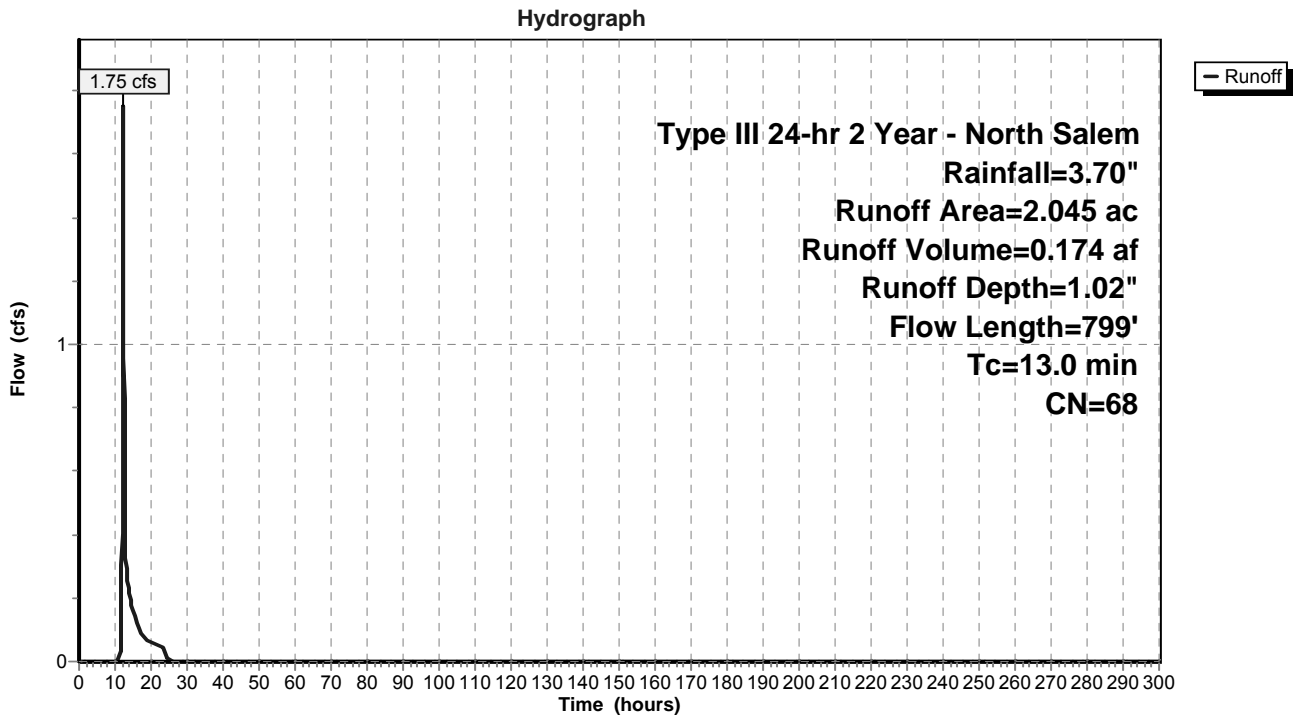
Runoff = 1.75 cfs @ 12.20 hrs, Volume= 0.174 af, Depth= 1.02"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2



Summary for Subcatchment K3: Post-Development K3

Runoff = 21.76 cfs @ 12.20 hrs, Volume= 2.014 af, Depth= 2.19"

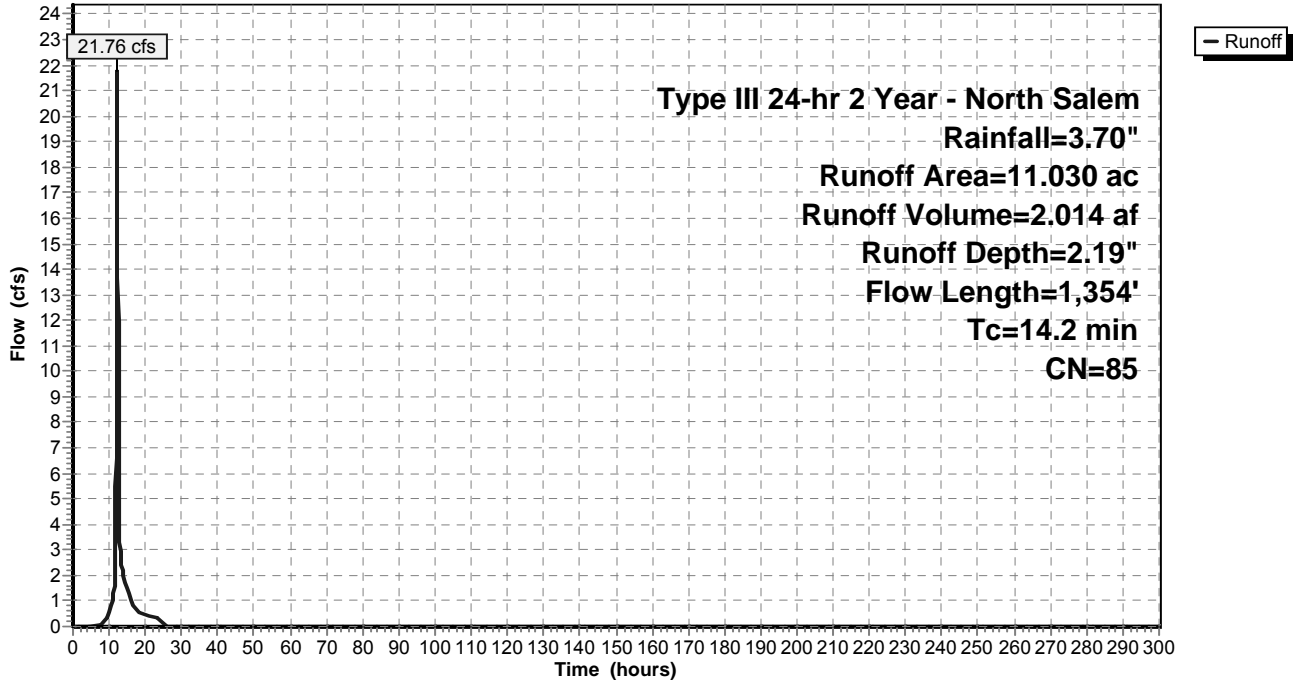
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

Runoff = 0.47 cfs @ 12.21 hrs, Volume= 0.056 af, Depth= 0.62"

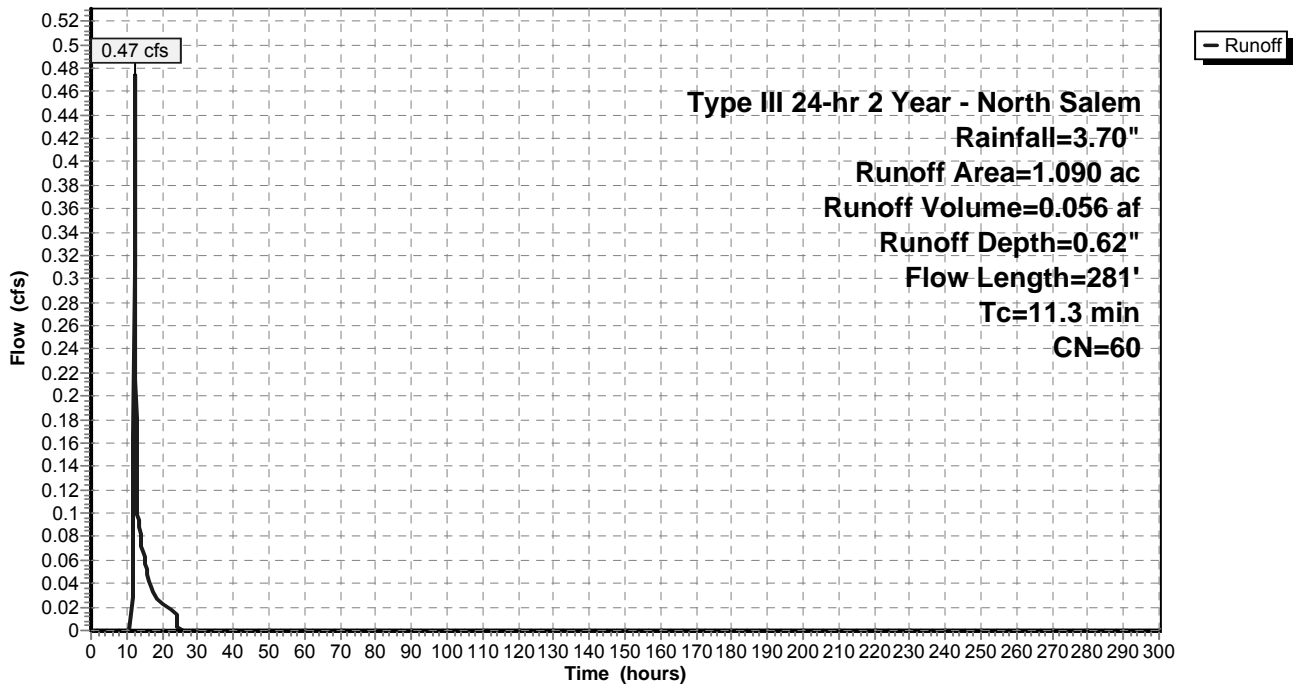
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 11.79 cfs @ 12.31 hrs, Volume= 1.305 af, Depth= 1.87"

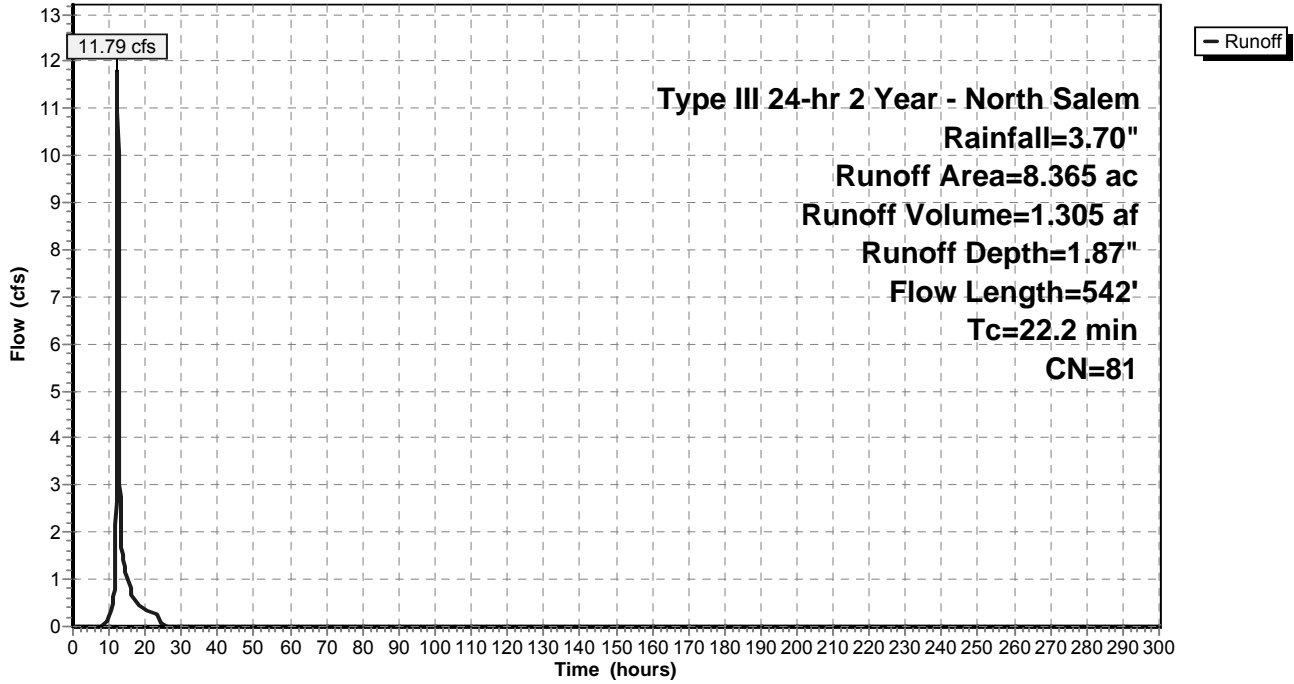
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

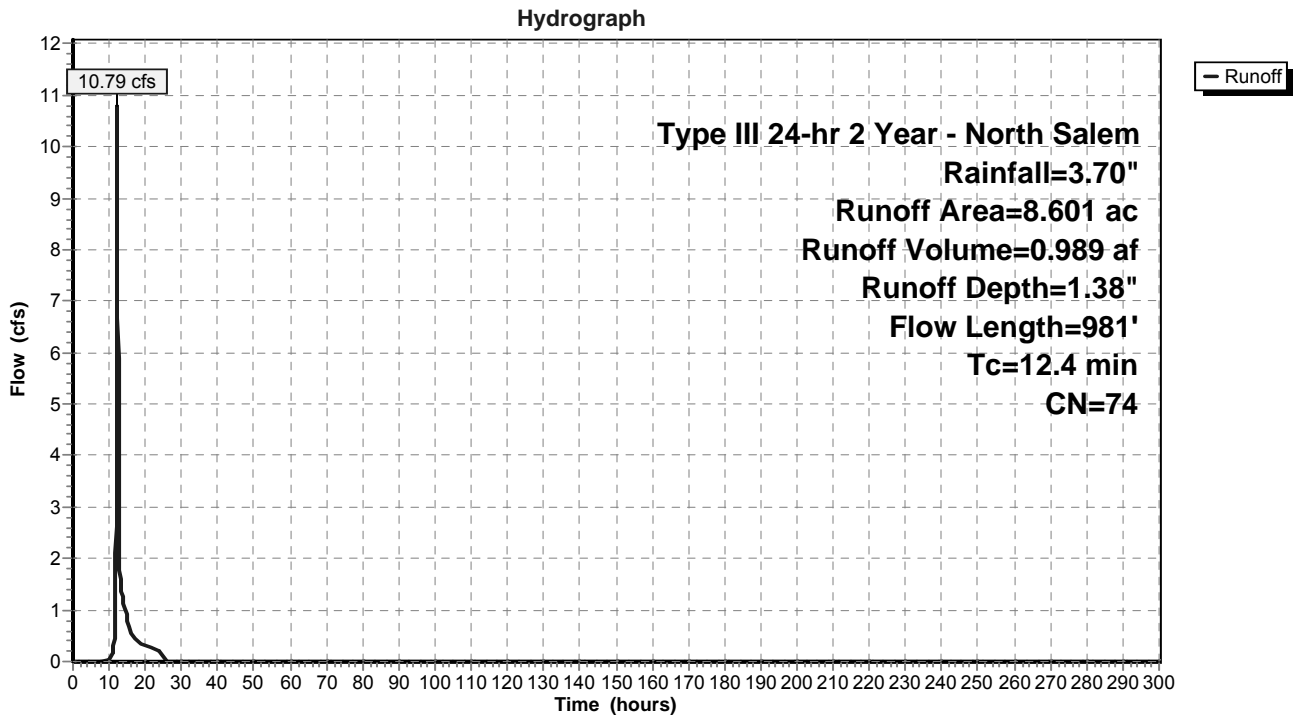
Runoff = 10.79 cfs @ 12.18 hrs, Volume= 0.989 af, Depth= 1.38"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 2 Year - North Salem Rainfall=3.70"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6



Summary for Pond DP 11: Design Point 11

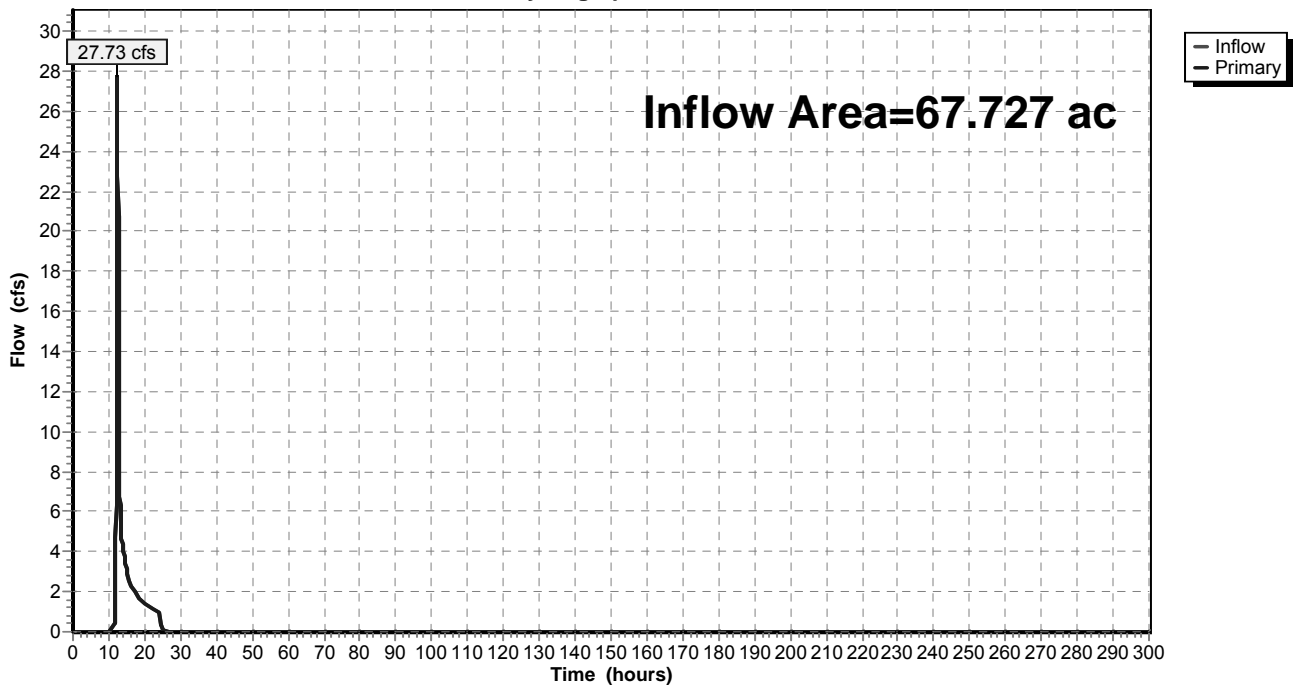
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth = 0.61" for 2 Year - North Salem event
 Inflow = 27.73 cfs @ 12.33 hrs, Volume= 3.469 af
 Primary = 27.73 cfs @ 12.33 hrs, Volume= 3.469 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth = 0.08" for 2 Year - North Salem event
 Inflow = 3.01 cfs @ 12.20 hrs, Volume= 0.082 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 449.70' @ 24.70 hrs Surf.Area= 8,576 sf Storage= 16,425 cf (3,590 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe X 0.00 L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

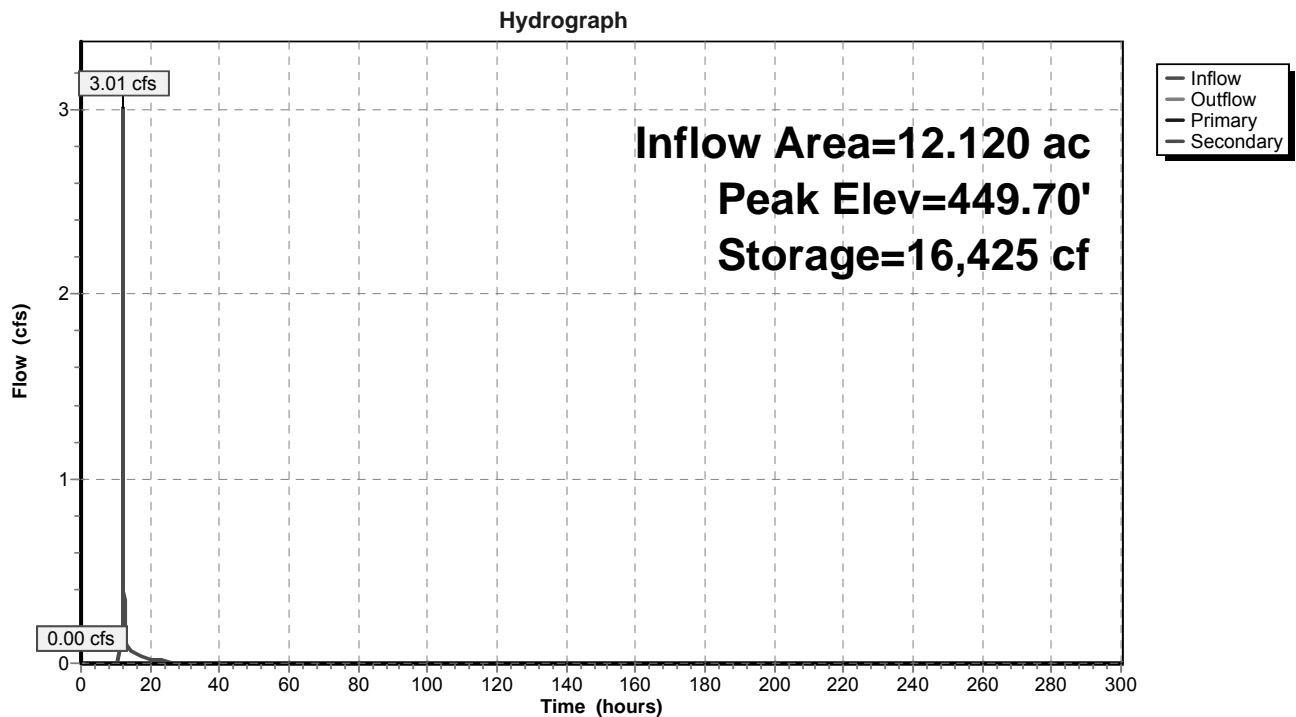
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 0.02" for 2 Year - North Salem event
 Inflow = 0.75 cfs @ 12.31 hrs, Volume= 0.013 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 482.11' @ 12.55 hrs Surf.Area= 5,436 sf Storage= 8,186 cf (575 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

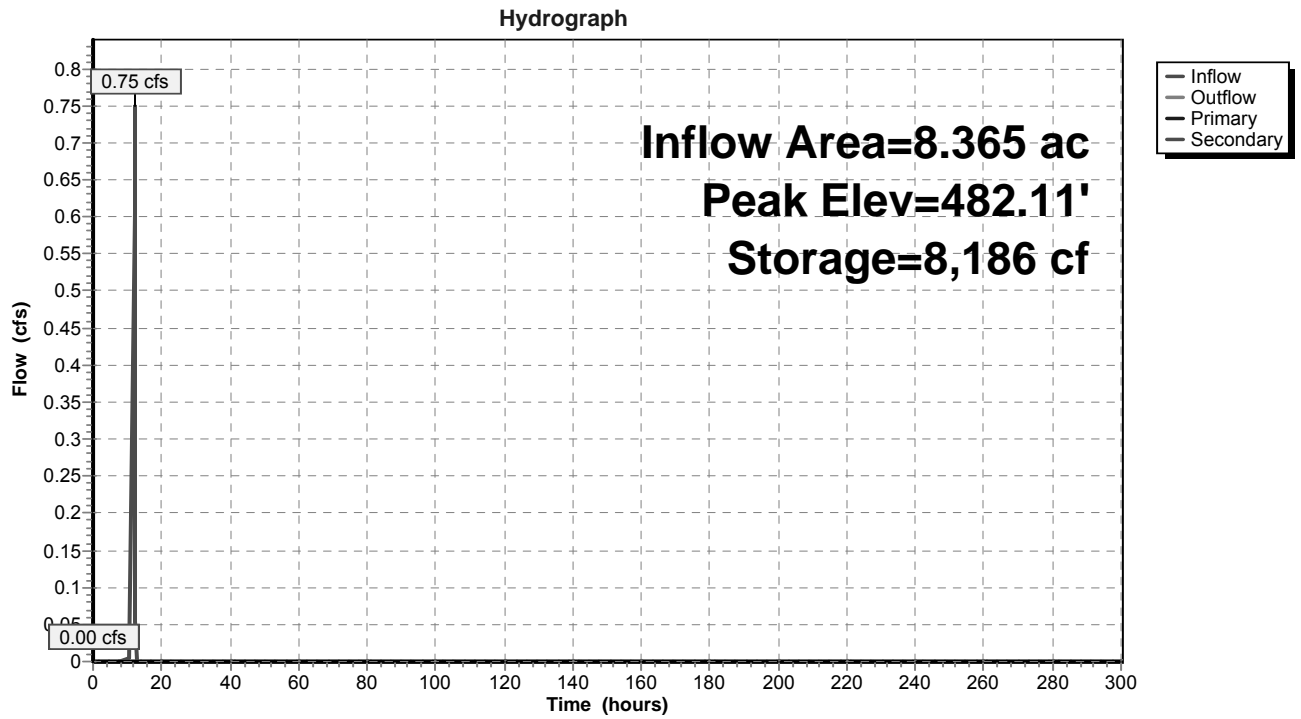
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Controls 0.00 cfs)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 1.38" for 2 Year - North Salem event
 Inflow = 10.79 cfs @ 12.18 hrs, Volume= 0.989 af
 Outflow = 0.43 cfs @ 17.45 hrs, Volume= 0.188 af, Atten= 96%, Lag= 315.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.43 cfs @ 17.45 hrs, Volume= 0.188 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 520.09' @ 17.45 hrs Surf.Area= 10,064 sf Storage= 42,352 cf (35,300 cf above start)

Plug-Flow detention time= 748.8 min calculated for 0.026 af (3% of inflow)
 Center-of-Mass det. time= 349.0 min (1,208.3 - 859.3)

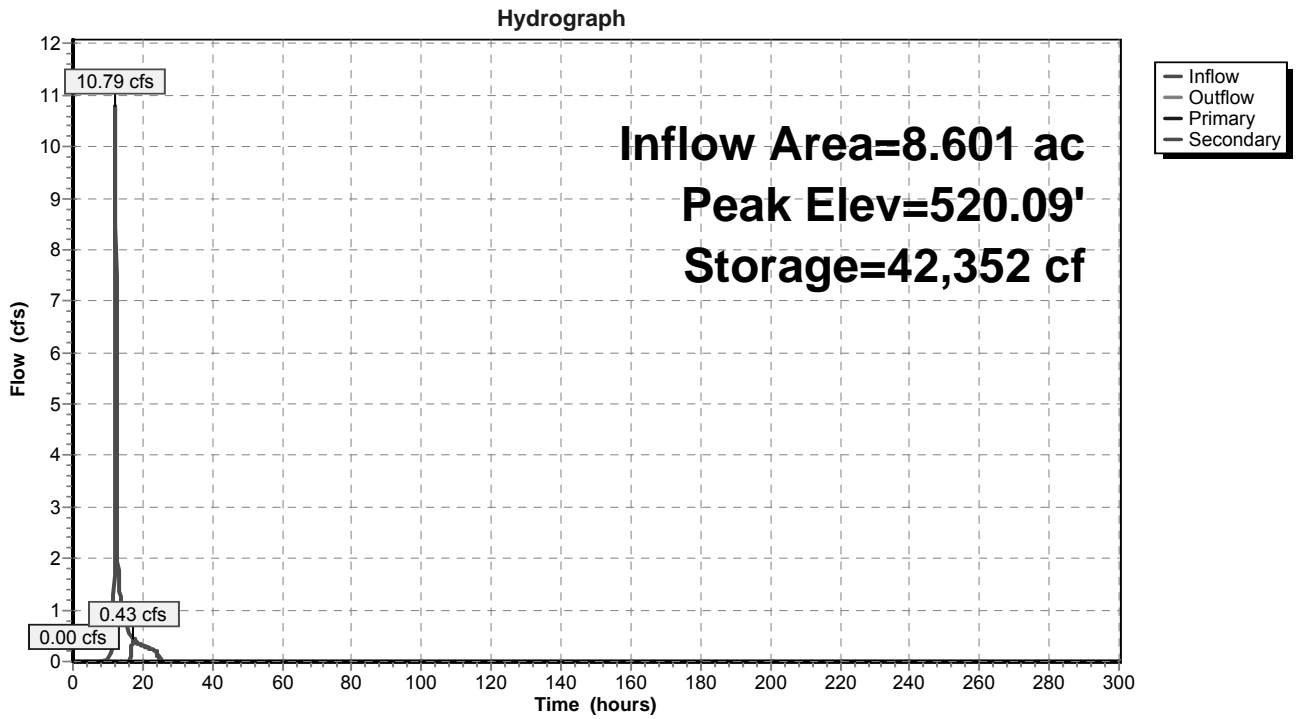
Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
 ↑ 3=Orifice #1 (Controls 0.00 cfs)
 ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.39 cfs @ 17.45 hrs HW=520.09' (Free Discharge)
 ↑ 5=Emergency Overflow Weir (Weir Controls 0.39 cfs @ 0.67 fps)

Pond ED-K6: Micropool ED Basin - (Basin K6)



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 2.19" for 2 Year - North Salem event
 Inflow = 21.76 cfs @ 12.20 hrs, Volume= 2.014 af
 Outflow = 21.76 cfs @ 12.20 hrs, Volume= 2.014 af, Atten= 0%, Lag= 0.0 min
 Primary = 19.23 cfs @ 12.20 hrs, Volume= 1.988 af
 Secondary = 2.53 cfs @ 12.20 hrs, Volume= 0.026 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 468.33' @ 12.20 hrs
 Flood Elev= 556.50'

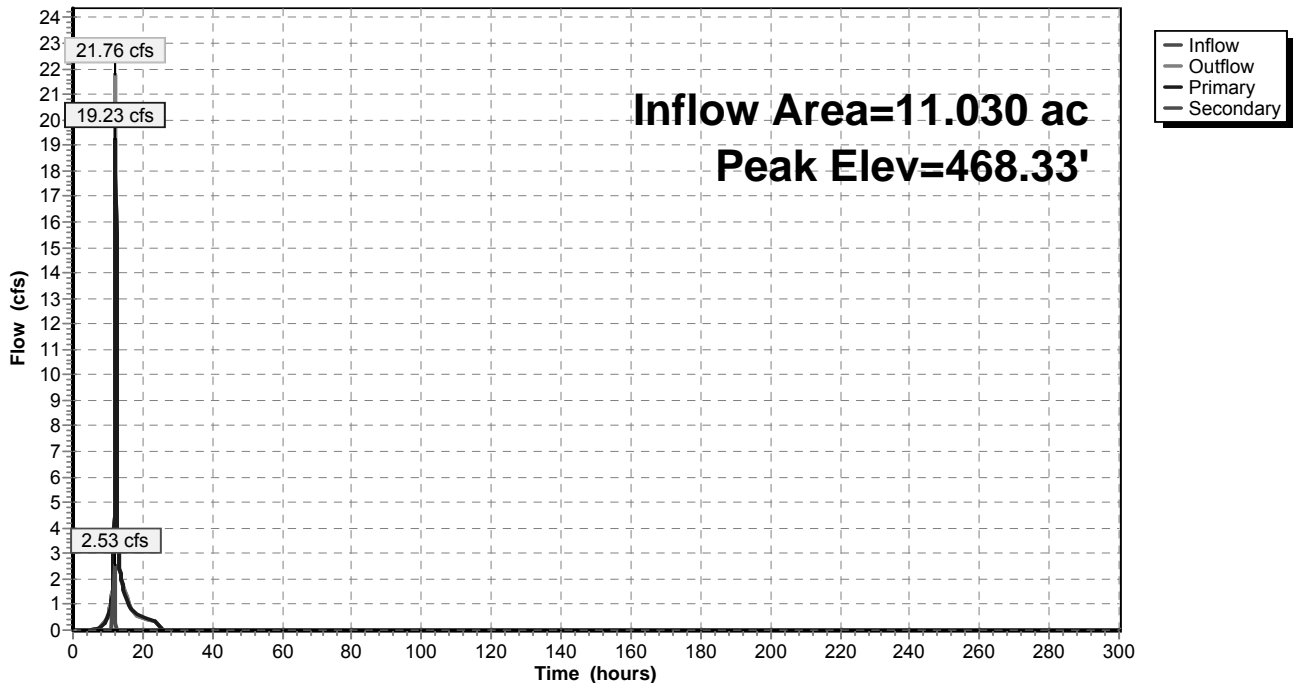
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=19.32 cfs @ 12.20 hrs HW=468.32' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 19.32 cfs @ 6.15 fps)

Secondary OutFlow Max=1.65 cfs @ 12.20 hrs HW=468.32' (Free Discharge)
 ↳2=Outlet to Basin K3 (Inlet Controls 1.65 cfs @ 2.22 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.87" for 2 Year - North Salem event
 Inflow = 11.79 cfs @ 12.31 hrs, Volume= 1.305 af
 Outflow = 11.79 cfs @ 12.31 hrs, Volume= 1.305 af, Atten= 0%, Lag= 0.0 min
 Primary = 11.04 cfs @ 12.31 hrs, Volume= 1.292 af
 Secondary = 0.75 cfs @ 12.31 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 506.78' @ 12.31 hrs
 Flood Elev= 556.50'

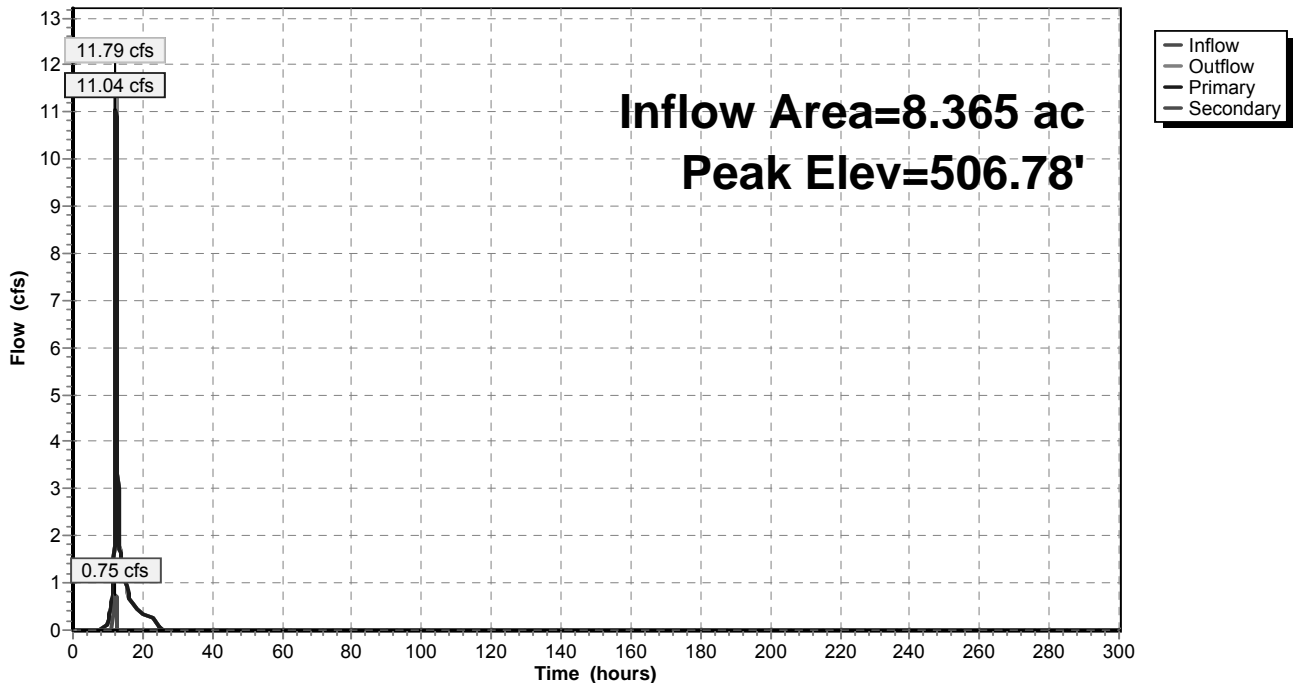
Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=11.00 cfs @ 12.31 hrs HW=506.78' (Free Discharge)
 ↳1=Outlet to Sand Filter (Barrel Controls 11.00 cfs @ 4.95 fps)

Secondary OutFlow Max=0.41 cfs @ 12.31 hrs HW=506.78' (Free Discharge)
 ↳2=Outlet to Basin K5 (Inlet Controls 0.41 cfs @ 1.58 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 0.61" for 2 Year - North Salem event
 Inflow = 0.47 cfs @ 12.76 hrs, Volume= 0.105 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 426.03' @ 26.05 hrs Surf.Area= 2,051 sf Storage= 4,559 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

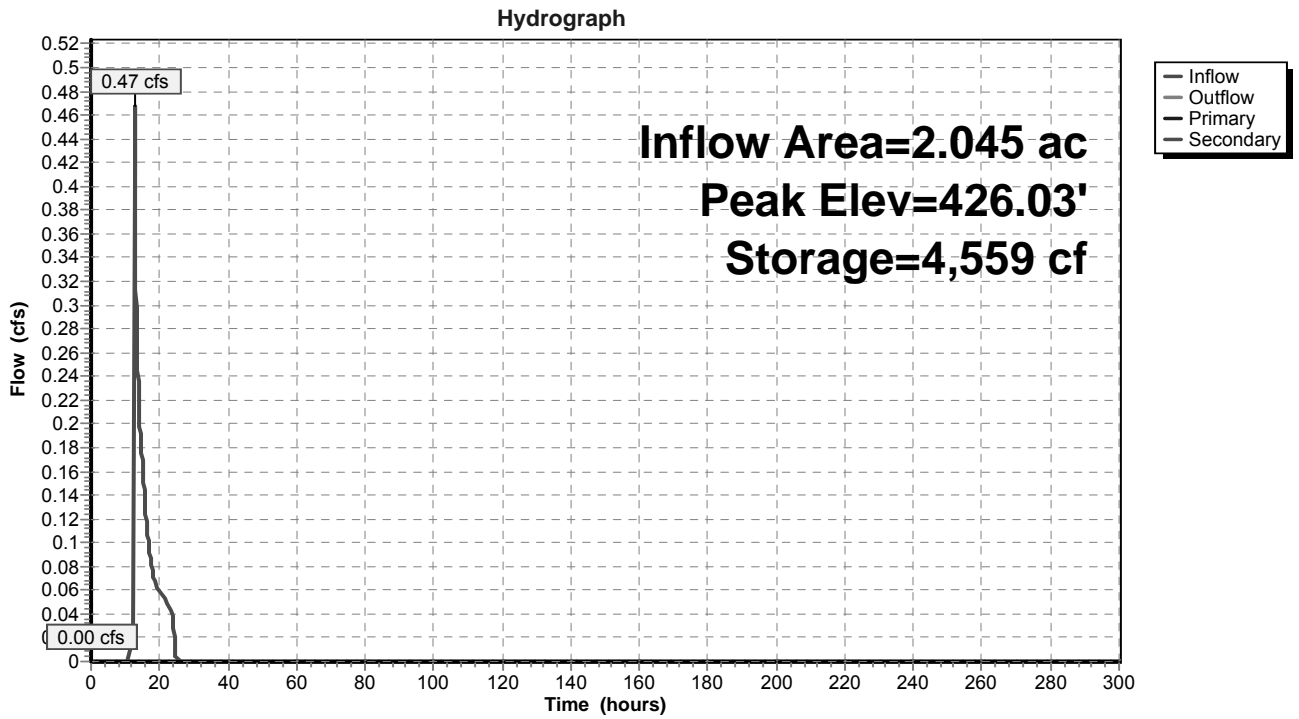
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 OUTLET by 0.74'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 1.54" for 2 Year - North Salem event
 Inflow = 16.09 cfs @ 12.35 hrs, Volume= 1.417 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 461.74' @ 32.05 hrs Surf.Area= 19,013 sf Storage= 61,725 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

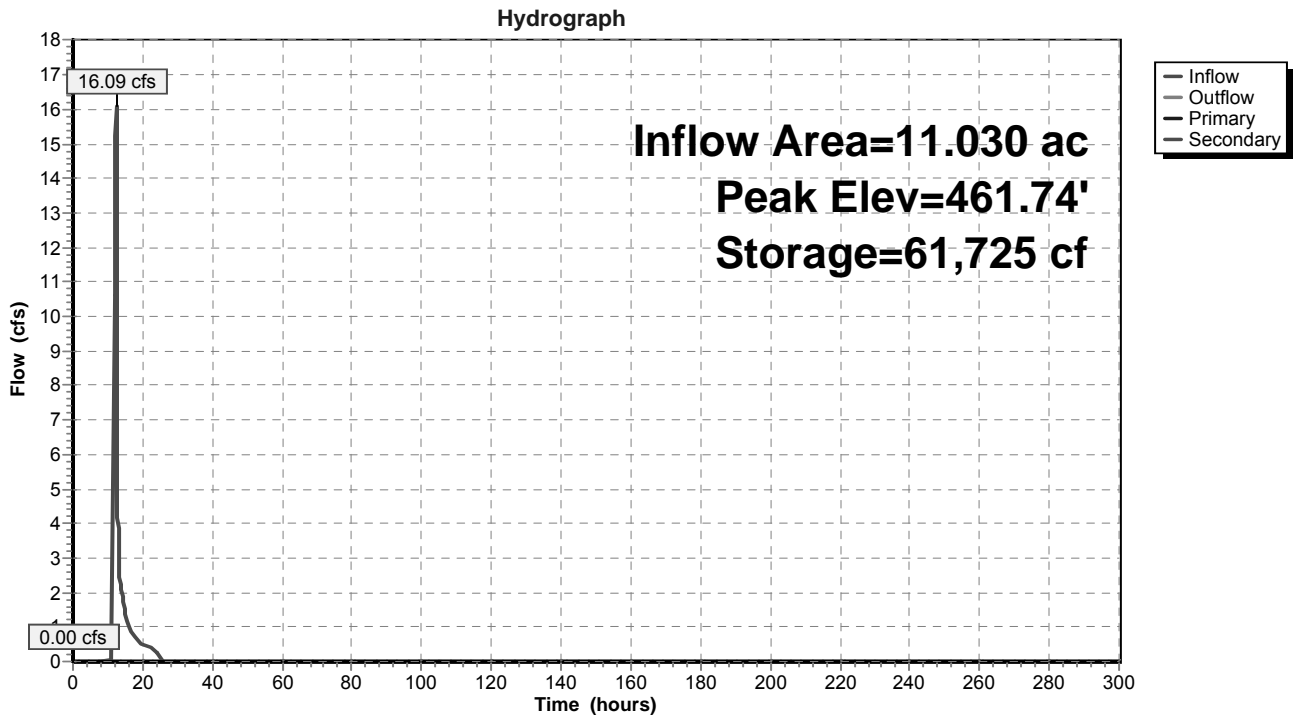
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

- ↑ 5=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K3: Sand Filter -K3



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.18" for 2 Year - North Salem event
 Inflow = 7.29 cfs @ 12.61 hrs, Volume= 0.821 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 494.77' @ 30.85 hrs Surf.Area= 10,957 sf Storage= 35,749 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

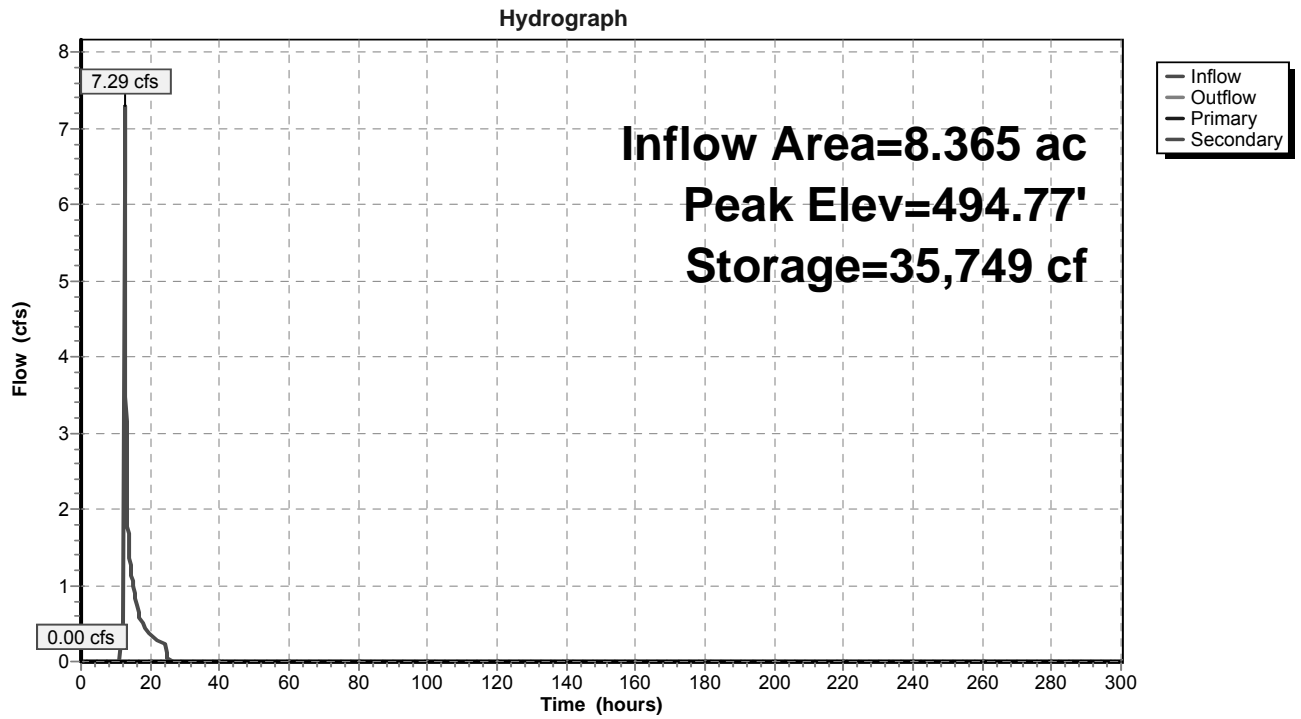
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

- ↑ 4=Emergency Overflow (Controls 0.00 cfs)

Pond SF-K5: Sand Filter - K5



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 1.02" for 2 Year - North Salem event
 Inflow = 1.75 cfs @ 12.20 hrs, Volume= 0.174 af
 Outflow = 0.47 cfs @ 12.76 hrs, Volume= 0.105 af, Atten= 73%, Lag= 33.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.47 cfs @ 12.76 hrs, Volume= 0.105 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.06' @ 12.76 hrs Surf.Area= 1,657 sf Storage= 3,104 cf

Plug-Flow detention time= 222.4 min calculated for 0.105 af (60% of inflow)
 Center-of-Mass det. time= 98.9 min (977.3 - 878.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
430.00	440	165.0	0	0	440
432.00	1,216	210.0	1,592	1,592	1,834
434.00	2,107	235.0	3,282	4,874	2,825

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

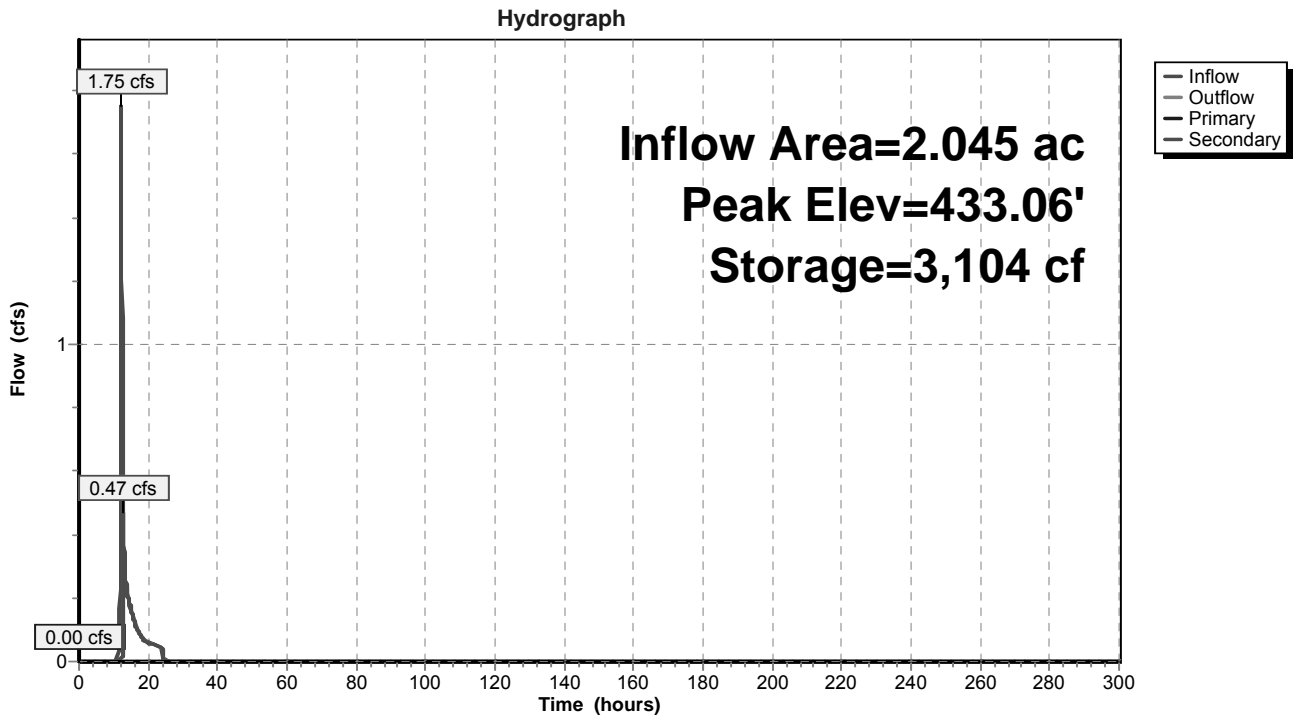
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.44 cfs @ 12.76 hrs HW=433.06' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.44 cfs @ 0.78 fps)

Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

[79] Warning: Submerged Pond FS K3 Primary device # 1 INLET by 0.37'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 2.16" for 2 Year - North Salem event
 Inflow = 19.23 cfs @ 12.20 hrs, Volume= 1.988 af
 Outflow = 16.09 cfs @ 12.35 hrs, Volume= 1.417 af, Atten= 16%, Lag= 9.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 16.09 cfs @ 12.35 hrs, Volume= 1.417 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.60' @ 12.35 hrs Surf.Area= 7,837 sf Storage= 29,466 cf

Plug-Flow detention time= 158.3 min calculated for 1.417 af (71% of inflow)
 Center-of-Mass det. time= 64.1 min (892.7 - 828.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
461.00	5,065	273.0	0	0	5,065	
462.00	5,623	285.0	5,342	5,342	5,666	
464.00	6,813	310.0	12,417	17,759	6,991	
464.50	7,126	319.0	3,484	21,243	7,468	
465.00	7,447	323.0	3,643	24,886	7,728	
466.00	8,104	336.0	7,773	32,659	8,486	

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

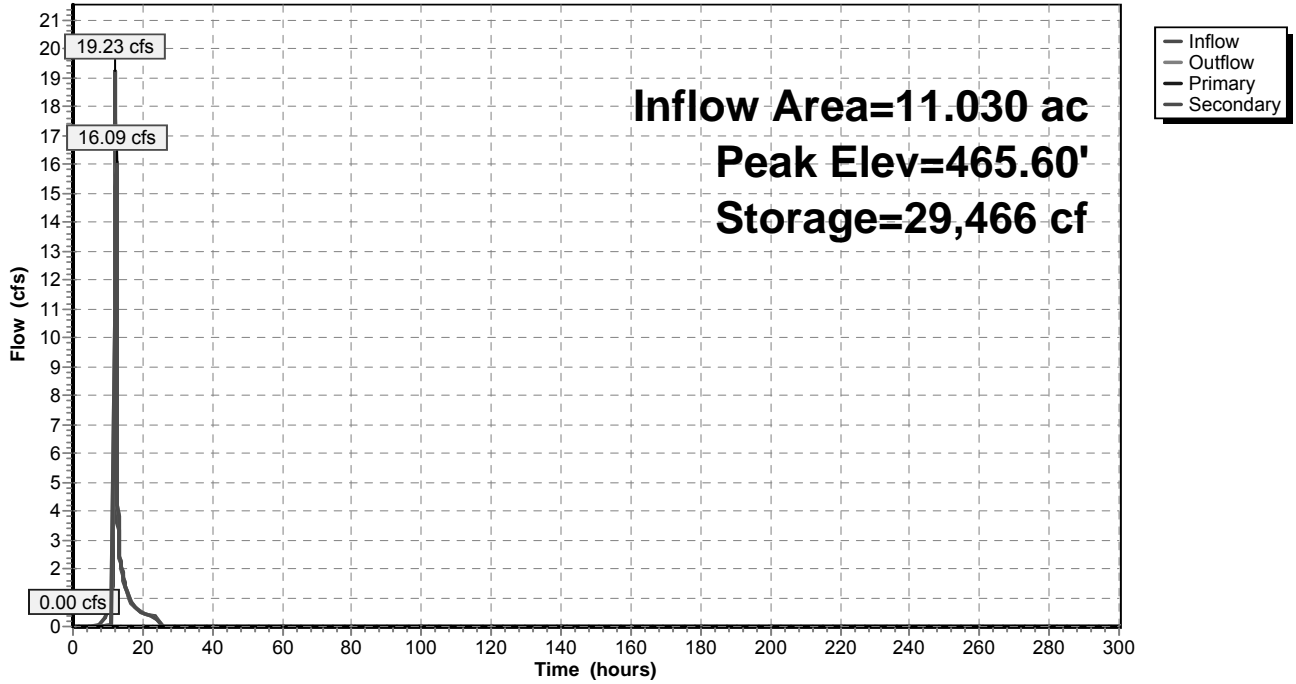
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=16.07 cfs @ 12.35 hrs HW=465.60' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 16.07 cfs @ 2.72 fps)

Pond SFF-K3: Sand Filter Forebay - K3

Hydrograph



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

[81] Warning: Exceeded Pond FS-K5 by 0.01' @ 24.60 hrs

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.85" for 2 Year - North Salem event
 Inflow = 11.04 cfs @ 12.31 hrs, Volume= 1.292 af
 Outflow = 7.29 cfs @ 12.61 hrs, Volume= 0.821 af, Atten= 34%, Lag= 18.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 7.29 cfs @ 12.61 hrs, Volume= 0.821 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 505.36' @ 12.61 hrs Surf.Area= 5,641 sf Storage= 22,499 cf

Plug-Flow detention time= 189.8 min calculated for 0.821 af (64% of inflow)
 Center-of-Mass det. time= 82.6 min (931.2 - 848.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
500.00	2,880	224.0	0	0	2,880	
502.00	3,826	250.0	6,684	6,684	3,969	
504.00	4,874	275.0	8,679	15,363	5,138	
505.00	5,434	287.0	5,151	20,514	5,744	
506.00	6,021	300.0	5,725	26,239	6,418	

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe X 0.00 L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

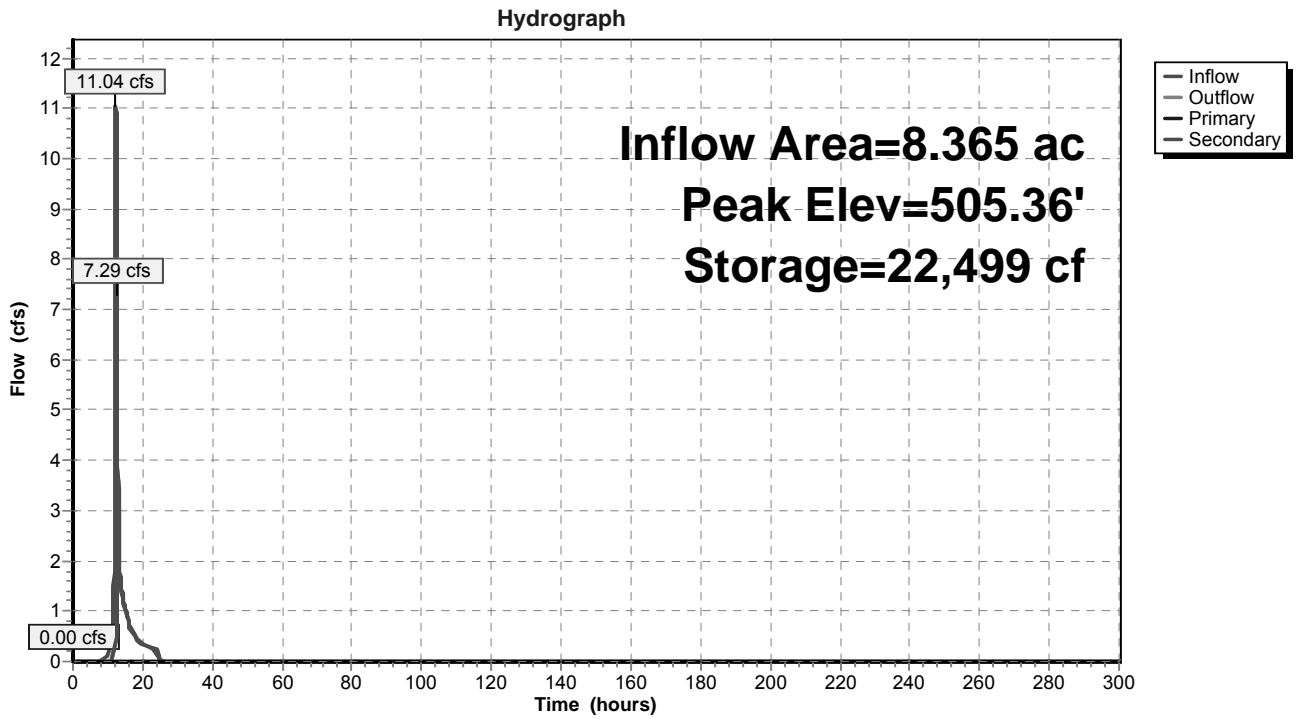
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=7.16 cfs @ 12.61 hrs HW=505.35' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 7.16 cfs @ 2.03 fps)

Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Woodlands Post-Dev DP 11 WORST CA Type III 24-hr 10 Year - North Salem Rainfall=5.50"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-DevelopmentK1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=2.33"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=64.29 cfs 7.100 af

Subcatchment K2: Post-DevelopmentK2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=2.24"
Flow Length=799' Tc=13.0 min CN=68 Runoff=4.16 cfs 0.382 af

Subcatchment K3: Post-DevelopmentK3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=3.83"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=37.62 cfs 3.523 af

Subcatchment K4: Post-DevelopmentK4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=1.60"
Flow Length=281' Tc=11.3 min CN=60 Runoff=1.57 cfs 0.146 af

Subcatchment K5: Post-DevelopmentK5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=3.43"
Flow Length=542' Tc=22.2 min CN=81 Runoff=21.64 cfs 2.392 af

Subcatchment K6: Post-DevelopmentK6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=2.77"
Flow Length=981' Tc=12.4 min CN=74 Runoff=22.47 cfs 1.985 af

Pond DP 11: Design Point 11 Inflow=64.29 cfs 8.572 af
Primary=64.29 cfs 8.572 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=454.58' Storage=81,112 cf Inflow=14.88 cfs 1.567 af
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=486.10' Storage=48,186 cf Inflow=5.11 cfs 1.043 af
Primary=0.00 cfs 0.000 af Secondary=0.45 cfs 0.129 af Outflow=0.45 cfs 0.129 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=520.39' Storage=45,413 cf Inflow=22.47 cfs 1.985 af
Primary=0.00 cfs 0.000 af Secondary=9.47 cfs 1.184 af Outflow=9.47 cfs 1.184 af

Pond FS K3: Flow Splitter - K3 Peak Elev=469.55' Inflow=37.62 cfs 3.523 af
Primary=24.27 cfs 3.255 af Secondary=13.35 cfs 0.268 af Outflow=37.62 cfs 3.523 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=507.54' Inflow=21.64 cfs 2.392 af
Primary=16.53 cfs 2.252 af Secondary=5.11 cfs 0.139 af Outflow=21.64 cfs 2.392 af

Pond SF-K2: Sand Filter - K2 Peak Elev=427.06' Storage=6,873 cf Inflow=4.52 cfs 0.313 af
Primary=0.00 cfs 0.000 af Secondary=0.48 cfs 0.159 af Outflow=0.48 cfs 0.159 af

Pond SF-K3: Sand Filter -K3 Peak Elev=462.20' Storage=70,534 cf Inflow=23.76 cfs 2.683 af
Primary=0.00 cfs 0.000 af Secondary=2.97 cfs 1.153 af Outflow=2.97 cfs 1.153 af

Pond SF-K5: Sand Filter - K5 Peak Elev=495.18' Storage=40,310 cf Inflow=16.30 cfs 1.781 af
Primary=0.00 cfs 0.000 af Secondary=2.65 cfs 0.903 af Outflow=2.65 cfs 0.903 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=433.25' Storage=3,428 cf Inflow=4.16 cfs 0.382 af
Primary=0.00 cfs 0.000 af Secondary=4.52 cfs 0.313 af Outflow=4.52 cfs 0.313 af

Woodlands Post-Dev DP 11 WORST CA Type III 24-hr 10 Year - North Salem Rainfall=5.50"

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Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=465.77' Storage=30,804 cf Inflow=24.27 cfs 3.255 af
Primary=0.00 cfs 0.000 af Secondary=23.76 cfs 2.683 af Outflow=23.76 cfs 2.683 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=505.60' Storage=23,902 cf Inflow=16.53 cfs 2.252 af
Primary=0.00 cfs 0.000 af Secondary=16.30 cfs 1.781 af Outflow=16.30 cfs 1.781 af

Total Runoff Area = 67.727 ac Runoff Volume = 15.528 af Average Runoff Depth = 2.75"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 64.29 cfs @ 12.31 hrs, Volume= 7.100 af, Depth= 2.33"

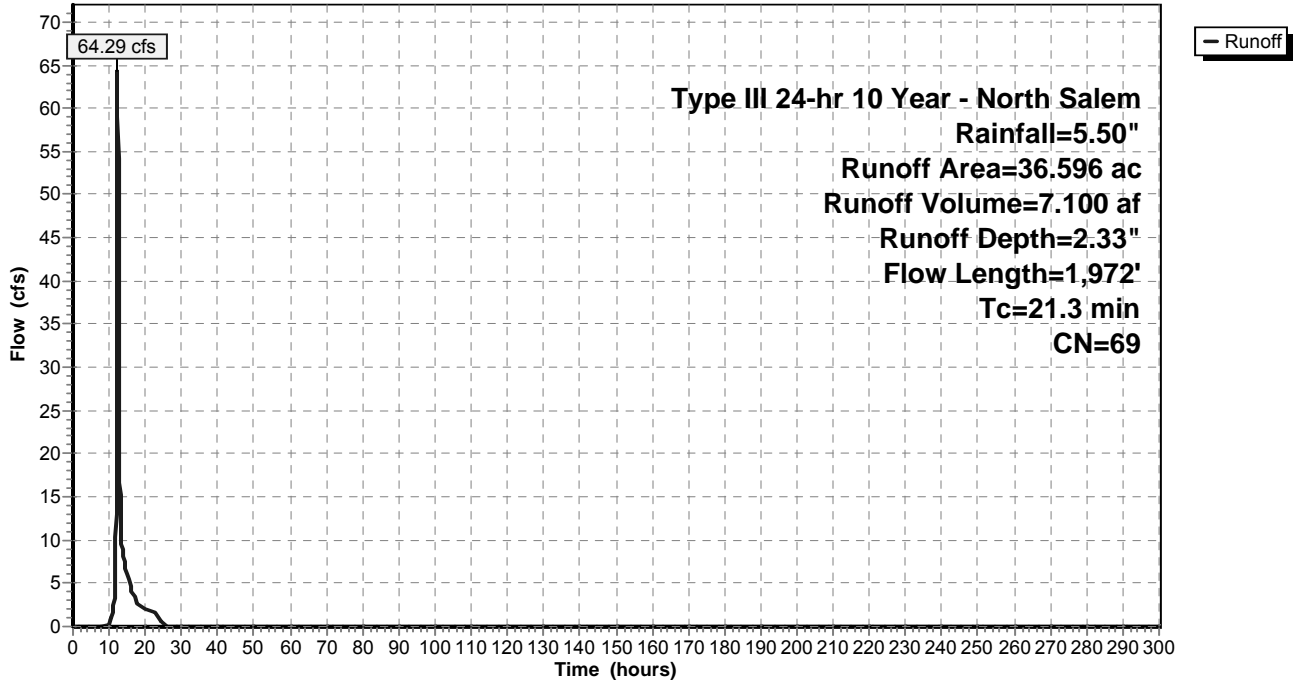
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

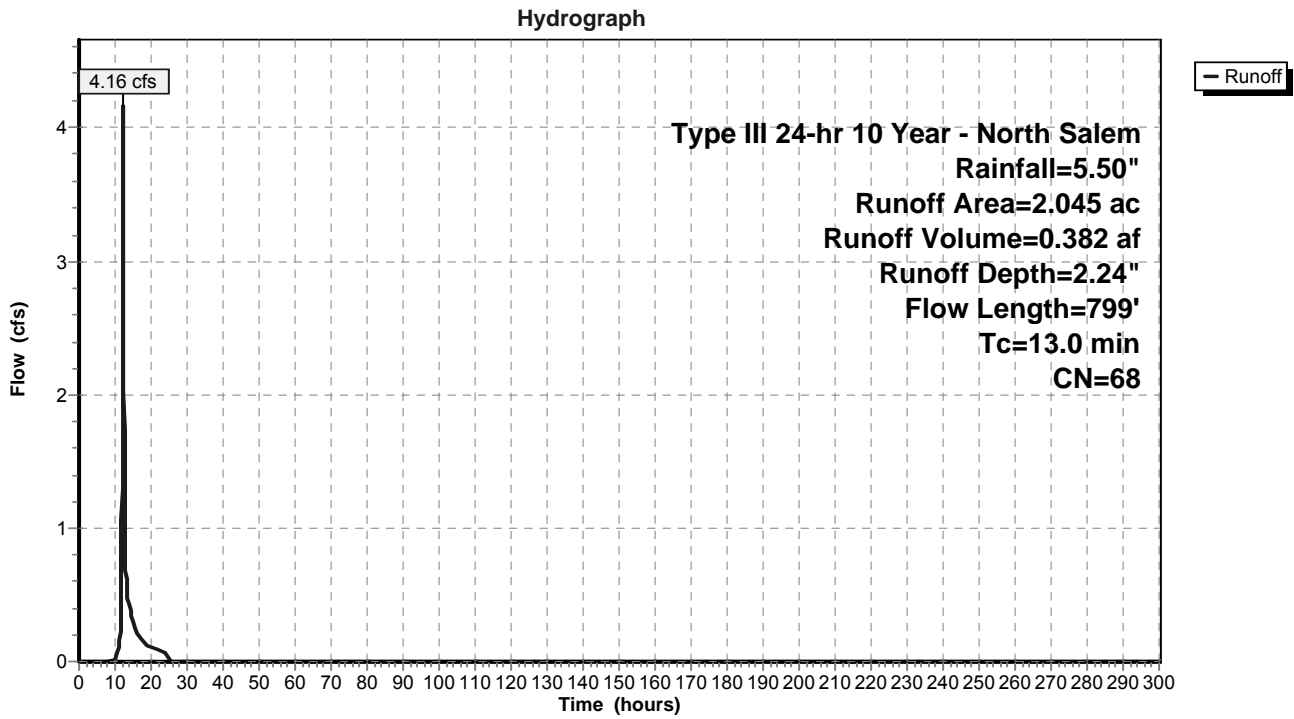
Runoff = 4.16 cfs @ 12.19 hrs, Volume= 0.382 af, Depth= 2.24"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2



Summary for Subcatchment K3: Post-Development K3

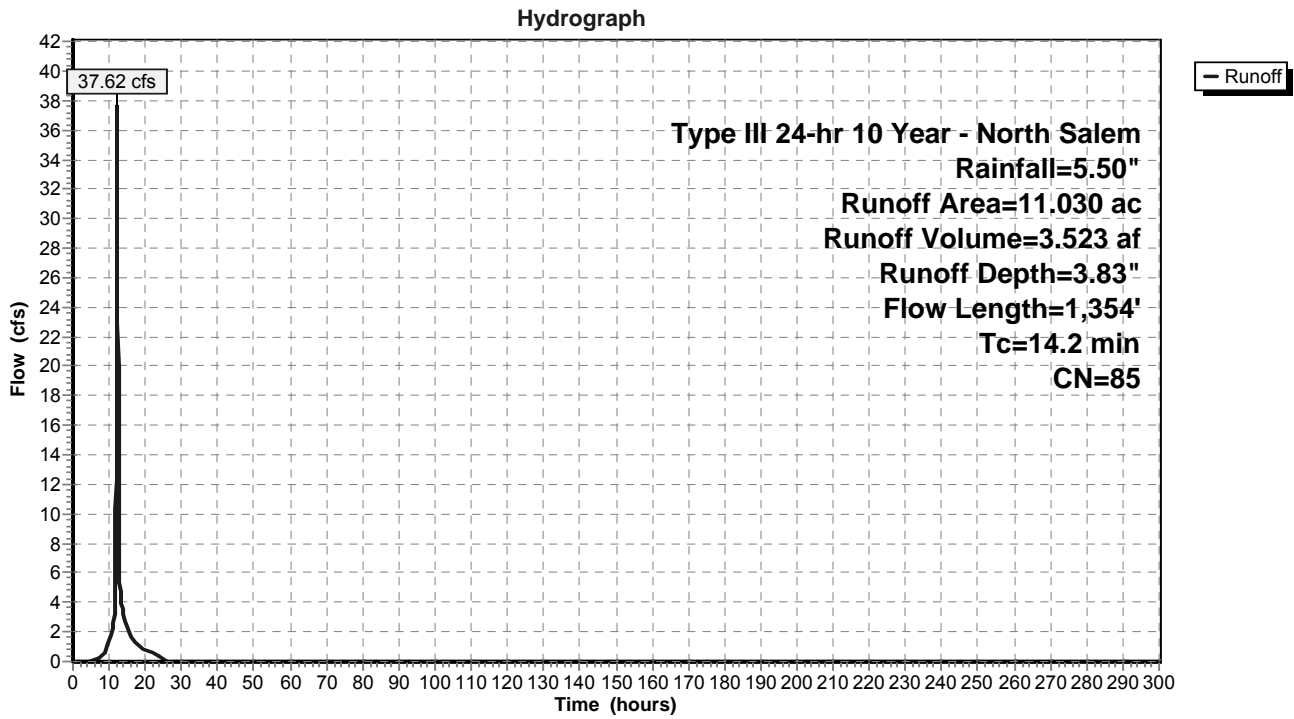
Runoff = 37.62 cfs @ 12.19 hrs, Volume= 3.523 af, Depth= 3.83"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3



Summary for Subcatchment K4: Post-Development K4

Runoff = 1.57 cfs @ 12.17 hrs, Volume= 0.146 af, Depth= 1.60"

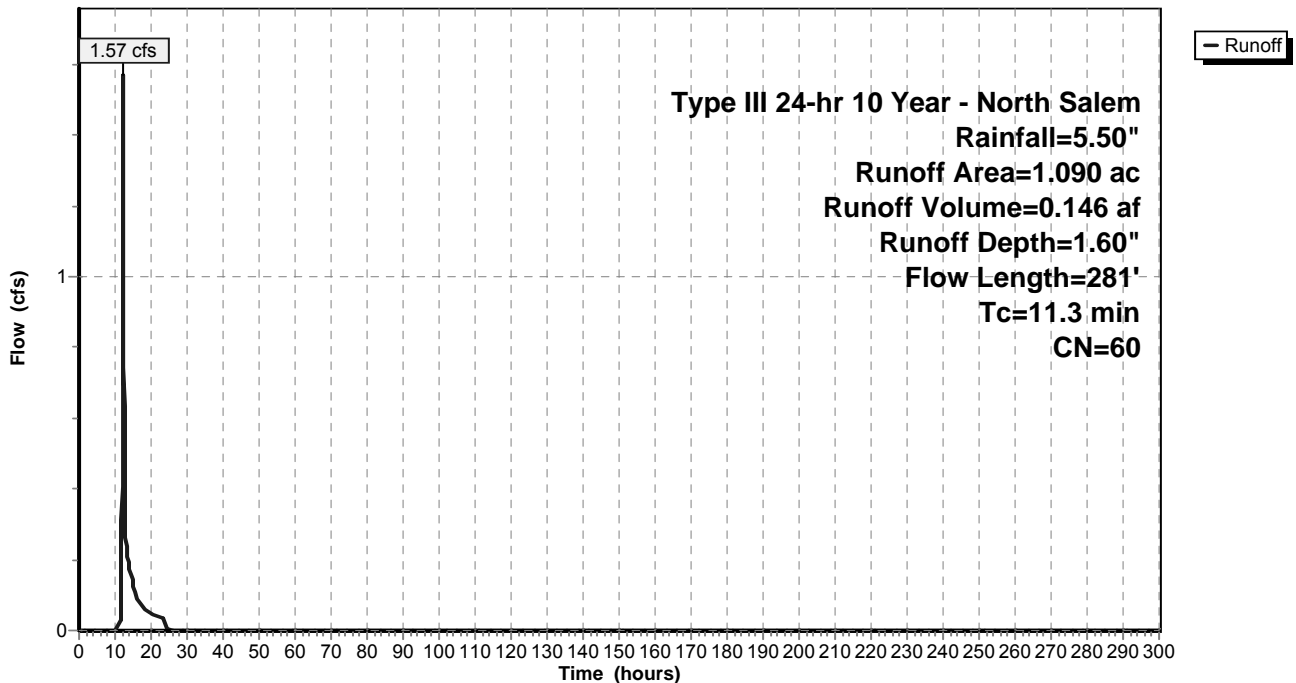
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 21.64 cfs @ 12.31 hrs, Volume= 2.392 af, Depth= 3.43"

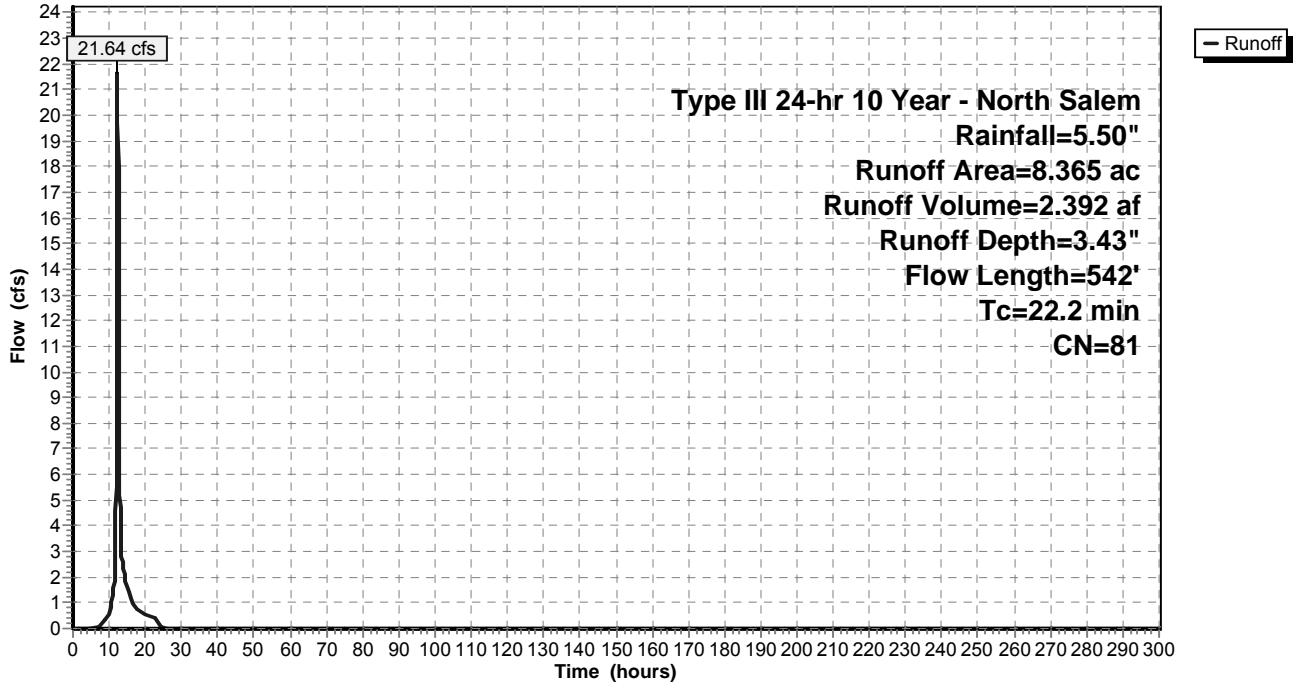
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 22.47 cfs @ 12.17 hrs, Volume= 1.985 af, Depth= 2.77"

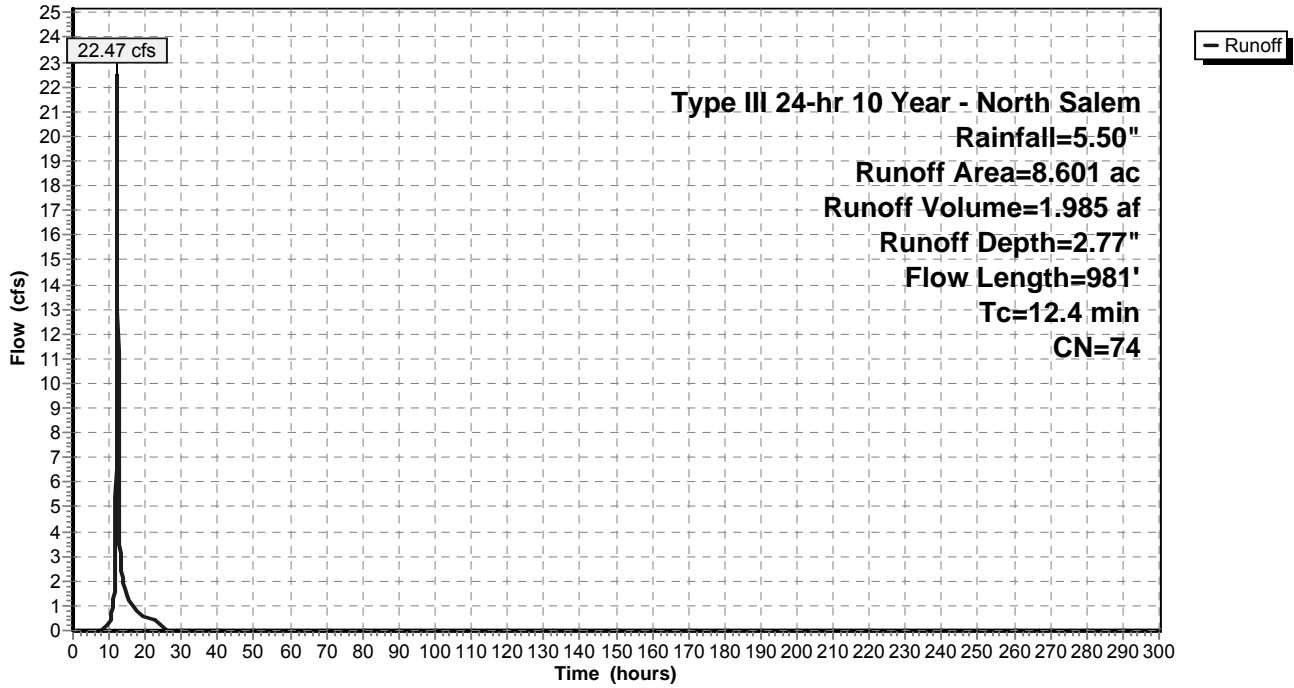
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10 Year - North Salem Rainfall=5.50"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



Summary for Pond DP 11: Design Point 11

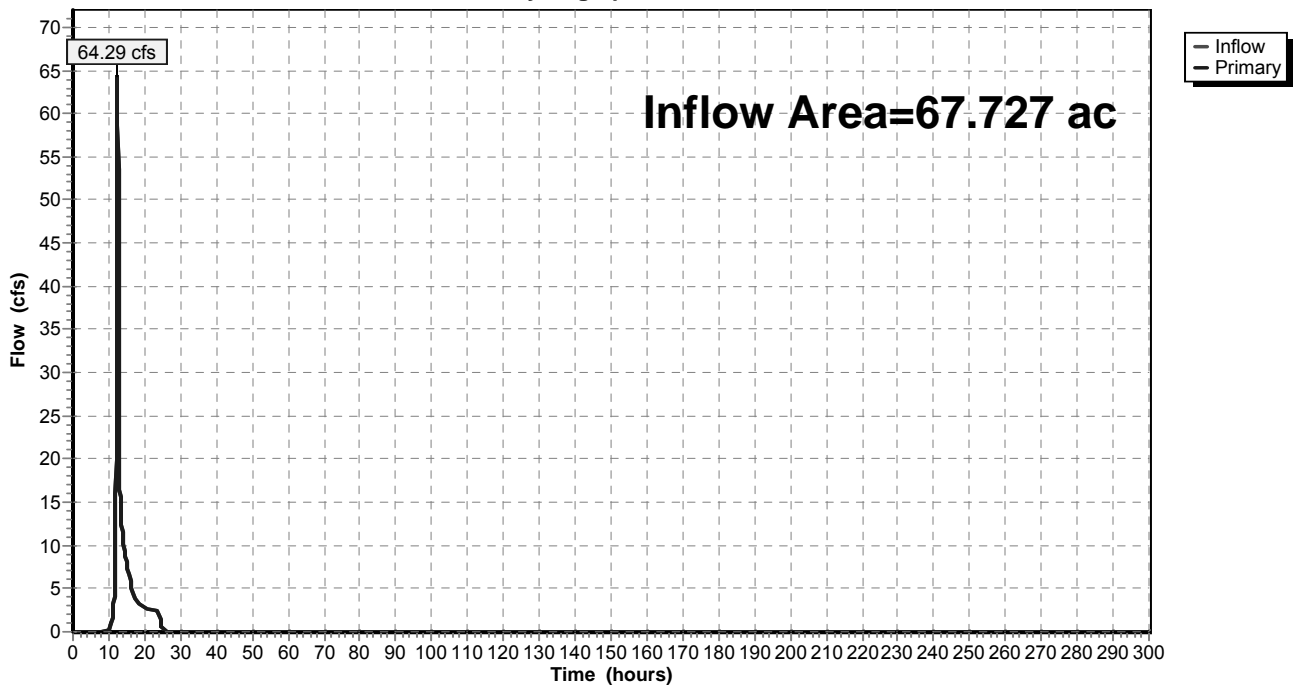
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth = 1.52" for 10 Year - North Salem event
Inflow = 64.29 cfs @ 12.31 hrs, Volume= 8.572 af
Primary = 64.29 cfs @ 12.31 hrs, Volume= 8.572 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth = 1.55" for 10 Year - North Salem event
 Inflow = 14.88 cfs @ 12.19 hrs, Volume= 1.567 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf

Peak Elev= 454.58' @ 297.10 hrs Surf.Area= 18,697 sf Storage= 81,112 cf (68,276 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe X 0.00 L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

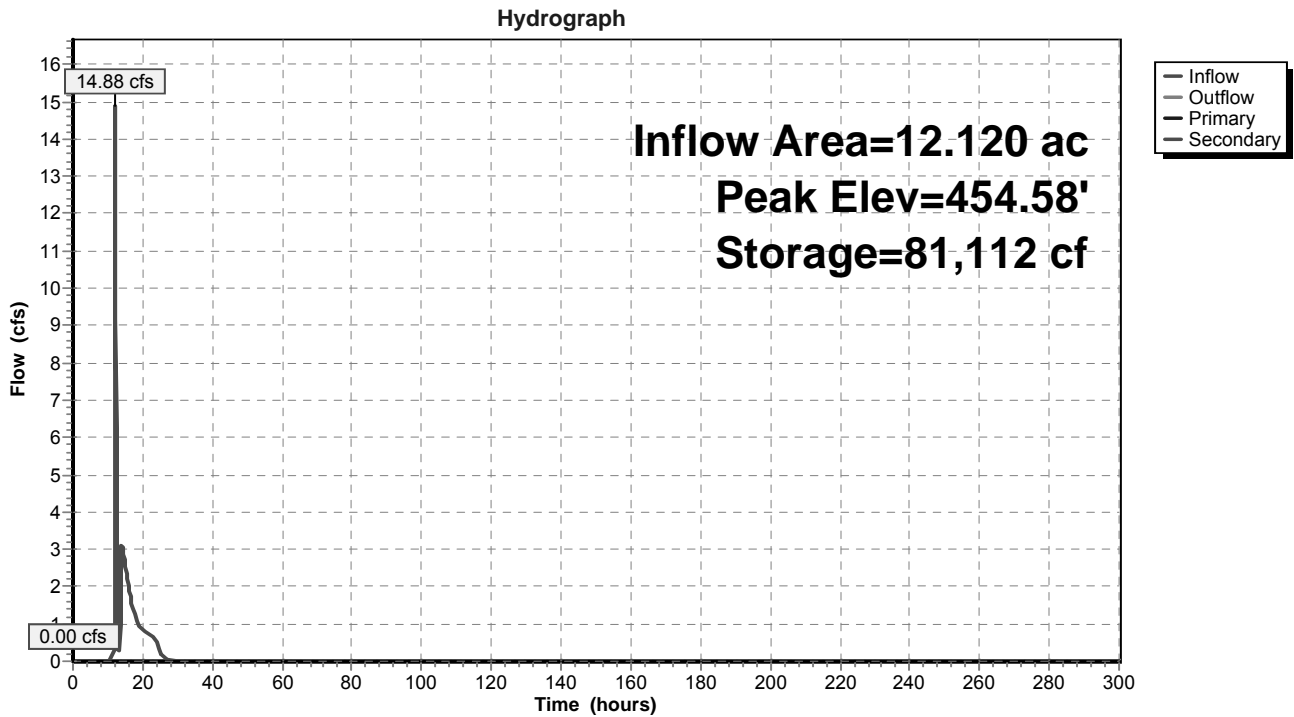
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 5=Emergency Overflow (Controls 0.00 cfs)

Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 1.50" for 10 Year - North Salem event
 Inflow = 5.11 cfs @ 12.31 hrs, Volume= 1.043 af
 Outflow = 0.45 cfs @ 22.61 hrs, Volume= 0.129 af, Atten= 91%, Lag= 618.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.45 cfs @ 22.61 hrs, Volume= 0.129 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 486.10' @ 22.61 hrs Surf.Area= 14,164 sf Storage= 48,186 cf (40,576 cf above start)

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= 425.5 min (1,414.5 - 989.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

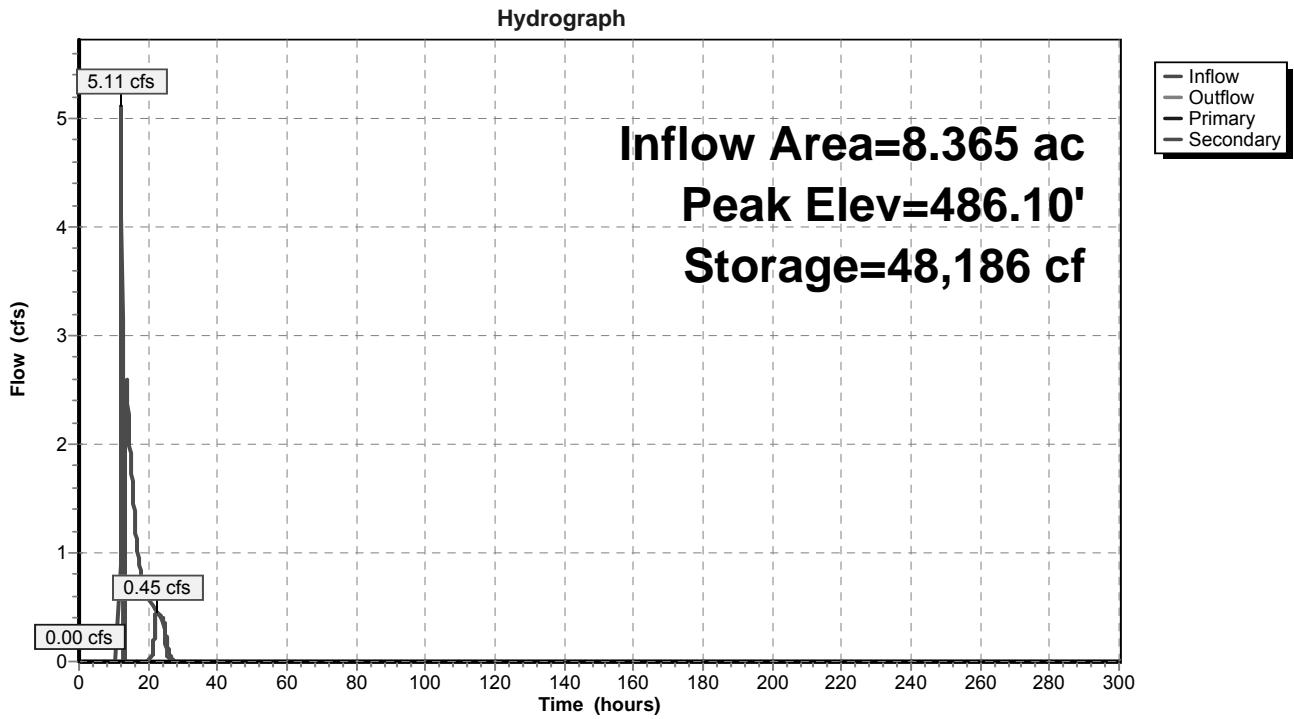
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.41 cfs @ 22.61 hrs HW=486.10' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Weir Controls 0.41 cfs @ 0.76 fps)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 2.77" for 10 Year - North Salem event
 Inflow = 22.47 cfs @ 12.17 hrs, Volume= 1.985 af
 Outflow = 9.47 cfs @ 12.52 hrs, Volume= 1.184 af, Atten= 58%, Lag= 20.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 9.47 cfs @ 12.52 hrs, Volume= 1.184 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 520.39' @ 12.52 hrs Surf.Area= 10,425 sf Storage= 45,413 cf (38,361 cf above start)

Plug-Flow detention time= 241.2 min calculated for 1.022 af (51% of inflow)
 Center-of-Mass det. time= 95.0 min (933.8 - 838.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

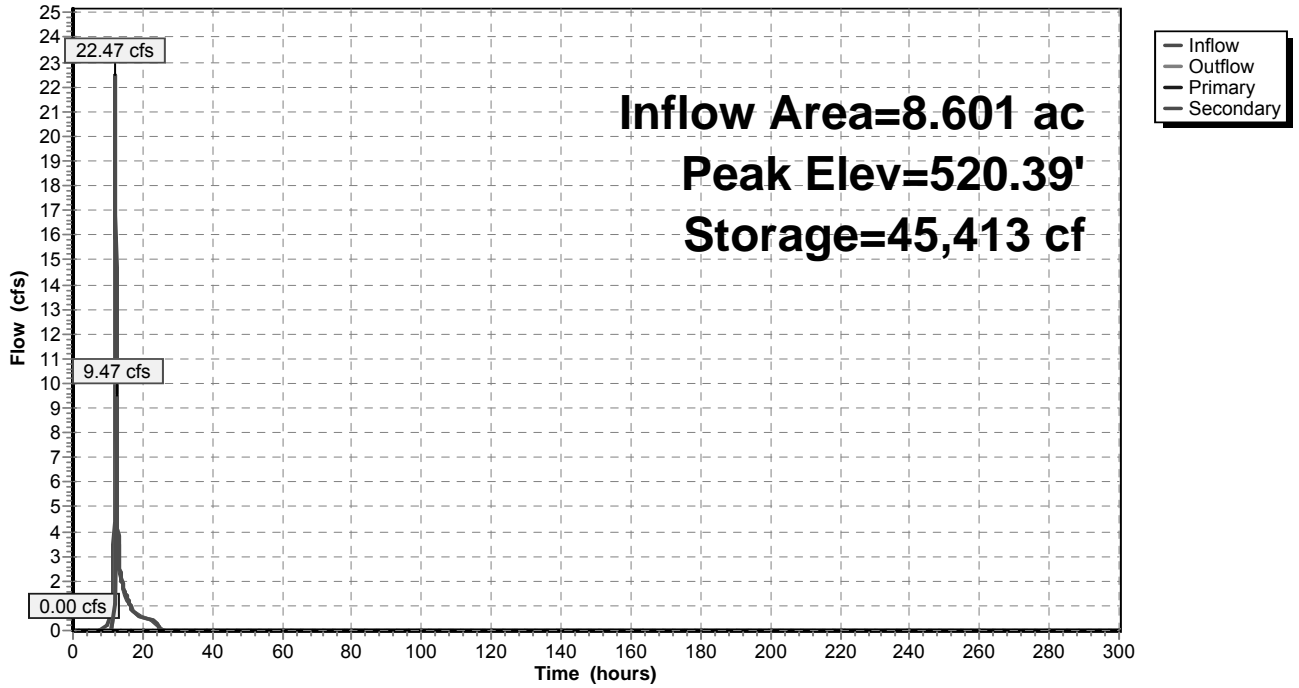
Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 ↑ 1=Outlet Pipe (Controls 0.00 cfs)
 ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
 ↑ 3=Orifice #1 (Controls 0.00 cfs)
 ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=9.25 cfs @ 12.52 hrs HW=520.39' (Free Discharge)
 ↑ 5=Emergency Overflow Weir (Weir Controls 9.25 cfs @ 1.97 fps)

Pond ED-K6: Micropool ED Basin - (Basin K6)

Hydrograph



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 3.83" for 10 Year - North Salem event
 Inflow = 37.62 cfs @ 12.19 hrs, Volume= 3.523 af
 Outflow = 37.62 cfs @ 12.19 hrs, Volume= 3.523 af, Atten= 0%, Lag= 0.0 min
 Primary = 24.27 cfs @ 12.19 hrs, Volume= 3.255 af
 Secondary = 13.35 cfs @ 12.19 hrs, Volume= 0.268 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 469.55' @ 12.19 hrs
 Flood Elev= 556.50'

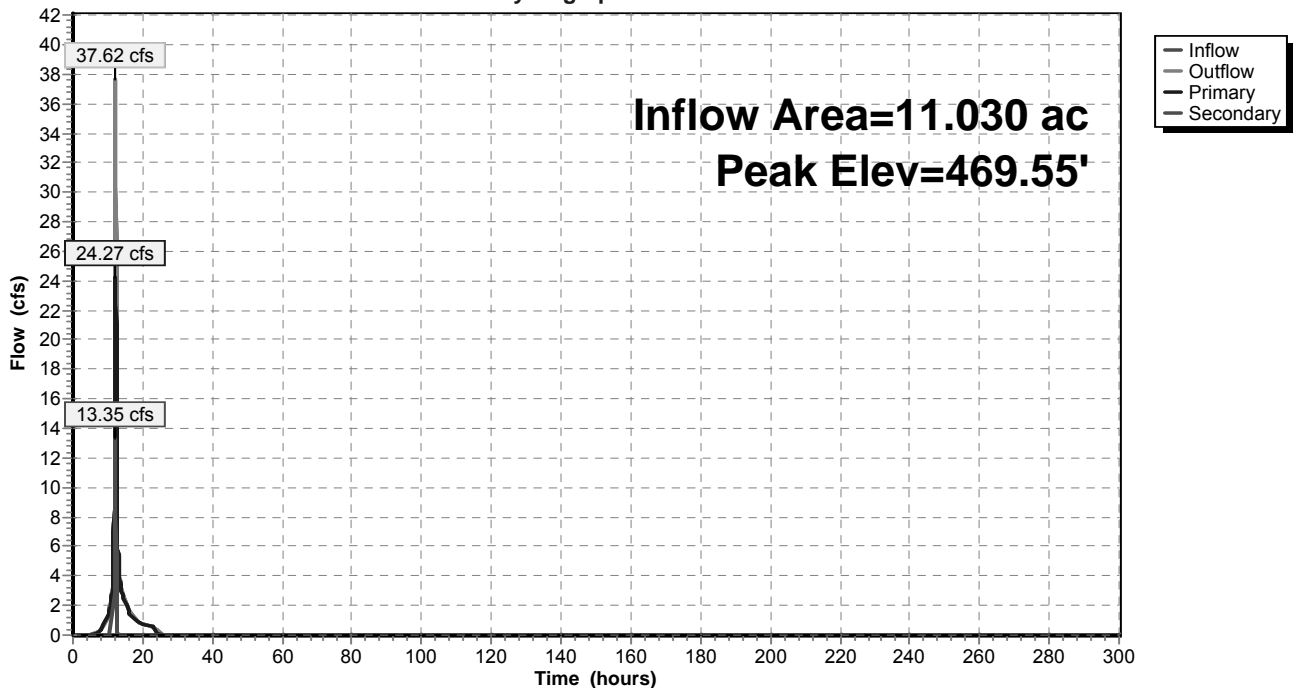
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=24.26 cfs @ 12.19 hrs HW=469.53' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 24.26 cfs @ 7.72 fps)

Secondary OutFlow Max=13.23 cfs @ 12.19 hrs HW=469.53' (Free Discharge)
 ↳2=Outlet to Basin K3 (Inlet Controls 13.23 cfs @ 3.98 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 3.43" for 10 Year - North Salem event
 Inflow = 21.64 cfs @ 12.31 hrs, Volume= 2.392 af
 Outflow = 21.64 cfs @ 12.31 hrs, Volume= 2.392 af, Atten= 0%, Lag= 0.0 min
 Primary = 16.53 cfs @ 12.31 hrs, Volume= 2.252 af
 Secondary = 5.11 cfs @ 12.31 hrs, Volume= 0.139 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 507.54' @ 12.31 hrs
 Flood Elev= 556.50'

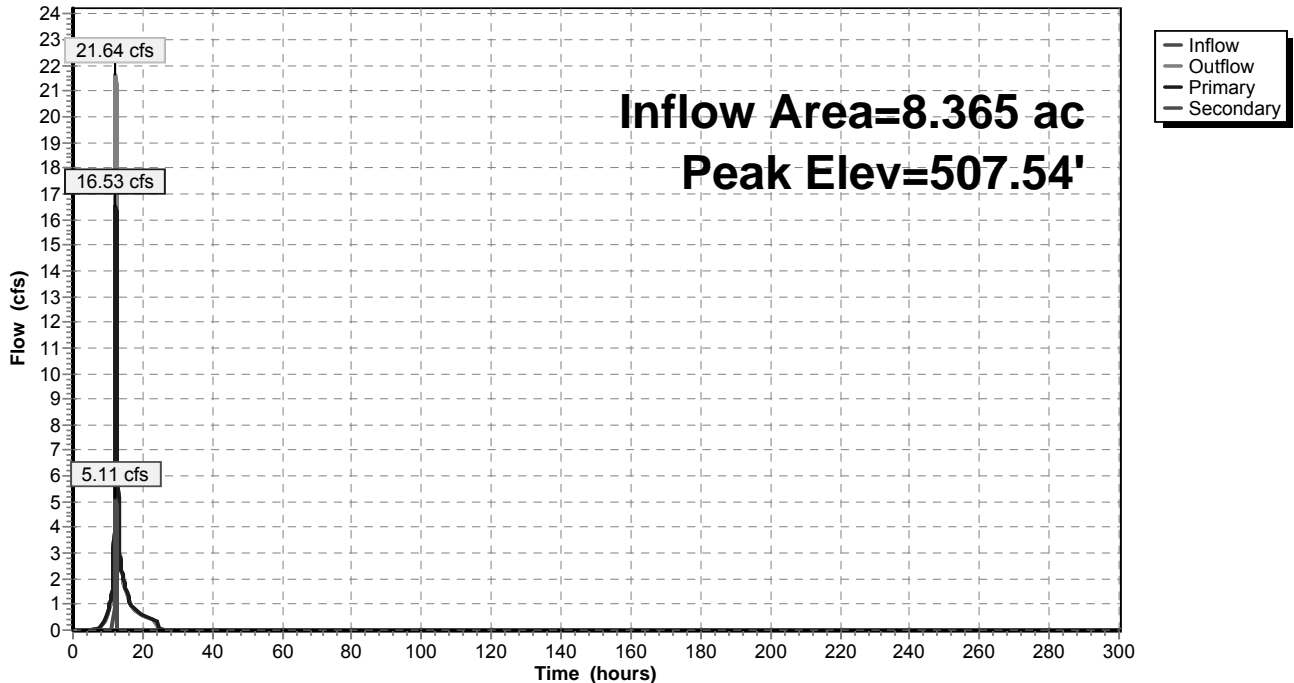
Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=16.54 cfs @ 12.31 hrs HW=507.54' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 16.54 cfs @ 5.27 fps)

Secondary OutFlow Max=5.02 cfs @ 12.31 hrs HW=507.54' (Free Discharge)
 ↳2=Outlet to Basin K5 (Inlet Controls 5.02 cfs @ 3.06 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 1.84" for 10 Year - North Salem event
 Inflow = 4.52 cfs @ 12.22 hrs, Volume= 0.313 af
 Outflow = 0.48 cfs @ 13.63 hrs, Volume= 0.159 af, Atten= 89%, Lag= 84.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 0.48 cfs @ 13.63 hrs, Volume= 0.159 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 427.06' @ 13.63 hrs Surf.Area= 2,474 sf Storage= 6,873 cf

Plug-Flow detention time= 275.0 min calculated for 0.159 af (51% of inflow)
 Center-of-Mass det. time= 139.2 min (1,028.3 - 889.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

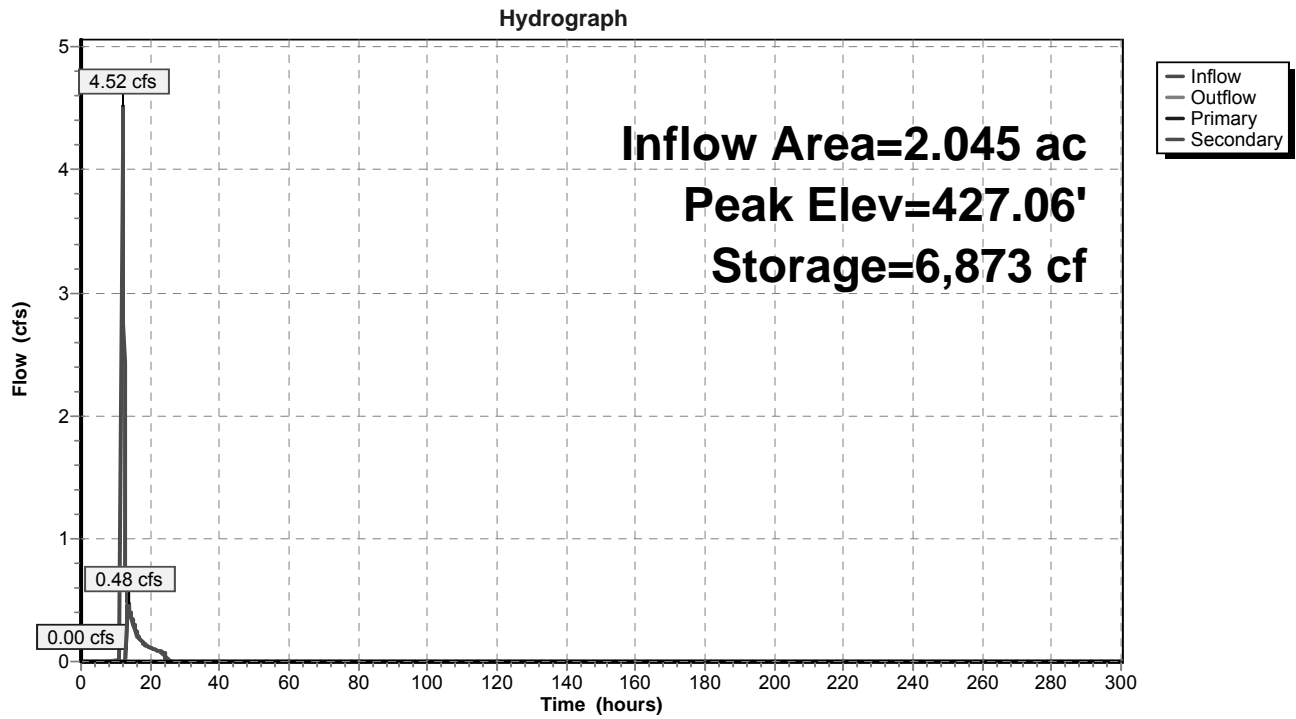
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=0.46 cfs @ 13.63 hrs HW=427.06' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 0.46 cfs @ 0.79 fps)

Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 INLET by 0.20'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 2.92" for 10 Year - North Salem event
 Inflow = 23.76 cfs @ 12.24 hrs, Volume= 2.683 af
 Outflow = 2.97 cfs @ 14.12 hrs, Volume= 1.153 af, Atten= 87%, Lag= 112.6 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.97 cfs @ 14.12 hrs, Volume= 1.153 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.20' @ 14.12 hrs Surf.Area= 19,645 sf Storage= 70,534 cf

Plug-Flow detention time= 313.1 min calculated for 1.153 af (43% of inflow)
 Center-of-Mass det. time= 184.5 min (1,049.2 - 864.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

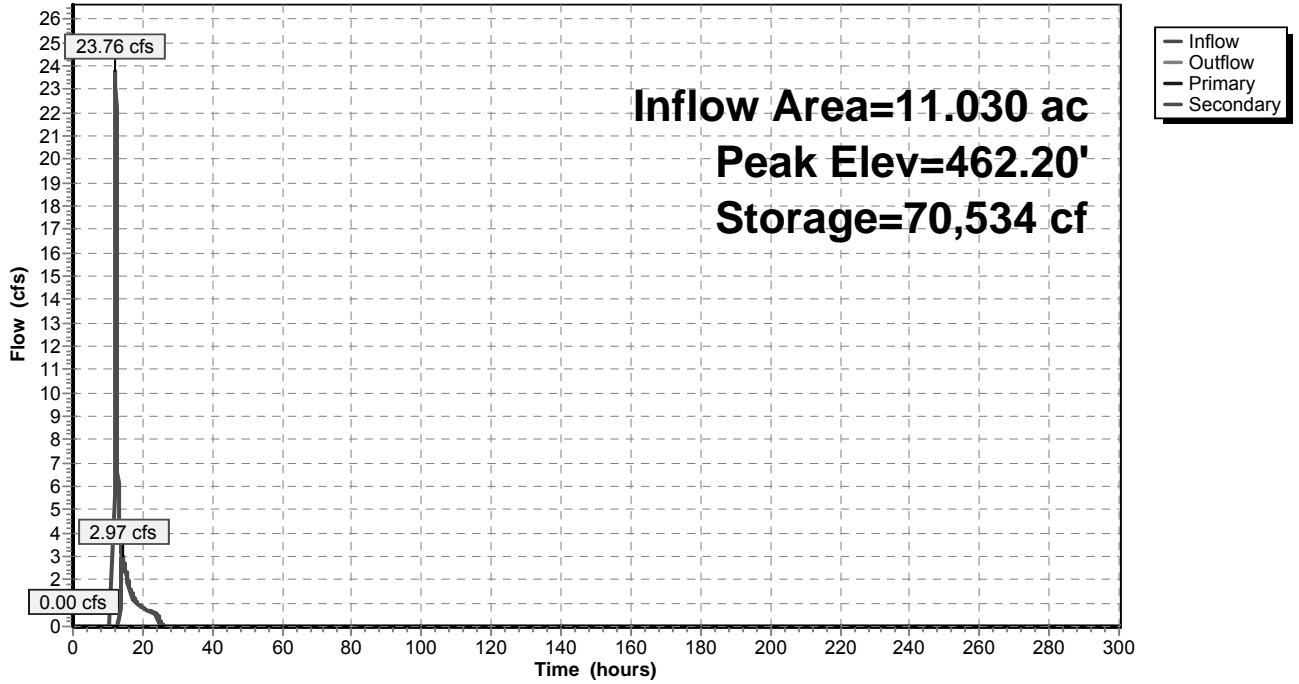
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.97 cfs @ 14.12 hrs HW=462.20' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 2.97 cfs @ 1.50 fps)

Pond SF-K3: Sand Filter -K3

Hydrograph



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

[79] Warning: Submerged Pond SFF-K5 Primary device # 1 OUTLET by 0.18'

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 2.56" for 10 Year - North Salem event
 Inflow = 16.30 cfs @ 12.36 hrs, Volume= 1.781 af
 Outflow = 2.65 cfs @ 13.70 hrs, Volume= 0.903 af, Atten= 84%, Lag= 80.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.65 cfs @ 13.70 hrs, Volume= 0.903 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 495.18' @ 13.70 hrs Surf.Area= 11,279 sf Storage= 40,310 cf

Plug-Flow detention time= 272.4 min calculated for 0.903 af (51% of inflow)
 Center-of-Mass det. time= 143.2 min (1,027.3 - 884.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

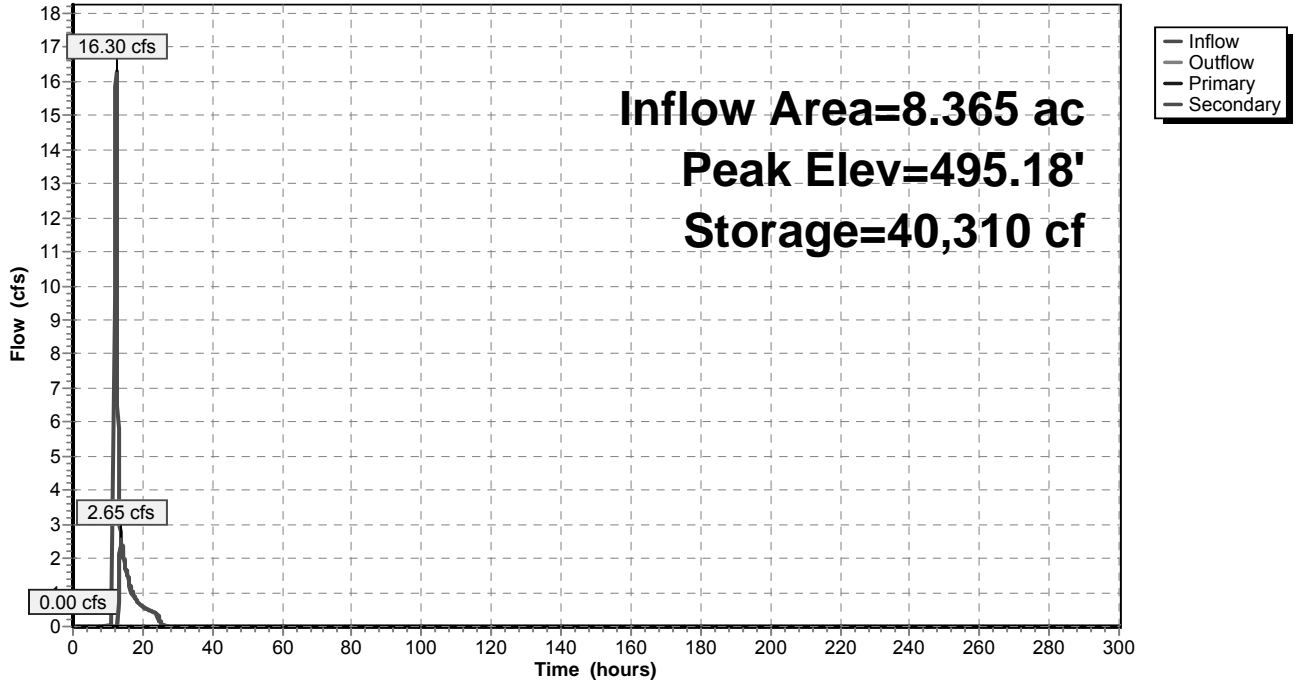
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.63 cfs @ 13.70 hrs HW=495.18' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 2.63 cfs @ 1.43 fps)

Pond SF-K5: Sand Filter - K5

Hydrograph



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

[88] Warning: Qout>Qin may require Finer Routing>1

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 2.24" for 10 Year - North Salem event
 Inflow = 4.16 cfs @ 12.19 hrs, Volume= 0.382 af
 Outflow = 4.52 cfs @ 12.22 hrs, Volume= 0.313 af, Atten= 0%, Lag= 1.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 4.52 cfs @ 12.22 hrs, Volume= 0.313 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.25' @ 12.20 hrs Surf.Area= 1,743 sf Storage= 3,428 cf

Plug-Flow detention time= 110.2 min calculated for 0.313 af (82% of inflow)
 Center-of-Mass det. time= 35.1 min (889.1 - 854.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
430.00	440	165.0	0	0	440	
432.00	1,216	210.0	1,592	1,592	1,834	
434.00	2,107	235.0	3,282	4,874	2,825	

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

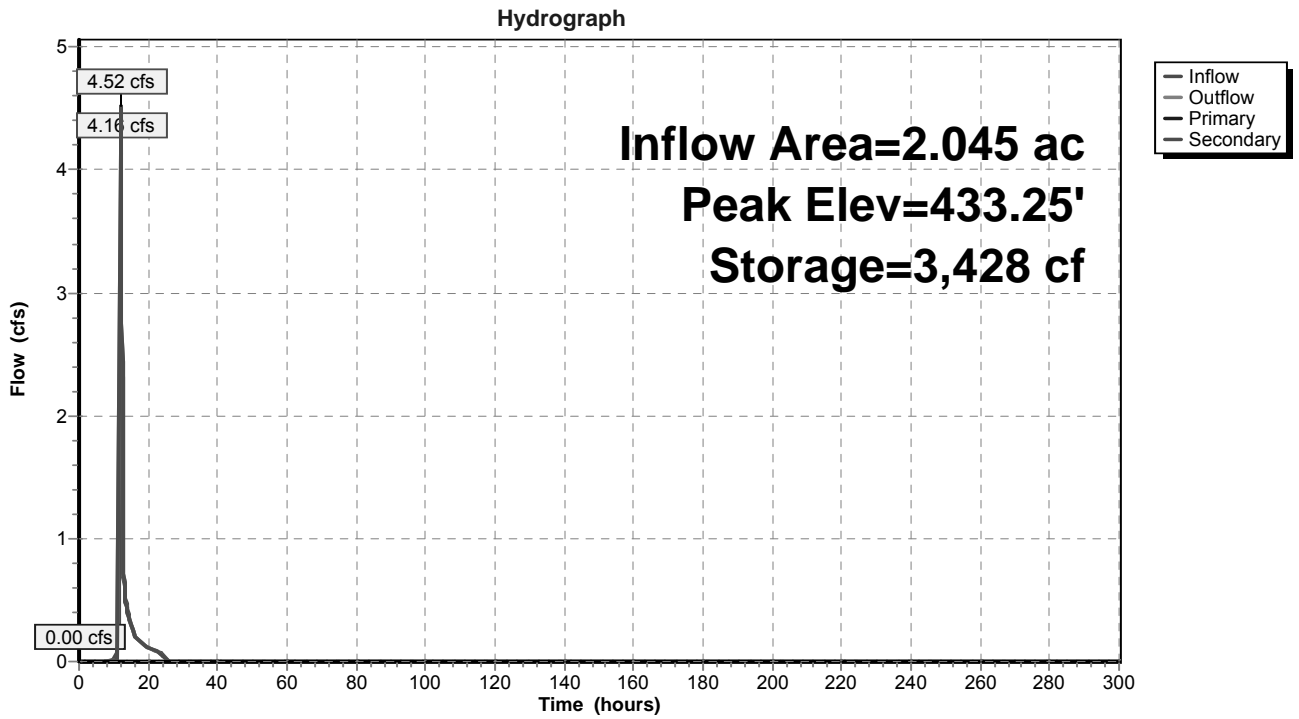
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=4.05 cfs @ 12.22 hrs HW=433.24' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 4.05 cfs @ 1.67 fps)

Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

[79] Warning: Submerged Pond FS K3 Primary device # 1 INLET by 0.54'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 3.54" for 10 Year - North Salem event
 Inflow = 24.27 cfs @ 12.19 hrs, Volume= 3.255 af
 Outflow = 23.76 cfs @ 12.24 hrs, Volume= 2.683 af, Atten= 2%, Lag= 3.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 23.76 cfs @ 12.24 hrs, Volume= 2.683 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.77' @ 12.24 hrs Surf.Area= 7,950 sf Storage= 30,804 cf

Plug-Flow detention time= 120.1 min calculated for 2.683 af (82% of inflow)
 Center-of-Mass det. time= 46.7 min (864.7 - 817.9)

Volume	Invert	Avail.Storage	Storage Description			
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
461.00	5,065	273.0	0	0	5,065	
462.00	5,623	285.0	5,342	5,342	5,666	
464.00	6,813	310.0	12,417	17,759	6,991	
464.50	7,126	319.0	3,484	21,243	7,468	
465.00	7,447	323.0	3,643	24,886	7,728	
466.00	8,104	336.0	7,773	32,659	8,486	

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

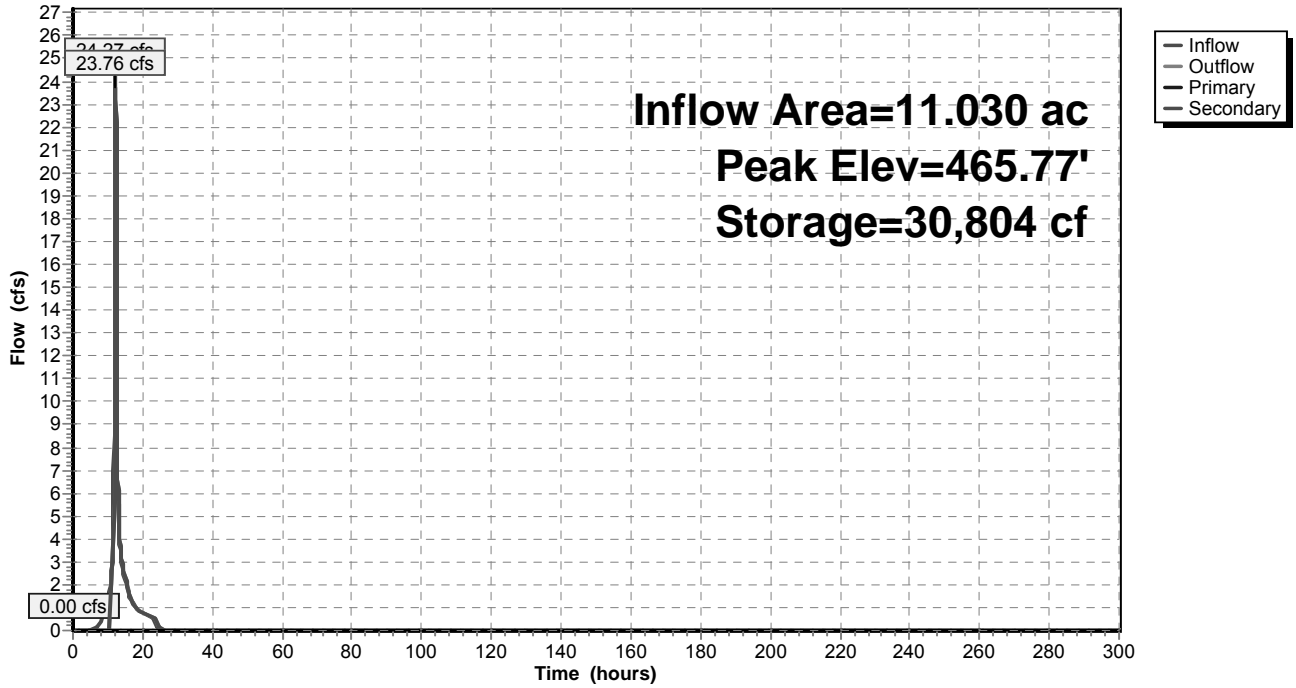
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=23.71 cfs @ 12.24 hrs HW=465.77' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 23.71 cfs @ 3.13 fps)

Pond SFF-K3: Sand Filter Forebay - K3

Hydrograph



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

[81] Warning: Exceeded Pond FS-K5 by 0.01' @ 24.60 hrs

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 3.23" for 10 Year - North Salem event
 Inflow = 16.53 cfs @ 12.31 hrs, Volume= 2.252 af
 Outflow = 16.30 cfs @ 12.36 hrs, Volume= 1.781 af, Atten= 1%, Lag= 3.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 16.30 cfs @ 12.36 hrs, Volume= 1.781 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 505.60' @ 12.36 hrs Surf.Area= 5,785 sf Storage= 23,902 cf

Plug-Flow detention time= 129.6 min calculated for 1.781 af (79% of inflow)
 Center-of-Mass det. time= 48.4 min (884.1 - 835.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
500.00	2,880	224.0	0	0	2,880	
502.00	3,826	250.0	6,684	6,684	3,969	
504.00	4,874	275.0	8,679	15,363	5,138	
505.00	5,434	287.0	5,151	20,514	5,744	
506.00	6,021	300.0	5,725	26,239	6,418	

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe X 0.00 L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

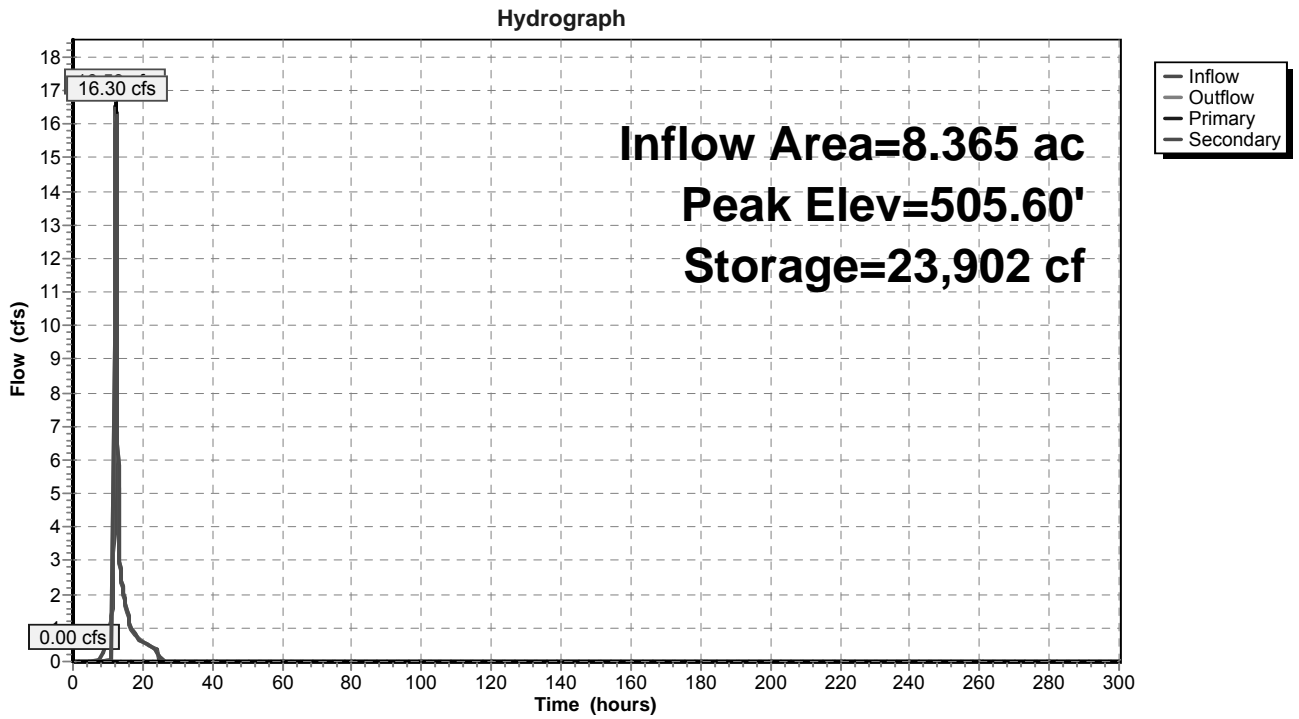
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=16.24 cfs @ 12.36 hrs HW=505.60' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 16.24 cfs @ 2.73 fps)

Pond SFF-K5: Sand Filter Forebay - K5



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Woodlands Post-Dev DP 11 WORST CA Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Prepared by KCG Engineers, P.C.

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-DevelopmentK1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=3.51"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=98.40 cfs 10.716 af

Subcatchment K2: Post-DevelopmentK2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=3.41"
Flow Length=799' Tc=13.0 min CN=68 Runoff=6.43 cfs 0.581 af

Subcatchment K3: Post-DevelopmentK3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=5.25"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=50.92 cfs 4.828 af

Subcatchment K4: Post-DevelopmentK4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=2.60"
Flow Length=281' Tc=11.3 min CN=60 Runoff=2.68 cfs 0.236 af

Subcatchment K5: Post-DevelopmentK5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=4.81"
Flow Length=542' Tc=22.2 min CN=81 Runoff=30.09 cfs 3.350 af

Subcatchment K6: Post-DevelopmentK6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=4.04"
Flow Length=981' Tc=12.4 min CN=74 Runoff=32.90 cfs 2.897 af

Pond DP 11: Design Point 11 Inflow=124.02 cfs 15.467 af
Primary=124.02 cfs 15.467 af

Pond ED-K3: Micropool ED Basin - (Basin Peak Elev=455.19' Storage=93,162 cf Inflow=25.28 cfs 2.963 af
Primary=0.00 cfs 0.000 af Secondary=2.88 cfs 1.210 af Outflow=2.88 cfs 1.210 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=486.25' Storage=50,202 cf Inflow=10.55 cfs 2.001 af
Primary=0.00 cfs 0.000 af Secondary=2.90 cfs 1.086 af Outflow=2.90 cfs 1.086 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=520.70' Storage=48,685 cf Inflow=32.90 cfs 2.897 af
Primary=0.00 cfs 0.000 af Secondary=25.64 cfs 2.096 af Outflow=25.64 cfs 2.096 af

Pond FS K3: Flow Splitter - K3 Peak Elev=470.71' Inflow=50.92 cfs 4.828 af
Primary=28.24 cfs 4.256 af Secondary=22.68 cfs 0.572 af Outflow=50.92 cfs 4.828 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=508.14' Inflow=30.09 cfs 3.350 af
Primary=19.53 cfs 3.015 af Secondary=10.55 cfs 0.334 af Outflow=30.09 cfs 3.350 af

Pond SF-K2: Sand Filter - K2 Peak Elev=427.23' Storage=7,309 cf Inflow=6.41 cfs 0.512 af
Primary=0.00 cfs 0.000 af Secondary=3.71 cfs 0.358 af Outflow=3.71 cfs 0.358 af

Pond SF-K3: Sand Filter -K3 Peak Elev=462.43' Storage=75,148 cf Inflow=27.54 cfs 3.685 af
Primary=0.00 cfs 0.000 af Secondary=9.72 cfs 2.155 af Outflow=9.72 cfs 2.155 af

Pond SF-K5: Sand Filter - K5 Peak Elev=495.44' Storage=43,278 cf Inflow=19.36 cfs 2.544 af
Primary=0.00 cfs 0.000 af Secondary=10.14 cfs 1.666 af Outflow=10.14 cfs 1.666 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=433.33' Storage=3,573 cf Inflow=6.43 cfs 0.581 af
Primary=0.00 cfs 0.000 af Secondary=6.41 cfs 0.512 af Outflow=6.41 cfs 0.512 af

Woodlands Post-Dev DP 11 WORST CA Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Prepared by KCG Engineers, P.C.

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Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=465.84' Storage=31,408 cf Inflow=28.24 cfs 4.256 af
Primary=0.00 cfs 0.000 af Secondary=27.54 cfs 3.685 af Outflow=27.54 cfs 3.685 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=505.67' Storage=24,310 cf Inflow=19.53 cfs 3.015 af
Primary=0.00 cfs 0.000 af Secondary=19.36 cfs 2.544 af Outflow=19.36 cfs 2.544 af

Total Runoff Area = 67.727 ac Runoff Volume = 22.609 af Average Runoff Depth = 4.01"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

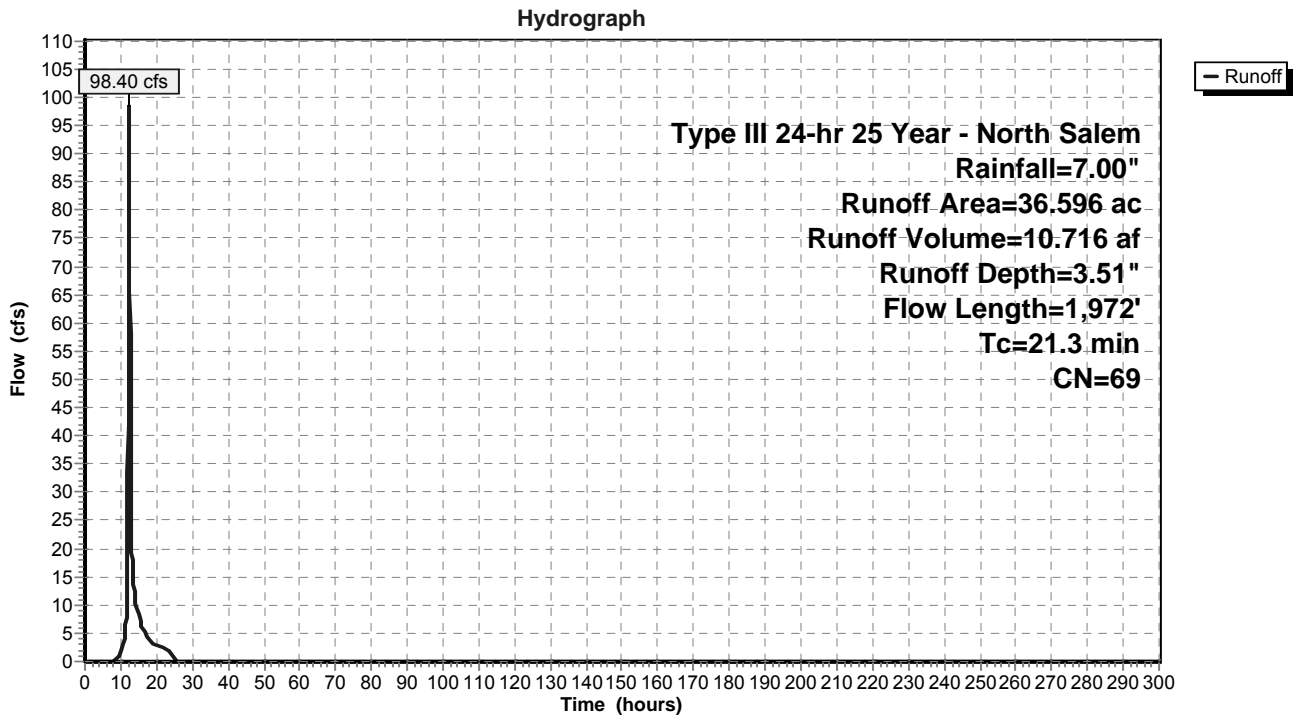
Runoff = 98.40 cfs @ 12.30 hrs, Volume= 10.716 af, Depth= 3.51"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1



Summary for Subcatchment K2: Post-Development K2

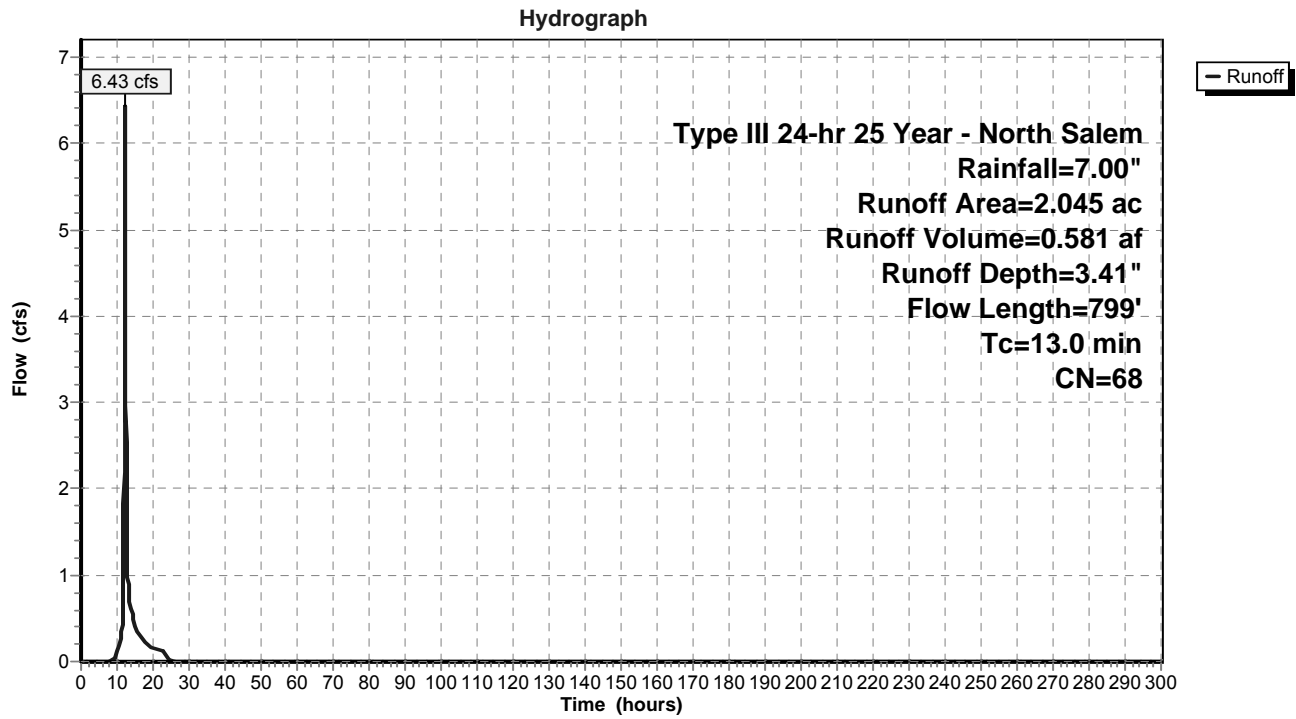
Runoff = 6.43 cfs @ 12.19 hrs, Volume= 0.581 af, Depth= 3.41"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2



Summary for Subcatchment K3: Post-Development K3

Runoff = 50.92 cfs @ 12.19 hrs, Volume= 4.828 af, Depth= 5.25"

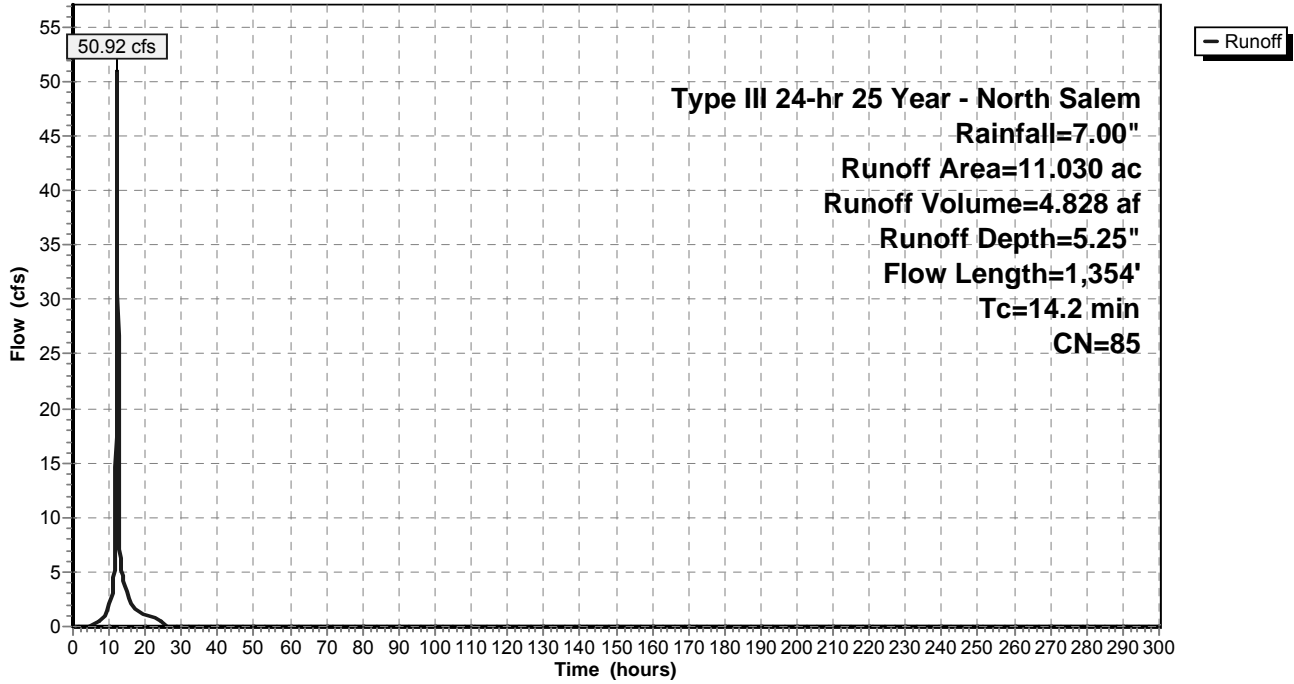
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

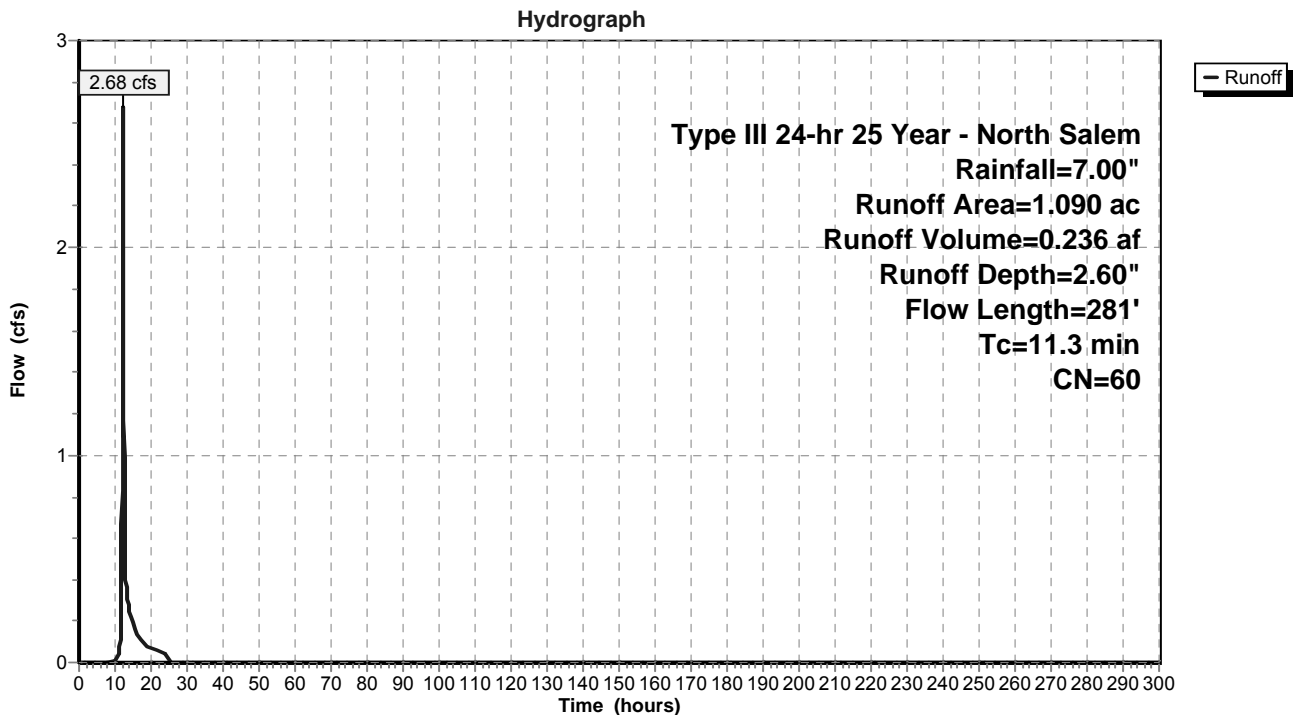
Runoff = 2.68 cfs @ 12.17 hrs, Volume= 0.236 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4



Summary for Subcatchment K5: Post-Development K5

Runoff = 30.09 cfs @ 12.30 hrs, Volume= 3.350 af, Depth= 4.81"

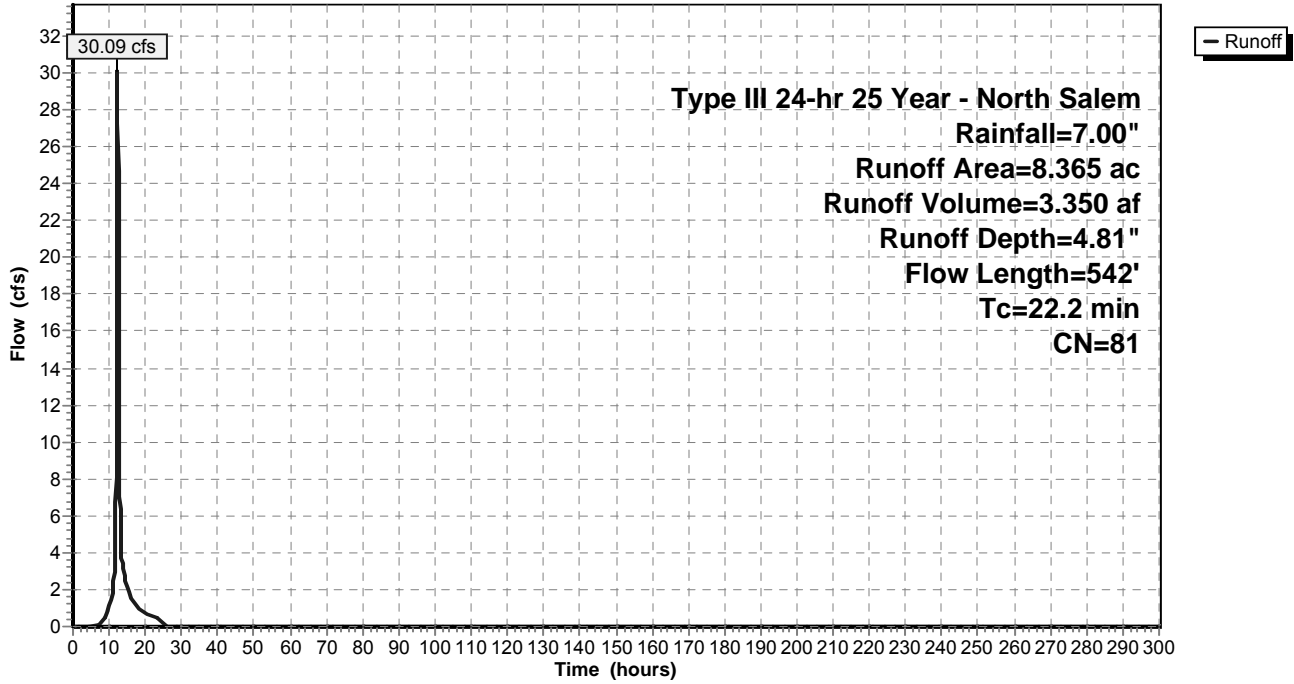
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 32.90 cfs @ 12.17 hrs, Volume= 2.897 af, Depth= 4.04"

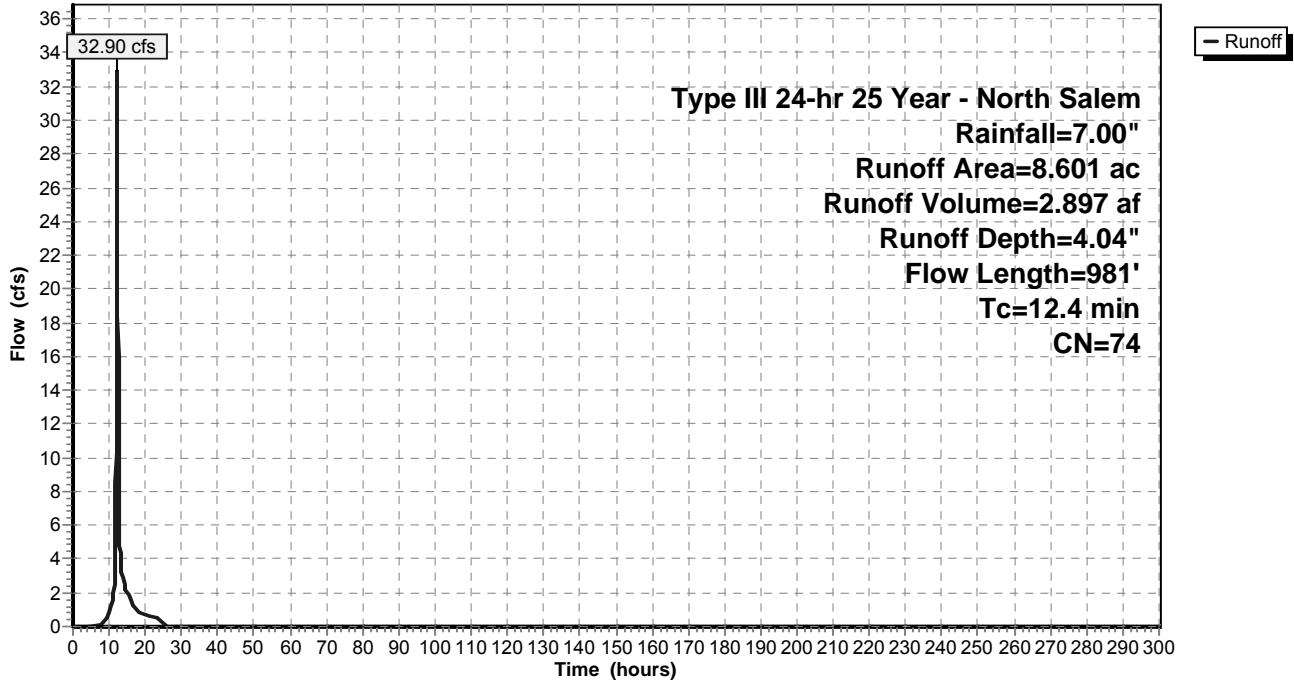
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25 Year - North Salem Rainfall=7.00"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



Summary for Pond DP 11: Design Point 11

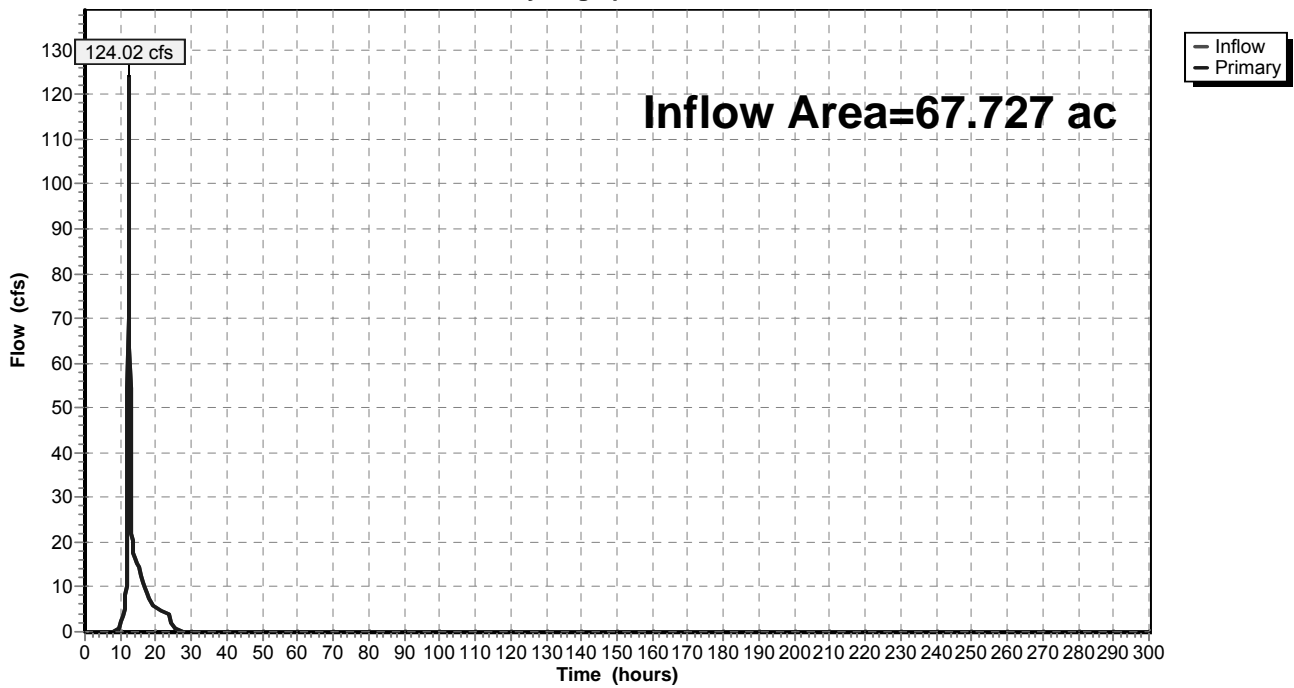
[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth = 2.74" for 25 Year - North Salem event
Inflow = 124.02 cfs @ 12.30 hrs, Volume= 15.467 af
Primary = 124.02 cfs @ 12.30 hrs, Volume= 15.467 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11

Hydrograph



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

[79] Warning: Submerged Pond SF-K3 Primary device # 1 OUTLET by 0.19'

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth = 2.93" for 25 Year - North Salem event
 Inflow = 25.28 cfs @ 12.19 hrs, Volume= 2.963 af
 Outflow = 2.88 cfs @ 15.62 hrs, Volume= 1.210 af, Atten= 89%, Lag= 205.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.88 cfs @ 15.62 hrs, Volume= 1.210 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 455.19' @ 15.62 hrs Surf.Area= 20,517 sf Storage= 93,162 cf (80,326 cf above start)

Plug-Flow detention time= 461.0 min calculated for 0.915 af (31% of inflow)
 Center-of-Mass det. time= 223.3 min (1,137.3 - 914.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
447.00	4,810	362.0	0	0	4,810	
448.00	5,362	385.0	5,084	5,084	6,227	
449.00	6,669	363.0	6,004	11,087	7,589	
450.00	9,457	535.0	8,023	19,110	19,889	
452.00	12,935	612.0	22,301	41,411	27,010	
452.50	13,407	621.0	6,585	47,996	27,945	
454.00	17,007	708.0	22,757	70,753	37,200	
455.00	19,968	745.0	18,468	89,221	41,539	
456.00	22,869	693.0	21,402	110,623	47,533	

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe X 0.00 L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

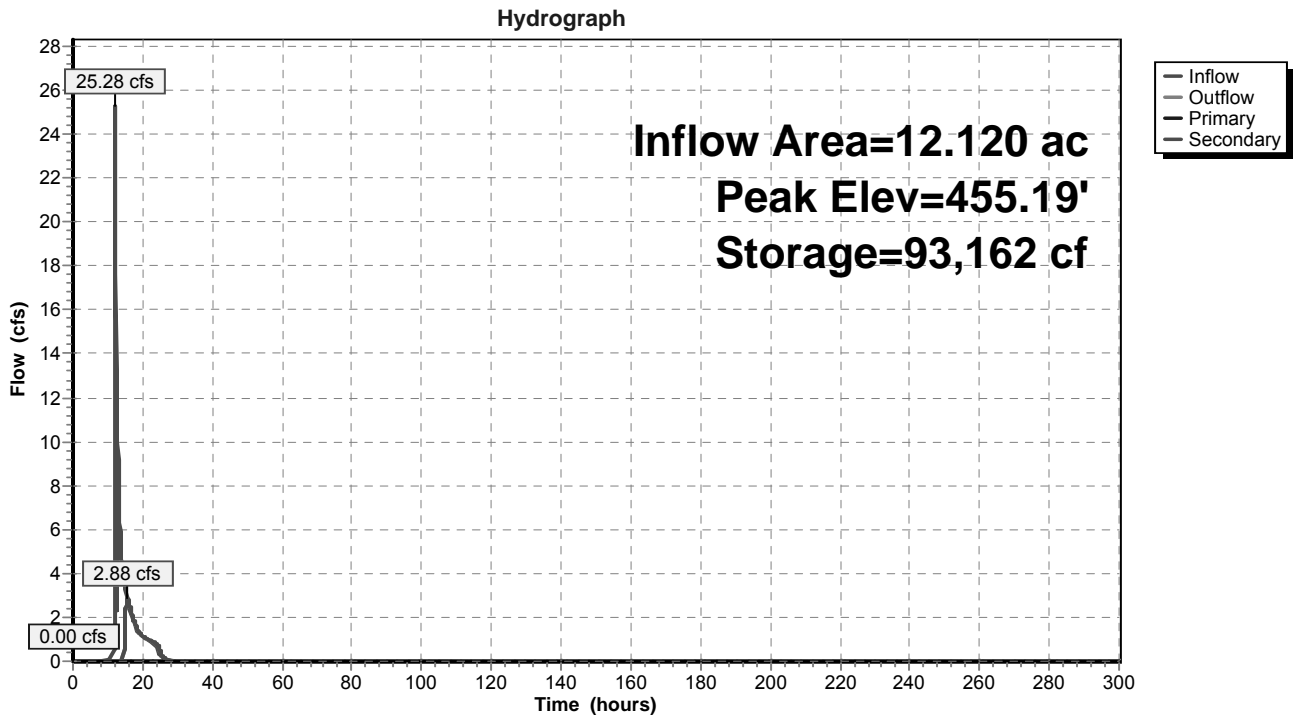
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.86 cfs @ 15.62 hrs HW=455.19' (Free Discharge)

- 5=Emergency Overflow (Weir Controls 2.86 cfs @ 1.48 fps)

Pond ED-K3: Micropool ED Basin - (Basin K3)



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 2.87" for 25 Year - North Salem event
 Inflow = 10.55 cfs @ 12.30 hrs, Volume= 2.001 af
 Outflow = 2.90 cfs @ 14.33 hrs, Volume= 1.086 af, Atten= 73%, Lag= 121.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 2.90 cfs @ 14.33 hrs, Volume= 1.086 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 486.25' @ 14.33 hrs Surf.Area= 14,405 sf Storage= 50,202 cf (42,591 cf above start)

Plug-Flow detention time= 338.1 min calculated for 0.912 af (46% of inflow)
 Center-of-Mass det. time= 147.3 min (1,067.0 - 919.7)

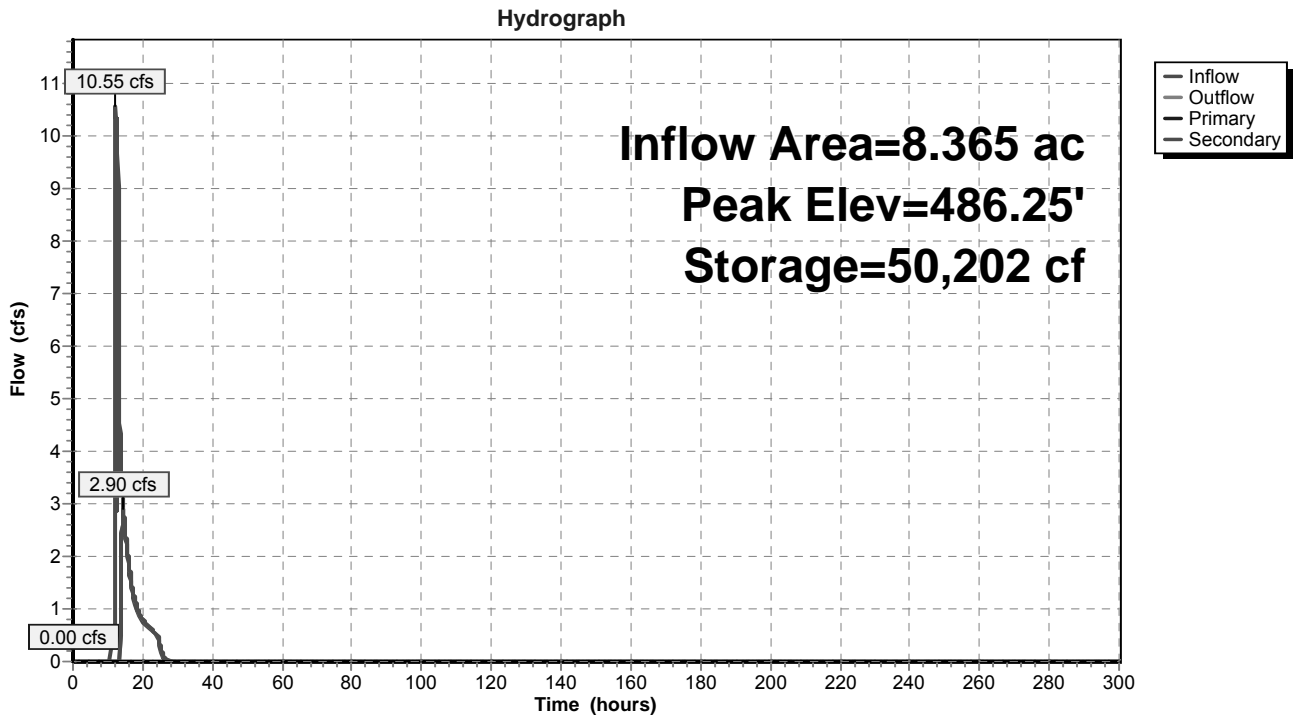
Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)
 1=Outlet Pipe (Controls 0.00 cfs)
 2=Reverse Pipe Inlet (Controls 0.00 cfs)
 3=Orifice #1 (Controls 0.00 cfs)
 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=2.87 cfs @ 14.33 hrs HW=486.24' (Free Discharge)
 5=Emergency Overflow Weir (Weir Controls 2.87 cfs @ 1.48 fps)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 4.04" for 25 Year - North Salem event
 Inflow = 32.90 cfs @ 12.17 hrs, Volume= 2.897 af
 Outflow = 25.64 cfs @ 12.29 hrs, Volume= 2.096 af, Atten= 22%, Lag= 7.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 25.64 cfs @ 12.29 hrs, Volume= 2.096 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 520.70' @ 12.29 hrs Surf.Area= 10,803 sf Storage= 48,685 cf (41,633 cf above start)

Plug-Flow detention time= 173.3 min calculated for 1.934 af (67% of inflow)
 Center-of-Mass det. time= 60.2 min (888.1 - 827.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

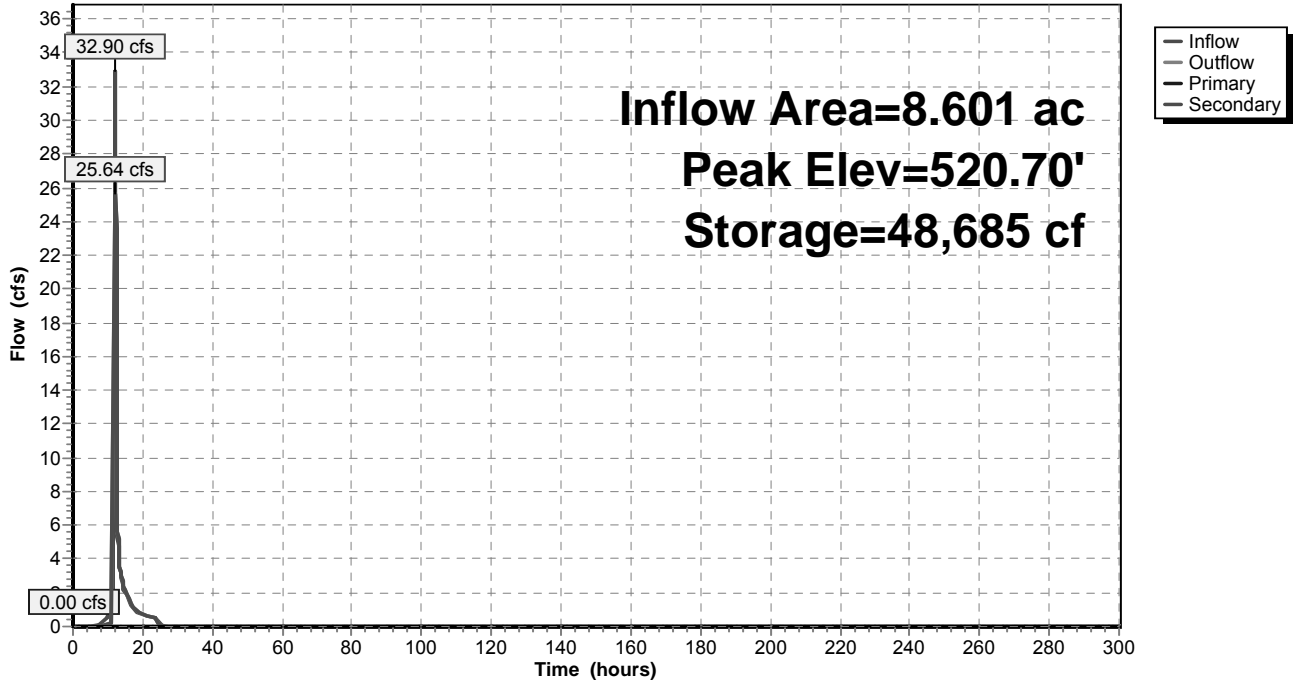
Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)
 ↖ 1=Outlet Pipe (Controls 0.00 cfs)
 ↖ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
 ↖ 3=Orifice #1 (Controls 0.00 cfs)
 ↖ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=25.41 cfs @ 12.29 hrs HW=520.70' (Free Discharge)
 ↖ 5=Emergency Overflow Weir (Weir Controls 25.41 cfs @ 2.84 fps)

Pond ED-K6: Micropool ED Basin - (Basin K6)

Hydrograph



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 5.25" for 25 Year - North Salem event
 Inflow = 50.92 cfs @ 12.19 hrs, Volume= 4.828 af
 Outflow = 50.92 cfs @ 12.19 hrs, Volume= 4.828 af, Atten= 0%, Lag= 0.0 min
 Primary = 28.24 cfs @ 12.19 hrs, Volume= 4.256 af
 Secondary = 22.68 cfs @ 12.19 hrs, Volume= 0.572 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 470.71' @ 12.19 hrs
 Flood Elev= 556.50'

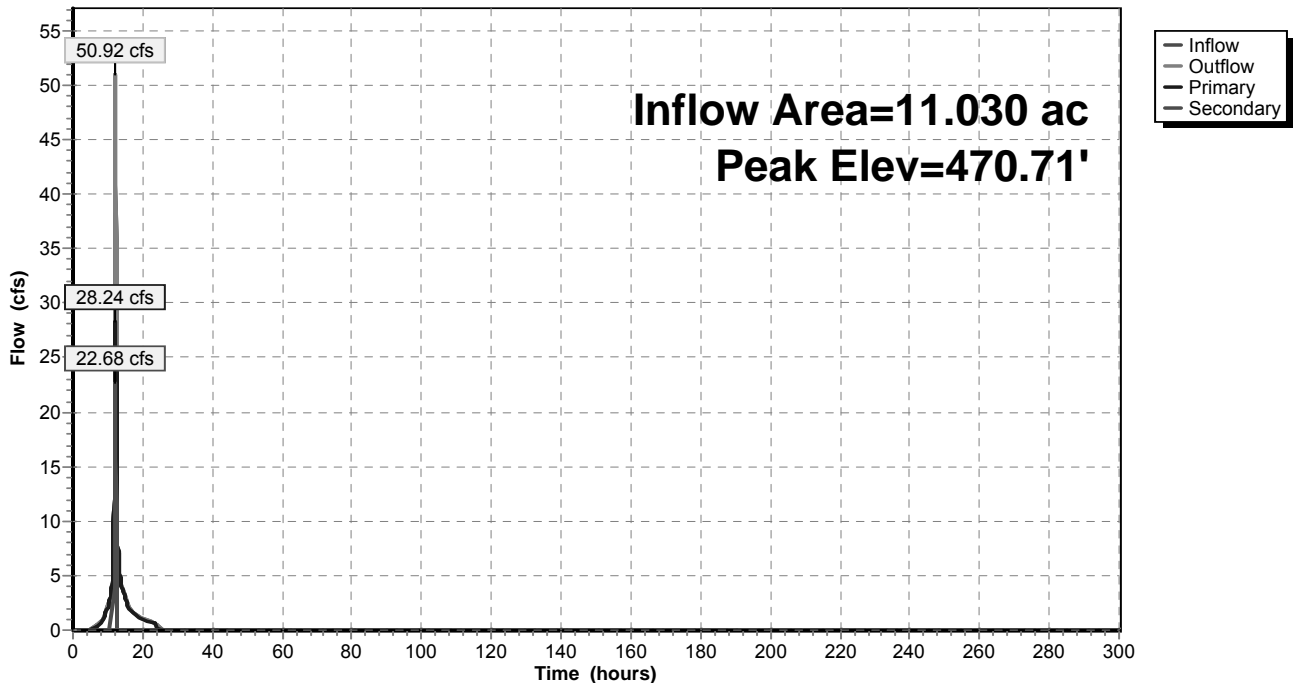
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=28.13 cfs @ 12.19 hrs HW=470.67' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 28.13 cfs @ 8.95 fps)

Secondary OutFlow Max=22.46 cfs @ 12.19 hrs HW=470.67' (Free Discharge)
 ↳2=Outlet to Basin K3 (Inlet Controls 22.46 cfs @ 5.65 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 4.81" for 25 Year - North Salem event
 Inflow = 30.09 cfs @ 12.30 hrs, Volume= 3.350 af
 Outflow = 30.09 cfs @ 12.30 hrs, Volume= 3.350 af, Atten= 0%, Lag= 0.0 min
 Primary = 19.53 cfs @ 12.30 hrs, Volume= 3.015 af
 Secondary = 10.55 cfs @ 12.30 hrs, Volume= 0.334 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 508.14' @ 12.30 hrs
 Flood Elev= 556.50'

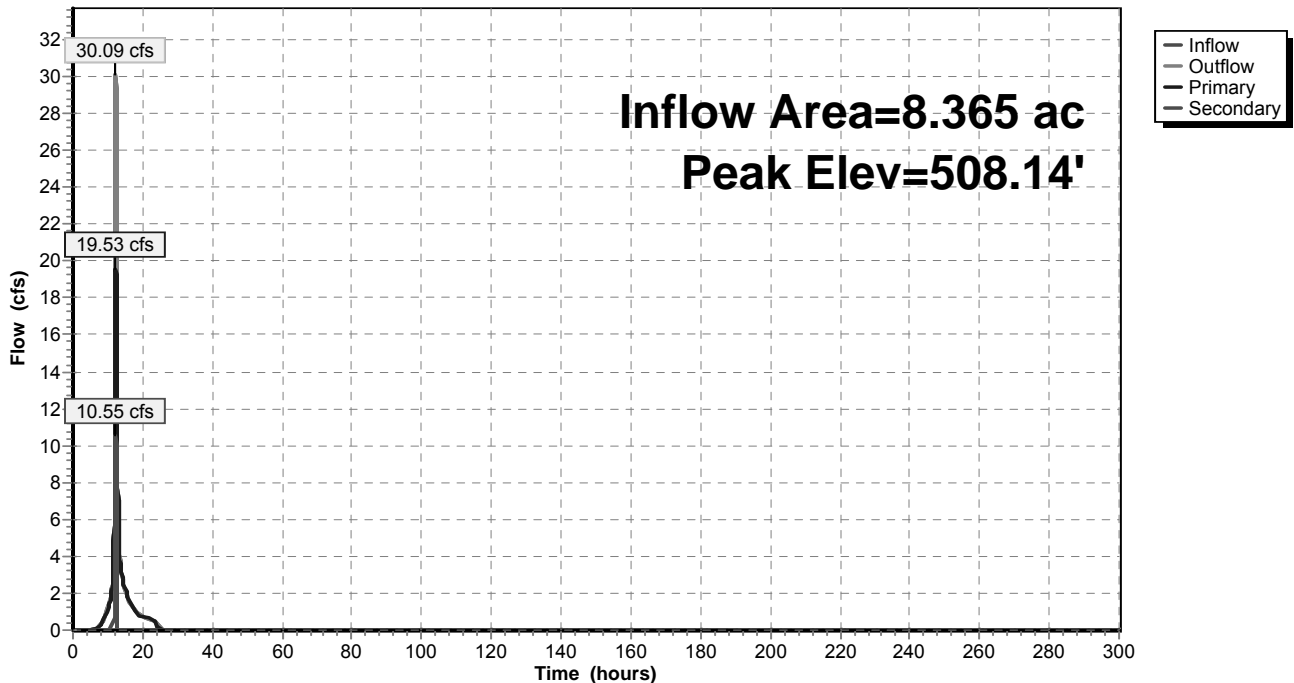
Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=19.54 cfs @ 12.30 hrs HW=508.14' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 19.54 cfs @ 6.22 fps)

Secondary OutFlow Max=10.63 cfs @ 12.30 hrs HW=508.14' (Free Discharge)
 ↳2=Outlet to Basin K5 (Inlet Controls 10.63 cfs @ 3.85 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 3.00" for 25 Year - North Salem event
 Inflow = 6.41 cfs @ 12.21 hrs, Volume= 0.512 af
 Outflow = 3.71 cfs @ 12.47 hrs, Volume= 0.358 af, Atten= 42%, Lag= 16.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 3.71 cfs @ 12.47 hrs, Volume= 0.358 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 427.23' @ 12.47 hrs Surf.Area= 2,549 sf Storage= 7,309 cf

Plug-Flow detention time= 164.2 min calculated for 0.358 af (70% of inflow)
 Center-of-Mass det. time= 62.5 min (928.6 - 866.0)

Volume	Invert	Avail.Storage	Storage Description		
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
423.00	1,004	150.0	0	0	1,004
424.00	1,320	165.0	1,158	1,158	1,412
426.00	2,038	194.0	3,332	4,491	2,315
428.00	2,897	228.0	4,910	9,400	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

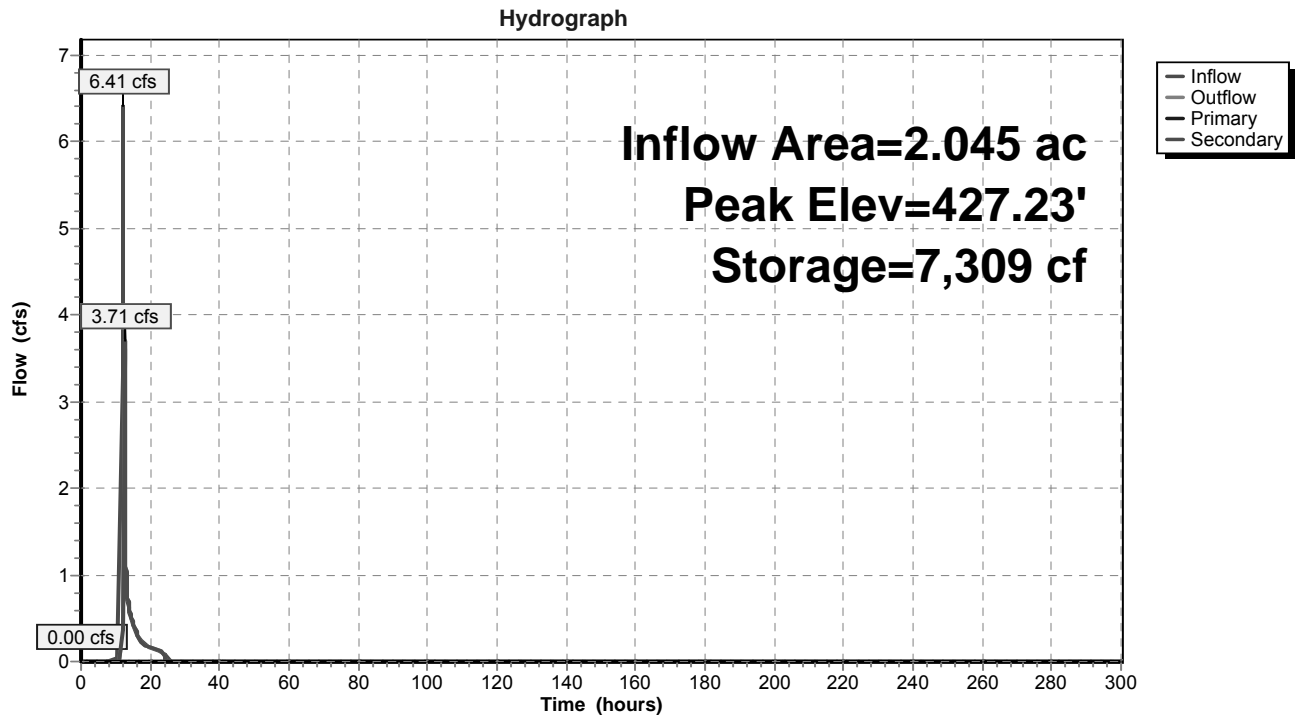
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=3.43 cfs @ 12.47 hrs HW=427.22' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 3.43 cfs @ 1.57 fps)

Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 INLET by 0.43'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 4.01" for 25 Year - North Salem event
 Inflow = 27.54 cfs @ 12.24 hrs, Volume= 3.685 af
 Outflow = 9.72 cfs @ 12.84 hrs, Volume= 2.155 af, Atten= 65%, Lag= 36.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 9.72 cfs @ 12.84 hrs, Volume= 2.155 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.43' @ 12.84 hrs Surf.Area= 19,968 sf Storage= 75,148 cf

Plug-Flow detention time= 228.1 min calculated for 2.155 af (58% of inflow)
 Center-of-Mass det. time= 113.3 min (967.9 - 854.6)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

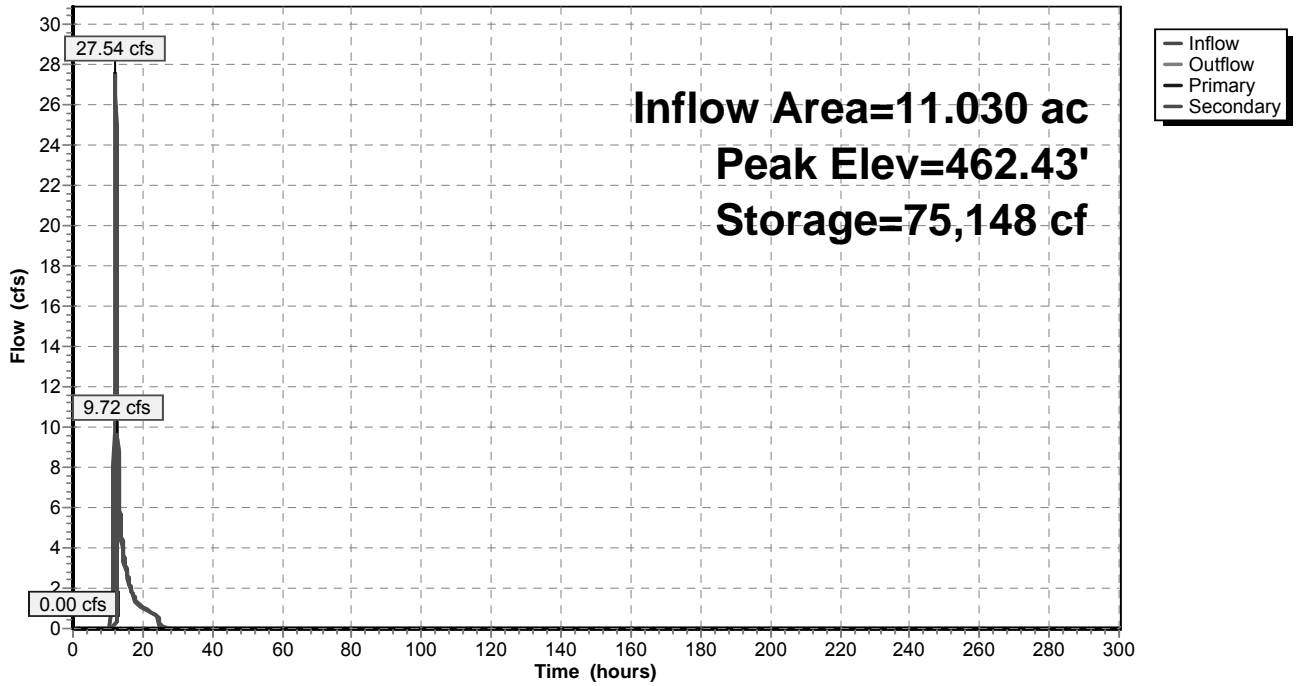
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=9.69 cfs @ 12.84 hrs HW=462.43' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 9.69 cfs @ 2.26 fps)

Pond SF-K3: Sand Filter -K3

Hydrograph



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

[79] Warning: Submerged Pond SFF-K5 Primary device # 1 OUTLET by 0.44'

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 3.65" for 25 Year - North Salem event
 Inflow = 19.36 cfs @ 12.34 hrs, Volume= 2.544 af
 Outflow = 10.14 cfs @ 12.83 hrs, Volume= 1.666 af, Atten= 48%, Lag= 29.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 10.14 cfs @ 12.83 hrs, Volume= 1.666 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 495.44' @ 12.83 hrs Surf.Area= 11,497 sf Storage= 43,278 cf

Plug-Flow detention time= 192.2 min calculated for 1.666 af (65% of inflow)
 Center-of-Mass det. time= 84.4 min (955.7 - 871.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
491.00	8,008	365.0	0	0	8,008	
492.00	8,750	377.0	8,376	8,376	8,808	
494.00	10,390	402.0	19,117	27,493	10,542	
495.00	11,126	415.0	10,756	38,249	11,481	
496.00	11,969	427.0	11,545	49,794	12,389	

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

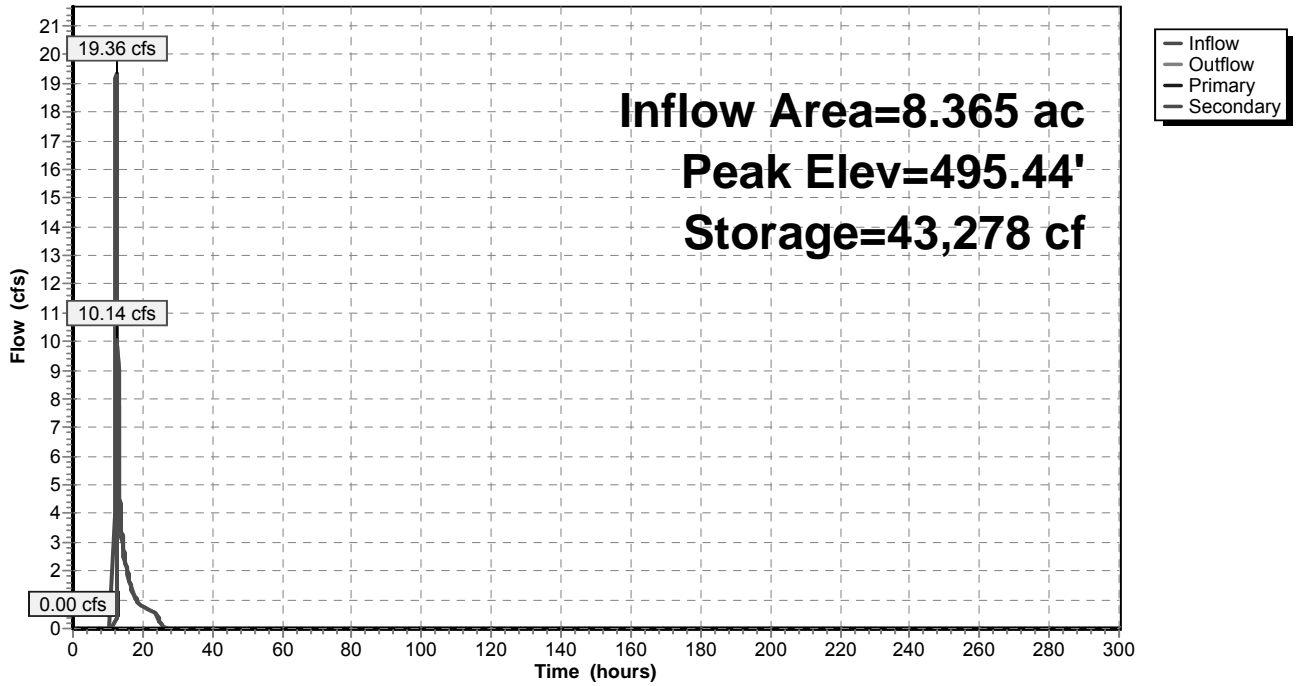
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=10.08 cfs @ 12.83 hrs HW=495.44' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 10.08 cfs @ 2.29 fps)

Pond SF-K5: Sand Filter - K5

Hydrograph



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 3.41" for 25 Year - North Salem event
 Inflow = 6.43 cfs @ 12.19 hrs, Volume= 0.581 af
 Outflow = 6.41 cfs @ 12.21 hrs, Volume= 0.512 af, Atten= 0%, Lag= 1.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 6.41 cfs @ 12.21 hrs, Volume= 0.512 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.33' @ 12.21 hrs Surf.Area= 1,781 sf Storage= 3,573 cf

Plug-Flow detention time= 79.8 min calculated for 0.512 af (88% of inflow)
 Center-of-Mass det. time= 24.2 min (866.0 - 841.8)

Volume	Invert	Avail.Storage	Storage Description		
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
430.00	440	165.0	0	0	440
432.00	1,216	210.0	1,592	1,592	1,834
434.00	2,107	235.0	3,282	4,874	2,825

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

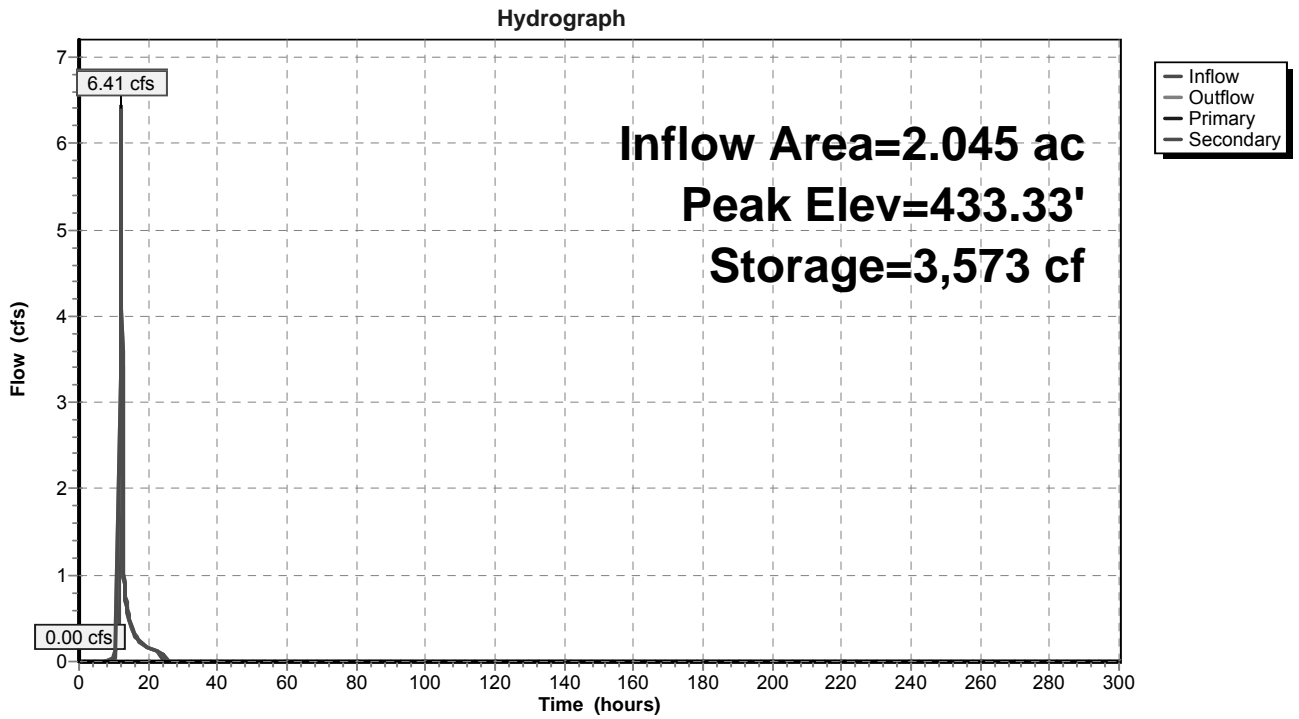
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=6.36 cfs @ 12.21 hrs HW=433.33' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 6.36 cfs @ 1.95 fps)

Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

[79] Warning: Submerged Pond FS K3 Primary device # 1 INLET by 0.61'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 4.63" for 25 Year - North Salem event
 Inflow = 28.24 cfs @ 12.19 hrs, Volume= 4.256 af
 Outflow = 27.54 cfs @ 12.24 hrs, Volume= 3.685 af, Atten= 2%, Lag= 2.7 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 27.54 cfs @ 12.24 hrs, Volume= 3.685 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.84' @ 12.24 hrs Surf.Area= 8,000 sf Storage= 31,408 cf

Plug-Flow detention time= 104.4 min calculated for 3.685 af (87% of inflow)
 Center-of-Mass det. time= 42.6 min (854.6 - 812.0)

Volume	Invert	Avail.Storage	Storage Description			
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
461.00	5,065	273.0	0	0	5,065	
462.00	5,623	285.0	5,342	5,342	5,666	
464.00	6,813	310.0	12,417	17,759	6,991	
464.50	7,126	319.0	3,484	21,243	7,468	
465.00	7,447	323.0	3,643	24,886	7,728	
466.00	8,104	336.0	7,773	32,659	8,486	

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

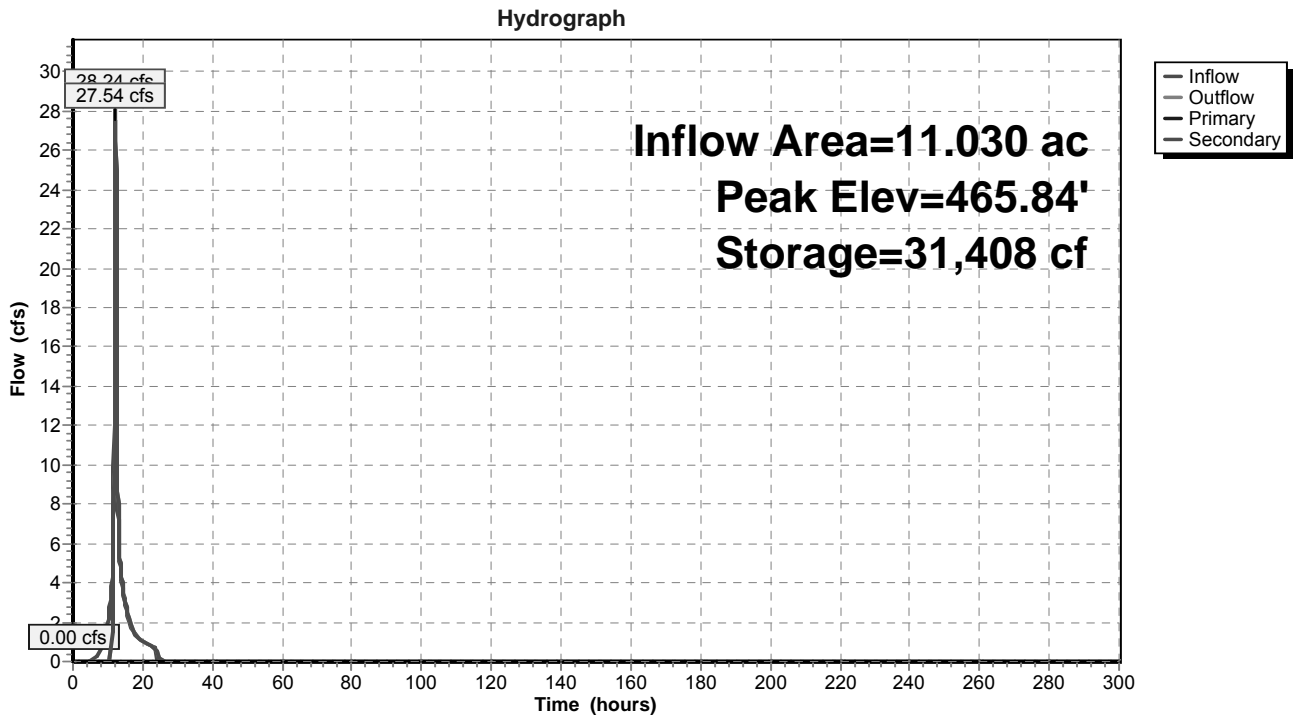
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=27.40 cfs @ 12.24 hrs HW=465.84' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 27.40 cfs @ 3.31 fps)

Pond SFF-K3: Sand Filter Forebay - K3



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

[81] Warning: Exceeded Pond FS-K5 by 0.01' @ 24.65 hrs

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 4.33" for 25 Year - North Salem event
 Inflow = 19.53 cfs @ 12.30 hrs, Volume= 3.015 af
 Outflow = 19.36 cfs @ 12.34 hrs, Volume= 2.544 af, Atten= 1%, Lag= 2.3 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 19.36 cfs @ 12.34 hrs, Volume= 2.544 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 505.67' @ 12.34 hrs Surf.Area= 5,827 sf Storage= 24,310 cf

Plug-Flow detention time= 110.8 min calculated for 2.544 af (84% of inflow)
 Center-of-Mass det. time= 41.8 min (871.2 - 829.4)

Volume	Invert	Avail.Storage	Storage Description			
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
500.00	2,880	224.0	0	0	2,880	
502.00	3,826	250.0	6,684	6,684	3,969	
504.00	4,874	275.0	8,679	15,363	5,138	
505.00	5,434	287.0	5,151	20,514	5,744	
506.00	6,021	300.0	5,725	26,239	6,418	

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe X 0.00 L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

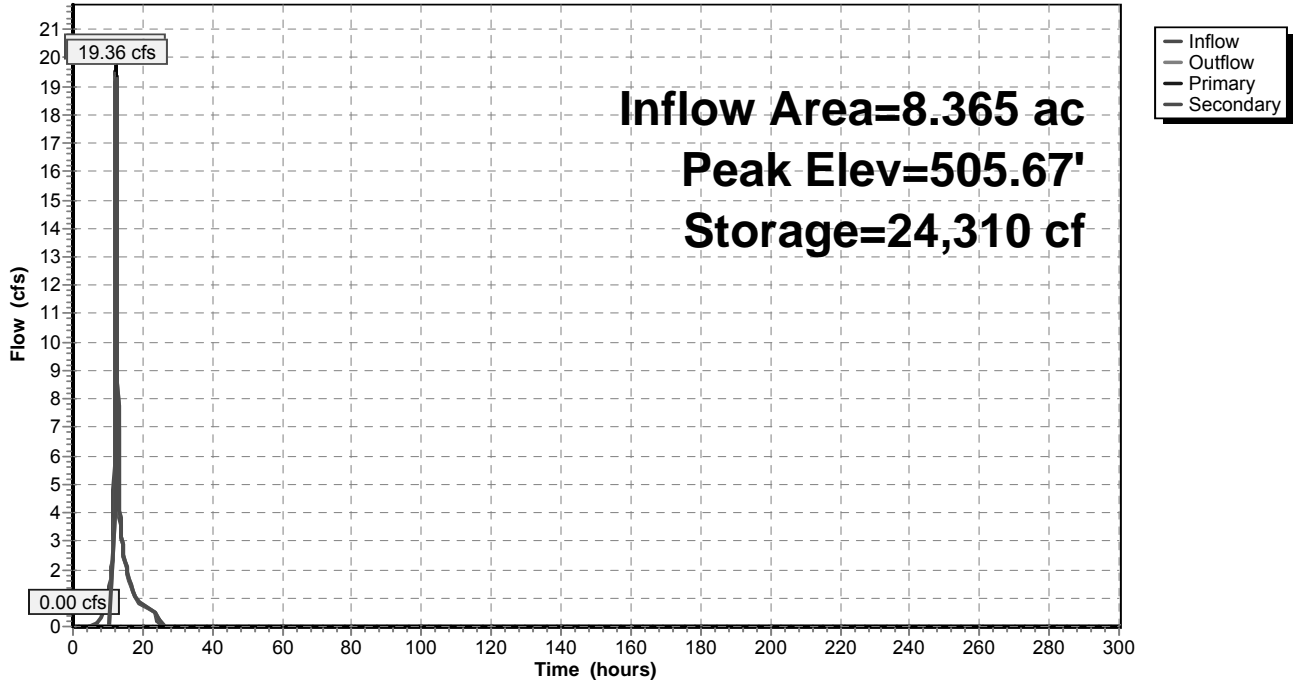
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=19.30 cfs @ 12.34 hrs HW=505.67' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 19.30 cfs @ 2.90 fps)

Pond SFF-K5: Sand Filter Forebay - K5

Hydrograph



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Woodlands Post-Dev DP 11 WORST C Type III 24-hr 100 Year - North Salem Rainfall=9.00"

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Time span=0.00-300.00 hrs, dt=0.05 hrs, 6001 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment K1: Post-DevelopmentK1 Runoff Area=36.596 ac 0.53% Impervious Runoff Depth=5.21"
Flow Length=1,972' Tc=21.3 min CN=69 Runoff=146.44 cfs 15.893 af

Subcatchment K2: Post-DevelopmentK2 Runoff Area=2.045 ac 17.21% Impervious Runoff Depth=5.09"
Flow Length=799' Tc=13.0 min CN=68 Runoff=9.64 cfs 0.867 af

Subcatchment K3: Post-DevelopmentK3 Runoff Area=11.030 ac 50.96% Impervious Runoff Depth=7.18"
Flow Length=1,354' Tc=14.2 min CN=85 Runoff=68.58 cfs 6.601 af

Subcatchment K4: Post-DevelopmentK4 Runoff Area=1.090 ac 0.00% Impervious Runoff Depth=4.10"
Flow Length=281' Tc=11.3 min CN=60 Runoff=4.33 cfs 0.372 af

Subcatchment K5: Post-DevelopmentK5 Runoff Area=8.365 ac 29.84% Impervious Runoff Depth=6.69"
Flow Length=542' Tc=22.2 min CN=81 Runoff=41.41 cfs 4.664 af

Subcatchment K6: Post-DevelopmentK6 Runoff Area=8.601 ac 9.45% Impervious Runoff Depth=5.83"
Flow Length=981' Tc=12.4 min CN=74 Runoff=47.24 cfs 4.178 af

Pond DP 11: Design Point 11 Inflow=197.05 cfs 25.434 af
Primary=197.05 cfs 25.434 af

Pond ED-K3: Micropool ED Basin - Peak Elev=455.53' Storage=100,240 cf Inflow=38.13 cfs 4.872 af
Primary=0.00 cfs 0.000 af Secondary=13.39 cfs 3.119 af Outflow=13.39 cfs 3.119 af

Pond ED-K5: Micropool ED Basin - (Basin Peak Elev=486.62' Storage=55,764 cf Inflow=29.40 cfs 3.315 af
Primary=0.00 cfs 0.000 af Secondary=15.01 cfs 2.401 af Outflow=15.01 cfs 2.401 af

Pond ED-K6: Micropool ED Basin - (Basin Peak Elev=520.98' Storage=51,725 cf Inflow=47.24 cfs 4.178 af
Primary=0.00 cfs 0.000 af Secondary=44.84 cfs 3.377 af Outflow=44.84 cfs 3.377 af

Pond FS K3: Flow Splitter - K3 Peak Elev=472.96' Inflow=68.58 cfs 6.601 af
Primary=34.61 cfs 5.574 af Secondary=33.97 cfs 1.027 af Outflow=68.58 cfs 6.601 af

Pond FS-K5: Flow Splitter - K5 Peak Elev=509.22' Inflow=41.41 cfs 4.664 af
Primary=23.94 cfs 4.014 af Secondary=17.47 cfs 0.650 af Outflow=41.41 cfs 4.664 af

Pond SF-K2: Sand Filter - K2 Peak Elev=427.43' Storage=7,828 cf Inflow=9.62 cfs 0.798 af
Primary=0.00 cfs 0.000 af Secondary=9.65 cfs 0.643 af Outflow=9.65 cfs 0.643 af

Pond SF-K3: Sand Filter -K3 Peak Elev=462.73' Storage=81,174 cf Inflow=33.58 cfs 5.003 af
Primary=0.00 cfs 0.000 af Secondary=21.96 cfs 3.473 af Outflow=21.96 cfs 3.473 af

Pond SF-K5: Sand Filter - K5 Peak Elev=495.67' Storage=45,926 cf Inflow=23.69 cfs 3.543 af
Primary=0.00 cfs 0.000 af Secondary=19.29 cfs 2.665 af Outflow=19.29 cfs 2.665 af

Pond SFF-K2: Sand Filter Forebay - K2 Peak Elev=433.43' Storage=3,753 cf Inflow=9.64 cfs 0.867 af
Primary=0.00 cfs 0.000 af Secondary=9.62 cfs 0.798 af Outflow=9.62 cfs 0.798 af

Woodlands Post-Dev DP 11 WORST C Type III 24-hr 100 Year - North Salem Rainfall=9.00"

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Pond SFF-K3: Sand Filter Forebay - K3 Peak Elev=465.96' Storage=32,317 cf Inflow=34.61 cfs 5.574 af
Primary=0.00 cfs 0.000 af Secondary=33.58 cfs 5.003 af Outflow=33.58 cfs 5.003 af

Pond SFF-K5: Sand Filter Forebay - K5 Peak Elev=505.77' Storage=24,855 cf Inflow=23.94 cfs 4.014 af
Primary=0.00 cfs 0.000 af Secondary=23.69 cfs 3.543 af Outflow=23.69 cfs 3.543 af

Total Runoff Area = 67.727 ac Runoff Volume = 32.576 af Average Runoff Depth = 5.77"
86.01% Pervious = 58.251 ac 13.99% Impervious = 9.476 ac

Summary for Subcatchment K1: Post-Development K1

Runoff = 146.44 cfs @ 12.30 hrs, Volume= 15.893 af, Depth= 5.21"

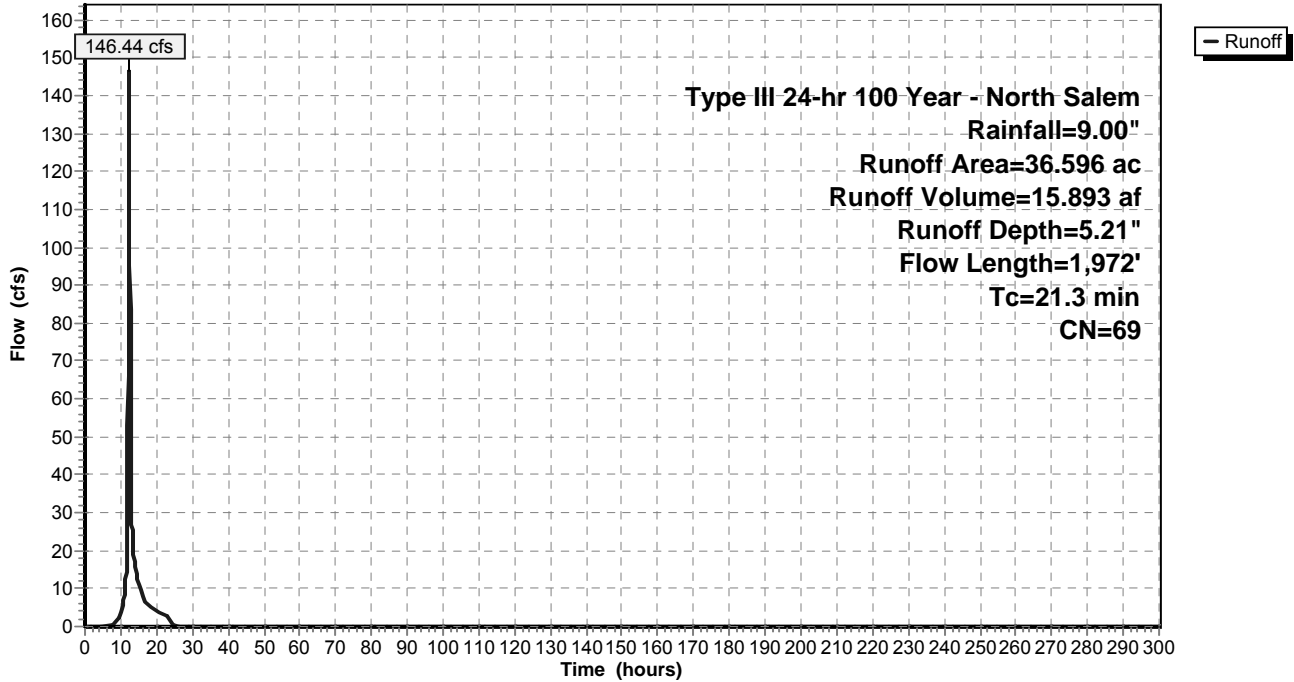
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 6.313	55	Woods, Good, HSG B
* 23.455	70	Woods, Good, HSG C
* 3.196	83	Woods, Poor, HSG D
* 0.115	100	Open Water
* 0.367	85	Gravel roads, HSG B (Existing)
* 0.079	98	Roofs (Existing)
* 3.071	74	>75% Grass cover, Good, HSG C
36.596	69	Weighted Average
36.402		99.47% Pervious Area
0.194		0.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0750	0.14		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
2.0	318	0.0300	2.60		Shallow Concentrated Flow, B-C Grassed Waterway Kv= 15.0 fps
1.1	321	0.1085	4.94		Shallow Concentrated Flow, C-D Grassed Waterway Kv= 15.0 fps
3.9	420	0.0143	1.79		Shallow Concentrated Flow, D-E Grassed Waterway Kv= 15.0 fps
0.3	120	0.1456	5.72		Shallow Concentrated Flow, E-F Grassed Waterway Kv= 15.0 fps
1.6	408	0.0756	4.12		Shallow Concentrated Flow, F-G Grassed Waterway Kv= 15.0 fps
0.6	285	0.2807	8.53		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
21.3	1,972	Total			

Subcatchment K1: Post-Development K1

Hydrograph



Summary for Subcatchment K2: Post-Development K2

Runoff = 9.64 cfs @ 12.18 hrs, Volume= 0.867 af, Depth= 5.09"

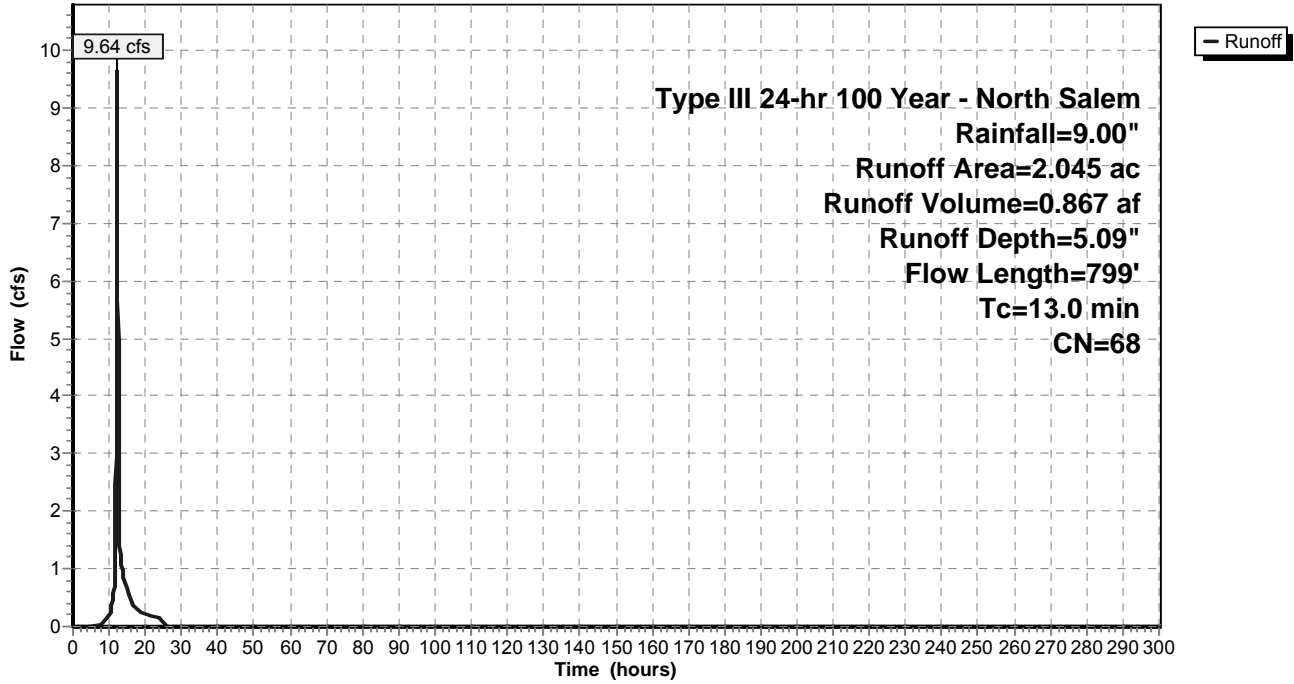
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.052	98	Roof (Sewer Plant)
* 0.300	98	Road
0.686	55	Woods, Good, HSG B
0.162	70	Woods, Good, HSG C
0.398	61	>75% Grass cover, Good, HSG B
0.334	74	>75% Grass cover, Good, HSG C
* 0.113	61	Basin, HSG B
2.045	68	Weighted Average
1.693		82.79% Pervious Area
0.352		17.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.1000	0.16		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	91	0.1428	6.08		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
1.3	373	0.0858	4.72		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.4	67	0.0299	2.78		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.6	168	0.0298	5.09	4.00	Pipe Channel, E-F 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.020 Corrugated PE, corrugated interior
13.0	799	Total			

Subcatchment K2: Post-Development K2

Hydrograph



Summary for Subcatchment K3: Post-Development K3

Runoff = 68.58 cfs @ 12.19 hrs, Volume= 6.601 af, Depth= 7.18"

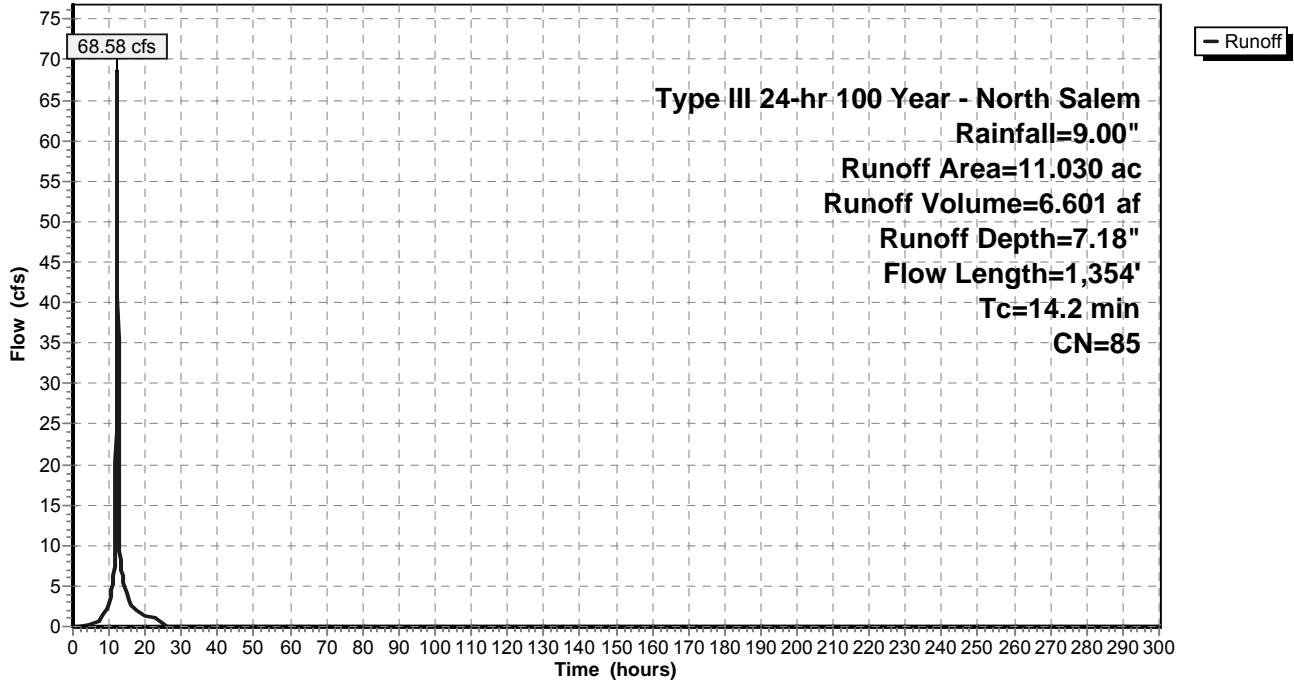
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 2.651	98	Roof/Walkway (MF Units)
* 1.453	98	Road
* 0.237	98	Recreation Center
* 0.071	98	Sidewalk
* 1.209	98	Driveway
0.248	70	Woods, Good, HSG C
0.546	61	>75% Grass cover, Good, HSG B
4.255	74	>75% Grass cover, Good, HSG C
* 0.360	74	Basin, HSG C
11.030	85	Weighted Average
5.409		49.04% Pervious Area
5.621		50.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.9	34	0.2900	0.29		Sheet Flow, A-B Grass: Dense n= 0.240 P2= 3.70"
3.5	33	0.0600	0.16		Sheet Flow, B-C Grass: Dense n= 0.240 P2= 3.70"
0.8	17	0.5800	0.34		Sheet Flow, C-D Grass: Dense n= 0.240 P2= 3.70"
2.6	16	0.0300	0.10		Sheet Flow, D-E Grass: Dense n= 0.240 P2= 3.70"
1.4	231	0.0300	2.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.5	84	0.0300	2.79		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.4	85	0.0100	3.42	4.20	Pipe Channel, G-H 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.3	475	0.0300	5.93	7.27	Pipe Channel, H-I 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
1.6	325	0.0100	3.42	4.20	Pipe Channel, I-J 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
0.2	54	0.0200	4.84	5.94	Pipe Channel, J-K 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.020 Corrugated PE, corrugated interior
14.2	1,354	Total			

Subcatchment K3: Post-Development K3

Hydrograph



Summary for Subcatchment K4: Post-Development K4

Runoff = 4.33 cfs @ 12.16 hrs, Volume= 0.372 af, Depth= 4.10"

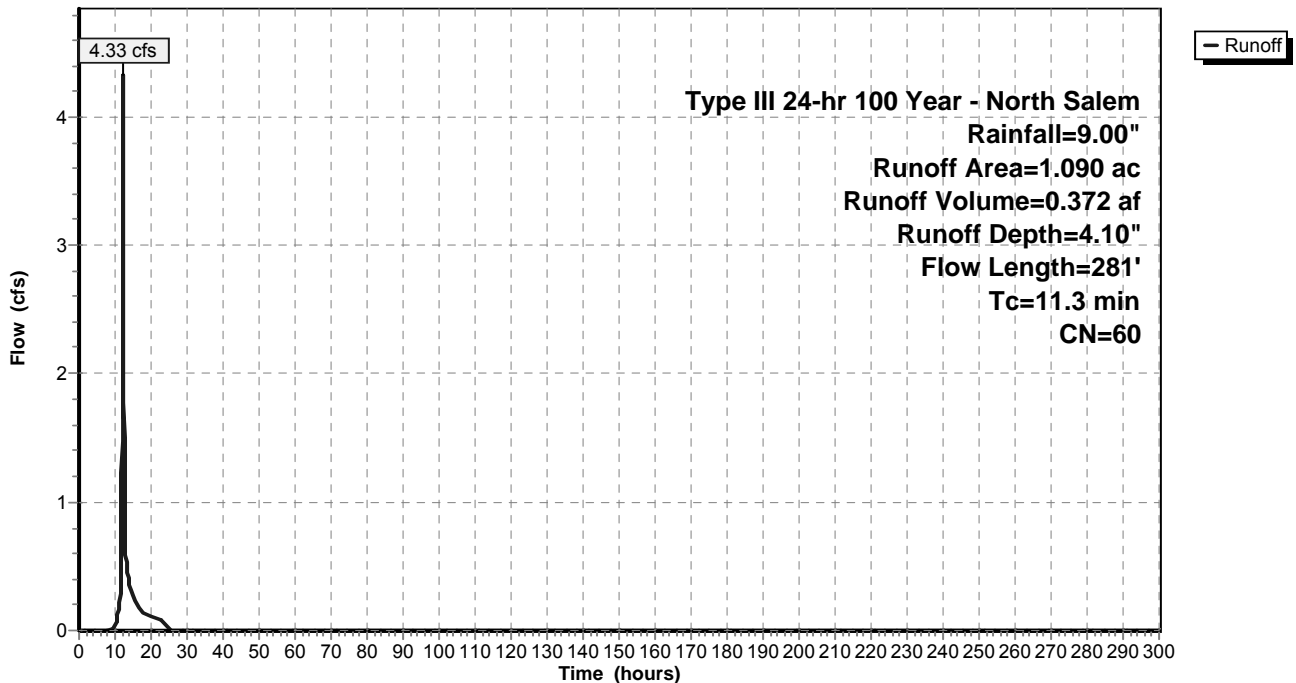
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
0.264	55	Woods, Good, HSG B
0.826	61	>75% Grass cover, Good, HSG B
1.090	60	Weighted Average
1.090		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0900	0.15		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.2	90	0.2000	7.20		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.1	35	0.1710	6.66		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.1	56	0.3570	9.62		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
11.3	281	Total			

Subcatchment K4: Post-Development K4

Hydrograph



Summary for Subcatchment K5: Post-Development K5

Runoff = 41.41 cfs @ 12.30 hrs, Volume= 4.664 af, Depth= 6.69"

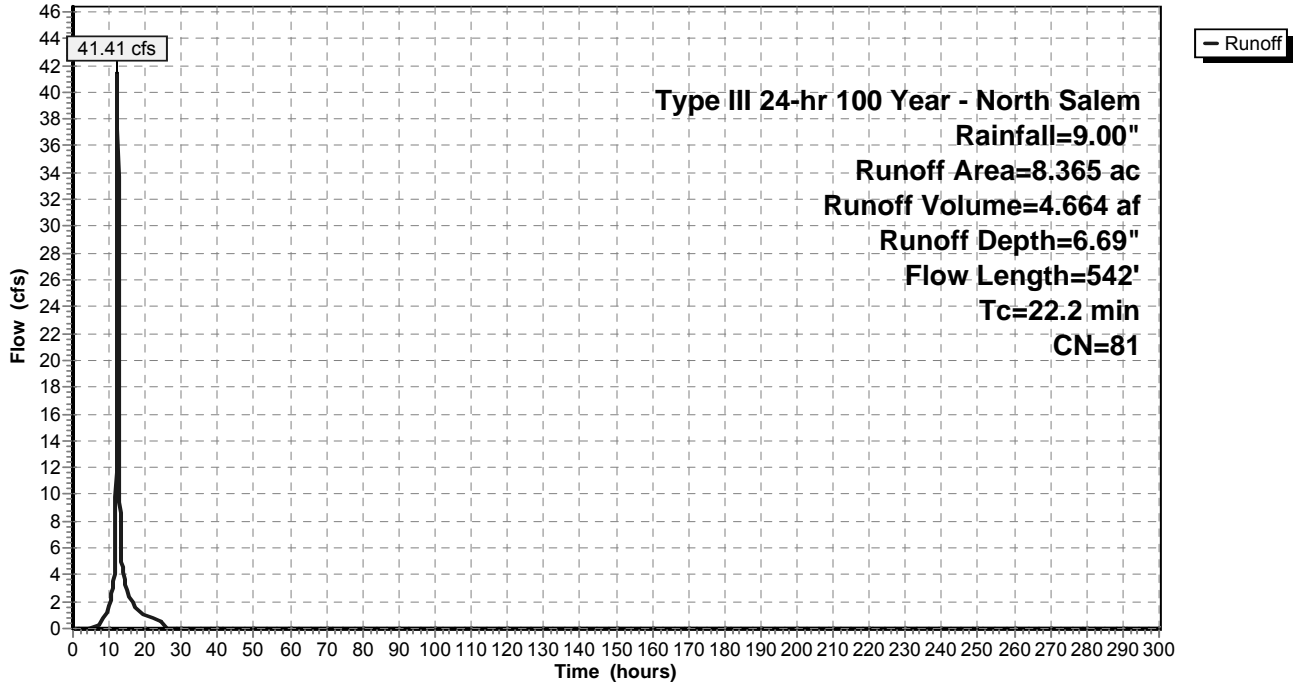
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.724	98	Driveway
* 0.701	98	Roof/Walkway
* 0.630	74	Basin, HSG C
0.559	70	Woods, Good, HSG C
4.680	74	>75% Grass cover, Good, HSG C
* 0.103	98	Sidewalk
* 0.968	98	Road
8.365	81	Weighted Average
5.869		70.16% Pervious Area
2.496		29.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.0	100	0.0200	0.08		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.1	32	0.0625	4.03		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
2.1	410	0.0415	3.28		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
22.2	542	Total			

Subcatchment K5: Post-Development K5

Hydrograph



Summary for Subcatchment K6: Post-Development K6

Runoff = 47.24 cfs @ 12.17 hrs, Volume= 4.178 af, Depth= 5.83"

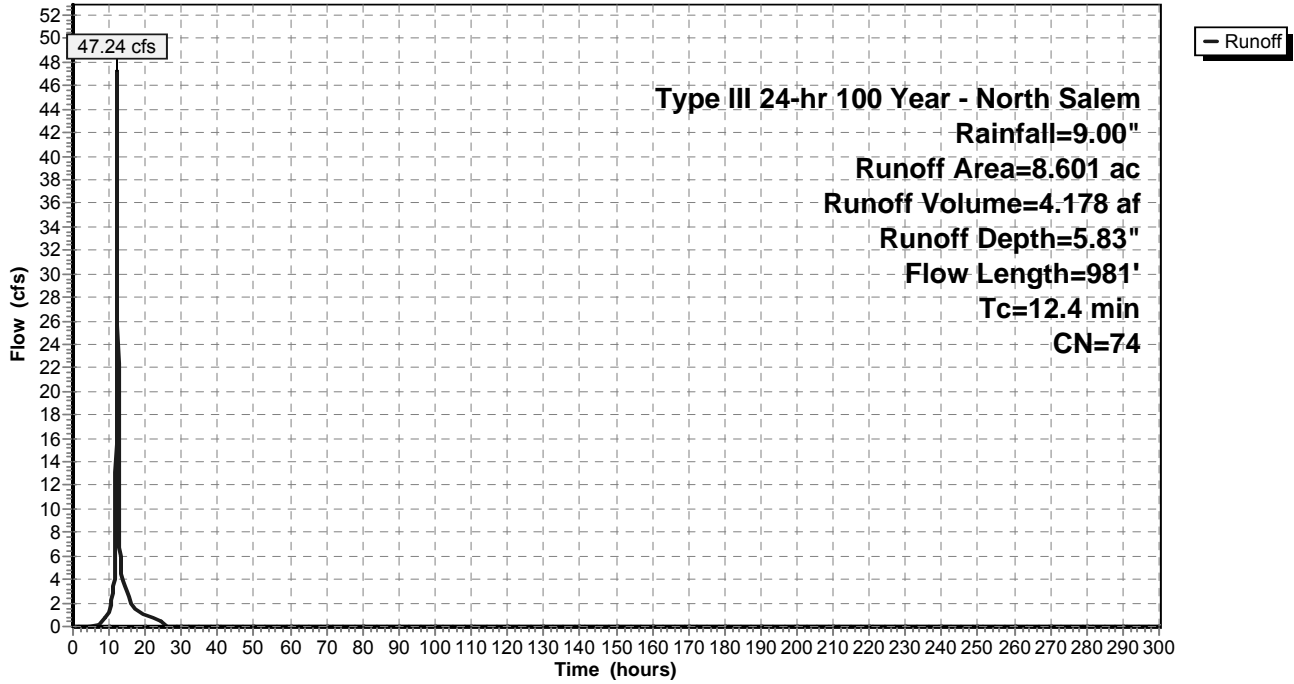
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100 Year - North Salem Rainfall=9.00"

Area (ac)	CN	Description
* 0.493	98	Driveway
* 0.320	98	Roof/Walkway
3.626	74	>75% Grass cover, Good, HSG C
3.929	70	Woods, Good, HSG C
* 0.233	74	Basin, HSG C
8.601	74	Weighted Average
7.788		90.55% Pervious Area
0.813		9.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.1200	0.17		Sheet Flow, A-B Woods: Light underbrush n= 0.400 P2= 3.70"
0.6	192	0.1200	5.58		Shallow Concentrated Flow, B-C Unpaved Kv= 16.1 fps
0.2	66	0.1818	6.86		Shallow Concentrated Flow, C-D Unpaved Kv= 16.1 fps
0.3	156	0.2179	7.52		Shallow Concentrated Flow, D-E Unpaved Kv= 16.1 fps
0.2	90	0.1778	6.79		Shallow Concentrated Flow, E-F Unpaved Kv= 16.1 fps
0.3	95	0.1263	5.72		Shallow Concentrated Flow, F-G Unpaved Kv= 16.1 fps
0.2	96	0.2292	7.71		Shallow Concentrated Flow, G-H Unpaved Kv= 16.1 fps
0.7	100	0.0200	2.28		Shallow Concentrated Flow, H-I Unpaved Kv= 16.1 fps
0.1	86	0.1395	22.20	39.23	Pipe Channel, I-J 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.013 Corrugated PE, smooth interior
12.4	981	Total			

Subcatchment K6: Post-Development K6

Hydrograph



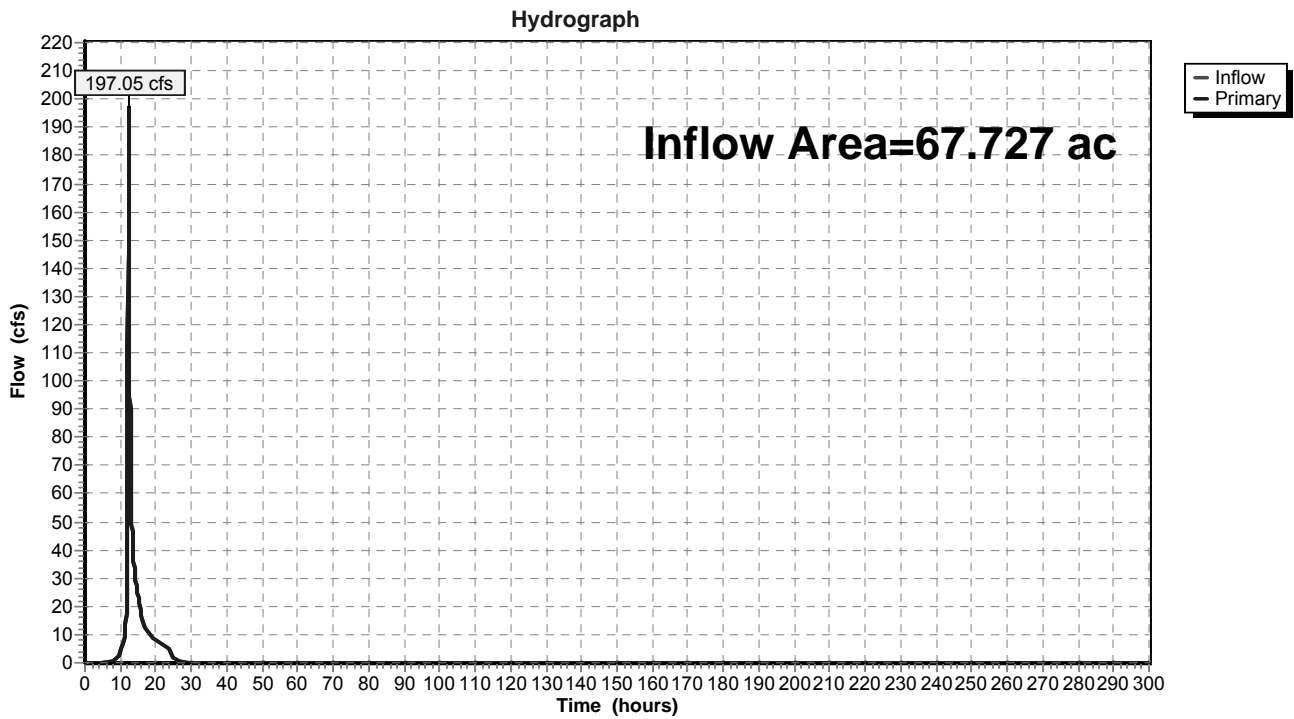
Summary for Pond DP 11: Design Point 11

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 67.727 ac, 13.99% Impervious, Inflow Depth = 4.51" for 100 Year - North Salem event
Inflow = 197.05 cfs @ 12.27 hrs, Volume= 25.434 af
Primary = 197.05 cfs @ 12.27 hrs, Volume= 25.434 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Pond DP 11: Design Point 11



Summary for Pond ED-K3: Micropool ED Basin - (Basin K3)

[79] Warning: Submerged Pond SF-K3 Primary device # 1 INLET by 0.03'

Inflow Area = 12.120 ac, 46.38% Impervious, Inflow Depth = 4.82" for 100 Year - North Salem event
 Inflow = 38.13 cfs @ 12.19 hrs, Volume= 4.872 af
 Outflow = 13.39 cfs @ 12.99 hrs, Volume= 3.119 af, Atten= 65%, Lag= 48.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 13.39 cfs @ 12.99 hrs, Volume= 3.119 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 449.25' Surf.Area= 7,320 sf Storage= 12,835 cf
 Peak Elev= 455.53' @ 12.99 hrs Surf.Area= 21,486 sf Storage= 100,240 cf (87,405 cf above start)

Plug-Flow detention time= 245.4 min calculated for 2.824 af (58% of inflow)
 Center-of-Mass det. time= 100.7 min (979.5 - 878.9)

Volume	Invert	Avail.Storage	Storage Description		
#1	447.00'	110,623 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
447.00	4,810	362.0	0	0	4,810
448.00	5,362	385.0	5,084	5,084	6,227
449.00	6,669	363.0	6,004	11,087	7,589
450.00	9,457	535.0	8,023	19,110	19,889
452.00	12,935	612.0	22,301	41,411	27,010
452.50	13,407	621.0	6,585	47,996	27,945
454.00	17,007	708.0	22,757	70,753	37,200
455.00	19,968	745.0	18,468	89,221	41,539
456.00	22,869	693.0	21,402	110,623	47,533

Device	Routing	Invert	Outlet Devices
#1	Primary	446.50'	24.0" Round Outlet Pipe X 0.00 L= 84.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 445.50' S= 0.0119 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	449.25'	2.0" Round Reverse Pipe Inlet L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 448.00' S= -0.0833 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	453.00'	24.0" W x 17.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	454.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	455.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=449.25' (Free Discharge)

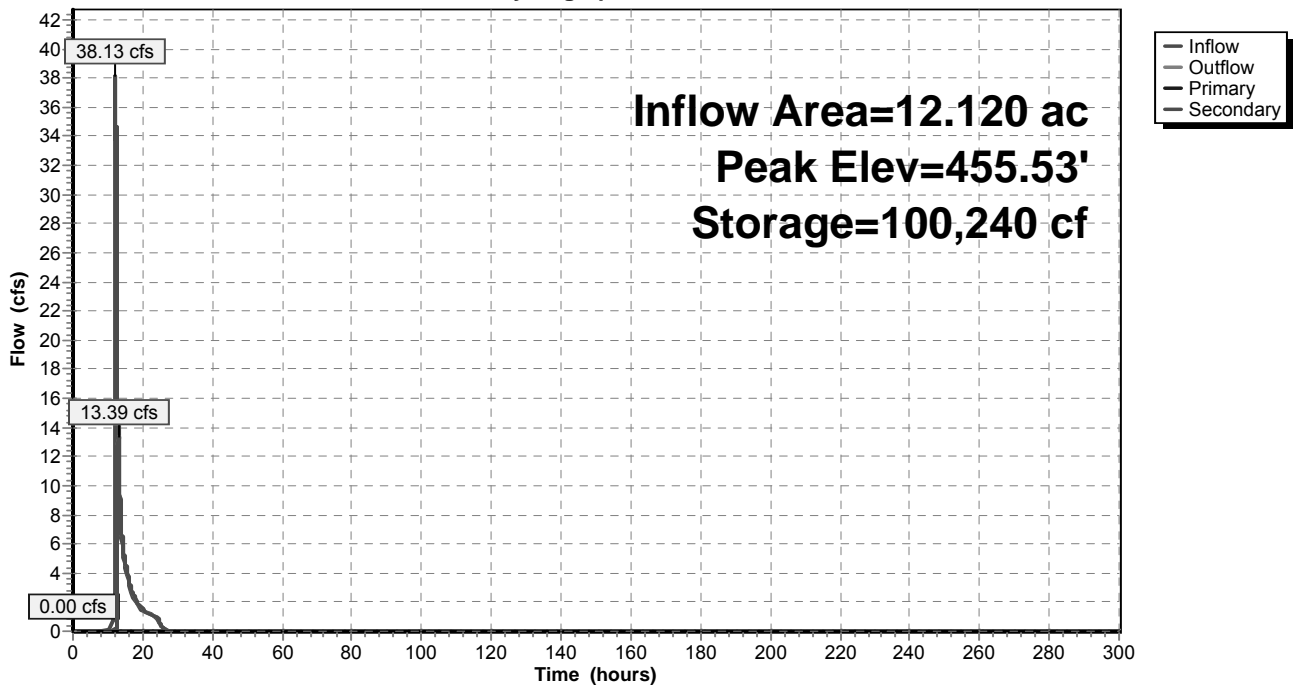
- 1=Outlet Pipe (Controls 0.00 cfs)
- 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- 3=Orifice #1 (Controls 0.00 cfs)
- 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=13.34 cfs @ 12.99 hrs HW=455.53' (Free Discharge)

- 5=Emergency Overflow (Weir Controls 13.34 cfs @ 2.54 fps)

Pond ED-K3: Micropool ED Basin - (Basin K3)

Hydrograph



Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
447.00	4,810	0	448.06	5,436	5,407
447.02	4,821	96	448.08	5,461	5,516
447.04	4,832	193	448.10	5,486	5,626
447.06	4,842	290	448.12	5,511	5,736
447.08	4,853	387	448.14	5,536	5,846
447.10	4,864	484	448.16	5,562	5,957
447.12	4,875	581	448.18	5,587	6,069
447.14	4,885	679	448.20	5,612	6,181
447.16	4,896	776	448.22	5,637	6,293
447.18	4,907	875	448.24	5,663	6,406
447.20	4,918	973	448.26	5,688	6,520
447.22	4,929	1,071	448.28	5,714	6,634
447.24	4,940	1,170	448.30	5,739	6,748
447.26	4,951	1,269	448.32	5,765	6,863
447.28	4,962	1,368	448.34	5,790	6,979
447.30	4,972	1,467	448.36	5,816	7,095
447.32	4,983	1,567	448.38	5,842	7,212
447.34	4,994	1,667	448.40	5,868	7,329
447.36	5,005	1,767	448.42	5,894	7,446
447.38	5,016	1,867	448.44	5,920	7,564
447.40	5,027	1,967	448.46	5,946	7,683
447.42	5,038	2,068	448.48	5,972	7,802
447.44	5,049	2,169	448.50	5,998	7,922
447.46	5,060	2,270	448.52	6,024	8,042
447.48	5,071	2,371	448.54	6,050	8,163
447.50	5,082	2,473	448.56	6,076	8,284
447.52	5,093	2,575	448.58	6,103	8,406
447.54	5,104	2,676	448.60	6,129	8,528
447.56	5,115	2,779	448.62	6,156	8,651
447.58	5,127	2,881	448.64	6,182	8,774
447.60	5,138	2,984	448.66	6,209	8,898
447.62	5,149	3,087	448.68	6,235	9,023
447.64	5,160	3,190	448.70	6,262	9,148
447.66	5,171	3,293	448.72	6,289	9,273
447.68	5,182	3,397	448.74	6,315	9,399
447.70	5,193	3,500	448.76	6,342	9,526
447.72	5,204	3,604	448.78	6,369	9,653
447.74	5,216	3,708	448.80	6,396	9,781
447.76	5,227	3,813	448.82	6,423	9,909
447.78	5,238	3,918	448.84	6,450	10,038
447.80	5,249	4,022	448.86	6,477	10,167
447.82	5,260	4,127	448.88	6,505	10,297
447.84	5,272	4,233	448.90	6,532	10,427
447.86	5,283	4,338	448.92	6,559	10,558
447.88	5,294	4,444	448.94	6,587	10,689
447.90	5,305	4,550	448.96	6,614	10,821
447.92	5,317	4,656	448.98	6,641	10,954
447.94	5,328	4,763	449.00	6,669	11,087
447.96	5,339	4,869	449.02	6,720	11,221
447.98	5,351	4,976	449.04	6,771	11,356
448.00	5,362	5,084	449.06	6,823	11,492
448.02	5,387	5,191	449.08	6,874	11,629
448.04	5,412	5,299	449.10	6,926	11,767

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
449.12	6,978	11,906	450.18	9,748	20,838
449.14	7,030	12,046	450.20	9,780	21,033
449.16	7,082	12,187	450.22	9,813	21,229
449.18	7,135	12,329	450.24	9,846	21,426
449.20	7,188	12,472	450.26	9,878	21,623
449.22	7,241	12,617	450.28	9,911	21,821
449.24	7,294	12,762	450.30	9,944	22,020
449.26	7,347	12,909	450.32	9,977	22,219
449.28	7,401	13,056	450.34	10,010	22,419
449.30	7,454	13,205	450.36	10,043	22,619
449.32	7,508	13,354	450.38	10,076	22,820
449.34	7,562	13,505	450.40	10,109	23,022
449.36	7,617	13,657	450.42	10,142	23,225
449.38	7,671	13,810	450.44	10,176	23,428
449.40	7,726	13,964	450.46	10,209	23,632
449.42	7,781	14,119	450.48	10,242	23,836
449.44	7,836	14,275	450.50	10,276	24,041
449.46	7,891	14,432	450.52	10,309	24,247
449.48	7,947	14,590	450.54	10,342	24,454
449.50	8,002	14,750	450.56	10,376	24,661
449.52	8,058	14,911	450.58	10,410	24,869
449.54	8,114	15,072	450.60	10,443	25,077
449.56	8,170	15,235	450.62	10,477	25,287
449.58	8,227	15,399	450.64	10,511	25,496
449.60	8,284	15,564	450.66	10,545	25,707
449.62	8,340	15,730	450.68	10,579	25,918
449.64	8,397	15,898	450.70	10,612	26,130
449.66	8,455	16,066	450.72	10,646	26,343
449.68	8,512	16,236	450.74	10,681	26,556
449.70	8,570	16,407	450.76	10,715	26,770
449.72	8,627	16,579	450.78	10,749	26,985
449.74	8,685	16,752	450.80	10,783	27,200
449.76	8,744	16,926	450.82	10,817	27,416
449.78	8,802	17,102	450.84	10,852	27,633
449.80	8,861	17,278	450.86	10,886	27,850
449.82	8,919	17,456	450.88	10,920	28,068
449.84	8,978	17,635	450.90	10,955	28,287
449.86	9,037	17,815	450.92	10,989	28,506
449.88	9,097	17,997	450.94	11,024	28,726
449.90	9,156	18,179	450.96	11,059	28,947
449.92	9,216	18,363	450.98	11,093	29,169
449.94	9,276	18,548	451.00	11,128	29,391
449.96	9,336	18,734	451.02	11,163	29,614
449.98	9,396	18,921	451.04	11,198	29,837
450.00	9,457	19,110	451.06	11,233	30,062
450.02	9,489	19,299	451.08	11,268	30,287
450.04	9,521	19,489	451.10	11,303	30,512
450.06	9,553	19,680	451.12	11,338	30,739
450.08	9,586	19,871	451.14	11,373	30,966
450.10	9,618	20,063	451.16	11,408	31,194
450.12	9,650	20,256	451.18	11,443	31,422
450.14	9,683	20,449	451.20	11,479	31,651
450.16	9,715	20,643	451.22	11,514	31,881

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
451.24	11,549	32,112	452.30	13,217	45,334
451.26	11,585	32,343	452.32	13,236	45,598
451.28	11,620	32,575	452.34	13,255	45,863
451.30	11,656	32,808	452.36	13,274	46,129
451.32	11,691	33,042	452.38	13,293	46,394
451.34	11,727	33,276	452.40	13,312	46,660
451.36	11,763	33,511	452.42	13,331	46,927
451.38	11,799	33,746	452.44	13,350	47,194
451.40	11,835	33,983	452.46	13,369	47,461
451.42	11,870	34,220	452.48	13,388	47,728
451.44	11,906	34,457	452.50	13,407	47,996
451.46	11,942	34,696	452.52	13,426	48,265
451.48	11,978	34,935	452.54	13,445	48,534
451.50	12,015	35,175	452.56	13,464	48,805
451.52	12,051	35,416	452.58	13,483	49,076
451.54	12,087	35,657	452.60	13,502	49,348
451.56	12,123	35,899	452.62	13,521	49,621
451.58	12,160	36,142	452.64	13,540	49,895
451.60	12,196	36,386	452.66	13,559	50,170
451.62	12,232	36,630	452.68	13,578	50,446
451.64	12,269	36,875	452.70	13,597	50,723
451.66	12,305	37,121	452.72	13,616	51,001
451.68	12,342	37,367	452.74	13,635	51,279
451.70	12,379	37,614	452.76	13,654	51,559
451.72	12,415	37,862	452.78	13,673	51,839
451.74	12,452	38,111	452.80	13,692	52,121
451.76	12,489	38,360	452.82	13,711	52,403
451.78	12,526	38,611	452.84	13,730	52,686
451.80	12,563	38,861	452.86	13,749	52,971
451.82	12,600	39,113	452.88	13,768	53,256
451.84	12,637	39,365	452.90	13,787	53,542
451.86	12,674	39,618	452.92	13,806	53,829
451.88	12,711	39,872	452.94	13,825	54,117
451.90	12,748	40,127	452.96	13,844	54,405
451.92	12,785	40,382	452.98	13,863	54,695
451.94	12,823	40,638	453.00	13,882	54,986
451.96	12,860	40,895	453.02	13,901	55,278
451.98	12,898	41,153	453.04	13,920	55,570
452.00	12,935	41,411	453.06	13,939	55,864
452.02	12,972	41,670	453.08	13,958	56,158
452.04	12,972	41,929	453.10	13,977	56,454
452.06	12,991	42,189	453.12	13,996	56,750
452.08	13,010	42,449	453.14	14,015	57,047
452.10	13,029	42,709	453.16	14,034	57,346
452.12	13,048	42,970	453.18	14,053	57,645
452.14	13,066	43,231	453.20	14,072	57,945
452.16	13,085	43,493	453.22	14,091	58,246
452.18	13,104	43,755	453.24	14,110	58,548
452.20	13,123	44,017	453.26	14,129	58,851
452.22	13,142	44,279	453.28	14,148	59,155
452.24	13,161	44,542	453.30	14,167	59,460
452.26	13,179	44,806	453.32	14,186	59,766
452.28	13,198	45,070	453.34	14,205	60,073

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
453.36	15,419	60,381	454.42	18,222	78,150
453.38	15,467	60,690	454.44	18,281	78,515
453.40	15,516	61,000	454.46	18,340	78,881
453.42	15,564	61,311	454.48	18,399	79,248
453.44	15,613	61,622	454.50	18,458	79,617
453.46	15,662	61,935	454.52	18,517	79,987
453.48	15,711	62,249	454.54	18,576	80,358
453.50	15,759	62,564	454.56	18,636	80,730
453.52	15,808	62,879	454.58	18,695	81,103
453.54	15,858	63,196	454.60	18,755	81,478
453.56	15,907	63,514	454.62	18,815	81,853
453.58	15,956	63,832	454.64	18,875	82,230
453.60	16,005	64,152	454.66	18,935	82,608
453.62	16,055	64,472	454.68	18,995	82,988
453.64	16,104	64,794	454.70	19,055	83,368
453.66	16,154	65,117	454.72	19,115	83,750
453.68	16,203	65,440	454.74	19,175	84,133
453.70	16,253	65,765	454.76	19,236	84,517
453.72	16,303	66,090	454.78	19,296	84,902
453.74	16,352	66,417	454.80	19,357	85,289
453.76	16,402	66,744	454.82	19,417	85,676
453.78	16,452	67,073	454.84	19,478	86,065
453.80	16,502	67,402	454.86	19,539	86,456
453.82	16,552	67,733	454.88	19,600	86,847
453.84	16,603	68,065	454.90	19,661	87,240
453.86	16,653	68,397	454.92	19,722	87,633
453.88	16,703	68,731	454.94	19,784	88,028
453.90	16,754	69,065	454.96	19,845	88,425
453.92	16,804	69,401	454.98	19,906	88,822
453.94	16,855	69,737	455.00	19,968	89,221
453.96	16,905	70,075	455.02	20,024	89,621
453.98	16,956	70,414	455.04	20,080	90,022
454.00	17,007	70,753	455.06	20,137	90,424
454.02	17,064	71,094	455.08	20,193	90,827
454.04	17,121	71,436	455.10	20,249	91,232
454.06	17,178	71,779	455.12	20,306	91,637
454.08	17,235	72,123	455.14	20,362	92,044
454.10	17,292	72,468	455.16	20,419	92,452
454.12	17,350	72,815	455.18	20,476	92,861
454.14	17,407	73,162	455.20	20,532	93,271
454.16	17,465	73,511	455.22	20,589	93,682
454.18	17,522	73,861	455.24	20,646	94,094
454.20	17,580	74,212	455.26	20,703	94,508
454.22	17,638	74,564	455.28	20,760	94,923
454.24	17,696	74,917	455.30	20,818	95,338
454.26	17,754	75,272	455.32	20,875	95,755
454.28	17,812	75,628	455.34	20,932	96,173
454.30	17,870	75,984	455.36	20,990	96,593
454.32	17,929	76,342	455.38	21,047	97,013
454.34	17,987	76,701	455.40	21,105	97,434
454.36	18,046	77,062	455.42	21,162	97,857
454.38	18,104	77,423	455.44	21,220	98,281
454.40	18,163	77,786	455.46	21,278	98,706

Stage-Area-Storage for Pond ED-K3: Micropool ED Basin - (Basin K3) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
455.48	21,336	99,132
455.50	21,394	99,559
455.52	21,452	99,988
455.54	21,510	100,417
455.56	21,568	100,848
455.58	21,627	101,280
455.60	21,685	101,713
455.62	21,743	102,148
455.64	21,802	102,583
455.66	21,861	103,020
455.68	21,919	103,458
455.70	21,978	103,896
455.72	22,037	104,337
455.74	22,096	104,778
455.76	22,155	105,220
455.78	22,214	105,664
455.80	22,273	106,109
455.82	22,332	106,555
455.84	22,392	107,002
455.86	22,451	107,451
455.88	22,510	107,900
455.90	22,570	108,351
455.92	22,630	108,803
455.94	22,689	109,256
455.96	22,749	109,711
455.98	22,809	110,166
456.00	22,869	110,623

Summary for Pond ED-K5: Micropool ED Basin - (Basin K5)

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 4.76" for 100 Year - North Salem event
 Inflow = 29.40 cfs @ 12.48 hrs, Volume= 3.315 af
 Outflow = 15.01 cfs @ 12.84 hrs, Volume= 2.401 af, Atten= 49%, Lag= 21.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 15.01 cfs @ 12.84 hrs, Volume= 2.401 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 482.00' Surf.Area= 5,213 sf Storage= 7,611 cf
 Peak Elev= 486.62' @ 12.84 hrs Surf.Area= 15,060 sf Storage= 55,764 cf (48,153 cf above start)

Plug-Flow detention time= 192.7 min calculated for 2.226 af (67% of inflow)
 Center-of-Mass det. time= 69.6 min (953.7 - 884.1)

Volume	Invert	Avail.Storage	Storage Description		
#1	480.00'	61,574 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
480.00	2,554	434.0	0	0	2,554
482.00	5,213	561.0	7,611	7,611	12,659
484.00	10,103	698.0	15,049	22,659	26,442
485.00	12,045	638.0	11,060	33,719	32,856
486.00	13,988	657.0	13,004	46,724	34,918
487.00	15,730	677.0	14,850	61,574	37,144

Device	Routing	Invert	Outlet Devices
#1	Primary	480.00'	24.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 478.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	482.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 480.50' S= -0.1500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	485.25'	36.0" W x 9.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	486.00'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	486.05'	10.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

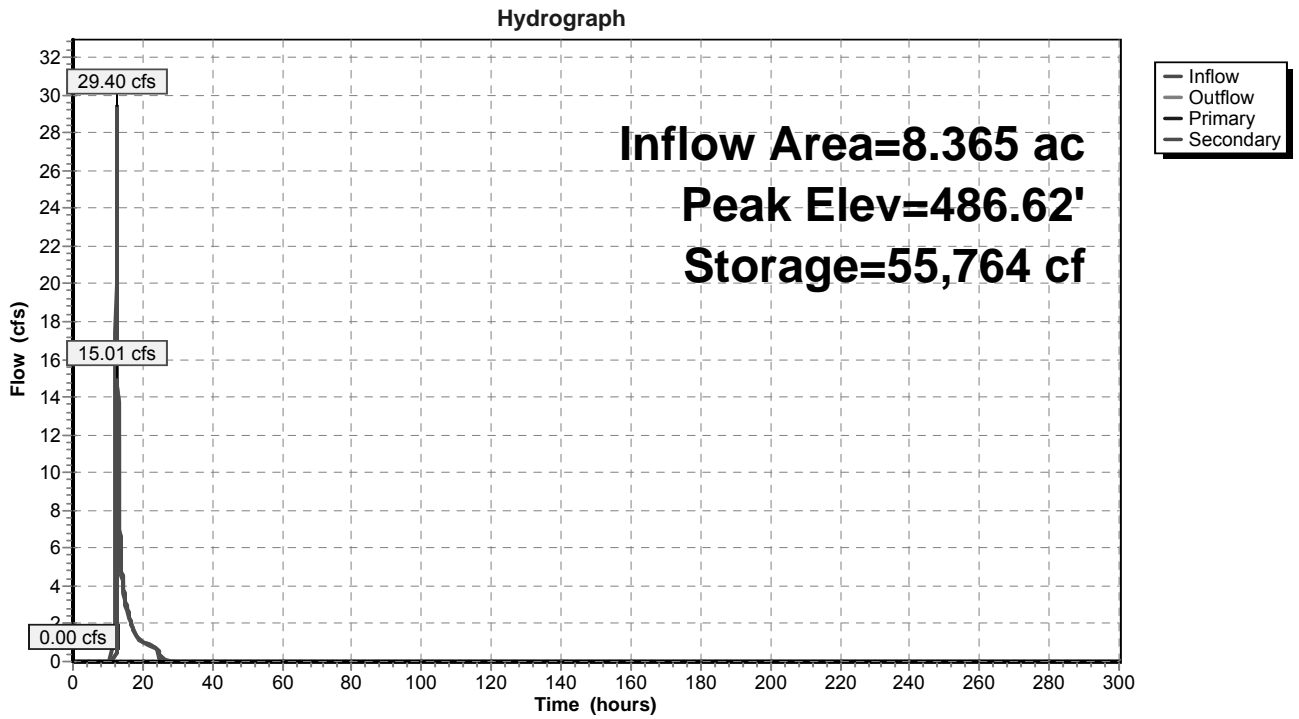
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=482.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=14.95 cfs @ 12.84 hrs HW=486.62' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Weir Controls 14.95 cfs @ 2.65 fps)

Pond ED-K5: Micropool ED Basin - (Basin K5)



Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
480.00	2,554	0	481.06	3,846	3,369
480.02	2,576	51	481.08	3,873	3,446
480.04	2,598	103	481.10	3,900	3,524
480.06	2,620	155	481.12	3,927	3,602
480.08	2,642	208	481.14	3,955	3,681
480.10	2,665	261	481.16	3,982	3,760
480.12	2,687	314	481.18	4,009	3,840
480.14	2,710	368	481.20	4,037	3,921
480.16	2,732	423	481.22	4,064	4,002
480.18	2,755	478	481.24	4,092	4,083
480.20	2,778	533	481.26	4,120	4,165
480.22	2,801	589	481.28	4,148	4,248
480.24	2,824	645	481.30	4,176	4,331
480.26	2,847	702	481.32	4,204	4,415
480.28	2,870	759	481.34	4,232	4,499
480.30	2,893	817	481.36	4,260	4,584
480.32	2,916	875	481.38	4,288	4,670
480.34	2,940	933	481.40	4,317	4,756
480.36	2,963	992	481.42	4,345	4,842
480.38	2,987	1,052	481.44	4,374	4,930
480.40	3,011	1,112	481.46	4,403	5,017
480.42	3,035	1,172	481.48	4,431	5,106
480.44	3,058	1,233	481.50	4,460	5,195
480.46	3,082	1,294	481.52	4,489	5,284
480.48	3,107	1,356	481.54	4,518	5,374
480.50	3,131	1,419	481.56	4,547	5,465
480.52	3,155	1,482	481.58	4,577	5,556
480.54	3,179	1,545	481.60	4,606	5,648
480.56	3,204	1,609	481.62	4,636	5,740
480.58	3,228	1,673	481.64	4,665	5,833
480.60	3,253	1,738	481.66	4,695	5,927
480.62	3,278	1,803	481.68	4,724	6,021
480.64	3,303	1,869	481.70	4,754	6,116
480.66	3,328	1,935	481.72	4,784	6,211
480.68	3,353	2,002	481.74	4,814	6,307
480.70	3,378	2,069	481.76	4,844	6,404
480.72	3,403	2,137	481.78	4,875	6,501
480.74	3,428	2,206	481.80	4,905	6,599
480.76	3,454	2,274	481.82	4,935	6,697
480.78	3,479	2,344	481.84	4,966	6,796
480.80	3,505	2,414	481.86	4,996	6,896
480.82	3,531	2,484	481.88	5,027	6,996
480.84	3,556	2,555	481.90	5,058	7,097
480.86	3,582	2,626	481.92	5,089	7,199
480.88	3,608	2,698	481.94	5,120	7,301
480.90	3,634	2,771	481.96	5,151	7,403
480.92	3,661	2,843	481.98	5,182	7,507
480.94	3,687	2,917	482.00	5,213	7,611
480.96	3,713	2,991	482.02	5,254	7,715
480.98	3,740	3,065	482.04	5,295	7,821
481.00	3,766	3,141	482.06	5,336	7,927
481.02	3,793	3,216	482.08	5,378	8,034
481.04	3,820	3,292	482.10	5,419	8,142

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
482.12	5,461	8,251	483.18	7,904	15,295
482.14	5,503	8,361	483.20	7,955	15,453
482.16	5,545	8,471	483.22	8,005	15,613
482.18	5,587	8,582	483.24	8,056	15,774
482.20	5,630	8,695	483.26	8,107	15,935
482.22	5,672	8,808	483.28	8,158	16,098
482.24	5,715	8,921	483.30	8,209	16,262
482.26	5,758	9,036	483.32	8,261	16,426
482.28	5,801	9,152	483.34	8,312	16,592
482.30	5,844	9,268	483.36	8,364	16,759
482.32	5,888	9,386	483.38	8,416	16,927
482.34	5,931	9,504	483.40	8,468	17,095
482.36	5,975	9,623	483.42	8,520	17,265
482.38	6,019	9,743	483.44	8,572	17,436
482.40	6,063	9,864	483.46	8,625	17,608
482.42	6,107	9,985	483.48	8,677	17,781
482.44	6,151	10,108	483.50	8,730	17,955
482.46	6,196	10,231	483.52	8,783	18,130
482.48	6,240	10,356	483.54	8,836	18,307
482.50	6,285	10,481	483.56	8,890	18,484
482.52	6,330	10,607	483.58	8,943	18,662
482.54	6,375	10,734	483.60	8,997	18,842
482.56	6,421	10,862	483.62	9,051	19,022
482.58	6,466	10,991	483.64	9,104	19,204
482.60	6,512	11,121	483.66	9,159	19,386
482.62	6,557	11,251	483.68	9,213	19,570
482.64	6,603	11,383	483.70	9,267	19,755
482.66	6,649	11,516	483.72	9,322	19,941
482.68	6,696	11,649	483.74	9,377	20,128
482.70	6,742	11,783	483.76	9,432	20,316
482.72	6,789	11,919	483.78	9,487	20,505
482.74	6,835	12,055	483.80	9,542	20,695
482.76	6,882	12,192	483.82	9,597	20,887
482.78	6,929	12,330	483.84	9,653	21,079
482.80	6,977	12,469	483.86	9,709	21,273
482.82	7,024	12,609	483.88	9,764	21,467
482.84	7,072	12,750	483.90	9,820	21,663
482.86	7,119	12,892	483.92	9,877	21,860
482.88	7,167	13,035	483.94	9,933	22,058
482.90	7,215	13,179	483.96	9,989	22,258
482.92	7,263	13,324	483.98	10,046	22,458
482.94	7,312	13,469	484.00	10,103	22,659
482.96	7,360	13,616	484.02	10,140	22,862
482.98	7,409	13,764	484.04	10,177	23,065
483.00	7,458	13,912	484.06	10,215	23,269
483.02	7,507	14,062	484.08	10,252	23,474
483.04	7,556	14,213	484.10	10,290	23,679
483.06	7,605	14,364	484.12	10,327	23,885
483.08	7,654	14,517	484.14	10,365	24,092
483.10	7,704	14,671	484.16	10,402	24,300
483.12	7,754	14,825	484.18	10,440	24,508
483.14	7,804	14,981	484.20	10,478	24,717
483.16	7,854	15,137	484.22	10,516	24,927

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
484.24	10,554	25,138	485.30	12,613	37,417
484.26	10,592	25,349	485.32	12,651	37,670
484.28	10,630	25,562	485.34	12,689	37,923
484.30	10,668	25,775	485.36	12,728	38,178
484.32	10,706	25,988	485.38	12,766	38,433
484.34	10,744	26,203	485.40	12,805	38,688
484.36	10,782	26,418	485.42	12,843	38,945
484.38	10,821	26,634	485.44	12,882	39,202
484.40	10,859	26,851	485.46	12,921	39,460
484.42	10,898	27,068	485.48	12,960	39,719
484.44	10,936	27,287	485.50	12,998	39,978
484.46	10,975	27,506	485.52	13,037	40,239
484.48	11,014	27,726	485.54	13,076	40,500
484.50	11,053	27,946	485.56	13,115	40,762
484.52	11,092	28,168	485.58	13,154	41,025
484.54	11,130	28,390	485.60	13,193	41,288
484.56	11,170	28,613	485.62	13,233	41,552
484.58	11,209	28,837	485.64	13,272	41,817
484.60	11,248	29,062	485.66	13,311	42,083
484.62	11,287	29,287	485.68	13,350	42,350
484.64	11,326	29,513	485.70	13,390	42,617
484.66	11,366	29,740	485.72	13,429	42,885
484.68	11,405	29,968	485.74	13,469	43,154
484.70	11,444	30,196	485.76	13,508	43,424
484.72	11,484	30,425	485.78	13,548	43,695
484.74	11,524	30,655	485.80	13,588	43,966
484.76	11,563	30,886	485.82	13,628	44,238
484.78	11,603	31,118	485.84	13,667	44,511
484.80	11,643	31,350	485.86	13,707	44,785
484.82	11,683	31,584	485.88	13,747	45,059
484.84	11,723	31,818	485.90	13,787	45,335
484.86	11,763	32,053	485.92	13,827	45,611
484.88	11,803	32,288	485.94	13,867	45,888
484.90	11,843	32,525	485.96	13,907	46,166
484.92	11,883	32,762	485.98	13,948	46,444
484.94	11,924	33,000	486.00	13,988	46,724
484.96	11,964	33,239	486.02	14,022	47,004
484.98	12,004	33,479	486.04	14,056	47,284
485.00	12,045	33,719	486.06	14,090	47,566
485.02	12,082	33,960	486.08	14,124	47,848
485.04	12,120	34,202	486.10	14,158	48,131
485.06	12,157	34,445	486.12	14,192	48,414
485.08	12,195	34,689	486.14	14,226	48,698
485.10	12,233	34,933	486.16	14,260	48,983
485.12	12,270	35,178	486.18	14,294	49,269
485.14	12,308	35,424	486.20	14,328	49,555
485.16	12,346	35,670	486.22	14,362	49,842
485.18	12,384	35,918	486.24	14,397	50,130
485.20	12,422	36,166	486.26	14,431	50,418
485.22	12,460	36,415	486.28	14,465	50,707
485.24	12,498	36,664	486.30	14,500	50,996
485.26	12,536	36,914	486.32	14,534	51,287
485.28	12,574	37,166	486.34	14,569	51,578

Stage-Area-Storage for Pond ED-K5: Micropool ED Basin - (Basin K5) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
486.36	14,603	51,870
486.38	14,638	52,162
486.40	14,673	52,455
486.42	14,707	52,749
486.44	14,742	53,043
486.46	14,777	53,339
486.48	14,811	53,634
486.50	14,846	53,931
486.52	14,881	54,228
486.54	14,916	54,526
486.56	14,951	54,825
486.58	14,986	55,124
486.60	15,021	55,424
486.62	15,056	55,725
486.64	15,091	56,027
486.66	15,126	56,329
486.68	15,161	56,632
486.70	15,197	56,935
486.72	15,232	57,240
486.74	15,267	57,545
486.76	15,303	57,850
486.78	15,338	58,157
486.80	15,373	58,464
486.82	15,409	58,772
486.84	15,444	59,080
486.86	15,480	59,389
486.88	15,516	59,699
486.90	15,551	60,010
486.92	15,587	60,321
486.94	15,623	60,633
486.96	15,658	60,946
486.98	15,694	61,260
487.00	15,730	61,574

Summary for Pond ED-K6: Micropool ED Basin - (Basin K6)

Inflow Area = 8.601 ac, 9.45% Impervious, Inflow Depth = 5.83" for 100 Year - North Salem event
 Inflow = 47.24 cfs @ 12.17 hrs, Volume= 4.178 af
 Outflow = 44.84 cfs @ 12.22 hrs, Volume= 3.377 af, Atten= 5%, Lag= 2.8 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 44.84 cfs @ 12.22 hrs, Volume= 3.377 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Starting Elev= 515.00' Surf.Area= 3,694 sf Storage= 7,053 cf
 Peak Elev= 520.98' @ 12.22 hrs Surf.Area= 11,149 sf Storage= 51,725 cf (44,673 cf above start)

Plug-Flow detention time= 134.3 min calculated for 3.215 af (77% of inflow)
 Center-of-Mass det. time= 44.5 min (862.0 - 817.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	512.00'	51,995 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
512.00	1,231	166.0	0	0	1,231
514.00	2,723	306.0	3,857	3,857	6,511
516.00	4,812	387.0	7,437	11,293	11,031
517.00	6,336	435.0	5,557	16,850	14,198
518.00	7,675	361.0	6,995	23,844	18,902
519.00	8,787	380.0	8,225	32,069	20,082
520.00	9,955	399.0	9,365	41,434	21,322
521.00	11,179	418.0	10,561	51,995	22,624

Device	Routing	Invert	Outlet Devices
#1	Primary	512.00'	30.0" Round Outlet Pipe X 0.00 L= 60.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 510.00' S= 0.0333 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#2	Device 1	515.00'	2.0" Round Reverse Pipe Inlet L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet Invert= 514.50' S= -0.0500 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior
#3	Device 1	518.50'	22.0" W x 16.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	519.95'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	520.05'	14.0' long Emergency Overflow Weir 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=515.00' (Free Discharge)

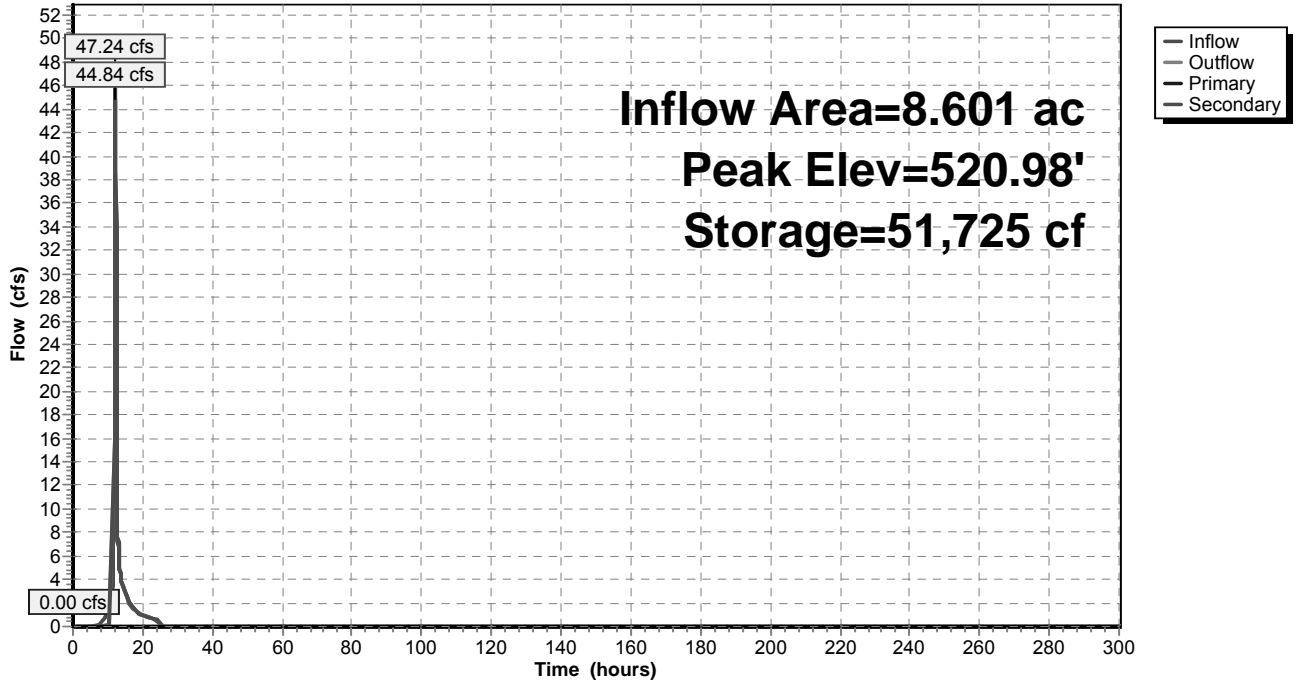
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Reverse Pipe Inlet (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=44.05 cfs @ 12.22 hrs HW=520.97' (Free Discharge)

- ↑ 5=Emergency Overflow Weir (Weir Controls 44.05 cfs @ 3.48 fps)

Pond ED-K6: Micropool ED Basin - (Basin K6)

Hydrograph



Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
512.00	1,231	0	513.06	1,949	1,671
512.02	1,243	25	513.08	1,964	1,710
512.04	1,255	50	513.10	1,979	1,749
512.06	1,267	75	513.12	1,994	1,789
512.08	1,279	100	513.14	2,010	1,829
512.10	1,292	126	513.16	2,025	1,870
512.12	1,304	152	513.18	2,041	1,910
512.14	1,316	178	513.20	2,056	1,951
512.16	1,329	205	513.22	2,072	1,992
512.18	1,341	231	513.24	2,087	2,034
512.20	1,354	258	513.26	2,103	2,076
512.22	1,367	286	513.28	2,119	2,118
512.24	1,379	313	513.30	2,134	2,161
512.26	1,392	341	513.32	2,150	2,204
512.28	1,405	369	513.34	2,166	2,247
512.30	1,418	397	513.36	2,182	2,290
512.32	1,430	425	513.38	2,198	2,334
512.34	1,443	454	513.40	2,214	2,378
512.36	1,456	483	513.42	2,230	2,423
512.38	1,469	512	513.44	2,246	2,467
512.40	1,483	542	513.46	2,263	2,512
512.42	1,496	572	513.48	2,279	2,558
512.44	1,509	602	513.50	2,295	2,604
512.46	1,522	632	513.52	2,312	2,650
512.48	1,536	663	513.54	2,328	2,696
512.50	1,549	694	513.56	2,345	2,743
512.52	1,563	725	513.58	2,361	2,790
512.54	1,576	756	513.60	2,378	2,837
512.56	1,590	788	513.62	2,395	2,885
512.58	1,603	820	513.64	2,411	2,933
512.60	1,617	852	513.66	2,428	2,981
512.62	1,631	884	513.68	2,445	3,030
512.64	1,645	917	513.70	2,462	3,079
512.66	1,659	950	513.72	2,479	3,129
512.68	1,673	983	513.74	2,496	3,178
512.70	1,687	1,017	513.76	2,513	3,228
512.72	1,701	1,051	513.78	2,530	3,279
512.74	1,715	1,085	513.80	2,547	3,330
512.76	1,729	1,119	513.82	2,565	3,381
512.78	1,743	1,154	513.84	2,582	3,432
512.80	1,758	1,189	513.86	2,600	3,484
512.82	1,772	1,225	513.88	2,617	3,536
512.84	1,786	1,260	513.90	2,635	3,589
512.86	1,801	1,296	513.92	2,652	3,642
512.88	1,815	1,332	513.94	2,670	3,695
512.90	1,830	1,369	513.96	2,687	3,748
512.92	1,845	1,405	513.98	2,705	3,802
512.94	1,859	1,442	514.00	2,723	3,857
512.96	1,874	1,480	514.02	2,741	3,911
512.98	1,889	1,517	514.04	2,759	3,966
513.00	1,904	1,555	514.06	2,777	4,022
513.02	1,919	1,594	514.08	2,795	4,077
513.04	1,934	1,632	514.10	2,813	4,133

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
514.12	2,832	4,190	515.18	3,884	7,735
514.14	2,850	4,247	515.20	3,906	7,812
514.16	2,868	4,304	515.22	3,927	7,891
514.18	2,887	4,361	515.24	3,949	7,969
514.20	2,905	4,419	515.26	3,970	8,049
514.22	2,924	4,478	515.28	3,992	8,128
514.24	2,942	4,536	515.30	4,014	8,208
514.26	2,961	4,595	515.32	4,035	8,289
514.28	2,980	4,655	515.34	4,057	8,370
514.30	2,999	4,714	515.36	4,079	8,451
514.32	3,018	4,775	515.38	4,101	8,533
514.34	3,036	4,835	515.40	4,123	8,615
514.36	3,055	4,896	515.42	4,145	8,698
514.38	3,074	4,957	515.44	4,168	8,781
514.40	3,094	5,019	515.46	4,190	8,865
514.42	3,113	5,081	515.48	4,212	8,949
514.44	3,132	5,144	515.50	4,234	9,033
514.46	3,151	5,206	515.52	4,257	9,118
514.48	3,170	5,270	515.54	4,279	9,203
514.50	3,190	5,333	515.56	4,302	9,289
514.52	3,209	5,397	515.58	4,324	9,375
514.54	3,229	5,462	515.60	4,347	9,462
514.56	3,248	5,526	515.62	4,370	9,549
514.58	3,268	5,592	515.64	4,392	9,637
514.60	3,288	5,657	515.66	4,415	9,725
514.62	3,307	5,723	515.68	4,438	9,814
514.64	3,327	5,789	515.70	4,461	9,902
514.66	3,347	5,856	515.72	4,484	9,992
514.68	3,367	5,923	515.74	4,507	10,082
514.70	3,387	5,991	515.76	4,530	10,172
514.72	3,407	6,059	515.78	4,553	10,263
514.74	3,427	6,127	515.80	4,577	10,354
514.76	3,447	6,196	515.82	4,600	10,446
514.78	3,467	6,265	515.84	4,623	10,538
514.80	3,488	6,335	515.86	4,647	10,631
514.82	3,508	6,405	515.88	4,670	10,724
514.84	3,528	6,475	515.90	4,694	10,818
514.86	3,549	6,546	515.92	4,717	10,912
514.88	3,569	6,617	515.94	4,741	11,007
514.90	3,590	6,688	515.96	4,764	11,102
514.92	3,611	6,760	515.98	4,788	11,197
514.94	3,631	6,833	516.00	4,812	11,293
514.96	3,652	6,906	516.02	4,840	11,390
514.98	3,673	6,979	516.04	4,869	11,487
515.00	3,694	7,053	516.06	4,898	11,584
515.02	3,715	7,127	516.08	4,926	11,683
515.04	3,736	7,201	516.10	4,955	11,781
515.06	3,757	7,276	516.12	4,984	11,881
515.08	3,778	7,351	516.14	5,013	11,981
515.10	3,799	7,427	516.16	5,042	12,081
515.12	3,820	7,503	516.18	5,071	12,182
515.14	3,841	7,580	516.20	5,100	12,284
515.16	3,863	7,657	516.22	5,129	12,386

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
516.24	5,159	12,489	517.30	6,724	18,808
516.26	5,188	12,593	517.32	6,751	18,943
516.28	5,218	12,697	517.34	6,777	19,078
516.30	5,247	12,802	517.36	6,803	19,214
516.32	5,277	12,907	517.38	6,830	19,351
516.34	5,307	13,013	517.40	6,856	19,487
516.36	5,337	13,119	517.42	6,883	19,625
516.38	5,366	13,226	517.44	6,909	19,763
516.40	5,396	13,334	517.46	6,936	19,901
516.42	5,427	13,442	517.48	6,963	20,040
516.44	5,457	13,551	517.50	6,989	20,180
516.46	5,487	13,660	517.52	7,016	20,320
516.48	5,517	13,770	517.54	7,043	20,460
516.50	5,548	13,881	517.56	7,070	20,601
516.52	5,578	13,992	517.58	7,097	20,743
516.54	5,609	14,104	517.60	7,124	20,885
516.56	5,640	14,217	517.62	7,151	21,028
516.58	5,670	14,330	517.64	7,178	21,171
516.60	5,701	14,443	517.66	7,205	21,315
516.62	5,732	14,558	517.68	7,233	21,460
516.64	5,763	14,673	517.70	7,260	21,605
516.66	5,794	14,788	517.72	7,287	21,750
516.68	5,826	14,904	517.74	7,315	21,896
516.70	5,857	15,021	517.76	7,342	22,043
516.72	5,888	15,139	517.78	7,369	22,190
516.74	5,920	15,257	517.80	7,397	22,337
516.76	5,951	15,375	517.82	7,425	22,486
516.78	5,983	15,495	517.84	7,452	22,634
516.80	6,014	15,615	517.86	7,480	22,784
516.82	6,046	15,735	517.88	7,508	22,934
516.84	6,078	15,857	517.90	7,535	23,084
516.86	6,110	15,978	517.92	7,563	23,235
516.88	6,142	16,101	517.94	7,591	23,387
516.90	6,174	16,224	517.96	7,619	23,539
516.92	6,206	16,348	517.98	7,647	23,691
516.94	6,239	16,472	518.00	7,675	23,844
516.96	6,271	16,598	518.02	7,697	23,998
516.98	6,303	16,723	518.04	7,718	24,152
517.00	6,336	16,850	518.06	7,740	24,307
517.02	6,362	16,977	518.08	7,761	24,462
517.04	6,387	17,104	518.10	7,783	24,617
517.06	6,413	17,232	518.12	7,804	24,773
517.08	6,438	17,361	518.14	7,826	24,930
517.10	6,464	17,490	518.16	7,848	25,086
517.12	6,490	17,619	518.18	7,870	25,243
517.14	6,516	17,749	518.20	7,891	25,401
517.16	6,542	17,880	518.22	7,913	25,559
517.18	6,568	18,011	518.24	7,935	25,718
517.20	6,594	18,143	518.26	7,957	25,877
517.22	6,620	18,275	518.28	7,979	26,036
517.24	6,646	18,407	518.30	8,001	26,196
517.26	6,672	18,540	518.32	8,023	26,356
517.28	6,698	18,674	518.34	8,045	26,517

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
518.36	8,067	26,678	519.42	9,269	35,860
518.38	8,089	26,839	519.44	9,292	36,046
518.40	8,111	27,001	519.46	9,315	36,232
518.42	8,133	27,164	519.48	9,339	36,419
518.44	8,155	27,327	519.50	9,362	36,606
518.46	8,177	27,490	519.52	9,385	36,793
518.48	8,199	27,654	519.54	9,409	36,981
518.50	8,222	27,818	519.56	9,432	37,169
518.52	8,244	27,983	519.58	9,456	37,358
518.54	8,266	28,148	519.60	9,479	37,548
518.56	8,288	28,313	519.62	9,503	37,738
518.58	8,311	28,479	519.64	9,526	37,928
518.60	8,333	28,646	519.66	9,550	38,119
518.62	8,356	28,812	519.68	9,573	38,310
518.64	8,378	28,980	519.70	9,597	38,502
518.66	8,400	29,148	519.72	9,621	38,694
518.68	8,423	29,316	519.74	9,644	38,886
518.70	8,446	29,485	519.76	9,668	39,079
518.72	8,468	29,654	519.78	9,692	39,273
518.74	8,491	29,823	519.80	9,716	39,467
518.76	8,513	29,993	519.82	9,739	39,662
518.78	8,536	30,164	519.84	9,763	39,857
518.80	8,559	30,335	519.86	9,787	40,052
518.82	8,581	30,506	519.88	9,811	40,248
518.84	8,604	30,678	519.90	9,835	40,445
518.86	8,627	30,850	519.92	9,859	40,642
518.88	8,650	31,023	519.94	9,883	40,839
518.90	8,672	31,196	519.96	9,907	41,037
518.92	8,695	31,370	519.98	9,931	41,235
518.94	8,718	31,544	520.00	9,955	41,434
518.96	8,741	31,719	520.02	9,979	41,633
518.98	8,764	31,894	520.04	10,003	41,833
519.00	8,787	32,069	520.06	10,026	42,034
519.02	8,810	32,245	520.08	10,050	42,234
519.04	8,832	32,422	520.10	10,074	42,436
519.06	8,855	32,598	520.12	10,098	42,637
519.08	8,878	32,776	520.14	10,122	42,840
519.10	8,901	32,954	520.16	10,146	43,042
519.12	8,923	33,132	520.18	10,170	43,245
519.14	8,946	33,311	520.20	10,194	43,449
519.16	8,969	33,490	520.22	10,218	43,653
519.18	8,992	33,669	520.24	10,242	43,858
519.20	9,015	33,849	520.26	10,266	44,063
519.22	9,038	34,030	520.28	10,291	44,268
519.24	9,061	34,211	520.30	10,315	44,474
519.26	9,084	34,392	520.32	10,339	44,681
519.28	9,107	34,574	520.34	10,363	44,888
519.30	9,130	34,757	520.36	10,387	45,096
519.32	9,153	34,939	520.38	10,412	45,304
519.34	9,176	35,123	520.40	10,436	45,512
519.36	9,199	35,306	520.42	10,460	45,721
519.38	9,222	35,491	520.44	10,485	45,930
519.40	9,245	35,675	520.46	10,509	46,140

Stage-Area-Storage for Pond ED-K6: Micropool ED Basin - (Basin K6) (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.48	10,534	46,351
520.50	10,558	46,562
520.52	10,583	46,773
520.54	10,607	46,985
520.56	10,632	47,197
520.58	10,656	47,410
520.60	10,681	47,624
520.62	10,706	47,837
520.64	10,730	48,052
520.66	10,755	48,267
520.68	10,780	48,482
520.70	10,804	48,698
520.72	10,829	48,914
520.74	10,854	49,131
520.76	10,879	49,348
520.78	10,904	49,566
520.80	10,929	49,785
520.82	10,953	50,003
520.84	10,978	50,223
520.86	11,003	50,442
520.88	11,028	50,663
520.90	11,053	50,884
520.92	11,078	51,105
520.94	11,104	51,327
520.96	11,129	51,549
520.98	11,154	51,772
521.00	11,179	51,995

Summary for Pond FS K3: Flow Splitter - K3

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 7.18" for 100 Year - North Salem event
 Inflow = 68.58 cfs @ 12.19 hrs, Volume= 6.601 af
 Outflow = 68.58 cfs @ 12.19 hrs, Volume= 6.601 af, Atten= 0%, Lag= 0.0 min
 Primary = 34.61 cfs @ 12.19 hrs, Volume= 5.574 af
 Secondary = 33.97 cfs @ 12.19 hrs, Volume= 1.027 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 472.96' @ 12.19 hrs
 Flood Elev= 556.50'

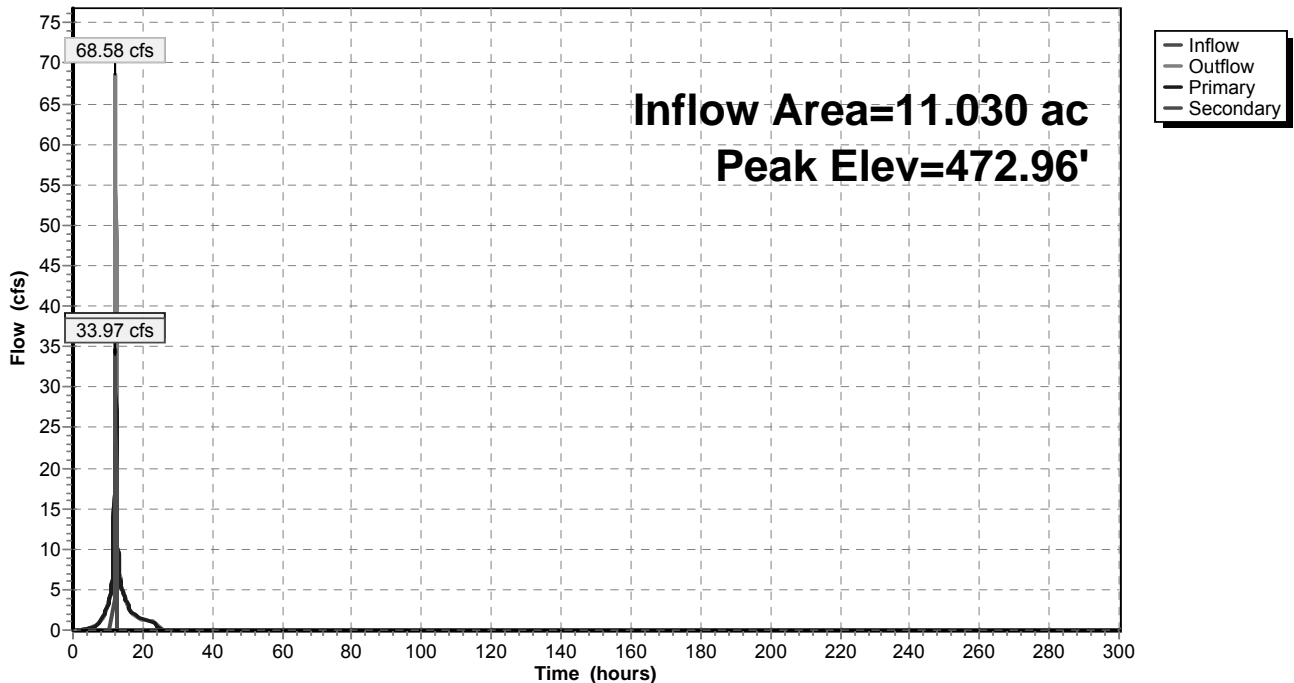
Device	Routing	Invert	Outlet Devices
#1	Primary	465.23'	24.0" Round Outlet to Sand Filter L= 43.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 464.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	467.78'	27.0" Round Outlet to Basin K3 L= 530.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 457.00' S= 0.0203 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=34.41 cfs @ 12.19 hrs HW=472.88' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 34.41 cfs @ 10.95 fps)

Secondary OutFlow Max=33.66 cfs @ 12.19 hrs HW=472.88' (Free Discharge)
 ↳2=Outlet to Basin K3 (Inlet Controls 33.66 cfs @ 8.47 fps)

Pond FS K3: Flow Splitter - K3

Hydrograph



Stage-Area-Storage for Pond FS K3: Flow Splitter - K3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
465.23	0	475.30	0	485.37	0
465.42	0	475.49	0	485.56	0
465.61	0	475.68	0	485.75	0
465.80	0	475.87	0	485.94	0
465.99	0	476.06	0	486.13	0
466.18	0	476.25	0	486.32	0
466.37	0	476.44	0	486.51	0
466.56	0	476.63	0	486.70	0
466.75	0	476.82	0	486.89	0
466.94	0	477.01	0	487.08	0
467.13	0	477.20	0	487.27	0
467.32	0	477.39	0	487.46	0
467.51	0	477.58	0	487.65	0
467.70	0	477.77	0	487.84	0
467.89	0	477.96	0	488.03	0
468.08	0	478.15	0	488.22	0
468.27	0	478.34	0	488.41	0
468.46	0	478.53	0	488.60	0
468.65	0	478.72	0	488.79	0
468.84	0	478.91	0	488.98	0
469.03	0	479.10	0	489.17	0
469.22	0	479.29	0	489.36	0
469.41	0	479.48	0	489.55	0
469.60	0	479.67	0	489.74	0
469.79	0	479.86	0	489.93	0
469.98	0	480.05	0	490.12	0
470.17	0	480.24	0	490.31	0
470.36	0	480.43	0	490.50	0
470.55	0	480.62	0	490.69	0
470.74	0	480.81	0	490.88	0
470.93	0	481.00	0	491.07	0
471.12	0	481.19	0	491.26	0
471.31	0	481.38	0	491.45	0
471.50	0	481.57	0	491.64	0
471.69	0	481.76	0	491.83	0
471.88	0	481.95	0	492.02	0
472.07	0	482.14	0	492.21	0
472.26	0	482.33	0	492.40	0
472.45	0	482.52	0	492.59	0
472.64	0	482.71	0	492.78	0
472.83	0	482.90	0	492.97	0
473.02	0	483.09	0	493.16	0
473.21	0	483.28	0	493.35	0
473.40	0	483.47	0	493.54	0
473.59	0	483.66	0	493.73	0
473.78	0	483.85	0	493.92	0
473.97	0	484.04	0	494.11	0
474.16	0	484.23	0	494.30	0
474.35	0	484.42	0	494.49	0
474.54	0	484.61	0	494.68	0
474.73	0	484.80	0	494.87	0
474.92	0	484.99	0	495.06	0
475.11	0	485.18	0	495.25	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
495.44	0	505.51	0	515.58	0
495.63	0	505.70	0	515.77	0
495.82	0	505.89	0	515.96	0
496.01	0	506.08	0	516.15	0
496.20	0	506.27	0	516.34	0
496.39	0	506.46	0	516.53	0
496.58	0	506.65	0	516.72	0
496.77	0	506.84	0	516.91	0
496.96	0	507.03	0	517.10	0
497.15	0	507.22	0	517.29	0
497.34	0	507.41	0	517.48	0
497.53	0	507.60	0	517.67	0
497.72	0	507.79	0	517.86	0
497.91	0	507.98	0	518.05	0
498.10	0	508.17	0	518.24	0
498.29	0	508.36	0	518.43	0
498.48	0	508.55	0	518.62	0
498.67	0	508.74	0	518.81	0
498.86	0	508.93	0	519.00	0
499.05	0	509.12	0	519.19	0
499.24	0	509.31	0	519.38	0
499.43	0	509.50	0	519.57	0
499.62	0	509.69	0	519.76	0
499.81	0	509.88	0	519.95	0
500.00	0	510.07	0	520.14	0
500.19	0	510.26	0	520.33	0
500.38	0	510.45	0	520.52	0
500.57	0	510.64	0	520.71	0
500.76	0	510.83	0	520.90	0
500.95	0	511.02	0	521.09	0
501.14	0	511.21	0	521.28	0
501.33	0	511.40	0	521.47	0
501.52	0	511.59	0	521.66	0
501.71	0	511.78	0	521.85	0
501.90	0	511.97	0	522.04	0
502.09	0	512.16	0	522.23	0
502.28	0	512.35	0	522.42	0
502.47	0	512.54	0	522.61	0
502.66	0	512.73	0	522.80	0
502.85	0	512.92	0	522.99	0
503.04	0	513.11	0	523.18	0
503.23	0	513.30	0	523.37	0
503.42	0	513.49	0	523.56	0
503.61	0	513.68	0	523.75	0
503.80	0	513.87	0	523.94	0
503.99	0	514.06	0	524.13	0
504.18	0	514.25	0	524.32	0
504.37	0	514.44	0	524.51	0
504.56	0	514.63	0	524.70	0
504.75	0	514.82	0	524.89	0
504.94	0	515.01	0	525.08	0
505.13	0	515.20	0	525.27	0
505.32	0	515.39	0	525.46	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
525.65	0	535.72	0	545.79	0
525.84	0	535.91	0	545.98	0
526.03	0	536.10	0	546.17	0
526.22	0	536.29	0	546.36	0
526.41	0	536.48	0	546.55	0
526.60	0	536.67	0	546.74	0
526.79	0	536.86	0	546.93	0
526.98	0	537.05	0	547.12	0
527.17	0	537.24	0	547.31	0
527.36	0	537.43	0	547.50	0
527.55	0	537.62	0	547.69	0
527.74	0	537.81	0	547.88	0
527.93	0	538.00	0	548.07	0
528.12	0	538.19	0	548.26	0
528.31	0	538.38	0	548.45	0
528.50	0	538.57	0	548.64	0
528.69	0	538.76	0	548.83	0
528.88	0	538.95	0	549.02	0
529.07	0	539.14	0	549.21	0
529.26	0	539.33	0	549.40	0
529.45	0	539.52	0	549.59	0
529.64	0	539.71	0	549.78	0
529.83	0	539.90	0	549.97	0
530.02	0	540.09	0	550.16	0
530.21	0	540.28	0	550.35	0
530.40	0	540.47	0	550.54	0
530.59	0	540.66	0	550.73	0
530.78	0	540.85	0	550.92	0
530.97	0	541.04	0	551.11	0
531.16	0	541.23	0	551.30	0
531.35	0	541.42	0	551.49	0
531.54	0	541.61	0	551.68	0
531.73	0	541.80	0	551.87	0
531.92	0	541.99	0	552.06	0
532.11	0	542.18	0	552.25	0
532.30	0	542.37	0	552.44	0
532.49	0	542.56	0	552.63	0
532.68	0	542.75	0	552.82	0
532.87	0	542.94	0	553.01	0
533.06	0	543.13	0	553.20	0
533.25	0	543.32	0	553.39	0
533.44	0	543.51	0	553.58	0
533.63	0	543.70	0	553.77	0
533.82	0	543.89	0	553.96	0
534.01	0	544.08	0	554.15	0
534.20	0	544.27	0	554.34	0
534.39	0	544.46	0	554.53	0
534.58	0	544.65	0	554.72	0
534.77	0	544.84	0	554.91	0
534.96	0	545.03	0	555.10	0
535.15	0	545.22	0	555.29	0
535.34	0	545.41	0	555.48	0
535.53	0	545.60	0	555.67	0

Stage-Area-Storage for Pond FS K3: Flow Splitter - K3 (continued)

Elevation (feet)	Storage (cubic-feet)
555.86	0
556.05	0
556.24	0
556.43	0

Summary for Pond FS-K5: Flow Splitter - K5

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 6.69" for 100 Year - North Salem event
 Inflow = 41.41 cfs @ 12.30 hrs, Volume= 4.664 af
 Outflow = 41.41 cfs @ 12.30 hrs, Volume= 4.664 af, Atten= 0%, Lag= 0.0 min
 Primary = 23.94 cfs @ 12.30 hrs, Volume= 4.014 af
 Secondary = 17.47 cfs @ 12.30 hrs, Volume= 0.650 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 509.22' @ 12.30 hrs
 Flood Elev= 556.50'

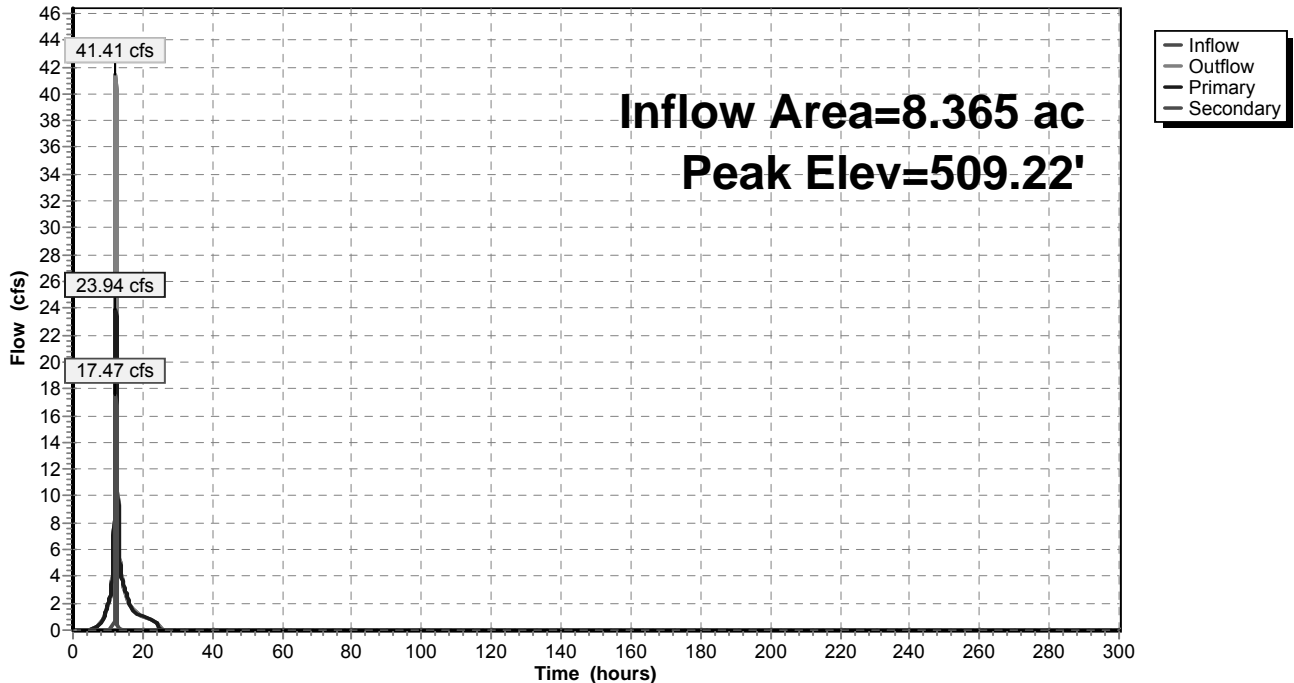
Device	Routing	Invert	Outlet Devices
#1	Primary	505.00'	24.0" Round Outlet to Sand Filter L= 25.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 504.70' S= 0.0120 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior
#2	Secondary	506.50'	24.0" Round Outlet to Basin K5 L= 472.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0413 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior

Primary OutFlow Max=23.93 cfs @ 12.30 hrs HW=509.22' (Free Discharge)
 ↳1=Outlet to Sand Filter (Inlet Controls 23.93 cfs @ 7.62 fps)

Secondary OutFlow Max=17.48 cfs @ 12.30 hrs HW=509.22' (Free Discharge)
 ↳2=Outlet to Basin K5 (Inlet Controls 17.48 cfs @ 5.56 fps)

Pond FS-K5: Flow Splitter - K5

Hydrograph



Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
505.00	0	510.83	0	516.66	0
505.11	0	510.94	0	516.77	0
505.22	0	511.05	0	516.88	0
505.33	0	511.16	0	516.99	0
505.44	0	511.27	0	517.10	0
505.55	0	511.38	0	517.21	0
505.66	0	511.49	0	517.32	0
505.77	0	511.60	0	517.43	0
505.88	0	511.71	0	517.54	0
505.99	0	511.82	0	517.65	0
506.10	0	511.93	0	517.76	0
506.21	0	512.04	0	517.87	0
506.32	0	512.15	0	517.98	0
506.43	0	512.26	0	518.09	0
506.54	0	512.37	0	518.20	0
506.65	0	512.48	0	518.31	0
506.76	0	512.59	0	518.42	0
506.87	0	512.70	0	518.53	0
506.98	0	512.81	0	518.64	0
507.09	0	512.92	0	518.75	0
507.20	0	513.03	0	518.86	0
507.31	0	513.14	0	518.97	0
507.42	0	513.25	0	519.08	0
507.53	0	513.36	0	519.19	0
507.64	0	513.47	0	519.30	0
507.75	0	513.58	0	519.41	0
507.86	0	513.69	0	519.52	0
507.97	0	513.80	0	519.63	0
508.08	0	513.91	0	519.74	0
508.19	0	514.02	0	519.85	0
508.30	0	514.13	0	519.96	0
508.41	0	514.24	0	520.07	0
508.52	0	514.35	0	520.18	0
508.63	0	514.46	0	520.29	0
508.74	0	514.57	0	520.40	0
508.85	0	514.68	0	520.51	0
508.96	0	514.79	0	520.62	0
509.07	0	514.90	0	520.73	0
509.18	0	515.01	0	520.84	0
509.29	0	515.12	0	520.95	0
509.40	0	515.23	0	521.06	0
509.51	0	515.34	0	521.17	0
509.62	0	515.45	0	521.28	0
509.73	0	515.56	0	521.39	0
509.84	0	515.67	0	521.50	0
509.95	0	515.78	0	521.61	0
510.06	0	515.89	0	521.72	0
510.17	0	516.00	0	521.83	0
510.28	0	516.11	0	521.94	0
510.39	0	516.22	0	522.05	0
510.50	0	516.33	0	522.16	0
510.61	0	516.44	0	522.27	0
510.72	0	516.55	0	522.38	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
522.49	0	528.32	0	534.15	0
522.60	0	528.43	0	534.26	0
522.71	0	528.54	0	534.37	0
522.82	0	528.65	0	534.48	0
522.93	0	528.76	0	534.59	0
523.04	0	528.87	0	534.70	0
523.15	0	528.98	0	534.81	0
523.26	0	529.09	0	534.92	0
523.37	0	529.20	0	535.03	0
523.48	0	529.31	0	535.14	0
523.59	0	529.42	0	535.25	0
523.70	0	529.53	0	535.36	0
523.81	0	529.64	0	535.47	0
523.92	0	529.75	0	535.58	0
524.03	0	529.86	0	535.69	0
524.14	0	529.97	0	535.80	0
524.25	0	530.08	0	535.91	0
524.36	0	530.19	0	536.02	0
524.47	0	530.30	0	536.13	0
524.58	0	530.41	0	536.24	0
524.69	0	530.52	0	536.35	0
524.80	0	530.63	0	536.46	0
524.91	0	530.74	0	536.57	0
525.02	0	530.85	0	536.68	0
525.13	0	530.96	0	536.79	0
525.24	0	531.07	0	536.90	0
525.35	0	531.18	0	537.01	0
525.46	0	531.29	0	537.12	0
525.57	0	531.40	0	537.23	0
525.68	0	531.51	0	537.34	0
525.79	0	531.62	0	537.45	0
525.90	0	531.73	0	537.56	0
526.01	0	531.84	0	537.67	0
526.12	0	531.95	0	537.78	0
526.23	0	532.06	0	537.89	0
526.34	0	532.17	0	538.00	0
526.45	0	532.28	0	538.11	0
526.56	0	532.39	0	538.22	0
526.67	0	532.50	0	538.33	0
526.78	0	532.61	0	538.44	0
526.89	0	532.72	0	538.55	0
527.00	0	532.83	0	538.66	0
527.11	0	532.94	0	538.77	0
527.22	0	533.05	0	538.88	0
527.33	0	533.16	0	538.99	0
527.44	0	533.27	0	539.10	0
527.55	0	533.38	0	539.21	0
527.66	0	533.49	0	539.32	0
527.77	0	533.60	0	539.43	0
527.88	0	533.71	0	539.54	0
527.99	0	533.82	0	539.65	0
528.10	0	533.93	0	539.76	0
528.21	0	534.04	0	539.87	0

Stage-Area-Storage for Pond FS-K5: Flow Splitter - K5 (continued)

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
539.98	0	545.81	0	551.64	0
540.09	0	545.92	0	551.75	0
540.20	0	546.03	0	551.86	0
540.31	0	546.14	0	551.97	0
540.42	0	546.25	0	552.08	0
540.53	0	546.36	0	552.19	0
540.64	0	546.47	0	552.30	0
540.75	0	546.58	0	552.41	0
540.86	0	546.69	0	552.52	0
540.97	0	546.80	0	552.63	0
541.08	0	546.91	0	552.74	0
541.19	0	547.02	0	552.85	0
541.30	0	547.13	0	552.96	0
541.41	0	547.24	0	553.07	0
541.52	0	547.35	0	553.18	0
541.63	0	547.46	0	553.29	0
541.74	0	547.57	0	553.40	0
541.85	0	547.68	0	553.51	0
541.96	0	547.79	0	553.62	0
542.07	0	547.90	0	553.73	0
542.18	0	548.01	0	553.84	0
542.29	0	548.12	0	553.95	0
542.40	0	548.23	0	554.06	0
542.51	0	548.34	0	554.17	0
542.62	0	548.45	0	554.28	0
542.73	0	548.56	0	554.39	0
542.84	0	548.67	0	554.50	0
542.95	0	548.78	0	554.61	0
543.06	0	548.89	0	554.72	0
543.17	0	549.00	0	554.83	0
543.28	0	549.11	0	554.94	0
543.39	0	549.22	0	555.05	0
543.50	0	549.33	0	555.16	0
543.61	0	549.44	0	555.27	0
543.72	0	549.55	0	555.38	0
543.83	0	549.66	0	555.49	0
543.94	0	549.77	0	555.60	0
544.05	0	549.88	0	555.71	0
544.16	0	549.99	0	555.82	0
544.27	0	550.10	0	555.93	0
544.38	0	550.21	0	556.04	0
544.49	0	550.32	0	556.15	0
544.60	0	550.43	0	556.26	0
544.71	0	550.54	0	556.37	0
544.82	0	550.65	0	556.48	0
544.93	0	550.76	0		
545.04	0	550.87	0		
545.15	0	550.98	0		
545.26	0	551.09	0		
545.37	0	551.20	0		
545.48	0	551.31	0		
545.59	0	551.42	0		
545.70	0	551.53	0		

Summary for Pond SF-K2: Sand Filter - K2

[88] Warning: Qout>Qin may require Finer Routing>1

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 4.68" for 100 Year - North Salem event
 Inflow = 9.62 cfs @ 12.20 hrs, Volume= 0.798 af
 Outflow = 9.65 cfs @ 12.26 hrs, Volume= 0.643 af, Atten= 0%, Lag= 3.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 9.65 cfs @ 12.26 hrs, Volume= 0.643 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 427.43' @ 12.26 hrs Surf.Area= 2,637 sf Storage= 7,828 cf

Plug-Flow detention time= 111.5 min calculated for 0.643 af (81% of inflow)
 Center-of-Mass det. time= 34.9 min (884.2 - 849.3)

Volume	Invert	Avail.Storage	Storage Description			
#1	423.00'	9,400 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
423.00	1,004	150.0	0	0	1,004	
424.00	1,320	165.0	1,158	1,158	1,412	
426.00	2,038	194.0	3,332	4,491	2,315	
428.00	2,897	228.0	4,910	9,400	3,532	

Device	Routing	Invert	Outlet Devices
#1	Primary	420.50'	15.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 420.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	423.00'	1.750 in/hr Exfiltration over Surface area above 423.00' Excluded Surface area = 1,004 sf
#3	Device 1	426.00'	24.0" W x 9.0" H Vert. Orifice #1 X 2.00 C= 0.600
#4	Device 1	426.75'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	427.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

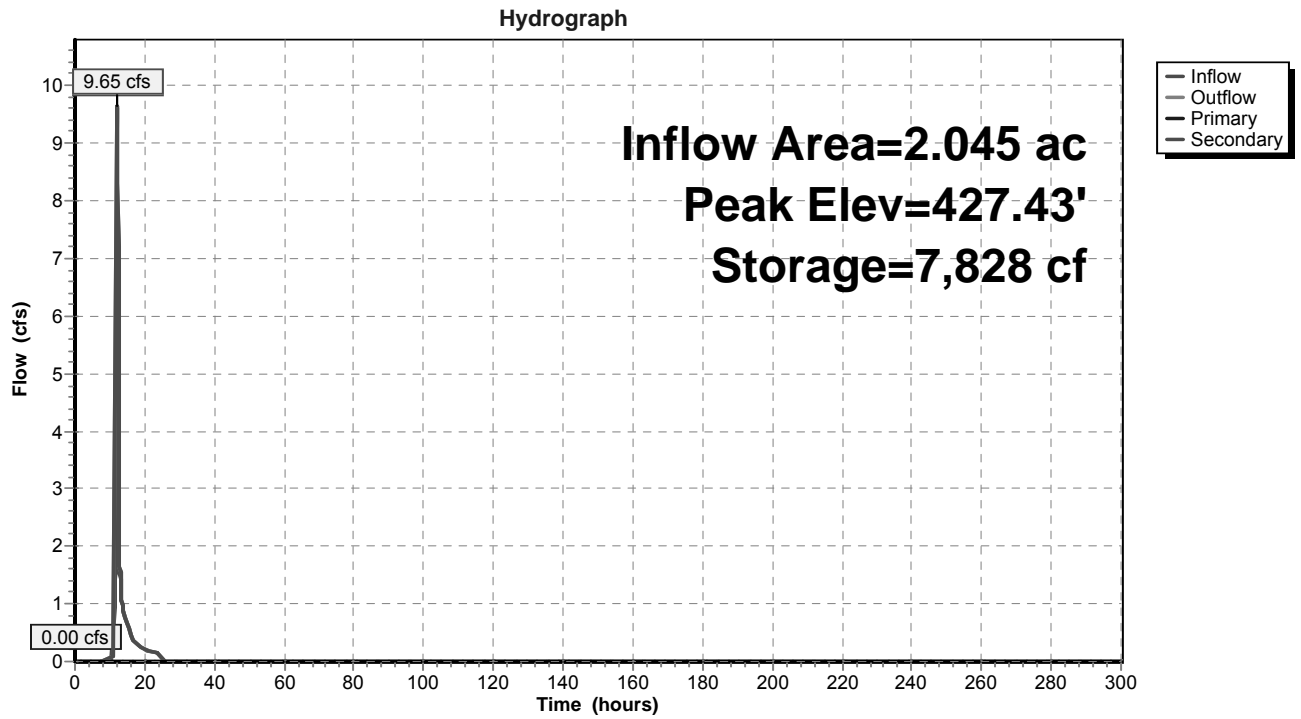
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=423.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=9.09 cfs @ 12.26 hrs HW=427.41' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 9.09 cfs @ 2.21 fps)

Pond SF-K2: Sand Filter - K2



Stage-Area-Storage for Pond SF-K2: Sand Filter - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
423.00	1,004	0	423.53	1,166	575
423.01	1,007	10	423.54	1,169	586
423.02	1,010	20	423.55	1,172	598
423.03	1,013	30	423.56	1,176	610
423.04	1,016	40	423.57	1,179	621
423.05	1,019	51	423.58	1,182	633
423.06	1,022	61	423.59	1,185	645
423.07	1,025	71	423.60	1,188	657
423.08	1,028	81	423.61	1,192	669
423.09	1,031	92	423.62	1,195	681
423.10	1,034	102	423.63	1,198	693
423.11	1,037	112	423.64	1,201	705
423.12	1,040	123	423.65	1,204	717
423.13	1,043	133	423.66	1,208	729
423.14	1,046	143	423.67	1,211	741
423.15	1,049	154	423.68	1,214	753
423.16	1,052	164	423.69	1,217	765
423.17	1,055	175	423.70	1,221	777
423.18	1,058	186	423.71	1,224	790
423.19	1,061	196	423.72	1,227	802
423.20	1,064	207	423.73	1,230	814
423.21	1,067	217	423.74	1,234	826
423.22	1,070	228	423.75	1,237	839
423.23	1,073	239	423.76	1,240	851
423.24	1,076	250	423.77	1,243	864
423.25	1,079	260	423.78	1,247	876
423.26	1,082	271	423.79	1,250	889
423.27	1,085	282	423.80	1,253	901
423.28	1,088	293	423.81	1,257	914
423.29	1,091	304	423.82	1,260	926
423.30	1,094	315	423.83	1,263	939
423.31	1,097	326	423.84	1,267	951
423.32	1,100	337	423.85	1,270	964
423.33	1,104	348	423.86	1,273	977
423.34	1,107	359	423.87	1,276	990
423.35	1,110	370	423.88	1,280	1,002
423.36	1,113	381	423.89	1,283	1,015
423.37	1,116	392	423.90	1,286	1,028
423.38	1,119	403	423.91	1,290	1,041
423.39	1,122	414	423.92	1,293	1,054
423.40	1,125	426	423.93	1,296	1,067
423.41	1,128	437	423.94	1,300	1,080
423.42	1,131	448	423.95	1,303	1,093
423.43	1,135	460	423.96	1,307	1,106
423.44	1,138	471	423.97	1,310	1,119
423.45	1,141	482	423.98	1,313	1,132
423.46	1,144	494	423.99	1,317	1,145
423.47	1,147	505	424.00	1,320	1,158
423.48	1,150	517	424.01	1,323	1,172
423.49	1,153	528	424.02	1,326	1,185
423.50	1,157	540	424.03	1,330	1,198
423.51	1,160	551	424.04	1,333	1,211
423.52	1,163	563	424.05	1,336	1,225

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
424.06	1,339	1,238	424.59	1,516	1,994
424.07	1,343	1,252	424.60	1,519	2,009
424.08	1,346	1,265	424.61	1,523	2,025
424.09	1,349	1,279	424.62	1,526	2,040
424.10	1,352	1,292	424.63	1,529	2,055
424.11	1,355	1,306	424.64	1,533	2,070
424.12	1,359	1,319	424.65	1,536	2,086
424.13	1,362	1,333	424.66	1,540	2,101
424.14	1,365	1,346	424.67	1,543	2,117
424.15	1,368	1,360	424.68	1,547	2,132
424.16	1,372	1,374	424.69	1,550	2,148
424.17	1,375	1,387	424.70	1,554	2,163
424.18	1,378	1,401	424.71	1,557	2,179
424.19	1,382	1,415	424.72	1,561	2,194
424.20	1,385	1,429	424.73	1,564	2,210
424.21	1,388	1,443	424.74	1,568	2,225
424.22	1,391	1,457	424.75	1,571	2,241
424.23	1,395	1,471	424.76	1,575	2,257
424.24	1,398	1,485	424.77	1,578	2,273
424.25	1,401	1,499	424.78	1,582	2,288
424.26	1,405	1,513	424.79	1,585	2,304
424.27	1,408	1,527	424.80	1,589	2,320
424.28	1,411	1,541	424.81	1,592	2,336
424.29	1,414	1,555	424.82	1,596	2,352
424.30	1,418	1,569	424.83	1,599	2,368
424.31	1,421	1,583	424.84	1,603	2,384
424.32	1,424	1,597	424.85	1,606	2,400
424.33	1,428	1,612	424.86	1,610	2,416
424.34	1,431	1,626	424.87	1,613	2,432
424.35	1,434	1,640	424.88	1,617	2,448
424.36	1,438	1,655	424.89	1,620	2,465
424.37	1,441	1,669	424.90	1,624	2,481
424.38	1,444	1,683	424.91	1,627	2,497
424.39	1,448	1,698	424.92	1,631	2,513
424.40	1,451	1,712	424.93	1,635	2,530
424.41	1,455	1,727	424.94	1,638	2,546
424.42	1,458	1,742	424.95	1,642	2,562
424.43	1,461	1,756	424.96	1,645	2,579
424.44	1,465	1,771	424.97	1,649	2,595
424.45	1,468	1,785	424.98	1,652	2,612
424.46	1,471	1,800	424.99	1,656	2,628
424.47	1,475	1,815	425.00	1,660	2,645
424.48	1,478	1,830	425.01	1,663	2,662
424.49	1,482	1,844	425.02	1,667	2,678
424.50	1,485	1,859	425.03	1,670	2,695
424.51	1,488	1,874	425.04	1,674	2,712
424.52	1,492	1,889	425.05	1,678	2,728
424.53	1,495	1,904	425.06	1,681	2,745
424.54	1,499	1,919	425.07	1,685	2,762
424.55	1,502	1,934	425.08	1,688	2,779
424.56	1,505	1,949	425.09	1,692	2,796
424.57	1,509	1,964	425.10	1,696	2,813
424.58	1,512	1,979	425.11	1,699	2,830

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
425.12	1,703	2,847	425.65	1,901	3,801
425.13	1,707	2,864	425.66	1,905	3,820
425.14	1,710	2,881	425.67	1,909	3,839
425.15	1,714	2,898	425.68	1,913	3,859
425.16	1,718	2,915	425.69	1,917	3,878
425.17	1,721	2,932	425.70	1,920	3,897
425.18	1,725	2,950	425.71	1,924	3,916
425.19	1,728	2,967	425.72	1,928	3,935
425.20	1,732	2,984	425.73	1,932	3,955
425.21	1,736	3,001	425.74	1,936	3,974
425.22	1,740	3,019	425.75	1,940	3,993
425.23	1,743	3,036	425.76	1,944	4,013
425.24	1,747	3,054	425.77	1,948	4,032
425.25	1,751	3,071	425.78	1,951	4,052
425.26	1,754	3,089	425.79	1,955	4,071
425.27	1,758	3,106	425.80	1,959	4,091
425.28	1,762	3,124	425.81	1,963	4,110
425.29	1,765	3,141	425.82	1,967	4,130
425.30	1,769	3,159	425.83	1,971	4,150
425.31	1,773	3,177	425.84	1,975	4,170
425.32	1,776	3,195	425.85	1,979	4,189
425.33	1,780	3,212	425.86	1,983	4,209
425.34	1,784	3,230	425.87	1,987	4,229
425.35	1,788	3,248	425.88	1,991	4,249
425.36	1,791	3,266	425.89	1,994	4,269
425.37	1,795	3,284	425.90	1,998	4,289
425.38	1,799	3,302	425.91	2,002	4,309
425.39	1,803	3,320	425.92	2,006	4,329
425.40	1,806	3,338	425.93	2,010	4,349
425.41	1,810	3,356	425.94	2,014	4,369
425.42	1,814	3,374	425.95	2,018	4,389
425.43	1,818	3,392	425.96	2,022	4,409
425.44	1,821	3,410	425.97	2,026	4,430
425.45	1,825	3,429	425.98	2,030	4,450
425.46	1,829	3,447	425.99	2,034	4,470
425.47	1,833	3,465	426.00	2,038	4,491
425.48	1,836	3,484	426.01	2,042	4,511
425.49	1,840	3,502	426.02	2,046	4,531
425.50	1,844	3,520	426.03	2,050	4,552
425.51	1,848	3,539	426.04	2,054	4,572
425.52	1,852	3,557	426.05	2,058	4,593
425.53	1,855	3,576	426.06	2,062	4,614
425.54	1,859	3,594	426.07	2,066	4,634
425.55	1,863	3,613	426.08	2,069	4,655
425.56	1,867	3,632	426.09	2,073	4,676
425.57	1,871	3,650	426.10	2,077	4,696
425.58	1,874	3,669	426.11	2,081	4,717
425.59	1,878	3,688	426.12	2,085	4,738
425.60	1,882	3,707	426.13	2,089	4,759
425.61	1,886	3,726	426.14	2,093	4,780
425.62	1,890	3,744	426.15	2,097	4,801
425.63	1,893	3,763	426.16	2,101	4,822
425.64	1,897	3,782	426.17	2,105	4,843

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
426.18	2,109	4,864	426.71	2,326	6,039
426.19	2,113	4,885	426.72	2,330	6,062
426.20	2,117	4,906	426.73	2,334	6,085
426.21	2,121	4,927	426.74	2,338	6,108
426.22	2,125	4,948	426.75	2,342	6,132
426.23	2,129	4,970	426.76	2,347	6,155
426.24	2,133	4,991	426.77	2,351	6,179
426.25	2,137	5,012	426.78	2,355	6,202
426.26	2,141	5,034	426.79	2,359	6,226
426.27	2,145	5,055	426.80	2,364	6,250
426.28	2,149	5,077	426.81	2,368	6,273
426.29	2,153	5,098	426.82	2,372	6,297
426.30	2,157	5,120	426.83	2,376	6,321
426.31	2,161	5,141	426.84	2,380	6,344
426.32	2,165	5,163	426.85	2,385	6,368
426.33	2,169	5,185	426.86	2,389	6,392
426.34	2,173	5,206	426.87	2,393	6,416
426.35	2,177	5,228	426.88	2,397	6,440
426.36	2,182	5,250	426.89	2,402	6,464
426.37	2,186	5,272	426.90	2,406	6,488
426.38	2,190	5,294	426.91	2,410	6,512
426.39	2,194	5,316	426.92	2,414	6,536
426.40	2,198	5,337	426.93	2,419	6,560
426.41	2,202	5,359	426.94	2,423	6,585
426.42	2,206	5,382	426.95	2,427	6,609
426.43	2,210	5,404	426.96	2,432	6,633
426.44	2,214	5,426	426.97	2,436	6,657
426.45	2,218	5,448	426.98	2,440	6,682
426.46	2,222	5,470	426.99	2,444	6,706
426.47	2,226	5,492	427.00	2,449	6,731
426.48	2,230	5,515	427.01	2,453	6,755
426.49	2,235	5,537	427.02	2,457	6,780
426.50	2,239	5,559	427.03	2,462	6,804
426.51	2,243	5,582	427.04	2,466	6,829
426.52	2,247	5,604	427.05	2,470	6,854
426.53	2,251	5,627	427.06	2,475	6,878
426.54	2,255	5,649	427.07	2,479	6,903
426.55	2,259	5,672	427.08	2,483	6,928
426.56	2,263	5,694	427.09	2,487	6,953
426.57	2,267	5,717	427.10	2,492	6,978
426.58	2,272	5,740	427.11	2,496	7,003
426.59	2,276	5,762	427.12	2,500	7,028
426.60	2,280	5,785	427.13	2,505	7,053
426.61	2,284	5,808	427.14	2,509	7,078
426.62	2,288	5,831	427.15	2,514	7,103
426.63	2,292	5,854	427.16	2,518	7,128
426.64	2,296	5,877	427.17	2,522	7,153
426.65	2,301	5,900	427.18	2,527	7,178
426.66	2,305	5,923	427.19	2,531	7,204
426.67	2,309	5,946	427.20	2,535	7,229
426.68	2,313	5,969	427.21	2,540	7,254
426.69	2,317	5,992	427.22	2,544	7,280
426.70	2,322	6,015	427.23	2,548	7,305

Stage-Area-Storage for Pond SF-K2: Sand Filter - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
427.24	2,553	7,331	427.77	2,791	8,746
427.25	2,557	7,356	427.78	2,795	8,774
427.26	2,562	7,382	427.79	2,800	8,802
427.27	2,566	7,408	427.80	2,804	8,830
427.28	2,570	7,433	427.81	2,809	8,858
427.29	2,575	7,459	427.82	2,814	8,886
427.30	2,579	7,485	427.83	2,818	8,915
427.31	2,584	7,511	427.84	2,823	8,943
427.32	2,588	7,536	427.85	2,827	8,971
427.33	2,592	7,562	427.86	2,832	8,999
427.34	2,597	7,588	427.87	2,837	9,028
427.35	2,601	7,614	427.88	2,841	9,056
427.36	2,606	7,640	427.89	2,846	9,085
427.37	2,610	7,666	427.90	2,850	9,113
427.38	2,615	7,693	427.91	2,855	9,142
427.39	2,619	7,719	427.92	2,860	9,170
427.40	2,623	7,745	427.93	2,864	9,199
427.41	2,628	7,771	427.94	2,869	9,227
427.42	2,632	7,797	427.95	2,874	9,256
427.43	2,637	7,824	427.96	2,878	9,285
427.44	2,641	7,850	427.97	2,883	9,314
427.45	2,646	7,877	427.98	2,888	9,343
427.46	2,650	7,903	427.99	2,892	9,371
427.47	2,655	7,930	428.00	2,897	9,400
427.48	2,659	7,956			
427.49	2,664	7,983			
427.50	2,668	8,010			
427.51	2,673	8,036			
427.52	2,677	8,063			
427.53	2,682	8,090			
427.54	2,686	8,117			
427.55	2,691	8,143			
427.56	2,695	8,170			
427.57	2,700	8,197			
427.58	2,704	8,224			
427.59	2,709	8,251			
427.60	2,713	8,279			
427.61	2,718	8,306			
427.62	2,722	8,333			
427.63	2,727	8,360			
427.64	2,731	8,387			
427.65	2,736	8,415			
427.66	2,740	8,442			
427.67	2,745	8,470			
427.68	2,749	8,497			
427.69	2,754	8,525			
427.70	2,759	8,552			
427.71	2,763	8,580			
427.72	2,768	8,607			
427.73	2,772	8,635			
427.74	2,777	8,663			
427.75	2,781	8,691			
427.76	2,786	8,718			

Summary for Pond SF-K3: Sand Filter -K3

[79] Warning: Submerged Pond SFF-K3 Primary device # 1 INLET by 0.73'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 5.44" for 100 Year - North Salem event
 Inflow = 33.58 cfs @ 12.23 hrs, Volume= 5.003 af
 Outflow = 21.96 cfs @ 12.57 hrs, Volume= 3.473 af, Atten= 35%, Lag= 19.9 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 21.96 cfs @ 12.57 hrs, Volume= 3.473 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 462.73' @ 12.57 hrs Surf.Area= 20,387 sf Storage= 81,174 cf

Plug-Flow detention time= 182.5 min calculated for 3.472 af (69% of inflow)
 Center-of-Mass det. time= 81.3 min (925.5 - 844.1)

Volume	Invert	Avail.Storage	Storage Description			
#1	458.00'	86,707 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
458.00	14,031	642.0	0	0	14,031	
460.00	16,650	667.0	30,644	30,644	16,946	
461.00	17,997	680.0	17,319	47,963	18,493	
462.00	19,370	693.0	18,679	66,642	20,071	
463.00	20,767	705.0	20,064	86,707	21,578	

Device	Routing	Invert	Outlet Devices
#1	Primary	455.50'	36.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 455.00' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	458.00'	1.750 in/hr Exfiltration over Surface area above 458.00' Excluded Surface area = 14,031 sf
#3	Device 1	461.00'	26.0" W x 8.0" H Vert. Orifice #1 X 4.00 C= 0.600
#4	Device 1	461.65'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	462.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=458.00' (Free Discharge)

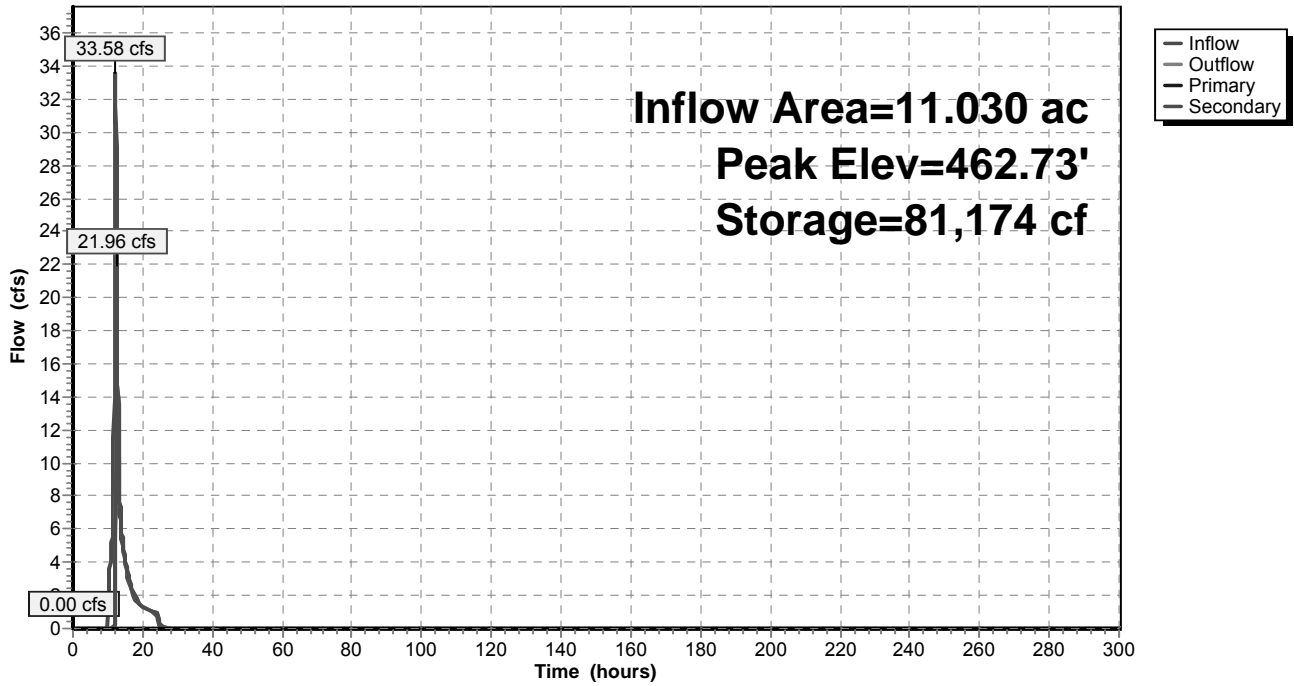
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Orifice #1 (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=21.87 cfs @ 12.57 hrs HW=462.73' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 21.87 cfs @ 3.04 fps)

Pond SF-K3: Sand Filter -K3

Hydrograph



Stage-Area-Storage for Pond SF-K3: Sand Filter -K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
458.00	14,031	0	458.53	14,703	7,614
458.01	14,044	140	458.54	14,716	7,761
458.02	14,056	281	458.55	14,729	7,908
458.03	14,069	421	458.56	14,742	8,056
458.04	14,081	562	458.57	14,755	8,203
458.05	14,094	703	458.58	14,767	8,351
458.06	14,106	844	458.59	14,780	8,498
458.07	14,119	985	458.60	14,793	8,646
458.08	14,131	1,126	458.61	14,806	8,794
458.09	14,144	1,268	458.62	14,819	8,942
458.10	14,157	1,409	458.63	14,832	9,091
458.11	14,169	1,551	458.64	14,845	9,239
458.12	14,182	1,693	458.65	14,858	9,388
458.13	14,194	1,835	458.66	14,871	9,536
458.14	14,207	1,977	458.67	14,883	9,685
458.15	14,220	2,119	458.68	14,896	9,834
458.16	14,232	2,261	458.69	14,909	9,983
458.17	14,245	2,403	458.70	14,922	10,132
458.18	14,258	2,546	458.71	14,935	10,281
458.19	14,270	2,689	458.72	14,948	10,431
458.20	14,283	2,831	458.73	14,961	10,580
458.21	14,295	2,974	458.74	14,974	10,730
458.22	14,308	3,117	458.75	14,987	10,880
458.23	14,321	3,260	458.76	15,000	11,030
458.24	14,333	3,404	458.77	15,013	11,180
458.25	14,346	3,547	458.78	15,026	11,330
458.26	14,359	3,691	458.79	15,039	11,480
458.27	14,371	3,834	458.80	15,052	11,631
458.28	14,384	3,978	458.81	15,065	11,781
458.29	14,397	4,122	458.82	15,078	11,932
458.30	14,410	4,266	458.83	15,091	12,083
458.31	14,422	4,410	458.84	15,104	12,234
458.32	14,435	4,554	458.85	15,117	12,385
458.33	14,448	4,699	458.86	15,130	12,536
458.34	14,460	4,843	458.87	15,143	12,688
458.35	14,473	4,988	458.88	15,156	12,839
458.36	14,486	5,133	458.89	15,169	12,991
458.37	14,499	5,278	458.90	15,182	13,142
458.38	14,511	5,423	458.91	15,195	13,294
458.39	14,524	5,568	458.92	15,208	13,446
458.40	14,537	5,713	458.93	15,221	13,598
458.41	14,550	5,859	458.94	15,234	13,751
458.42	14,562	6,004	458.95	15,247	13,903
458.43	14,575	6,150	458.96	15,260	14,056
458.44	14,588	6,296	458.97	15,273	14,208
458.45	14,601	6,442	458.98	15,286	14,361
458.46	14,614	6,588	458.99	15,299	14,514
458.47	14,626	6,734	459.00	15,313	14,667
458.48	14,639	6,880	459.01	15,326	14,820
458.49	14,652	7,027	459.02	15,339	14,974
458.50	14,665	7,173	459.03	15,352	15,127
458.51	14,678	7,320	459.04	15,365	15,281
458.52	14,690	7,467	459.05	15,378	15,434

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
459.06	15,391	15,588	459.59	16,095	23,931
459.07	15,404	15,742	459.60	16,108	24,092
459.08	15,417	15,896	459.61	16,122	24,253
459.09	15,431	16,051	459.62	16,135	24,415
459.10	15,444	16,205	459.63	16,149	24,576
459.11	15,457	16,359	459.64	16,162	24,738
459.12	15,470	16,514	459.65	16,176	24,899
459.13	15,483	16,669	459.66	16,189	25,061
459.14	15,496	16,824	459.67	16,202	25,223
459.15	15,510	16,979	459.68	16,216	25,385
459.16	15,523	17,134	459.69	16,229	25,548
459.17	15,536	17,289	459.70	16,243	25,710
459.18	15,549	17,445	459.71	16,256	25,872
459.19	15,562	17,600	459.72	16,270	26,035
459.20	15,576	17,756	459.73	16,283	26,198
459.21	15,589	17,912	459.74	16,297	26,361
459.22	15,602	18,068	459.75	16,310	26,524
459.23	15,615	18,224	459.76	16,324	26,687
459.24	15,628	18,380	459.77	16,337	26,850
459.25	15,642	18,536	459.78	16,351	27,014
459.26	15,655	18,693	459.79	16,364	27,177
459.27	15,668	18,849	459.80	16,378	27,341
459.28	15,681	19,006	459.81	16,392	27,505
459.29	15,695	19,163	459.82	16,405	27,669
459.30	15,708	19,320	459.83	16,419	27,833
459.31	15,721	19,477	459.84	16,432	27,997
459.32	15,734	19,634	459.85	16,446	28,162
459.33	15,748	19,792	459.86	16,459	28,326
459.34	15,761	19,949	459.87	16,473	28,491
459.35	15,774	20,107	459.88	16,487	28,655
459.36	15,788	20,265	459.89	16,500	28,820
459.37	15,801	20,423	459.90	16,514	28,985
459.38	15,814	20,581	459.91	16,527	29,151
459.39	15,827	20,739	459.92	16,541	29,316
459.40	15,841	20,897	459.93	16,555	29,482
459.41	15,854	21,056	459.94	16,568	29,647
459.42	15,867	21,215	459.95	16,582	29,813
459.43	15,881	21,373	459.96	16,595	29,979
459.44	15,894	21,532	459.97	16,609	30,145
459.45	15,907	21,691	459.98	16,623	30,311
459.46	15,921	21,850	459.99	16,636	30,477
459.47	15,934	22,010	460.00	16,650	30,644
459.48	15,948	22,169	460.01	16,663	30,810
459.49	15,961	22,329	460.02	16,676	30,977
459.50	15,974	22,488	460.03	16,690	31,144
459.51	15,988	22,648	460.04	16,703	31,311
459.52	16,001	22,808	460.05	16,716	31,478
459.53	16,014	22,968	460.06	16,729	31,645
459.54	16,028	23,128	460.07	16,743	31,812
459.55	16,041	23,289	460.08	16,756	31,980
459.56	16,055	23,449	460.09	16,769	32,148
459.57	16,068	23,610	460.10	16,782	32,315
459.58	16,081	23,770	460.11	16,796	32,483

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
460.12	16,809	32,651	460.65	17,520	41,748
460.13	16,822	32,819	460.66	17,533	41,923
460.14	16,835	32,988	460.67	17,547	42,098
460.15	16,849	33,156	460.68	17,560	42,274
460.16	16,862	33,325	460.69	17,574	42,449
460.17	16,875	33,493	460.70	17,587	42,625
460.18	16,889	33,662	460.71	17,601	42,801
460.19	16,902	33,831	460.72	17,615	42,977
460.20	16,915	34,000	460.73	17,628	43,153
460.21	16,929	34,169	460.74	17,642	43,330
460.22	16,942	34,339	460.75	17,655	43,506
460.23	16,955	34,508	460.76	17,669	43,683
460.24	16,969	34,678	460.77	17,683	43,860
460.25	16,982	34,848	460.78	17,696	44,037
460.26	16,995	35,017	460.79	17,710	44,214
460.27	17,009	35,187	460.80	17,723	44,391
460.28	17,022	35,358	460.81	17,737	44,568
460.29	17,035	35,528	460.82	17,751	44,746
460.30	17,049	35,698	460.83	17,764	44,923
460.31	17,062	35,869	460.84	17,778	45,101
460.32	17,075	36,040	460.85	17,792	45,279
460.33	17,089	36,210	460.86	17,805	45,457
460.34	17,102	36,381	460.87	17,819	45,635
460.35	17,115	36,552	460.88	17,833	45,813
460.36	17,129	36,724	460.89	17,846	45,991
460.37	17,142	36,895	460.90	17,860	46,170
460.38	17,156	37,067	460.91	17,874	46,349
460.39	17,169	37,238	460.92	17,887	46,527
460.40	17,183	37,410	460.93	17,901	46,706
460.41	17,196	37,582	460.94	17,915	46,885
460.42	17,209	37,754	460.95	17,928	47,065
460.43	17,223	37,926	460.96	17,942	47,244
460.44	17,236	38,098	460.97	17,956	47,424
460.45	17,250	38,271	460.98	17,970	47,603
460.46	17,263	38,443	460.99	17,983	47,783
460.47	17,277	38,616	461.00	17,997	47,963
460.48	17,290	38,789	461.01	18,010	48,143
460.49	17,303	38,962	461.02	18,024	48,323
460.50	17,317	39,135	461.03	18,037	48,503
460.51	17,330	39,308	461.04	18,051	48,684
460.52	17,344	39,481	461.05	18,064	48,864
460.53	17,357	39,655	461.06	18,078	49,045
460.54	17,371	39,829	461.07	18,091	49,226
460.55	17,384	40,002	461.08	18,105	49,407
460.56	17,398	40,176	461.09	18,119	49,588
460.57	17,411	40,350	461.10	18,132	49,769
460.58	17,425	40,525	461.11	18,146	49,951
460.59	17,438	40,699	461.12	18,159	50,132
460.60	17,452	40,873	461.13	18,173	50,314
460.61	17,465	41,048	461.14	18,186	50,496
460.62	17,479	41,223	461.15	18,200	50,678
460.63	17,493	41,397	461.16	18,213	50,860
460.64	17,506	41,572	461.17	18,227	51,042

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.18	18,240	51,224	461.71	18,967	61,083
461.19	18,254	51,407	461.72	18,980	61,273
461.20	18,268	51,589	461.73	18,994	61,463
461.21	18,281	51,772	461.74	19,008	61,653
461.22	18,295	51,955	461.75	19,022	61,843
461.23	18,308	52,138	461.76	19,036	62,033
461.24	18,322	52,321	461.77	19,050	62,224
461.25	18,336	52,504	461.78	19,064	62,414
461.26	18,349	52,688	461.79	19,077	62,605
461.27	18,363	52,871	461.80	19,091	62,796
461.28	18,376	53,055	461.81	19,105	62,987
461.29	18,390	53,239	461.82	19,119	63,178
461.30	18,404	53,423	461.83	19,133	63,369
461.31	18,417	53,607	461.84	19,147	63,561
461.32	18,431	53,791	461.85	19,161	63,752
461.33	18,445	53,976	461.86	19,175	63,944
461.34	18,458	54,160	461.87	19,189	64,136
461.35	18,472	54,345	461.88	19,203	64,328
461.36	18,485	54,529	461.89	19,216	64,520
461.37	18,499	54,714	461.90	19,230	64,712
461.38	18,513	54,899	461.91	19,244	64,904
461.39	18,526	55,085	461.92	19,258	65,097
461.40	18,540	55,270	461.93	19,272	65,290
461.41	18,554	55,455	461.94	19,286	65,482
461.42	18,568	55,641	461.95	19,300	65,675
461.43	18,581	55,827	461.96	19,314	65,868
461.44	18,595	56,013	461.97	19,328	66,062
461.45	18,609	56,199	461.98	19,342	66,255
461.46	18,622	56,385	461.99	19,356	66,448
461.47	18,636	56,571	462.00	19,370	66,642
461.48	18,650	56,758	462.01	19,384	66,836
461.49	18,663	56,944	462.02	19,397	67,030
461.50	18,677	57,131	462.03	19,411	67,224
461.51	18,691	57,318	462.04	19,425	67,418
461.52	18,705	57,505	462.05	19,439	67,612
461.53	18,718	57,692	462.06	19,452	67,807
461.54	18,732	57,879	462.07	19,466	68,001
461.55	18,746	58,066	462.08	19,480	68,196
461.56	18,760	58,254	462.09	19,494	68,391
461.57	18,773	58,442	462.10	19,508	68,586
461.58	18,787	58,629	462.11	19,521	68,781
461.59	18,801	58,817	462.12	19,535	68,976
461.60	18,815	59,005	462.13	19,549	69,172
461.61	18,829	59,194	462.14	19,563	69,367
461.62	18,842	59,382	462.15	19,576	69,563
461.63	18,856	59,570	462.16	19,590	69,759
461.64	18,870	59,759	462.17	19,604	69,955
461.65	18,884	59,948	462.18	19,618	70,151
461.66	18,898	60,137	462.19	19,632	70,347
461.67	18,911	60,326	462.20	19,646	70,544
461.68	18,925	60,515	462.21	19,659	70,740
461.69	18,939	60,704	462.22	19,673	70,937
461.70	18,953	60,894	462.23	19,687	71,134

Stage-Area-Storage for Pond SF-K3: Sand Filter -K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.24	19,701	71,331	462.77	20,441	81,968
462.25	19,715	71,528	462.78	20,455	82,172
462.26	19,729	71,725	462.79	20,470	82,377
462.27	19,742	71,922	462.80	20,484	82,582
462.28	19,756	72,120	462.81	20,498	82,786
462.29	19,770	72,317	462.82	20,512	82,991
462.30	19,784	72,515	462.83	20,526	83,197
462.31	19,798	72,713	462.84	20,540	83,402
462.32	19,812	72,911	462.85	20,554	83,607
462.33	19,826	73,109	462.86	20,568	83,813
462.34	19,840	73,308	462.87	20,583	84,019
462.35	19,853	73,506	462.88	20,597	84,225
462.36	19,867	73,705	462.89	20,611	84,431
462.37	19,881	73,903	462.90	20,625	84,637
462.38	19,895	74,102	462.91	20,639	84,843
462.39	19,909	74,301	462.92	20,653	85,050
462.40	19,923	74,500	462.93	20,668	85,256
462.41	19,937	74,700	462.94	20,682	85,463
462.42	19,951	74,899	462.95	20,696	85,670
462.43	19,965	75,099	462.96	20,710	85,877
462.44	19,979	75,298	462.97	20,724	86,084
462.45	19,993	75,498	462.98	20,739	86,291
462.46	20,007	75,698	462.99	20,753	86,499
462.47	20,021	75,898	463.00	20,767	86,707
462.48	20,034	76,099			
462.49	20,048	76,299			
462.50	20,062	76,500			
462.51	20,076	76,700			
462.52	20,090	76,901			
462.53	20,104	77,102			
462.54	20,118	77,303			
462.55	20,132	77,505			
462.56	20,146	77,706			
462.57	20,160	77,907			
462.58	20,174	78,109			
462.59	20,188	78,311			
462.60	20,202	78,513			
462.61	20,216	78,715			
462.62	20,230	78,917			
462.63	20,244	79,120			
462.64	20,258	79,322			
462.65	20,273	79,525			
462.66	20,287	79,728			
462.67	20,301	79,931			
462.68	20,315	80,134			
462.69	20,329	80,337			
462.70	20,343	80,540			
462.71	20,357	80,744			
462.72	20,371	80,947			
462.73	20,385	81,151			
462.74	20,399	81,355			
462.75	20,413	81,559			
462.76	20,427	81,763			

Summary for Pond SF-K5: Sand Filter - K5

[79] Warning: Submerged Pond SFF-K5 Primary device # 1 OUTLET by 0.67'

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 5.08" for 100 Year - North Salem event
 Inflow = 23.69 cfs @ 12.33 hrs, Volume= 3.543 af
 Outflow = 19.29 cfs @ 12.56 hrs, Volume= 2.665 af, Atten= 19%, Lag= 13.4 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 19.29 cfs @ 12.56 hrs, Volume= 2.665 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 495.67' @ 12.56 hrs Surf.Area= 11,690 sf Storage= 45,926 cf

Plug-Flow detention time= 149.1 min calculated for 2.665 af (75% of inflow)
 Center-of-Mass det. time= 58.7 min (919.1 - 860.4)

Volume	Invert	Avail.Storage	Storage Description		
#1	491.00'	49,794 cf	Custom Stage Data (Irregular) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
491.00	8,008	365.0	0	0	8,008
492.00	8,750	377.0	8,376	8,376	8,808
494.00	10,390	402.0	19,117	27,493	10,542
495.00	11,126	415.0	10,756	38,249	11,481
496.00	11,969	427.0	11,545	49,794	12,389

Device	Routing	Invert	Outlet Devices
#1	Primary	488.50'	24.0" Round Outlet Pipe X 0.00 L= 50.0' CPP, mitered to conform to fill, Ke= 0.700 Outlet Invert= 487.00' S= 0.0300 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	491.00'	1.750 in/hr Exfiltration over Surface area above 491.00' Excluded Surface area = 8,008 sf
#3	Device 1	494.35'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#4	Secondary	495.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=491.00' (Free Discharge)

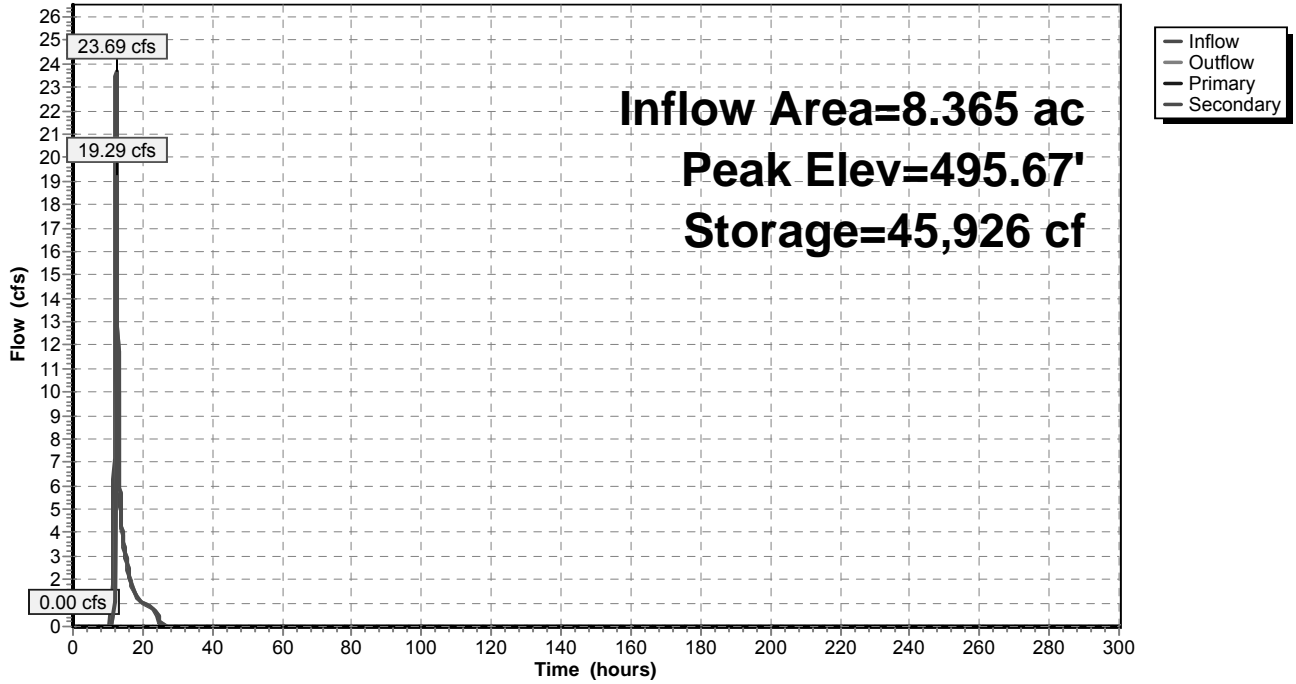
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Exfiltration (Controls 0.00 cfs)
- ↑ 3=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=19.22 cfs @ 12.56 hrs HW=495.67' (Free Discharge)

- ↑ 4=Emergency Overflow (Weir Controls 19.22 cfs @ 2.90 fps)

Pond SF-K5: Sand Filter - K5

Hydrograph



Stage-Area-Storage for Pond SF-K5: Sand Filter - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
491.00	8,008	0	491.53	8,397	4,347
491.01	8,015	80	491.54	8,405	4,431
491.02	8,023	160	491.55	8,412	4,515
491.03	8,030	241	491.56	8,419	4,599
491.04	8,037	321	491.57	8,427	4,683
491.05	8,044	401	491.58	8,434	4,768
491.06	8,052	482	491.59	8,442	4,852
491.07	8,059	562	491.60	8,449	4,937
491.08	8,066	643	491.61	8,457	5,021
491.09	8,073	724	491.62	8,464	5,106
491.10	8,081	804	491.63	8,472	5,190
491.11	8,088	885	491.64	8,479	5,275
491.12	8,095	966	491.65	8,487	5,360
491.13	8,103	1,047	491.66	8,494	5,445
491.14	8,110	1,128	491.67	8,502	5,530
491.15	8,117	1,209	491.68	8,509	5,615
491.16	8,125	1,291	491.69	8,516	5,700
491.17	8,132	1,372	491.70	8,524	5,785
491.18	8,139	1,453	491.71	8,531	5,871
491.19	8,146	1,535	491.72	8,539	5,956
491.20	8,154	1,616	491.73	8,546	6,041
491.21	8,161	1,698	491.74	8,554	6,127
491.22	8,168	1,779	491.75	8,561	6,212
491.23	8,176	1,861	491.76	8,569	6,298
491.24	8,183	1,943	491.77	8,576	6,384
491.25	8,190	2,025	491.78	8,584	6,470
491.26	8,198	2,107	491.79	8,591	6,555
491.27	8,205	2,189	491.80	8,599	6,641
491.28	8,212	2,271	491.81	8,606	6,727
491.29	8,220	2,353	491.82	8,614	6,814
491.30	8,227	2,435	491.83	8,622	6,900
491.31	8,235	2,518	491.84	8,629	6,986
491.32	8,242	2,600	491.85	8,637	7,072
491.33	8,249	2,682	491.86	8,644	7,159
491.34	8,257	2,765	491.87	8,652	7,245
491.35	8,264	2,847	491.88	8,659	7,332
491.36	8,271	2,930	491.89	8,667	7,418
491.37	8,279	3,013	491.90	8,674	7,505
491.38	8,286	3,096	491.91	8,682	7,592
491.39	8,293	3,179	491.92	8,689	7,679
491.40	8,301	3,262	491.93	8,697	7,766
491.41	8,308	3,345	491.94	8,705	7,853
491.42	8,316	3,428	491.95	8,712	7,940
491.43	8,323	3,511	491.96	8,720	8,027
491.44	8,330	3,594	491.97	8,727	8,114
491.45	8,338	3,678	491.98	8,735	8,201
491.46	8,345	3,761	491.99	8,742	8,289
491.47	8,353	3,844	492.00	8,750	8,376
491.48	8,360	3,928	492.01	8,758	8,464
491.49	8,367	4,012	492.02	8,766	8,551
491.50	8,375	4,095	492.03	8,774	8,639
491.51	8,382	4,179	492.04	8,781	8,727
491.52	8,390	4,263	492.05	8,789	8,815

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
492.06	8,797	8,903	492.59	9,219	13,677
492.07	8,805	8,991	492.60	9,227	13,769
492.08	8,813	9,079	492.61	9,235	13,861
492.09	8,821	9,167	492.62	9,243	13,953
492.10	8,829	9,255	492.63	9,251	14,046
492.11	8,837	9,344	492.64	9,259	14,139
492.12	8,844	9,432	492.65	9,268	14,231
492.13	8,852	9,520	492.66	9,276	14,324
492.14	8,860	9,609	492.67	9,284	14,417
492.15	8,868	9,698	492.68	9,292	14,510
492.16	8,876	9,786	492.69	9,300	14,603
492.17	8,884	9,875	492.70	9,308	14,696
492.18	8,892	9,964	492.71	9,316	14,789
492.19	8,900	10,053	492.72	9,324	14,882
492.20	8,908	10,142	492.73	9,332	14,975
492.21	8,916	10,231	492.74	9,340	15,069
492.22	8,924	10,320	492.75	9,349	15,162
492.23	8,931	10,410	492.76	9,357	15,255
492.24	8,939	10,499	492.77	9,365	15,349
492.25	8,947	10,588	492.78	9,373	15,443
492.26	8,955	10,678	492.79	9,381	15,537
492.27	8,963	10,767	492.80	9,389	15,630
492.28	8,971	10,857	492.81	9,397	15,724
492.29	8,979	10,947	492.82	9,405	15,818
492.30	8,987	11,037	492.83	9,414	15,912
492.31	8,995	11,127	492.84	9,422	16,007
492.32	9,003	11,217	492.85	9,430	16,101
492.33	9,011	11,307	492.86	9,438	16,195
492.34	9,019	11,397	492.87	9,446	16,290
492.35	9,027	11,487	492.88	9,454	16,384
492.36	9,035	11,577	492.89	9,462	16,479
492.37	9,043	11,668	492.90	9,471	16,573
492.38	9,051	11,758	492.91	9,479	16,668
492.39	9,059	11,849	492.92	9,487	16,763
492.40	9,067	11,939	492.93	9,495	16,858
492.41	9,075	12,030	492.94	9,503	16,953
492.42	9,083	12,121	492.95	9,511	17,048
492.43	9,091	12,212	492.96	9,520	17,143
492.44	9,099	12,303	492.97	9,528	17,238
492.45	9,107	12,394	492.98	9,536	17,334
492.46	9,115	12,485	492.99	9,544	17,429
492.47	9,123	12,576	493.00	9,552	17,525
492.48	9,131	12,667	493.01	9,561	17,620
492.49	9,139	12,759	493.02	9,569	17,716
492.50	9,147	12,850	493.03	9,577	17,811
492.51	9,155	12,942	493.04	9,585	17,907
492.52	9,163	13,033	493.05	9,593	18,003
492.53	9,171	13,125	493.06	9,602	18,099
492.54	9,179	13,217	493.07	9,610	18,195
492.55	9,187	13,308	493.08	9,618	18,291
492.56	9,195	13,400	493.09	9,626	18,388
492.57	9,203	13,492	493.10	9,635	18,484
492.58	9,211	13,584	493.11	9,643	18,580

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
493.12	9,651	18,677	493.65	10,093	23,908
493.13	9,659	18,773	493.66	10,101	24,009
493.14	9,668	18,870	493.67	10,110	24,110
493.15	9,676	18,967	493.68	10,118	24,212
493.16	9,684	19,063	493.69	10,127	24,313
493.17	9,692	19,160	493.70	10,135	24,414
493.18	9,701	19,257	493.71	10,143	24,516
493.19	9,709	19,354	493.72	10,152	24,617
493.20	9,717	19,451	493.73	10,160	24,719
493.21	9,725	19,549	493.74	10,169	24,820
493.22	9,734	19,646	493.75	10,177	24,922
493.23	9,742	19,743	493.76	10,186	25,024
493.24	9,750	19,841	493.77	10,194	25,126
493.25	9,759	19,938	493.78	10,203	25,228
493.26	9,767	20,036	493.79	10,211	25,330
493.27	9,775	20,134	493.80	10,220	25,432
493.28	9,783	20,231	493.81	10,228	25,534
493.29	9,792	20,329	493.82	10,237	25,636
493.30	9,800	20,427	493.83	10,245	25,739
493.31	9,808	20,525	493.84	10,254	25,841
493.32	9,817	20,623	493.85	10,262	25,944
493.33	9,825	20,722	493.86	10,271	26,047
493.34	9,833	20,820	493.87	10,279	26,149
493.35	9,842	20,918	493.88	10,288	26,252
493.36	9,850	21,017	493.89	10,296	26,355
493.37	9,858	21,115	493.90	10,305	26,458
493.38	9,867	21,214	493.91	10,313	26,561
493.39	9,875	21,313	493.92	10,322	26,664
493.40	9,883	21,411	493.93	10,330	26,768
493.41	9,892	21,510	493.94	10,339	26,871
493.42	9,900	21,609	493.95	10,347	26,974
493.43	9,908	21,708	493.96	10,356	27,078
493.44	9,917	21,807	493.97	10,364	27,181
493.45	9,925	21,907	493.98	10,373	27,285
493.46	9,933	22,006	493.99	10,381	27,389
493.47	9,942	22,105	494.00	10,390	27,493
493.48	9,950	22,205	494.01	10,397	27,597
493.49	9,958	22,304	494.02	10,404	27,701
493.50	9,967	22,404	494.03	10,412	27,805
493.51	9,975	22,504	494.04	10,419	27,909
493.52	9,984	22,603	494.05	10,426	28,013
493.53	9,992	22,703	494.06	10,433	28,118
493.54	10,000	22,803	494.07	10,441	28,222
493.55	10,009	22,903	494.08	10,448	28,326
493.56	10,017	23,003	494.09	10,455	28,431
493.57	10,026	23,104	494.10	10,462	28,535
493.58	10,034	23,204	494.11	10,470	28,640
493.59	10,042	23,304	494.12	10,477	28,745
493.60	10,051	23,405	494.13	10,484	28,850
493.61	10,059	23,505	494.14	10,492	28,954
493.62	10,068	23,606	494.15	10,499	29,059
493.63	10,076	23,707	494.16	10,506	29,164
493.64	10,084	23,808	494.17	10,513	29,270

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
494.18	10,521	29,375	494.71	10,910	35,054
494.19	10,528	29,480	494.72	10,917	35,163
494.20	10,535	29,585	494.73	10,925	35,272
494.21	10,542	29,691	494.74	10,932	35,381
494.22	10,550	29,796	494.75	10,940	35,491
494.23	10,557	29,902	494.76	10,947	35,600
494.24	10,564	30,007	494.77	10,954	35,709
494.25	10,572	30,113	494.78	10,962	35,819
494.26	10,579	30,219	494.79	10,969	35,929
494.27	10,586	30,325	494.80	10,977	36,038
494.28	10,594	30,430	494.81	10,984	36,148
494.29	10,601	30,536	494.82	10,992	36,258
494.30	10,608	30,642	494.83	10,999	36,368
494.31	10,615	30,749	494.84	11,007	36,478
494.32	10,623	30,855	494.85	11,014	36,588
494.33	10,630	30,961	494.86	11,021	36,698
494.34	10,637	31,067	494.87	11,029	36,809
494.35	10,645	31,174	494.88	11,036	36,919
494.36	10,652	31,280	494.89	11,044	37,029
494.37	10,659	31,387	494.90	11,051	37,140
494.38	10,667	31,493	494.91	11,059	37,250
494.39	10,674	31,600	494.92	11,066	37,361
494.40	10,681	31,707	494.93	11,074	37,472
494.41	10,689	31,814	494.94	11,081	37,582
494.42	10,696	31,921	494.95	11,089	37,693
494.43	10,703	32,028	494.96	11,096	37,804
494.44	10,711	32,135	494.97	11,104	37,915
494.45	10,718	32,242	494.98	11,111	38,026
494.46	10,725	32,349	494.99	11,119	38,137
494.47	10,733	32,456	495.00	11,126	38,249
494.48	10,740	32,564	495.01	11,134	38,360
494.49	10,747	32,671	495.02	11,143	38,471
494.50	10,755	32,779	495.03	11,151	38,583
494.51	10,762	32,886	495.04	11,159	38,694
494.52	10,770	32,994	495.05	11,167	38,806
494.53	10,777	33,102	495.06	11,176	38,918
494.54	10,784	33,210	495.07	11,184	39,030
494.55	10,792	33,317	495.08	11,192	39,141
494.56	10,799	33,425	495.09	11,201	39,253
494.57	10,806	33,533	495.10	11,209	39,365
494.58	10,814	33,641	495.11	11,217	39,478
494.59	10,821	33,750	495.12	11,226	39,590
494.60	10,829	33,858	495.13	11,234	39,702
494.61	10,836	33,966	495.14	11,242	39,814
494.62	10,843	34,075	495.15	11,250	39,927
494.63	10,851	34,183	495.16	11,259	40,039
494.64	10,858	34,292	495.17	11,267	40,152
494.65	10,866	34,400	495.18	11,275	40,265
494.66	10,873	34,509	495.19	11,284	40,378
494.67	10,880	34,618	495.20	11,292	40,490
494.68	10,888	34,727	495.21	11,300	40,603
494.69	10,895	34,835	495.22	11,309	40,717
494.70	10,903	34,944	495.23	11,317	40,830

Stage-Area-Storage for Pond SF-K5: Sand Filter - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
495.24	11,326	40,943	495.77	11,772	47,063
495.25	11,334	41,056	495.78	11,781	47,181
495.26	11,342	41,170	495.79	11,789	47,299
495.27	11,351	41,283	495.80	11,798	47,417
495.28	11,359	41,397	495.81	11,806	47,535
495.29	11,367	41,510	495.82	11,815	47,653
495.30	11,376	41,624	495.83	11,824	47,771
495.31	11,384	41,738	495.84	11,832	47,890
495.32	11,392	41,852	495.85	11,841	48,008
495.33	11,401	41,966	495.86	11,849	48,126
495.34	11,409	42,080	495.87	11,858	48,245
495.35	11,418	42,194	495.88	11,866	48,364
495.36	11,426	42,308	495.89	11,875	48,482
495.37	11,434	42,422	495.90	11,883	48,601
495.38	11,443	42,537	495.91	11,892	48,720
495.39	11,451	42,651	495.92	11,900	48,839
495.40	11,460	42,766	495.93	11,909	48,958
495.41	11,468	42,880	495.94	11,918	49,077
495.42	11,476	42,995	495.95	11,926	49,196
495.43	11,485	43,110	495.96	11,935	49,316
495.44	11,493	43,225	495.97	11,943	49,435
495.45	11,502	43,340	495.98	11,952	49,554
495.46	11,510	43,455	495.99	11,960	49,674
495.47	11,518	43,570	496.00	11,969	49,794
495.48	11,527	43,685			
495.49	11,535	43,800			
495.50	11,544	43,916			
495.51	11,552	44,031			
495.52	11,561	44,147			
495.53	11,569	44,262			
495.54	11,577	44,378			
495.55	11,586	44,494			
495.56	11,594	44,610			
495.57	11,603	44,726			
495.58	11,611	44,842			
495.59	11,620	44,958			
495.60	11,628	45,074			
495.61	11,637	45,191			
495.62	11,645	45,307			
495.63	11,654	45,424			
495.64	11,662	45,540			
495.65	11,670	45,657			
495.66	11,679	45,774			
495.67	11,687	45,890			
495.68	11,696	46,007			
495.69	11,704	46,124			
495.70	11,713	46,241			
495.71	11,721	46,359			
495.72	11,730	46,476			
495.73	11,738	46,593			
495.74	11,747	46,711			
495.75	11,755	46,828			
495.76	11,764	46,946			

Summary for Pond SFF-K2: Sand Filter Forebay - K2

Inflow Area = 2.045 ac, 17.21% Impervious, Inflow Depth = 5.09" for 100 Year - North Salem event
 Inflow = 9.64 cfs @ 12.18 hrs, Volume= 0.867 af
 Outflow = 9.62 cfs @ 12.20 hrs, Volume= 0.798 af, Atten= 0%, Lag= 1.1 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 9.62 cfs @ 12.20 hrs, Volume= 0.798 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 433.43' @ 12.20 hrs Surf.Area= 1,828 sf Storage= 3,753 cf

Plug-Flow detention time= 59.7 min calculated for 0.798 af (92% of inflow)
 Center-of-Mass det. time= 19.1 min (849.3 - 830.2)

Volume	Invert	Avail.Storage	Storage Description			
#1	430.00'	4,874 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
430.00	440	165.0	0	0	440	
432.00	1,216	210.0	1,592	1,592	1,834	
434.00	2,107	235.0	3,282	4,874	2,825	

Device	Routing	Invert	Outlet Devices
#1	Primary	430.00'	12.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 428.00' S= 0.0909 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	430.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 3 rows with 4.0" cc spacing C= 0.600
#3	Device 1	432.75'	24.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	432.85'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#5	Secondary	433.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

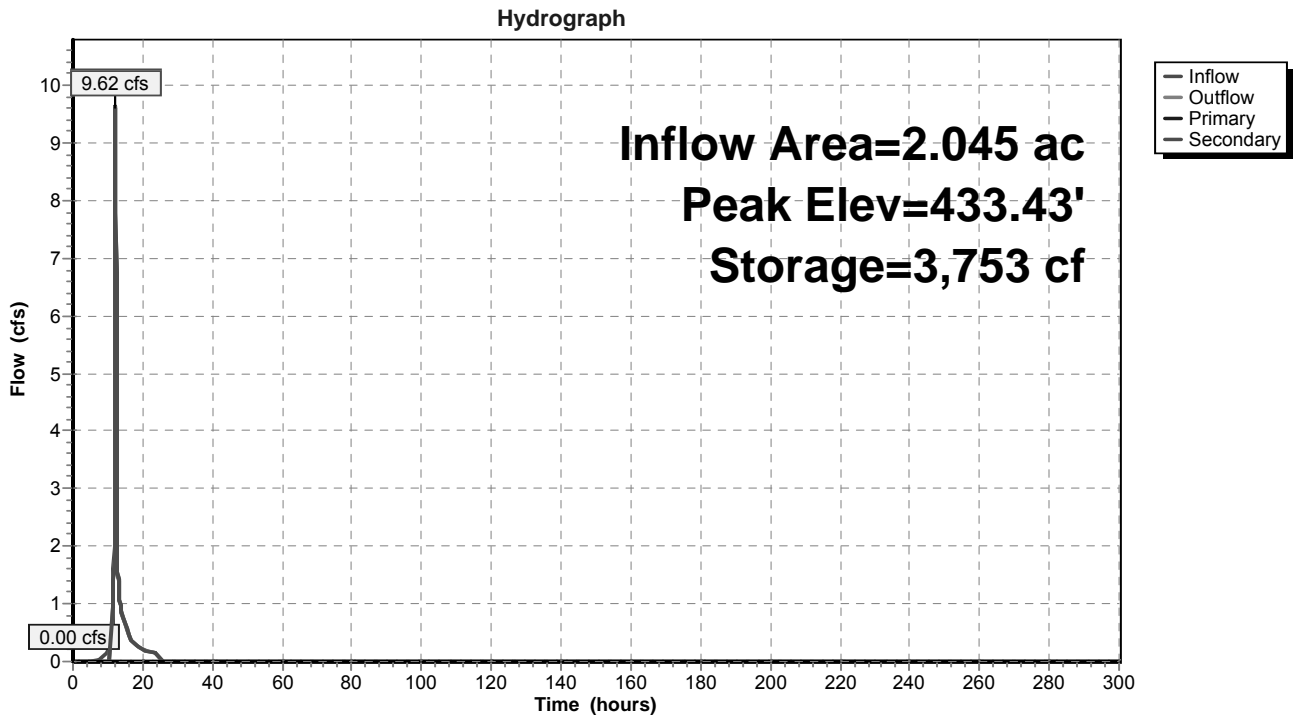
Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=430.00' (Free Discharge)

- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=9.61 cfs @ 12.20 hrs HW=433.43' (Free Discharge)

- ↑ 5=Emergency Overflow (Weir Controls 9.61 cfs @ 2.26 fps)

Pond SFF-K2: Sand Filter Forebay - K2



Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
430.00	440	0	430.53	608	277
430.01	443	4	430.54	611	283
430.02	446	9	430.55	615	289
430.03	449	13	430.56	618	295
430.04	452	18	430.57	622	301
430.05	455	22	430.58	625	307
430.06	458	27	430.59	629	314
430.07	461	32	430.60	632	320
430.08	464	36	430.61	636	326
430.09	467	41	430.62	639	333
430.10	470	45	430.63	643	339
430.11	473	50	430.64	646	346
430.12	476	55	430.65	650	352
430.13	479	60	430.66	653	359
430.14	482	65	430.67	657	365
430.15	485	69	430.68	661	372
430.16	488	74	430.69	664	378
430.17	491	79	430.70	668	385
430.18	494	84	430.71	671	392
430.19	497	89	430.72	675	398
430.20	500	94	430.73	678	405
430.21	503	99	430.74	682	412
430.22	506	104	430.75	686	419
430.23	510	109	430.76	689	426
430.24	513	114	430.77	693	433
430.25	516	119	430.78	697	439
430.26	519	125	430.79	700	446
430.27	522	130	430.80	704	454
430.28	525	135	430.81	708	461
430.29	529	140	430.82	711	468
430.30	532	146	430.83	715	475
430.31	535	151	430.84	719	482
430.32	538	156	430.85	723	489
430.33	541	162	430.86	726	496
430.34	545	167	430.87	730	504
430.35	548	173	430.88	734	511
430.36	551	178	430.89	738	518
430.37	554	184	430.90	741	526
430.38	558	189	430.91	745	533
430.39	561	195	430.92	749	541
430.40	564	200	430.93	753	548
430.41	568	206	430.94	757	556
430.42	571	212	430.95	760	563
430.43	574	217	430.96	764	571
430.44	578	223	430.97	768	579
430.45	581	229	430.98	772	586
430.46	584	235	430.99	776	594
430.47	588	241	431.00	780	602
430.48	591	247	431.01	784	610
430.49	594	252	431.02	788	617
430.50	598	258	431.03	791	625
430.51	601	264	431.04	795	633
430.52	605	270	431.05	799	641

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
431.06	803	649	431.59	1,025	1,133
431.07	807	657	431.60	1,030	1,143
431.08	811	665	431.61	1,034	1,153
431.09	815	674	431.62	1,039	1,164
431.10	819	682	431.63	1,043	1,174
431.11	823	690	431.64	1,048	1,185
431.12	827	698	431.65	1,052	1,195
431.13	831	707	431.66	1,057	1,206
431.14	835	715	431.67	1,061	1,216
431.15	839	723	431.68	1,066	1,227
431.16	843	732	431.69	1,070	1,237
431.17	847	740	431.70	1,075	1,248
431.18	851	749	431.71	1,080	1,259
431.19	855	757	431.72	1,084	1,270
431.20	859	766	431.73	1,089	1,281
431.21	863	774	431.74	1,093	1,292
431.22	867	783	431.75	1,098	1,303
431.23	872	792	431.76	1,102	1,314
431.24	876	800	431.77	1,107	1,325
431.25	880	809	431.78	1,112	1,336
431.26	884	818	431.79	1,116	1,347
431.27	888	827	431.80	1,121	1,358
431.28	892	836	431.81	1,126	1,369
431.29	896	845	431.82	1,130	1,381
431.30	900	854	431.83	1,135	1,392
431.31	905	863	431.84	1,140	1,403
431.32	909	872	431.85	1,144	1,415
431.33	913	881	431.86	1,149	1,426
431.34	917	890	431.87	1,154	1,438
431.35	921	899	431.88	1,159	1,449
431.36	926	908	431.89	1,163	1,461
431.37	930	918	431.90	1,168	1,472
431.38	934	927	431.91	1,173	1,484
431.39	938	936	431.92	1,178	1,496
431.40	943	946	431.93	1,182	1,508
431.41	947	955	431.94	1,187	1,520
431.42	951	965	431.95	1,192	1,531
431.43	955	974	431.96	1,197	1,543
431.44	960	984	431.97	1,202	1,555
431.45	964	993	431.98	1,206	1,567
431.46	968	1,003	431.99	1,211	1,580
431.47	973	1,013	432.00	1,216	1,592
431.48	977	1,023	432.01	1,220	1,604
431.49	981	1,032	432.02	1,224	1,616
431.50	986	1,042	432.03	1,228	1,628
431.51	990	1,052	432.04	1,231	1,641
431.52	995	1,062	432.05	1,235	1,653
431.53	999	1,072	432.06	1,239	1,665
431.54	1,003	1,082	432.07	1,243	1,678
431.55	1,008	1,092	432.08	1,247	1,690
431.56	1,012	1,102	432.09	1,251	1,703
431.57	1,017	1,112	432.10	1,255	1,715
431.58	1,021	1,122	432.11	1,259	1,728

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
432.12	1,263	1,740	432.65	1,479	2,466
432.13	1,267	1,753	432.66	1,483	2,481
432.14	1,270	1,766	432.67	1,487	2,496
432.15	1,274	1,778	432.68	1,492	2,511
432.16	1,278	1,791	432.69	1,496	2,526
432.17	1,282	1,804	432.70	1,500	2,541
432.18	1,286	1,817	432.71	1,504	2,556
432.19	1,290	1,830	432.72	1,509	2,571
432.20	1,294	1,843	432.73	1,513	2,586
432.21	1,298	1,856	432.74	1,517	2,601
432.22	1,302	1,869	432.75	1,522	2,616
432.23	1,306	1,882	432.76	1,526	2,631
432.24	1,310	1,895	432.77	1,530	2,647
432.25	1,314	1,908	432.78	1,535	2,662
432.26	1,318	1,921	432.79	1,539	2,677
432.27	1,322	1,934	432.80	1,543	2,693
432.28	1,326	1,947	432.81	1,548	2,708
432.29	1,330	1,961	432.82	1,552	2,724
432.30	1,334	1,974	432.83	1,556	2,739
432.31	1,338	1,987	432.84	1,561	2,755
432.32	1,342	2,001	432.85	1,565	2,770
432.33	1,346	2,014	432.86	1,569	2,786
432.34	1,350	2,028	432.87	1,574	2,802
432.35	1,354	2,041	432.88	1,578	2,818
432.36	1,358	2,055	432.89	1,582	2,833
432.37	1,362	2,068	432.90	1,587	2,849
432.38	1,367	2,082	432.91	1,591	2,865
432.39	1,371	2,096	432.92	1,596	2,881
432.40	1,375	2,109	432.93	1,600	2,897
432.41	1,379	2,123	432.94	1,604	2,913
432.42	1,383	2,137	432.95	1,609	2,929
432.43	1,387	2,151	432.96	1,613	2,945
432.44	1,391	2,165	432.97	1,618	2,961
432.45	1,395	2,179	432.98	1,622	2,978
432.46	1,399	2,193	432.99	1,627	2,994
432.47	1,404	2,207	433.00	1,631	3,010
432.48	1,408	2,221	433.01	1,636	3,026
432.49	1,412	2,235	433.02	1,640	3,043
432.50	1,416	2,249	433.03	1,644	3,059
432.51	1,420	2,263	433.04	1,649	3,076
432.52	1,424	2,277	433.05	1,653	3,092
432.53	1,428	2,292	433.06	1,658	3,109
432.54	1,433	2,306	433.07	1,662	3,125
432.55	1,437	2,320	433.08	1,667	3,142
432.56	1,441	2,335	433.09	1,671	3,159
432.57	1,445	2,349	433.10	1,676	3,175
432.58	1,449	2,364	433.11	1,680	3,192
432.59	1,454	2,378	433.12	1,685	3,209
432.60	1,458	2,393	433.13	1,690	3,226
432.61	1,462	2,407	433.14	1,694	3,243
432.62	1,466	2,422	433.15	1,699	3,260
432.63	1,470	2,437	433.16	1,703	3,277
432.64	1,475	2,451	433.17	1,708	3,294

Stage-Area-Storage for Pond SFF-K2: Sand Filter Forebay - K2 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
433.18	1,712	3,311	433.71	1,963	4,284
433.19	1,717	3,328	433.72	1,968	4,304
433.20	1,721	3,345	433.73	1,973	4,323
433.21	1,726	3,363	433.74	1,977	4,343
433.22	1,731	3,380	433.75	1,982	4,363
433.23	1,735	3,397	433.76	1,987	4,383
433.24	1,740	3,415	433.77	1,992	4,403
433.25	1,744	3,432	433.78	1,997	4,423
433.26	1,749	3,449	433.79	2,002	4,443
433.27	1,754	3,467	433.80	2,007	4,463
433.28	1,758	3,485	433.81	2,012	4,483
433.29	1,763	3,502	433.82	2,017	4,503
433.30	1,767	3,520	433.83	2,022	4,523
433.31	1,772	3,537	433.84	2,027	4,543
433.32	1,777	3,555	433.85	2,032	4,564
433.33	1,781	3,573	433.86	2,037	4,584
433.34	1,786	3,591	433.87	2,042	4,604
433.35	1,791	3,609	433.88	2,047	4,625
433.36	1,795	3,627	433.89	2,052	4,645
433.37	1,800	3,645	433.90	2,057	4,666
433.38	1,805	3,663	433.91	2,062	4,686
433.39	1,809	3,681	433.92	2,067	4,707
433.40	1,814	3,699	433.93	2,072	4,728
433.41	1,819	3,717	433.94	2,077	4,749
433.42	1,824	3,735	433.95	2,082	4,769
433.43	1,828	3,753	433.96	2,087	4,790
433.44	1,833	3,772	433.97	2,092	4,811
433.45	1,838	3,790	433.98	2,097	4,832
433.46	1,842	3,809	433.99	2,102	4,853
433.47	1,847	3,827	434.00	2,107	4,874
433.48	1,852	3,845			
433.49	1,857	3,864			
433.50	1,861	3,883			
433.51	1,866	3,901			
433.52	1,871	3,920			
433.53	1,876	3,939			
433.54	1,881	3,957			
433.55	1,885	3,976			
433.56	1,890	3,995			
433.57	1,895	4,014			
433.58	1,900	4,033			
433.59	1,905	4,052			
433.60	1,909	4,071			
433.61	1,914	4,090			
433.62	1,919	4,109			
433.63	1,924	4,129			
433.64	1,929	4,148			
433.65	1,934	4,167			
433.66	1,938	4,187			
433.67	1,943	4,206			
433.68	1,948	4,225			
433.69	1,953	4,245			
433.70	1,958	4,264			

Summary for Pond SFF-K3: Sand Filter Forebay - K3

[79] Warning: Submerged Pond FS K3 Primary device # 1 INLET by 0.73'

Inflow Area = 11.030 ac, 50.96% Impervious, Inflow Depth = 6.06" for 100 Year - North Salem event
 Inflow = 34.61 cfs @ 12.19 hrs, Volume= 5.574 af
 Outflow = 33.58 cfs @ 12.23 hrs, Volume= 5.003 af, Atten= 3%, Lag= 2.5 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 33.58 cfs @ 12.23 hrs, Volume= 5.003 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 465.96' @ 12.23 hrs Surf.Area= 8,076 sf Storage= 32,317 cf

Plug-Flow detention time= 90.4 min calculated for 5.003 af (90% of inflow)
 Center-of-Mass det. time= 38.8 min (844.1 - 805.3)

Volume	Invert	Avail.Storage	Storage Description			
#1	461.00'	32,659 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
461.00	5,065	273.0	0	0	5,065	
462.00	5,623	285.0	5,342	5,342	5,666	
464.00	6,813	310.0	12,417	17,759	6,991	
464.50	7,126	319.0	3,484	21,243	7,468	
465.00	7,447	323.0	3,643	24,886	7,728	
466.00	8,104	336.0	7,773	32,659	8,486	

Device	Routing	Invert	Outlet Devices
#1	Primary	462.00'	36.0" Round Outlet Pipe X 0.00 L= 22.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 461.00' S= 0.0455 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	462.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	464.25'	24.0" Horiz. Top of Standpipe X 2.00 C= 0.600 Limited to weir flow at low heads
#4	Device 1	464.25'	24.0" W x 8.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	464.92'	36.0" x 36.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	465.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=461.00' (Free Discharge)

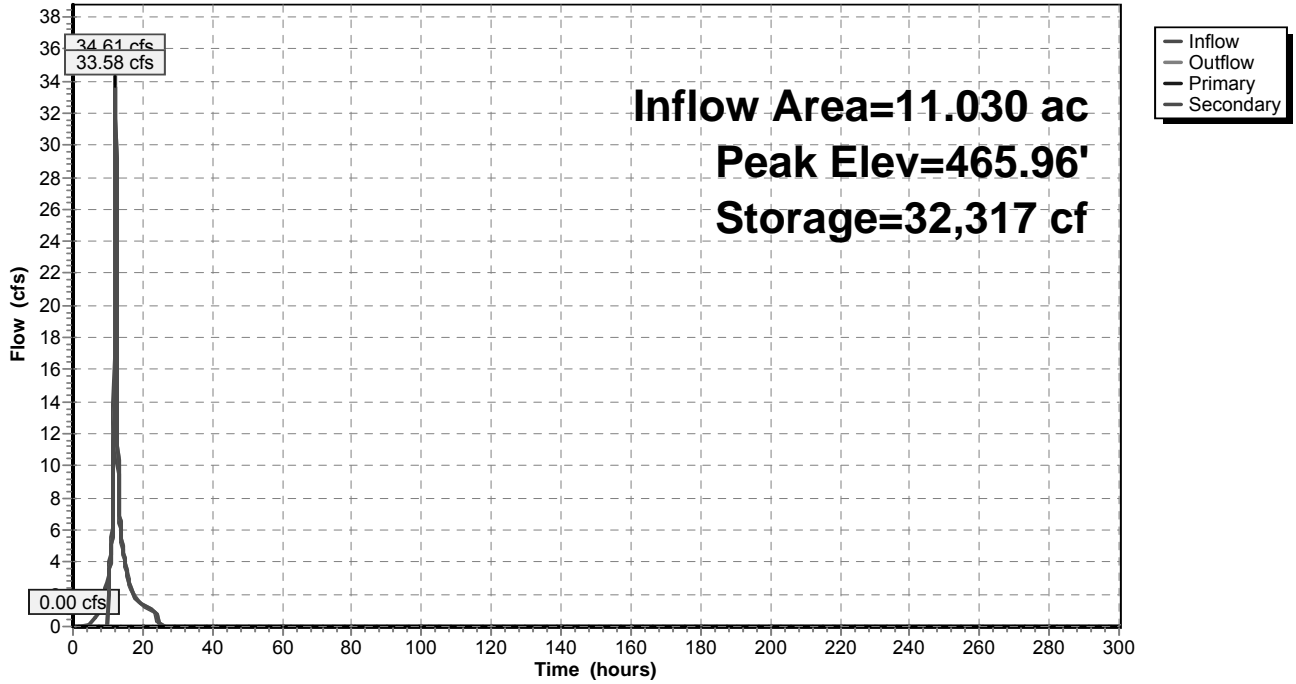
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=33.33 cfs @ 12.23 hrs HW=465.95' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 33.33 cfs @ 3.56 fps)

Pond SFF-K3: Sand Filter Forebay - K3

Hydrograph



Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
461.00	5,065	0	461.53	5,357	2,761
461.01	5,070	51	461.54	5,363	2,815
461.02	5,076	101	461.55	5,368	2,869
461.03	5,081	152	461.56	5,374	2,922
461.04	5,087	203	461.57	5,379	2,976
461.05	5,092	254	461.58	5,385	3,030
461.06	5,098	305	461.59	5,391	3,084
461.07	5,103	356	461.60	5,396	3,138
461.08	5,109	407	461.61	5,402	3,192
461.09	5,114	458	461.62	5,408	3,246
461.10	5,119	509	461.63	5,413	3,300
461.11	5,125	560	461.64	5,419	3,354
461.12	5,130	612	461.65	5,424	3,408
461.13	5,136	663	461.66	5,430	3,463
461.14	5,141	714	461.67	5,436	3,517
461.15	5,147	766	461.68	5,441	3,571
461.16	5,152	817	461.69	5,447	3,626
461.17	5,158	869	461.70	5,453	3,680
461.18	5,163	921	461.71	5,458	3,735
461.19	5,169	972	461.72	5,464	3,789
461.20	5,174	1,024	461.73	5,469	3,844
461.21	5,180	1,076	461.74	5,475	3,899
461.22	5,185	1,128	461.75	5,481	3,954
461.23	5,191	1,179	461.76	5,486	4,008
461.24	5,196	1,231	461.77	5,492	4,063
461.25	5,202	1,283	461.78	5,498	4,118
461.26	5,207	1,335	461.79	5,503	4,173
461.27	5,213	1,387	461.80	5,509	4,228
461.28	5,218	1,440	461.81	5,515	4,284
461.29	5,224	1,492	461.82	5,520	4,339
461.30	5,229	1,544	461.83	5,526	4,394
461.31	5,235	1,596	461.84	5,532	4,449
461.32	5,240	1,649	461.85	5,537	4,505
461.33	5,246	1,701	461.86	5,543	4,560
461.34	5,251	1,754	461.87	5,549	4,615
461.35	5,257	1,806	461.88	5,555	4,671
461.36	5,263	1,859	461.89	5,560	4,726
461.37	5,268	1,911	461.90	5,566	4,782
461.38	5,274	1,964	461.91	5,572	4,838
461.39	5,279	2,017	461.92	5,577	4,894
461.40	5,285	2,070	461.93	5,583	4,949
461.41	5,290	2,123	461.94	5,589	5,005
461.42	5,296	2,176	461.95	5,594	5,061
461.43	5,301	2,229	461.96	5,600	5,117
461.44	5,307	2,282	461.97	5,606	5,173
461.45	5,312	2,335	461.98	5,612	5,229
461.46	5,318	2,388	461.99	5,617	5,285
461.47	5,324	2,441	462.00	5,623	5,342
461.48	5,329	2,494	462.01	5,629	5,398
461.49	5,335	2,548	462.02	5,634	5,454
461.50	5,340	2,601	462.03	5,640	5,511
461.51	5,346	2,654	462.04	5,646	5,567
461.52	5,352	2,708	462.05	5,651	5,623

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
462.06	5,657	5,680	462.59	5,962	8,759
462.07	5,663	5,737	462.60	5,968	8,818
462.08	5,668	5,793	462.61	5,974	8,878
462.09	5,674	5,850	462.62	5,980	8,938
462.10	5,680	5,907	462.63	5,986	8,998
462.11	5,685	5,964	462.64	5,991	9,058
462.12	5,691	6,020	462.65	5,997	9,117
462.13	5,697	6,077	462.66	6,003	9,177
462.14	5,703	6,134	462.67	6,009	9,238
462.15	5,708	6,191	462.68	6,015	9,298
462.16	5,714	6,249	462.69	6,021	9,358
462.17	5,720	6,306	462.70	6,027	9,418
462.18	5,725	6,363	462.71	6,032	9,478
462.19	5,731	6,420	462.72	6,038	9,539
462.20	5,737	6,478	462.73	6,044	9,599
462.21	5,743	6,535	462.74	6,050	9,660
462.22	5,748	6,592	462.75	6,056	9,720
462.23	5,754	6,650	462.76	6,062	9,781
462.24	5,760	6,707	462.77	6,068	9,841
462.25	5,766	6,765	462.78	6,074	9,902
462.26	5,771	6,823	462.79	6,079	9,963
462.27	5,777	6,881	462.80	6,085	10,024
462.28	5,783	6,938	462.81	6,091	10,085
462.29	5,788	6,996	462.82	6,097	10,145
462.30	5,794	7,054	462.83	6,103	10,206
462.31	5,800	7,112	462.84	6,109	10,268
462.32	5,806	7,170	462.85	6,115	10,329
462.33	5,811	7,228	462.86	6,121	10,390
462.34	5,817	7,286	462.87	6,127	10,451
462.35	5,823	7,345	462.88	6,133	10,512
462.36	5,829	7,403	462.89	6,138	10,574
462.37	5,835	7,461	462.90	6,144	10,635
462.38	5,840	7,519	462.91	6,150	10,697
462.39	5,846	7,578	462.92	6,156	10,758
462.40	5,852	7,636	462.93	6,162	10,820
462.41	5,858	7,695	462.94	6,168	10,881
462.42	5,863	7,754	462.95	6,174	10,943
462.43	5,869	7,812	462.96	6,180	11,005
462.44	5,875	7,871	462.97	6,186	11,067
462.45	5,881	7,930	462.98	6,192	11,129
462.46	5,887	7,989	462.99	6,198	11,191
462.47	5,892	8,047	463.00	6,204	11,253
462.48	5,898	8,106	463.01	6,210	11,315
462.49	5,904	8,165	463.02	6,216	11,377
462.50	5,910	8,224	463.03	6,222	11,439
462.51	5,916	8,284	463.04	6,228	11,501
462.52	5,921	8,343	463.05	6,234	11,563
462.53	5,927	8,402	463.06	6,239	11,626
462.54	5,933	8,461	463.07	6,245	11,688
462.55	5,939	8,521	463.08	6,251	11,751
462.56	5,945	8,580	463.09	6,257	11,813
462.57	5,951	8,640	463.10	6,263	11,876
462.58	5,956	8,699	463.11	6,269	11,939

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
463.12	6,275	12,001	463.65	6,597	15,412
463.13	6,281	12,064	463.66	6,603	15,478
463.14	6,287	12,127	463.67	6,609	15,544
463.15	6,293	12,190	463.68	6,615	15,610
463.16	6,299	12,253	463.69	6,621	15,676
463.17	6,305	12,316	463.70	6,627	15,743
463.18	6,311	12,379	463.71	6,633	15,809
463.19	6,317	12,442	463.72	6,640	15,875
463.20	6,323	12,505	463.73	6,646	15,942
463.21	6,329	12,569	463.74	6,652	16,008
463.22	6,335	12,632	463.75	6,658	16,075
463.23	6,341	12,695	463.76	6,664	16,141
463.24	6,347	12,759	463.77	6,670	16,208
463.25	6,353	12,822	463.78	6,677	16,275
463.26	6,359	12,886	463.79	6,683	16,342
463.27	6,365	12,949	463.80	6,689	16,408
463.28	6,371	13,013	463.81	6,695	16,475
463.29	6,377	13,077	463.82	6,701	16,542
463.30	6,384	13,141	463.83	6,707	16,609
463.31	6,390	13,204	463.84	6,714	16,676
463.32	6,396	13,268	463.85	6,720	16,744
463.33	6,402	13,332	463.86	6,726	16,811
463.34	6,408	13,396	463.87	6,732	16,878
463.35	6,414	13,461	463.88	6,738	16,945
463.36	6,420	13,525	463.89	6,745	17,013
463.37	6,426	13,589	463.90	6,751	17,080
463.38	6,432	13,653	463.91	6,757	17,148
463.39	6,438	13,718	463.92	6,763	17,216
463.40	6,444	13,782	463.93	6,769	17,283
463.41	6,450	13,846	463.94	6,776	17,351
463.42	6,456	13,911	463.95	6,782	17,419
463.43	6,462	13,976	463.96	6,788	17,487
463.44	6,468	14,040	463.97	6,794	17,554
463.45	6,474	14,105	463.98	6,801	17,622
463.46	6,480	14,170	463.99	6,807	17,690
463.47	6,487	14,235	464.00	6,813	17,759
463.48	6,493	14,299	464.01	6,819	17,827
463.49	6,499	14,364	464.02	6,825	17,895
463.50	6,505	14,429	464.03	6,832	17,963
463.51	6,511	14,494	464.04	6,838	18,032
463.52	6,517	14,560	464.05	6,844	18,100
463.53	6,523	14,625	464.06	6,850	18,168
463.54	6,529	14,690	464.07	6,856	18,237
463.55	6,535	14,755	464.08	6,863	18,306
463.56	6,541	14,821	464.09	6,869	18,374
463.57	6,548	14,886	464.10	6,875	18,443
463.58	6,554	14,952	464.11	6,881	18,512
463.59	6,560	15,017	464.12	6,887	18,581
463.60	6,566	15,083	464.13	6,894	18,649
463.61	6,572	15,149	464.14	6,900	18,718
463.62	6,578	15,214	464.15	6,906	18,787
463.63	6,584	15,280	464.16	6,912	18,857
463.64	6,590	15,346	464.17	6,919	18,926

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
464.18	6,925	18,995	464.71	7,260	22,754
464.19	6,931	19,064	464.72	7,266	22,826
464.20	6,937	19,134	464.73	7,273	22,899
464.21	6,944	19,203	464.74	7,279	22,972
464.22	6,950	19,272	464.75	7,286	23,044
464.23	6,956	19,342	464.76	7,292	23,117
464.24	6,962	19,412	464.77	7,298	23,190
464.25	6,969	19,481	464.78	7,305	23,263
464.26	6,975	19,551	464.79	7,311	23,336
464.27	6,981	19,621	464.80	7,318	23,410
464.28	6,987	19,691	464.81	7,324	23,483
464.29	6,994	19,760	464.82	7,331	23,556
464.30	7,000	19,830	464.83	7,337	23,629
464.31	7,006	19,900	464.84	7,344	23,703
464.32	7,013	19,971	464.85	7,350	23,776
464.33	7,019	20,041	464.86	7,356	23,850
464.34	7,025	20,111	464.87	7,363	23,923
464.35	7,031	20,181	464.88	7,369	23,997
464.36	7,038	20,252	464.89	7,376	24,071
464.37	7,044	20,322	464.90	7,382	24,145
464.38	7,050	20,392	464.91	7,389	24,218
464.39	7,057	20,463	464.92	7,395	24,292
464.40	7,063	20,534	464.93	7,402	24,366
464.41	7,069	20,604	464.94	7,408	24,440
464.42	7,075	20,675	464.95	7,415	24,514
464.43	7,082	20,746	464.96	7,421	24,589
464.44	7,088	20,817	464.97	7,428	24,663
464.45	7,094	20,887	464.98	7,434	24,737
464.46	7,101	20,958	464.99	7,441	24,812
464.47	7,107	21,030	465.00	7,447	24,886
464.48	7,113	21,101	465.01	7,453	24,960
464.49	7,120	21,172	465.02	7,460	25,035
464.50	7,126	21,243	465.03	7,466	25,110
464.51	7,132	21,314	465.04	7,473	25,184
464.52	7,139	21,386	465.05	7,479	25,259
464.53	7,145	21,457	465.06	7,486	25,334
464.54	7,151	21,529	465.07	7,492	25,409
464.55	7,158	21,600	465.08	7,499	25,484
464.56	7,164	21,672	465.09	7,505	25,559
464.57	7,171	21,743	465.10	7,511	25,634
464.58	7,177	21,815	465.11	7,518	25,709
464.59	7,183	21,887	465.12	7,524	25,784
464.60	7,190	21,959	465.13	7,531	25,860
464.61	7,196	22,031	465.14	7,537	25,935
464.62	7,202	22,103	465.15	7,544	26,010
464.63	7,209	22,175	465.16	7,550	26,086
464.64	7,215	22,247	465.17	7,557	26,161
464.65	7,222	22,319	465.18	7,563	26,237
464.66	7,228	22,391	465.19	7,570	26,313
464.67	7,234	22,464	465.20	7,576	26,388
464.68	7,241	22,536	465.21	7,583	26,464
464.69	7,247	22,608	465.22	7,589	26,540
464.70	7,254	22,681	465.23	7,596	26,616

Stage-Area-Storage for Pond SFF-K3: Sand Filter Forebay - K3 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
465.24	7,602	26,692	465.77	7,950	30,813
465.25	7,609	26,768	465.78	7,957	30,892
465.26	7,615	26,844	465.79	7,964	30,972
465.27	7,622	26,920	465.80	7,970	31,052
465.28	7,628	26,996	465.81	7,977	31,131
465.29	7,635	27,073	465.82	7,984	31,211
465.30	7,641	27,149	465.83	7,990	31,291
465.31	7,648	27,226	465.84	7,997	31,371
465.32	7,654	27,302	465.85	8,004	31,451
465.33	7,661	27,379	465.86	8,010	31,531
465.34	7,667	27,455	465.87	8,017	31,611
465.35	7,674	27,532	465.88	8,024	31,691
465.36	7,680	27,609	465.89	8,030	31,772
465.37	7,687	27,686	465.90	8,037	31,852
465.38	7,693	27,763	465.91	8,044	31,933
465.39	7,700	27,839	465.92	8,050	32,013
465.40	7,706	27,917	465.93	8,057	32,094
465.41	7,713	27,994	465.94	8,064	32,174
465.42	7,720	28,071	465.95	8,070	32,255
465.43	7,726	28,148	465.96	8,077	32,336
465.44	7,733	28,225	465.97	8,084	32,416
465.45	7,739	28,303	465.98	8,091	32,497
465.46	7,746	28,380	465.99	8,097	32,578
465.47	7,752	28,458	466.00	8,104	32,659
465.48	7,759	28,535			
465.49	7,765	28,613			
465.50	7,772	28,690			
465.51	7,779	28,768			
465.52	7,785	28,846			
465.53	7,792	28,924			
465.54	7,798	29,002			
465.55	7,805	29,080			
465.56	7,811	29,158			
465.57	7,818	29,236			
465.58	7,825	29,314			
465.59	7,831	29,393			
465.60	7,838	29,471			
465.61	7,844	29,549			
465.62	7,851	29,628			
465.63	7,858	29,706			
465.64	7,864	29,785			
465.65	7,871	29,864			
465.66	7,878	29,942			
465.67	7,884	30,021			
465.68	7,891	30,100			
465.69	7,897	30,179			
465.70	7,904	30,258			
465.71	7,911	30,337			
465.72	7,917	30,416			
465.73	7,924	30,495			
465.74	7,931	30,575			
465.75	7,937	30,654			
465.76	7,944	30,733			

Summary for Pond SFF-K5: Sand Filter Forebay - K5

[81] Warning: Exceeded Pond FS-K5 by 0.01' @ 24.65 hrs

Inflow Area = 8.365 ac, 29.84% Impervious, Inflow Depth = 5.76" for 100 Year - North Salem event
 Inflow = 23.94 cfs @ 12.30 hrs, Volume= 4.014 af
 Outflow = 23.69 cfs @ 12.33 hrs, Volume= 3.543 af, Atten= 1%, Lag= 2.2 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Secondary = 23.69 cfs @ 12.33 hrs, Volume= 3.543 af

Routing by Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
 Peak Elev= 505.77' @ 12.33 hrs Surf.Area= 5,882 sf Storage= 24,855 cf

Plug-Flow detention time= 94.1 min calculated for 3.543 af (88% of inflow)
 Center-of-Mass det. time= 37.7 min (860.4 - 822.7)

Volume	Invert	Avail.Storage	Storage Description			
#1	500.00'	26,239 cf	Custom Stage Data (Irregular) Listed below (Recalc)			
Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
500.00	2,880	224.0	0	0	2,880	
502.00	3,826	250.0	6,684	6,684	3,969	
504.00	4,874	275.0	8,679	15,363	5,138	
505.00	5,434	287.0	5,151	20,514	5,744	
506.00	6,021	300.0	5,725	26,239	6,418	

Device	Routing	Invert	Outlet Devices
#1	Primary	500.00'	24.0" Round Outlet Pipe X 0.00 L= 300.0' CPP, square edge headwall, Ke= 0.500 Outlet Invert= 495.00' S= 0.0167 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	500.00'	1.0" Vert. Standpipe Openings X 8.00 columns X 6 rows with 4.0" cc spacing C= 0.600
#3	Device 1	503.00'	18.0" Horiz. Top of Standpipe C= 0.600 Limited to weir flow at low heads
#4	Device 1	504.00'	24.0" W x 11.0" H Vert. Orifice #1 X 3.00 C= 0.600
#5	Device 1	504.92'	48.0" x 48.0" Horiz. Top of Outlet Box C= 0.600 Limited to weir flow at low heads
#6	Secondary	505.00'	10.0' long Emergency Overflow 2 End Contraction(s) 1.0' Crest Height

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=500.00' (Free Discharge)

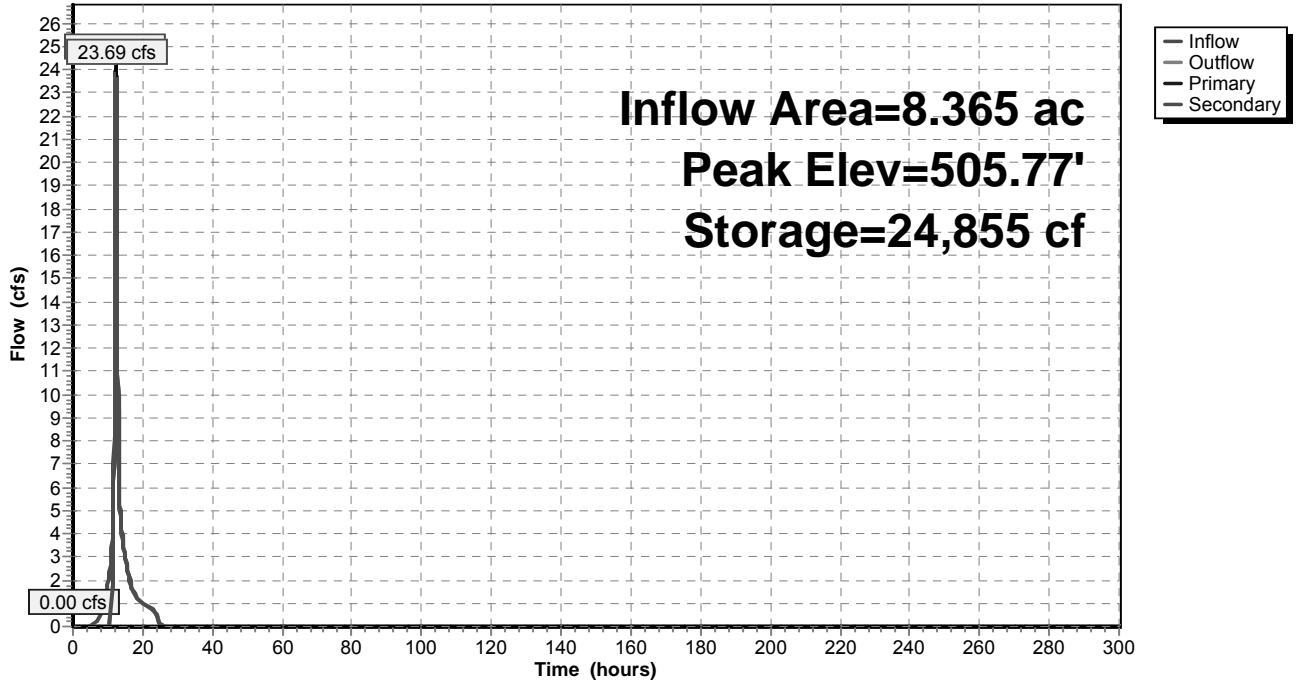
- ↑ 1=Outlet Pipe (Controls 0.00 cfs)
- ↑ 2=Standpipe Openings (Controls 0.00 cfs)
- ↑ 3=Top of Standpipe (Controls 0.00 cfs)
- ↑ 4=Orifice #1 (Controls 0.00 cfs)
- ↑ 5=Top of Outlet Box (Controls 0.00 cfs)

Secondary OutFlow Max=23.59 cfs @ 12.33 hrs HW=505.77' (Free Discharge)

- ↑ 6=Emergency Overflow (Weir Controls 23.59 cfs @ 3.13 fps)

Pond SFF-K5: Sand Filter Forebay - K5

Hydrograph



Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
500.00	2,880	0	501.06	3,365	3,306
500.02	2,889	58	501.08	3,374	3,374
500.04	2,898	116	501.10	3,384	3,441
500.06	2,906	174	501.12	3,393	3,509
500.08	2,915	232	501.14	3,403	3,577
500.10	2,924	290	501.16	3,412	3,645
500.12	2,933	349	501.18	3,422	3,714
500.14	2,942	408	501.20	3,432	3,782
500.16	2,951	466	501.22	3,441	3,851
500.18	2,960	526	501.24	3,451	3,920
500.20	2,969	585	501.26	3,460	3,989
500.22	2,977	644	501.28	3,470	4,058
500.24	2,986	704	501.30	3,480	4,128
500.26	2,995	764	501.32	3,489	4,197
500.28	3,004	824	501.34	3,499	4,267
500.30	3,013	884	501.36	3,509	4,337
500.32	3,022	944	501.38	3,518	4,408
500.34	3,031	1,005	501.40	3,528	4,478
500.36	3,040	1,066	501.42	3,538	4,549
500.38	3,049	1,126	501.44	3,548	4,620
500.40	3,058	1,188	501.46	3,557	4,691
500.42	3,068	1,249	501.48	3,567	4,762
500.44	3,077	1,310	501.50	3,577	4,833
500.46	3,086	1,372	501.52	3,587	4,905
500.48	3,095	1,434	501.54	3,597	4,977
500.50	3,104	1,496	501.56	3,606	5,049
500.52	3,113	1,558	501.58	3,616	5,121
500.54	3,122	1,620	501.60	3,626	5,193
500.56	3,131	1,683	501.62	3,636	5,266
500.58	3,141	1,745	501.64	3,646	5,339
500.60	3,150	1,808	501.66	3,656	5,412
500.62	3,159	1,871	501.68	3,666	5,485
500.64	3,168	1,935	501.70	3,676	5,558
500.66	3,177	1,998	501.72	3,685	5,632
500.68	3,187	2,062	501.74	3,695	5,706
500.70	3,196	2,126	501.76	3,705	5,780
500.72	3,205	2,190	501.78	3,715	5,854
500.74	3,214	2,254	501.80	3,725	5,929
500.76	3,224	2,318	501.82	3,735	6,003
500.78	3,233	2,383	501.84	3,745	6,078
500.80	3,242	2,447	501.86	3,755	6,153
500.82	3,252	2,512	501.88	3,765	6,228
500.84	3,261	2,578	501.90	3,776	6,304
500.86	3,270	2,643	501.92	3,786	6,379
500.88	3,280	2,708	501.94	3,796	6,455
500.90	3,289	2,774	501.96	3,806	6,531
500.92	3,299	2,840	501.98	3,816	6,607
500.94	3,308	2,906	502.00	3,826	6,684
500.96	3,317	2,972	502.02	3,836	6,760
500.98	3,327	3,039	502.04	3,846	6,837
501.00	3,336	3,105	502.06	3,856	6,914
501.02	3,346	3,172	502.08	3,865	6,991
501.04	3,355	3,239	502.10	3,875	7,069

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

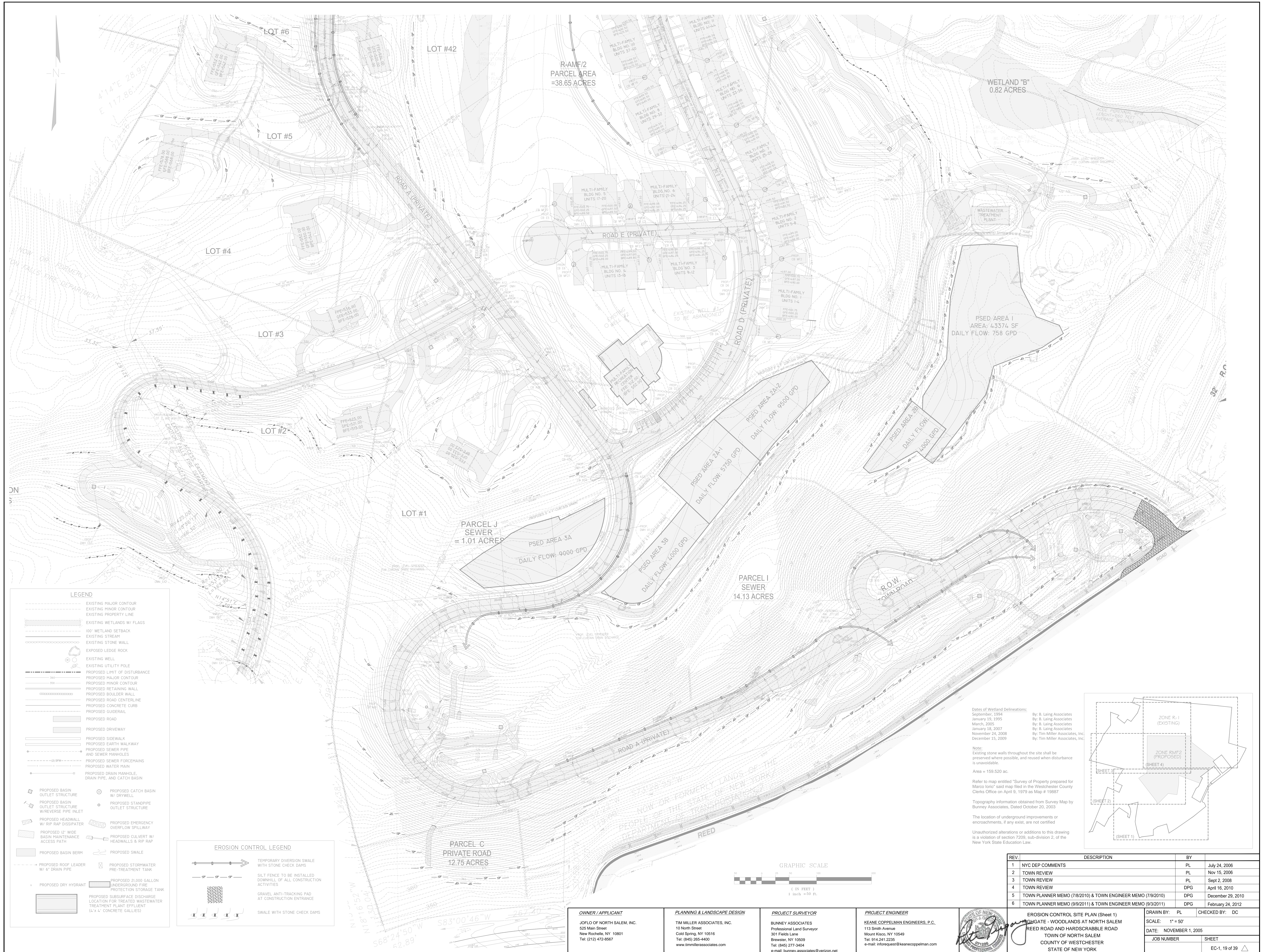
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
502.12	3,885	7,146	503.18	4,429	11,550
502.14	3,895	7,224	503.20	4,440	11,638
502.16	3,905	7,302	503.22	4,450	11,727
502.18	3,915	7,380	503.24	4,461	11,816
502.20	3,925	7,459	503.26	4,471	11,906
502.22	3,935	7,537	503.28	4,482	11,995
502.24	3,945	7,616	503.30	4,493	12,085
502.26	3,955	7,695	503.32	4,503	12,175
502.28	3,965	7,774	503.34	4,514	12,265
502.30	3,975	7,854	503.36	4,525	12,356
502.32	3,985	7,933	503.38	4,536	12,446
502.34	3,995	8,013	503.40	4,546	12,537
502.36	4,005	8,093	503.42	4,557	12,628
502.38	4,015	8,173	503.44	4,568	12,719
502.40	4,025	8,254	503.46	4,579	12,811
502.42	4,036	8,334	503.48	4,589	12,902
502.44	4,046	8,415	503.50	4,600	12,994
502.46	4,056	8,496	503.52	4,611	13,086
502.48	4,066	8,577	503.54	4,622	13,179
502.50	4,076	8,659	503.56	4,633	13,271
502.52	4,086	8,740	503.58	4,643	13,364
502.54	4,096	8,822	503.60	4,654	13,457
502.56	4,107	8,904	503.62	4,665	13,550
502.58	4,117	8,987	503.64	4,676	13,644
502.60	4,127	9,069	503.66	4,687	13,737
502.62	4,137	9,152	503.68	4,698	13,831
502.64	4,148	9,234	503.70	4,709	13,925
502.66	4,158	9,318	503.72	4,720	14,019
502.68	4,168	9,401	503.74	4,731	14,114
502.70	4,178	9,484	503.76	4,742	14,209
502.72	4,189	9,568	503.78	4,753	14,304
502.74	4,199	9,652	503.80	4,763	14,399
502.76	4,209	9,736	503.82	4,774	14,494
502.78	4,220	9,820	503.84	4,785	14,590
502.80	4,230	9,905	503.86	4,797	14,686
502.82	4,240	9,989	503.88	4,808	14,782
502.84	4,251	10,074	503.90	4,819	14,878
502.86	4,261	10,159	503.92	4,830	14,974
502.88	4,272	10,245	503.94	4,841	15,071
502.90	4,282	10,330	503.96	4,852	15,168
502.92	4,292	10,416	503.98	4,863	15,265
502.94	4,303	10,502	504.00	4,874	15,363
502.96	4,313	10,588	504.02	4,885	15,460
502.98	4,324	10,675	504.04	4,896	15,558
503.00	4,334	10,761	504.06	4,907	15,656
503.02	4,345	10,848	504.08	4,918	15,754
503.04	4,355	10,935	504.10	4,929	15,853
503.06	4,366	11,022	504.12	4,940	15,951
503.08	4,376	11,110	504.14	4,951	16,050
503.10	4,387	11,197	504.16	4,962	16,149
503.12	4,397	11,285	504.18	4,973	16,249
503.14	4,408	11,373	504.20	4,984	16,348
503.16	4,418	11,461	504.22	4,995	16,448

Stage-Area-Storage for Pond SFF-K5: Sand Filter Forebay - K5 (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
504.24	5,006	16,548	505.30	5,607	22,170
504.26	5,017	16,648	505.32	5,619	22,282
504.28	5,028	16,749	505.34	5,630	22,395
504.30	5,039	16,849	505.36	5,642	22,508
504.32	5,050	16,950	505.38	5,654	22,620
504.34	5,061	17,051	505.40	5,665	22,734
504.36	5,072	17,153	505.42	5,677	22,847
504.38	5,083	17,254	505.44	5,689	22,961
504.40	5,094	17,356	505.46	5,700	23,075
504.42	5,105	17,458	505.48	5,712	23,189
504.44	5,117	17,560	505.50	5,724	23,303
504.46	5,128	17,663	505.52	5,735	23,418
504.48	5,139	17,765	505.54	5,747	23,533
504.50	5,150	17,868	505.56	5,759	23,648
504.52	5,161	17,971	505.58	5,771	23,763
504.54	5,173	18,075	505.60	5,783	23,878
504.56	5,184	18,178	505.62	5,794	23,994
504.58	5,195	18,282	505.64	5,806	24,110
504.60	5,206	18,386	505.66	5,818	24,226
504.62	5,218	18,490	505.68	5,830	24,343
504.64	5,229	18,595	505.70	5,842	24,460
504.66	5,240	18,699	505.72	5,854	24,577
504.68	5,251	18,804	505.74	5,865	24,694
504.70	5,263	18,910	505.76	5,877	24,811
504.72	5,274	19,015	505.78	5,889	24,929
504.74	5,285	19,121	505.80	5,901	25,047
504.76	5,297	19,226	505.82	5,913	25,165
504.78	5,308	19,332	505.84	5,925	25,283
504.80	5,320	19,439	505.86	5,937	25,402
504.82	5,331	19,545	505.88	5,949	25,521
504.84	5,342	19,652	505.90	5,961	25,640
504.86	5,354	19,759	505.92	5,973	25,759
504.88	5,365	19,866	505.94	5,985	25,879
504.90	5,377	19,973	505.96	5,997	25,999
504.92	5,388	20,081	505.98	6,009	26,119
504.94	5,400	20,189	506.00	6,021	26,239
504.96	5,411	20,297			
504.98	5,423	20,405			
505.00	5,434	20,514			
505.02	5,445	20,623			
505.04	5,457	20,732			
505.06	5,468	20,841			
505.08	5,480	20,951			
505.10	5,491	21,060			
505.12	5,503	21,170			
505.14	5,514	21,280			
505.16	5,526	21,391			
505.18	5,537	21,501			
505.20	5,549	21,612			
505.22	5,561	21,723			
505.24	5,572	21,835			
505.26	5,584	21,946			
505.28	5,595	22,058			

Appendix E

Erosion and Sediment Control Plans



LEGEND

	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING PROPERTY LINE
	EXISTING WETLANDS W/ FLAGS
	100' WETLAND SETBACK
	EXISTING STREAM
	EXISTING STONE WALL
	EXPOSED LEDGE ROCK
	EXISTING WELL
	EXISTING UTILITY POLE
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED BOULDER WALL
	PROPOSED ROAD CENTERLINE
	PROPOSED CONCRETE CURB
	PROPOSED GUIDEWAY
	PROPOSED ROAD
	PROPOSED DRIVEWAY
	PROPOSED SIDEWALK
	PROPOSED EARTH WALKWAY
	PROPOSED SEWER PIPE AND SEWER MANHOLES
	PROPOSED SEWER FORCEMANS
	PROPOSED WATER MAIN
	PROPOSED DRAIN MANHOLE
	DRAIN PIPE, AND CATCH BASIN
	PROPOSED BASIN OUTLET STRUCTURE W/ DRYWELL
	PROPOSED BASIN OUTLET STRUCTURE W/ REVERSE PIPE INLET
	PROPOSED HEADWALL W/ RIP RAP DISSIPATER
	PROPOSED 12' WIDE BASIN MAINTENANCE ACCESS PATH
	PROPOSED BASIN BERM
	PROPOSED ROOF LEADER W/ 6" DRAIN PIPE
	PROPOSED DRY HYDRANT
	PROPOSED CATCH BASIN W/ DRYWELL
	PROPOSED STANDPIPE OUTLET STRUCTURE
	PROPOSED EMERGENCY OVERFLOW SPILLWAY
	PROPOSED CULVERT W/ HEADWALLS & RIP RAP
	PROPOSED SWALE
	PROPOSED STORMWATER PRE-TREATMENT TANK
	PROPOSED 2,000 GALLON UNDERGROUND FIRE PROTECTION STORAGE TANK
	PROPOSED SUBSURFACE DISCHARGE LOCATION FOR TREATED WASTEWATER TREATMENT PLANT EFFLUENT (4'x4' CONCRETE GALLEYS)

EROSION CONTROL LEGEND

	TEMPORARY DIVERSION SWALE WITH STONE CHECK DAMS
	SILT FENCE TO BE INSTALLED DOWNHILL OF ALL CONSTRUCTION ACTIVITIES
	GRAVEL ANTI-TRACKING PAD AT CONSTRUCTION ENTRANCE
	SWALE WITH STONE CHECK DAMS

Dates of Wetland Delineations:
 September, 1994 By: B. Laing Associates
 January 15, 1995 By: B. Laing Associates
 March, 2005 By: B. Laing Associates
 January 18, 2007 By: B. Laing Associates
 November 24, 2008 By: Tim Miller Associates, Inc.
 December 15, 2009 By: Tim Miller Associates, Inc.

Note:
 Existing stone walls throughout the site shall be preserved where possible, and reused when disturbance is unavoidable.

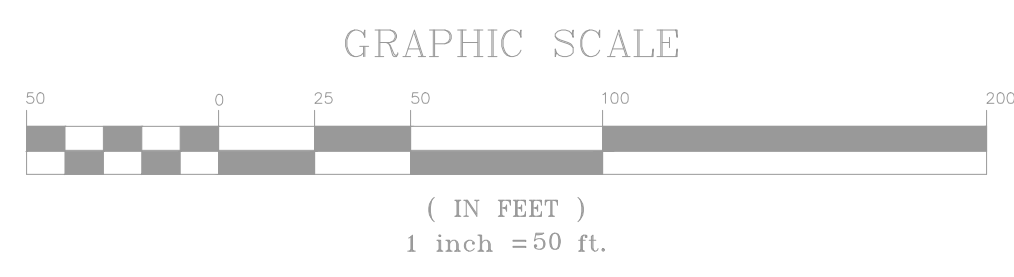
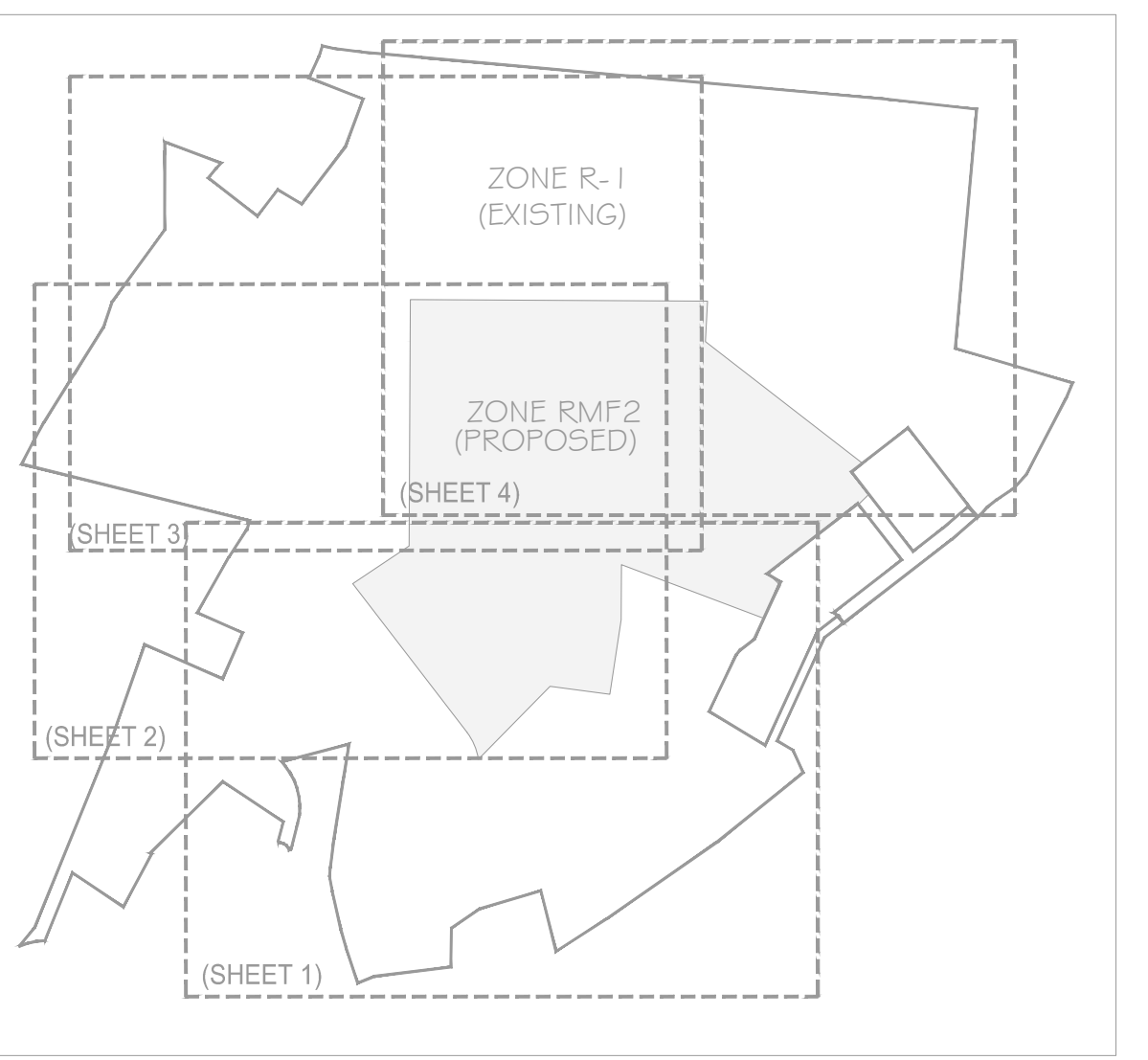
Area = 159,520 ac.

Refer to map entitled "Survey of Property prepared for Marco Iorio" said map filed in the Westchester County Clerks Office on April 9, 1979 as Map # 19887

Topography information obtained from Survey Map by Bunney Associates, Dated October 20, 2003

The location of underground improvements or encroachments, if any exist, are not certified

Unauthorized alterations or additions to this drawing is a violation of section 7209, sub-division 2, of the New York State Education Law.



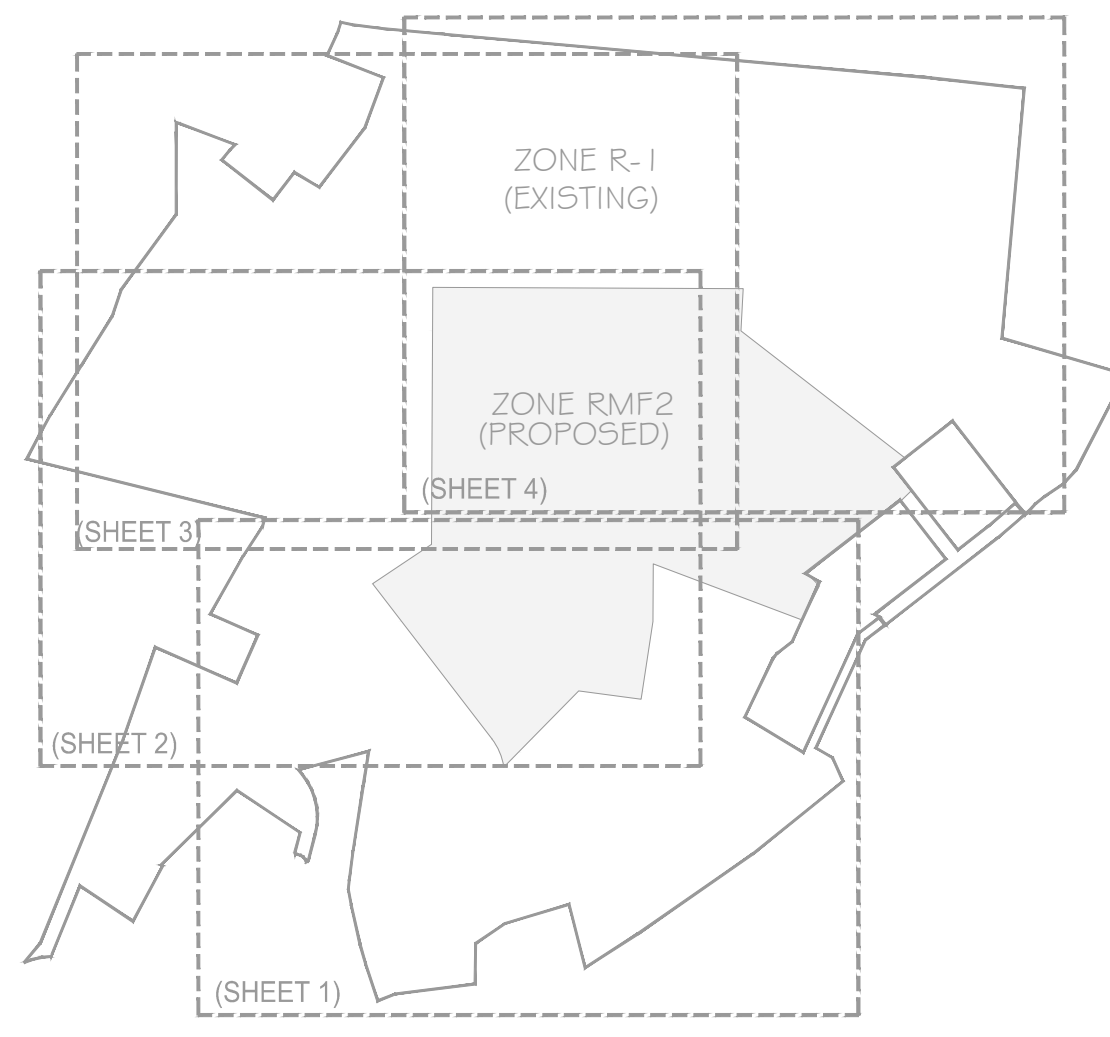
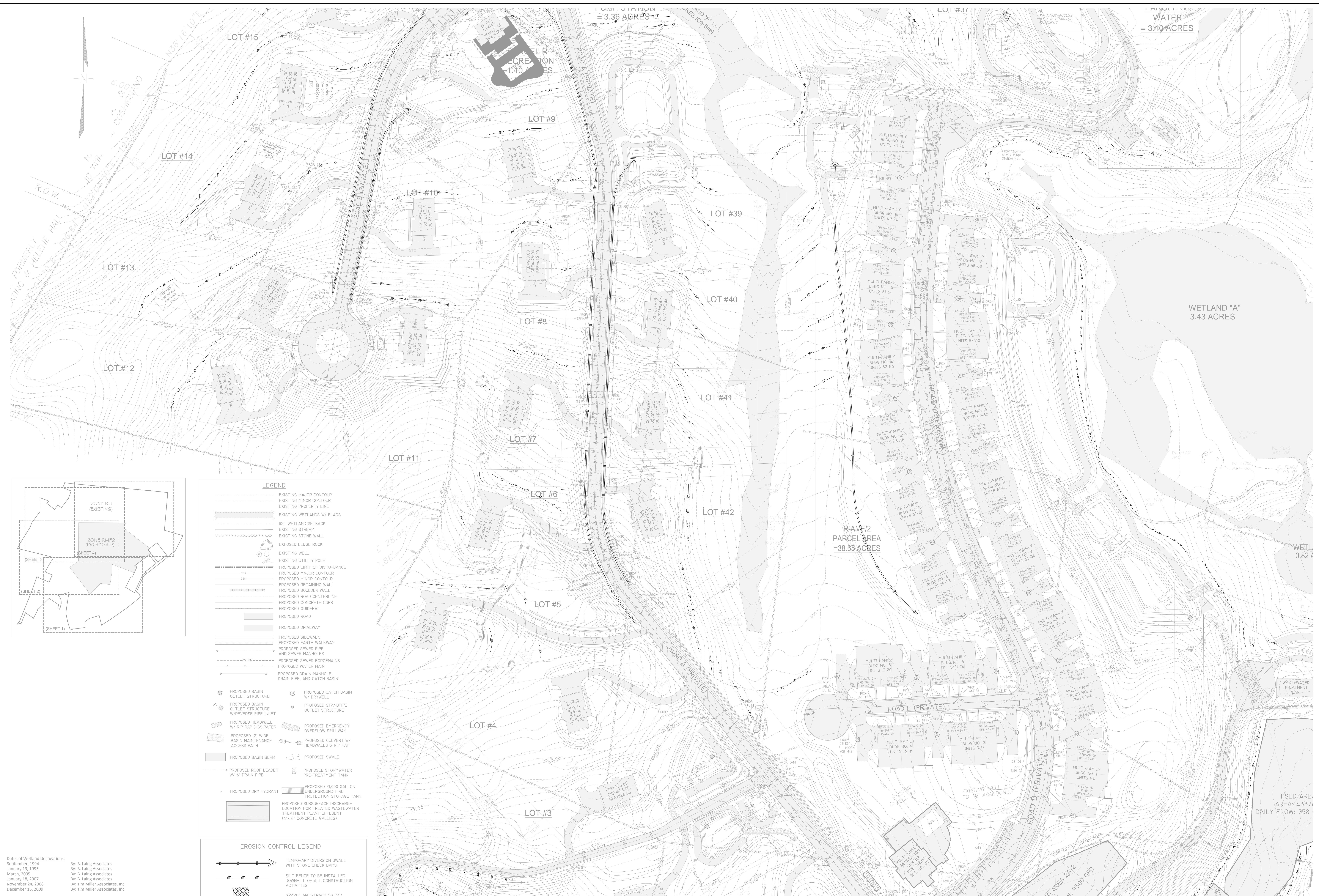
OWNER/APPLICANT JOFLO OF NORTH SALEM, INC. 626 Main Street New Rochelle, NY 10801 Tel: (212) 472-8567	PLANNING & LANDSCAPE DESIGN TIM MILLER ASSOCIATES, INC. 10 North Street Cold Spring, NY 10516 Tel: (845) 265-4400 www.timillerassociates.com	PROJECT SURVEYOR BUNNEY ASSOCIATES Professional Land Surveyor 301 Fields Lane Brewster, NY 10509 Tel: (845) 277-3404 e-mail: bunney.associates@verizon.net	PROJECT ENGINEER KEANE COPPELMAN ENGINEERS, P.C. 113 Smith Avenue Mount Kisco, NY 10549 Tel: 914.241.2235 e-mail: info@quest@keanecopelman.com
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REV.	DESCRIPTION	BY	DATE
1	NYC DEP COMMENTS	PL	July 24, 2006
2	TOWN REVIEW	PL	Nov 15, 2006
3	TOWN REVIEW	PL	Sept 2, 2008
4	TOWN REVIEW	DPG	April 16, 2010
5	TOWN PLANNER MEMO (7/8/2010) & TOWN ENGINEER MEMO (7/9/2010)	DPG	December 29, 2010
6	TOWN PLANNER MEMO (9/9/2011) & TOWN ENGINEER MEMO (9/3/2011)	DPG	February 24, 2012

EROSION CONTROL SITE PLAN (Sheet 1)
 QUAGGATE - WOODLANDS AT NORTH SALEM
 REED ROAD AND HARDSCRABBLE ROAD
 TOWN OF NORTH SALEM
 COUNTY OF WESTCHESTER
 STATE OF NEW YORK

DRAWN BY: PL CHECKED BY: DC
 SCALE: 1" = 50'
 DATE: NOVEMBER 1, 2005
 JOB NUMBER SHEET
 EC-1, 19 of 39



LEGEND

---	EXISTING MAJOR CONTOUR	○	PROPOSED CATCH BASIN W/ DRYWELL
---	EXISTING MINOR CONTOUR	○	PROPOSED STANDPIPE OUTLET STRUCTURE
---	EXISTING PROPERTY LINE	○	PROPOSED EMERGENCY OVERFLOW SPILLWAY
---	EXISTING WETLANDS W/ FLAGS	○	PROPOSED CULVERT W/ HEADWALLS & RIP RAP
---	100' WETLAND SETBACK	○	PROPOSED SWALE
---	EXISTING STREAM	○	PROPOSED STORMWATER PRE-TREATMENT TANK
---	EXISTING STONE WALL	○	PROPOSED 21,000 GALLON UNDERGROUND FIRE PROTECTION STORAGE TANK
---	EXPOSED LEDGE ROCK	○	PROPOSED SUBSURFACE DISCHARGE LOCATION FOR TREATED WASTEWATER TREATMENT PLANT EFFLUENT (4'x4' CONCRETE GALLIES)
---	EXISTING WELL	○	
---	EXISTING UTILITY POLE	○	
---	PROPOSED LIMIT OF DISTURBANCE	○	
---	PROPOSED MAJOR CONTOUR	○	
---	PROPOSED MINOR CONTOUR	○	
---	PROPOSED RETAINING WALL	○	
---	PROPOSED BOLLARD WALL	○	
---	PROPOSED ROAD CENTERLINE	○	
---	PROPOSED CONCRETE CURB	○	
---	PROPOSED GUIDERAIL	○	
---	PROPOSED ROAD	○	
---	PROPOSED DRIVEWAY	○	
---	PROPOSED SIDEWALK	○	
---	PROPOSED EARTH WALKWAY	○	
---	PROPOSED SEWER PIPE AND SEWER MANHOLES	○	
---	PROPOSED SEWER FORCEMAINS	○	
---	PROPOSED WATER MAIN	○	
---	PROPOSED DRAIN MANHOLE, DRAIN PIPE, AND CATCH BASIN	○	
---	PROPOSED BASIN OUTLET STRUCTURE	○	
---	PROPOSED BASIN OUTLET STRUCTURE WORKSHE PIPE INLET	○	
---	PROPOSED HEADWALL W/ RIP RAP DISSIPATOR	○	
---	PROPOSED 12" WIDE BASIN MAINTENANCE ACCESS PATH	○	
---	PROPOSED BASIN BERM	○	
---	PROPOSED ROOF LEADER W/ 6" DRAIN PIPE	○	
---	PROPOSED DRY HYDRANT	○	

EROSION CONTROL LEGEND

---	TEMPORARY DIVERSION SWALE WITH STONE CHECK DAMS
---	SILT FENCE TO BE INSTALLED DOWNHILL OF ALL CONSTRUCTION ACTIVITIES
---	GRAVEL ANTI-TRACKING PAD AT CONSTRUCTION ENTRANCE
---	SWALE WITH STONE CHECK DAMS

Dates of Wetland Delineations:
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Note:
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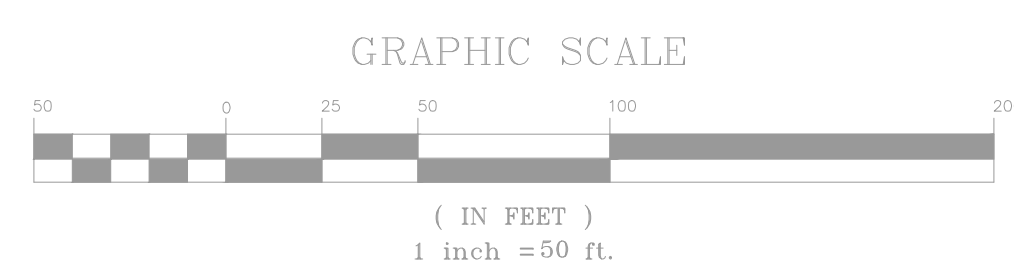
Area = 159,520 ac.

Refer to map entitled "Survey of Property prepared for Marco Iotti" said map filed in the Westchester County Clerks Office on April 9, 1979 as Map # 18887

Topography information obtained from Survey Map by Bunney Associates, Dated October 20, 2003

The location of underground improvements or encroachments, if any exist, are not certified

Unauthorized alterations or additions to this drawing is a violation of section 7209, sub-division 2, of the New York State Education Law.

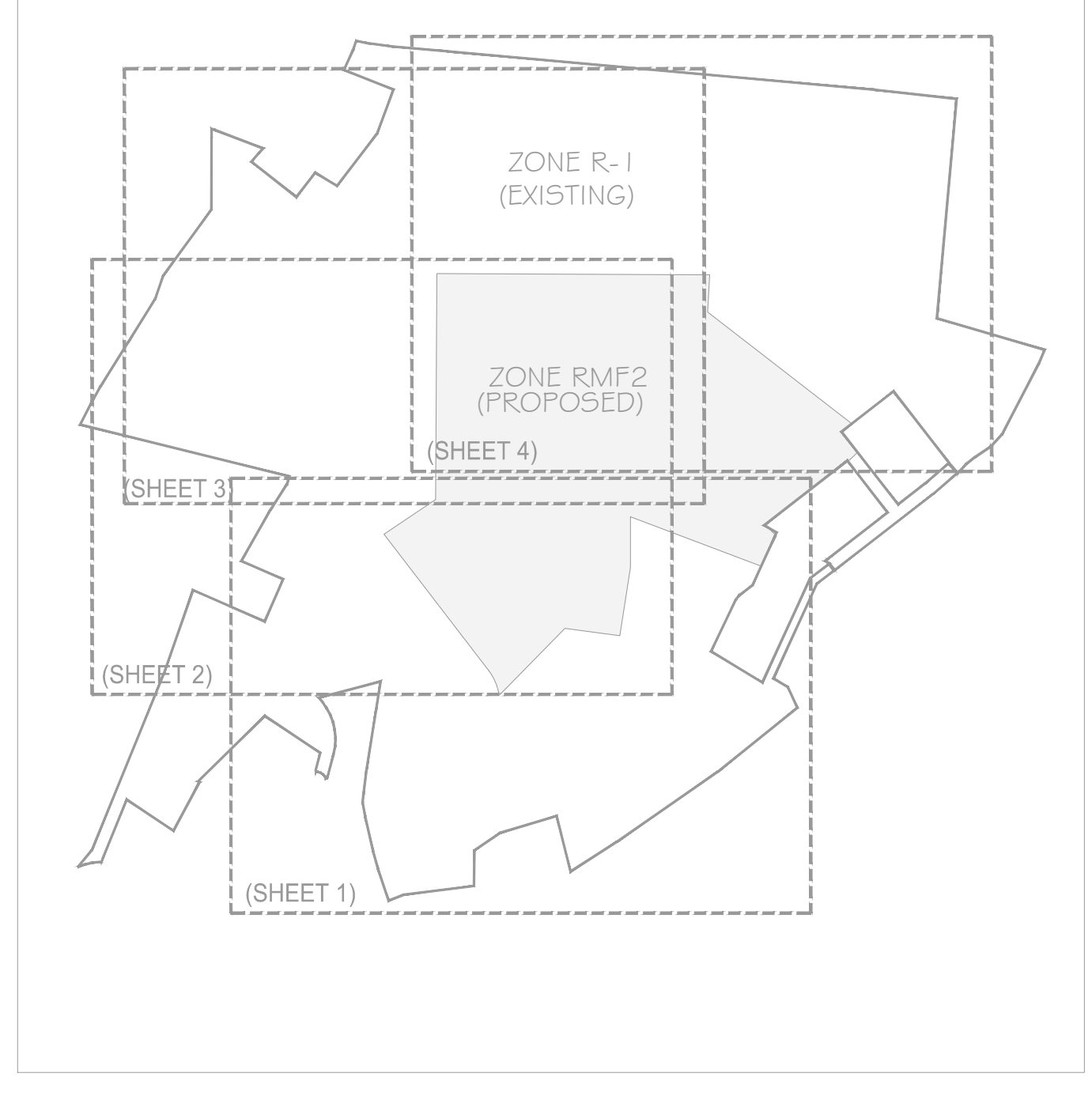


REV.	DESCRIPTION	BY	DATE
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6	TOWN PLANNER MEMO (9/9/2011) & TOWN ENGINEER MEMO (9/3/2011)	DPG	February 24, 2012

EROSION CONTROL SITE PLAN (Sheet 2) HIGHGATE - WOODLANDS AT NORTH SALEM REED ROAD AND HARDSCRABLE ROAD TOWN OF NORTH SALEM COUNTY OF WESTCHESTER STATE OF NEW YORK	DRAWN BY: PL CHECKED BY: DC SCALE: 1" = 50' DATE: NOVEMBER 1, 2005 JOB NUMBER: _____ SHEET: EC-2, 20 of 39
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OWNER/APPLICANT JOPLO OF NORTH SALEM, INC. 626 New Street New Rochelle, NY 10801 Tel: (212) 472-8667	PLANNING & LANDSCAPE DESIGN TIM MILLER ASSOCIATES, INC. 113 Smith Avenue Cold Spring, NY 10516 Tel: (845) 265-4400 www.timillerassociates.com	PROJECT SURVEYOR BUNNEY ASSOCIATES Professional Land Surveyor 301 Fields Lane Brewster, NY 10509 Tel: (845) 277-3404 e-mail: bunney.associates@verizon.net	PROJECT ENGINEER KEANE COPPELMAN ENGINEERS, P.C. 113 Smith Avenue Mount Kisco, NY 10549 Tel: (914) 241-2235 e-mail: info@keane-copelman.com
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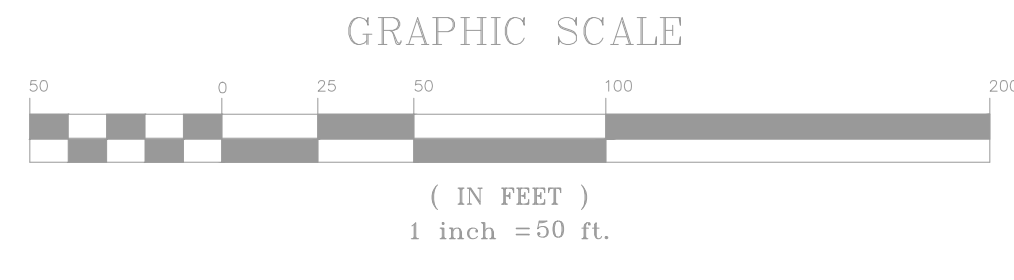
LEGEND	
	EXISTING MINOR CONTOUR
	EXISTING PROPERTY LINE
	EXISTING WETLANDS W/ FLAGS
	100' WETLAND SETBACK
	EXISTING STREAM
	EXISTING STONE WALL
	EXPOSED LEDGE ROCK
	EXISTING WELL
	EXISTING UTILITY POLE
	PROPOSED LIMIT OF DISTURBANCE
	PROPOSED MAJOR CONTOUR
	PROPOSED RETAINING WALL
	PROPOSED BOULDER WALL
	PROPOSED ROAD CENTERLINE
	PROPOSED CONCRETE CURB
	PROPOSED GUTTERDITCH
	PROPOSED ROAD
	PROPOSED DRIVEWAY
	PROPOSED SIDEWALK
	PROPOSED EARTH WALKWAY
	PROPOSED SEWER PIPE AND SEWER MANHOLES
	PROPOSED SEWER FORCE MAINS
	PROPOSED WATER MAIN
	PROPOSED DRAIN MANHOLE, DRAIN PIPE, AND CATCH BASIN
	PROPOSED BASIN OUTLET STRUCTURE
	PROPOSED CATCH BASIN W/ DRYWELL
	PROPOSED BASIN OUTLET STRUCTURE W/ REVERSE PIPE INLET
	PROPOSED HEADWALL W/ RIP RAP DISSIPATER
	PROPOSED 12' WIDE BASIN MAINTENANCE ACCESS PATH
	PROPOSED BASIN BERM
	PROPOSED ROOF LEADER W/ 6" DRAIN PIPE
	PROPOSED EMERGENCY OVERFLOW SPILLWAY
	PROPOSED CULVERT W/ HEAD WALLS & RIP RAP
	PROPOSED SWALE
	PROPOSED STORMWATER PRE-TREATMENT TANK

EROSION CONTROL LEGEND	
	TEMPORARY DIVERSION SWALE WITH STONE CHECK DAMS
	SILT FENCE TO BE INSTALLED DOWNHILL OF ALL CONSTRUCTION ACTIVITIES
	GRAVEL ANTI-TRACKING PAD AT CONSTRUCTION ENTRANCE
	SWALE WITH STONE CHECK DAMS

Area = 159.520 ac.
 Refer to map entitled "Survey of Property prepared for Marco Iorio" said map filed in the Westchester County Clerks Office on April 9, 1979 as Map # 19887
 Topography information obtained from Survey Map by Bunney Associates, Dated October 20, 2003
 The location of underground improvements or encroachments, if any exist, are not certified
 Unauthorized alterations or additions to this drawing is a violation of section 7209, sub-division 2, of the New York State Education Law.

Dates of Wetland Delineations:
 September, 1994 By: B. Laing Associates
 January 19, 1995 By: B. Laing Associates
 March, 2005 By: B. Laing Associates
 January 18, 2007 By: B. Laing Associates
 November 24, 2008 By: Tim Miller Associates, Inc.
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Note:
 Existing stone walls throughout the site shall be preserved where possible, and reused when disturbance is unavoidable.



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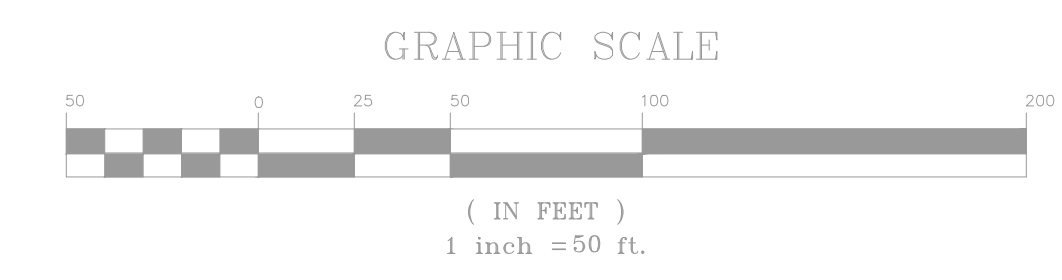
EROSION CONTROL SITE PLAN (Sheet 3) HINGWATE WOODLANDS AT NORTH SALEM REED ROAD AND HARDCRABBLE ROAD TOWN OF NORTH SALEM COUNTY OF WESTCHESTER STATE OF NEW YORK	DRAWN BY: PL CHECKED BY: DC
SCALE: 1" = 50'	DATE: NOVEMBER 1, 2005
JOB NUMBER	SHEET
	EC-3, 21 of 39



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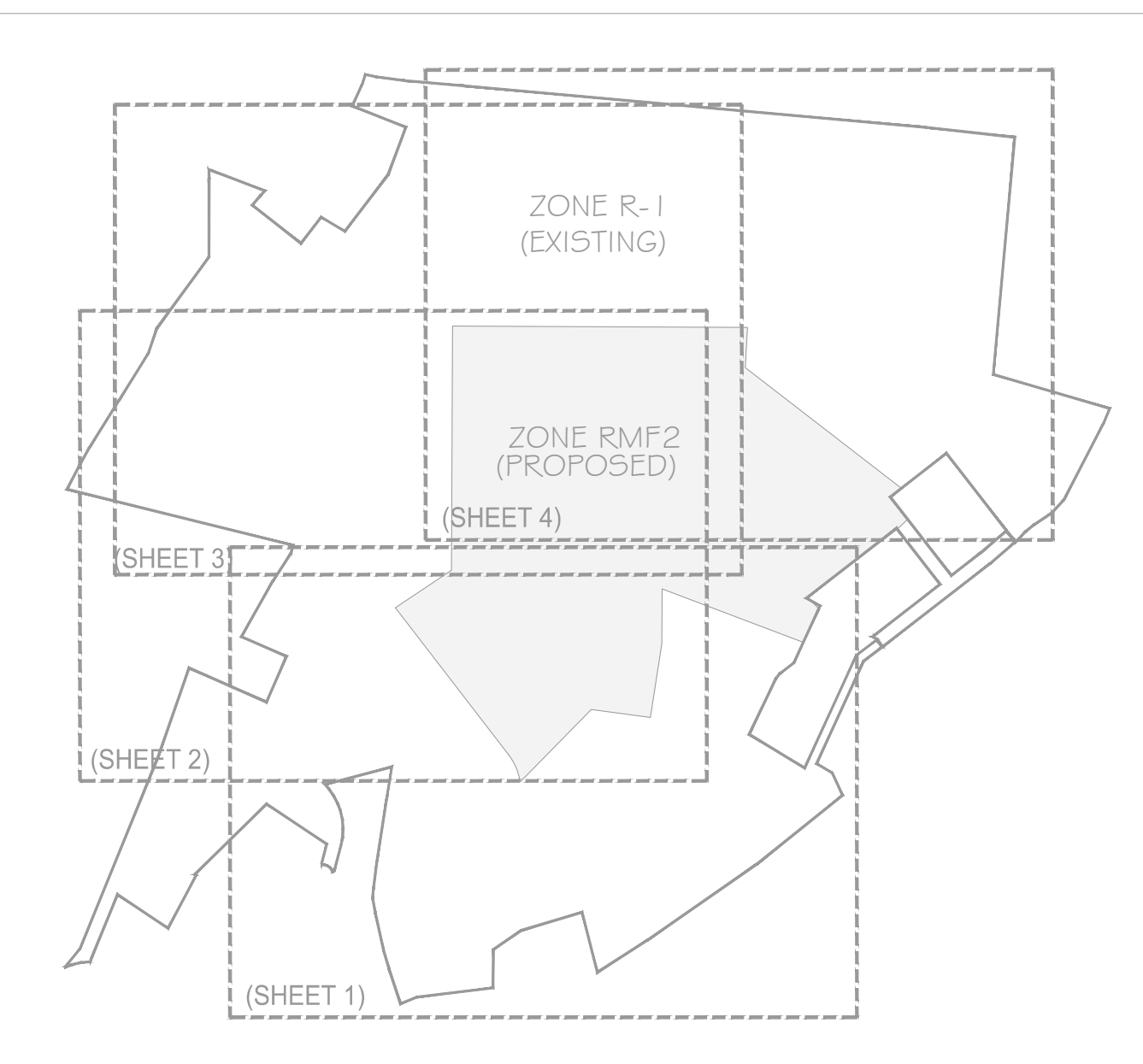
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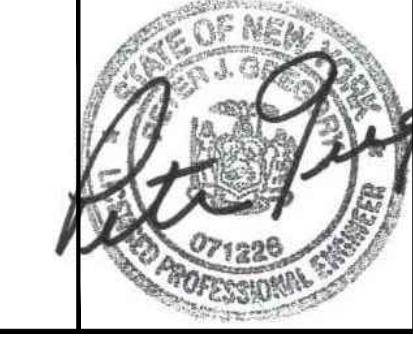
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	PROPOSED SEWER PIPE
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	PROPOSED SEWER FORCE MAINS
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	DRAIN PIPE, AND CATCH BASIN
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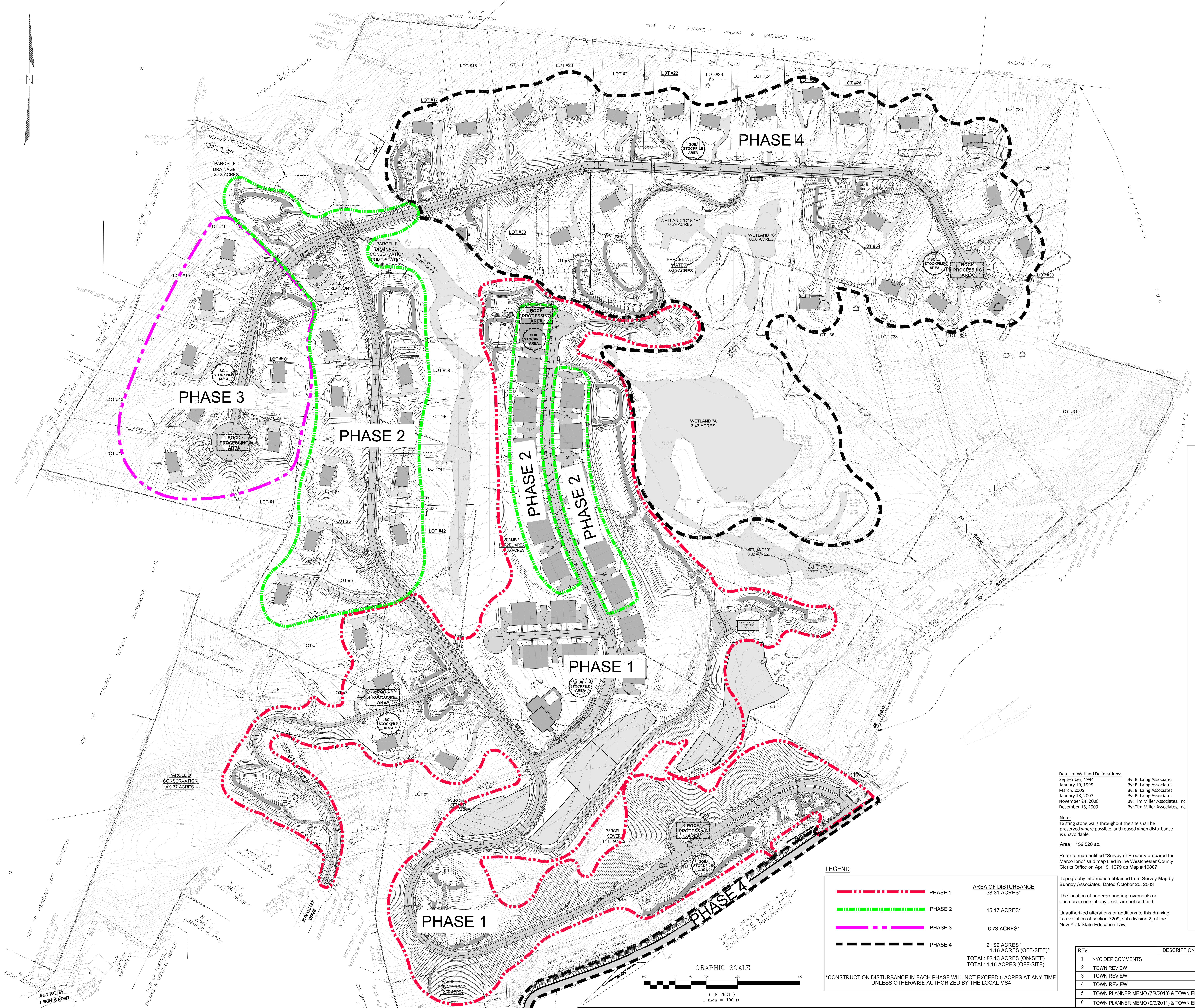
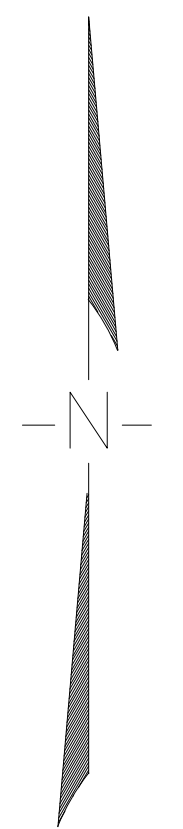
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EROSION CONTROL SITE PLAN (Sheet 4)
 HIGHGATE - WOODLANDS AT NORTH SALEM
 REED ROAD AND HARDCRABBLE ROAD
 TOWN OF NORTH SALEM
 COUNTY OF WESTCHESTER
 STATE OF NEW YORK

DRAWN BY: PL CHECKED BY: DC
 SCALE: 1" = 50'
 DATE: NOVEMBER 1, 2005
 JOB NUMBER SHEET
 EC-4, 22 of 39



Proposed Phasing General Guidelines

1. Utility Markouts Shall be provided prior to Construction
2. All Construction Limit Fencing to be Installed Prior to Construction
3. All Erosion Control Devices to be Installed Prior to Construction and Constructed in accordance with the "NYS Standards and Specifications for Erosion and Sediment Control, Latest Edition."
4. Survey Stakeout Prior to Construction
5. Although phases are larger than 5 acres, disturbed areas are to be limited to as small an area as possible, not to exceed 5 acres
6. Site shall be stabilized on a regular basis
7. All Erosion Control Devices shall be monitored as stated in the "New York State Standards and Specifications for Erosion and Sediment Control, Latest Edition."

Proposed Phasing Plan

Phase 1

- Construct Road "A" from Reed Road to Station 31+00 including Retaining Walls and associated Drainage Basins including Catch Basins, Drain Manholes, and Pipes
- Rock Processing Equipment in area of proposed turn around
- Construct Water Treatment Plant, access road, install well feed lines from wells to water treatment plant and install Water Mains
- Construct Wastewater Treatment Plant and access road
- Install Sewage Collection system from SMH A1 to A3, SMH D1 - D10, through Septic Tanks, Pump and Fields
- Construct Single Family Houses on Lots 1, 2, 3 & 4
- Rough Grade Road "D" From Road "A" to cul-de-sac
- Rough Grade Road "E"
- Multi-family Buildings 1, 2, 3, 4, 5, & 6 including associated Retaining Walls
- Multi-family Clubhouse and Recreation
- Install Landscaping Requirements for the finished areas of Construction
- Construct Emergency Access Road from Sun Valley Drive

Phase 2

- Precast Concrete Box Culvert and Precast Concrete Bridge
- Move Rock Processing Equipment to area of Multi-Family Unit 18
- Rough Grade Road A from Station 31+00 through Intersection to Station 2+50 on Road B and associated Drainage
- Install Water Main Road from Station 31+00 through Intersection of Road A, B & C
- Install Sewage Collection from SMH A4 through Intersection of Roads A, B, & C. Install Lift Station and Force Mains to Plant
- Construct Houses on Lots 5 - 9, 39 - 42
- Construct Single Family Recreation Center
- Construct Multi-family Buildings 7 - 19 including associated Retaining Walls
- Finish construction of Road D, including association drainage, sewer and water services.
- Finish construction of Road D, including association drainage, sewer and water services.
- Install Landscaping Requirements for the finished areas of Construction

Phase 3

- Rough Grade Road B from Station 2+50 to cul-de-sac and install associated Drainage
- Move Rock Processing Equipment to area of Cul-De-Sac
- Install Water Main Road B from Station 2+50 to cul-de-sac
- Install Sewage Collection from SMH B-1 to End
- Construct Houses on Lots 10 - 16
- Finish construction of Road B, including drainage, sewer, and water services.
- Install Landscaping Requirements for the finished areas of Construction

Phase 4

- Rough Grade Road C from Intersection to cul-de-sac and install associated Drainage
- Move Rock Processing Equipment to area of Cul-De-Sac on Road C
- Install Water Mains Road C from Intersection to Cul-De-Sac
- Install Sewage Collection from SMH C-1 to End, Install Lift Station and Force Mains
- Construct Emergency Access Road from Road D to Road C
- Construct Houses on Lots 17 - 38
- Finish construction of Road C, including drainage, sewer, and water services.
- Construct Reed Road Improvements
- Construct Walking Path
- Install Landscaping Requirements for the finished areas of Construction

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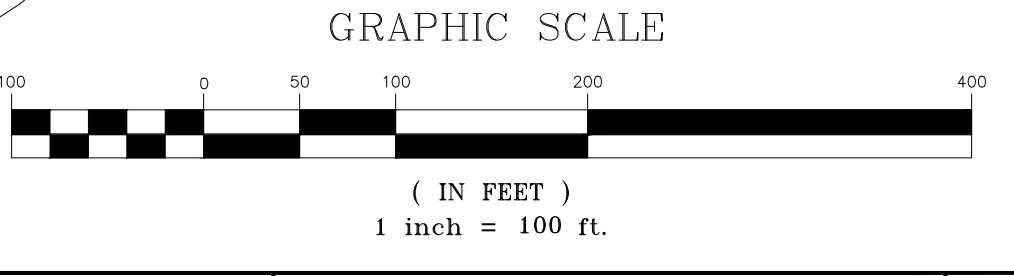
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LEGEND	AREA OF DISTURBANCE
	PHASE 1 38.31 ACRES*
	PHASE 2 15.17 ACRES*
	PHASE 3 6.73 ACRES*
	PHASE 4 21.92 ACRES* 1.16 ACRES (OFF-SITE)*
	TOTAL 82.13 ACRES (ON-SITE) TOTAL 1.16 ACRES (OFF-SITE)

*CONSTRUCTION DISTURBANCE IN EACH PHASE WILL NOT EXCEED 5 ACRES AT ANY TIME UNLESS OTHERWISE AUTHORIZED BY THE LOCAL MS4



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PHASING PLAN
 HIGHGATE - WOODLANDS AT NORTH SALEM
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DRAWN BY: PL CHECKED BY: DC
 SCALE: 1" = 100'
 DATE: NOVEMBER 1, 2005
 JOB NUMBER SHEET
 PP-1, 26 of 39

Appendix F

New York State General Stormwater
Discharge Permit,
GP-0-10-001



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-0-10-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2010

Expiration Date: January 28, 2015

William R. Adriance
Chief Permit Administrator

William R. Adriance
Authorized Signature

January 28, 2010
Date

Address: NYS DEC
Div. Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York’s *State Pollutant Discharge Elimination System (“SPDES”)* is a NPDES-approved program with permits issued in accordance with the *Environmental Conservation Law (“ECL”)*.

This general permit (“permit”) is issued pursuant to Article 17, Titles 7, 8 and Article 70 of the ECL. An *owner or operator* may obtain coverage under this permit by submitting a Notice of Intent (“NOI”) to the Department. Copies of this permit and the NOI for New York are available by calling (518) 402-8109 or at any New York State Department of Environmental Conservation (“the Department”) regional office (see Appendix G). They are also available on the Department’s website at:

<http://www.dec.ny.gov/>

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a point source and therefore, pursuant to Article 17-0505 of the ECL, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. They cannot wait until there is an actual *discharge* from the construction site to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES**

FROM CONSTRUCTION ACTIVITIES

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Part I. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application - This permit authorizes stormwater *discharges to surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants to surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

B. Maintaining Water Quality - It shall be a violation of this permit and the *ECL* for any *discharge* to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

C. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity to surface waters of the State and groundwaters* except for ineligible *discharges* identified under subparagraph D. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater discharges from *construction activities*.

(Part I. C)

3. Notwithstanding paragraphs C.1 and C.2 above, the following non-stormwater *discharges* may be authorized by this permit: discharges from fire fighting activities; fire hydrant flushings; waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated groundwater or spring water; uncontaminated discharges from construction site de-watering operations; and foundation or footing drains where flows are not contaminated with process materials such as solvents. For those entities required to obtain coverage under this permit, and who discharge as noted in this paragraph, and with the exception of flows from fire fighting activities, these discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with water quality standards in Part I.B.

D. Activities Which Are Ineligible for Coverage Under This General Permit - All of the following are **not** authorized by this permit:

1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection C.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII, subparagraph K of this permit;
4. *Discharges* from *construction activities* that adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat;
5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and

(Part I. D. 6)

- b. disturb one or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
7. *Construction activities* for linear transportation projects and linear utility projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and
 - b. disturb two or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
8. *Construction activities* that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (Note: includes Archeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects, or there are local land use approvals evidencing the same.

Part II. OBTAINING PERMIT COVERAGE

A. Notice of Intent (NOI) Submittal

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the address below in order to be authorized to *discharge* under this permit. The NOI form shall be one which is associated with this permit, signed in accordance with Part VII.H. of this permit.

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505**

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the *MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under “Notice of Intent (NOI) Submittal”.

(Part II. A.2)

This requirement does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.E. (Change of Owner or Operator).

3. The *owner or operator* shall have the SWPPP preparer sign the “SWPPP Preparer Certification” statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

B. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act (SEQRA) have been satisfied, when SEQRA is applicable,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act (UPA)* (see 6 NYCRR Part 621) have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain *UPA* permits must submit a preliminary SWPPP to the appropriate DEC Regional Office in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,
 - c. the final SWPPP has been prepared, and
 - d. an NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.B.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

(Part II. B. 3)

- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
 - i. Five (5) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 and/or 3, or
 - ii. Sixty (60) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has not been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 or 3.
- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
 - i. Five (5) business days from the date the Department receives a complete NOI and signed “MS4 SWPPP Acceptance” form,
4. The Department may suspend or deny an *owner’s or operator’s* coverage under this permit if the Department determines that the SWPPP does not meet the permit requirements.
5. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department.

C. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (NOT) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-10-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form and inspection reports at the construction site until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department.

(Part II. C. 2)

The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:
 - a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. The Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements.

(Part II. C)

5. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the *MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *MS4* prior to commencing construction of the post-construction stormwater management practice.

D. Permit Coverage for Discharges Authorized Under GP-0-08-001

1. Upon renewal of SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-08-001), an *owner or operator* of *construction activity* with coverage under GP-0-08-001, as of the effective date of GP-0-10-001, shall be authorized to *discharge* in accordance with GP-0-10-001 unless otherwise notified by the Department.

E. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.A.1.. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*.

(Part III. A)

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP:
 - a. whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater *discharges* from the site;
 - b. whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP.

(Part III. A. 6)

The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. "

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.
8. The SWPPP must include documentation supporting the determination of permit eligibility with regard to Part I.D.8. (Historic Places or Archeological Resource). At a minimum, the supporting documentation shall include the following:

(Part III. A. 8)

- a. Information on whether the stormwater discharge or *construction activities* would have an effect on a property (historic or archeological resource) that is listed or eligible for listing on the State or National Register of Historic Places;
- b. Results of historic resources screening determinations conducted. Information regarding the location of historic places listed, or eligible for listing, on the State or National Registers of Historic Places and and areas of archeological sensitivity that may indicate the need for a survey can be obtained online by viewing the New York State Office of Parks, Recreation and Historic Places (OPRHP) online resources located on their web site at: <http://nysparks.state.ny.us/shpo/online-tools/> (using The Geographic Information System for Archeology and National Register). OPRHP can also be contacted at: NYS OPRHP, State Historic Preservation Office, Peebles Island Resources Center, P.O. Box 189, Waterford, NY 12188-0189, phone: 518-237-8643;
- c. A description of measures necessary to avoid or minimize adverse impacts on places listed, or eligible for listing, on the State or National Register of Historic Places. If the *owner or operator* fails to describe and implement such measures, the stormwater *discharge* is ineligible for coverage under this permit; and
- d. Where adverse effects may occur, any written agreements in place with OPRHP or other governmental agency to mitigate those effects, or local land use approvals evidencing the same.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. Where erosion and sediment control practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project;

(Part III. B. 1)

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater discharge(s);
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each construction activity that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of final stabilization;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

(Part III. B. 1)

- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6., to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule shall be in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control;
 - j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the stormwater *discharges*;
 - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the construction site; and
 - l. Identification of any elements of the design that are not in conformance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards.
2. Post-construction stormwater management practice component - All construction projects identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual (“Design Manual”). If the Design Manual is revised during the term of this permit, an *owner or operator* must begin using the revised version of the Design Manual to prepare their SWPPP six (6) months from the final revision date of the Design Manual.

Where post-construction stormwater management practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard.

At a minimum, the post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project;

(Part III. B. 2)

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
 - c. The dimensions, material specifications and installation details for each post-construction stormwater management practice;
 - d. Identification of any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards;
 - e. A hydrologic and hydraulic analysis for all structural components of the stormwater management control system;
 - f. A detailed summary (including calculations) of the sizing criteria that was used to design all post-construction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the design criteria or waiver criteria included in the Design Manual; and
 - g. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.
3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.g. above.

(Part III. C)

C. Required SWPPP Components by Project Type - Unless otherwise notified by the Department, *owners or operators of construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.
2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

(Part IV. C)

C. Qualified Inspector Inspection Requirements - The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

- a. the construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
- c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
- d. construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

(Part IV. C. 2)

- b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.
- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “Final Stabilization” and “Post-Construction Stormwater Management Practice” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.A.1..

(Part IV. C. 3)

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.
4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:
 - a. Date and time of inspection;
 - b. Name and title of person(s) performing inspection;
 - c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
 - d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any *discharges* of sediment from the construction site. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
 - e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
 - f. Identification of all erosion and sediment control practices that need repair or maintenance;
 - g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
 - h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

(Part IV. C 4)

- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
 - j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
 - k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
 6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2., the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.A.1. The NOT form shall be one which is associated with this general permit, signed in accordance with Part VII.H.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

(Part V. A. 2)

- a. Total project completion - All construction activity identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;
 - b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
 - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.E.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “Final Stabilization” and “Post-Construction Stormwater Management Practice” certification statements on the NOT, certify that all disturbed areas have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP.
 4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall also have the MS4 sign the “MS4 Acceptance” statement on the NOT. The *owner or operator* shall have the principal executive officer, ranking elected official, or duly authorized representative from the *regulated, traditional land use control MS4*, sign the “MS4 Acceptance” statement. The MS4 official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The MS4 can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.3.
 5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

(Part V. A. 5)

- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,
- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has modified their deed of record to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION OF RECORDS

A. Record Retention - The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

B. Addresses - With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.A.1), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate Department Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply - The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied.

(Part VII. A)

The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

B. Continuation of the Expired General Permit - This permit expires five (5) years from the effective date. However, coverage may be obtained under the expired general permit, which will continue in force and effect, until a new general permit is issued. Unless otherwise notified by the Department in writing, an *owner or operator* seeking authorization under the new general permit must submit a new NOI in accordance with the terms of such new general permit.

C. Enforcement - Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense - It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate - The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to minimize or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information - The *owner or operator* shall make available to the Department for review and copying or furnish to the Department within five (5) business days of receipt of a Department request for such information, any information requested for the purpose of determining compliance with this permit. This can include, but is not limited to, the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form, executed maintenance agreement, and inspection reports. Failure to provide information requested by the Department within the request timeframe shall be a violation of this permit.

The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review the NOI, SWPPP or inspection reports. Copying of documents will be done at the requester's expense.

G. Other Information - When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any other report, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s)

(Part VII. G)

changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or impervious area), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

- a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
- b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
- c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - i. the chief executive officer of the agency, or

(Part VII. H. 1. c)

- ii. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part VII.H.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,
 - c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights - The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability - The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

(Part VII. K)

K. Denial of Coverage Under This Permit

1. At its sole discretion, the Department may require any *owner or operator* authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from *owner or operator* receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Regional Water Engineer, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.
2. Any *owner or operator* authorized by this permit may request to be excluded from the coverage under this permit by applying for an individual permit or another general permit. In such cases, the *owner or operator* shall submit an individual application or an alternative general permit application in accordance with the requirements of this general permit, 40 CFR 122.26(c)(1)(ii) and 6 NYCRR Part 621, with reasons supporting the request, to the Department at the address for the appropriate Department Office (see addresses in Appendix F). The request may be granted by issuance of an individual permit or another general permit at the discretion of the Department.
3. When an individual SPDES permit is issued to a discharger authorized to discharge under a general SPDES permit for the same discharge(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance - The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry - The *owner or operator* shall allow the Department or an authorized representative of EPA, the State, or, in the case of a construction site which discharges through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

(Part VII. M)

1. Enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

N. Permit Actions - At the Department's sole discretion, this permit may, at any time, be modified, suspended, revoked, or renewed. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions - Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with *construction activity* covered by this permit, the *owner or operator* of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports – Article 17 of the ECL provides for a civil penalty of \$37,500 per day per violation of this permit. Articles 175 and 210 of the New York State Penal Law provide for a criminal penalty of a fine and/or imprisonment for falsifying forms and reports required by this permit.

R. Other Permits – Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A

Definitions

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “Construction Activity(ies)” also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a construction site by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a construction site to a separate storm sewer system and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or point source.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

Groundwater - means waters in the saturated zone. The saturated zone is a subsurface zone in

which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct construction activities are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- i. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- ii. Designed or used for collecting or conveying stormwater;
- iii. Which is not a *combined sewer*; and
- iv. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department’s receipt and acceptance of a complete Notice of Intent. This letter documents the owner’s or operator’s authorization to discharge in accordance with the general permit for stormwater discharges from construction activity.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the construction activity is occurring; and/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in Parts 700 et seq of this Title.

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics in order to prepare a SWPPP that conforms to the Department's technical standard. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is required to gain coverage under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s).

Routine Maintenance Activity - means construction activity that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Stream bank restoration projects (does not include the placement of spoil material),
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that makes the transition between the road shoulder and the ditch or embankment,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or embankment,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* will be responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B

Required SWPPP Components by Project Type

Table 1
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

<p>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</p> <ul style="list-style-type: none">• Single family home <u>not</u> located in one of the watersheds listed in Appendix C and <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E• Construction of a barn or other agricultural building, silo, stock yard or pen.
<p>The following construction activities that involve soil disturbances of one (1) or more acres of land:</p> <ul style="list-style-type: none">• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects• Bike paths and trails• Sidewalk construction projects that are not part of a road/ highway construction or reconstruction project• Slope stabilization projects• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics• Spoil areas that will be covered with vegetation• Land clearing and grading for the purposes of creating vegetated open space (i.e. recreational parks, lawns, meadows, fields), excluding projects that <i>alter hydrology from pre to post development</i> conditions• Athletic fields (natural grass) that do not include the construction or reconstruction of <i>impervious area</i> <u>and</u> do not <i>alter hydrology from pre to post development</i> conditions• Demolition project where vegetation will be established and no redevelopment is planned• Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with <i>impervious cover</i>• Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of less than five acres and construction activities that include the construction or reconstruction of impervious area
<p>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</p> <ul style="list-style-type: none">• All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other agricultural building(e.g. silo) and structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional, includes hospitals, prisons, schools and colleges
- Industrial facilities, includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW’s and water treatment plants
- Office complexes
- Sports complexes
- Racetracks, includes racetracks with earthen (dirt) surface
- Road construction or reconstruction
- Parking lot construction or reconstruction
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project or other linear utility project
- All other construction activities that include the construction or reconstruction of *impervious area* and alter the hydrology from pre to post development conditions, and are not listed in Table 1

APPENDIX C

Watersheds Where Enhanced Phosphorus Removal Standards Are Required

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4

Figure 1 - New York City Watershed East of the Hudson

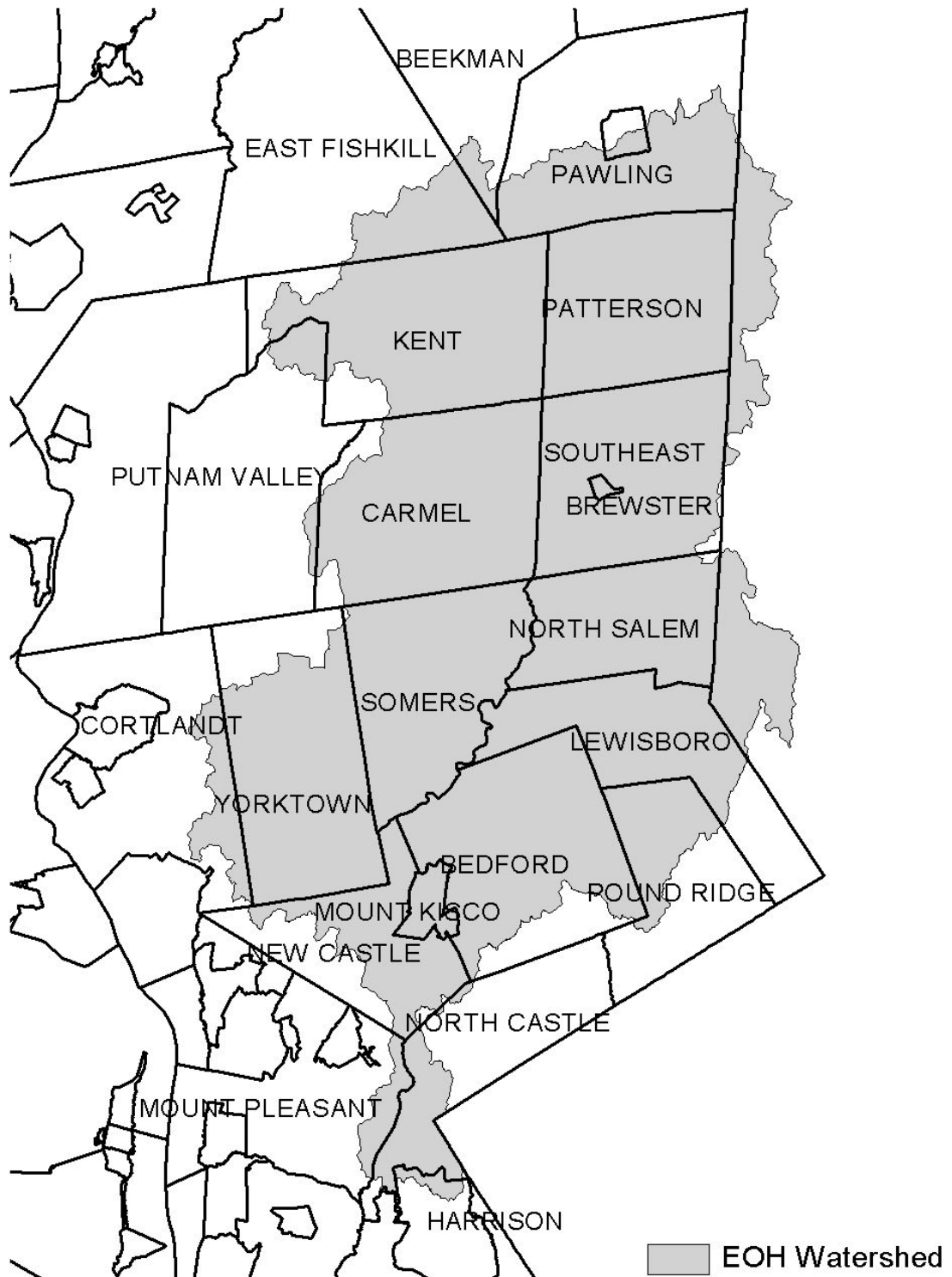


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

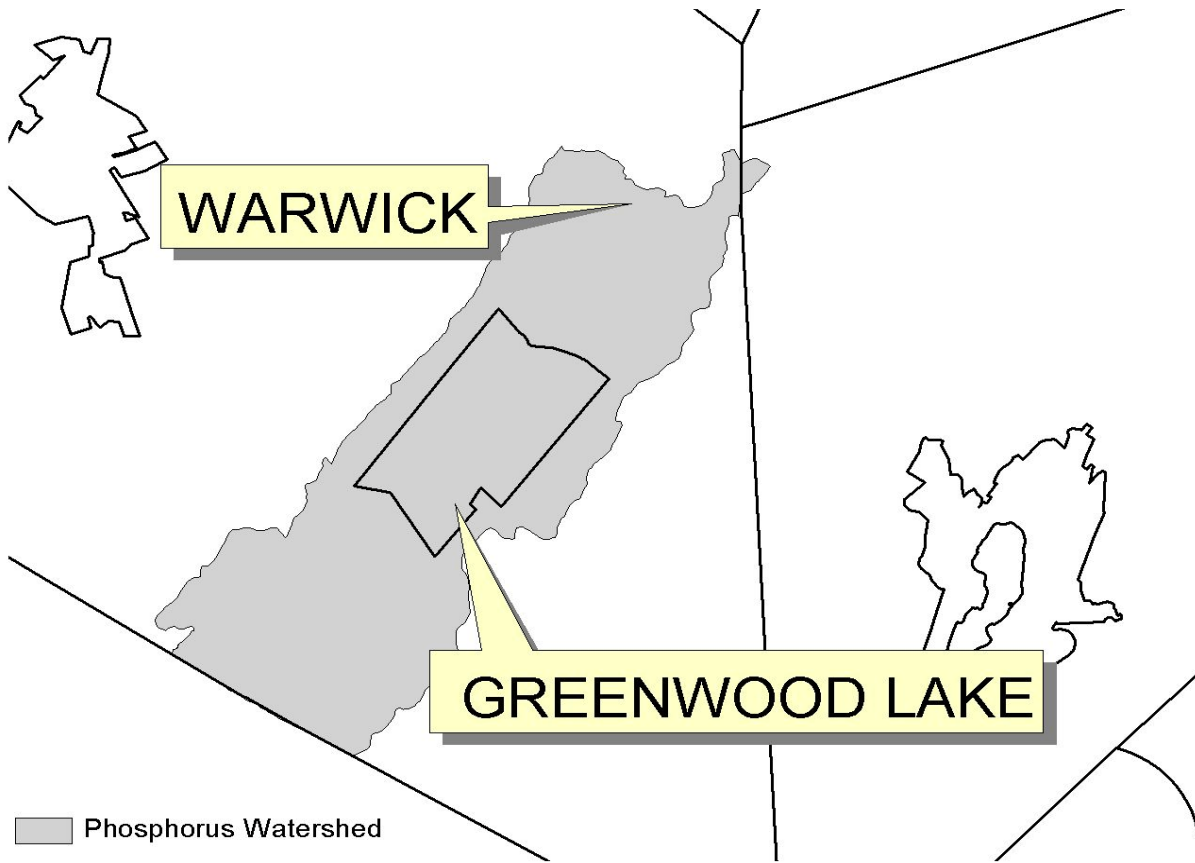
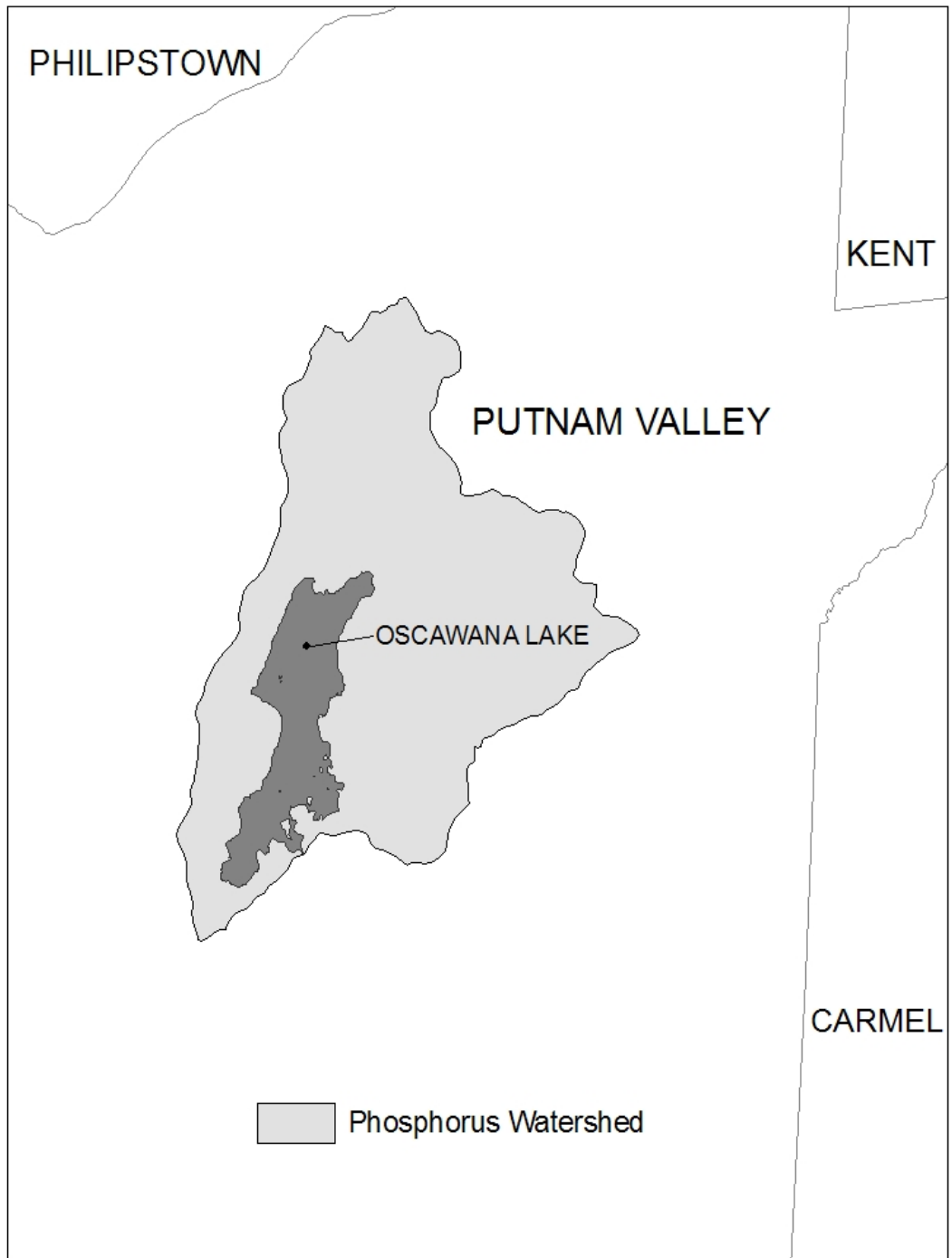


Figure 4 - Oscawana Lake Watershed



APPENDIX D

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity (e.g. silt, sediment or nutrients). *Owners or operators* of single family home and single family residential subdivision construction activities that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

COUNTY	WATERBODY	COUNTY	WATERBODY
Albany	Ann Lee (Shakers) Pond, Stump Pond	Monroe	Genesee River, Lower, Main Stem
Albany	Basic Creek Reservoir	Monroe	Genesee River, Middle, Main Stem
Bronx	Van Cortlandt Lake	Monroe	Black Creek, Lower, and minor tribs
Broome	Whitney Point Lake/Reservoir	Monroe	Buck Pond
Broome	Beaver Lake	Monroe	Long Pond
Broome	White Birch Lake	Monroe	Cranberry Pond
Chautauqua	Chautauqua Lake, North	Monroe	Mill Creek and tribs
Chautauqua	Chautauqua Lake, South	Monroe	Shipbuilders Creek and tribs
Chautauqua	Bear Lake	Monroe	Minor tribs to Irondequoit Bay
Chautauqua	Chadakoin River and tribs	Monroe	Thomas Creek/White Brook and tribs
Chautauqua	Lower Cassadaga Lake	Nassau	Glen Cove Creek, Lower, and tribs
Chautauqua	Middle Cassadaga Lake	Nassau	LI Tribs (fresh) to East Bay
Chautauqua	Findley Lake	Nassau	East Meadow Brook, Upper, and tribs
Clinton	Great Chazy River, Lower, Main Stem	Nassau	Hempstead Bay
Columbia	Kinderhook Lake	Nassau	Hempstead Lake
Columbia	Robinson Pond	Nassau	Grant Park Pond
Dutchess	Hillside Lake	Niagara	Bergholtz Creek and tribs
Dutchess	Wappinger Lakes	Oneida	Ballou, Nail Creeks
Dutchess	Fall Kill and tribs	Onondaga	Ley Creek and tribs
Dutchess	Rudd Pond	Onondaga	Onondaga Creek, Lower and tribs
Erie	Rush Creek and tribs	Onondaga	Onondaga creek, Middle and tribs
Erie	Ellicott Creek, Lower, and tribs	Onondaga	Onondaga Creek, Upper, and minor tribs
Erie	Beeman Creek and tribs	Onondaga	Harbor Brook, Lower, and tribs
Erie	Murder Creek, Lower, and tribs	Onondaga	Ninemile Creek, Lower, and tribs
Erie	South Branch Smoke Cr, Lower, and tribs	Onondaga	Minor tribs to Onondaga Lake
Erie	Little Sister Creek, Lower, and tribs	Ontario	Honeoye Lake
Essex	Lake George (primary county listed as Warren)	Ontario	Hemlock Lake Outlet and minor tribs
Genesee	Black Creek, Upper, and minor tribs	Ontario	Great Brook and minor tribs
Genesee	Tonawanda Creek, Middle, Main Stem	Oswego	Lake Neatahwanta
Genesee	Tonawanda Creek, Upper, and minor tribs	Putnam	Oscawana Lake
Genesee	Little Tonawanda Creek, Lower, and tribs	Putnam	Lake Carmel
Genesee	Oak Orchard Creek, Upper, and tribs	Queens	Jamaica Bay, Eastern, and tribs (Queens)
Genesee	Bowen Brook and tribs	Queens	Bergen Basin
Genesee	Bigelow Creek and tribs	Queens	Shellbank Basin
Greene	Schoharie Reservoir	Rensselaer	Snyders Lake
Greene	Sleepy Hollow Lake	Richmond	Grasmere, Arbutus and Wolfes Lakes
Herkimer	Steele Creek tribs	Saratoga	Dwaas Kill and tribs
Kings	Hendrix Creek	Saratoga	Tribs to Lake Lonely
Lewis	Mill Creek/South Branch and tribs	Saratoga	Lake Lonely
Livingston	Conesus Lake	Saratoga	Schuyler Creek and tribs
Livingston	Jaycox Creek and tribs	Schenectady	Collins Lake
Livingston	Mill Creek and minor tribs		

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity, cont'd.

COUNTY	WATERBODY	COUNTY	WATERBODY
Schoharie	Engleville Pond		
Schoharie	Summit Lake		
St. Lawrence	Black Lake Outlet/Black Lake		
Steuben	Lake Salubria		
Steuben	Smith Pond		
Suffolk	Millers Pond		
Suffolk	Mattituck (Marratooka) Pond		
Suffolk	Tidal tribs to West Moriches Bay		
Suffolk	Canaan Lake		
Suffolk	Lake Ronkonkoma		
Tompkins	Cayuga Lake, Southern End		
Tompkins	Owasco Inlet, Upper, and tribs		
Ulster	Ashokan Reservoir		
Ulster	Esopus Creek, Upper, and minor tribs		
Warren	Lake George		
Warren	Tribs to L.George, Village of L George		
Warren	Huddle/Finkle Brooks and tribs		
Warren	Indian Brook and tribs		
Warren	Hague Brook and tribs		
Washington	Tribs to L.George, East Shore of Lake George		
Washington	Cossayuna Lake		
Wayne	Port Bay		
Wayne	Marbletown Creek and tribs		
Westchester	Peach Lake		
Westchester	Mamaroneck River, Lower		
Westchester	Mamaroneck River, Upper, and minor tribs		
Westchester	Sheldrake River and tribs		
Westchester	Blind Brook, Lower		
Westchester	Blind Brook, Upper, and tribs		
Westchester	Lake Lincolndale		
Westchester	Lake Meahaugh		
Wyoming	Java Lake		
Wyoming	Silver Lake		

Note: The list above identifies those waters from the final New York State “2008 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy”, dated May 26, 2008, that are impaired by silt, sediment or nutrients.

APPENDIX F

LIST OF NYS DEC REGIONAL OFFICES

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, PO BOX 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD, PO BOX 220 WARRENSBURG, NY 12885-0220 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROAD AVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVE. BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Appendix G

Construction Site Log Book

Contractor's Certification Statement

"I certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP for the construction site identified in such SWPPP as a condition of authorization to discharge stormwater. I also understand that the operator must comply with the terms and conditions of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards."

Name: _____

Title: _____

Date: _____

Firm: _____

Address: _____

Phone: _____

**STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
FOR CONSTRUCTION ACTIVITIES**

CONSTRUCTION SITE LOG BOOK

Table of Contents

- I. Pre-Construction Meeting Documents.
 - a. Preamble to Site Assessment and Inspections
 - b. Operator's Certification
 - c. Qualified Professional's Credentials & Certification
 - d. Pre-Construction Site Assessment Checklist
- a. II. Construction Duration Inspections
 - a. Directions
 - b. Modification to the SWPPP
- III. Monthly Summary Reports
- IV. Monitoring, Reporting, and Three-Month Status Reports
 - a. Operator's Compliance Response Form
- a

Properly completing forms such as those contained in this document meet the inspection requirement of NYSDEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____
Permit No. _____ Date of Authorization _____
Name of Operator _____
Prime Contractor _____

a. Preamble to Site Assessment and Inspections -The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional¹ conduct an assessment of the site prior to the commencement of construction² and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization³ using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law. "

Name (please print): _____

Title _____ Date: _____

Address: _____

Phone: _____ Email: _____

Signature: _____

c. Qualified Professional's Credentials & Certification

" I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print): _____

Title _____ Date: _____

Address: _____

Phone: _____ Email: _____

Signature: _____

d. Pre-construction Site Assessment Checklist (NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

Has a Notice of Intent been filed with the NYS Department of Conservation?

Is the SWPPP on-site? Where? _____

Is the Plan current? What is the latest revision date? _____

Is a copy of the NOI (with brief description) onsite? Where? _____

Have all contractors involved with stormwater related activities signed a contractor's certification?

Pre-construction Site Assessment Checklist (continued)

2. Resource Protection

Yes No NA

- Are construction limits clearly flagged or fenced?
- Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.
- Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

- Clean stormwater runoff has been diverted from areas to be disturbed.
- Bodies of water located either on site or in the vicinity of the site have been identified and protected.
- Appropriate practices to protect on-site or downstream surface water are installed.
- Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

- A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.
- Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.
- Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

- Silt fence material and installation comply with the standard drawing and specifications.
- Silt fences are installed at appropriate spacing intervals
- Sediment/detention basin was installed as first land disturbing activity.
- Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

- The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.
- The plan is contained in the SWPPP on page _____
- Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:

Inspection Forms will be filled out during the entire construction phase of the project.

Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)

Date of Inspection

Qualified Professional (print name)

Qualified Professional Signature

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No NA

- Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
- Is there residue from oil and floating substances, visible oil film, or globules or grease?
- All disturbance is within the limits of the approved plans.
- Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

- Is construction site litter and debris appropriately managed?
- Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
- Is construction impacting the adjacent property?
- Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

- Maximum diameter pipes necessary to span creek without dredging are installed.
- Installed non-woven geotextile fabric beneath approaches.
- Is fill composed of aggregate (no earth or soil)?
- Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

- Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
- Clean water from upstream pool is being pumped to the downstream pool.
- Sediment laden water from work area is being discharged to a silt-trapping device.
- Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader

Yes No NA

- Installed per plan.
- Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
- Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

- Installed per plan with minimum side slopes 2H:1V or flatter.
- Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
- Sediment-laden runoff directed to sediment trapping structure

CONSTRUCTION DURATION INSPECTIONS
Runoff Control Practices (continued)

Page 3 of _____

4. Stone Check Dam

Yes No NA

- Is channel stable? (flow is not eroding soil underneath or around the structure).
 Check is in good condition (rocks in place and no permanent pools behind the structure).
 Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

- Installed per plan.
 Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

- Stockpiles are stabilized with vegetation and/or mulch.
 Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

- Temporary seedings and mulch have been applied to idle areas.
 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control

1. Stabilized Construction Entrance

Yes No NA

- Stone is clean enough to effectively remove mud from vehicles.
 Installed per standards and specifications?
 Does all traffic use the stabilized entrance to enter and leave site?
 Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

- Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
 Joints constructed by wrapping the two ends together for continuous support.
 Fabric buried 6 inches minimum.
 Posts are stable, fabric is tight and without rips or frayed areas.
Sediment accumulation is ___% of design capacity.

Sediment Control (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

- Installed concrete blocks lengthwise so open ends face outward, not upward.
 - Placed wire screen between No. 3 crushed stone and concrete blocks.
 - Drainage area is 1 acre or less.
 - Excavated area is 900 cubic feet.
 - Excavated side slopes should be 2:1.
 - 2" x 4" frame is constructed and structurally sound.
 - Posts 3-foot maximum spacing between posts.
 - Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
 - Posts are stable, fabric is tight and without rips or frayed areas.
- Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

Yes No NA

- Outlet structure is constructed per the approved plan or drawing.
 - Geotextile fabric has been placed beneath rock fill.
- Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin

Yes No NA

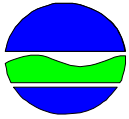
- Basin and outlet structure constructed per the approved plan.
 - Basin side slopes are stabilized with seed/mulch.
 - Drainage structure flushed and basin surface restored upon removal of sediment basin facility.
- Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

Appendix H

Blank Notice of Intent,
Blank Notice of Termination

NOTICE OF INTENT



**New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505**

NYR
(For DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-10-001
All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

- IMPORTANT -
RETURN THIS FORM TO THE ADDRESS ABOVE
OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

Owner/Operator Contact Person First Name

Owner/Operator Mailing Address

City

State Zip -

Phone (Owner/Operator) - - Fax (Owner/Operator) - -

Email (Owner/Operator)

FED TAX ID - (not required for individuals)

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

**Pre-Development
Existing Land Use**

- FOREST
- PASTURE/OPEN LAND
- CULTIVATED LAND
- SINGLE FAMILY HOME
- SINGLE FAMILY SUBDIVISION
- TOWN HOME RESIDENTIAL
- MULTIFAMILY RESIDENTIAL
- INSTITUTIONAL/SCHOOL
- INDUSTRIAL
- COMMERCIAL
- ROAD/HIGHWAY
- RECREATIONAL/SPORTS FIELD
- BIKE PATH/TRAIL
- LINEAR UTILITY
- PARKING LOT
- OTHER

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**Post-Development
Future Land Use**

- SINGLE FAMILY HOME
- SINGLE FAMILY SUBDIVISION
- TOWN HOME RESIDENTIAL
- MULTIFAMILY RESIDENTIAL
- INSTITUTIONAL/SCHOOL
- INDUSTRIAL
- COMMERCIAL
- MUNICIPAL
- ROAD/HIGHWAY
- RECREATIONAL/SPORTS FIELD
- BIKE PATH/TRAIL
- LINEAR UTILITY (water, sewer, gas, etc.)
- PARKING LOT
- CLEARING/GRADING ONLY
- DEMOLITION, NO REDEVELOPMENT
- OTHER

Number of Lots

--	--	--

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

4. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law ? Yes No

5. Is this a project which does not require coverage under the General Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)? Yes No

6. Is this property owned by a state authority, state agency or local government? Yes No

7. In accordance with the larger common plan of development or sale, enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage) within the disturbed area. Round to the nearest tenth of an acre.

Total Site Acreage	Acreage To Be Disturbed	Existing Impervious Area Within Disturbed	Future Impervious Area Within Disturbed																				
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8. Do you plan to disturb more than 5 acres of soil at any one time? Yes No

9. Indicate the percentage of each Hydrologic Soil Group (HSG) at the site.

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16. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey?

Yes No

If Yes, what is the acreage to be disturbed?

.

17. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?

Yes No

18. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? (If No, skip question 19)

Yes No Unknown

19. What is the name of the municipality/entity that owns the separate storm sewer system?

20. Does any runoff from the site enter a sewer classified as a Combined Sewer?

Yes No Unknown

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book) ?

Yes No

22. Does this construction activity require the development of a SWPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices) (If No, skip questions 23 and 27-35)

Yes No

23. Have the Water Quality and Quantity Control components of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual ?

Yes No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- Professional Engineer (P.E.)
- Soil and Water Conservation District (SWCD)
- Registered Landscape Architect (R.L.A)
- Certified Professional in Erosion and Sediment Control (CPESC)
- Owner/Operator
- Other

[Empty grid box for 'Other' category]

SWPPP Preparer

[Empty grid box for SWPPP Preparer name]

Contact Name (Last, Space, First)

[Empty grid box for Contact Name]

Mailing Address

[Empty grid box for Mailing Address]

City

[Empty grid box for City]

State

[Empty box for State]

Zip

[Empty boxes for Zip code]

Phone

[Empty boxes for Phone number]

Fax

[Empty boxes for Fax number]

Email

[Empty grid boxes for Email address]

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-10-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name

[Empty grid box for First Name]

MI

[Empty box for MI]

Last Name

[Empty grid box for Last Name]

Signature

[Empty box for Signature]

Date

[Empty boxes for Date (MM/DD/YYYY)]

30. Provide the total water quality volume required and the total provided for the site.

WQv Required
 . acre-feet

WQv Provided
 . acre-feet

31. Provide the following Unified Stormwater Sizing Criteria for the site.

Total Channel Protection Storage Volume (CPv) - Extended detention of post-developed 1 year, 24 hour storm event

CPv Required
 . acre-feet

CPv Provided
 . acre-feet

31a. The need to provide for channel protection has been waived because:

- Site discharges directly to fourth order stream or larger

Total Overbank Flood Control Criteria (Qp) - Peak discharge rate for the 10 year storm

Pre-Development
 . CFS

Post-development
 . CFS

Total Extreme Flood Control Criteria (Qf) - Peak discharge rate for the 100 year storm

Pre-Development
 . CFS

Post-development
 . CFS

31b. The need to provide for flood control has been waived because:

- Site discharges directly to fourth order stream or larger
- Downstream analysis reveals that flood control is not required

IMPORTANT: For questions 31 and 32, impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s). (Total Drainage Area = Project Site + Offsite areas)

32. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins.

%

33. Post-Construction Impervious Area - As a percent of the Total Drainage Area, enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction.

%

34. Indicate the total number of post-construction stormwater management practices to be installed/constructed.

35. Provide the total number of stormwater discharge points from the site. (include discharges to either surface waters or to separate storm sewer systems)



**New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505**

(NOTE: Submit completed form to address above)

**NOTICE OF TERMINATION for Storm Water Discharges Authorized
under the SPDES General Permit for Construction Activity**

Please indicate your permit identification number: NYR ____ ____ ____ ____ ____

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person:

4a. Telephone:

5. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP.
*Date final stabilization completed (month/year): _____

9b. Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ____ ____ ____ ____ ____
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? yes no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? yes no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued**

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? yes no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

- Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.
- Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).
- For post-construction stormwater management practices that are privately owned, the deed of record has been modified to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.
- For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? yes no
(If Yes, complete section VI - "MS4 Acceptance" statement)

V. Additional Information/Explanation:
(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:

**NOTICE OF TERMINATION for Storm Water Discharges Authorized under the
SPDES General Permit for Construction Activity - continued**

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:

Title/Position:

Signature:

Date:

(NYS DEC Notice of Termination - January 2010)

Appendix I

Custom Soil Resource Report



United States
Department of
Agriculture



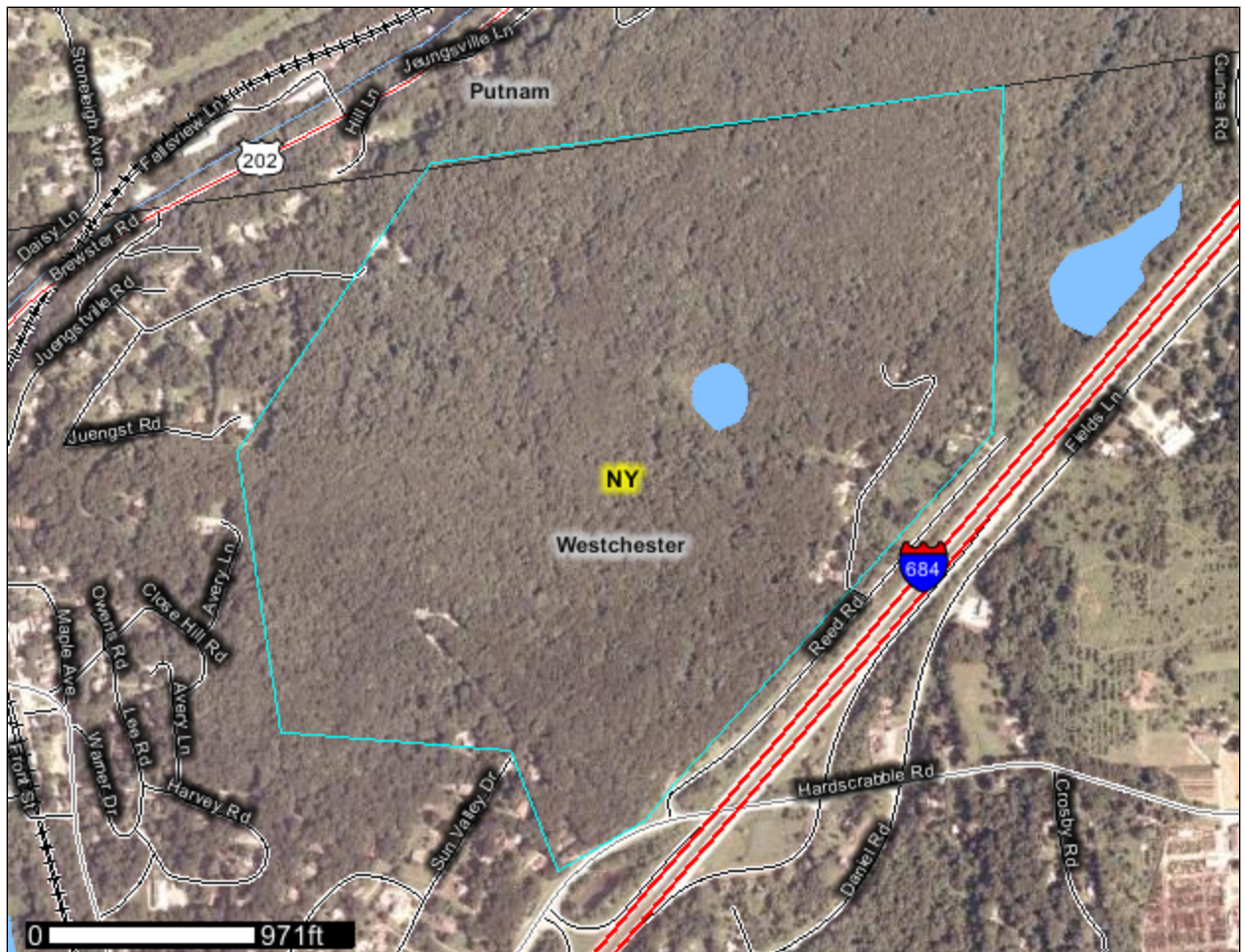
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Putnam County, New York, and Westchester County, New York

Woodlands at North Salem



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrsc>) or your NRCS State Soil Scientist (http://soils.usda.gov/contact/state_offices/).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

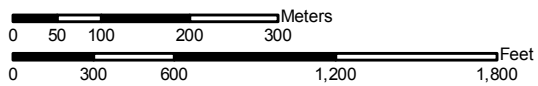
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:8,520 if printed on A size (8.5" x 11") sheet.



Custom Soil Resource Report

MAP LEGEND

Area of Interest (AOI)


 Area of Interest (AOI)


Soils


 Soil Map Units

Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot


 Wet Spot

 Other



Special Line Features

-  Gully
-  Short Steep Slope
-  Other






Political Features

 Cities

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

MAP INFORMATION

Map Scale: 1:8,520 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at scales ranging from 1:12,000 to 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 18N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Putnam County, New York
 Survey Area Data: Version 5, Dec 11, 2006

Soil Survey Area: Westchester County, New York
 Survey Area Data: Version 4, Dec 14, 2006

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Date(s) aerial images were photographed: 7/31/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Putnam County, New York (NY079)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CuD	Chatfield-Hollis-Rock outcrop complex, hilly	0.1	0.0%
Subtotals for Soil Survey Area		0.1	0.0%
Totals for Area of Interest		196.7	100.0%

Westchester County, New York (NY119)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrC	Charlton-Chatfield complex, rolling, very rocky	19.7	10.0%
CsD	Chatfield-Charlton complex, hilly, very rocky	57.8	29.4%
CtC	Chatfield-Hollis-Rock outcrop complex, rolling	71.9	36.5%
CuD	Chatfield-Hollis-Rock outcrop complex, hilly	33.9	17.2%
Ff	Fluvaquents-Udifluvents complex, frequently flooded	0.8	0.4%
HrF	Hollis-Rock outcrop complex, very steep	5.8	2.9%
LcB	Leicester loam, 3 to 8 percent slopes, stony	4.7	2.4%
Ub	Udorthents, smoothed	0.9	0.5%
W	Water	1.2	0.6%
Subtotals for Soil Survey Area		196.7	100.0%
Totals for Area of Interest		196.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a

Custom Soil Resource Report

particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Putnam County, New York

CuD—Chatfield-Hollis-Rock outcrop complex, hilly

Map Unit Setting

Elevation: 100 to 1,000 feet

Mean annual precipitation: 46 to 50 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days

Map Unit Composition

Hollis and similar soils: 30 percent

Chatfield and similar soils: 30 percent

Rock outcrop: 20 percent

Description of Chatfield

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mainly from granite, gneiss, or schist

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 7 inches: Loam

7 to 24 inches: Flaggy silt loam

24 to 28 inches: Unweathered bedrock

Description of Hollis

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: A thin mantle of loamy till derived mainly from schist, granite, and gneiss

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Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very low (about 1.8 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 1 inches: Fine sandy loam

1 to 16 inches: Fine sandy loam

16 to 20 inches: Unweathered bedrock

Description of Rock Outcrop

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Low to very high (0.01 to 19.98 in/hr)

Interpretive groups

Land capability (nonirrigated): 8s

Westchester County, New York

CrC—Charlton-Chatfield complex, rolling, very rocky

Map Unit Setting

Elevation: 100 to 1,000 feet

Mean annual precipitation: 46 to 50 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days

Map Unit Composition

Charlton and similar soils: 50 percent

Chatfield and similar soils: 30 percent

Description of Charlton

Setting

Landform: Hills, ridges, till plains

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Acid loamy till derived mainly from schist, gneiss, or granite

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability (nonirrigated): 6s

Typical profile

0 to 8 inches: Loam

8 to 24 inches: Sandy loam

24 to 60 inches: Sandy loam

Description of Chatfield

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mainly from granite, gneiss, or schist

Properties and qualities

Slope: 2 to 15 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Custom Soil Resource Report

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability (nonirrigated): 6s

Typical profile

0 to 7 inches: Loam

7 to 24 inches: Flaggy silt loam

24 to 28 inches: Unweathered bedrock

CsD—Chatfield-Charlton complex, hilly, very rocky

Map Unit Setting

Elevation: 100 to 1,000 feet

Mean annual precipitation: 46 to 50 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days

Map Unit Composition

Chatfield and similar soils: 45 percent

Charlton and similar soils: 35 percent

Description of Chatfield

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mainly from granite, gneiss, or schist

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water capacity: Low (about 3.2 inches)

Custom Soil Resource Report

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 7 inches: Loam

7 to 24 inches: Flaggy silt loam

24 to 28 inches: Unweathered bedrock

Description of Charlton

Setting

Landform: Hills, ridges, till plains

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Acid loamy till derived mainly from schist, gneiss, or granite

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)*

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 7.5 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 8 inches: Loam

8 to 24 inches: Sandy loam

24 to 60 inches: Sandy loam

CtC—Chatfield-Hollis-Rock outcrop complex, rolling

Map Unit Setting

Elevation: 100 to 1,000 feet

Mean annual precipitation: 46 to 50 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days

Map Unit Composition

Hollis and similar soils: 30 percent

Chatfield and similar soils: 30 percent

Rock outcrop: 20 percent

Description of Chatfield

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mainly from granite, gneiss, or schist

Properties and qualities

Slope: 3 to 15 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water capacity: Low (about 3.2 inches)

Interpretive groups

Land capability (nonirrigated): 6s

Typical profile

0 to 7 inches: Loam

7 to 24 inches: Flaggy silt loam

24 to 28 inches: Unweathered bedrock

Description of Hollis

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: A thin mantle of loamy till derived mainly from schist, granite, and gneiss

Properties and qualities

Slope: 3 to 15 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very low (about 1.8 inches)

Interpretive groups

Land capability (nonirrigated): 6s

Typical profile

0 to 1 inches: Fine sandy loam

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1 to 16 inches: Fine sandy loam
16 to 20 inches: Unweathered bedrock

Description of Rock Outcrop

Properties and qualities

Slope: 3 to 15 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Low to very high (0.01 to 19.98 in/hr)

Interpretive groups

Land capability (nonirrigated): 8s

CuD—Chatfield-Hollis-Rock outcrop complex, hilly

Map Unit Setting

Elevation: 100 to 1,000 feet

Mean annual precipitation: 46 to 50 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days

Map Unit Composition

Hollis and similar soils: 30 percent

Chatfield and similar soils: 30 percent

Rock outcrop: 20 percent

Description of Chatfield

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mainly from granite, gneiss, or schist

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 20 to 40 inches to lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Low to high (0.01 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 1 percent

Available water capacity: Low (about 3.2 inches)

Custom Soil Resource Report

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 7 inches: Loam

7 to 24 inches: Flaggy silt loam

24 to 28 inches: Unweathered bedrock

Description of Hollis

Setting

Landform: Ridges, hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: A thin mantle of loamy till derived mainly from schist, granite, and gneiss

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very low (about 1.8 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 1 inches: Fine sandy loam

1 to 16 inches: Fine sandy loam

16 to 20 inches: Unweathered bedrock

Description of Rock Outcrop

Properties and qualities

Slope: 15 to 35 percent

Depth to restrictive feature: 0 inches to lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Low to very high (0.01 to 19.98 in/hr)

Interpretive groups

Land capability (nonirrigated): 8s

Ff—Fluvaquents-Udifulvents complex, frequently flooded

Map Unit Setting

Elevation: 100 to 3,000 feet

Mean annual precipitation: 46 to 50 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days

Map Unit Composition

Udifulvents and similar soils: 35 percent

Fluvaquents and similar soils: 35 percent

Description of Fluvaquents

Setting

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Landform position (three-dimensional): Dip

Down-slope shape: Concave

Across-slope shape: Concave

Parent material: Alluvium with highly variable texture

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: Frequent

Frequency of ponding: Frequent

Calcium carbonate, maximum content: 15 percent

Available water capacity: Moderate (about 6.1 inches)

Interpretive groups

Land capability (nonirrigated): 5w

Typical profile

0 to 5 inches: Gravelly silt loam

5 to 70 inches: Very gravelly silt loam

Description of Udifulvents

Setting

Landform: Flood plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Rise

Down-slope shape: Convex

Across-slope shape: Convex

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Parent material: Alluvium with a wide range of texture

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.06 to 19.98 in/hr)

Depth to water table: About 24 to 72 inches

Frequency of flooding: Frequent

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Available water capacity: Low (about 5.9 inches)

Interpretive groups

Land capability (nonirrigated): 5w

Typical profile

0 to 4 inches: Gravelly silt loam

4 to 70 inches: Very gravelly loam

HrF—Hollis-Rock outcrop complex, very steep

Map Unit Setting

Mean annual precipitation: 46 to 50 inches

Mean annual air temperature: 46 to 52 degrees F

Frost-free period: 115 to 215 days

Map Unit Composition

Hollis and similar soils: 60 percent

Rock outcrop: 20 percent

Description of Hollis

Setting

Landform: Hills, ridges

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: A thin mantle of loamy till derived mainly from schist, granite, and gneiss

Properties and qualities

Slope: 35 to 60 percent

Depth to restrictive feature: 10 to 20 inches to lithic bedrock

Drainage class: Somewhat excessively drained

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 to 0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

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Frequency of ponding: None
Available water capacity: Very low (about 1.8 inches)

Interpretive groups

Land capability (nonirrigated): 7s

Typical profile

0 to 1 inches: Fine sandy loam
1 to 16 inches: Fine sandy loam
16 to 20 inches: Unweathered bedrock

Description of Rock Outcrop

Properties and qualities

Slope: 35 to 60 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Low to very high (0.01 to 19.98 in/hr)

Interpretive groups

Land capability (nonirrigated): 8s

Typical profile

0 to 60 inches: Unweathered bedrock

LcB—Leicester loam, 3 to 8 percent slopes, stony

Map Unit Setting

Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days

Map Unit Composition

Leicester and similar soils: 75 percent

Description of Leicester

Setting

Landform: Hills, ridges, till plains
Landform position (two-dimensional): Footslope, summit
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy acid till derived mostly from schist and gneiss

Properties and qualities

Slope: 3 to 8 percent
Surface area covered with cobbles, stones or boulders: 0.1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)

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Depth to water table: About 6 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability (nonirrigated): 6s

Typical profile

0 to 8 inches: Loam
8 to 26 inches: Sandy loam
26 to 60 inches: Sandy loam

Ub—Udorthents, smoothed

Map Unit Setting

Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days

Map Unit Composition

Udorthents, smoothed, and similar soils: 75 percent

Description of Udorthents, Smoothed

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high
(0.06 to 5.95 in/hr)
Depth to water table: About 18 to 48 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Available water capacity: Low (about 4.6 inches)

Typical profile

0 to 4 inches: Gravelly loam
4 to 70 inches: Very gravelly loam

W—Water

Map Unit Setting

Mean annual precipitation: 46 to 50 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 115 to 215 days

Map Unit Composition

Water: 100 percent

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