

Section 8.0
Supporting Calculations

Section 8.1
Pre-Development

PRE DEVELOPMENT - A

PRE-DEVELOPMENT
 DRAINAGE AREA = 17.65 AC.

$T_c = 100'$ @ 2%
 $300'$ @ 4% UNPAVED
 $300'$ @ 8% UNPAVED
 $300'$ @ 2% UNPAVED

$P = 3.6'$ (24R/24 HR)

$T_c = \frac{25.05}{24.77}$ MIN.

DESIGN STORMS

$W_{QV} = 90\%$ RAINFALL = 1.15" (FIG. 4.1 NY SW MANUAL)
 $C_{PV} = 1$ 4R/24 HR = 3.0" (FIG. 4.4)
 $Q_p = 10$ YR = 5.7"
 $Q_f = 100$ YR = 8.0"

CN = 77 (WOODS GOOD)

PRE FLOWS

1	15.5 cfs
10	11.2 cfs 51.2 cfs
100	8.4 cfs

SCS Segmental Travel Time

Summary for Pre POI - A

Segment 1: Overland Flow

L = 100 ft, S = .02 ft/ft, n = .40, P(2yr/24hr) = 3.6 in
Travel Time = 20.2 minutes

Segment 2: Concentrated Flow

L = 300 ft, S = .04 ft/ft, Unpaved surface
Travel Time = 1.5 minutes

Segment 3: Concentrated Flow

L = 200 ft, S = .07 ft/ft, Unpaved surface
Travel Time = 0.8 minutes

Segment 4: Concentrated Flow

L = 300 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 2.2 minutes

Total Travel Time = 24.77 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre-Development - A

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	17.650	77	0.199	1.07	24.770	24.000	0.000	0.780
Composite	17.650	77		1.07				

SCS TR55 Tabular Method

Watershed Title: Pre-Development - A

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	11	13	5	3	2	2	1	1	1	0
Composite	0	1	11	13	5	3	2	2	1	1	1	0

The peak flow is 15.6 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre - A

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.028	77	0.166	1.51	0.413	0.400	0.000	0.013
Composite	0.028	77		1.51				

SCS TR55 Tabular Method

Watershed Title: Pre - A

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	16	18	7	4	3	2	1	1	1	0
Composite	1	2	16	18	7	4	3	2	1	1	1	0

The peak flow is 22.5 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-A

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.028	77	0.105	3.22	0.413	0.400	0.000	0.013
Composite	0.028	77		3.22				

SCS TR55 Tabular Method

Watershed Title: Pre-A

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	40	39	15	7	5	4	3	2	1	0
Composite	2	7	40	39	15	7	5	4	3	2	1	0

The peak flow is 51.5 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre- A

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.028	77	0.100	3.92	0.413	0.400	0.000	0.013
Composite	0.028	77		3.92				

SCS TR55 Tabular Method

Watershed Title: Pre- A

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	8	49	47	18	8	6	5	3	2	2	0
Composite	2	8	49	47	18	8	6	5	3	2	2	0

The peak flow is 63.0 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre - A

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.028	77	0.100	4.46	0.413	0.400	0.000	0.013
Composite	0.028	77		4.46				

SCS TR55 Tabular Method

Watershed Title: Pre - A

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	9	56	54	21	10	7	5	4	3	2	0
Composite	2	9	56	54	21	10	7	5	4	3	2	0

The peak flow is 71.6 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre- A

100 Year Type II Storm: Precipitation = 8 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.028	77	0.100	5.27	0.413	0.400	0.000	0.013
Composite	0.028	77		5.27				

SCS TR55 Tabular Method

Watershed Title: Pre- A

100 Year Type II Storm: Precipitation = 8 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	11	67	63	24	11	8	6	5	3	2	0
Composite	3	11	67	63	24	11	8	6	5	3	2	0

The peak flow is 84.8 cfs at 12.3 hrs.

PRE DEVELOPMENT - B

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PRE

P.O.I-B

$$T_c = 100' @ 3\% ; n = 0.40, P = 3.5" (2yr / 24 hr)$$

700' @ 3% UNPAVED

500' @ 1% UNPAVED

900' @ 3% UNPAVED

$$T_c = 31.92 \text{ minutes}$$

$$D.A. = 122.12 \text{ ac}$$

$$CN = \frac{118.2(77) + 392(98)}{122.12 \text{ ac}} = 77.67$$

EX. WETLANDS

$$Q_1 = 98.4 \text{ cfs}$$

$$Q_2 = 141.6 \text{ cfs}$$

$$Q_{10} = 322.0 \text{ cfs}$$

$$Q_{25} = 391.7 \text{ cfs}$$

$$Q_{50} = 444.7 \text{ cfs}$$

$$Q_{100} = 525.6 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Pre POI -  B

Segment 1: Overland Flow

L = 100 ft, S = .03 ft/ft, n = .40, P(2yr/24hr) = 3.6 in
Travel Time = 17.2 minutes

Segment 2: Concentrated Flow

L = 700 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 4.2 minutes

Segment 3: Concentrated Flow

L = 500 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 5.2 minutes

Segment 4: Concentrated Flow

L = 900 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 5.4 minutes

Total Travel Time = 31.92 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre POI B

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	122.120	78	0.192	1.11	31.920	30.000	0.000	1.920
Composite	122.120	78		1.11				

SCS TR55 Tabular Method

Watershed Title: Pre POI B

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	45	98	53	24	15	12	8	5	4	0
Composite	2	6	45	98	53	24	15	12	8	5	4	0

The peak flow is 98.4 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre POI B

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	122.120	78	0.160	1.55	31.920	30.000	0.000	1.920
Composite	122.120	78		1.55				

SCS TR55 Tabular Method

Watershed Title: Pre POI B

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	11	71	142	73	32	20	16	11	7	5	0
Composite	3	11	71	142	73	32	20	16	11	7	5	0

The peak flow is 141.6 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre POI B

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	122.120	78	0.101	3.28	31.920	30.000	0.000	1.920
Composite	122.120	78		3.28				

SCS TR55 Tabular Method

Watershed Title: Pre POI B

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	34	181	316	149	63	39	30	20	13	9	0
Composite	10	34	181	316	149	63	39	30	20	13	9	0

The peak flow is 322.0 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre POI B

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	122.120	78	0.100	3.99	31.920	30.000	0.000	1.920
Composite	122.120	78		3.99				

SCS TR55 Tabular Method

Watershed Title: Pre POI B

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	13	42	221	384	182	76	47	36	25	16	11	0
Composite	13	42	221	384	182	76	47	36	25	16	11	0

The peak flow is 391.7 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre POI B

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	122.120	78	0.100	4.53	31.920	30.000	0.000	1.920
Composite	122.120	78		4.53				

SCS TR55 Tabular Method

Watershed Title: Pre POI B

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	14	48	251	436	206	86	54	41	28	18	12	0
Composite	14	48	251	436	206	86	54	41	28	18	12	0

The peak flow is 444.7 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre POI B

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	122.120	78	0.100	5.35	31.920	30.000	0.000	1.920
Composite	122.120	78		5.35				

SCS TR55 Tabular Method

Watershed Title: Pre POI B

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	17	56	296	515	244	102	64	49	33	21	14	0
Composite	17	56	296	515	244	102	64	49	33	21	14	0

The peak flow is 525.6 cfs at 12.4 hrs.

PRE

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P.O.I - C

$$A = 1512.67 \text{ ac.}$$

$$T_c = 100' @ 4\%$$

$$1500' @ 4\%$$

$$1200' @ 25\%$$

$$3600' @ 1.5\%$$

$$7000' @ 10\%$$

$$T_c = 116.27 \text{ MINUTES}$$

CN: CONSIDER WETLANDS IMPERVIOUS
TOTAL WATER / ROADWAYS = 194.7 ac.

$$CN = \frac{1117.97(77) + 200(71) + 194.7(98)}{1512.67} = 78.91$$

$$Q_1 = 568.5 \text{ cfs}$$

$$Q_2 = 820.4 \text{ cfs}$$

$$Q_{10} = 1818.4 \text{ cfs}$$

$$Q_{25} = 2200.6 \text{ cfs}$$

$$Q_{50} = 2492.4 \text{ cfs}$$

$$Q_{100} = 2936.5 \text{ cfs}$$

PRE DEVELOPMENT - C

SCS Segmental Travel Time

Summary for Pre- POI- 'C'

Segment 1: Overland Flow

L = 100 ft, S = .04 ft/ft, n = .40, P(2yr/24hr) = 3.6 in
Travel Time = 15.3 minutes

Segment 2: Concentrated Flow

L = 1500 ft, S = .04 ft/ft, Unpaved surface
Travel Time = 7.7 minutes

Segment 3: Concentrated Flow

L = 1200 ft, S = .025 ft/ft, Unpaved surface
Travel Time = 7.8 minutes

Segment 4: Concentrated Flow

L = 3600 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 26.3 minutes

Segment 5: Concentrated Flow

L = 7000 ft, S = .015 ft/ft, Unpaved surface
Travel Time = 59 minutes

Total Travel Time = 116.27 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1512.670	79	0.178	1.18	116.270	120.000	0.000	0.000
Composite	1512.670	79		1.18				

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	12	27	49	136	297	504	556	465	232	97	57	11
Composite	12	27	49	136	297	504	556	465	232	97	57	11

The peak flow is 568.5 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1512.670	79	0.148	1.64	116.270	120.000	0.000	0.000
Composite	1512.670	79		1.64				

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	21	47	82	211	442	728	784	651	315	127	74	13
Composite	21	47	82	211	442	728	784	651	315	127	74	13

The peak flow is 820.4 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1512.670	79	0.100	3.40	116.270	120.000	0.000	0.000
Composite	1512.670	79		3.40				

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	56	129	217	515	1022	1617	1674	1376	636	241	137	24
Composite	56	129	217	515	1022	1617	1674	1376	636	241	137	24

The peak flow is 1818.4 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1512.670	79	0.100	4.12	116.270	120.000	0.000	0.000
Composite	1512.670	79		4.12				

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	68	156	263	623	1237	1957	2025	1665	769	292	166	29
Composite	68	156	263	623	1237	1957	2025	1665	769	292	166	29

The peak flow is 2200.6 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1512.670	79	0.100	4.67	116.270	120.000	0.000	0.000
Composite	1512.670	79		4.67				

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	77	176	298	706	1401	2217	2294	1886	871	331	187	33
Composite	77	176	298	706	1401	2217	2294	1886	871	331	187	33

The peak flow is 2492.4 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1512.670	79	0.100	5.50	116.270	120.000	0.000	0.000
Composite	1512.670	79		5.50				

SCS TR55 Tabular Method

Watershed Title: Pre-Development C

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	91	208	351	832	1650	2612	2703	2222	1026	390	221	39
Composite	91	208	351	832	1650	2612	2703	2222	1026	390	221	39

The peak flow is 2936.5 cfs at 13.4 hrs.

PRE DEVELOPMENT - D

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P.O.I-D

$$A = 64.12 \text{ ac.}$$

$$\begin{aligned} T_c &= 100' @ 6\% \\ &100' @ 10\% \\ &250' @ 20\% \\ &400' @ 1\% \end{aligned}$$

$$T_c = 19.37 \text{ min.}$$

$$CN = \frac{(77)(54.67) + (98)(9.45)}{64.12} = 80.09$$

$$Q_1 = 78.6 \text{ cfs}$$

$$Q_2 = 111.0 \text{ cfs}$$

$$Q_{10} = 235.6 \text{ cfs}$$

$$Q_{25} = 284.1 \text{ cfs}$$

$$Q_{50} = 321.6 \text{ cfs}$$

$$Q_{100} = 377.1 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Pre- POI - D

Segment 1: Overland Flow

L = 100 ft, S = .06 ft/ft, n = .40, P(2yr/24hr) = 3.6 in

Travel Time = 13 minutes

Segment 2: Concentrated Flow

L = 100 ft, S = .10 ft/ft, Unpaved surface

Travel Time = 0.3 minutes

Segment 3: Concentrated Flow

L = 250 ft, S = .20 ft/ft, Unpaved surface

Travel Time = 0.6 minutes

Segment 4: Concentrated Flow

L = 250 ft, S = .04 ft/ft, Unpaved surface

Travel Time = 1.3 minutes

Segment 5: Concentrated Flow

L = 400 ft, S = .01 ft/ft, Unpaved surface

Travel Time = 4.1 minutes

Total Travel Time = 19.37 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	64.120	80	0.166	1.26	19.370	18.000	0.000	1.380
Composite	64.120	80		1.26				

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	10	74	40	16	9	7	6	4	3	2	0
Composite	2	10	74	40	16	9	7	6	4	3	2	0

The peak flow is 78.6 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	64.120	80	0.138	1.72	19.370	18.000	0.000	1.380
Composite	64.120	80		1.72				

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	16	106	53	22	12	10	8	6	4	3	0
Composite	3	16	106	53	22	12	10	8	6	4	3	0

The peak flow is 111.0 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	64.120	80	0.100	3.52	19.370	18.000	0.000	1.380
Composite	64.120	80		3.52				

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	40	230	106	42	24	18	15	11	7	5	0
Composite	7	40	230	106	42	24	18	15	11	7	5	0

The peak flow is 235.6 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	64.120	80	0.100	4.24	19.370	18.000	0.000	1.380
Composite	64.120	80		4.24				

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	48	277	128	51	28	22	18	13	9	6	0
Composite	8	48	277	128	51	28	22	18	13	9	6	0

The peak flow is 284.1 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	64.120	80	0.100	4.80	19.370	18.000	0.000	1.380
Composite	64.120	80		4.80				

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	55	313	145	57	32	25	20	15	10	6	0
Composite	10	55	313	145	57	32	25	20	15	10	6	0

The peak flow is 321.0 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

100 Year Type II Storm: Precipitation = 8 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	64.120	80	0.100	5.64	19.370	18.000	0.000	1.380
Composite	64.120	80		5.64				

SCS TR55 Tabular Method

Watershed Title: Pre-Development D

100 Year Type II Storm: Precipitation = 8 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	11	64	368	170	67	38	29	24	18	11	7	0
Composite	11	64	368	170	67	38	29	24	18	11	7	0

The peak flow is 377.1 cfs at 12.3 hrs.

PRE DEVELOPMENT - E

$$A = 393.00 \text{ ac.}$$

$$T_c = 100' @ 1\% \quad n = 0.40, \quad P = 3.5''$$

1000' @ 1% UNPAVED

2700' @ 3% "

2700' @ 1% "

400' @ 3% "

2500' @ 5% "

$$T_c = 94.97 \text{ minutes}$$

$$CN = \frac{(77)(30.4) + (98)(82.6)}{393.00} = 81.41$$

$$Q_1 = 205.7 \text{ cfs}$$

$$Q_2 = 288.5 \text{ cfs}$$

$$Q_{10} = 598.2 \text{ cfs}$$

$$Q_{25} = 718.3 \text{ cfs}$$

$$Q_{50} = 809.7 \text{ cfs}$$

$$Q_{100} = 948.3 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Pre-Development POI-E

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .40, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 1000 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 10.3 minutes

Segment 3: Concentrated Flow

L = 2700 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 16.1 minutes

Segment 4: Concentrated Flow

L = 2700 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 27.9 minutes

Segment 5: Concentrated Flow

L = 400 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 2.4 minutes

Segment 6: Concentrated Flow

L = 2500 ft, S = .05 ft/ft, Unpaved surface
Travel Time = 11.5 minutes

Total Travel Time = 94.97 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	393.000	81	0.152	1.34	94.970	90.000	0.000	4.980
Composite	393.000	81		1.34				

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	11	19	54	129	206	178	121	54	24	15	0
Composite	5	11	19	54	129	206	178	121	54	24	15	0

The peak flow is 205.7 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	393.000	81	0.127	1.82	94.970	90.000	0.000	4.980
Composite	393.000	81		1.82				

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	18	30	81	185	289	244	165	71	31	19	0
Composite	8	18	30	81	185	289	244	165	71	31	19	0

The peak flow is 288.5 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	393.000	81	0.100	3.65	94.970	90.000	0.000	4.980
Composite	393.000	81		3.65				

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	18	42	68	177	391	598	496	330	139	58	36	0
Composite	18	42	68	177	391	598	496	330	139	58	36	0

The peak flow is 598.2 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	393.000	81	0.100	4.39	94.970	90.000	0.000	4.980
Composite	393.000	81		4.39				

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	22	50	81	212	470	718	596	397	167	70	43	0
Composite	22	50	81	212	470	718	596	397	167	70	43	0

The peak flow is 718.3 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	393.000	81	0.100	4.94	94.970	90.000	0.000	4.980
Composite	393.000	81		4.94				

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	25	56	92	239	530	810	672	447	188	78	49	1
Composite	25	56	92	239	530	810	672	447	188	78	49	1

The peak flow is 809.7 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	393.000	81	0.100	5.79	94.970	90.000	0.000	4.980
Composite	393.000	81		5.79				

SCS TR55 Tabular Method

Watershed Title: Pre-Development E

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	29	66	107	280	620	948	787	524	220	92	57	1
Composite	29	66	107	280	620	948	787	524	220	92	57	1

The peak flow is 948.3 cfs at 13.2 hrs.

PRE DEVELOPMENT - F

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P.O.I-F

$$A = 41.82$$

$$T_c \quad 100' @ 2\% \quad n = 0.24, P = 3.5''$$

$$210' @ 5\% \quad \text{UNPAVED}$$

$$1690' @ 8\% \quad ''$$

$$900' @ 5\% \quad ''$$

$$T_c = 24.75 \text{ minutes}$$

$$CN = \frac{(77)(41.79) + (98)(0.3)}{41.82} = 77.65$$

$$Q_1 = 38.5 \text{ cfs}$$

$$Q_2 = 55.2 \text{ cfs}$$

$$Q_{10} = 125.0 \text{ cfs}$$

$$Q_{25} = 152.1 \text{ cfs}$$

$$Q_{50} = 172.7 \text{ cfs}$$

$$Q_{100} = 204.1 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Pre-POI - F

Segment 1: Overland Flow

L = 100 ft, S = .02 ft/ft, n = .24, P(2yr/24hr) = 3.6 in
Travel Time = 13.5 minutes

Segment 2: Concentrated Flow

L = 210 ft, S = .05 ft/ft, Unpaved surface
Travel Time = 1 minutes

Segment 3: Concentrated Flow

L = 1690 ft, S = .08 ft/ft, Unpaved surface
Travel Time = 6.2 minutes

Segment 4: Concentrated Flow

L = 900 ft, S = .05 ft/ft, Unpaved surface
Travel Time = 4.2 minutes

Total Travel Time = 24.75 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	41.820	78	0.192	1.11	24.750	24.000	0.000	0.720
Composite	41.820	78		1.11				

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	27	31	13	6	5	4	3	2	1	0
Composite	1	3	27	31	13	6	5	4	3	2	1	0

The peak flow is 38.5 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	41.820	78	0.160	1.55	24.750	24.000	0.000	0.720
Composite	41.820	78		1.55				

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	5	41	44	18	9	6	5	4	2	2	0
Composite	1	5	41	44	18	9	6	5	4	2	2	0

The peak flow is 55.2 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	41.820	78	0.101	3.28	24.750	24.000	0.000	0.720
Composite	41.820	78		3.28				

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	16	98	93	36	17	12	10	7	5	3	0
Composite	4	16	98	93	36	17	12	10	7	5	3	0

The peak flow is 125.0 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	41.820	78	0.100	3.99	24.750	24.000	0.000	0.720
Composite	41.820	78		3.99				

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	20	119	114	43	20	14	12	8	5	4	0
Composite	5	20	119	114	43	20	14	12	8	5	4	0

The peak flow is 152.1 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	41.820	78	0.100	4.53	24.750	24.000	0.000	0.720
Composite	41.820	78		4.53				

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	22	135	129	49	23	16	13	9	6	4	0
Composite	5	22	135	129	49	23	16	13	9	6	4	0

The peak flow is 172.7 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IAP	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	41.820	78	0.100	5.35	24.750	24.000	0.000	0.720
Composite	41.820	78		5.35				

SCS TR55 Tabular Method

Watershed Title: Pre-Development F

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	26	160	152	58	27	19	15	11	7	5	0
Composite	6	26	160	152	58	27	19	15	11	7	5	0

The peak flow is 204.1 cfs at 12.3 hrs.

PRE DEVELOPMENT - G

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PRE-DEVELOPMENT
POINT OF INTEREST 'G'

AREA = 20.60 AC.

T_c : 100' @ 2% $n = 0.24$ $P = 3.5$ '
250' @ 8% UNPAVED
450' @ 12% "

$T_c = 15.71$ MINUTES

CN = 77

SCS Segmental Travel Time

Summary for Pre POI - G

Segment 1: Overland Flow

L = 100 ft, S = .02 ft/ft, n = 0.24, P(2yr/24hr) = 3.6 in

Travel Time = 13.5 minutes

Segment 2: Concentrated Flow

L = 250 ft, S = .08 ft/ft, Unpaved surface

Travel Time = 0.9 minutes

Segment 3: Concentrated Flow

L = 450 ft, S = .12 ft/ft, Unpaved surface

Travel Time = 1.3 minutes

Total Travel Time = 15.71 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre-G

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	20.600	77	0.199	1.07	15.710	18.000	0.000	0.000
Composite	20.600	77		1.07				

SCS TR55 Tabular Method

Watershed Title: Pre-G

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	2	21	10	4	3	2	2	1	1	1	0
Composite	0	2	21	10	4	3	2	2	1	1	1	0

The peak flow is 21.6 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-G

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.032	77	0.166	1.51	0.262	0.300	0.000	0.000
Composite	0.032	77		1.51				

SCS TR55 Tabular Method

Watershed Title: Pre-G

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	30	14	6	4	3	2	2	1	1	0
Composite	1	4	30	14	6	4	3	2	2	1	1	0

The peak flow is 31.1 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-G

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.032	77	0.105	3.22	0.262	0.300	0.000	0.000
Composite	0.032	77		3.22				

SCS TR55 Tabular Method

Watershed Title: Pre-G

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	12	70	29	12	7	5	4	3	2	1	0
Composite	2	12	70	29	12	7	5	4	3	2	1	0

The peak flow is 69.8 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-G

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.032	77	0.100	3.92	0.262	0.300	0.000	0.000
Composite	0.032	77		3.92				

SCS TR55 Tabular Method

Watershed Title: Pre-G

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	15	85	36	14	8	6	5	4	3	2	0
Composite	3	15	85	36	14	8	6	5	4	3	2	0

The peak flow is 85.3 cfs at 12.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-G

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.032	77	0.100	4.46	0.262	0.300	0.000	0.000
Composite	0.032	77		4.46				

SCS TR55 Tabular Method

Watershed Title: Pre-G

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	17	97	41	16	9	7	6	4	3	2	0
Composite	3	17	97	41	16	9	7	6	4	3	2	0

The peak flow is 97.0 cfs at 12.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-G

100 Year Type II Storm: Precipitation = 8 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	I/A/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.032	77	0.100	5.27	0.262	0.300	0.000	0.000
Composite	0.032	77		5.27				

SCS TR55 Tabular Method

Watershed Title: Pre-G

100 Year Type II Storm: Precipitation = 8 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	20	115	48	19	11	9	7	5	3	2	0
Composite	3	20	115	48	19	11	9	7	5	3	2	0

The peak flow is 114.8 cfs at 12.2 hrs.

PRE DEVELOPMENT - H

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PRE-DEVELOPMENT
P.O.I. H

$T_c = 5 \text{ MIN.}$

$CN = 77$

$AREA = 15.63 \text{ AC.}$

SCS TR55 Tabular Method

Watershed Title: Pre-H

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	15.630	77	0.199	1.07	5.000	6.000	0.000	0.000
Composite	15.630	77		1.07				

SCS TR55 Tabular Method

Watershed Title: Pre-H

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	6	15	4	2	2	1	1	1	1	0	0
Composite	0	6	15	4	2	2	1	1	1	1	0	0

The peak flow is 25.5 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-H

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	15.630	77	0.166	1.51	5.000	6.000	0.000	0.000
Composite	15.630	77		1.51				

SCS TR55 Tabular Method

Watershed Title: Pre-H

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	10	22	5	3	2	2	2	1	1	1	0
Composite	1	10	22	5	3	2	2	2	1	1	1	0

The peak flow is 36.2 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-H

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	I/A/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.024	77	0.105	3.22	0.083	0.100	0.000	0.000
Composite	0.024	77		3.22				

SCS TR55 Tabular Method

Watershed Title: Pre-H

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	26	49	10	6	5	4	3	2	2	1	0
Composite	2	26	49	10	6	5	4	3	2	2	1	0

The peak flow is 79.2 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-H

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.024	77	0.100	3.92	0.083	0.100	0.000	0.000
Composite	0.024	77		3.92				

SCS TR55 Tabular Method

Watershed Title: Pre-H

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	32	60	12	7	5	4	4	3	2	1	0
Composite	2	32	60	12	7	5	4	4	3	2	1	0

The peak flow is 96.7 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-H

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.024	77	0.100	4.46	0.083	0.100	0.000	0.000
Composite	0.024	77		4.46				

SCS TR55 Tabular Method

Watershed Title: Pre-H

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	36	68	13	8	6	5	4	3	2	1	0
Composite	3	36	68	13	8	6	5	4	3	2	1	0

The peak flow is 109.9 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-H

100 Year Type II Storm: Precipitation = 8 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.024	77	0.100	5.27	0.083	0.100	0.000	0.000
Composite	0.024	77		5.27				

SCS TR55 Tabular Method

Watershed Title: Pre-H

100 Year Type II Storm: Precipitation = 8 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	43	81	16	10	7	6	5	4	3	2	0
Composite	3	43	81	16	10	7	6	5	4	3	2	0

The peak flow is 130.1 cfs at 12.1 hrs.

PRE DEVELOPMENT - I

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PRE-DEVELOPMENT

P.O.I "I"

AREA = 71.20 AC.

$T_c = 100' @ 2\% \quad n = 0.24 \quad P = 3.5''$
1800' @ 3% UNPAVED
700' @ 7% UNPAVED
400' @ 2% UNPAVED

$T_c = 29.84$ MINUTES

$$CN = \frac{(3.4)(98) + (67.8)(77)}{71.20 \text{ AC.}} = 78.0$$

SCS Segmental Travel Time

Summary for Pre POI - I

Segment 1: Overland Flow

L = 100 ft, S = .02 ft/ft, n = .24, P(2yr/24hr) = 3.6 in
Travel Time = 13.5 minutes

Segment 2: Concentrated Flow

L = 1800 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 10.7 minutes

Segment 3: Concentrated Flow

L = 700 ft, S = .07 ft/ft, Unpaved surface
Travel Time = 2.7 minutes

Segment 4: Concentrated Flow

L = 400 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 2.9 minutes

Total Travel Time = 29.84 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre-I

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	71.200	78	0.188	1.13	29.840	30.000	0.000	0.000
Composite	71.200	78		1.13				

SCS TR55 Tabular Method

Watershed Title: Pre-I

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	30	60	29	13	9	7	5	3	2	0
Composite	1	4	30	60	29	13	9	7	5	3	2	0

The peak flow is 61.1 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-I

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	71.200	78	0.157	1.57	29.840	30.000	0.000	0.000
Composite	71.200	78		1.57				

SCS TR55 Tabular Method

Watershed Title: Pre-I

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	46	85	40	18	12	9	6	4	3	0
Composite	2	7	46	85	40	18	12	9	6	4	3	0

The peak flow is 87.9 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-I

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.111	78	0.100	3.32	0.497	0.500	0.000	0.000
Composite	0.111	78		3.32				

SCS TR55 Tabular Method

Watershed Title: Pre-I

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	21	114	187	83	35	22	17	12	8	5	0
Composite	6	21	114	187	83	35	22	17	12	8	5	0

The peak flow is 195.1 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-I

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	I/A/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.111	78	0.100	4.02	0.497	0.500	0.000	0.000
Composite	0.111	78		4.02				

SCS TR55 Tabular Method

Watershed Title: Pre-I

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	26	138	227	101	43	27	21	14	9	6	0
Composite	8	26	138	227	101	43	27	21	14	9	6	0

The peak flow is 236.8 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-I

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.111	78	0.100	4.57	0.497	0.500	0.000	0.000
Composite	0.111	78		4.57				

SCS TR55 Tabular Method

Watershed Title: Pre-I

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	29	156	258	115	49	31	24	16	11	7	0
Composite	9	29	156	258	115	49	31	24	16	11	7	0

The peak flow is 268.7 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre-I

100 Year Type II Storm: Precipitation = 8 inches

Summary of Input Parameters

Subarea	Area (sq. mi.)	Curve Number	IA/P	Runoff (in)	Tc (hours)	Adj. Tc (hours)	Tt (hours)	Adj. Tt (hours)
1	0.111	78	0.100	5.39	0.497	0.500	0.000	0.000
Composite	0.111	78		5.39				

SCS TR55 Tabular Method

Watershed Title: Pre-I

100 Year Type II Storm: Precipitation = 8 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	34	185	304	136	58	37	28	19	13	8	0
Composite	10	34	185	304	136	58	37	28	19	13	8	0

The peak flow is 317.3 cfs at 12.4 hrs.

PRE DEVELOPMENT - J

$$A = 119.66 \text{ ac.}$$

$$T_c: 100' @ 1\%$$

$$1100' @ 9\%$$

$$182' @ 1\%$$

$$700' @ 10\%$$

$$T_c = 34.67 \text{ minutes}$$

$$CN = \frac{(77)(116.127) + (98)(3.32)}{119.66} = 77.59$$

$$Q_1 = 92.5 \text{ cfs}$$

$$Q_2 = 134.7 \text{ cfs}$$

$$Q_{10} = 306.2 \text{ cfs}$$

$$Q_{25} = 372.7 \text{ cfs}$$

$$Q_{50} = 423.2 \text{ cfs}$$

$$Q_{100} = 500.3 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Pre-Development POI J

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 1100 ft, S = .09 ft/ft, Unpaved surface
Travel Time = 3.8 minutes

Segment 3: Concentrated Flow

L = 182 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 1.9 minutes

Segment 4: Concentrated Flow

L = 700 ft, S = .10 ft/ft, Unpaved surface
Travel Time = 2.3 minutes

Total Travel Time = 34.67 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	119.660	78	0.193	1.10	34.670	30.000	0.000	4.680
Composite	119.660	78		1.10				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	35	93	58	25	16	12	8	5	4	0
Composite	2	6	35	93	58	25	16	12	8	5	4	0

The peak flow is 92.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	119.660	78	0.160	1.55	34.670	30.000	0.000	4.680
Composite	119.660	78		1.55				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	11	59	135	79	34	21	16	11	7	5	0
Composite	3	11	59	135	79	34	21	16	11	7	5	0

The peak flow is 134.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	119.660	78	0.101	3.28	34.670	30.000	0.000	4.680
Composite	119.660	78		3.28				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	32	161	306	157	65	39	30	20	13	9	0
Composite	10	32	161	306	157	65	39	30	20	13	9	0

The peak flow is 306.2 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	119.660	78	0.100	3.98	34.670	30.000	0.000	4.680
Composite	119.660	78		3.98				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	12	39	197	373	191	78	48	36	24	16	10	0
Composite	12	39	197	373	191	78	48	36	24	16	10	0

The peak flow is 372.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	119.660	78	0.100	4.52	34.670	30.000	0.000	4.680
Composite	119.660	78		4.52				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	14	44	223	423	217	89	54	41	28	18	12	0
Composite	14	44	223	423	217	89	54	41	28	18	12	0

The peak flow is 423.2 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	119.660	78	0.100	5.34	34.670	30.000	0.000	4.680
Composite	119.660	78		5.34				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI J

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	16	52	264	500	256	105	64	49	33	21	14	0
Composite	16	52	264	500	256	105	64	49	33	21	14	0

The peak flow is 500.3 cfs at 12.5 hrs.

PRE DEVELOPMENT - K

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PRE
P.O.I.'K

$$A = 42.42 \text{ AC.}$$

$$T_c: \begin{array}{l} 100' @ 1\% \\ 769' @ 3\% \\ 364' @ 1\% \\ 904' @ 2.7\% \end{array}$$

$$T_c = 40.74 \text{ MINUTES}$$

$$CN = \frac{(98) \cdot 92 + (77) \cdot 41.5}{42.42} = 77.46$$

$$Q_1 = 27.7 \text{ cfs} \quad 27.7 \text{ cfs}$$

$$Q_2 = 38.7 \text{ cfs} \quad 40.1 \text{ cfs}$$

$$Q_{10} = 74.6 \text{ cfs} \quad 91.5 \text{ cfs}$$

$$Q_{25} = 90.9 \text{ cfs} \quad 111.5 \text{ cfs}$$

$$Q_{50} = 103.2 \text{ cfs} \quad 126.6 \text{ cfs}$$

$$Q_{100} = 122.0 \text{ cfs} \quad 149.7 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Pre Development K

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in

Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 769 ft, S = .03 ft/ft, Unpaved surface

Travel Time = 4.6 minutes

Segment 3: Concentrated Flow

L = 364 ft, S = .01 ft/ft, Unpaved surface

Travel Time = 3.8 minutes

Segment 4: Concentrated Flow

L = 904 ft, S = .027 ft/ft, Unpaved surface

Travel Time = 5.7 minutes

Total Travel Time = 40.74 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	42.420	77	0.194	1.10	40.740	45.000	0.000	0.000
Composite	42.420	77		1.10				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	1	5	24	25	13	7	5	3	2	1	0
Composite	1	1	5	24	25	13	7	5	3	2	1	0

The peak flow is 27.7 cfs at 12.7 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	42.420	77	0.162	1.54	40.740	45.000	0.000	0.000
Composite	42.420	77		1.54				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	9	35	36	18	10	7	4	3	2	0
Composite	1	3	9	35	36	18	10	7	4	3	2	0

The peak flow is 40.1 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	42.420	77	0.102	3.26	40.740	45.000	0.000	0.000
Composite	42.420	77		3.26				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	8	25	82	80	37	20	13	8	5	3	0
Composite	3	8	25	82	80	37	20	13	8	5	3	0

The peak flow is 91.5 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	42.420	77	0.100	3.97	40.740	45.000	0.000	0.000
Composite	42.420	77		3.97				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	9	30	100	97	45	24	16	9	6	4	0
Composite	3	9	30	100	97	45	24	16	9	6	4	0

The peak flow is 111.5 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	42.420	77	0.100	4.51	40.740	45.000	0.000	0.000
Composite	42.420	77		4.51				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	11	34	113	110	51	28	18	10	7	4	0
Composite	4	11	34	113	110	51	28	18	10	7	4	0

The peak flow is 126.6 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	42.420	77	0.100	5.33	40.740	45.000	0.000	0.000
Composite	42.420	77		5.33				

SCS TR55 Tabular Method

Watershed Title: Pre Development POI K

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	13	41	134	130	61	33	22	12	8	5	0
Composite	5	13	41	134	130	61	33	22	12	8	5	0

The peak flow is 149.7 cfs at 12.6 hrs.

PRE DEVELOPMENT - L

BRINKASH



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P.O. I-2

$$A = 49.89 \text{ ac.}$$

$$T_c = 100' @ 1\%$$

$$955' @ 1\%$$

$$484' @ 3\%$$

$$T_c = 39.47$$

$$CN = \frac{(77)(44.1) + (98)(5.79)}{49.89} = 77.47$$

$$Q_1 = 32.6 \text{ cfs}$$

$$Q_2 = 47.2 \text{ cfs}$$

$$Q_{10} = 125.3 \text{ cfs}$$

$$Q_{25} = 131.2 \text{ cfs}$$

$$Q_{50} = 149.0 \text{ cfs}$$

$$Q_{100} = 176.1 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Pre Development L

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 955 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 9.9 minutes

Segment 3: Concentrated Flow

L = 484 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 2.9 minutes

Total Travel Time = 39.47 Minutes

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.890	77	0.194	1.10	39.470	45.000	0.000	0.000
Composite	49.890	77		1.10				

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	6	28	30	15	9	6	4	2	2	0
Composite	1	2	6	28	30	15	9	6	4	2	2	0

The peak flow is 32.6 cfs at 12.7 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.890	77	0.162	1.54	39.470	45.000	0.000	0.000
Composite	49.890	77		1.54				

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	11	41	43	21	12	8	5	3	2	0
Composite	1	3	11	41	43	21	12	8	5	3	2	0

The peak flow is 47.2 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.890	77	0.102	3.26	36.470	30.000	0.000	6.480
Composite	49.890	77		3.26				

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	13	61	125	70	28	17	13	8	5	4	0
Composite	4	13	61	125	70	28	17	13	8	5	4	0

The peak flow is 125.3 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.890	77	0.100	3.97	39.470	45.000	0.000	0.000
Composite	49.890	77		3.97				

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	11	36	118	114	53	29	19	11	7	5	0
Composite	4	11	36	118	114	53	29	19	11	7	5	0

The peak flow is 131.2 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.890	77	0.100	4.51	39.470	45.000	0.000	0.000
Composite	49.890	77		4.51				

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)												
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0	
1	5	13	40	134	130	60	33	21	12	8	5	0	
Composite	5	13	40	134	130	60	33	21	12	8	5	0	

The peak flow is 149.0 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.890	77	0.100	5.33	39.470	45.000	0.000	0.000
Composite	49.890	77		5.33				

SCS TR55 Tabular Method

Watershed Title: Pre- Development - L

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	15	48	158	153	71	39	25	15	9	6	0
Composite	5	15	48	158	153	71	39	25	15	9	6	0

The peak flow is 176.1 cfs at 12.6 hrs.

Section 8.2
Post Development – Infrastructure Only

**POST DEVELOPMENT – A
INFRASTRUCTURE ONLY
0 % HOME BUILDOUT**

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P.O.I A

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ASSUMES NO HOUSES BUILT, ONLY ROADS BUILT

$$A = 20.32 \text{ AC.}$$

$$T_C = \text{SAME AS POST W/ DRYWELLS } 33.61 \text{ minutes}$$

CN =

1960' ROADS
 RD IMPERV. = 0.90 AC. (98)
 RD R/W = 1.35 AC. (92)
 WETLANDS = 0.74 AC. (98)
 WOODS = 17.33 AC. (77)

$$CN = \frac{98(0.90 \text{ AC.}) + 92(1.35 \text{ AC.}) + 98(0.74 \text{ AC.}) + 77(17.33 \text{ AC.})}{20.32 \text{ AC.}}$$

$$CN = 79.69$$

$$Q_1 = 18.2 \text{ cfs}$$

$$Q_2 = 25.8 \text{ cfs}$$

$$Q_{10} = 55.5 \text{ cfs}$$

$$Q_{25} = 67.0 \text{ cfs}$$

$$Q_{50} = 75.8 \text{ cfs}$$

$$Q_{100} = 89.1 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	20.320	80	0.170	1.23	33.610	30.000	0.000	3.600
Composite	20.320	80		1.23				

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	8	18	10	4	3	2	1	1	1	0
Composite	0	1	8	18	10	4	3	2	1	1	1	0

The peak flow is 18.2 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	20.320	80	0.142	1.69	33.610	30.000	0.000	3.600
Composite	20.320	80		1.69				

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	13	26	14	6	4	3	2	1	1	0
Composite	1	2	13	26	14	6	4	3	2	1	1	0

The peak flow is 25.8 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	20.320	80	0.100	3.48	33.610	30.000	0.000	3.600
Composite	20.320	80		3.48				

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	30	56	28	11	7	5	4	2	2	0
Composite	2	6	30	56	28	11	7	5	4	2	2	0

The peak flow is 55.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	20.320	80	0.100	4.20	33.610	30.000	0.000	3.600
Composite	20.320	80		4.20				

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	37	67	33	14	8	6	4	3	2	0
Composite	2	7	37	67	33	14	8	6	4	3	2	0

The peak flow is 67.0 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	20.320	80	0.100	4.75	33.610	30.000	0.000	3.600
Composite	20.320	80		4.75				

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	8	41	76	38	16	10	7	5	3	2	0
Composite	2	8	41	76	38	16	10	7	5	3	2	0

The peak flow is 75.8 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	20.320	80	0.100	5.59	33.610	30.000	0.000	3.600
Composite	20.320	80		5.59				

SCS TR55 Tabular Method

Watershed Title: Post POI A with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	9	49	89	44	18	11	9	6	4	2	0
Composite	3	9	49	89	44	18	11	9	6	4	2	0

The peak flow is 89.1 cfs at 12.5 hrs.

**POST DEVELOPMENT – B
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P.O. I B

ASSUMES NO HOUSES BUILT; ONLY ROADS BUILT

$$A = 115.33 \text{ AC.}$$

$$T_C = \text{SAME AS POST W/ DRYWELLS } 37.76 \text{ minutes}$$

$$CN = 8475' \text{ OF ROAD}$$

$$\text{ROAD IMPERVIONS} = 3.89 \text{ AC. } (92)$$

$$\text{ROAD R/W} = 5.84 \text{ AC. } (92)$$

$$\text{WETLANDS} = 3.92 \text{ AC. } (92)$$

$$\text{WOODS} = 101.68 \text{ AC. } (77)$$

$$CN = \frac{98(3.89) + 5.84(92) + 3.92(92) + 101.68(77)}{115.33 \text{ AC.}}$$

$$CN = 79.18$$

$$Q_1 = 83.7 \text{ cfs}$$

$$Q_2 = 119.9 \text{ cfs}$$

$$Q_{10} = 262.1 \text{ cfs}$$

$$Q_{25} = 317.0 \text{ cfs}$$

$$Q_{50} = 358.8 \text{ cfs}$$

$$Q_{100} = 422.4 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	115.330	79	0.175	1.20	37.760	45.000	0.000	0.000
Composite	115.330	79		1.20				

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	18	73	76	38	21	15	9	6	4	0
Composite	2	5	18	73	76	38	21	15	9	6	4	0

The peak flow is 83.7 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	115.330	79	0.146	1.66	37.760	45.000	0.000	0.000
Composite	115.330	79		1.66				

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	8	28	106	107	52	29	19	11	7	5	0
Composite	3	8	28	106	107	52	29	19	11	7	5	0

The peak flow is 119.9 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	115.330	79	0.100	3.43	37.760	45.000	0.000	0.000
Composite	115.330	79		3.43				

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	22	71	235	228	106	57	38	22	14	9	0
Composite	8	22	71	235	228	106	57	38	22	14	9	0

The peak flow is 262.1 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	115.330	79	0.100	4.15	37.760	45.000	0.000	0.000
Composite	115.330	79		4.15				

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	27	86	284	276	129	70	46	26	16	11	0
Composite	10	27	86	284	276	129	70	46	26	16	11	0

The peak flow is 317.0 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	115.330	79	0.100	4.70	37.760	45.000	0.000	0.000
Composite	115.330	79		4.70				

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	11	30	97	322	312	146	79	52	30	19	13	0
Composite	11	30	97	322	312	146	79	52	30	19	13	0

The peak flow is 358.8 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	115.330	79	0.100	5.53	37.760	45.000	0.000	0.000
Composite	115.330	79		5.53				

SCS TR55 Tabular Method

Watershed Title: Post POI B with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	13	36	115	379	368	171	93	61	35	22	15	0
Composite	13	36	115	379	368	171	93	61	35	22	15	0

The peak flow is 422.4 cfs at 12.6 hrs.

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P.O.I.C

ASSUMES NO HOUSES BUILT AND ONLY ROADS BUILT

$$A = 1532.23$$

$$T_c = \text{SAME AS PRE } 116.27 \text{ minutes}$$

CN =	84475' ROADS
	ROAD IMPERV. = 38.79 AC. (98)
	WETLANDS = 127.13 AC. (98)
	ROAD R/W = 58.18 AC. (92)
	GOLF COURSE = 145.42 AC. (74)
	MEADOW = 200.00 AC. (71)
	WOODS = 962.71 (77)

$$CN_w = \frac{38.79(98) + 127.13(98) + 58.18(92) + 145.42(74) + 200(71) + 962.71(77)}{1532.23}$$

$$CN_w = 78.78$$

$$Q_1 = 570.9 \text{ cfs}$$

$$Q_2 = 825.0 \text{ cfs}$$

$$Q_{10} = 1835.0 \text{ cfs}$$

$$Q_{25} = 2221.6 \text{ cfs}$$

$$Q_{50} = 2516.9 \text{ cfs}$$

$$Q_{100} = 2966.2 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1532.230	79	0.180	1.18	116.270	120.000	0.000	0.000
Composite	1532.230	79		1.18				

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	12	27	49	136	298	506	559	468	233	98	58	11
Composite	12	27	49	136	298	506	559	468	233	98	58	11

The peak flow is 570.9 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1532.230	79	0.150	1.63	116.270	120.000	0.000	0.000
Composite	1532.230	79		1.63				

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	21	47	82	212	444	732	789	655	318	129	75	14
Composite	21	47	82	212	444	732	789	655	318	129	75	14

The peak flow is 825.0 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1532.230	79	0.100	3.39	116.270	120.000	0.000	0.000
Composite	1532.230	79		3.39				

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	57	130	219	520	1031	1632	1689	1388	641	244	138	24
Composite	57	130	219	520	1031	1632	1689	1388	641	244	138	24

The peak flow is 1835.0 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1532.230	79	0.100	4.11	116.270	120.000	0.000	0.000
Composite	1532.230	79		4.11				

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	69	157	265	629	1248	1976	2045	1681	777	295	167	29
Composite	69	157	265	629	1248	1976	2045	1681	777	295	167	29

The peak flow is 2221.6 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1532.230	79	0.100	4.65	116.270	120.000	0.000	0.000
Composite	1532.230	79		4.65				

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	78	178	301	713	1414	2238	2316	1904	880	334	189	33
Composite	78	178	301	713	1414	2238	2316	1904	880	334	189	33

The peak flow is 2516.9 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

100 Year Type II Storm: Precipitation = 8 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1532.230	79	0.100	5.48	116.270	120.000	0.000	0.000
Composite	1532.230	79		5.48				

SCS TR55 Tabular Method

Watershed Title: Post POI C with out drywells

100 Year Type II Storm: Precipitation = 8 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	92	210	354	840	1667	2638	2730	2244	1037	394	223	39
Composite	92	210	354	840	1667	2638	2730	2244	1037	394	223	39

The peak flow is 2966.2 cfs at 13.4 hrs.

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POI: D

ASSUMES NO HOUSES BUILT ONLY ROADS BUILT

$$A = 56.66 \text{ AC.}$$

$$T_c = 19.47 \text{ MINUTES (SAME AS POST W/ DRYWELLS)}$$

$$CN = \begin{matrix} 9.45 \text{ AC. WETLANDS (90)} \\ 47.21 \text{ AC. WOODS (77)} \end{matrix}$$

$$CN_w = \frac{9.45 \text{ AC.} (90) + 47.21 \text{ AC.} (77)}{56.66 \text{ AC.}} = 80.50$$

$$Q_1 = 71.1 \text{ cfs}$$

$$Q_2 = 100.0 \text{ cfs}$$

$$Q_{10} = 210.5 \text{ cfs}$$

$$Q_{25} = 253.5 \text{ cfs}$$

$$Q_{50} = 286.2 \text{ cfs}$$

$$Q_{100} = 335.9 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	56.660	81	0.161	1.28	19.470	18.000	0.000	1.440
Composite	56.660	81		1.28				

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	9	67	36	15	8	7	5	4	3	2	0
Composite	2	9	67	36	15	8	7	5	4	3	2	0

The peak flow is 71.1 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	56.660	81	0.135	1.75	19.470	18.000	0.000	1.440
Composite	56.660	81		1.75				

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	15	95	48	19	11	9	7	5	3	2	0
Composite	3	15	95	48	19	11	9	7	5	3	2	0

The peak flow is 100.0 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	56.660	81	0.100	3.56	19.470	18.000	0.000	1.440
Composite	56.660	81		3.56				

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	36	205	95	38	21	16	13	10	6	4	0
Composite	6	36	205	95	38	21	16	13	10	6	4	0

The peak flow is 210.5 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	56.660	81	0.100	4.29	19.470	18.000	0.000	1.440
Composite	56.660	81		4.29				

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	43	247	115	45	25	20	16	12	8	5	0
Composite	8	43	247	115	45	25	20	16	12	8	5	0

The peak flow is 253.5 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	56.660	81	0.100	4.84	19.470	18.000	0.000	1.440
Composite	56.660	81		4.84				

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	49	279	129	51	29	22	18	13	9	6	0
Composite	8	49	279	129	51	29	22	18	13	9	6	0

The peak flow is 286.2 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	56.660	81	0.100	5.68	19.470	18.000	0.000	1.440
Composite	56.660	81		5.68				

SCS TR55 Tabular Method

Watershed Title: Post POI D with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	57	327	152	60	34	26	21	16	10	7	0
Composite	10	57	327	152	60	34	26	21	16	10	7	0

The peak flow is 335.9 cfs at 12.3 hrs.

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ASSUMES NO HOUSES BUILT ONLY ROADS

$$A = 369.39 \text{ AC.}$$

$$T_c = 79.16 \text{ min. SAME AS POST W/ DRYWELLS}$$

$$C_N = \begin{array}{l} 19167 \text{ PROPOSED RD, 2776 COUNTY RD} \\ \text{MISC. IMPERV. (COTTAGES, HOTEL, MISC. BLDG, PARKING, ECT.)} \\ 9.23 \text{ AC. (98)} \\ \text{ROAD IMPERV.} = 8.8 + 1.91 = 10.71 \text{ AC (98)} \\ \text{GOLF COURSE} = 63.51 \text{ AC. (74)} \\ \text{WETLAND/LAKE} = 82.6 \text{ AC. (98)} \\ \text{ROAD R/W} = 13.20 \text{ AC. (92)} \\ \text{WOODS} = 190.14 \text{ AC. (77)} \end{array}$$

$$C_{N_N} = \frac{98(9.23) + 98(10.71) + 74(63.51) + 98(82.6) + 92(13.20) + 77(190.14)}{369.39 \text{ AC.}}$$

$$C_{N_N} = 82.85'$$

$$Q_1 = 220.1 \text{ cfs}$$

$$Q_2 = 302.4 \text{ cfs}$$

$$Q_{10} = 602.9 \text{ cfs}$$

$$Q_{25} = 720.8 \text{ cfs}$$

$$Q_{50} = 810.3 \text{ cfs}$$

$$Q_{100} = 945.9 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.390	83	0.138	1.44	79.160	90.000	0.000	0.000
Composite	369.390	83		1.44				

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	14	28	84	168	220	162	108	49	23	15	1
Composite	6	14	28	84	168	220	162	108	49	23	15	1

The peak flow is 220.1 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.390	83	0.115	1.93	79.160	90.000	0.000	0.000
Composite	369.390	83		1.93				

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	22	43	120	235	302	220	144	65	29	19	1
Composite	9	22	43	120	235	302	220	144	65	29	19	1

The peak flow is 302.4 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.390	83	0.100	3.80	79.160	90.000	0.000	0.000
Composite	369.390	83		3.80				

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.390	83	0.100	4.54	79.160	90.000	0.000	0.000
Composite	369.390	83		4.54				

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	24	55	107	294	566	721	519	338	149	66	42	3
Composite	24	55	107	294	566	721	519	338	149	66	42	3

The peak flow is 720.8 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.390	83	0.100	5.11	79.160	90.000	0.000	0.000
Composite	369.390	83		5.11				

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	27	62	121	330	636	810	583	380	168	74	47	3
Composite	27	62	121	330	636	810	583	380	168	74	47	3

The peak flow is 810.3 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.390	83	0.100	5.96	79.160	90.000	0.000	0.000
Composite	369.390	83		5.96				

SCS TR55 Tabular Method

Watershed Title: Post POI E with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	31	72	141	385	743	946	681	444	196	86	55	3
Composite	31	72	141	385	743	946	681	444	196	86	55	3

The peak flow is 945.9 cfs at 13.2 hrs.

**POST DEVELOPMENT – F
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0 % HOME BUILDOUT**

W/ OUT DRYWELLS

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7-0-1 F

ASSUMES NO HOUSES BUILT, ONLY ROADS BUILT

$$A = 49.14 \text{ AC.}$$

$$T_c = 33.80 \text{ MINUTES}$$

$$CN = 4210' \text{ OF ROADS}$$

- 98 ROAD IMPERV. 1.93 AC.
- 92 ROAD R/W 2.90 AC.
- 98 WETLANDS 0.30 AC.
- 77 WOODS 44.01 AC.

$$CN_w = \frac{98(1.93) + 92(2.90) + 98(0.30) + 77(44.01)}{49.14 \text{ AC.}}$$

$$CN_w = 78.84$$

$$Q_1 = 41.7$$

$$Q_2 = 59.7$$

$$Q_{10} = 130.9$$

$$Q_{25} = 158.5$$

$$Q_{50} = 179.5$$

$$Q_{100} = 211.6$$

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.179	1.18	33.800	30.000	0.000	3.780
Composite	49.140	79		1.18				

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	18	42	24	11	7	5	3	2	2	0
Composite	1	3	18	42	24	11	7	5	3	2	2	0

The peak flow is 41.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.149	1.63	33.800	30.000	0.000	3.780
Composite	49.140	79		1.63				

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	28	60	33	14	9	7	5	3	2	0
Composite	2	5	28	60	33	14	9	7	5	3	2	0

The peak flow is 59.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	3.40	33.800	30.000	0.000	3.780
Composite	49.140	79		3.40				

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	14	71	131	65	27	17	13	9	5	4	0
Composite	4	14	71	131	65	27	17	13	9	5	4	0

The peak flow is 130.9 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	4.11	33.800	30.000	0.000	3.780
Composite	49.140	79		4.11				

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	17	86	158	79	33	20	15	10	7	4	0
Composite	5	17	86	158	79	33	20	15	10	7	4	0

The peak flow is 158.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	4.66	33.800	30.000	0.000	3.780
Composite	49.140	79		4.66				

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	19	98	180	90	37	23	17	12	8	5	0
Composite	6	19	98	180	90	37	23	17	12	8	5	0

The peak flow is 179.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	5.49	33.800	30.000	0.000	3.780
Composite	49.140	79		5.49				

SCS TR55 Tabular Method

Watershed Title: Post POI F with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	22	115	212	106	44	27	20	14	9	6	0
Composite	7	22	115	212	106	44	27	20	14	9	6	0

The peak flow is 211.6 cfs at 12.5 hrs.

**POST DEVELOPMENT – G
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ASSUMES NO HOUSES BUILT, ONLY ROADS BUILT

$$A = 14.70 \text{ ac.}$$

$$T_c = 27.83 \text{ min. (SAME AS PRE W/ DRYWELLS)}$$

$$CN = 77$$

$$Q_1 = 11.8 \text{ cfs}$$

$$Q_2 = 17.2 \text{ cfs}$$

$$Q_{10} = 38.9 \text{ cfs}$$

$$Q_{25} = 47.6 \text{ cfs}$$

$$Q_{50} = 54.1 \text{ cfs}$$

$$Q_{100} = 64.1 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.700	77	0.199	1.07	27.830	30.000	0.000	0.000
Composite	14.700	77		1.07				

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	6	12	6	3	2	1	1	1	0	0
Composite	0	1	6	12	6	3	2	1	1	1	0	0

The peak flow is 11.8 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.700	77	0.166	1.51	27.830	30.000	0.000	0.000
Composite	14.700	77		1.51				

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	9	17	8	4	2	2	1	1	1	0
Composite	0	1	9	17	8	4	2	2	1	1	1	0

The peak flow is 17.2 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.700	77	0.105	3.22	27.830	30.000	0.000	0.000
Composite	14.700	77		3.22				

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	23	37	17	7	5	4	2	2	1	0
Composite	1	4	23	37	17	7	5	4	2	2	1	0

The peak flow is 38.9 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.700	77	0.100	3.92	27.830	30.000	0.000	0.000
Composite	14.700	77		3.92				

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	28	46	20	9	5	4	3	2	1	0
Composite	2	5	28	46	20	9	5	4	3	2	1	0

The peak flow is 47.6 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.700	77	0.100	4.46	27.830	30.000	0.000	0.000
Composite	14.700	77		4.46				

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	32	52	23	10	6	5	3	2	1	0
Composite	2	6	32	52	23	10	6	5	3	2	1	0

The peak flow is 54.1 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.700	77	0.100	5.27	27.830	30.000	0.000	0.000
Composite	14.700	77		5.27				

SCS TR55 Tabular Method

Watershed Title: Post POI G with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	37	61	27	12	7	6	4	3	2	0
Composite	2	7	37	61	27	12	7	6	4	3	2	0

The peak flow is 64.1 cfs at 12.4 hrs.

**POST DEVELOPMENT – H
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0 % HOME BUILDOUT**

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P.O.I.H.

ASSUMES NO HOUSES BUILT, ONLY ROADS BUILT

$$A = 7.52 \text{ AC}$$

$$T_c = 21.01 \text{ minutes (SAME AS POST W/ DRYWELLS)}$$

$$CN = 77$$

$$Q_1 = 6.8 \text{ cfs}$$

$$Q_2 = 9.8 \text{ cfs}$$

$$Q_{10} = 22.3 \text{ cfs}$$

$$Q_{25} = 27.3 \text{ cfs}$$

$$Q_{50} = 31.0 \text{ cfs}$$

$$Q_{100} = 36.7 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.520	77	0.199	1.07	21.010	24.000	0.000	0.000
Composite	7.520	77		1.07				

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	5	5	2	1	1	1	0	0	0	0
Composite	0	1	5	5	2	1	1	1	0	0	0	0

The peak flow is 6.8 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.520	77	0.166	1.51	21.010	24.000	0.000	0.000
Composite	7.520	77		1.51				

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	7	8	3	1	1	1	1	0	0	0
Composite	0	1	7	8	3	1	1	1	1	0	0	0

The peak flow is 9.8 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.520	77	0.105	3.22	21.010	24.000	0.000	0.000
Composite	7.520	77		3.22				

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	18	16	6	3	2	2	1	1	1	0
Composite	1	3	18	16	6	3	2	2	1	1	1	0

The peak flow is 22.3 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.520	77	0.100	3.92	21.010	24.000	0.000	0.000
Composite	7.520	77		3.92				

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	22	20	8	4	3	2	1	1	1	0
Composite	1	4	22	20	8	4	3	2	1	1	1	0

The peak flow is 27.3 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.520	77	0.100	4.46	21.010	24.000	0.000	0.000
Composite	7.520	77		4.46				

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	25	23	9	4	3	2	2	1	1	0
Composite	1	4	25	23	9	4	3	2	2	1	1	0

The peak flow is 31.0 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells
100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.520	77	0.100	5.27	21.010	24.000	0.000	0.000
Composite	7.520	77		5.27				

SCS TR55 Tabular Method

Watershed Title: Post POI H with out drywells
100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	5	29	27	10	5	3	3	2	1	1	0
Composite	1	5	29	27	10	5	3	3	2	1	1	0

The peak flow is 36.7 cfs at 12.3 hrs.

**POST DEVELOPMENT – I
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ASSUME NO HOUSES ONLY ROADS CONSTRUCTED

$$A = 112.88 \text{ ac.}$$

$$T_c = 54.07 \text{ minutes (SAME AS POST W/ DRYWELLS)}$$

$$\begin{aligned} CN = & \quad 2509' \text{ Rd} \\ & \text{Road Imperv.} = 1.15 \text{ ac (98)} \\ & \text{Road R/W} = 1.72 \text{ ac (92)} \\ & \text{MISC. IMPERV.} = 2.5 \text{ ac (98)} \\ & \text{(ADMIN. BLDG, PARKING, ETC)} \\ & \text{WETLANDS} = 3.47 \text{ ac (98)} \\ & \text{WOODS} = 104.04 \text{ ac (77)} \end{aligned}$$

$$CN_w = \frac{1.15(98) + 1.72(92) + 2.5(98) + 3.47(98) + 104.04(77)}{112.88 \text{ ac.}}$$

$$CN_w = 78.55$$

$$Q_1 = 65.9 \text{ cfs}$$

$$Q_2 = 95.2 \text{ cfs}$$

$$Q_{10} = 212.1 \text{ cfs}$$

$$Q_{25} = 257.0 \text{ cfs}$$

$$Q_{50} = 291.3 \text{ cfs}$$

$$Q_{100} = 343.5 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.880	79	0.182	1.16	54.010	60.000	0.000	0.000
Composite	112.880	79		1.16				

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	10	39	66	48	28	18	9	6	4	0
Composite	1	4	10	39	66	48	28	18	9	6	4	0

The peak flow is 65.9 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.880	79	0.152	1.61	54.010	60.000	0.000	0.000
Composite	112.880	79		1.61				

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	16	59	95	67	39	25	12	7	5	0
Composite	2	6	16	59	95	67	39	25	12	7	5	0

The peak flow is 95.2 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.880	79	0.100	3.37	54.010	60.000	0.000	0.000
Composite	112.880	79		3.37				

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	17	43	137	212	142	79	49	24	14	9	0
Composite	7	17	43	137	212	142	79	49	24	14	9	0

The peak flow is 212.1 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.880	79	0.100	4.08	54.010	60.000	0.000	0.000
Composite	112.880	79		4.08				

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	21	52	166	257	172	96	60	29	17	11	0
Composite	8	21	52	166	257	172	96	60	29	17	11	0

The peak flow is 257.0 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.880	79	0.100	4.63	54.010	60.000	0.000	0.000
Composite	112.880	79		4.63				

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	24	59	188	291	195	109	68	33	19	12	0
Composite	9	24	59	188	291	195	109	68	33	19	12	0

The peak flow is 291.3 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.880	79	0.100	5.46	54.010	60.000	0.000	0.000
Composite	112.880	79		5.46				

SCS TR55 Tabular Method

Watershed Title: Post POI I with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	11	28	69	222	343	230	128	80	38	22	14	0
Composite	11	28	69	222	343	230	128	80	38	22	14	0

The peak flow is 343.5 cfs at 12.8 hrs.

**POST DEVELOPMENT – J
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P.I. J

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ASSUMES NO HOUSES BUILT ONLY ROADS CONSTRUCTED

$A = 112.33 \text{ AC}$

$T_c = 44.39 \text{ MINUTES (SAME AS POST W/ DRYWELLS)}$

$CN =$
 6677' ROADS
 5271' ROADS
 MISC. IMPERV. (PARKING, TREATMENT PLANT) (98) 0.15 AC
 ROAD IMPERVIONS = 3.07 AC (98)
 ROAD R/W = 4.59 AC (92)
 WETLANDS = 3.39 AC (98)
 WOODS = 101.13 AC (77)

$$CN_w = \frac{0.15(98) + 4.59(92) + 3.07(98) + 101.13(77) + 3.39(98)}{112.33 \text{ AC}}$$

$CN_w = 78.85$

$Q_1 = 79.8 \text{ cfs}$

$Q_2 = 114.7 \text{ cfs}$

$Q_0 = 252.9 \text{ cfs}$

$Q_{25} = 300.1 \text{ cfs}$

$Q_{50} = 346.7 \text{ cfs}$

$Q_{100} = 408.6 \text{ cfs}$

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.330	79	0.179	1.18	44.390	45.000	0.000	0.000
Composite	112.330	79		1.18				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	17	69	73	36	21	14	8	5	4	0
Composite	2	5	17	69	73	36	21	14	8	5	4	0

The peak flow is 79.8 cfs at 12.7 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.330	79	0.149	1.63	44.390	45.000	0.000	0.000
Composite	112.330	79		1.63				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	8	27	101	103	50	28	19	11	7	5	0
Composite	3	8	27	101	103	50	28	19	11	7	5	0

The peak flow is 114.7 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.330	79	0.100	3.40	44.390	45.000	0.000	0.000
Composite	112.330	79		3.40				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	21	69	227	220	103	55	36	21	13	9	0
Composite	8	21	69	227	220	103	55	36	21	13	9	0

The peak flow is 252.9 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.330	79	0.100	4.11	44.390	45.000	0.000	0.000
Composite	112.330	79		4.11				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	26	83	274	266	124	67	44	25	16	11	0
Composite	9	26	83	274	266	124	67	44	25	16	11	0

The peak flow is 306.1 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.330	79	0.100	4.66	44.390	45.000	0.000	0.000
Composite	112.330	79		4.66				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	11	29	94	311	302	141	76	50	29	18	12	0
Composite	11	29	94	311	302	141	76	50	29	18	12	0

The peak flow is 346.7 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	112.330	79	0.100	5.49	44.390	45.000	0.000	0.000
Composite	112.330	79		5.49				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	13	35	111	366	356	166	90	59	34	21	14	0
Composite	13	35	111	366	356	166	90	59	34	21	14	0

The peak flow is 408.6 cfs at 12.6 hrs.

**POST DEVELOPMENT – K
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ASSUME NO HOUSES + ONLY ROADS CONSTRUCTED

$$A = 52.08 \text{ AC.}$$

$$T_c = 37.02 \text{ MINUTES}$$

$$CN = \begin{array}{l} 4\frac{1}{2} \text{\" ROAD} \\ \text{ROAD IMPERV.} = 1.89 \text{ AC. (98)} \\ \text{ROAD R/W} = 2.84 \text{ AC. (92)} \\ \text{MISC. IMPERV.} = 1.05 \text{ AC. (98)} \\ \text{(TOWNHOUSES, PARKING, ETC)} \\ \text{WETLANDS} = 0.92 \text{ AC. (98)} \\ \text{GOLF COURSE} = 19.03 \text{ AC. (74)} \\ \text{WOODS} = 26.35 \text{ AC. (77)} \end{array}$$

$$CN_w = \frac{1.89(98) + 2.84(92) + 1.05(98) + 0.92(98) + 19.03(74) + 26.35(77)}{52.08 \text{ AC.}}$$

$$CN_w = 78.28$$

$$Q_1 = 40.5 \text{ cfs}$$

$$Q_2 = 58.8 \text{ cfs}$$

$$Q_{10} = 132.7 \text{ cfs}$$

$$Q_{25} = 160.9 \text{ cfs}$$

$$Q_{50} = 182.5 \text{ cfs}$$

$$Q_{100} = 215.4 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	52.080	78	0.185	1.15	37.020	30.000	0.000	7.020
Composite	52.080	78		1.15				

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	14	40	28	12	7	5	4	2	2	0
Composite	1	3	14	40	28	12	7	5	4	2	2	0

The peak flow is 40.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	52.080	78	0.154	1.59	37.020	30.000	0.000	7.020
Composite	52.080	78		1.59				

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	5	23	59	39	16	10	7	5	3	2	0
Composite	1	5	23	59	39	16	10	7	5	3	2	0

The peak flow is 58.8 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	52.080	78	0.100	3.34	37.020	30.000	0.000	7.020
Composite	52.080	78		3.34				

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	13	62	133	77	31	18	14	9	6	4	0
Composite	4	13	62	133	77	31	18	14	9	6	4	0

The peak flow is 132.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	52.080	78	0.100	4.05	37.020	30.000	0.000	7.020
Composite	52.080	78		4.05				

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	16	75	161	94	38	22	16	11	7	5	0
Composite	5	16	75	161	94	38	22	16	11	7	5	0

The peak flow is 160.9 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	52.080	78	0.100	4.60	37.020	30.000	0.000	7.020
Composite	52.080	78		4.60				

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	18	86	183	106	43	25	19	12	8	5	0
Composite	6	18	86	183	106	43	25	19	12	8	5	0

The peak flow is 182.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	52.080	78	0.100	5.42	37.020	30.000	0.000	7.020
Composite	52.080	78		5.42				

SCS TR55 Tabular Method

Watershed Title: Post POI K with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	22	101	215	125	51	30	22	15	9	6	0
Composite	7	22	101	215	125	51	30	22	15	9	6	0

The peak flow is 215.4 cfs at 12.5 hrs.

**POST DEVELOPMENT – L
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W) OUT DRYWELLS
POST DEVELOPEMENT

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P.O.I. L

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ASSUMES NO HOMES ONLY ROADS

$$A = 47.51 \text{ AC.}$$

$$T_c = 27.64 \text{ min (SAME AS PRE W) DRYWELLS)}$$

$$CN = 1620' \text{ Rd.}$$

$$\begin{aligned} \text{Rd IMPERV.} &= 0.74 \text{ AC (98)} \\ \text{Rd R/W} &= 1.12 \text{ AC (92)} \\ \text{WOODS} &= 39.86 \text{ AC (77)} \\ \text{WETLANDS} &= 5.79 \text{ AC (98)} \end{aligned}$$

$$CN_w = \frac{98(0.74) + 92(1.12) + 77(39.86) + 98(5.79)}{47.51 \text{ AC.}}$$

$$CN_w = 80.24$$

$$Q_1 = 46.8 \text{ cfs}$$

$$Q_2 = 65.8 \text{ cfs}$$

$$Q_{10} = 138.8 \text{ cfs}$$

$$Q_{25} = 167.3 \text{ cfs}$$

$$Q_{50} = 189.0 \text{ cfs}$$

$$Q_{100} = 222.0 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	47.510	80	0.164	1.27	27.640	30.000	0.000	0.000
Composite	47.510	80		1.27				

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	24	46	22	10	6	5	3	2	2	0
Composite	1	4	24	46	22	10	6	5	3	2	2	0

The peak flow is 46.8 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	47.510	80	0.137	1.73	27.640	30.000	0.000	0.000
Composite	47.510	80		1.73				

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	36	64	29	13	8	6	4	3	2	0
Composite	2	6	36	64	29	13	8	6	4	3	2	0

The peak flow is 65.8 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	47.510	80	0.100	3.54	27.640	30.000	0.000	0.000
Composite	47.510	80		3.54				

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	15	81	133	59	25	16	12	8	6	4	0
Composite	4	15	81	133	59	25	16	12	8	6	4	0

The peak flow is 138.8 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	47.510	80	0.100	4.26	27.640	30.000	0.000	0.000
Composite	47.510	80		4.26				

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	18	97	160	71	30	19	15	10	7	4	0
Composite	5	18	97	160	71	30	19	15	10	7	4	0

The peak flow is 167.3 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	47.510	80	0.100	4.81	27.640	30.000	0.000	0.000
Composite	47.510	80		4.81				

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	20	110	181	81	34	22	17	11	8	5	0
Composite	6	20	110	181	81	34	22	17	11	8	5	0

The peak flow is 189.0 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	47.510	80	0.100	5.65	27.640	30.000	0.000	0.000
Composite	47.510	80		5.65				

SCS TR55 Tabular Method

Watershed Title: Post POI L with out drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	24	129	213	95	40	26	20	13	9	6	0
Composite	7	24	129	213	95	40	26	20	13	9	6	0

The peak flow is 222.0 cfs at 12.4 hrs.

Section 8.3
Post Development – Full Build-Out

**POST DEVELOPMENT –A
FULL BUILDOUT**

BRINKASH ASSOCIATES, INC. SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I 'A'

ASSUMES 30x40' = 1200 S.F., 10x30' = 300 S.F. DRIVEWAY IMPERVIONS KEPT IN D.A.
REST OF LOT TO REMAIN WOODS, 1/4 AC. LOTS

A = 20.32 AC. - 1.39 AC. ROOF-TOPS IMPERV. = 18.93 AC.

T_c = 100' @ 1%

284' @ 1%

50' PIPE @ 2% A = 1.70
WP = 2.86
n = .012

377' @ 1%

T_c = 33.61 minutes

CN =

- 1960' ROAD, 1264 AC. LOTS CN = 98 ROAD IMPERV. = 1.35 AC.
- CN = 92 ROAD R/W = 0.45 AC.
- CN = 98 WETLANDS = 0.74 AC.
- CN = 98 DRIVEWAY IMPERV. = 0.35 AC.
- CN = 77 WOODS = 16.04

$$CN_w = \frac{98(2.44 AC.) + 92(0.45 AC.) + 77(16.04 AC.)}{18.93 AC.} = 80.06$$

- Q₁ = 17.4 cfs
- Q₂ = 24.5 cfs
- Q₁₀ = 52.3 cfs
- Q₂₅ = 63.0 cfs
- Q₅₀ = 71.2 cfs
- Q₁₀₀ = 83.7 cfs

SCS Segmental Travel Time

Summary for Post Development POI A

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in

Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 284 ft, S = .01 ft/ft, Unpaved surface

Travel Time = 2.9 minutes

Segment 3: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012

Travel Time = 0.1 minutes

Segment 4: Concentrated Flow

L = 377 ft, S = .01 ft/ft, Unpaved surface

Travel Time = 3.9 minutes

Total Travel Time = 33.61 Minutes

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	18.930	80	0.166	1.25	33.610	30.000	0.000	3.600
Composite	18.930	80		1.25				

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	8	17	10	4	3	2	1	1	1	0
Composite	0	1	8	17	10	4	3	2	1	1	1	0

The peak flow is 17.4 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	18.930	80	0.138	1.72	33.610	30.000	0.000	3.600
Composite	18.930	80		1.72				

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	12	25	13	6	3	3	2	1	1	0
Composite	1	2	12	25	13	6	3	3	2	1	1	0

The peak flow is 24.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	18.930	80	0.100	3.52	33.610	30.000	0.000	3.600
Composite	18.930	80		3.52				

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	29	52	26	11	7	5	3	2	1	0
Composite	2	6	29	52	26	11	7	5	3	2	1	0

The peak flow is 52.3 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	18.930	80	0.100	4.24	33.610	30.000	0.000	3.600
Composite	18.930	80		4.24				

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	34	63	31	13	8	6	4	3	2	0
Composite	2	7	34	63	31	13	8	6	4	3	2	0

The peak flow is 63.0 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	18.930	80	0.100	4.79	33.610	30.000	0.000	3.600
Composite	18.930	80		4.79				

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	8	39	71	35	15	9	7	5	3	2	0
Composite	2	8	39	71	35	15	9	7	5	3	2	0

The peak flow is 71.2 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	18.930	80	0.100	5.63	33.610	30.000	0.000	3.600
Composite	18.930	80		5.63				

SCS TR55 Tabular Method

Watershed Title: Post A w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	9	46	84	42	17	11	8	5	3	2	0
Composite	3	9	46	84	42	17	11	8	5	3	2	0

The peak flow is 83.7 cfs at 12.5 hrs.

**POST DEVELOPMENT –B
FULL BUILDOUT**

W/ DRY WELLS
POST CONSTRUCTION

BRINKASH ASSOCIATES, INC. SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I 'B'

ASSUMES 30'x40' = 1200 S.F.; 10'x30' = 300 S.F. DRIVEWAY KEPT IN DRAINAGE AREA
REST OF LOT TO REMAIN WOODED

$$A = 115.33 \text{ AC.} - 5.08 \text{ AC. ROOFTOP IMPERV.} = 110.25 \text{ AC.}$$

$$T_c = 100' @ 1\%$$

$$289' @ 3\%$$

$$50' @ 2\% \text{ pipe } A=1.76 \text{ WP}=2.86 \text{ } n=.012$$

$$320' @ 3\%$$

$$1121' @ 2\% \text{ Channel } A=18 \text{ S.F. WP}=9.4 \text{ } n=.035$$

$$50' @ 2\% \text{ pipe } A=1.76 \text{ S.F. WP}=2.86 \text{ } n=.012$$

$$510' @ 1\%$$

$$T_c = 37.76 \text{ minutes}$$

CN =

$$8475', 46.07 \text{ AC. LOTS}$$

$$CN=98 \text{ Rd IMPERV.} = 3.89 \text{ AC.}$$

$$CN=92 \text{ Rd R/W} = 1.95 \text{ AC.}$$

$$CN=98 \text{ WETLANDS} = 3.92 \text{ AC.}$$

$$CN=98 \text{ DRIVEWAY IMPERV.} = 1.27 \text{ AC.}$$

$$CN=77 \text{ WOODS} = 99.22 \text{ AC.}$$

$$CN_w = \frac{98(9.08 \text{ AC.}) + 92(1.95 \text{ AC.}) + 77(99.22 \text{ AC.})}{110.25 \text{ AC.}} = 78.99$$

$$Q_1 = 79.0 \text{ cfs}$$

$$Q_2 = 113.4 \text{ cfs}$$

$$Q_{10} = 249.2 \text{ cfs}$$

$$Q_{25} = 301.5 \text{ cfs}$$

$$Q_{50} = 341.5 \text{ cfs}$$

$$Q_{100} = 402.2 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Post Construction POI B

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 289 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 1.7 minutes

Segment 3: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012
Travel Time = 0.1 minutes

Segment 4: Concentrated Flow

L = 320 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 1.9 minutes

Segment 5: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 1121 ft, S = .02 ft/ft, n = .035
Travel Time = 2 minutes

Segment 6: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012
Travel Time = 0.1 minutes

Segment 7: Concentrated Flow

L = 510 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 5.3 minutes

Total Travel Time = 37.76 Minutes

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	110.250	79	0.177	1.19	37.760	45.000	0.000	0.000
Composite	110.250	79		1.19				

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	17	69	72	36	20	14	8	5	4	0
Composite	2	5	17	69	72	36	20	14	8	5	4	0

The peak flow is 79.0 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	110.250	79	0.148	1.64	37.760	45.000	0.000	0.000
Composite	110.250	79		1.64				

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	8	27	100	102	49	27	18	11	7	5	0
Composite	3	8	27	100	102	49	27	18	11	7	5	0

The peak flow is 113.4 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	110.250	79	0.100	3.41	37.760	45.000	0.000	0.000
Composite	110.250	79		3.41				

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	21	68	223	217	101	55	36	21	13	9	0
Composite	8	21	68	223	217	101	55	36	21	13	9	0

The peak flow is 249.2 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	110.250	79	0.100	4.13	37.760	45.000	0.000	0.000
Composite	110.250	79		4.13				

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	26	82	270	262	122	66	43	25	16	11	0
Composite	9	26	82	270	262	122	66	43	25	16	11	0

The peak flow is 301.5 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	110.250	79	0.100	4.67	37.760	45.000	0.000	0.000
Composite	110.250	79		4.67				

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	29	93	306	297	139	75	49	28	18	12	0
Composite	10	29	93	306	297	139	75	49	28	18	12	0

The peak flow is 341.5 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/AP	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	110.250	79	0.100	5.51	37.760	45.000	0.000	0.000
Composite	110.250	79		5.51				

SCS TR55 Tabular Method

Watershed Title: Post B w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	12	34	109	360	350	163	88	58	33	21	14	0
Composite	12	34	109	360	350	163	88	58	33	21	14	0

The peak flow is 402.2 cfs at 12.6 hrs.

**POST DEVELOPMENT –C
FULL BUILDOUT**

BRINKASH ASSOCIATES, INC.

SURVEYING & ENGINEERING

P.O.I - C

ASSUMES 1200 S.F.
ROOFTOP + 1/4 AC. LOTS

DRIVEWAY IMPERVIOUS 1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

= 300 S.F. NOT TAKEN OUT OF D.A.

AREA = 1532.23 AC. - 43.96 AC. ROOFTOPS = 1488.27 AC.

$T_c = 100' @ 4\%$ (SAME AS PRE-DEVELOPMENT)

1500' @ 4%

1200' @ 25%

3000' @ 1.5%

7000' @ 1.0%

+/- 84475' ROADS

ROAD IMPERV. $84475 \times 20 = 38.79$ AC.

$T_c = 116.27$ MINUTES
SAME AS PRE

ROAD R/W = 19.39 AC. +/-

WETLANDS = 127.13 AC +/-
CONSIDER IMPERV.

WOODS = 957.89 AC +/-

DRIVEWAY IMPERV. = 10.86 AC +/-

GOLF COURSE = 145.42 AC +/-

MEADOW = 188.79 AC +/-

$CN = \frac{(177)(957.89) + (98)(10.86) + (74)(145.42) + (98)(16532) + 71(38.79) + 92(19.39)}{1488.27 AC}$

CN = 78.64

$Q_1 = 549.4$ cfs

$Q_2 = 795.1$ cfs

$Q_{10} = 1775.1$ cfs

$Q_{25} = 2150.1$ cfs

$Q_{50} = 2436.5$ cfs

$Q_{100} = 2872.5$ cfs

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1488.270	79	0.181	1.17	116.270	120.000	0.000	0.000
Composite	1488.270	79		1.17				

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	11	26	47	131	286	487	539	451	225	95	56	10
Composite	11	26	47	131	286	487	539	451	225	95	56	10

The peak flow is 549.4 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1488.270	79	0.151	1.62	116.270	120.000	0.000	0.000
Composite	1488.270	79		1.62				

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	20	45	79	204	427	706	761	632	307	124	73	13
Composite	20	45	79	204	427	706	761	632	307	124	73	13

The peak flow is 795.1 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1488.270	79	0.100	3.38	116.270	120.000	0.000	0.000
Composite	1488.270	79		3.38				

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	55	126	212	503	998	1579	1634	1343	621	236	134	24
Composite	55	126	212	503	998	1579	1634	1343	621	236	134	24

The peak flow is 1775.1 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1488.270	79	0.100	4.09	116.270	120.000	0.000	0.000
Composite	1488.270	79		4.09				

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	67	152	257	609	1208	1912	1979	1627	752	285	162	29
Composite	67	152	257	609	1208	1912	1979	1627	752	285	162	29

The peak flow is 2150.1 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1488.270	79	0.100	4.64	116.270	120.000	0.000	0.000
Composite	1488.270	79		4.64				

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	75	172	291	690	1369	2167	2242	1844	852	323	183	32
Composite	75	172	291	690	1369	2167	2242	1844	852	323	183	32

The peak flow is 2436.5 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1488.270	79	0.100	5.47	116.270	120.000	0.000	0.000
Composite	1488.270	79		5.47				

SCS TR55 Tabular Method

Watershed Title: Post POI C w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	89	203	343	813	1614	2555	2644	2173	1004	381	216	38
Composite	89	203	343	813	1614	2555	2644	2173	1004	381	216	38

The peak flow is 2872.5 cfs at 13.4 hrs.

**POST DEVELOPMENT –D
FULL BUILDOUT**

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I. D

ASSUMES 1200 S.F. ROOFTOP IMPERV.; 300 S.F. DRIVE KEPT IN D.A.

$$A = 56.66 \text{ AC.} - 0.91 \text{ AC. Rooftop IMPERV.} = 55.75$$

- $T_c = 100'$ @ 1%
- $915'$ @ 15%
- $795'$ @ 1%

$$T_c = 19.47 \text{ minutes}$$

CN =

- CN=98 9.45 AC. WETLANDS
- CN=98 0.23 AC. DRIVEWAY IMPERV.
- CN=77 46.07 AC. WOODS

$$CN_w = \frac{98(9.68) + 77(46.07)}{55.75}$$

$$CN_w = 80.64$$

$$Q_1 = 70.6 \text{ cfs}$$

$$Q_2 = 99.1 \text{ cfs}$$

$$Q_{10} = 207.9 \text{ cfs}$$

$$Q_{25} = 250.3 \text{ cfs}$$

$$Q_{50} = 282.5 \text{ cfs}$$

$$Q_{100} = 331.5 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Post Construction POI D

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .1, P(2yr/24hr) = 3.6 in
Travel Time = 8.8 minutes

Segment 2: Concentrated Flow

L = 915 ft, S = .15 ft/ft, Unpaved surface
Travel Time = 2.4 minutes

Segment 3: Concentrated Flow

L = 795 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 8.2 minutes

Total Travel Time = 19.47 Minutes

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	55.750	81	0.160	1.29	19.470	18.000	0.000	1.440
Composite	55.750	81		1.29				

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	9	66	35	15	8	6	5	4	3	2	0
Composite	2	9	66	35	15	8	6	5	4	3	2	0

The peak flow is 70.6 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	55.750	81	0.133	1.76	19.470	18.000	0.000	1.440
Composite	55.750	81		1.76				

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	15	95	47	19	11	8	7	5	3	2	0
Composite	3	15	95	47	19	11	8	7	5	3	2	0

The peak flow is 99.1 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	55.750	81	0.100	3.58	19.470	18.000	0.000	1.440
Composite	55.750	81		3.58				

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	35	203	94	37	21	16	13	10	6	4	0
Composite	6	35	203	94	37	21	16	13	10	6	4	0

The peak flow is 207.9 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	55.750	81	0.100	4.30	19.470	18.000	0.000	1.440
Composite	55.750	81		4.30				

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	43	244	113	45	25	19	16	12	8	5	0
Composite	7	43	244	113	45	25	19	16	12	8	5	0

The peak flow is 250.3 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	55.750	81	0.100	4.86	19.470	18.000	0.000	1.440
Composite	55.750	81		4.86				

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	48	275	128	50	28	22	18	13	9	6	0
Composite	8	48	275	128	50	28	22	18	13	9	6	0

The peak flow is 282.5 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	55.750	81	0.100	5.70	19.470	18.000	0.000	1.440
Composite	55.750	81		5.70				

SCS TR55 Tabular Method

Watershed Title: Post POI D w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	56	323	150	59	33	26	21	15	10	7	0
Composite	10	56	323	150	59	33	26	21	15	10	7	0

The peak flow is 331.5 cfs at 12.3 hrs.

**POST DEVELOPMENT –E
FULL BUILDOUT**

W/ DRY WELLS
POST CONSTRUCTION

BRINKASH ASSOCIATES, INC. SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I. E

ASSUME 2000 SQ. FT. ROOFTOP, 1/4 AC. LOTS, 300 SQ. FT. DRIVEWAY, DRIVEWAY, IMPERV.
KEPT IN DRAINAGE AREA

$$A = 369.39 \text{ AC.} - 10.76 \text{ AC. ROOFTOP IMPERV. AREA} = 358.63 \text{ AC.}$$

- $T_c = 100'$ @ 1%
- 1780' @ 3%
- 2700 @ 10%
- 400' @ 3%
- 2500' @ 5%

$$T_c = 79.16 \text{ MINUTES}$$

19167' PROPOSED RD.
2775 COUNTY RD.
97.66 AC. OF LOTS

CN =

- CN=98 MISC. IMPERV (COTTAGES, HOTEL, MISC. BLDG.)
9.23 AC. (PARKING AREAS, AMENITIES)
- CN=92 15.11 AC. RD. R/W
- CN=74 63.51 AC. - GOLFCOURSE
- CN=98 82.6 AC. WETLANDS/LAKE
- CN=98 10.07 AC. - RD IMPERV.
- CN=98 2.69 AC. DRIVEWAY IMPERV.
- CN=77 175.42 AC. WOODS

$$CN_w = \frac{98(104.59 \text{ AC.}) + 74(63.51) + 77(175.42 \text{ AC.}) + 92(15.11 \text{ AC.}) + 14(63.51 \text{ AC.})}{358.63 \text{ AC.}} = 83.23$$

- $Q_1 = 218.3 \text{ cfs.}$
- $Q_2 = 298.9 \text{ cfs.}$
- $Q_{10} = 591.3 \text{ cfs.}$
- $Q_{25} = 706.2 \text{ cfs.}$
- $Q_{50} = 793.3 \text{ cfs.}$
- $Q_{100} = 925.3 \text{ cfs.}$

SCS Segmental Travel Time

Summary for Post Construction POI E

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 1780 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 10.6 minutes

Segment 3: Concentrated Flow

L = 2700 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 27.9 minutes

Segment 4: Concentrated Flow

L = 400 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 2.4 minutes

Segment 5: Concentrated Flow

L = 2500 ft, S = .05 ft/ft, Unpaved surface
Travel Time = 11.5 minutes

Total Travel Time = 79.16 Minutes

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	358.630	83	0.134	1.46	79.160	90.000	0.000	0.000
Composite	358.630	83		1.46				

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	14	29	83	167	218	161	106	49	22	14	1
Composite	6	14	29	83	167	218	161	106	49	22	14	1

The peak flow is 218.3 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	358.630	83	0.112	1.96	79.160	90.000	0.000	0.000
Composite	358.630	83		1.96				

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	22	43	119	233	299	217	142	63	28	18	1
Composite	9	22	43	119	233	299	217	142	63	28	18	1

The peak flow is 298.9 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	358.630	83	0.100	3.84	79.160	90.000	0.000	0.000
Composite	358.630	83		3.84				

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	19	45	88	241	464	591	426	277	123	54	34	2
Composite	19	45	88	241	464	591	426	277	123	54	34	2

The peak flow is 591.3 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	358.630	83	0.100	4.58	79.160	90.000	0.000	0.000
Composite	358.630	83		4.58				

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	23	54	105	288	555	706	508	331	146	64	41	3
Composite	23	54	105	288	555	706	508	331	146	64	41	3

The peak flow is 706.2 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	358.630	83	0.100	5.15	79.160	90.000	0.000	0.000
Composite	358.630	83		5.15				

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	26	61	118	323	623	793	571	372	164	72	46	3
Composite	26	61	118	323	623	793	571	372	164	72	46	3

The peak flow is 793.3 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	358.630	83	0.100	6.00	79.160	90.000	0.000	0.000
Composite	358.630	83		6.00				

SCS TR55 Tabular Method

Watershed Title: Post POI E w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	30	71	138	377	727	925	666	434	192	84	54	3
Composite	30	71	138	377	727	925	666	434	192	84	54	3

The peak flow is 925.3 cfs at 13.2 hrs.

**POST DEVELOPMENT –F
FULL BUILDOUT**

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

P.O. I-F

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

ASSUMES 1200 SQ. FT. ROOFTOP;
1/4 AC. LOTS; 300 SQ. FT. DRIVEWAY
IMPERVIOUS KEPT IN DRAINAGE AREA

4210' OF ROAD
26 AC. OF LOTS

$$A = 52.01 \text{ AC.} - 2.87 \text{ AC. (ROOFTOP IMPERV.)} = 49.14 \text{ AC.}$$

$$T_C = 100' @ 1\%$$

$$464' @ 4\%$$

$$2086 @ 2\% \text{ channel } A = 18 \text{ FT}^2$$

$$130' @ 2\%$$

$$WP = 9.4'$$

$$n = .035$$

$$CN = 98 \text{ RD. IMPERV.} = 1.93 \text{ AC.}$$

$$CN = 92 \text{ RD. R/W} = 2.90 \text{ AC.}$$

$$CN = 98 \text{ DRIVEWAY IMPERV.} = 0.72 \text{ AC.}$$

$$CN = 98 \text{ WETLANDS} = 0.30 \text{ AC.}$$

$$CN = 77 \text{ WOODS} = 43.29 \text{ AC.}$$

$$T_C = 33.80 \text{ minutes}$$

$$CN_W = \frac{98(2.95 \text{ AC.}) + 92(2.90 \text{ AC.}) + 77(43.29 \text{ AC.})}{49.14 \text{ AC.}} = 79.15$$

$$Q_1 = 42.5 \text{ cfs}$$

$$Q_2 = 60.7 \text{ cfs}$$

$$Q_{10} = 132.1 \text{ cfs}$$

$$Q_{25} = 159.8 \text{ cfs}$$

$$Q_{50} = 180.9 \text{ cfs}$$

$$Q_{100} = 213.0 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Post Construction POI F

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 464 ft, S = .04 ft/ft, Unpaved surface
Travel Time = 2.4 minutes

Segment 3: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 2086 ft, S = .02 ft/ft, n = .035
Travel Time = 3.7 minutes

Segment 4: Concentrated Flow

L = 130 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 0.9 minutes

Total Travel Time = 33.80 Minutes

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.176	1.20	33.800	30.000	0.000	3.780
Composite	49.140	79		1.20				

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	18	42	25	11	7	5	3	2	2	0
Composite	1	3	18	42	25	11	7	5	3	2	2	0

The peak flow is 42.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.146	1.65	33.800	30.000	0.000	3.780
Composite	49.140	79		1.65				

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	29	61	33	14	9	7	5	3	2	0
Composite	2	5	29	61	33	14	9	7	5	3	2	0

The peak flow is 60.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	3.43	33.800	30.000	0.000	3.780
Composite	49.140	79		3.43				

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)												
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0	
1	4	14	72	132	66	27	17	13	9	6	4	0	
Composite	4	14	72	132	66	27	17	13	9	6	4	0	

The peak flow is 132.1 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	4.15	33.800	30.000	0.000	3.780
Composite	49.140	79		4.15				

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	17	87	160	80	33	20	15	10	7	4	0
Composite	5	17	87	160	80	33	20	15	10	7	4	0

The peak flow is 159.8 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	4.69	33.800	30.000	0.000	3.780
Composite	49.140	79		4.69				

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	19	98	181	90	37	23	17	12	8	5	0
Composite	6	19	98	181	90	37	23	17	12	8	5	0

The peak flow is 180.9 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	49.140	79	0.100	5.53	33.800	30.000	0.000	3.780
Composite	49.140	79		5.53				

SCS TR55 Tabular Method

Watershed Title: Post POI F w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	23	116	213	106	44	27	20	14	9	6	0
Composite	7	23	116	213	106	44	27	20	14	9	6	0

The peak flow is 213.0 cfs at 12.5 hrs.

**POST DEVELOPMENT –G
FULL BUILDOUT**

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

P.O.I. G

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

ASSUMES 1200 S.F. ROOFTOP IMPERV.; 300 S.F. DRIVEWAY IMPERV. KEPT IN DRAINAGE AREA

$$A = 14.70 \text{ AC} - 0.50 \text{ AC (ROOFTOP DRAINAGE AREA)} = 14.2 \text{ AC.}$$

$$T_c = 100' @ 1\%$$

$$445' @ 17\%$$

$$T_c = 27.83 \text{ MINUTES}$$

$$CN = \frac{98(0.12 \text{ AC}) + 77(14.08 \text{ AC})}{14.2 \text{ AC}} \quad 4.53 \text{ AC - LOTS}$$

4.53 AC - LOTS
CN = 98 DRIVEWAY IMPERV. = 0.12 AC
CN = 77 WOODS = 14.08 AC

$$CN = 77.18$$

$$Q_1 = 11.6 \text{ cfs}$$

$$Q_2 = 16.8 \text{ cfs}$$

$$Q_{10} = 37.9 \text{ cfs}$$

$$Q_{25} = 46.2 \text{ cfs}$$

$$Q_{50} = 52.5 \text{ cfs}$$

$$Q_{100} = 62.2 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Post Construction POI G

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 445 ft, S = .17 ft/ft, Unpaved surface
Travel Time = 1.1 minutes

Total Travel Time = 27.83 Minutes

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.200	77	0.197	1.08	27.830	30.000	0.000	0.000
Composite	14.200	77		1.08				

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	6	11	6	3	2	1	1	1	0	0
Composite	0	1	6	11	6	3	2	1	1	1	0	0

The peak flow is 11.6 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.200	77	0.164	1.52	27.830	30.000	0.000	0.000
Composite	14.200	77		1.52				

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	9	16	8	3	2	2	1	1	1	0
Composite	0	1	9	16	8	3	2	2	1	1	1	0

The peak flow is 16.8 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.200	77	0.104	3.24	27.830	30.000	0.000	0.000
Composite	14.200	77		3.24				

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	22	36	16	7	4	3	2	2	1	0
Composite	1	4	22	36	16	7	4	3	2	2	1	0

The peak flow is 37.9 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.200	77	0.100	3.94	27.830	30.000	0.000	0.000
Composite	14.200	77		3.94				

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	5	27	44	20	8	5	4	3	2	1	0
Composite	1	5	27	44	20	8	5	4	3	2	1	0

The peak flow is 46.2 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.200	77	0.100	4.48	27.830	30.000	0.000	0.000
Composite	14.200	77		4.48				

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	31	50	22	10	6	5	3	2	1	0
Composite	2	6	31	50	22	10	6	5	3	2	1	0

The peak flow is 52.5 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	14.200	77	0.100	5.30	27.830	30.000	0.000	0.000
Composite	14.200	77		5.30				

SCS TR55 Tabular Method

Watershed Title: Post POI G w/ drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	36	60	27	11	7	6	4	2	2	0
Composite	2	7	36	60	27	11	7	6	4	2	2	0

The peak flow is 62.2 cfs at 12.4 hrs.

**POST DEVELOPMENT –H
FULL BUILDOUT**

W/ DRY WELLS
POST CONSTRUCTION

BRINKASH ASSOCIATES, INC. SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I.H

ASSUMES 1200 S.F. ROOFTOP; 300 S.F. IMPERV. DRIVE

$$A = 7.52 \text{ AC} - 0.33 \text{ AC} - \text{ROOFTOPS} = 7.19 \text{ AC}$$

$$T_c = 100' @ 2\%$$
$$256' @ 12\%$$

$$T_c = 21.01 \text{ MINUTES}$$

$$CN = \frac{98(0.08 \text{ AC}) + 77(7.11 \text{ AC})}{7.19 \text{ AC}}$$

3.0 AC - LOTS
CN=98 0.08 AC. DRIVEWAY IMPERV.
CN=77 7.11 AC. WOODS

$$CN = 77.23$$

- $Q_1 = 6.6 \text{ cfs}$
- $Q_2 = 9.5 \text{ cfs}$
- $Q_{10} = 21.5 \text{ cfs}$
- $Q_{25} = 26.2 \text{ cfs}$
- $Q_{50} = 29.8 \text{ cfs}$
- $Q_{100} = 35.3 \text{ cfs}$

SCS Segmental Travel Time

Summary for Post Development POI H

Segment 1: Overland Flow

L = 100 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 20.2 minutes

Segment 2: Concentrated Flow

L = 256 ft, S = .12 ft/ft, Unpaved surface
Travel Time = 0.8 minutes

Total Travel Time = 21.01 Minutes

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.190	77	0.197	1.08	21.010	24.000	0.000	0.000
Composite	7.190	77		1.08				

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	5	5	2	1	1	1	0	0	0	0
Composite	0	1	5	5	2	1	1	1	0	0	0	0

The peak flow is 6.6 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.190	77	0.164	1.52	21.010	24.000	0.000	0.000
Composite	7.190	77		1.52				

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	7	7	3	1	1	1	1	0	0	0
Composite	0	1	7	7	3	1	1	1	1	0	0	0

The peak flow is 9.5 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.190	77	0.103	3.24	21.010	24.000	0.000	0.000
Composite	7.190	77		3.24				

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	17	16	6	3	2	2	1	1	1	0
Composite	1	3	17	16	6	3	2	2	1	1	1	0

The peak flow is 21.5 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.190	77	0.100	3.94	21.010	24.000	0.000	0.000
Composite	7.190	77		3.94				

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	21	19	7	3	2	2	1	1	1	0
Composite	1	3	21	19	7	3	2	2	1	1	1	0

The peak flow is 26.2 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.190	77	0.100	4.48	21.010	24.000	0.000	0.000
Composite	7.190	77		4.48				

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	24	22	8	4	3	2	2	1	1	0
Composite	1	4	24	22	8	4	3	2	2	1	1	0

The peak flow is 29.8 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	7.190	77	0.100	5.30	21.010	24.000	0.000	0.000
Composite	7.190	77		5.30				

SCS TR55 Tabular Method

Watershed Title: Post Development POI H with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	5	28	26	10	5	3	3	2	1	1	0
Composite	1	5	28	26	10	5	3	3	2	1	1	0

The peak flow is 35.3 cfs at 12.3 hrs.

**POST DEVELOPMENT –I
FULL BUILDOUT**

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I I'

ASSUMES 1200 S.F. ROOFTOP; 300 S.F. DRIVEWAY IMPERV.

$$A = 112.88 \text{ ac.} - 1.61 \text{ ac. (ROOFTOPS)} = 111.27 \text{ ac.}$$

$$T_c = 100' @ 1\%$$

$$2552' @ 3\%$$

$$165' @ 2\% \text{ channel } A = 18 \text{ s.f. } WP = 9.4' \text{ } n = .035$$

$$50' @ 2\% \text{ pipe } A = 1.76 \text{ s.f. } WP = 2.86' \text{ } n = .012$$

$$775' @ 6\%$$

$$1156' @ 2\%$$

$$T_c = 54.01 \text{ MINUTES}$$

CN =

2509' Rd
14.61 ac. LOTS

CN = 98 A = 2.5 ac. MISC. IMPERVIOUS, Admin.
BUILDING, PARKING

CN = 98 A = 0.40 ac. DRIVEWAY IMPERV.

CN = 98 A = 1.15 ac. Rd IMPERV.

CN = 92 A = 1.73 ac. Rd R/W

CN = 98 A = 3.47 ac. WETLANDS

CN = 77 A = 102.02 ac. WOODS

$$CN_w = \frac{(98)(7.52 \text{ ac.}) + (92)(1.73 \text{ ac.}) + (77)(102.02 \text{ ac.})}{111.27 \text{ ac.}} = 78.65$$

$$Q_1 = 65.4 \text{ cfs}$$

$$Q_2 = 94.4 \text{ cfs}$$

$$Q_{10} = 209.7 \text{ cfs}$$

$$Q_{25} = 254.0 \text{ cfs}$$

$$Q_{50} = 287.8 \text{ cfs}$$

$$Q_{100} = 339.3 \text{ cfs}$$

SCS Segmental Travel Time

Summary for Post Construction POI I

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 2552 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 15.2 minutes

Segment 3: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 165 ft, S = .02 ft/ft, n = .035
Travel Time = 0.3 minutes

Segment 4: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012
Travel Time = 0.1 minutes

Segment 5: Concentrated Flow

L = 775 ft, S = .06 ft/ft, Unpaved surface
Travel Time = 3.3 minutes

Segment 6: Concentrated Flow

L = 1156 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 8.4 minutes

Total Travel Time = 54.01 Minutes

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	111.270	79	0.181	1.17	54.010	60.000	0.000	0.000
Composite	111.270	79		1.17				

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	10	39	65	48	28	18	9	6	4	0
Composite	1	4	10	39	65	48	28	18	9	6	4	0

The peak flow is 65.4 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	111.270	79	0.151	1.62	54.010	60.000	0.000	0.000
Composite	111.270	79		1.62				

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	16	58	94	66	38	24	12	7	5	0
Composite	2	6	16	58	94	66	38	24	12	7	5	0

The peak flow is 94.4 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	111.270	79	0.100	3.38	54.010	60.000	0.000	0.000
Composite	111.270	79		3.38				

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	17	42	136	210	140	78	49	23	14	9	0
Composite	6	17	42	136	210	140	78	49	23	14	9	0

The peak flow is 209.7 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	111.270	79	0.100	4.09	54.010	60.000	0.000	0.000
Composite	111.270	79		4.09				

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	21	51	164	254	170	95	59	28	16	11	0
Composite	8	21	51	164	254	170	95	59	28	16	11	0

The peak flow is 254.0 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	111.270	79	0.100	4.64	54.010	60.000	0.000	0.000
Composite	111.270	79		4.64				

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	23	58	186	288	193	107	67	32	19	12	0
Composite	9	23	58	186	288	193	107	67	32	19	12	0

The peak flow is 287.8 cfs at 12.8 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	111.270	79	0.100	5.47	54.010	60.000	0.000	0.000
Composite	111.270	79		5.47				

SCS TR55 Tabular Method

Watershed Title: Post Development POI I with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	28	68	220	339	227	126	79	38	22	14	0
Composite	10	28	68	220	339	227	126	79	38	22	14	0

The peak flow is 339.3 cfs at 12.8 hrs.

**POST DEVELOPMENT –J
FULL BUILDOUT**

BRINKASH ASSOCIATES, INC.

SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I - J

ASSUMING 1200 SQ. FT. ROOFTOP, 1/4 AC. LOTS, 300 SQ. FT. DRIVEWAY KEPT IN DRAINAGE AREA

A = 112.33 ac. - 6.28 ac. (ROOFTOPS) 6677' OF ROAD
102 AC. LOTS

A = 106.05 ac.

100' @ 1%
T_c = 385' @ 4%

1270' @ 2% CHANNEL

50' @ 2% PIPE

367' @ 1%

50' @ 2% PIPE

467' @ 2% CHANNEL

50' @ 2% PIPE

271' @ 4%

314' @ 1% CHANNEL + 50' @ 2% PIPE ; 1225' @ 4%

T_c = 44.39 minutes

$$C_{N_w} = \frac{98(3.07) + 92(4.59) + 98(2.81) + 98(3.39) + 77(92.04) + 98(0.15)}{106.05} = 79.51$$

Q₁ = 78.6 cfs

Q₂ = 112.2 cfs

Q₁₀ = 243.3 cfs

Q₂₅ = 293.9 cfs

Q₅₀ = 332.5 cfs

Q₁₀₀ = 391.2 cfs

CN=98 MISC. IMPERV. (TREATMENT PLANT, PARKING) 0.15 AC
CN=98 RD. IMPERV. = 6677 x 20' = 3.07 AC
CN=92 RD. R/W = 6677 x 30' = 4.59 AC
CN=98 DRIVEWAY IMPERV. = 2.81 AC
CN=98 WETLANDS = 3.39 AC
CN=77 WOODS = 92.04 AC
pipe = A = 1.76 sq. ft., 2.86, n = .012
channel A = 18 sq. ft., WP = 9.4', n = .035

SCS Segmental Travel Time

Summary for Post Development POI J

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in

Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 385 ft, S = .04 ft/ft, Unpaved surface

Travel Time = 2 minutes

Segment 3: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 1270 ft, S = .02 ft/ft, n = .035

Travel Time = 2.3 minutes

Segment 4: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012

Travel Time = 0.1 minutes

Segment 5: Concentrated Flow

L = 367 ft, S = .01 ft/ft, Unpaved surface

Travel Time = 3.8 minutes

Segment 6: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012

Travel Time = 0.1 minutes

Segment 7: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 461 ft, S = .02 ft/ft, n = .035

Travel Time = 0.8 minutes

Segment 8: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012

Travel Time = 0.1 minutes

Segment 9: Concentrated Flow

L = 271 ft, S = .04 ft/ft, Unpaved surface

Travel Time = 1.4 minutes

Segment 10: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 314 ft, S = .01 ft/ft, n = .035

Travel Time = 0.8 minutes

Segment 11: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012

Travel Time = 0.1 minutes

Segment 12: Concentrated Flow

L = 1225 ft, S = .04 ft/ft, Unpaved surface

Travel Time = 6.3 minutes

Total Travel Time = 44.39 Minutes

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	106.050	80	0.172	1.22	44.390	45.000	0.000	0.000
Composite	106.050	80		1.22				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	17	69	72	35	20	14	8	5	4	0
Composite	2	5	17	69	72	35	20	14	8	5	4	0

The peak flow is 78.6 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	106.050	80	0.143	1.68	44.390	45.000	0.000	0.000
Composite	106.050	80		1.68				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	8	27	99	100	48	27	18	11	7	5	0
Composite	3	8	27	99	100	48	27	18	11	7	5	0

The peak flow is 112.2 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	106.050	80	0.100	3.46	44.390	45.000	0.000	0.000
Composite	106.050	80		3.46				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	21	66	218	212	99	53	35	20	13	9	0
Composite	7	21	66	218	212	99	53	35	20	13	9	0

The peak flow is 243.3 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	106.050	80	0.100	4.18	44.390	45.000	0.000	0.000
Composite	106.050	80		4.18				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	9	25	80	263	256	119	64	42	24	15	10	0
Composite	9	25	80	263	256	119	64	42	24	15	10	0

The peak flow is 293.9 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	106.050	80	0.100	4.73	44.390	45.000	0.000	0.000
Composite	106.050	80		4.73				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	10	28	90	298	289	135	73	48	27	17	12	0
Composite	10	28	90	298	289	135	73	48	27	17	12	0

The peak flow is 332.5 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	106.050	80	0.100	5.57	44.390	45.000	0.000	0.000
Composite	106.050	80		5.57				

SCS TR55 Tabular Method

Watershed Title: Post Development POI J with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	12	33	106	351	340	159	86	56	32	20	14	0
Composite	12	33	106	351	340	159	86	56	32	20	14	0

The peak flow is 391.2 cfs at 12.6 hrs.

**POST DEVELOPMENT –K
FULL BUILDOUT**

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

P.O.I. K

ASSUME 1200 S.F. ROOFTOP, 1/4 AC. LOTS, 300 FT² DRIVEWAY IMPERVIOUS KEPT IN D.A.

4125' RD

^(ROOFTOPS)
 $A = 52.08 \text{ AC} - 1.96 \text{ AC}$

$A = 50.12 \text{ AC}$

- CN=74 GOLF COURSE = 19.03 AC.
- CN=98 RD. IMPERVIOUS = $4125 \times 20' = 7.89 \text{ AC}$.
- CN=92 Rd. R/W = 2.84 AC.
- CN=98 DRIVEWAY IMPERV. = 0.49 AC.
- CN=98 TOWNHOUSE IMPERV. = 1.05 AC.
- (PARKING + ROOE)
- CN=98 WETLANDS = 0.92 AC
- CN=77 WOODS = 23.90 AC.

$T_c = 100' @ 1\%$

$1170' @ 2\%$

$50' \text{ PIPE} @ 2\%$

$380' @ 5\%$

→ PIPE FLOW $W/A = 1.76 \text{ SO.F.T.}$
 $W/P = 2.86'$
 $n = .012$

$T_c = 37.02 \text{ min.}$

$CN_w = \frac{23.90 \text{ AC}(77) + 2.84(92) + 19.03 \text{ AC}(74) + 4.35(98)}{48.82 \text{ AC}}$

$CN_w = 80.62$

$Q_1 = 45.4 \text{ cfs}$

$Q_2 = 64.4 \text{ cfs}$

$Q_{10} = 136.5 \text{ cfs}$

$Q_{25} = 164.4 \text{ cfs}$

$Q_{50} = 185.6 \text{ cfs}$

$Q_{100} = 217.7 \text{ cfs}$

SCS Segmental Travel Time

Summary for Post Development POI K

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 26.7 minutes

Segment 2: Concentrated Flow

L = 1170 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 8.5 minutes

Segment 3: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = 50 ft/ft, n = .012
Travel Time = 0 minutes

Segment 4: Concentrated Flow

L = 380 ft, S = .05 ft/ft, Unpaved surface
Travel Time = 1.8 minutes

Total Travel Time = 37.02 Minutes

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	50.120	81	0.160	1.29	37.020	30.000	0.000	7.020
Composite	50.120	81		1.29				

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	17	45	30	13	8	6	4	2	2	0
Composite	1	3	17	45	30	13	8	6	4	2	2	0

The peak flow is 45.4 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	50.120	81	0.134	1.76	37.020	30.000	0.000	7.020
Composite	50.120	81		1.76				

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	27	64	40	17	10	7	5	3	2	0
Composite	2	6	27	64	40	17	10	7	5	3	2	0

The peak flow is 64.4 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	50.120	81	0.100	3.57	37.020	30.000	0.000	7.020
Composite	50.120	81		3.57				

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	14	64	137	80	32	19	14	9	6	4	0
Composite	4	14	64	137	80	32	19	14	9	6	4	0

The peak flow is 136.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	50.120	81	0.100	4.30	37.020	30.000	0.000	7.020
Composite	50.120	81		4.30				

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	16	77	164	96	39	23	17	11	7	5	0
Composite	5	16	77	164	96	39	23	17	11	7	5	0

The peak flow is 164.4 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	50.120	81	0.100	4.86	37.020	30.000	0.000	7.020
Composite	50.120	81		4.86				

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	19	87	186	108	44	25	19	13	8	5	0
Composite	6	19	87	186	108	44	25	19	13	8	5	0

The peak flow is 185.6 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	50.120	81	0.100	5.70	37.020	30.000	0.000	7.020
Composite	50.120	81		5.70				

SCS TR55 Tabular Method

Watershed Title: Post Development POI K with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	22	102	218	127	51	30	22	15	9	6	0
Composite	7	22	102	218	127	51	30	22	15	9	6	0

The peak flow is 217.7 cfs at 12.5 hrs.

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SURVEYING & ENGINEERING

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P.O.I L

$A = 47.51 \text{ AC.} - 1.5/\text{AC. ROOFTOP IMPERVIOUS}$

ASSUMING $\frac{1}{4}$ AC. LOTS, 2000 S.F. ROOFTOP + 30' X 10' DRIVEWAY

$A = 46.00 \text{ AC.}$

1020' OF ROAD
1367 AC. OF LOTS

$C_{Tc} = 100' @ 4\%$
 $400' @ 1\%$
 $50' \text{ PIPE} @ 2\%$
 $505' @ 1\%$
 $484' @ 3\%$

$CN=98 \rightarrow$ WETLANDS = 5.79 AC. (IMPERV.)
 $CN=98 \rightarrow$ RD. IMPERVIOUS = $1620' \times 20' = 0.74 \text{ AC.}$
 $CN=98 \rightarrow$ DRIVEWAY IMPERVIOUS = 0.38 AC.
 $CN=92 \rightarrow$ RD. R/W = 1.12 AC.
 $CN=77 \rightarrow$ WOODS = 37.97 AC.

$T_c = 27.64 \text{ min.}$

$$C_{Nw} = \frac{0.91 \text{ AC} (98) + 1.12 \text{ AC} (92) + 37.97 \text{ AC} (77)}{45.0}$$

$C_{Nw} = 82.31$

$Q_1 = 51.1 \text{ cfs}$

$Q_2 = 70.6 \text{ cfs}$

$Q_{10} = 142.3 \text{ cfs}$

$Q_{25} = 170.4 \text{ cfs}$

$Q_{50} = 191.8 \text{ cfs}$

$Q_{100} = 224.2 \text{ cfs}$

SCS Segmental Travel Time

Summary for Post Development POI L

Segment 1: Overland Flow

L = 100 ft, S = .04 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 15.3 minutes

Segment 2: Concentrated Flow

L = 400 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 4.1 minutes

Segment 3: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 50 ft, S = .02 ft/ft, n = .012
Travel Time = 0.1 minutes

Segment 4: Concentrated Flow

L = 505 ft, S = .01 ft/ft, Unpaved surface
Travel Time = 5.2 minutes

Segment 5: Concentrated Flow

L = 484 ft, S = .03 ft/ft, Unpaved surface
Travel Time = 2.9 minutes

Total Travel Time = 27.64 Minutes

tmp#1.txt

Manning Pipe Calculator *P.O.I. L PIPE*

Given Input Data:

Shape	Circular
Solving for	Flowrate
Diameter	1.5000 ft
Depth	1.0000 ft
Slope	0.0200 ft/ft
Manning's n	0.0120

Computed Results:

Flowrate	12.6153 cfs
Area	1.7671 ft ²
wetted Area	1.2515 ft ²
wetted Perimeter	2.8659 ft
Perimeter	4.7124 ft
Velocity	10.0800 fps
Hydraulic Radius	0.4367 ft
Percent Full	66.6667 %
Full flow Flowrate	16.0933 cfs
Full flow velocity	9.1070 fps

Critical Information

Critical depth	1.4714 ft
Critical slope	0.0066 ft/ft
Critical velocity	6.4932 fps
Critical area	1.9656 ft ²
Critical perimeter	3.7989 ft
Critical hydraulic radius	0.5174 ft
Critical top width	1.5000 ft
Specific energy	2.5982 ft
Minimum energy	2.2071 ft
Froude number	1.9518
Flow condition	Supercritical

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	46.000	82	0.143	1.40	27.640	30.000	0.000	0.000
Composite	46.000	82		1.40				

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	5	28	50	23	10	7	5	4	2	2	0
Composite	1	5	28	50	23	10	7	5	4	2	2	0

The peak flow is 51.1 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	46.000	82	0.119	1.89	27.640	30.000	0.000	0.000
Composite	46.000	82		1.89				

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	40	68	31	13	9	7	5	3	2	0
Composite	2	7	40	68	31	13	9	7	5	3	2	0

The peak flow is 70.6 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	46.000	82	0.100	3.74	27.640	30.000	0.000	0.000
Composite	46.000	82		3.74				

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	15	83	136	61	26	16	13	9	6	4	0
Composite	5	15	83	136	61	26	16	13	9	6	4	0

The peak flow is 142.3 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	46.000	82	0.100	4.48	27.640	30.000	0.000	0.000
Composite	46.000	82		4.48				

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	18	99	163	73	31	20	15	10	7	5	0
Composite	5	18	99	163	73	31	20	15	10	7	5	0

The peak flow is 170.4 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	46.000	82	0.100	5.04	27.640	30.000	0.000	0.000
Composite	46.000	82		5.04				

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	21	112	184	82	35	22	17	12	8	5	0
Composite	6	21	112	184	82	35	22	17	12	8	5	0

The peak flow is 191.8 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	46.000	82	0.100	5.90	27.640	30.000	0.000	0.000
Composite	46.000	82		5.90				

SCS TR55 Tabular Method

Watershed Title: Post Development POI L with drywells

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	24	131	215	96	41	26	20	14	9	6	0
Composite	7	24	131	215	96	41	26	20	14	9	6	0

The peak flow is 224.2 cfs at 12.4 hrs.

Section 8.4
Conceptual Basin Design – Overall Project

Basin Volume Estimation : SCS Technical Release No. 55 (1986)

Inflow hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI A\post\with out drywell

Peak Basin Inflow: 89.10 CFS

Desired Basin Outflow: 84.80 CFS

Estimate of Basin Volume: 1.0393 Acre-ft = 45,271 Cubic Feet

Basin Volume Estimation : SCS Technical Release No. 55 (1986)

Inflow hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\post\with out drywell

Peak Basin Inflow: 2966.20 CFS

Desired Basin Outflow: 2,936.50 CFS

Estimate of Basin Volume: 63.9181 Acre-ft = 2,784,273 Cubic Feet

Basin Volume Estimation : SCS Technical Release No. 55 (1986)

Inflow hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI E\post\with out drywell

Peak Basin Inflow: 810.30 CFS

Desired Basin Outflow: 809.70 CFS

Estimate of Basin Volume: 13.4896 Acre-ft = 587,607 Cubic Feet

Basin Volume Estimation : SCS Technical Release No. 55 (1986)

Inflow hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI F\post\post with dr

Peak Basin Inflow: 213.00 CFS

Desired Basin Outflow: 204.10 CFS

Estimate of Basin Volume: 2.4136 Acre-ft = 105,136 Cubic Feet

Section 8.5
Detailed Basin Routings – Phase 1

BRINKASH ASSOCIATES, INC.

SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

DETENTION C-1

POST AREA C

DRAINAGE AREA = 38.37 AC.

$T_c = 31.87$ MINUTES

CN = 79

POST TO BASIN

ROUTED

- $Q_1 = 33.6$ cfs
- $Q_2 = 47.1$ cfs
- $Q_{10} = 105.4$ cfs
- $Q_{25} = 127.5$ cfs
- $Q_{50} = 144.4$ cfs
- $Q_{100} = 170.1$ cfs

- $Q_1 = 22.40$ cfs
- $Q_2 = 34.19$ cfs
- $Q_{10} = 74.59$ cfs
- $Q_{25} = 110.76$ cfs
- $Q_{50} = 128.44$ cfs
- $Q_{100} = 168.54$ cfs

TRAVEL TIME TO P.O.I

$T_c = 111.46$ MINUTES

SCS Segmental Travel Time

Summary for Post to Basin C-1

Segment 1: Overland Flow

L = 100 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3 in
Travel Time = 22.2 minutes

Segment 2: Concentrated Flow

L = 1300 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 9.5 minutes

Segment 3: Channel Flow

A = 1.76 sq. ft, P = 2.86 ft, L = 40 ft, S = .02 ft/ft, n = .012
Travel Time = 0.1 minutes

Segment 4: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 100 ft, S = .03 ft/ft, n = .035
Travel Time = 0.1 minutes

Total Travel Time = 31.87 Minutes

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IAP	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	38.370	79	0.177	1.19	31.870	30.000	0.000	1.860
Composite	38.370	79		1.19				

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	16	34	18	8	5	4	3	2	1	0
Composite	1	2	16	34	18	8	5	4	3	2	1	0

The peak flow is 33.6 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	38.370	79	0.148	1.64	31.870	30.000	0.000	1.860
Composite	38.370	79		1.64				

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	25	48	24	10	7	5	4	2	2	0
Composite	1	4	25	48	24	10	7	5	4	2	2	0

The peak flow is 47.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	38.370	79	0.100	3.41	31.870	30.000	0.000	1.860
Composite	38.370	79		3.41				

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	11	59	103	49	20	13	10	7	4	3	0
Composite	3	11	59	103	49	20	13	10	7	4	3	0

The peak flow is 105.4 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	38.370	79	0.100	4.13	31.870	30.000	0.000	1.860
Composite	38.370	79		4.13				

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	4	14	72	125	59	25	15	12	8	5	3	0
Composite	4	14	72	125	59	25	15	12	8	5	3	0

The peak flow is 127.5 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	38.370	79	0.100	4.68	31.870	30.000	0.000	1.860
Composite	38.370	79		4.68				

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	15	81	141	67	28	17	13	9	6	4	0
Composite	5	15	81	141	67	28	17	13	9	6	4	0

The peak flow is 144.4 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	38.370	79	0.100	5.51	31.870	30.000	0.000	1.860
Composite	38.370	79		5.51				

SCS TR55 Tabular Method

Watershed Title: Post to Basin C-1

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	18	96	167	79	33	21	16	11	7	5	0
Composite	6	18	96	167	79	33	21	16	11	7	5	0

The peak flow is 170.1 cfs at 12.4 hrs.

BASIN C-1

Basin Storage/Elevation Input

Elevation (ft)	Area (acres)	Storage (acre-ft)
1424	.35	0.000
1426	.42	0.770
1428	.48	1.670
1429	.51	2.165

Basin Storage/Elevation Input

NOTE: ELEV. ADJUSTMENT OF 10.0' HIGHER ON GRADING PLAN

Elevation (ft)	Area (acres)	Storage (acre-ft)
1424.00	.35	0.000
1426.00	.42	0.770
1428.00	.48	1.670
1429.00	.52	2.170
1430	.56	2.710

GRADING PLAN
BOTTOM = 1434
SPILLWAY = 1439
TOP = 1440

Project Files:

Outlet Structure Configuration: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.OSC
Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Outlet Structure Configuration for:

Stage 1: Rectangular Orifice

Invert Elevation = 1424.5 feet
Width = 3 feet
Height = 3 feet
Discharge Coefficient = 0.6

*NOTE: ELEV. ADJUSTMENT OF
10.0' HIGHER ON GRADING PLAN*

Stage 2: Emergency Spillway

Crest Elevation = 1429 feet
Crest Length = 33 feet
Discharge Coefficient = 3

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1424.00	0.00	N/A	N/A	N/A	N/A
1424.10	0.00	N/A	N/A	N/A	N/A
1424.20	0.00	N/A	N/A	N/A	N/A
1424.30	0.00	N/A	N/A	N/A	N/A
1424.40	0.00	N/A	N/A	N/A	N/A
1424.50	0.00	N/A	N/A	N/A	N/A
1424.60	0.30	N/A	N/A	N/A	N/A
1424.70	0.83	N/A	N/A	N/A	N/A
1424.80	1.53	N/A	N/A	N/A	N/A
1424.90	2.36	N/A	N/A	N/A	N/A
1425.00	3.30	N/A	N/A	N/A	N/A
1425.10	4.34	N/A	N/A	N/A	N/A
1425.20	5.46	N/A	N/A	N/A	N/A
1425.30	6.68	N/A	N/A	N/A	N/A
1425.40	7.97	N/A	N/A	N/A	N/A
1425.50	9.33	N/A	N/A	N/A	N/A
1425.60	10.76	N/A	N/A	N/A	N/A
1425.70	12.27	N/A	N/A	N/A	N/A
1425.80	13.83	N/A	N/A	N/A	N/A
1425.90	15.46	N/A	N/A	N/A	N/A
1426.00	17.14	N/A	N/A	N/A	N/A
1426.10	18.88	N/A	N/A	N/A	N/A
1426.20	20.68	N/A	N/A	N/A	N/A
1426.30	22.53	N/A	N/A	N/A	N/A
1426.40	24.44	N/A	N/A	N/A	N/A
1426.50	26.39	N/A	N/A	N/A	N/A
1426.60	28.40	N/A	N/A	N/A	N/A
1426.70	30.45	N/A	N/A	N/A	N/A
1426.80	32.55	N/A	N/A	N/A	N/A
1426.90	34.69	N/A	N/A	N/A	N/A
1427.00	36.88	N/A	N/A	N/A	N/A
1427.10	39.12	N/A	N/A	N/A	N/A
1427.20	41.40	N/A	N/A	N/A	N/A
1427.30	43.72	N/A	N/A	N/A	N/A
1427.40	46.08	N/A	N/A	N/A	N/A
1427.50	48.48	N/A	N/A	N/A	N/A
1427.60	54.81	N/A	N/A	N/A	N/A
1427.70	56.50	N/A	N/A	N/A	N/A
1427.80	58.14	N/A	N/A	N/A	N/A

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1427.90	59.73	N/A	N/A	N/A	N/A
1428.00	61.28	N/A	N/A	N/A	N/A
1428.10	62.80	N/A	N/A	N/A	N/A
1428.20	64.28	N/A	N/A	N/A	N/A
1428.30	65.72	N/A	N/A	N/A	N/A
1428.40	67.13	N/A	N/A	N/A	N/A
1428.50	68.52	N/A	N/A	N/A	N/A
1428.60	69.88	N/A	N/A	N/A	N/A
1428.70	71.21	N/A	N/A	N/A	N/A
1428.80	72.51	N/A	N/A	N/A	N/A
1428.90	73.80	N/A	N/A	N/A	N/A
1429.00	75.06	N/A	N/A	N/A	N/A
1429.10	79.43	N/A	N/A	N/A	N/A
1429.20	86.37	N/A	N/A	N/A	N/A
1429.30	94.99	N/A	N/A	N/A	N/A
1429.40	104.95	N/A	N/A	N/A	N/A
1429.50	116.07	N/A	N/A	N/A	N/A
1429.60	128.23	N/A	N/A	N/A	N/A
1429.70	141.34	N/A	N/A	N/A	N/A
1429.80	155.31	N/A	N/A	N/A	N/A
1429.90	170.11	N/A	N/A	N/A	N/A
1430.00	185.67	N/A	N/A	N/A	N/A

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.70	0.70	0.0000	1424.00	0.000	0.000
0.10	0.80	0.80	0.0062	1424.02	0.000	0.000
0.20	0.90	0.90	0.0132	1424.03	0.000	0.000
0.30	1.00	1.00	0.0211	1424.06	0.000	0.000
0.40	1.10	1.10	0.0298	1424.08	0.000	0.000
0.50	1.20	1.20	0.0393	1424.10	0.000	0.000
0.60	1.40	1.40	0.0500	1424.13	0.000	0.000
0.70	1.70	1.70	0.0628	1424.16	0.000	0.000
0.80	2.10	2.10	0.0785	1424.20	0.000	0.000
0.90	2.40	2.40	0.0971	1424.25	0.000	0.000
1.00	4.10	4.10	0.1240	1424.32	0.000	0.000
1.10	8.10	8.10	0.1744	1424.45	0.000	0.000
1.20	16.00	16.00	0.2704	1424.70	0.85	0.85
1.30	26.40	26.40	0.4241	1425.10	4.36	4.36
1.40	32.90	32.90	0.6079	1425.58	10.46	10.46
1.50	33.60	33.60	0.7689	1426.00	17.09	17.09
1.60	28.80	28.80	0.8691	1426.22	21.06	21.06
1.70	22.60	22.60	0.9019	1426.29	22.40	22.40
1.80	17.70	17.70	0.8860	1426.26	21.75	21.75
1.90	14.50	14.50	0.8460	1426.17	20.12	20.12
2.00	11.30	11.30	0.7947	1426.06	18.10	18.10
2.10	9.60	9.60	0.7407	1425.92	15.86	15.86
2.20	7.90	7.90	0.6907	1425.79	13.74	13.74
2.30	7.00	7.00	0.6462	1425.68	11.94	11.94
2.40	6.10	6.10	0.6078	1425.58	10.46	10.46
2.50	5.60	5.60	0.5747	1425.49	9.23	9.23
2.60	5.00	5.00	0.5464	1425.42	8.23	8.23
2.70	4.70	4.70	0.5219	1425.36	7.39	7.39
2.80	4.40	4.40	0.5013	1425.30	6.70	6.70
2.90	4.10	4.10	0.4833	1425.26	6.14	6.14
3.00	3.90	3.90	0.4677	1425.22	5.64	5.64
3.10	3.70	3.70	0.4542	1425.18	5.24	5.24
3.20	3.60	3.60	0.4425	1425.15	4.89	4.89
3.30	3.40	3.40	0.4322	1425.12	4.59	4.59
3.40	3.20	3.20	0.4227	1425.10	4.31	4.31
3.50	3.10	3.10	0.4140	1425.08	4.08	4.08
3.60	3.00	3.00	0.4063	1425.06	3.87	3.87
3.70	2.90	2.90	0.3995	1425.04	3.69	3.69
3.80	2.80	2.80	0.3932	1425.02	3.52	3.52
3.90	2.80	2.80	0.3879	1425.01	3.38	3.38
4.00	2.70	2.70	0.3832	1425.00	3.25	3.25
4.10	2.60	2.60	0.3787	1424.98	3.14	3.14
4.20	2.60	2.60	0.3746	1424.97	3.04	3.04
4.30	2.50	2.50	0.3708	1424.96	2.95	2.95
4.40	2.50	2.50	0.3674	1424.95	2.87	2.87
4.50	2.40	2.40	0.3643	1424.95	2.79	2.79
4.60	2.40	2.40	0.3613	1424.94	2.72	2.72
4.70	2.30	2.30	0.3585	1424.93	2.65	2.65

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.30	2.30	0.3559	1424.92	2.59	2.59
4.90	2.20	2.20	0.3533	1424.92	2.53	2.53
5.00	2.20	2.20	0.3509	1424.91	2.47	2.47
5.10	2.10	2.10	0.3485	1424.91	2.41	2.41
5.20	2.10	2.10	0.3462	1424.90	2.35	2.35
5.30	2.00	2.00	0.3439	1424.89	2.30	2.30
5.40	2.00	2.00	0.3415	1424.89	2.25	2.25
5.50	1.90	1.90	0.3392	1424.88	2.20	2.20
5.60	1.90	1.90	0.3369	1424.88	2.15	2.15
5.70	1.90	1.90	0.3350	1424.87	2.11	2.11
5.80	1.80	1.80	0.3330	1424.87	2.07	2.07
5.90	1.80	1.80	0.3309	1424.86	2.03	2.03
6.00	1.80	1.80	0.3292	1424.86	1.99	1.99
6.10	1.80	1.80	0.3278	1424.85	1.96	1.96
6.20	1.70	1.70	0.3262	1424.85	1.92	1.92
6.30	1.70	1.70	0.3245	1424.84	1.89	1.89
6.40	1.70	1.70	0.3231	1424.84	1.86	1.86
6.50	1.70	1.70	0.3219	1424.84	1.83	1.83
6.60	1.70	1.70	0.3209	1424.83	1.81	1.81
6.70	1.70	1.70	0.3200	1424.83	1.79	1.79
6.80	1.60	1.60	0.3190	1424.83	1.77	1.77
6.90	1.60	1.60	0.3177	1424.83	1.74	1.74
7.00	1.60	1.60	0.3166	1424.82	1.72	1.72
7.10	1.60	1.60	0.3157	1424.82	1.70	1.70
7.20	1.60	1.60	0.3150	1424.82	1.68	1.68
7.30	1.50	1.50	0.3140	1424.82	1.66	1.66
7.40	1.50	1.50	0.3127	1424.81	1.63	1.63
7.50	1.50	1.50	0.3117	1424.81	1.61	1.61
7.60	1.50	1.50	0.3109	1424.81	1.59	1.59
7.70	1.50	1.50	0.3101	1424.81	1.58	1.58
7.80	1.40	1.40	0.3092	1424.80	1.56	1.56
7.90	1.40	1.40	0.3080	1424.80	1.53	1.53
8.00	1.40	1.40	0.3069	1424.80	1.51	1.51
8.10	1.40	1.40	0.3061	1424.80	1.50	1.50
8.20	1.40	1.40	0.3053	1424.79	1.48	1.48
8.30	1.30	1.30	0.3043	1424.79	1.47	1.47
8.40	1.30	1.30	0.3030	1424.79	1.44	1.44
8.50	1.30	1.30	0.3019	1424.78	1.42	1.42
8.60	1.30	1.30	0.3010	1424.78	1.41	1.41
8.70	1.30	1.30	0.3002	1424.78	1.39	1.39
8.80	1.30	1.30	0.2995	1424.78	1.38	1.38
8.90	1.20	1.20	0.2985	1424.78	1.36	1.36
9.00	1.20	1.20	0.2972	1424.77	1.34	1.34
9.10	1.20	1.20	0.2962	1424.77	1.32	1.32
9.20	1.20	1.20	0.2953	1424.77	1.30	1.30
9.30	1.20	1.20	0.2945	1424.77	1.29	1.29
9.40	1.20	1.20	0.2938	1424.76	1.28	1.28
9.50	1.20	1.20	0.2932	1424.76	1.27	1.27
9.60	1.20	1.20	0.2927	1424.76	1.26	1.26
9.70	1.20	1.20	0.2923	1424.76	1.25	1.25
9.80	1.10	1.10	0.2915	1424.76	1.23	1.23
9.90	1.10	1.10	0.2905	1424.76	1.22	1.22
10.00	1.10	1.10	0.2896	1424.75	1.20	1.20
10.10	1.10	1.10	0.2888	1424.75	1.19	1.19
10.20	1.10	1.10	0.2882	1424.75	1.17	1.17
10.30	1.10	1.10	0.2876	1424.75	1.16	1.16
10.40	1.10	1.10	0.2871	1424.75	1.15	1.15
10.50	1.10	1.10	0.2867	1424.75	1.15	1.15

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.10	1.10	0.2863	1424.74	1.14	1.14
10.70	1.10	1.10	0.2860	1424.74	1.13	1.13
10.80	1.10	1.10	0.2858	1424.74	1.13	1.13
10.90	1.10	1.10	0.2855	1424.74	1.13	1.13
11.00	1.00	1.00	0.2850	1424.74	1.12	1.12
11.10	1.00	1.00	0.2841	1424.74	1.10	1.10
11.20	1.00	1.00	0.2833	1424.74	1.09	1.09
11.30	1.00	1.00	0.2827	1424.73	1.07	1.07
11.40	0.90	0.90	0.2817	1424.73	1.06	1.06
11.50	0.90	0.90	0.2805	1424.73	1.03	1.03
11.60	0.90	0.90	0.2795	1424.73	1.02	1.02
11.70	0.90	0.90	0.2786	1424.72	1.00	1.00
11.80	0.80	0.80	0.2774	1424.72	0.98	0.98
11.90	0.80	0.80	0.2761	1424.72	0.95	0.95
12.00	0.80	0.80	0.2749	1424.71	0.93	0.93
12.10	0.80	0.80	0.2739	1424.71	0.91	0.91
12.20	0.70	0.70	0.2726	1424.71	0.89	0.89
12.30	0.70	0.70	0.2711	1424.70	0.86	0.86
12.40	0.70	0.70	0.2699	1424.70	0.84	0.84
12.50	0.70	0.70	0.2688	1424.70	0.82	0.82
12.60	0.60	0.60	0.2674	1424.70	0.81	0.81
12.70	0.60	0.60	0.2658	1424.69	0.78	0.78
12.80	0.60	0.60	0.2644	1424.69	0.76	0.76
12.90	0.50	0.50	0.2627	1424.68	0.74	0.74
13.00	0.50	0.50	0.2608	1424.68	0.71	0.71
13.10	0.50	0.50	0.2592	1424.67	0.69	0.69
13.20	0.50	0.50	0.2577	1424.67	0.67	0.67
13.30	0.40	0.40	0.2560	1424.67	0.65	0.65
13.40	0.40	0.40	0.2540	1424.66	0.62	0.62
13.50	0.40	0.40	0.2523	1424.66	0.59	0.59
13.60	0.40	0.40	0.2508	1424.65	0.57	0.57
13.70	0.30	0.30	0.2491	1424.65	0.55	0.55
13.80	0.30	0.30	0.2471	1424.64	0.52	0.52
13.90	0.30	0.30	0.2454	1424.64	0.497	0.497
14.00	0.30	0.30	0.2439	1424.63	0.476	0.476
14.10	0.20	0.20	0.2421	1424.63	0.451	0.451
14.20	0.20	0.20	0.2402	1424.62	0.423	0.423
14.30	0.20	0.20	0.2384	1424.62	0.399	0.399
14.40	0.20	0.20	0.2369	1424.62	0.377	0.377
14.50	0.10	0.10	0.2351	1424.61	0.352	0.352
14.60	0.10	0.10	0.2331	1424.61	0.325	0.325
14.70	0.10	0.10	0.2314	1424.60	0.300	0.300
14.80	0.10	0.10	0.2298	1424.60	0.286	0.286
14.90	0.00	0.00	0.2279	1424.59	0.271	0.271
15.00	0.00	0.00	0.2257	1424.59	0.254	0.254

Total Routing Mass Balance Discrepancy is -0.05%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.70	0.70	0.0000	1424.00	0.000	0.000
Max. Inflow	1.50	33.60	33.60	0.7689	1426.00	17.09	17.09
Max. Outflow	1.70	22.60	22.60	0.9019	1426.29	22.40	22.40
Final	15.00	0.00	0.00	0.2257	1424.59	0.254	0.254

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.30	1.30	0.0000	1424.00	0.000	0.000
0.10	1.40	1.40	0.0112	1424.03	0.000	0.000
0.20	1.60	1.60	0.0236	1424.06	0.000	0.000
0.30	1.70	1.70	0.0372	1424.10	0.000	0.000
0.40	1.90	1.90	0.0521	1424.14	0.000	0.000
0.50	2.10	2.10	0.0686	1424.18	0.000	0.000
0.60	2.40	2.40	0.0872	1424.23	0.000	0.000
0.70	3.00	3.00	0.1095	1424.28	0.000	0.000
0.80	3.60	3.60	0.1368	1424.36	0.000	0.000
0.90	4.20	4.20	0.1690	1424.44	0.000	0.000
1.00	6.90	6.90	0.2142	1424.56	0.166	0.166
1.10	13.00	13.00	0.2907	1424.76	1.22	1.22
1.20	24.60	24.60	0.4231	1425.10	4.33	4.33
1.30	39.30	39.30	0.6236	1425.62	11.06	11.06
1.40	47.50	47.50	0.8524	1426.18	20.38	20.38
1.50	47.70	47.70	1.0436	1426.61	28.56	28.56
1.60	40.10	40.10	1.1499	1426.84	33.50	33.50
1.70	31.10	31.10	1.1645	1426.88	34.19	34.19
1.80	24.10	24.10	1.1189	1426.78	32.03	32.03
1.90	19.70	19.70	1.0486	1426.62	28.79	28.79
2.00	15.20	15.20	0.9694	1426.44	25.28	25.28
2.10	12.80	12.80	0.8901	1426.27	21.92	21.92
2.20	10.50	10.50	0.8174	1426.11	18.98	18.98
2.30	9.30	9.30	0.7530	1425.96	16.40	16.40
2.40	8.10	8.10	0.6989	1425.82	14.08	14.08
2.50	7.40	7.40	0.6542	1425.70	12.25	12.25
2.60	6.70	6.70	0.6171	1425.60	10.81	10.81
2.70	6.20	6.20	0.5859	1425.52	9.64	9.64
2.80	5.80	5.80	0.5597	1425.45	8.70	8.70
2.90	5.40	5.40	0.5373	1425.40	7.91	7.91
3.00	5.10	5.10	0.5180	1425.35	7.26	7.26
3.10	4.90	4.90	0.5016	1425.30	6.71	6.71
3.20	4.70	4.70	0.4876	1425.27	6.27	6.27
3.30	4.40	4.40	0.4750	1425.23	5.87	5.87
3.40	4.30	4.30	0.4639	1425.21	5.52	5.52
3.50	4.10	4.10	0.4541	1425.18	5.23	5.23
3.60	3.90	3.90	0.4450	1425.16	4.97	4.97
3.70	3.80	3.80	0.4368	1425.14	4.73	4.73
3.80	3.70	3.70	0.4296	1425.12	4.52	4.52
3.90	3.60	3.60	0.4232	1425.10	4.33	4.33
4.00	3.50	3.50	0.4174	1425.08	4.17	4.17
4.10	3.40	3.40	0.4120	1425.07	4.03	4.03
4.20	3.40	3.40	0.4074	1425.06	3.90	3.90
4.30	3.30	3.30	0.4033	1425.05	3.79	3.79
4.40	3.20	3.20	0.3992	1425.04	3.68	3.68
4.50	3.20	3.20	0.3956	1425.03	3.59	3.59
4.60	3.10	3.10	0.3924	1425.02	3.50	3.50
4.70	3.00	3.00	0.3891	1425.01	3.41	3.41

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	3.00	3.00	0.3860	1425.00	3.33	3.33
4.90	2.90	2.90	0.3832	1425.00	3.26	3.26
5.00	2.90	2.90	0.3805	1424.99	3.19	3.19
5.10	2.80	2.80	0.3780	1424.98	3.13	3.13
5.20	2.70	2.70	0.3751	1424.97	3.06	3.06
5.30	2.70	2.70	0.3725	1424.97	2.99	2.99
5.40	2.60	2.60	0.3699	1424.96	2.93	2.93
5.50	2.50	2.50	0.3670	1424.95	2.86	2.86
5.60	2.50	2.50	0.3643	1424.95	2.79	2.79
5.70	2.40	2.40	0.3617	1424.94	2.73	2.73
5.80	2.40	2.40	0.3592	1424.93	2.67	2.67
5.90	2.40	2.40	0.3572	1424.93	2.62	2.62
6.00	2.30	2.30	0.3552	1424.92	2.57	2.57
6.10	2.30	2.30	0.3531	1424.92	2.52	2.52
6.20	2.30	2.30	0.3514	1424.91	2.48	2.48
6.30	2.20	2.20	0.3497	1424.91	2.44	2.44
6.40	2.20	2.20	0.3479	1424.90	2.40	2.40
6.50	2.20	2.20	0.3464	1424.90	2.36	2.36
6.60	2.20	2.20	0.3452	1424.90	2.33	2.33
6.70	2.20	2.20	0.3442	1424.89	2.31	2.31
6.80	2.10	2.10	0.3430	1424.89	2.29	2.29
6.90	2.10	2.10	0.3416	1424.89	2.26	2.26
7.00	2.10	2.10	0.3404	1424.88	2.23	2.23
7.10	2.10	2.10	0.3394	1424.88	2.21	2.21
7.20	2.00	2.00	0.3382	1424.88	2.18	2.18
7.30	2.00	2.00	0.3368	1424.88	2.15	2.15
7.40	2.00	2.00	0.3357	1424.87	2.13	2.13
7.50	1.90	1.90	0.3343	1424.87	2.10	2.10
7.60	1.90	1.90	0.3328	1424.86	2.07	2.07
7.70	1.90	1.90	0.3315	1424.86	2.04	2.04
7.80	1.90	1.90	0.3305	1424.86	2.02	2.02
7.90	1.80	1.80	0.3292	1424.86	1.99	1.99
8.00	1.80	1.80	0.3278	1424.85	1.96	1.96
8.10	1.80	1.80	0.3266	1424.85	1.93	1.93
8.20	1.80	1.80	0.3256	1424.85	1.91	1.91
8.30	1.70	1.70	0.3244	1424.84	1.88	1.88
8.40	1.70	1.70	0.3230	1424.84	1.85	1.85
8.50	1.70	1.70	0.3218	1424.84	1.83	1.83
8.60	1.70	1.70	0.3208	1424.83	1.81	1.81
8.70	1.60	1.60	0.3196	1424.83	1.78	1.78
8.80	1.60	1.60	0.3182	1424.83	1.75	1.75
8.90	1.60	1.60	0.3171	1424.82	1.73	1.73
9.00	1.60	1.60	0.3161	1424.82	1.71	1.71
9.10	1.60	1.60	0.3153	1424.82	1.69	1.69
9.20	1.50	1.50	0.3142	1424.82	1.67	1.67
9.30	1.50	1.50	0.3129	1424.81	1.64	1.64
9.40	1.50	1.50	0.3119	1424.81	1.62	1.62
9.50	1.50	1.50	0.3110	1424.81	1.60	1.60
9.60	1.50	1.50	0.3103	1424.81	1.58	1.58
9.70	1.50	1.50	0.3096	1424.80	1.57	1.57
9.80	1.50	1.50	0.3091	1424.80	1.56	1.56
9.90	1.50	1.50	0.3087	1424.80	1.55	1.55
10.00	1.50	1.50	0.3083	1424.80	1.54	1.54
10.10	1.40	1.40	0.3076	1424.80	1.53	1.53
10.20	1.40	1.40	0.3067	1424.80	1.51	1.51
10.30	1.40	1.40	0.3058	1424.79	1.49	1.49
10.40	1.40	1.40	0.3051	1424.79	1.48	1.48
10.50	1.40	1.40	0.3045	1424.79	1.47	1.47

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.40	1.40	0.3040	1424.79	1.46	1.46
10.70	1.40	1.40	0.3035	1424.79	1.45	1.45
10.80	1.40	1.40	0.3031	1424.79	1.44	1.44
10.90	1.40	1.40	0.3028	1424.79	1.44	1.44
11.00	1.30	1.30	0.3021	1424.79	1.43	1.43
11.10	1.30	1.30	0.3011	1424.78	1.41	1.41
11.20	1.30	1.30	0.3003	1424.78	1.39	1.39
11.30	1.20	1.20	0.2992	1424.78	1.37	1.37
11.40	1.20	1.20	0.2979	1424.77	1.35	1.35
11.50	1.20	1.20	0.2967	1424.77	1.33	1.33
11.60	1.10	1.10	0.2953	1424.77	1.30	1.30
11.70	1.10	1.10	0.2938	1424.76	1.28	1.28
11.80	1.10	1.10	0.2924	1424.76	1.25	1.25
11.90	1.00	1.00	0.2909	1424.76	1.22	1.22
12.00	1.00	1.00	0.2892	1424.75	1.19	1.19
12.10	1.00	1.00	0.2877	1424.75	1.16	1.16
12.20	0.90	0.90	0.2860	1424.74	1.13	1.13
12.30	0.90	0.90	0.2842	1424.74	1.10	1.10
12.40	0.90	0.90	0.2827	1424.73	1.07	1.07
12.50	0.80	0.80	0.2810	1424.73	1.04	1.04
12.60	0.80	0.80	0.2791	1424.73	1.01	1.01
12.70	0.80	0.80	0.2775	1424.72	0.98	0.98
12.80	0.70	0.70	0.2757	1424.72	0.95	0.95
12.90	0.70	0.70	0.2738	1424.71	0.91	0.91
13.00	0.70	0.70	0.2722	1424.71	0.88	0.88
13.10	0.60	0.60	0.2704	1424.70	0.85	0.85
13.20	0.60	0.60	0.2684	1424.70	0.82	0.82
13.30	0.60	0.60	0.2667	1424.69	0.80	0.80
13.40	0.50	0.50	0.2648	1424.69	0.77	0.77
13.50	0.50	0.50	0.2627	1424.68	0.74	0.74
13.60	0.50	0.50	0.2608	1424.68	0.71	0.71
13.70	0.40	0.40	0.2588	1424.67	0.68	0.68
13.80	0.40	0.40	0.2565	1424.67	0.65	0.65
13.90	0.40	0.40	0.2546	1424.66	0.63	0.63
14.00	0.30	0.30	0.2524	1424.66	0.60	0.60
14.10	0.30	0.30	0.2501	1424.65	0.56	0.56
14.20	0.30	0.30	0.2481	1424.64	0.53	0.53
14.30	0.20	0.20	0.2458	1424.64	0.50	0.50
14.40	0.20	0.20	0.2435	1424.63	0.470	0.470
14.50	0.20	0.20	0.2414	1424.63	0.440	0.440
14.60	0.10	0.10	0.2391	1424.62	0.408	0.408
14.70	0.10	0.10	0.2367	1424.62	0.375	0.375
14.80	0.10	0.10	0.2345	1424.61	0.345	0.345
14.90	0.00	0.00	0.2322	1424.60	0.312	0.312
15.00	0.00	0.00	0.2298	1424.60	0.286	0.286

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.30	1.30	0.0000	1424.00	0.000	0.000
Max. Inflow	1.50	47.70	47.70	1.0436	1426.61	28.56	28.56
Max. Outflow	1.70	31.10	31.10	1.1645	1426.88	34.19	34.19
Final	15.00	0.00	0.00	0.2298	1424.60	0.286	0.286

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\10.HYD
Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
Starting Pool Elevation = 1424.00 feet
Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	3.40	3.40	0.0000	1424.00	0.000	0.000
0.10	3.80	3.80	0.0298	1424.08	0.000	0.000
0.20	4.20	4.20	0.0628	1424.16	0.000	0.000
0.30	4.60	4.60	0.0992	1424.26	0.000	0.000
0.40	5.20	5.20	0.1397	1424.36	0.000	0.000
0.50	5.80	5.80	0.1851	1424.48	0.000	0.000
0.60	6.40	6.40	0.2341	1424.61	0.339	0.339
0.70	8.00	8.00	0.2874	1424.75	1.16	1.16
0.80	9.70	9.70	0.3461	1424.90	2.35	2.35
0.90	11.30	11.30	0.4070	1425.06	3.89	3.89
1.00	18.30	18.30	0.4874	1425.27	6.26	6.26
1.10	32.90	32.90	0.6268	1425.63	11.19	11.19
1.20	59.50	59.50	0.8745	1426.23	21.28	21.28
1.30	91.00	91.00	1.2499	1427.07	38.37	38.37
1.40	105.40	105.40	1.6522	1427.96	60.67	60.67
1.50	103.20	103.20	1.9743	1428.61	69.99	69.99
1.60	84.30	84.30	2.1516	1428.96	74.59	74.59
1.70	63.70	63.70	2.1472	1428.95	74.48	74.48
1.80	48.70	48.70	2.0107	1428.68	70.96	70.96
1.90	39.40	39.40	1.8110	1428.28	65.46	65.46
2.00	30.00	30.00	1.5861	1427.81	58.36	58.36
2.10	25.20	25.20	1.3858	1427.37	45.33	45.33
2.20	20.40	20.40	1.2320	1427.03	37.48	37.48
2.30	18.00	18.00	1.1059	1426.75	31.43	31.43
2.40	15.50	15.50	1.0038	1426.52	26.79	26.79
2.50	14.10	14.10	0.9198	1426.33	23.16	23.16
2.60	12.70	12.70	0.8509	1426.18	20.32	20.32
2.70	11.90	11.90	0.7939	1426.05	18.07	18.07
2.80	11.00	11.00	0.7472	1425.94	16.14	16.14
2.90	10.40	10.40	0.7090	1425.84	14.50	14.50
3.00	9.70	9.70	0.6775	1425.76	13.20	13.20
3.10	9.30	9.30	0.6513	1425.69	12.14	12.14
3.20	8.90	8.90	0.6297	1425.64	11.30	11.30
3.30	8.50	8.50	0.6111	1425.59	10.58	10.58
3.40	8.10	8.10	0.5948	1425.55	9.97	9.97
3.50	7.70	7.70	0.5799	1425.51	9.42	9.42
3.60	7.40	7.40	0.5665	1425.47	8.94	8.94
3.70	7.20	7.20	0.5546	1425.44	8.52	8.52
3.80	7.00	7.00	0.5444	1425.41	8.16	8.16
3.90	6.80	6.80	0.5353	1425.39	7.84	7.84
4.00	6.60	6.60	0.5270	1425.37	7.56	7.56
4.10	6.50	6.50	0.5196	1425.35	7.32	7.32
4.20	6.30	6.30	0.5130	1425.33	7.09	7.09
4.30	6.20	6.20	0.5068	1425.32	6.89	6.89
4.40	6.10	6.10	0.5015	1425.30	6.71	6.71
4.50	5.90	5.90	0.4963	1425.29	6.54	6.54
4.60	5.80	5.80	0.4912	1425.28	6.38	6.38
4.70	5.70	5.70	0.4866	1425.26	6.24	6.24

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	5.60	5.60	0.4823	1425.25	6.10	6.10
4.90	5.40	5.40	0.4779	1425.24	5.96	5.96
5.00	5.30	5.30	0.4734	1425.23	5.82	5.82
5.10	5.20	5.20	0.4692	1425.22	5.69	5.69
5.20	5.10	5.10	0.4652	1425.21	5.57	5.57
5.30	5.00	5.00	0.4614	1425.20	5.45	5.45
5.40	4.80	4.80	0.4574	1425.19	5.33	5.33
5.50	4.70	4.70	0.4531	1425.18	5.20	5.20
5.60	4.60	4.60	0.4490	1425.17	5.08	5.08
5.70	4.50	4.50	0.4451	1425.16	4.97	4.97
5.80	4.50	4.50	0.4416	1425.15	4.87	4.87
5.90	4.40	4.40	0.4385	1425.14	4.78	4.78
6.00	4.30	4.30	0.4354	1425.13	4.69	4.69
6.10	4.30	4.30	0.4325	1425.12	4.60	4.60
6.20	4.20	4.20	0.4300	1425.12	4.53	4.53
6.30	4.20	4.20	0.4275	1425.11	4.46	4.46
6.40	4.10	4.10	0.4253	1425.11	4.39	4.39
6.50	4.10	4.10	0.4232	1425.10	4.33	4.33
6.60	4.10	4.10	0.4215	1425.10	4.28	4.28
6.70	4.00	4.00	0.4197	1425.09	4.24	4.24
6.80	4.00	4.00	0.4180	1425.09	4.19	4.19
6.90	3.90	3.90	0.4162	1425.08	4.14	4.14
7.00	3.90	3.90	0.4144	1425.08	4.09	4.09
7.10	3.80	3.80	0.4126	1425.07	4.04	4.04
7.20	3.80	3.80	0.4108	1425.07	3.99	3.99
7.30	3.70	3.70	0.4090	1425.06	3.95	3.95
7.40	3.60	3.60	0.4068	1425.06	3.89	3.89
7.50	3.60	3.60	0.4047	1425.05	3.83	3.83
7.60	3.50	3.50	0.4026	1425.05	3.77	3.77
7.70	3.50	3.50	0.4006	1425.04	3.72	3.72
7.80	3.40	3.40	0.3986	1425.04	3.66	3.66
7.90	3.30	3.30	0.3962	1425.03	3.60	3.60
8.00	3.30	3.30	0.3940	1425.02	3.54	3.54
8.10	3.20	3.20	0.3918	1425.02	3.48	3.48
8.20	3.20	3.20	0.3897	1425.01	3.43	3.43
8.30	3.20	3.20	0.3880	1425.01	3.38	3.38
8.40	3.10	3.10	0.3863	1425.00	3.33	3.33
8.50	3.10	3.10	0.3846	1425.00	3.29	3.29
8.60	3.00	3.00	0.3828	1424.99	3.24	3.24
8.70	3.00	3.00	0.3809	1424.99	3.20	3.20
8.80	2.90	2.90	0.3791	1424.99	3.15	3.15
8.90	2.90	2.90	0.3772	1424.98	3.11	3.11
9.00	2.90	2.90	0.3756	1424.98	3.07	3.07
9.10	2.80	2.80	0.3739	1424.97	3.03	3.03
9.20	2.80	2.80	0.3722	1424.97	2.99	2.99
9.30	2.80	2.80	0.3708	1424.96	2.95	2.95
9.40	2.80	2.80	0.3697	1424.96	2.93	2.93
9.50	2.80	2.80	0.3687	1424.96	2.90	2.90
9.60	2.70	2.70	0.3676	1424.96	2.87	2.87
9.70	2.70	2.70	0.3663	1424.95	2.84	2.84
9.80	2.70	2.70	0.3652	1424.95	2.82	2.82
9.90	2.70	2.70	0.3643	1424.95	2.80	2.80
10.00	2.70	2.70	0.3636	1424.94	2.78	2.78
10.10	2.60	2.60	0.3626	1424.94	2.75	2.75
10.20	2.60	2.60	0.3615	1424.94	2.73	2.73
10.30	2.60	2.60	0.3605	1424.94	2.70	2.70
10.40	2.60	2.60	0.3598	1424.93	2.68	2.68
10.50	2.60	2.60	0.3591	1424.93	2.67	2.67

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.50	2.50	0.3582	1424.93	2.65	2.65
10.70	2.50	2.50	0.3571	1424.93	2.62	2.62
10.80	2.50	2.50	0.3562	1424.93	2.60	2.60
10.90	2.50	2.50	0.3555	1424.92	2.58	2.58
11.00	2.50	2.50	0.3549	1424.92	2.57	2.57
11.10	2.40	2.40	0.3540	1424.92	2.54	2.54
11.20	2.30	2.30	0.3526	1424.92	2.51	2.51
11.30	2.30	2.30	0.3510	1424.91	2.47	2.47
11.40	2.20	2.20	0.3493	1424.91	2.43	2.43
11.50	2.10	2.10	0.3472	1424.90	2.38	2.38
11.60	2.10	2.10	0.3451	1424.90	2.33	2.33
11.70	2.00	2.00	0.3430	1424.89	2.29	2.29
11.80	2.00	2.00	0.3408	1424.89	2.24	2.24
11.90	1.90	1.90	0.3386	1424.88	2.19	2.19
12.00	1.80	1.80	0.3360	1424.87	2.14	2.14
12.10	1.80	1.80	0.3335	1424.87	2.08	2.08
12.20	1.70	1.70	0.3310	1424.86	2.03	2.03
12.30	1.70	1.70	0.3285	1424.85	1.97	1.97
12.40	1.60	1.60	0.3260	1424.85	1.92	1.92
12.50	1.50	1.50	0.3232	1424.84	1.86	1.86
12.60	1.50	1.50	0.3205	1424.83	1.80	1.80
12.70	1.40	1.40	0.3178	1424.83	1.74	1.74
12.80	1.40	1.40	0.3152	1424.82	1.69	1.69
12.90	1.30	1.30	0.3126	1424.81	1.63	1.63
13.00	1.20	1.20	0.3097	1424.81	1.57	1.57
13.10	1.20	1.20	0.3069	1424.80	1.51	1.51
13.20	1.10	1.10	0.3041	1424.79	1.46	1.46
13.30	1.00	1.00	0.3009	1424.78	1.41	1.41
13.40	1.00	1.00	0.2978	1424.77	1.35	1.35
13.50	0.90	0.90	0.2948	1424.77	1.29	1.29
13.60	0.90	0.90	0.2917	1424.76	1.24	1.24
13.70	0.80	0.80	0.2888	1424.75	1.18	1.18
13.80	0.70	0.70	0.2854	1424.74	1.12	1.12
13.90	0.70	0.70	0.2822	1424.73	1.06	1.06
14.00	0.60	0.60	0.2790	1424.73	1.01	1.01
14.10	0.60	0.60	0.2758	1424.72	0.95	0.95
14.20	0.50	0.50	0.2728	1424.71	0.89	0.89
14.30	0.40	0.40	0.2694	1424.70	0.83	0.83
14.40	0.40	0.40	0.2660	1424.69	0.79	0.79
14.50	0.30	0.30	0.2626	1424.68	0.74	0.74
14.60	0.20	0.20	0.2588	1424.67	0.68	0.68
14.70	0.20	0.20	0.2550	1424.66	0.63	0.63
14.80	0.10	0.10	0.2512	1424.65	0.58	0.58
14.90	0.10	0.10	0.2475	1424.64	0.53	0.53
15.00	0.00	0.00	0.2438	1424.63	0.474	0.474

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	3.40	3.40	0.0000	1424.00	0.000	0.000
Max. Inflow	1.40	105.40	105.40	1.6522	1427.96	60.67	60.67
Max. Outflow	1.60	84.30	84.30	2.1516	1428.96	74.59	74.59
Final	15.00	0.00	0.00	0.2438	1424.63	0.474	0.474

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	4.10	4.10	0.0000	1424.00	0.000	0.000
0.10	4.60	4.60	0.0360	1424.09	0.000	0.000
0.20	5.10	5.10	0.0760	1424.20	0.000	0.000
0.30	5.60	5.60	0.1202	1424.31	0.000	0.000
0.40	6.30	6.30	0.1694	1424.44	0.000	0.000
0.50	7.10	7.10	0.2238	1424.58	0.240	0.240
0.60	7.80	7.80	0.2801	1424.73	1.03	1.03
0.70	9.70	9.70	0.3391	1424.88	2.20	2.20
0.80	11.70	11.70	0.4028	1425.05	3.78	3.78
0.90	13.70	13.70	0.4687	1425.22	5.68	5.68
1.00	22.20	22.20	0.5579	1425.45	8.64	8.64
1.10	39.80	39.80	0.7171	1425.86	14.85	14.85
1.20	72.00	72.00	1.0065	1426.53	26.90	26.90
1.30	110.10	110.10	1.4466	1427.50	48.70	48.70
1.40	127.50	127.50	1.9416	1428.54	69.10	69.10
1.50	124.90	124.90	2.3166	1429.27	92.54	92.54
1.60	102.00	102.00	2.4142	1429.45	110.76	110.76
1.70	77.10	77.10	2.3152	1429.27	92.30	92.30
1.80	58.90	58.90	2.1817	1429.02	76.00	76.00
1.90	47.60	47.60	2.0141	1428.69	71.05	71.05
2.00	36.30	36.30	1.7982	1428.26	65.09	65.09
2.10	30.50	30.50	1.5670	1427.77	57.67	57.67
2.20	24.70	24.70	1.3724	1427.34	44.63	44.63
2.30	21.70	21.70	1.2260	1427.01	37.18	37.18
2.40	18.80	18.80	1.1093	1426.75	31.58	31.58
2.50	17.10	17.10	1.0145	1426.54	27.26	27.26
2.60	15.40	15.40	0.9374	1426.37	23.90	23.90
2.70	14.30	14.30	0.8736	1426.23	21.24	21.24
2.80	13.30	13.30	0.8208	1426.11	19.12	19.12
2.90	12.50	12.50	0.7766	1426.02	17.40	17.40
3.00	11.80	11.80	0.7397	1425.92	15.82	15.82
3.10	11.30	11.30	0.7098	1425.84	14.54	14.54
3.20	10.70	10.70	0.6848	1425.78	13.50	13.50
3.30	10.20	10.20	0.6632	1425.72	12.62	12.62
3.40	9.80	9.80	0.6446	1425.67	11.88	11.88
3.50	9.40	9.40	0.6284	1425.63	11.25	11.25
3.60	8.90	8.90	0.6134	1425.59	10.67	10.67
3.70	8.70	8.70	0.6001	1425.56	10.17	10.17
3.80	8.50	8.50	0.5888	1425.53	9.75	9.75
3.90	8.20	8.20	0.5788	1425.50	9.38	9.38
4.00	8.00	8.00	0.5696	1425.48	9.05	9.05
4.10	7.80	7.80	0.5613	1425.46	8.76	8.76
4.20	7.70	7.70	0.5540	1425.44	8.50	8.50
4.30	7.50	7.50	0.5475	1425.42	8.27	8.27
4.40	7.30	7.30	0.5413	1425.41	8.05	8.05
4.50	7.20	7.20	0.5355	1425.39	7.85	7.85
4.60	7.00	7.00	0.5301	1425.38	7.67	7.67
4.70	6.90	6.90	0.5248	1425.36	7.49	7.49

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	6.70	6.70	0.5198	1425.35	7.32	7.32
4.90	6.60	6.60	0.5149	1425.34	7.16	7.16
5.00	6.40	6.40	0.5101	1425.33	7.00	7.00
5.10	6.30	6.30	0.5054	1425.31	6.84	6.84
5.20	6.10	6.10	0.5008	1425.30	6.69	6.69
5.30	6.00	6.00	0.4961	1425.29	6.54	6.54
5.40	5.80	5.80	0.4914	1425.28	6.39	6.39
5.50	5.70	5.70	0.4867	1425.26	6.24	6.24
5.60	5.60	5.60	0.4824	1425.25	6.11	6.11
5.70	5.50	5.50	0.4783	1425.24	5.98	5.98
5.80	5.40	5.40	0.4745	1425.23	5.86	5.86
5.90	5.30	5.30	0.4707	1425.22	5.74	5.74
6.00	5.20	5.20	0.4672	1425.21	5.63	5.63
6.10	5.10	5.10	0.4637	1425.20	5.52	5.52
6.20	5.10	5.10	0.4606	1425.20	5.42	5.42
6.30	5.10	5.10	0.4582	1425.19	5.35	5.35
6.40	5.00	5.00	0.4560	1425.18	5.29	5.29
6.50	5.00	5.00	0.4538	1425.18	5.23	5.23
6.60	4.90	4.90	0.4518	1425.17	5.17	5.17
6.70	4.90	4.90	0.4498	1425.17	5.11	5.11
6.80	4.80	4.80	0.4479	1425.16	5.05	5.05
6.90	4.80	4.80	0.4461	1425.16	5.00	5.00
7.00	4.70	4.70	0.4442	1425.15	4.94	4.94
7.10	4.60	4.60	0.4421	1425.15	4.88	4.88
7.20	4.60	4.60	0.4400	1425.14	4.82	4.82
7.30	4.50	4.50	0.4380	1425.14	4.76	4.76
7.40	4.40	4.40	0.4357	1425.13	4.69	4.69
7.50	4.30	4.30	0.4332	1425.13	4.62	4.62
7.60	4.30	4.30	0.4308	1425.12	4.55	4.55
7.70	4.20	4.20	0.4286	1425.11	4.49	4.49
7.80	4.10	4.10	0.4261	1425.11	4.41	4.41
7.90	4.00	4.00	0.4234	1425.10	4.34	4.34
8.00	4.00	4.00	0.4209	1425.09	4.27	4.27
8.10	3.90	3.90	0.4186	1425.09	4.20	4.20
8.20	3.90	3.90	0.4163	1425.08	4.14	4.14
8.30	3.80	3.80	0.4141	1425.08	4.08	4.08
8.40	3.80	3.80	0.4120	1425.07	4.03	4.03
8.50	3.70	3.70	0.4100	1425.07	3.97	3.97
8.60	3.70	3.70	0.4079	1425.06	3.92	3.92
8.70	3.60	3.60	0.4059	1425.05	3.86	3.86
8.80	3.60	3.60	0.4040	1425.05	3.81	3.81
8.90	3.50	3.50	0.4020	1425.04	3.76	3.76
9.00	3.50	3.50	0.4001	1425.04	3.71	3.71
9.10	3.40	3.40	0.3982	1425.03	3.66	3.66
9.20	3.40	3.40	0.3963	1425.03	3.60	3.60
9.30	3.40	3.40	0.3948	1425.03	3.56	3.56
9.40	3.40	3.40	0.3936	1425.02	3.53	3.53
9.50	3.30	3.30	0.3922	1425.02	3.49	3.49
9.60	3.30	3.30	0.3908	1425.02	3.46	3.46
9.70	3.30	3.30	0.3896	1425.01	3.42	3.42
9.80	3.30	3.30	0.3887	1425.01	3.40	3.40
9.90	3.20	3.20	0.3876	1425.01	3.37	3.37
10.00	3.20	3.20	0.3864	1425.00	3.34	3.34
10.10	3.20	3.20	0.3853	1425.00	3.31	3.31
10.20	3.20	3.20	0.3845	1425.00	3.29	3.29
10.30	3.10	3.10	0.3835	1425.00	3.26	3.26
10.40	3.10	3.10	0.3823	1424.99	3.23	3.23
10.50	3.10	3.10	0.3813	1424.99	3.21	3.21

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	3.10	3.10	0.3805	1424.99	3.19	3.19
10.70	3.00	3.00	0.3794	1424.99	3.16	3.16
10.80	3.00	3.00	0.3782	1424.98	3.13	3.13
10.90	3.00	3.00	0.3772	1424.98	3.11	3.11
11.00	3.00	3.00	0.3764	1424.98	3.09	3.09
11.10	2.90	2.90	0.3753	1424.98	3.06	3.06
11.20	2.80	2.80	0.3737	1424.97	3.02	3.02
11.30	2.70	2.70	0.3717	1424.97	2.97	2.97
11.40	2.70	2.70	0.3696	1424.96	2.92	2.92
11.50	2.60	2.60	0.3676	1424.96	2.87	2.87
11.60	2.50	2.50	0.3651	1424.95	2.81	2.81
11.70	2.50	2.50	0.3628	1424.94	2.76	2.76
11.80	2.40	2.40	0.3605	1424.94	2.70	2.70
11.90	2.30	2.30	0.3578	1424.93	2.64	2.64
12.00	2.20	2.20	0.3549	1424.92	2.57	2.57
12.10	2.20	2.20	0.3522	1424.92	2.50	2.50
12.20	2.10	2.10	0.3495	1424.91	2.44	2.44
12.30	2.00	2.00	0.3467	1424.90	2.36	2.36
12.40	1.90	1.90	0.3435	1424.89	2.30	2.30
12.50	1.90	1.90	0.3405	1424.88	2.23	2.23
12.60	1.80	1.80	0.3376	1424.88	2.17	2.17
12.70	1.70	1.70	0.3344	1424.87	2.10	2.10
12.80	1.60	1.60	0.3310	1424.86	2.03	2.03
12.90	1.60	1.60	0.3277	1424.85	1.96	1.96
13.00	1.50	1.50	0.3247	1424.84	1.89	1.89
13.10	1.40	1.40	0.3213	1424.84	1.82	1.82
13.20	1.30	1.30	0.3177	1424.83	1.74	1.74
13.30	1.30	1.30	0.3144	1424.82	1.67	1.67
13.40	1.20	1.20	0.3112	1424.81	1.60	1.60
13.50	1.10	1.10	0.3078	1424.80	1.53	1.53
13.60	1.00	1.00	0.3041	1424.79	1.46	1.46
13.70	1.00	1.00	0.3005	1424.78	1.40	1.40
13.80	0.90	0.90	0.2971	1424.77	1.34	1.34
13.90	0.80	0.80	0.2934	1424.76	1.27	1.27
14.00	0.70	0.70	0.2894	1424.75	1.20	1.20
14.10	0.70	0.70	0.2856	1424.74	1.13	1.13
14.20	0.60	0.60	0.2819	1424.73	1.06	1.06
14.30	0.50	0.50	0.2780	1424.72	0.99	0.99
14.40	0.40	0.40	0.2738	1424.71	0.91	0.91
14.50	0.40	0.40	0.2699	1424.70	0.84	0.84
14.60	0.30	0.30	0.2661	1424.69	0.79	0.79
14.70	0.20	0.20	0.2619	1424.68	0.73	0.73
14.80	0.10	0.10	0.2573	1424.67	0.66	0.66
14.90	0.10	0.10	0.2529	1424.66	0.60	0.60
15.00	0.00	0.00	0.2486	1424.65	0.54	0.54

Total Routing Mass Balance Discrepancy is -0.12%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	4.10	4.10	0.0000	1424.00	0.000	0.000
Max. Inflow	1.40	127.50	127.50	1.9416	1428.54	69.10	69.10
Max. Outflow	1.60	102.00	102.00	2.4142	1429.45	110.76	110.76
Final	15.00	0.00	0.00	0.2486	1424.65	0.54	0.54

Modified Puls Routing

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	4.70	4.70	0.0000	1424.00	0.000	0.000
0.10	5.20	5.20	0.0409	1424.11	0.000	0.000
0.20	5.80	5.80	0.0864	1424.22	0.000	0.000
0.30	6.40	6.40	0.1368	1424.36	0.000	0.000
0.40	7.20	7.20	0.1930	1424.50	0.004	0.004
0.50	8.00	8.00	0.2532	1424.66	0.61	0.61
0.60	8.80	8.80	0.3134	1424.81	1.65	1.65
0.70	11.00	11.00	0.3757	1424.98	3.07	3.07
0.80	13.20	13.20	0.4427	1425.15	4.90	4.90
0.90	15.50	15.50	0.5119	1425.33	7.06	7.06
1.00	25.10	25.10	0.6073	1425.58	10.44	10.44
1.10	45.10	45.10	0.7816	1426.03	17.59	17.59
1.20	81.50	81.50	1.1028	1426.74	31.28	31.28
1.30	124.70	124.70	1.5847	1427.81	58.31	58.31
1.40	144.40	144.40	2.1479	1428.96	74.50	74.50
1.50	141.40	141.40	2.4925	1429.60	127.90	127.90
1.60	115.50	115.50	2.4948	1429.60	128.44	128.44
1.70	87.30	87.30	2.3760	1429.38	103.11	103.11
1.80	66.70	66.70	2.2463	1429.14	82.29	82.29
1.90	54.00	54.00	2.1019	1428.86	73.33	73.33
2.00	41.20	41.20	1.9103	1428.48	68.25	68.25
2.10	34.60	34.60	1.6862	1428.03	61.78	61.78
2.20	28.00	28.00	1.4730	1427.56	52.42	52.42
2.30	24.60	24.60	1.3039	1427.19	41.09	41.09
2.40	21.30	21.30	1.1795	1426.91	34.91	34.91
2.50	19.40	19.40	1.0788	1426.69	30.17	30.17
2.60	17.40	17.40	0.9968	1426.50	26.47	26.47
2.70	16.20	16.20	0.9290	1426.35	23.55	23.55
2.80	15.00	15.00	0.8729	1426.23	21.21	21.21
2.90	14.20	14.20	0.8261	1426.13	19.33	19.33
3.00	13.30	13.30	0.7864	1426.04	17.78	17.78
3.10	12.80	12.80	0.7530	1425.96	16.40	16.40
3.20	12.20	12.20	0.7257	1425.89	15.21	15.21
3.30	11.60	11.60	0.7024	1425.82	14.23	14.23
3.40	11.10	11.10	0.6821	1425.77	13.39	13.39
3.50	10.60	10.60	0.6641	1425.73	12.66	12.66
3.60	10.10	10.10	0.6478	1425.68	12.00	12.00
3.70	9.80	9.80	0.6332	1425.65	11.43	11.43
3.80	9.60	9.60	0.6208	1425.61	10.95	10.95
3.90	9.30	9.30	0.6101	1425.59	10.54	10.54
4.00	9.10	9.10	0.6005	1425.56	10.19	10.19
4.10	8.90	8.90	0.5920	1425.54	9.87	9.87
4.20	8.70	8.70	0.5843	1425.52	9.58	9.58
4.30	8.50	8.50	0.5772	1425.50	9.32	9.32
4.40	8.30	8.30	0.5706	1425.48	9.09	9.09
4.50	8.10	8.10	0.5642	1425.47	8.86	8.86
4.60	8.00	8.00	0.5584	1425.45	8.65	8.65
4.70	7.80	7.80	0.5529	1425.44	8.46	8.46

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	7.60	7.60	0.5475	1425.42	8.27	8.27
4.90	7.50	7.50	0.5423	1425.41	8.08	8.08
5.00	7.30	7.30	0.5373	1425.40	7.91	7.91
5.10	7.10	7.10	0.5322	1425.38	7.74	7.74
5.20	7.00	7.00	0.5272	1425.37	7.57	7.57
5.30	6.80	6.80	0.5223	1425.36	7.41	7.41
5.40	6.60	6.60	0.5172	1425.34	7.24	7.24
5.50	6.40	6.40	0.5118	1425.33	7.06	7.06
5.60	6.30	6.30	0.5067	1425.32	6.88	6.88
5.70	6.20	6.20	0.5021	1425.30	6.73	6.73
5.80	6.10	6.10	0.4979	1425.29	6.59	6.59
5.90	6.00	6.00	0.4939	1425.28	6.47	6.47
6.00	5.90	5.90	0.4901	1425.27	6.35	6.35
6.10	5.80	5.80	0.4864	1425.26	6.23	6.23
6.20	5.80	5.80	0.4833	1425.26	6.13	6.13
6.30	5.70	5.70	0.4805	1425.25	6.05	6.05
6.40	5.70	5.70	0.4779	1425.24	5.97	5.97
6.50	5.60	5.60	0.4756	1425.24	5.89	5.89
6.60	5.60	5.60	0.4735	1425.23	5.83	5.83
6.70	5.50	5.50	0.4714	1425.22	5.76	5.76
6.80	5.40	5.40	0.4692	1425.22	5.69	5.69
6.90	5.40	5.40	0.4670	1425.21	5.62	5.62
7.00	5.30	5.30	0.4650	1425.21	5.56	5.56
7.10	5.20	5.20	0.4628	1425.20	5.49	5.49
7.20	5.20	5.20	0.4606	1425.20	5.43	5.43
7.30	5.10	5.10	0.4586	1425.19	5.37	5.37
7.40	5.00	5.00	0.4563	1425.19	5.30	5.30
7.50	4.90	4.90	0.4537	1425.18	5.22	5.22
7.60	4.80	4.80	0.4510	1425.17	5.14	5.14
7.70	4.70	4.70	0.4481	1425.16	5.06	5.06
7.80	4.70	4.70	0.4455	1425.16	4.98	4.98
7.90	4.60	4.60	0.4430	1425.15	4.91	4.91
8.00	4.50	4.50	0.4404	1425.14	4.83	4.83
8.10	4.40	4.40	0.4376	1425.14	4.75	4.75
8.20	4.40	4.40	0.4350	1425.13	4.67	4.67
8.30	4.30	4.30	0.4326	1425.12	4.60	4.60
8.40	4.30	4.30	0.4304	1425.12	4.54	4.54
8.50	4.20	4.20	0.4282	1425.11	4.48	4.48
8.60	4.10	4.10	0.4258	1425.11	4.41	4.41
8.70	4.10	4.10	0.4236	1425.10	4.34	4.34
8.80	4.00	4.00	0.4214	1425.10	4.28	4.28
8.90	4.00	4.00	0.4193	1425.09	4.22	4.22
9.00	3.90	3.90	0.4173	1425.08	4.17	4.17
9.10	3.90	3.90	0.4153	1425.08	4.12	4.12
9.20	3.90	3.90	0.4137	1425.07	4.07	4.07
9.30	3.80	3.80	0.4120	1425.07	4.03	4.03
9.40	3.80	3.80	0.4103	1425.07	3.98	3.98
9.50	3.80	3.80	0.4090	1425.06	3.95	3.95
9.60	3.80	3.80	0.4079	1425.06	3.92	3.92
9.70	3.70	3.70	0.4067	1425.06	3.88	3.88
9.80	3.70	3.70	0.4053	1425.05	3.85	3.85
9.90	3.70	3.70	0.4042	1425.05	3.82	3.82
10.00	3.60	3.60	0.4030	1425.05	3.78	3.78
10.10	3.60	3.60	0.4016	1425.04	3.75	3.75
10.20	3.60	3.60	0.4005	1425.04	3.72	3.72
10.30	3.60	3.60	0.3996	1425.04	3.69	3.69
10.40	3.50	3.50	0.3986	1425.04	3.66	3.66
10.50	3.50	3.50	0.3973	1425.03	3.63	3.63

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	3.50	3.50	0.3964	1425.03	3.61	3.61
10.70	3.40	3.40	0.3952	1425.03	3.57	3.57
10.80	3.40	3.40	0.3939	1425.02	3.54	3.54
10.90	3.40	3.40	0.3929	1425.02	3.51	3.51
11.00	3.40	3.40	0.3920	1425.02	3.49	3.49
11.10	3.30	3.30	0.3910	1425.02	3.46	3.46
11.20	3.20	3.20	0.3894	1425.01	3.42	3.42
11.30	3.10	3.10	0.3874	1425.01	3.36	3.36
11.40	3.00	3.00	0.3851	1425.00	3.30	3.30
11.50	2.90	2.90	0.3825	1424.99	3.24	3.24
11.60	2.90	2.90	0.3799	1424.99	3.18	3.18
11.70	2.80	2.80	0.3775	1424.98	3.12	3.12
11.80	2.70	2.70	0.3747	1424.97	3.05	3.05
11.90	2.60	2.60	0.3717	1424.97	2.98	2.98
12.00	2.50	2.50	0.3685	1424.96	2.90	2.90
12.10	2.40	2.40	0.3652	1424.95	2.82	2.82
12.20	2.40	2.40	0.3621	1424.94	2.74	2.74
12.30	2.30	2.30	0.3591	1424.93	2.67	2.67
12.40	2.20	2.20	0.3560	1424.93	2.59	2.59
12.50	2.10	2.10	0.3527	1424.92	2.51	2.51
12.60	2.00	2.00	0.3492	1424.91	2.43	2.43
12.70	1.90	1.90	0.3456	1424.90	2.34	2.34
12.80	1.90	1.90	0.3423	1424.89	2.27	2.27
12.90	1.80	1.80	0.3391	1424.88	2.20	2.20
13.00	1.70	1.70	0.3356	1424.87	2.13	2.13
13.10	1.60	1.60	0.3320	1424.86	2.05	2.05
13.20	1.50	1.50	0.3282	1424.85	1.97	1.97
13.30	1.40	1.40	0.3243	1424.84	1.88	1.88
13.40	1.30	1.30	0.3202	1424.83	1.80	1.80
13.50	1.30	1.30	0.3165	1424.82	1.72	1.72
13.60	1.20	1.20	0.3129	1424.81	1.64	1.64
13.70	1.10	1.10	0.3092	1424.80	1.56	1.56
13.80	1.00	1.00	0.3053	1424.79	1.48	1.48
13.90	0.90	0.90	0.3012	1424.78	1.41	1.41
14.00	0.80	0.80	0.2969	1424.77	1.33	1.33
14.10	0.80	0.80	0.2928	1424.76	1.26	1.26
14.20	0.70	0.70	0.2889	1424.75	1.19	1.19
14.30	0.60	0.60	0.2848	1424.74	1.11	1.11
14.40	0.50	0.50	0.2805	1424.73	1.03	1.03
14.50	0.40	0.40	0.2760	1424.72	0.95	0.95
14.60	0.30	0.30	0.2713	1424.71	0.87	0.87
14.70	0.30	0.30	0.2669	1424.69	0.80	0.80
14.80	0.20	0.20	0.2626	1424.68	0.74	0.74
14.90	0.10	0.10	0.2580	1424.67	0.67	0.67
15.00	0.00	0.00	0.2532	1424.66	0.61	0.61

Total Routing Mass Balance Discrepancy is -0.12%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	4.70	4.70	0.0000	1424.00	0.000	0.000
Max. Inflow	1.40	144.40	144.40	2.1479	1428.96	74.50	74.50
Max. Outflow	1.60	115.50	115.50	2.4948	1429.60	128.44	128.44
Final	15.00	0.00	0.00	0.2532	1424.66	0.61	0.61

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_bern.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	5.50	5.50	0.0000	1424.00	0.000	0.000
0.10	6.20	6.20	0.0483	1424.13	0.000	0.000
0.20	6.80	6.80	0.1021	1424.27	0.000	0.000
0.30	7.50	7.50	0.1612	1424.42	0.000	0.000
0.40	8.40	8.40	0.2258	1424.59	0.255	0.255
0.50	9.40	9.40	0.2931	1424.76	1.26	1.26
0.60	10.40	10.40	0.3587	1424.93	2.66	2.66
0.70	13.00	13.00	0.4262	1425.11	4.42	4.42
0.80	15.60	15.60	0.4987	1425.30	6.62	6.62
0.90	18.20	18.20	0.5731	1425.49	9.18	9.18
1.00	29.60	29.60	0.6781	1425.76	13.22	13.22
1.10	53.10	53.10	0.8769	1426.24	21.38	21.38
1.20	96.00	96.00	1.2467	1427.06	38.21	38.21
1.30	146.80	146.80	1.8205	1428.30	65.73	65.73
1.40	170.10	170.10	2.4069	1429.44	109.26	109.26
1.50	166.60	166.60	2.6503	1429.89	168.54	168.54
1.60	136.00	136.00	2.5829	1429.77	150.37	150.37
1.70	102.80	102.80	2.4549	1429.53	119.42	119.42
1.80	78.60	78.60	2.3238	1429.29	93.69	93.69
1.90	63.60	63.60	2.2031	1429.06	77.74	77.74
2.00	48.50	48.50	2.0478	1428.76	71.93	71.93
2.10	40.70	40.70	1.8447	1428.35	66.42	66.42
2.20	32.90	32.90	1.6272	1427.91	59.81	59.81
2.30	29.00	29.00	1.4372	1427.48	48.07	48.07
2.40	25.10	25.10	1.2944	1427.17	40.61	40.61
2.50	22.80	22.80	1.1801	1426.91	34.94	34.94
2.60	20.60	20.60	1.0886	1426.71	30.61	30.61
2.70	19.10	19.10	1.0136	1426.54	27.22	27.22
2.80	17.70	17.70	0.9519	1426.40	24.52	24.52
2.90	16.70	16.70	0.9004	1426.29	22.34	22.34
3.00	15.70	15.70	0.8570	1426.19	20.56	20.56
3.10	15.00	15.00	0.8200	1426.11	19.08	19.08
3.20	14.30	14.30	0.7884	1426.04	17.86	17.86
3.30	13.60	13.60	0.7608	1425.98	16.74	16.74
3.40	13.10	13.10	0.7371	1425.91	15.70	15.70
3.50	12.50	12.50	0.7167	1425.86	14.83	14.83
3.60	11.90	11.90	0.6982	1425.81	14.05	14.05
3.70	11.60	11.60	0.6819	1425.77	13.38	13.38
3.80	11.30	11.30	0.6683	1425.74	12.83	12.83
3.90	11.00	11.00	0.6564	1425.71	12.34	12.34
4.00	10.70	10.70	0.6458	1425.68	11.93	11.93
4.10	10.50	10.50	0.6364	1425.65	11.56	11.56
4.20	10.20	10.20	0.6278	1425.63	11.22	11.22
4.30	10.00	10.00	0.6198	1425.61	10.91	10.91
4.40	9.80	9.80	0.6125	1425.59	10.64	10.64
4.50	9.60	9.60	0.6058	1425.57	10.39	10.39
4.60	9.40	9.40	0.5995	1425.56	10.15	10.15
4.70	9.20	9.20	0.5934	1425.54	9.92	9.92

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	9.00	9.00	0.5875	1425.53	9.70	9.70
4.90	8.80	8.80	0.5817	1425.51	9.49	9.49
5.00	8.60	8.60	0.5761	1425.50	9.28	9.28
5.10	8.40	8.40	0.5705	1425.48	9.08	9.08
5.20	8.20	8.20	0.5648	1425.47	8.88	8.88
5.30	8.00	8.00	0.5592	1425.45	8.68	8.68
5.40	7.80	7.80	0.5535	1425.44	8.48	8.48
5.50	7.60	7.60	0.5479	1425.42	8.28	8.28
5.60	7.50	7.50	0.5426	1425.41	8.10	8.10
5.70	7.30	7.30	0.5376	1425.40	7.92	7.92
5.80	7.20	7.20	0.5327	1425.38	7.76	7.76
5.90	7.10	7.10	0.5283	1425.37	7.61	7.61
6.00	6.90	6.90	0.5239	1425.36	7.46	7.46
6.10	6.90	6.90	0.5198	1425.35	7.32	7.32
6.20	6.80	6.80	0.5164	1425.34	7.21	7.21
6.30	6.70	6.70	0.5131	1425.33	7.10	7.10
6.40	6.70	6.70	0.5102	1425.33	7.00	7.00
6.50	6.60	6.60	0.5076	1425.32	6.92	6.92
6.60	6.50	6.50	0.5050	1425.31	6.83	6.83
6.70	6.50	6.50	0.5026	1425.31	6.75	6.75
6.80	6.40	6.40	0.5004	1425.30	6.67	6.67
6.90	6.30	6.30	0.4981	1425.29	6.60	6.60
7.00	6.30	6.30	0.4959	1425.29	6.53	6.53
7.10	6.20	6.20	0.4938	1425.28	6.47	6.47
7.20	6.10	6.10	0.4915	1425.28	6.39	6.39
7.30	6.00	6.00	0.4890	1425.27	6.31	6.31
7.40	5.90	5.90	0.4863	1425.26	6.23	6.23
7.50	5.80	5.80	0.4835	1425.26	6.14	6.14
7.60	5.70	5.70	0.4807	1425.25	6.05	6.05
7.70	5.60	5.60	0.4777	1425.24	5.96	5.96
7.80	5.50	5.50	0.4747	1425.23	5.87	5.87
7.90	5.40	5.40	0.4717	1425.23	5.77	5.77
8.00	5.30	5.30	0.4686	1425.22	5.67	5.67
8.10	5.20	5.20	0.4655	1425.21	5.58	5.58
8.20	5.20	5.20	0.4628	1425.20	5.49	5.49
8.30	5.10	5.10	0.4603	1425.20	5.41	5.41
8.40	5.00	5.00	0.4576	1425.19	5.34	5.34
8.50	5.00	5.00	0.4551	1425.18	5.26	5.26
8.60	4.90	4.90	0.4528	1425.18	5.20	5.20
8.70	4.80	4.80	0.4503	1425.17	5.12	5.12
8.80	4.80	4.80	0.4479	1425.16	5.05	5.05
8.90	4.70	4.70	0.4457	1425.16	4.99	4.99
9.00	4.60	4.60	0.4432	1425.15	4.91	4.91
9.10	4.60	4.60	0.4409	1425.15	4.85	4.85
9.20	4.60	4.60	0.4391	1425.14	4.79	4.79
9.30	4.50	4.50	0.4373	1425.14	4.74	4.74
9.40	4.50	4.50	0.4355	1425.13	4.69	4.69
9.50	4.50	4.50	0.4341	1425.13	4.65	4.65
9.60	4.40	4.40	0.4326	1425.12	4.61	4.61
9.70	4.40	4.40	0.4311	1425.12	4.56	4.56
9.80	4.40	4.40	0.4300	1425.12	4.53	4.53
9.90	4.30	4.30	0.4287	1425.11	4.49	4.49
10.00	4.30	4.30	0.4273	1425.11	4.45	4.45
10.10	4.30	4.30	0.4262	1425.11	4.42	4.42
10.20	4.20	4.20	0.4250	1425.10	4.38	4.38
10.30	4.20	4.20	0.4236	1425.10	4.34	4.34
10.40	4.20	4.20	0.4226	1425.10	4.31	4.31
10.50	4.10	4.10	0.4214	1425.09	4.28	4.28

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	4.10	4.10	0.4200	1425.09	4.24	4.24
10.70	4.10	4.10	0.4190	1425.09	4.21	4.21
10.80	4.00	4.00	0.4177	1425.09	4.18	4.18
10.90	4.00	4.00	0.4164	1425.08	4.15	4.15
11.00	4.00	4.00	0.4153	1425.08	4.12	4.12
11.10	3.90	3.90	0.4141	1425.08	4.08	4.08
11.20	3.80	3.80	0.4123	1425.07	4.04	4.04
11.30	3.70	3.70	0.4102	1425.07	3.98	3.98
11.40	3.60	3.60	0.4078	1425.06	3.91	3.91
11.50	3.50	3.50	0.4051	1425.05	3.84	3.84
11.60	3.40	3.40	0.4022	1425.05	3.76	3.76
11.70	3.30	3.30	0.3991	1425.04	3.68	3.68
11.80	3.20	3.20	0.3959	1425.03	3.59	3.59
11.90	3.10	3.10	0.3926	1425.02	3.50	3.50
12.00	3.00	3.00	0.3892	1425.01	3.41	3.41
12.10	2.90	2.90	0.3858	1425.00	3.32	3.32
12.20	2.80	2.80	0.3823	1424.99	3.23	3.23
12.30	2.70	2.70	0.3786	1424.98	3.14	3.14
12.40	2.60	2.60	0.3749	1424.97	3.05	3.05
12.50	2.50	2.50	0.3712	1424.96	2.96	2.96
12.60	2.40	2.40	0.3673	1424.95	2.87	2.87
12.70	2.30	2.30	0.3634	1424.94	2.77	2.77
12.80	2.20	2.20	0.3595	1424.93	2.68	2.68
12.90	2.10	2.10	0.3555	1424.92	2.58	2.58
13.00	2.00	2.00	0.3515	1424.91	2.48	2.48
13.10	1.90	1.90	0.3475	1424.90	2.39	2.39
13.20	1.80	1.80	0.3435	1424.89	2.30	2.30
13.30	1.70	1.70	0.3393	1424.88	2.21	2.21
13.40	1.60	1.60	0.3351	1424.87	2.12	2.12
13.50	1.50	1.50	0.3308	1424.86	2.02	2.02
13.60	1.40	1.40	0.3265	1424.85	1.93	1.93
13.70	1.30	1.30	0.3221	1424.84	1.84	1.84
13.80	1.20	1.20	0.3176	1424.83	1.74	1.74
13.90	1.10	1.10	0.3131	1424.81	1.64	1.64
14.00	1.00	1.00	0.3086	1424.80	1.55	1.55
14.10	0.90	0.90	0.3041	1424.79	1.46	1.46
14.20	0.80	0.80	0.2994	1424.78	1.38	1.38
14.30	0.70	0.70	0.2945	1424.77	1.29	1.29
14.40	0.60	0.60	0.2896	1424.75	1.20	1.20
14.50	0.50	0.50	0.2846	1424.74	1.11	1.11
14.60	0.40	0.40	0.2796	1424.73	1.02	1.02
14.70	0.30	0.30	0.2744	1424.71	0.92	0.92
14.80	0.20	0.20	0.2692	1424.70	0.83	0.83
14.90	0.10	0.10	0.2639	1424.69	0.76	0.76
15.00	0.00	0.00	0.2584	1424.67	0.68	0.68

Total Routing Mass Balance Discrepancy is -0.12%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\1_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI C\BASINS\BASIN C-1\C-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1424.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	5.50	5.50	0.0000	1424.00	0.000	0.000
Max. Inflow	1.40	170.10	170.10	2.4069	1429.44	109.26	109.26
Max. Outflow	1.50	166.60	166.60	2.6503	1429.89	168.54	168.54
Final	15.00	0.00	0.00	0.2584	1424.67	0.68	0.68

SCS Segmental Travel Time

Summary for From Basin C-1 to POI

Segment 1: Overland Flow

L = 100 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 20.2 minutes

Segment 2: Concentrated Flow

L = 900 ft, S = .025 ft/ft, Unpaved surface
Travel Time = 5.9 minutes

Segment 3: Concentrated Flow

L = 3600 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 26.3 minutes

Segment 4: Concentrated Flow

L = 7000 ft, S = .015 ft/ft, Unpaved surface
Travel Time = 59 minutes

Total Travel Time = 111.46 Minutes

BRINKASH

ASSOCIATES, INC.

SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

ByPASS FOR P.O.I. C

PHASE I S.W.M.
BASIN C-1 + BYPASS
TO P.O.I.

DRAINAGE AREA = 1474.3 AC.

$T_c = 116.27$ MINUTES

CN = 78.91

- SAME AS PRE-DEVELOPMENT
- REMAINING AREA OF P.O.I. C IS UNDEVELOPED IN PHASE I

ByPASS FLOWS

COMBINED ROUTED FLOWS w/ ByPASS FLOW RATES

$$Q_1 = 554.1 \text{ cfs}$$

$$Q_1 = \text{cfs}$$

$$Q_2 = 799.5 \text{ cfs}$$

$$Q_2 = \text{cfs}$$

$$Q_{10} = 1772.2 \text{ cfs}$$

$$Q_{10} = \text{cfs}$$

$$Q_{25} = 2144.8 \text{ cfs}$$

$$Q_{25} = \text{cfs}$$

$$Q_{50} = 2429.2 \text{ cfs}$$

$$Q_{50} = \text{cfs}$$

$$Q_{100} = 2862.0 \text{ cfs}$$

$$Q_{100} = \text{cfs}$$

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1474.300	79	0.178	1.18	116.270	120.000	0.000	0.000
Composite	1474.300	79		1.18				

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	12	27	48	133	290	491	542	453	226	95	56	10
Composite	12	27	48	133	290	491	542	453	226	95	56	10

The peak flow is 554.1 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1474.300	79	0.148	1.64	116.270	120.000	0.000	0.000
Composite	1474.300	79		1.64				

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	20	46	80	206	431	710	764	634	307	124	72	13
Composite	20	46	80	206	431	710	764	634	307	124	72	13

The peak flow is 799.5 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1474.300	79	0.100	3.40	116.270	120.000	0.000	0.000
Composite	1474.300	79		3.40				

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	55	125	212	502	996	1576	1631	1341	619	235	133	24
Composite	55	125	212	502	996	1576	1631	1341	619	235	133	24

The peak flow is 1772.2 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1474.300	79	0.100	4.12	116.270	120.000	0.000	0.000
Composite	1474.300	79		4.12				

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	66	152	256	607	1205	1908	1974	1623	750	285	161	28
Composite	66	152	256	607	1205	1908	1974	1623	750	285	161	28

The peak flow is 2144.8 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1474.300	79	0.100	4.67	116.270	120.000	0.000	0.000
Composite	1474.300	79		4.67				

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	75	172	290	688	1365	2160	2236	1838	849	322	183	32
Composite	75	172	290	688	1365	2160	2236	1838	849	322	183	32

The peak flow is 2429.2 cfs at 13.4 hrs.

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1474.300	79	0.100	5.50	116.270	120.000	0.000	0.000
Composite	1474.300	79		5.50				

SCS TR55 Tabular Method

Watershed Title: By-Pass Area C

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	89	203	342	810	1608	2545	2634	2165	1000	380	215	38
Composite	89	203	342	810	1608	2545	2634	2165	1000	380	215	38

The peak flow is 2862.0 cfs at 13.4 hrs.

Hydrograph Combination

*BASIN
COMBINED ROUTE C-1 + ByPASS 1yr.*

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\PO1\2010\11\HYD	01/14/2010	0000	151	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\PO1\2010\11\HYD	01/14/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/14/2010	0000	169	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0000	0.00	0.00	0.00
01/14/2010	0006	12.70	0.00	12.70
01/14/2010	0012	13.80	0.00	13.80
01/14/2010	0018	14.90	0.00	14.90
01/14/2010	0024	16.60	0.00	16.60
01/14/2010	0030	18.30	0.00	18.30
01/14/2010	0036	19.90	0.00	19.90
01/14/2010	0042	22.10	0.00	22.10
01/14/2010	0048	24.30	0.00	24.30
01/14/2010	0054	26.60	0.00	26.60
01/14/2010	0100	29.90	0.00	29.90
01/14/2010	0106	35.90	0.00	35.90
01/14/2010	0112	48.00	0.00	48.00
01/14/2010	0118	68.30	0.00	68.30
01/14/2010	0124	97.30	0.00	97.30
01/14/2010	0130	132.90	0.00	132.90
01/14/2010	0136	176.60	0.00	176.60
01/14/2010	0142	230.20	0.00	230.20
01/14/2010	0148	289.60	0.00	289.60
01/14/2010	0154	348.00	0.00	348.00
01/14/2010	0200	406.40	0.00	406.40
01/14/2010	0206	448.80	0.00	448.80
01/14/2010	0212	491.30	0.00	491.30
01/14/2010	0218	522.70	0.00	522.70
01/14/2010	0224	554.10	0.00	554.10
01/14/2010	0230	548.20	0.00	548.20
01/14/2010	0236	542.30	0.00	542.30
01/14/2010	0242	521.90	0.00	521.90
01/14/2010	0248	501.50	0.00	501.50
01/14/2010	0254	477.30	0.00	477.30
01/14/2010	0300	453.20	0.43	453.63
01/14/2010	0306	421.70	2.60	424.30
01/14/2010	0312	390.20	7.41	397.61
01/14/2010	0318	358.70	13.78	372.48
01/14/2010	0324	336.30	19.07	355.37
01/14/2010	0330	313.90	21.73	335.63
01/14/2010	0336	291.50	22.08	313.58
01/14/2010	0342	275.10	20.94	296.04
01/14/2010	0348	258.70	19.11	277.81
01/14/2010	0354	242.30	16.98	259.28
01/14/2010	0400	225.90	14.80	240.70
01/14/2010	0406	214.90	12.84	227.74
01/14/2010	0412	203.90	11.20	215.10
01/14/2010	0418	192.90	9.85	202.75
01/14/2010	0424	181.90	8.73	190.63
01/14/2010	0430	170.80	7.81	178.61
01/14/2010	0436	163.80	7.05	170.85
01/14/2010	0442	156.70	6.42	163.12
01/14/2010	0448	149.60	5.89	155.49
01/14/2010	0454	142.50	5.44	147.94
01/14/2010	0500	135.40	5.06	140.46

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0506	130.70	4.74	135.44
01/14/2010	0512	126.00	4.45	130.45
01/14/2010	0518	121.30	4.20	125.50
01/14/2010	0524	116.60	3.98	120.58
01/14/2010	0530	112.00	3.78	115.78
01/14/2010	0536	108.50	3.60	112.10
01/14/2010	0542	105.00	3.45	108.45
01/14/2010	0548	101.50	3.32	104.82
01/14/2010	0554	98.00	3.20	101.20
01/14/2010	0600	94.50	3.09	97.59
01/14/2010	0606	92.40	3.00	95.40
01/14/2010	0612	90.20	2.91	93.11
01/14/2010	0618	88.00	2.83	90.83
01/14/2010	0624	85.80	2.76	88.56
01/14/2010	0630	83.60	2.69	86.29
01/14/2010	0636	81.80	2.62	84.42
01/14/2010	0642	79.90	2.56	82.46
01/14/2010	0648	78.10	2.50	80.60
01/14/2010	0654	76.20	2.44	78.64
01/14/2010	0700	74.40	2.38	76.78
01/14/2010	0706	73.40	2.33	75.73
01/14/2010	0712	72.30	2.28	74.58
01/14/2010	0718	71.30	2.23	73.53
01/14/2010	0724	70.30	2.18	72.48
01/14/2010	0730	69.20	2.13	71.33
01/14/2010	0736	68.20	2.09	70.29
01/14/2010	0742	67.20	2.05	69.25
01/14/2010	0748	66.20	2.01	68.21
01/14/2010	0754	65.10	1.97	67.07
01/14/2010	0800	64.10	1.94	66.04
01/14/2010	0806	63.30	1.91	65.21
01/14/2010	0812	62.50	1.87	64.37
01/14/2010	0818	61.60	1.84	63.44
01/14/2010	0824	60.80	1.82	62.62
01/14/2010	0830	60.00	1.80	61.80
01/14/2010	0836	59.20	1.78	60.98
01/14/2010	0842	58.40	1.76	60.16
01/14/2010	0848	57.60	1.73	59.33
01/14/2010	0854	56.70	1.71	58.41
01/14/2010	0900	55.90	1.69	57.59
01/14/2010	0906	55.30	1.67	56.97
01/14/2010	0912	54.60	1.65	56.25
01/14/2010	0918	54.00	1.62	55.62
01/14/2010	0924	53.30	1.60	54.90
01/14/2010	0930	52.70	1.59	54.29
01/14/2010	0936	52.00	1.57	53.57
01/14/2010	0942	51.40	1.55	52.95
01/14/2010	0948	50.70	1.52	52.22
01/14/2010	0954	50.10	1.51	51.61
01/14/2010	1000	49.40	1.49	50.89
01/14/2010	1006	48.70	1.47	50.17
01/14/2010	1012	48.10	1.45	49.55
01/14/2010	1018	47.40	1.43	48.83
01/14/2010	1024	46.80	1.41	48.21
01/14/2010	1030	46.10	1.40	47.50
01/14/2010	1036	45.50	1.38	46.88
01/14/2010	1042	44.80	1.37	46.17
01/14/2010	1048	44.20	1.35	45.55
01/14/2010	1054	43.50	1.33	44.83

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	1100	42.90	1.31	44.21
01/14/2010	1106	42.10	1.30	43.40
01/14/2010	1112	41.30	1.28	42.58
01/14/2010	1118	40.40	1.27	41.67
01/14/2010	1124	39.60	1.26	40.86
01/14/2010	1130	38.80	1.25	40.05
01/14/2010	1136	38.00	1.24	39.24
01/14/2010	1142	37.20	1.23	38.43
01/14/2010	1148	36.40	1.21	37.61
01/14/2010	1154	35.60	1.19	36.79
01/14/2010	1200	34.70	1.18	35.88
01/14/2010	1206	33.90	1.17	35.07
01/14/2010	1212	33.10	1.16	34.26
01/14/2010	1218	32.30	1.15	33.45
01/14/2010	1224	31.50	1.14	32.64
01/14/2010	1230	30.70	1.14	31.84
01/14/2010	1236	29.90	1.13	31.03
01/14/2010	1242	29.00	1.13	30.13
01/14/2010	1248	28.20	1.12	29.32
01/14/2010	1254	27.40	1.11	28.51
01/14/2010	1300	26.60	1.09	27.69
01/14/2010	1306	25.80	1.08	26.88
01/14/2010	1312	25.00	1.06	26.06
01/14/2010	1318	24.20	1.05	25.25
01/14/2010	1324	23.30	1.03	24.33
01/14/2010	1330	22.50	1.01	23.51
01/14/2010	1336	21.70	0.99	22.69
01/14/2010	1342	20.90	0.97	21.87
01/14/2010	1348	20.10	0.94	21.04
01/14/2010	1354	19.30	0.92	20.22
01/14/2010	1400	18.50	0.90	19.40
01/14/2010	1406	17.60	0.88	18.48
01/14/2010	1412	16.80	0.85	17.65
01/14/2010	1418	16.00	0.83	16.83
01/14/2010	1424	15.20	0.82	16.02
01/14/2010	1430	14.40	0.79	15.19
01/14/2010	1436	13.60	0.77	14.37
01/14/2010	1442	12.70	0.75	13.45
01/14/2010	1448	11.90	0.73	12.63
01/14/2010	1454	11.10	0.70	11.80
01/14/2010	1500	10.30	0.68	10.98
01/14/2010	1506	0.00	0.66	0.66
01/14/2010	1512	0.00	0.63	0.63
01/14/2010	1518	0.00	0.61	0.61
01/14/2010	1524	0.00	0.58	0.58
01/14/2010	1530	0.00	0.56	0.56
01/14/2010	1536	0.00	0.54	0.54
01/14/2010	1542	0.00	0.51	0.51
01/14/2010	1548	0.00	0.49	0.49
01/14/2010	1554	0.00	0.46	0.46
01/14/2010	1600	0.00	0.44	0.44
01/14/2010	1606	0.00	0.41	0.41
01/14/2010	1612	0.00	0.39	0.39
01/14/2010	1618	0.00	0.36	0.36
01/14/2010	1624	0.00	0.34	0.34
01/14/2010	1630	0.00	0.31	0.31
01/14/2010	1636	0.00	0.29	0.29
01/14/2010	1642	0.00	0.28	0.28
01/14/2010	1648	0.00	0.00	0.00

Date

Time

**Hyd A
Contribution**

**Hyd B
Contribution**

**Combined
Hydrograph**

Hydrograph Combination

COMBINED BASIN C-1 + Bypass 2yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTING\BYPASS\2.HYD	01/14/2010	0000	151	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTING\BYPASS\BASIN C-1\route1.HYD	01/14/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/14/2010	0000	169	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0000	0.00	0.00	0.00
01/14/2010	0006	21.90	0.00	21.90
01/14/2010	0012	23.80	0.00	23.80
01/14/2010	0018	25.70	0.00	25.70
01/14/2010	0024	28.60	0.00	28.60
01/14/2010	0030	31.40	0.00	31.40
01/14/2010	0036	34.30	0.00	34.30
01/14/2010	0042	38.10	0.00	38.10
01/14/2010	0048	41.90	0.00	41.90
01/14/2010	0054	45.70	0.00	45.70
01/14/2010	0100	51.40	0.00	51.40
01/14/2010	0106	60.90	0.00	60.90
01/14/2010	0112	79.90	0.00	79.90
01/14/2010	0118	110.20	0.00	110.20
01/14/2010	0124	153.80	0.00	153.80
01/14/2010	0130	205.80	0.00	205.80
01/14/2010	0136	269.10	0.00	269.10
01/14/2010	0142	346.60	0.00	346.60
01/14/2010	0148	430.60	0.00	430.60
01/14/2010	0154	512.30	0.00	512.30
01/14/2010	0200	593.90	0.00	593.90
01/14/2010	0206	651.80	0.00	651.80
01/14/2010	0212	709.80	0.00	709.80
01/14/2010	0218	754.70	0.00	754.70
01/14/2010	0224	799.50	0.00	799.50
01/14/2010	0230	781.60	0.00	781.60
01/14/2010	0236	763.60	0.00	763.60
01/14/2010	0242	735.40	0.00	735.40
01/14/2010	0248	707.10	0.08	707.18
01/14/2010	0254	670.60	0.69	671.29
01/14/2010	0300	634.10	2.77	636.87
01/14/2010	0306	588.40	7.69	596.09
01/14/2010	0312	542.70	15.72	558.42
01/14/2010	0318	497.10	24.47	521.57
01/14/2010	0324	464.90	31.03	495.93
01/14/2010	0330	432.80	33.84	466.64
01/14/2010	0336	400.70	33.11	433.81
01/14/2010	0342	377.30	30.41	407.71
01/14/2010	0348	353.90	27.03	380.93
01/14/2010	0354	330.60	23.60	354.20
01/14/2010	0400	307.20	20.45	327.65
01/14/2010	0406	291.70	17.69	309.39
01/14/2010	0412	276.20	15.24	291.44
01/14/2010	0418	260.70	13.17	273.87
01/14/2010	0424	245.30	11.53	256.83
01/14/2010	0430	229.80	10.23	240.03
01/14/2010	0436	220.00	9.17	229.17
01/14/2010	0442	210.20	8.31	218.51
01/14/2010	0448	200.40	7.59	207.99
01/14/2010	0454	190.50	6.99	197.49
01/14/2010	0500	180.70	6.49	187.19

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0506	174.10	6.07	180.17
01/14/2010	0512	167.50	5.70	173.20
01/14/2010	0518	160.90	5.38	166.28
01/14/2010	0524	154.30	5.10	159.40
01/14/2010	0530	147.70	4.85	152.55
01/14/2010	0536	143.00	4.62	147.62
01/14/2010	0542	138.30	4.42	142.72
01/14/2010	0548	133.60	4.25	137.85
01/14/2010	0554	128.90	4.10	133.00
01/14/2010	0600	124.10	3.97	128.07
01/14/2010	0606	121.10	3.85	124.95
01/14/2010	0612	118.10	3.74	121.84
01/14/2010	0618	115.10	3.63	118.73
01/14/2010	0624	112.10	3.54	115.64
01/14/2010	0630	109.10	3.45	112.55
01/14/2010	0636	106.60	3.37	109.97
01/14/2010	0642	104.20	3.29	107.49
01/14/2010	0648	101.70	3.22	104.92
01/14/2010	0654	99.30	3.16	102.46
01/14/2010	0700	96.80	3.09	99.89
01/14/2010	0706	95.50	3.03	98.53
01/14/2010	0712	94.20	2.96	97.16
01/14/2010	0718	92.90	2.90	95.80
01/14/2010	0724	91.60	2.83	94.43
01/14/2010	0730	90.30	2.76	93.06
01/14/2010	0736	88.90	2.70	91.60
01/14/2010	0742	87.60	2.65	90.25
01/14/2010	0748	86.30	2.60	88.90
01/14/2010	0754	85.00	2.55	87.55
01/14/2010	0800	83.70	2.50	86.20
01/14/2010	0806	82.50	2.46	84.96
01/14/2010	0812	81.40	2.42	83.82
01/14/2010	0818	80.30	2.38	82.68
01/14/2010	0824	79.20	2.35	81.55
01/14/2010	0830	78.00	2.32	80.32
01/14/2010	0836	76.90	2.30	79.20
01/14/2010	0842	75.80	2.27	78.07
01/14/2010	0848	74.60	2.24	76.84
01/14/2010	0854	73.50	2.22	75.72
01/14/2010	0900	72.40	2.20	74.60
01/14/2010	0906	71.50	2.17	73.67
01/14/2010	0912	70.70	2.14	72.84
01/14/2010	0918	69.80	2.11	71.91
01/14/2010	0924	69.00	2.08	71.08
01/14/2010	0930	68.10	2.05	70.15
01/14/2010	0936	67.30	2.03	69.33
01/14/2010	0942	66.40	2.00	68.40
01/14/2010	0948	65.60	1.97	67.57
01/14/2010	0954	64.70	1.95	66.65
01/14/2010	1000	63.90	1.92	65.82
01/14/2010	1006	63.10	1.90	65.00
01/14/2010	1012	62.20	1.87	64.07
01/14/2010	1018	61.40	1.84	63.24
01/14/2010	1024	60.50	1.82	62.32
01/14/2010	1030	59.70	1.80	61.50
01/14/2010	1036	58.80	1.77	60.57
01/14/2010	1042	58.00	1.74	59.74
01/14/2010	1048	57.10	1.72	58.82
01/14/2010	1054	56.30	1.70	58.00

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	1100	55.40	1.68	57.08
01/14/2010	1106	54.40	1.65	56.05
01/14/2010	1112	53.30	1.63	54.93
01/14/2010	1118	52.30	1.61	53.91
01/14/2010	1124	51.20	1.59	52.79
01/14/2010	1130	50.20	1.58	51.78
01/14/2010	1136	49.10	1.56	50.66
01/14/2010	1142	48.00	1.55	49.55
01/14/2010	1148	47.00	1.54	48.54
01/14/2010	1154	45.90	1.53	47.43
01/14/2010	1200	44.90	1.52	46.42
01/14/2010	1206	43.80	1.50	45.30
01/14/2010	1212	42.80	1.49	44.29
01/14/2010	1218	41.70	1.47	43.17
01/14/2010	1224	40.60	1.46	42.06
01/14/2010	1230	39.60	1.46	41.06
01/14/2010	1236	38.50	1.45	39.95
01/14/2010	1242	37.50	1.44	38.94
01/14/2010	1248	36.40	1.43	37.83
01/14/2010	1254	35.40	1.42	36.82
01/14/2010	1300	34.30	1.40	35.70
01/14/2010	1306	33.20	1.38	34.58
01/14/2010	1312	32.20	1.36	33.56
01/14/2010	1318	31.10	1.34	32.44
01/14/2010	1324	30.10	1.32	31.42
01/14/2010	1330	29.00	1.29	30.29
01/14/2010	1336	28.00	1.26	29.26
01/14/2010	1342	26.90	1.24	28.14
01/14/2010	1348	25.80	1.21	27.01
01/14/2010	1354	24.80	1.18	25.98
01/14/2010	1400	23.70	1.15	24.85
01/14/2010	1406	22.70	1.12	23.82
01/14/2010	1412	21.60	1.09	22.69
01/14/2010	1418	20.50	1.06	21.56
01/14/2010	1424	19.50	1.03	20.53
01/14/2010	1430	18.40	0.99	19.39
01/14/2010	1436	17.40	0.96	18.36
01/14/2010	1442	16.30	0.93	17.23
01/14/2010	1448	15.30	0.90	16.20
01/14/2010	1454	14.20	0.87	15.07
01/14/2010	1500	13.10	0.84	13.94
01/14/2010	1506	0.00	0.81	0.81
01/14/2010	1512	0.00	0.78	0.78
01/14/2010	1518	0.00	0.75	0.75
01/14/2010	1524	0.00	0.73	0.73
01/14/2010	1530	0.00	0.70	0.70
01/14/2010	1536	0.00	0.67	0.67
01/14/2010	1542	0.00	0.64	0.64
01/14/2010	1548	0.00	0.61	0.61
01/14/2010	1554	0.00	0.58	0.58
01/14/2010	1600	0.00	0.55	0.55
01/14/2010	1606	0.00	0.52	0.52
01/14/2010	1612	0.00	0.49	0.49
01/14/2010	1618	0.00	0.46	0.46
01/14/2010	1624	0.00	0.42	0.42
01/14/2010	1630	0.00	0.39	0.39
01/14/2010	1636	0.00	0.36	0.36
01/14/2010	1642	0.00	0.33	0.33
01/14/2010	1648	0.00	0.00	0.00

Date

Time

Hyd A
Contribution

Hyd B
Contribution

Combined
Hydrograph

Hydrograph Combination

COMBINED BASIN C1 + Bypass 10yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTING\10.HYD	01/14/2010	0000	151	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTING\BASIN C-1\route10.HYD	01/14/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/14/2010	0000	169	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0000	0.00	0.00	0.00
01/14/2010	0006	60.10	0.00	60.10
01/14/2010	0012	65.30	0.00	65.30
01/14/2010	0018	70.60	0.00	70.60
01/14/2010	0024	78.40	0.00	78.40
01/14/2010	0030	86.30	0.00	86.30
01/14/2010	0036	94.10	0.00	94.10
01/14/2010	0042	104.60	0.00	104.60
01/14/2010	0048	115.00	0.00	115.00
01/14/2010	0054	125.50	0.00	125.50
01/14/2010	0100	141.20	0.00	141.20
01/14/2010	0106	164.70	0.00	164.70
01/14/2010	0112	211.70	0.00	211.70
01/14/2010	0118	282.30	0.00	282.30
01/14/2010	0124	384.20	0.00	384.20
01/14/2010	0130	501.90	0.00	501.90
01/14/2010	0136	643.00	0.00	643.00
01/14/2010	0142	815.50	0.00	815.50
01/14/2010	0148	995.90	0.00	995.90
01/14/2010	0154	1168.40	0.00	1168.40
01/14/2010	0200	1340.90	0.00	1340.90
01/14/2010	0206	1458.60	0.00	1458.60
01/14/2010	0212	1576.20	0.00	1576.20
01/14/2010	0218	1674.20	0.00	1674.20
01/14/2010	0224	1772.20	0.17	1772.37
01/14/2010	0230	1701.70	0.75	1702.45
01/14/2010	0236	1631.10	1.76	1632.86
01/14/2010	0242	1572.30	3.12	1575.42
01/14/2010	0248	1513.50	5.08	1518.58
01/14/2010	0254	1427.20	8.73	1435.93
01/14/2010	0300	1340.90	16.23	1357.13
01/14/2010	0306	1239.00	29.82	1268.82
01/14/2010	0312	1137.10	49.52	1186.62
01/14/2010	0318	1035.10	65.33	1100.43
01/14/2010	0324	964.50	72.29	1036.79
01/14/2010	0330	894.00	74.54	968.54
01/14/2010	0336	823.40	72.72	896.12
01/14/2010	0342	772.40	68.21	840.61
01/14/2010	0348	721.40	61.91	783.31
01/14/2010	0354	670.50	51.84	722.34
01/14/2010	0400	619.50	41.41	660.91
01/14/2010	0406	586.60	34.45	621.05
01/14/2010	0412	553.60	29.11	582.71
01/14/2010	0418	520.70	24.97	545.67
01/14/2010	0424	487.80	21.74	509.54
01/14/2010	0430	454.80	19.19	473.99
01/14/2010	0436	434.40	17.11	451.51
01/14/2010	0442	414.00	15.32	429.32
01/14/2010	0448	393.70	13.85	407.55
01/14/2010	0454	373.30	12.67	385.97
01/14/2010	0500	352.90	11.72	364.62

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0506	338.80	10.94	349.74
01/14/2010	0512	324.60	10.28	334.88
01/14/2010	0518	310.50	9.70	320.20
01/14/2010	0524	296.40	9.18	305.58
01/14/2010	0530	282.30	8.73	291.03
01/14/2010	0536	272.90	8.34	281.24
01/14/2010	0542	263.50	8.00	271.50
01/14/2010	0548	254.10	7.70	261.80
01/14/2010	0554	244.70	7.44	252.14
01/14/2010	0600	235.30	7.21	242.51
01/14/2010	0606	229.00	6.99	235.99
01/14/2010	0612	222.70	6.80	229.50
01/14/2010	0618	216.40	6.63	223.03
01/14/2010	0624	210.20	6.46	216.66
01/14/2010	0630	203.90	6.31	210.21
01/14/2010	0636	199.20	6.17	205.37
01/14/2010	0642	194.50	6.03	200.53
01/14/2010	0648	189.80	5.89	195.69
01/14/2010	0654	185.10	5.76	190.86
01/14/2010	0700	180.40	5.63	186.03
01/14/2010	0706	178.00	5.51	183.51
01/14/2010	0712	175.70	5.39	181.09
01/14/2010	0718	173.30	5.27	178.57
01/14/2010	0724	170.90	5.14	176.04
01/14/2010	0730	168.60	5.03	173.63
01/14/2010	0736	166.20	4.92	171.12
01/14/2010	0742	163.90	4.82	168.72
01/14/2010	0748	161.50	4.73	166.23
01/14/2010	0754	159.20	4.64	163.84
01/14/2010	0800	156.80	4.56	161.36
01/14/2010	0806	154.50	4.49	158.99
01/14/2010	0812	152.10	4.42	156.52
01/14/2010	0818	149.80	4.36	154.16
01/14/2010	0824	147.40	4.30	151.70
01/14/2010	0830	145.10	4.26	149.36
01/14/2010	0836	142.70	4.21	146.91
01/14/2010	0842	140.40	4.16	144.56
01/14/2010	0848	138.00	4.12	142.12
01/14/2010	0854	135.70	4.07	139.77
01/14/2010	0900	133.30	4.02	137.32
01/14/2010	0906	131.70	3.97	135.67
01/14/2010	0912	130.20	3.92	134.12
01/14/2010	0918	128.60	3.86	132.46
01/14/2010	0924	127.00	3.80	130.80
01/14/2010	0930	125.50	3.75	129.25
01/14/2010	0936	123.90	3.69	127.59
01/14/2010	0942	122.30	3.63	125.93
01/14/2010	0948	120.80	3.57	124.37
01/14/2010	0954	119.20	3.51	122.71
01/14/2010	1000	117.60	3.45	121.05
01/14/2010	1006	116.10	3.40	119.50
01/14/2010	1012	114.50	3.36	117.86
01/14/2010	1018	112.90	3.31	116.21
01/14/2010	1024	111.40	3.27	114.67
01/14/2010	1030	109.80	3.22	113.02
01/14/2010	1036	108.20	3.18	111.38
01/14/2010	1042	106.60	3.13	109.73
01/14/2010	1048	105.10	3.09	108.19
01/14/2010	1054	103.50	3.05	106.55

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	1100	101.90	3.01	104.91
01/14/2010	1106	100.00	2.97	102.97
01/14/2010	1112	98.00	2.94	100.94
01/14/2010	1118	96.10	2.91	99.01
01/14/2010	1124	94.10	2.89	96.99
01/14/2010	1130	92.10	2.86	94.96
01/14/2010	1136	90.20	2.83	93.03
01/14/2010	1142	88.20	2.81	91.01
01/14/2010	1148	86.30	2.79	89.09
01/14/2010	1154	84.30	2.77	87.07
01/14/2010	1200	82.30	2.74	85.04
01/14/2010	1206	80.40	2.71	83.11
01/14/2010	1212	78.40	2.69	81.09
01/14/2010	1218	76.50	2.68	79.18
01/14/2010	1224	74.50	2.66	77.16
01/14/2010	1230	72.50	2.63	75.13
01/14/2010	1236	70.60	2.61	73.21
01/14/2010	1242	68.60	2.59	71.19
01/14/2010	1248	66.70	2.57	69.27
01/14/2010	1254	64.70	2.55	67.25
01/14/2010	1300	62.70	2.53	65.23
01/14/2010	1306	60.80	2.49	63.29
01/14/2010	1312	58.80	2.45	61.25
01/14/2010	1318	56.90	2.40	59.30
01/14/2010	1324	54.90	2.36	57.26
01/14/2010	1330	52.90	2.31	55.21
01/14/2010	1336	51.00	2.26	53.26
01/14/2010	1342	49.00	2.22	51.22
01/14/2010	1348	47.10	2.16	49.26
01/14/2010	1354	45.10	2.11	47.21
01/14/2010	1400	43.10	2.05	45.15
01/14/2010	1406	41.20	2.00	43.20
01/14/2010	1412	39.20	1.95	41.15
01/14/2010	1418	37.20	1.89	39.09
01/14/2010	1424	35.30	1.83	37.13
01/14/2010	1430	33.30	1.77	35.07
01/14/2010	1436	31.40	1.72	33.12
01/14/2010	1442	29.40	1.66	31.06
01/14/2010	1448	27.40	1.60	29.00
01/14/2010	1454	25.50	1.54	27.04
01/14/2010	1500	23.50	1.49	24.99
01/14/2010	1506	0.00	1.43	1.43
01/14/2010	1512	0.00	1.38	1.38
01/14/2010	1518	0.00	1.32	1.32
01/14/2010	1524	0.00	1.27	1.27
01/14/2010	1530	0.00	1.21	1.21
01/14/2010	1536	0.00	1.15	1.15
01/14/2010	1542	0.00	1.09	1.09
01/14/2010	1548	0.00	1.04	1.04
01/14/2010	1554	0.00	0.98	0.98
01/14/2010	1600	0.00	0.92	0.92
01/14/2010	1606	0.00	0.86	0.86
01/14/2010	1612	0.00	0.81	0.81
01/14/2010	1618	0.00	0.76	0.76
01/14/2010	1624	0.00	0.71	0.71
01/14/2010	1630	0.00	0.66	0.66
01/14/2010	1636	0.00	0.60	0.60
01/14/2010	1642	0.00	0.55	0.55
01/14/2010	1648	0.00	0.00	0.00

Date

Time

Hyd A
Contribution

Hyd B
Contribution

Combined
Hydrograph

Hydrograph Combination

COMBINED ROUTED BASIN C1 + bypass 25yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTED\BASIN C1\25.HYD	01/14/2010	0000	151	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTED\BASIN C-1\25.HYD	01/14/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/14/2010	0000	169	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0000	0.00	0.00	0.00
01/14/2010	0006	72.80	0.00	72.80
01/14/2010	0012	79.10	0.00	79.10
01/14/2010	0018	85.40	0.00	85.40
01/14/2010	0024	94.90	0.00	94.90
01/14/2010	0030	104.40	0.00	104.40
01/14/2010	0036	113.90	0.00	113.90
01/14/2010	0042	126.50	0.00	126.50
01/14/2010	0048	139.20	0.00	139.20
01/14/2010	0054	151.80	0.00	151.80
01/14/2010	0100	170.80	0.00	170.80
01/14/2010	0106	199.30	0.00	199.30
01/14/2010	0112	256.20	0.00	256.20
01/14/2010	0118	341.60	0.00	341.60
01/14/2010	0124	465.00	0.00	465.00
01/14/2010	0130	607.40	0.00	607.40
01/14/2010	0136	778.20	0.00	778.20
01/14/2010	0142	987.00	0.00	987.00
01/14/2010	0148	1205.30	0.00	1205.30
01/14/2010	0154	1414.00	0.00	1414.00
01/14/2010	0200	1622.80	0.00	1622.80
01/14/2010	0206	1765.20	0.00	1765.20
01/14/2010	0212	1907.50	0.00	1907.50
01/14/2010	0218	2026.20	0.12	2026.32
01/14/2010	0224	2144.80	0.63	2145.43
01/14/2010	0230	2059.40	1.61	2061.01
01/14/2010	0236	1974.00	2.99	1976.99
01/14/2010	0242	1902.80	4.73	1907.53
01/14/2010	0248	1831.60	7.16	1838.76
01/14/2010	0254	1727.20	11.74	1738.94
01/14/2010	0300	1622.80	20.88	1643.68
01/14/2010	0306	1499.50	37.80	1537.30
01/14/2010	0312	1376.10	58.90	1435.00
01/14/2010	0318	1252.70	80.82	1333.52
01/14/2010	0324	1167.30	101.65	1268.95
01/14/2010	0330	1081.90	101.53	1183.43
01/14/2010	0336	996.50	84.15	1080.65
01/14/2010	0342	934.80	73.53	1008.33
01/14/2010	0348	873.10	68.07	941.17
01/14/2010	0354	811.40	61.38	872.78
01/14/2010	0400	749.70	51.15	800.85
01/14/2010	0406	709.90	40.91	750.81
01/14/2010	0412	670.00	34.38	704.38
01/14/2010	0418	630.10	29.42	659.52
01/14/2010	0424	590.30	25.58	615.88
01/14/2010	0430	550.40	22.57	572.97
01/14/2010	0436	525.80	20.18	545.98
01/14/2010	0442	501.10	18.26	519.36
01/14/2010	0448	476.40	16.61	493.01
01/14/2010	0454	451.70	15.18	466.88
01/14/2010	0500	427.10	14.02	441.12

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0506	410.00	13.06	423.06
01/14/2010	0512	392.90	12.25	405.15
01/14/2010	0518	375.80	11.57	387.37
01/14/2010	0524	358.70	10.96	369.66
01/14/2010	0530	341.60	10.42	352.02
01/14/2010	0536	330.30	9.96	340.26
01/14/2010	0542	318.90	9.56	328.46
01/14/2010	0548	307.50	9.21	316.71
01/14/2010	0554	296.10	8.90	305.00
01/14/2010	0600	284.70	8.63	293.33
01/14/2010	0606	277.10	8.38	285.48
01/14/2010	0612	269.50	8.16	277.66
01/14/2010	0618	261.90	7.95	269.85
01/14/2010	0624	254.30	7.76	262.06
01/14/2010	0630	246.70	7.58	254.28
01/14/2010	0636	241.10	7.41	248.51
01/14/2010	0642	235.40	7.24	242.64
01/14/2010	0648	229.70	7.08	236.78
01/14/2010	0654	224.00	6.92	230.92
01/14/2010	0700	218.30	6.76	225.06
01/14/2010	0706	215.40	6.61	222.01
01/14/2010	0712	212.60	6.47	219.07
01/14/2010	0718	209.70	6.32	216.02
01/14/2010	0724	206.90	6.18	213.08
01/14/2010	0730	204.00	6.04	210.04
01/14/2010	0736	201.20	5.92	207.12
01/14/2010	0742	198.30	5.80	204.10
01/14/2010	0748	195.50	5.68	201.18
01/14/2010	0754	192.70	5.57	198.27
01/14/2010	0800	189.80	5.47	195.27
01/14/2010	0806	187.00	5.39	192.39
01/14/2010	0812	184.10	5.32	189.42
01/14/2010	0818	181.30	5.26	186.56
01/14/2010	0824	178.40	5.20	183.60
01/14/2010	0830	175.60	5.14	180.74
01/14/2010	0836	172.70	5.08	177.78
01/14/2010	0842	169.90	5.03	174.93
01/14/2010	0848	167.00	4.97	171.97
01/14/2010	0854	164.20	4.91	169.11
01/14/2010	0900	161.30	4.85	166.15
01/14/2010	0906	159.40	4.79	164.19
01/14/2010	0912	157.50	4.73	162.23
01/14/2010	0918	155.60	4.66	160.26
01/14/2010	0924	153.70	4.59	158.29
01/14/2010	0930	151.80	4.52	156.32
01/14/2010	0936	149.90	4.45	154.35
01/14/2010	0942	148.00	4.37	152.37
01/14/2010	0948	146.10	4.30	150.40
01/14/2010	0954	144.30	4.24	148.54
01/14/2010	1000	142.40	4.17	146.57
01/14/2010	1006	140.50	4.11	144.61
01/14/2010	1012	138.60	4.06	142.66
01/14/2010	1018	136.70	4.00	140.70
01/14/2010	1024	134.80	3.94	138.74
01/14/2010	1030	132.90	3.89	136.79
01/14/2010	1036	131.00	3.84	134.84
01/14/2010	1042	129.10	3.78	132.88
01/14/2010	1048	127.20	3.73	130.93
01/14/2010	1054	125.30	3.68	128.98

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	1100	123.40	3.63	127.03
01/14/2010	1106	121.00	3.58	124.58
01/14/2010	1112	118.60	3.55	122.15
01/14/2010	1118	116.30	3.51	119.81
01/14/2010	1124	113.90	3.47	117.37
01/14/2010	1130	111.50	3.44	114.94
01/14/2010	1136	109.10	3.41	112.51
01/14/2010	1142	106.80	3.38	110.18
01/14/2010	1148	104.40	3.35	107.75
01/14/2010	1154	102.00	3.32	105.32
01/14/2010	1200	99.60	3.30	102.90
01/14/2010	1206	97.30	3.28	100.58
01/14/2010	1212	94.90	3.25	98.15
01/14/2010	1218	92.50	3.22	95.72
01/14/2010	1224	90.20	3.20	93.40
01/14/2010	1230	87.80	3.18	90.98
01/14/2010	1236	85.40	3.15	88.55
01/14/2010	1242	83.00	3.12	86.12
01/14/2010	1248	80.70	3.10	83.80
01/14/2010	1254	78.30	3.08	81.38
01/14/2010	1300	75.90	3.04	78.94
01/14/2010	1306	73.50	3.00	76.50
01/14/2010	1312	71.20	2.95	74.15
01/14/2010	1318	68.80	2.90	71.70
01/14/2010	1324	66.40	2.84	69.24
01/14/2010	1330	64.10	2.79	66.89
01/14/2010	1336	61.70	2.73	64.43
01/14/2010	1342	59.30	2.67	61.97
01/14/2010	1348	56.90	2.60	59.50
01/14/2010	1354	54.60	2.53	57.13
01/14/2010	1400	52.20	2.47	54.67
01/14/2010	1406	49.80	2.40	52.20
01/14/2010	1412	47.50	2.33	49.83
01/14/2010	1418	45.10	2.26	47.36
01/14/2010	1424	42.70	2.20	44.90
01/14/2010	1430	40.30	2.14	42.44
01/14/2010	1436	38.00	2.06	40.06
01/14/2010	1442	35.60	1.99	37.59
01/14/2010	1448	33.20	1.92	35.12
01/14/2010	1454	30.80	1.86	32.66
01/14/2010	1500	28.50	1.78	30.28
01/14/2010	1506	0.00	1.71	1.71
01/14/2010	1512	0.00	1.64	1.64
01/14/2010	1518	0.00	1.57	1.57
01/14/2010	1524	0.00	1.50	1.50
01/14/2010	1530	0.00	1.43	1.43
01/14/2010	1536	0.00	1.37	1.37
01/14/2010	1542	0.00	1.30	1.30
01/14/2010	1548	0.00	1.23	1.23
01/14/2010	1554	0.00	1.16	1.16
01/14/2010	1600	0.00	1.09	1.09
01/14/2010	1606	0.00	1.02	1.02
01/14/2010	1612	0.00	0.95	0.95
01/14/2010	1618	0.00	0.88	0.88
01/14/2010	1624	0.00	0.81	0.81
01/14/2010	1630	0.00	0.76	0.76
01/14/2010	1636	0.00	0.70	0.70
01/14/2010	1642	0.00	0.63	0.63
01/14/2010	1648	0.00	0.00	0.00

Date

Time

**Hyd A
Contribution**

**Hyd B
Contribution**

**Combined
Hydrograph**

Hydrograph Combination

ROUTED BASIN C-1 + By Pass 50 yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTED BASIN C-1 + By Pass 50.HYD	01/14/2010	0000	151	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTED BASIN C-1 + By Pass 50.HYD	01/14/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/14/2010	0000	169	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0000	0.00	0.00	0.00
01/14/2010	0006	82.40	0.00	82.40
01/14/2010	0012	89.60	0.00	89.60
01/14/2010	0018	96.70	0.00	96.70
01/14/2010	0024	107.50	0.00	107.50
01/14/2010	0030	118.20	0.00	118.20
01/14/2010	0036	129.00	0.00	129.00
01/14/2010	0042	143.30	0.00	143.30
01/14/2010	0048	157.60	0.00	157.60
01/14/2010	0054	172.00	0.00	172.00
01/14/2010	0100	193.50	0.00	193.50
01/14/2010	0106	225.70	0.00	225.70
01/14/2010	0112	290.20	0.00	290.20
01/14/2010	0118	387.00	0.00	387.00
01/14/2010	0124	526.70	0.00	526.70
01/14/2010	0130	687.90	0.00	687.90
01/14/2010	0136	881.40	0.00	881.40
01/14/2010	0142	1117.90	0.00	1117.90
01/14/2010	0148	1365.10	0.00	1365.10
01/14/2010	0154	1601.50	0.00	1601.50
01/14/2010	0200	1838.00	0.00	1838.00
01/14/2010	0206	1999.20	0.00	1999.20
01/14/2010	0212	2160.50	0.00	2160.50
01/14/2010	0218	2294.80	0.31	2295.11
01/14/2010	0224	2429.20	1.13	2430.33
01/14/2010	0230	2332.50	2.36	2334.86
01/14/2010	0236	2235.70	3.99	2239.69
01/14/2010	0242	2155.10	5.98	2161.08
01/14/2010	0248	2074.50	8.75	2083.25
01/14/2010	0254	1956.30	14.02	1970.32
01/14/2010	0300	1838.00	24.43	1862.43
01/14/2010	0306	1698.30	44.79	1743.09
01/14/2010	0312	1558.60	66.40	1625.00
01/14/2010	0318	1418.80	101.20	1520.00
01/14/2010	0324	1322.10	128.17	1450.27
01/14/2010	0330	1225.30	115.78	1341.08
01/14/2010	0336	1128.60	92.70	1221.30
01/14/2010	0342	1058.70	77.81	1136.51
01/14/2010	0348	988.90	70.79	1059.69
01/14/2010	0354	919.00	65.01	984.01
01/14/2010	0400	849.10	57.10	906.20
01/14/2010	0406	804.00	46.76	850.76
01/14/2010	0412	758.90	38.00	796.90
01/14/2010	0418	713.70	32.54	746.24
01/14/2010	0424	668.60	28.32	696.92
01/14/2010	0430	623.40	25.01	648.41
01/14/2010	0436	595.50	22.38	617.88
01/14/2010	0442	567.50	20.27	587.77
01/14/2010	0448	539.60	18.55	558.15
01/14/2010	0454	511.60	17.09	528.69
01/14/2010	0500	483.70	15.81	499.51

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0506	464.30	14.72	479.02
01/14/2010	0512	445.00	13.81	458.81
01/14/2010	0518	425.60	13.02	438.62
01/14/2010	0524	406.30	12.33	418.63
01/14/2010	0530	387.00	11.72	398.72
01/14/2010	0536	374.10	11.19	385.29
01/14/2010	0542	361.20	10.75	371.95
01/14/2010	0548	348.30	10.37	358.67
01/14/2010	0554	335.40	10.03	345.43
01/14/2010	0600	322.50	9.73	332.23
01/14/2010	0606	313.90	9.45	323.35
01/14/2010	0612	305.30	9.20	314.50
01/14/2010	0618	296.70	8.97	305.67
01/14/2010	0624	288.10	8.76	296.86
01/14/2010	0630	279.50	8.56	288.06
01/14/2010	0636	273.00	8.36	281.36
01/14/2010	0642	266.60	8.18	274.78
01/14/2010	0648	260.10	8.00	268.10
01/14/2010	0654	253.70	7.83	261.53
01/14/2010	0700	247.20	7.65	254.85
01/14/2010	0706	244.00	7.49	251.49
01/14/2010	0712	240.80	7.32	248.12
01/14/2010	0718	237.50	7.15	244.65
01/14/2010	0724	234.30	6.97	241.27
01/14/2010	0730	231.10	6.81	237.91
01/14/2010	0736	227.90	6.66	234.56
01/14/2010	0742	224.60	6.53	231.13
01/14/2010	0748	221.40	6.41	227.81
01/14/2010	0754	218.20	6.29	224.49
01/14/2010	0800	215.00	6.18	221.18
01/14/2010	0806	211.70	6.09	217.79
01/14/2010	0812	208.50	6.01	214.51
01/14/2010	0818	205.30	5.93	211.23
01/14/2010	0824	202.10	5.86	207.96
01/14/2010	0830	198.80	5.79	204.59
01/14/2010	0836	195.60	5.73	201.33
01/14/2010	0842	192.40	5.66	198.06
01/14/2010	0848	189.20	5.59	194.79
01/14/2010	0854	186.00	5.52	191.52
01/14/2010	0900	182.70	5.46	188.16
01/14/2010	0906	180.60	5.40	186.00
01/14/2010	0912	178.40	5.33	183.73
01/14/2010	0918	176.30	5.26	181.56
01/14/2010	0924	174.10	5.18	179.28
01/14/2010	0930	172.00	5.10	177.10
01/14/2010	0936	169.80	5.02	174.82
01/14/2010	0942	167.70	4.94	172.64
01/14/2010	0948	165.50	4.87	170.37
01/14/2010	0954	163.40	4.79	168.19
01/14/2010	1000	161.20	4.71	165.91
01/14/2010	1006	159.10	4.64	163.74
01/14/2010	1012	156.90	4.57	161.47
01/14/2010	1018	154.80	4.51	159.31
01/14/2010	1024	152.60	4.44	157.04
01/14/2010	1030	150.50	4.37	154.87
01/14/2010	1036	148.30	4.31	152.61
01/14/2010	1042	146.20	4.25	150.45
01/14/2010	1048	144.00	4.20	148.20
01/14/2010	1054	141.90	4.14	146.04

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	1100	139.70	4.09	143.79
01/14/2010	1106	137.00	4.05	141.05
01/14/2010	1112	134.40	4.01	138.41
01/14/2010	1118	131.70	3.96	135.66
01/14/2010	1124	129.00	3.93	132.93
01/14/2010	1130	126.30	3.90	130.20
01/14/2010	1136	123.60	3.86	127.46
01/14/2010	1142	120.90	3.83	124.73
01/14/2010	1148	118.20	3.80	122.00
01/14/2010	1154	115.50	3.77	119.27
01/14/2010	1200	112.90	3.73	116.63
01/14/2010	1206	110.20	3.71	113.91
01/14/2010	1212	107.50	3.68	111.18
01/14/2010	1218	104.80	3.65	108.45
01/14/2010	1224	102.10	3.62	105.72
01/14/2010	1230	99.40	3.59	102.99
01/14/2010	1236	96.70	3.56	100.26
01/14/2010	1242	94.10	3.53	97.63
01/14/2010	1248	91.40	3.50	94.90
01/14/2010	1254	88.70	3.48	92.18
01/14/2010	1300	86.00	3.44	89.44
01/14/2010	1306	83.30	3.39	86.69
01/14/2010	1312	80.60	3.33	83.93
01/14/2010	1318	77.90	3.27	81.17
01/14/2010	1324	75.20	3.21	78.41
01/14/2010	1330	72.60	3.15	75.75
01/14/2010	1336	69.90	3.08	72.98
01/14/2010	1342	67.20	3.01	70.21
01/14/2010	1348	64.50	2.94	67.44
01/14/2010	1354	61.80	2.86	64.66
01/14/2010	1400	59.10	2.78	61.88
01/14/2010	1406	56.40	2.70	59.10
01/14/2010	1412	53.70	2.63	56.33
01/14/2010	1418	51.10	2.55	53.65
01/14/2010	1424	48.40	2.47	50.87
01/14/2010	1430	45.70	2.38	48.08
01/14/2010	1436	43.00	2.31	45.31
01/14/2010	1442	40.30	2.24	42.54
01/14/2010	1448	37.60	2.16	39.76
01/14/2010	1454	34.90	2.09	36.99
01/14/2010	1500	32.20	2.01	34.21
01/14/2010	1506	0.00	1.93	1.93
01/14/2010	1512	0.00	1.84	1.84
01/14/2010	1518	0.00	1.76	1.76
01/14/2010	1524	0.00	1.68	1.68
01/14/2010	1530	0.00	1.60	1.60
01/14/2010	1536	0.00	1.52	1.52
01/14/2010	1542	0.00	1.45	1.45
01/14/2010	1548	0.00	1.37	1.37
01/14/2010	1554	0.00	1.29	1.29
01/14/2010	1600	0.00	1.22	1.22
01/14/2010	1606	0.00	1.15	1.15
01/14/2010	1612	0.00	1.07	1.07
01/14/2010	1618	0.00	0.99	0.99
01/14/2010	1624	0.00	0.91	0.91
01/14/2010	1630	0.00	0.83	0.83
01/14/2010	1636	0.00	0.77	0.77
01/14/2010	1642	0.00	0.71	0.71
01/14/2010	1648	0.00	0.00	0.00

Date

Time

Hyd A
Contribution

Hyd B
Contribution

Combined
Hydrograph

Hydrograph Combination

ROUTED BASIN C-1 + Bypass 100 yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTED BASIN\100.HYD	01/14/2010	0000	151	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\ROUTED BASIN\BASIN C-1\100.HYD	01/14/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/14/2010	0000	169	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0000	0.00	0.00	0.00
01/14/2010	0006	97.10	0.00	97.10
01/14/2010	0012	105.50	0.00	105.50
01/14/2010	0018	114.00	0.00	114.00
01/14/2010	0024	126.60	0.00	126.60
01/14/2010	0030	139.30	0.00	139.30
01/14/2010	0036	152.00	0.00	152.00
01/14/2010	0042	168.80	0.00	168.80
01/14/2010	0048	185.70	0.00	185.70
01/14/2010	0054	202.60	0.00	202.60
01/14/2010	0100	227.90	0.00	227.90
01/14/2010	0106	265.90	0.00	265.90
01/14/2010	0112	341.90	0.00	341.90
01/14/2010	0118	455.90	0.00	455.90
01/14/2010	0124	620.50	0.00	620.50
01/14/2010	0130	810.50	0.00	810.50
01/14/2010	0136	1038.40	0.00	1038.40
01/14/2010	0142	1317.00	0.00	1317.00
01/14/2010	0148	1608.30	0.00	1608.30
01/14/2010	0154	1886.90	0.00	1886.90
01/14/2010	0200	2165.50	0.00	2165.50
01/14/2010	0206	2355.50	0.00	2355.50
01/14/2010	0212	2545.40	0.13	2545.53
01/14/2010	0218	2703.70	0.76	2704.46
01/14/2010	0224	2862.00	1.96	2863.96
01/14/2010	0230	2748.00	3.54	2751.54
01/14/2010	0236	2634.10	5.52	2639.62
01/14/2010	0242	2539.10	7.90	2547.00
01/14/2010	0248	2444.10	11.20	2455.30
01/14/2010	0254	2304.80	17.30	2322.10
01/14/2010	0300	2165.50	29.79	2195.29
01/14/2010	0306	2000.90	51.97	2052.87
01/14/2010	0312	1836.20	87.50	1923.70
01/14/2010	0318	1671.60	138.90	1810.50
01/14/2010	0324	1557.60	159.46	1717.06
01/14/2010	0330	1443.70	134.89	1578.59
01/14/2010	0336	1329.70	106.55	1436.25
01/14/2010	0342	1247.40	85.71	1333.11
01/14/2010	0348	1165.10	74.83	1239.93
01/14/2010	0354	1082.70	69.18	1151.88
01/14/2010	0400	1000.40	63.11	1063.51
01/14/2010	0406	947.20	53.94	1001.14
01/14/2010	0412	894.10	44.34	938.44
01/14/2010	0418	840.90	37.77	878.67
01/14/2010	0424	787.70	32.78	820.48
01/14/2010	0430	734.50	28.92	763.42
01/14/2010	0436	701.60	25.87	727.47
01/14/2010	0442	668.60	23.43	692.03
01/14/2010	0448	635.70	21.45	657.15
01/14/2010	0454	602.80	19.82	622.62
01/14/2010	0500	569.90	18.47	588.37

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	0506	547.10	17.30	564.40
01/14/2010	0512	524.30	16.22	540.52
01/14/2010	0518	501.50	15.27	516.77
01/14/2010	0524	478.70	14.44	493.14
01/14/2010	0530	455.90	13.71	469.61
01/14/2010	0536	440.70	13.10	453.80
01/14/2010	0542	425.50	12.58	438.08
01/14/2010	0548	410.30	12.14	422.44
01/14/2010	0554	395.10	11.74	406.84
01/14/2010	0600	379.90	11.39	391.29
01/14/2010	0606	369.80	11.07	380.87
01/14/2010	0612	359.70	10.77	370.47
01/14/2010	0618	349.50	10.51	360.01
01/14/2010	0624	339.40	10.27	349.67
01/14/2010	0630	329.30	10.04	339.34
01/14/2010	0636	321.70	9.81	331.51
01/14/2010	0642	314.10	9.60	323.70
01/14/2010	0648	306.50	9.39	315.89
01/14/2010	0654	298.90	9.18	308.08
01/14/2010	0700	291.30	8.98	300.28
01/14/2010	0706	287.50	8.78	296.28
01/14/2010	0712	283.70	8.58	292.28
01/14/2010	0718	279.90	8.38	288.28
01/14/2010	0724	276.10	8.19	284.29
01/14/2010	0730	272.30	8.01	280.31
01/14/2010	0736	268.50	7.84	276.34
01/14/2010	0742	264.70	7.68	272.38
01/14/2010	0748	260.90	7.54	268.44
01/14/2010	0754	257.10	7.39	264.49
01/14/2010	0800	253.30	7.27	260.57
01/14/2010	0806	249.50	7.15	256.65
01/14/2010	0812	245.70	7.05	252.75
01/14/2010	0818	241.90	6.96	248.86
01/14/2010	0824	238.10	6.87	244.97
01/14/2010	0830	234.30	6.79	241.09
01/14/2010	0836	230.50	6.71	237.21
01/14/2010	0842	226.70	6.64	233.34
01/14/2010	0848	222.90	6.57	229.47
01/14/2010	0854	219.10	6.50	225.60
01/14/2010	0900	215.30	6.43	221.73
01/14/2010	0906	212.80	6.35	219.15
01/14/2010	0912	210.20	6.27	216.47
01/14/2010	0918	207.70	6.19	213.89
01/14/2010	0924	205.20	6.10	211.30
01/14/2010	0930	202.60	6.01	208.61
01/14/2010	0936	200.10	5.91	206.01
01/14/2010	0942	197.60	5.82	203.42
01/14/2010	0948	195.00	5.72	200.72
01/14/2010	0954	192.50	5.62	198.12
01/14/2010	1000	190.00	5.53	195.53
01/14/2010	1006	187.40	5.45	192.85
01/14/2010	1012	184.90	5.38	190.28
01/14/2010	1018	182.40	5.30	187.70
01/14/2010	1024	179.80	5.23	185.03
01/14/2010	1030	177.30	5.16	182.46
01/14/2010	1036	174.80	5.09	179.89
01/14/2010	1042	172.20	5.02	177.22
01/14/2010	1048	169.70	4.95	174.65
01/14/2010	1054	167.20	4.88	172.08

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/14/2010	1100	164.60	4.82	169.42
01/14/2010	1106	161.50	4.77	166.27
01/14/2010	1112	158.30	4.71	163.01
01/14/2010	1118	155.10	4.67	159.77
01/14/2010	1124	152.00	4.63	156.63
01/14/2010	1130	148.80	4.58	153.38
01/14/2010	1136	145.60	4.54	150.14
01/14/2010	1142	142.50	4.51	147.01
01/14/2010	1148	139.30	4.47	143.77
01/14/2010	1154	136.10	4.43	140.53
01/14/2010	1200	133.00	4.40	137.40
01/14/2010	1206	129.80	4.36	134.16
01/14/2010	1212	126.60	4.33	130.93
01/14/2010	1218	123.50	4.30	127.80
01/14/2010	1224	120.30	4.26	124.56
01/14/2010	1230	117.10	4.23	121.33
01/14/2010	1236	114.00	4.20	118.20
01/14/2010	1242	110.80	4.16	114.96
01/14/2010	1248	107.60	4.13	111.73
01/14/2010	1254	104.50	4.10	108.60
01/14/2010	1300	101.30	4.06	105.36
01/14/2010	1306	98.10	4.01	102.11
01/14/2010	1312	95.00	3.95	98.95
01/14/2010	1318	91.80	3.88	95.68
01/14/2010	1324	88.60	3.80	92.40
01/14/2010	1330	85.50	3.72	89.22
01/14/2010	1336	82.30	3.64	85.94
01/14/2010	1342	79.10	3.55	82.65
01/14/2010	1348	76.00	3.46	79.46
01/14/2010	1354	72.80	3.37	76.17
01/14/2010	1400	69.70	3.28	72.98
01/14/2010	1406	66.50	3.19	69.69
01/14/2010	1412	63.30	3.10	66.40
01/14/2010	1418	60.20	3.01	63.21
01/14/2010	1424	57.00	2.91	59.91
01/14/2010	1430	53.80	2.82	56.62
01/14/2010	1436	50.70	2.73	53.43
01/14/2010	1442	47.50	2.63	50.13
01/14/2010	1448	44.30	2.53	46.83
01/14/2010	1454	41.20	2.44	43.64
01/14/2010	1500	38.00	2.34	40.34
01/14/2010	1506	0.00	2.25	2.25
01/14/2010	1512	0.00	2.16	2.16
01/14/2010	1518	0.00	2.07	2.07
01/14/2010	1524	0.00	1.98	1.98
01/14/2010	1530	0.00	1.88	1.88
01/14/2010	1536	0.00	1.79	1.79
01/14/2010	1542	0.00	1.69	1.69
01/14/2010	1548	0.00	1.60	1.60
01/14/2010	1554	0.00	1.50	1.50
01/14/2010	1600	0.00	1.42	1.42
01/14/2010	1606	0.00	1.33	1.33
01/14/2010	1612	0.00	1.24	1.24
01/14/2010	1618	0.00	1.15	1.15
01/14/2010	1624	0.00	1.06	1.06
01/14/2010	1630	0.00	0.97	0.97
01/14/2010	1636	0.00	0.88	0.88
01/14/2010	1642	0.00	0.79	0.79
01/14/2010	1648	0.00	0.00	0.00

Date

Time

**Hyd A
Contribution**

**Hyd B
Contribution**

**Combined
Hydrograph**

P.O.I. E
POST
PHASE I

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

POST DEVELOPEMENT
INFRASTRUCTURE ONLY

PHASE I SWM

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

NOTE: IT SHOULD BE NOTED THAT THIS P.O.I WILL SEE AN INCREASE
IN FUTURE PHASES. PHASE I DOES NOT INCLUDE ALL OF THE IMPROVEMENTS

$$A = 369.69 \text{ AC.}$$

$$T_c = 79.16 \text{ minutes (SAME AS POST W/ DRYWELLS)}$$

$$CN = \text{GOLF COURSE PHASE I} = 19.0 \text{ AC. } \times 1 = CN = 74$$

$$\text{WETLANDS/LAKE} = 82.6 \text{ AC. } CN = 98$$

$$\text{ROAD IMPERV.} = 3.20 \text{ AC. } CN = 98$$

$$\text{ROAD R/W} = 4.80 \text{ AC. } CN = 92$$

$$\text{WOODS} = 261.28 \text{ AC. } CN = 77$$

$$\text{EX. COUNTY ROAD} = 1.28 \text{ AC. } CN = 98$$

69.69.6
ED. IN
PHASE I
7023

$$CN_w = \frac{19(74) + 82.6(98) + 3.2(98) + 4.80(92) + 261.28(77) + 1.28(98)}{369.69}$$

$$CN_w = 81.91 \quad 81.6$$

POST FLOW RATES PHASE I

$$Q_1 = 205.00 \text{ cfs}$$

$$Q_2 = 284.8 \text{ cfs}$$

$$Q_{10} = 583.3 \text{ cfs}$$

$$Q_{25} = 700.00 \text{ cfs}$$

$$Q_{50} = 788.7 \text{ cfs}$$

$$Q_{100} = 923.4 \text{ cfs}$$

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

1 Year Type II Storm: Precipitation = 3.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.690	82	0.150	1.35	79.160	90.000	0.000	0.000
Composite	369.690	82		1.35				

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	12	25	76	155	205	152	102	47	22	14	1
Composite	5	12	25	76	155	205	152	102	47	22	14	1

The peak flow is 205.0 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.690	82	0.125	1.84	79.160	90.000	0.000	0.000
Composite	369.690	82		1.84				

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	8	19	39	111	219	285	208	137	62	28	18	1
Composite	8	19	39	111	219	285	208	137	62	28	18	1

The peak flow is 284.8 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.690	82	0.100	3.67	79.160	90.000	0.000	0.000
Composite	369.690	82		3.67				

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	19	45	87	238	458	583	420	274	121	53	34	2
Composite	19	45	87	238	458	583	420	274	121	53	34	2

The peak flow is 583.3 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.690	82	0.100	4.41	79.160	90.000	0.000	0.000
Composite	369.690	82		4.41				

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	23	53	104	285	550	700	504	328	145	64	41	3
Composite	23	53	104	285	550	700	504	328	145	64	41	3

The peak flow is 700.0 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.690	82	0.100	4.97	79.160	90.000	0.000	0.000
Composite	369.690	82		4.97				

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	26	60	118	321	620	789	568	370	163	72	46	3
Composite	26	60	118	321	620	789	568	370	163	72	46	3

The peak flow is 788.7 cfs at 13.2 hrs.

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	369.690	82	0.100	5.81	79.160	90.000	0.000	0.000
Composite	369.690	82		5.81				

SCS TR55 Tabular Method

Watershed Title: Post E Phase 1

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	30	71	138	376	725	923	665	433	191	84	54	3
Composite	30	71	138	376	725	923	665	433	191	84	54	3

The peak flow is 923.4 cfs at 13.2 hrs.

POST TO BASIN I-1

DETENTION BASIN I-1

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

POST AREA I

DRAINAGE AREA = 12.24 AC.

$T_c = 32.04$ minutes

CN = 79

Bottom	1459
Spillway	1464
TOP	1465

POST TO BASIN

$Q_1 = 10.7$ cfs

$Q_2 = 15.2$ cfs

$Q_{10} = 33.5$ cfs

$Q_{25} = 40.6$ cfs

$Q_{50} = 45.9$ cfs

$Q_{100} = 54.1$ cfs

ROUTED FLOWRATES

$Q_1 = 1.38$ cfs

$Q_2 = 2.74$ cfs

$Q_{10} = 5.50$ cfs

$Q_{25} = 6.26$ cfs

$Q_{50} = 6.77$ cfs

$Q_{100} = 7.45$ cfs

TRAVEL TIME TO P.O.I

357' Channel A=18 s.f. P=9.4 n=.035 @ 5%

150' Overland @ 2%

1161' Concentrated @ 2%

$T_t = 36.89$ minutes

SCS Segmental Travel Time

Summary for Post to Basin I-1

Segment 1: Overland Flow

L = 100 ft, S = .01 ft/ft, n = .4, P(2yr/24hr) = 3 in
Travel Time = 29.3 minutes

Segment 2: Concentrated Flow

L = 560 ft, S = .05 ft/ft, Unpaved surface
Travel Time = 2.6 minutes

Segment 3: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 170 ft, S = .05 ft/ft, n = .035
Travel Time = 0.2 minutes

Total Travel Time = 32.04 Minutes

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	12.240	79	0.177	1.19	32.040	30.000	0.000	2.040
Composite	12.240	79		1.19				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	5	11	6	3	2	1	1	1	0	0
Composite	0	1	5	11	6	3	2	1	1	1	0	0

The peak flow is 10.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	12.240	79	0.148	1.64	32.040	30.000	0.000	2.040
Composite	12.240	79		1.64				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	8	15	8	3	2	2	1	1	1	0
Composite	0	1	8	15	8	3	2	2	1	1	1	0

The peak flow is 15.2 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	12.240	79	0.100	3.41	32.040	30.000	0.000	2.040
Composite	12.240	79		3.41				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	19	33	16	7	4	3	2	1	1	0
Composite	1	4	19	33	16	7	4	3	2	1	1	0

The peak flow is 33.5 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	12.240	79	0.100	4.13	32.040	30.000	0.000	2.040
Composite	12.240	79		4.13				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	4	23	40	19	8	5	4	3	2	1	0
Composite	1	4	23	40	19	8	5	4	3	2	1	0

The peak flow is 40.6 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	12.240	79	0.100	4.68	32.040	30.000	0.000	2.040
Composite	12.240	79		4.68				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	5	26	45	21	9	6	4	3	2	1	0
Composite	1	5	26	45	21	9	6	4	3	2	1	0

The peak flow is 45.9 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	12.240	79	0.100	5.51	32.040	30.000	0.000	2.040
Composite	12.240	79		5.51				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-1

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	30	53	25	11	7	5	3	2	1	0
Composite	2	6	30	53	25	11	7	5	3	2	1	0

The peak flow is 54.1 cfs at 12.4 hrs.

BASIN I-1

Basin Storage/Elevation Input

Elevation (ft)	Area (acres)	Storage (acre-ft)
1459	.48	0.000
1461	.56	1.040
1463	.63	2.230
1464	.72	2.905

Modified Puls Routing

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.20	0.20	0.0000	1459.00	0.000	0.000
0.10	0.30	0.30	0.0021	1459.00	0.000	0.000
0.20	0.30	0.30	0.0045	1459.01	0.000	0.000
0.30	0.30	0.30	0.0070	1459.01	0.000	0.000
0.40	0.40	0.40	0.0099	1459.02	0.000	0.000
0.50	0.40	0.40	0.0132	1459.03	0.000	0.000
0.60	0.40	0.40	0.0165	1459.03	0.000	0.000
0.70	0.50	0.50	0.0202	1459.04	0.000	0.000
0.80	0.70	0.70	0.0252	1459.05	0.000	0.000
0.90	0.80	0.80	0.0314	1459.06	0.000	0.000
1.00	1.30	1.30	0.0401	1459.08	0.000	0.000
1.10	2.60	2.60	0.0562	1459.11	0.000	0.000
1.20	5.10	5.10	0.0880	1459.17	0.000	0.000
1.30	8.30	8.30	0.1434	1459.28	0.000	0.000
1.40	10.40	10.40	0.2207	1459.42	0.000	0.000
1.50	10.70	10.70	0.3077	1459.59	0.031	0.031
1.60	9.20	9.20	0.3890	1459.75	0.200	0.200
1.70	7.30	7.30	0.4546	1459.87	0.426	0.426
1.80	5.70	5.70	0.5039	1459.97	0.65	0.65
1.90	4.70	4.70	0.5406	1460.04	0.85	0.85
2.00	3.60	3.60	0.5673	1460.09	1.00	1.00
2.10	3.10	3.10	0.5861	1460.13	1.13	1.13
2.20	2.50	2.50	0.5996	1460.15	1.22	1.22
2.30	2.20	2.20	0.6087	1460.17	1.28	1.28
2.40	1.90	1.90	0.6149	1460.18	1.32	1.32
2.50	1.80	1.80	0.6191	1460.19	1.35	1.35
2.60	1.60	1.60	0.6219	1460.20	1.37	1.37
2.70	1.50	1.50	0.6234	1460.20	1.38	1.38
2.80	1.40	1.40	0.6240	1460.20	1.38	1.38
2.90	1.30	1.30	0.6237	1460.20	1.38	1.38
3.00	1.30	1.30	0.6231	1460.20	1.38	1.38
3.10	1.20	1.20	0.6220	1460.20	1.37	1.37
3.20	1.10	1.10	0.6203	1460.19	1.36	1.36
3.30	1.10	1.10	0.6182	1460.19	1.34	1.34
3.40	1.00	1.00	0.6158	1460.18	1.33	1.33
3.50	1.00	1.00	0.6132	1460.18	1.31	1.31
3.60	1.00	1.00	0.6107	1460.17	1.29	1.29
3.70	0.90	0.90	0.6079	1460.17	1.27	1.27
3.80	0.90	0.90	0.6049	1460.16	1.25	1.25
3.90	0.90	0.90	0.6021	1460.16	1.24	1.24
4.00	0.90	0.90	0.5994	1460.15	1.22	1.22
4.10	0.80	0.80	0.5964	1460.15	1.20	1.20
4.20	0.80	0.80	0.5932	1460.14	1.18	1.18
4.30	0.80	0.80	0.5902	1460.14	1.16	1.16
4.40	0.80	0.80	0.5874	1460.13	1.14	1.14
4.50	0.80	0.80	0.5847	1460.12	1.12	1.12
4.60	0.80	0.80	0.5821	1460.12	1.10	1.10
4.70	0.70	0.70	0.5793	1460.11	1.08	1.08

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.70	0.70	0.5762	1460.11	1.06	1.06
4.90	0.70	0.70	0.5733	1460.10	1.04	1.04
5.00	0.70	0.70	0.5706	1460.10	1.02	1.02
5.10	0.70	0.70	0.5680	1460.09	1.01	1.01
5.20	0.70	0.70	0.5655	1460.09	0.99	0.99
5.30	0.70	0.70	0.5631	1460.08	0.98	0.98
5.40	0.60	0.60	0.5604	1460.08	0.96	0.96
5.50	0.60	0.60	0.5575	1460.07	0.95	0.95
5.60	0.60	0.60	0.5547	1460.07	0.93	0.93
5.70	0.60	0.60	0.5520	1460.06	0.92	0.92
5.80	0.60	0.60	0.5495	1460.06	0.90	0.90
5.90	0.60	0.60	0.5470	1460.05	0.89	0.89
6.00	0.60	0.60	0.5447	1460.05	0.87	0.87
6.10	0.60	0.60	0.5425	1460.04	0.86	0.86
6.20	0.60	0.60	0.5404	1460.04	0.85	0.85
6.30	0.60	0.60	0.5384	1460.04	0.84	0.84
6.40	0.50	0.50	0.5361	1460.03	0.82	0.82
6.50	0.50	0.50	0.5335	1460.03	0.81	0.81
6.60	0.50	0.50	0.5310	1460.02	0.79	0.79
6.70	0.50	0.50	0.5286	1460.02	0.78	0.78
6.80	0.50	0.50	0.5264	1460.01	0.77	0.77
6.90	0.50	0.50	0.5242	1460.01	0.75	0.75
7.00	0.50	0.50	0.5222	1460.00	0.74	0.74
7.10	0.50	0.50	0.5202	1460.00	0.73	0.73
7.20	0.50	0.50	0.5183	1460.00	0.72	0.72
7.30	0.50	0.50	0.5165	1459.99	0.71	0.71
7.40	0.50	0.50	0.5148	1459.99	0.70	0.70
7.50	0.50	0.50	0.5131	1459.99	0.70	0.70
7.60	0.50	0.50	0.5115	1459.98	0.69	0.69
7.70	0.50	0.50	0.5100	1459.98	0.68	0.68
7.80	0.50	0.50	0.5085	1459.98	0.67	0.67
7.90	0.50	0.50	0.5071	1459.98	0.67	0.67
8.00	0.40	0.40	0.5054	1459.97	0.66	0.66
8.10	0.40	0.40	0.5033	1459.97	0.65	0.65
8.20	0.40	0.40	0.5012	1459.96	0.64	0.64
8.30	0.40	0.40	0.4993	1459.96	0.63	0.63
8.40	0.40	0.40	0.4974	1459.96	0.62	0.62
8.50	0.40	0.40	0.4957	1459.95	0.61	0.61
8.60	0.40	0.40	0.4939	1459.95	0.60	0.60
8.70	0.40	0.40	0.4923	1459.95	0.60	0.60
8.80	0.40	0.40	0.4907	1459.94	0.59	0.59
8.90	0.40	0.40	0.4892	1459.94	0.58	0.58
9.00	0.40	0.40	0.4877	1459.94	0.57	0.57
9.10	0.40	0.40	0.4863	1459.94	0.57	0.57
9.20	0.40	0.40	0.4850	1459.93	0.56	0.56
9.30	0.40	0.40	0.4837	1459.93	0.55	0.55
9.40	0.40	0.40	0.4824	1459.93	0.55	0.55
9.50	0.40	0.40	0.4812	1459.93	0.54	0.54
9.60	0.40	0.40	0.4801	1459.92	0.54	0.54
9.70	0.40	0.40	0.4790	1459.92	0.53	0.53
9.80	0.40	0.40	0.4779	1459.92	0.53	0.53
9.90	0.40	0.40	0.4769	1459.92	0.52	0.52
10.00	0.40	0.40	0.4759	1459.92	0.52	0.52
10.10	0.40	0.40	0.4750	1459.91	0.51	0.51
10.20	0.40	0.40	0.4741	1459.91	0.51	0.51
10.30	0.40	0.40	0.4732	1459.91	0.50	0.50
10.40	0.40	0.40	0.4723	1459.91	0.499	0.499
10.50	0.30	0.30	0.4711	1459.91	0.493	0.493

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.30	0.30	0.4696	1459.90	0.486	0.486
10.70	0.30	0.30	0.4681	1459.90	0.478	0.478
10.80	0.30	0.30	0.4666	1459.90	0.473	0.473
10.90	0.30	0.30	0.4652	1459.90	0.467	0.467
11.00	0.30	0.30	0.4639	1459.89	0.462	0.462
11.10	0.30	0.30	0.4625	1459.89	0.457	0.457
11.20	0.30	0.30	0.4613	1459.89	0.452	0.452
11.30	0.30	0.30	0.4600	1459.89	0.447	0.447
11.40	0.30	0.30	0.4588	1459.88	0.443	0.443
11.50	0.30	0.30	0.4577	1459.88	0.438	0.438
11.60	0.30	0.30	0.4565	1459.88	0.434	0.434
11.70	0.30	0.30	0.4555	1459.88	0.430	0.430
11.80	0.30	0.30	0.4544	1459.87	0.425	0.425
11.90	0.30	0.30	0.4534	1459.87	0.421	0.421
12.00	0.30	0.30	0.4524	1459.87	0.418	0.418
12.10	0.20	0.20	0.4510	1459.87	0.412	0.412
12.20	0.20	0.20	0.4493	1459.86	0.406	0.406
12.30	0.20	0.20	0.4476	1459.86	0.399	0.399
12.40	0.20	0.20	0.4460	1459.86	0.393	0.393
12.50	0.20	0.20	0.4444	1459.86	0.387	0.387
12.60	0.20	0.20	0.4429	1459.85	0.381	0.381
12.70	0.20	0.20	0.4414	1459.85	0.375	0.375
12.80	0.20	0.20	0.4400	1459.85	0.370	0.370
12.90	0.20	0.20	0.4386	1459.84	0.365	0.365
13.00	0.20	0.20	0.4373	1459.84	0.359	0.359
13.10	0.20	0.20	0.4360	1459.84	0.354	0.354
13.20	0.20	0.20	0.4347	1459.84	0.349	0.349
13.30	0.10	0.10	0.4331	1459.83	0.343	0.343
13.40	0.10	0.10	0.4311	1459.83	0.336	0.336
13.50	0.10	0.10	0.4292	1459.83	0.328	0.328
13.60	0.10	0.10	0.4274	1459.82	0.321	0.321
13.70	0.10	0.10	0.4256	1459.82	0.314	0.314
13.80	0.10	0.10	0.4238	1459.82	0.307	0.307
13.90	0.10	0.10	0.4222	1459.81	0.301	0.301
14.00	0.10	0.10	0.4205	1459.81	0.294	0.294
14.10	0.10	0.10	0.4189	1459.81	0.288	0.288
14.20	0.10	0.10	0.4174	1459.80	0.282	0.282
14.30	0.10	0.10	0.4159	1459.80	0.277	0.277
14.40	0.10	0.10	0.4145	1459.80	0.273	0.273
14.50	0.00	0.00	0.4127	1459.79	0.267	0.267
14.60	0.00	0.00	0.4105	1459.79	0.261	0.261
14.70	0.00	0.00	0.4083	1459.79	0.255	0.255
14.80	0.00	0.00	0.4063	1459.78	0.249	0.249
14.90	0.00	0.00	0.4042	1459.78	0.243	0.243
15.00	0.00	0.00	0.4022	1459.77	0.238	0.238

Total Routing Mass Balance Discrepancy is 0.01%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.20	0.20	0.0000	1459.00	0.000	0.000
Max. Inflow	1.50	10.70	10.70	0.3077	1459.59	0.031	0.031
Max. Outflow	3.00	1.30	1.30	0.6231	1460.20	1.38	1.38
Max. Elev.	3.10	1.20	1.20	0.6220	1460.20	1.37	1.37
Final	15.00	0.00	0.00	0.4022	1459.77	0.238	0.238

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.40	0.40	0.0000	1459.00	0.000	0.000
0.10	0.40	0.40	0.0033	1459.01	0.000	0.000
0.20	0.50	0.50	0.0070	1459.01	0.000	0.000
0.30	0.50	0.50	0.0112	1459.02	0.000	0.000
0.40	0.60	0.60	0.0157	1459.03	0.000	0.000
0.50	0.70	0.70	0.0211	1459.04	0.000	0.000
0.60	0.80	0.80	0.0273	1459.05	0.000	0.000
0.70	0.90	0.90	0.0343	1459.07	0.000	0.000
0.80	1.10	1.10	0.0426	1459.08	0.000	0.000
0.90	1.30	1.30	0.0525	1459.10	0.000	0.000
1.00	2.20	2.20	0.0669	1459.13	0.000	0.000
1.10	4.10	4.10	0.0930	1459.18	0.000	0.000
1.20	7.80	7.80	0.1421	1459.27	0.000	0.000
1.30	12.40	12.40	0.2256	1459.43	0.000	0.000
1.40	15.10	15.10	0.3389	1459.65	0.083	0.083
1.50	15.20	15.20	0.4619	1459.89	0.454	0.454
1.60	12.80	12.80	0.5715	1460.10	1.03	1.03
1.70	10.00	10.00	0.6547	1460.26	1.62	1.62
1.80	7.70	7.70	0.7128	1460.37	2.03	2.03
1.90	6.30	6.30	0.7527	1460.45	2.31	2.31
2.00	4.90	4.90	0.7792	1460.50	2.49	2.49
2.10	4.10	4.10	0.7953	1460.53	2.62	2.62
2.20	3.40	3.40	0.8043	1460.55	2.70	2.70
2.30	3.00	3.00	0.8083	1460.55	2.73	2.73
2.40	2.60	2.60	0.8088	1460.56	2.74	2.74
2.50	2.40	2.40	0.8069	1460.55	2.72	2.72
2.60	2.10	2.10	0.8032	1460.55	2.69	2.69
2.70	2.00	2.00	0.7980	1460.54	2.65	2.65
2.80	1.80	1.80	0.7921	1460.52	2.60	2.60
2.90	1.70	1.70	0.7853	1460.51	2.54	2.54
3.00	1.60	1.60	0.7782	1460.50	2.48	2.48
3.10	1.60	1.60	0.7711	1460.48	2.43	2.43
3.20	1.50	1.50	0.7640	1460.47	2.38	2.38
3.30	1.40	1.40	0.7565	1460.46	2.33	2.33
3.40	1.40	1.40	0.7490	1460.44	2.28	2.28
3.50	1.30	1.30	0.7415	1460.43	2.23	2.23
3.60	1.20	1.20	0.7337	1460.41	2.17	2.17
3.70	1.20	1.20	0.7259	1460.40	2.12	2.12
3.80	1.20	1.20	0.7185	1460.38	2.07	2.07
3.90	1.20	1.20	0.7115	1460.37	2.02	2.02
4.00	1.10	1.10	0.7045	1460.36	1.97	1.97
4.10	1.10	1.10	0.6975	1460.34	1.93	1.93
4.20	1.10	1.10	0.6908	1460.33	1.88	1.88
4.30	1.10	1.10	0.6845	1460.32	1.84	1.84
4.40	1.00	1.00	0.6782	1460.30	1.80	1.80
4.50	1.00	1.00	0.6718	1460.29	1.75	1.75
4.60	1.00	1.00	0.6658	1460.28	1.70	1.70
4.70	1.00	1.00	0.6601	1460.27	1.66	1.66

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.00	1.00	0.6548	1460.26	1.62	1.62
4.90	0.90	0.90	0.6495	1460.25	1.58	1.58
5.00	0.90	0.90	0.6440	1460.24	1.54	1.54
5.10	0.90	0.90	0.6389	1460.23	1.50	1.50
5.20	0.90	0.90	0.6341	1460.22	1.46	1.46
5.30	0.80	0.80	0.6292	1460.21	1.42	1.42
5.40	0.80	0.80	0.6242	1460.20	1.38	1.38
5.50	0.80	0.80	0.6195	1460.19	1.35	1.35
5.60	0.80	0.80	0.6151	1460.18	1.32	1.32
5.70	0.80	0.80	0.6109	1460.18	1.29	1.29
5.80	0.80	0.80	0.6069	1460.17	1.27	1.27
5.90	0.80	0.80	0.6032	1460.16	1.24	1.24
6.00	0.70	0.70	0.5992	1460.15	1.22	1.22
6.10	0.70	0.70	0.5951	1460.14	1.19	1.19
6.20	0.70	0.70	0.5911	1460.14	1.16	1.16
6.30	0.70	0.70	0.5874	1460.13	1.14	1.14
6.40	0.70	0.70	0.5839	1460.12	1.11	1.11
6.50	0.70	0.70	0.5806	1460.12	1.09	1.09
6.60	0.70	0.70	0.5775	1460.11	1.07	1.07
6.70	0.70	0.70	0.5745	1460.11	1.05	1.05
6.80	0.70	0.70	0.5717	1460.10	1.03	1.03
6.90	0.70	0.70	0.5690	1460.09	1.01	1.01
7.00	0.70	0.70	0.5665	1460.09	1.00	1.00
7.10	0.70	0.70	0.5641	1460.09	0.99	0.99
7.20	0.60	0.60	0.5614	1460.08	0.97	0.97
7.30	0.60	0.60	0.5584	1460.07	0.95	0.95
7.40	0.60	0.60	0.5555	1460.07	0.94	0.94
7.50	0.60	0.60	0.5528	1460.06	0.92	0.92
7.60	0.60	0.60	0.5502	1460.06	0.91	0.91
7.70	0.60	0.60	0.5478	1460.05	0.89	0.89
7.80	0.60	0.60	0.5454	1460.05	0.88	0.88
7.90	0.60	0.60	0.5432	1460.05	0.86	0.86
8.00	0.60	0.60	0.5410	1460.04	0.85	0.85
8.10	0.60	0.60	0.5390	1460.04	0.84	0.84
8.20	0.60	0.60	0.5371	1460.03	0.83	0.83
8.30	0.60	0.60	0.5352	1460.03	0.82	0.82
8.40	0.50	0.50	0.5330	1460.03	0.81	0.81
8.50	0.50	0.50	0.5306	1460.02	0.79	0.79
8.60	0.50	0.50	0.5282	1460.02	0.78	0.78
8.70	0.50	0.50	0.5260	1460.01	0.76	0.76
8.80	0.50	0.50	0.5238	1460.01	0.75	0.75
8.90	0.50	0.50	0.5218	1460.00	0.74	0.74
9.00	0.50	0.50	0.5199	1460.00	0.73	0.73
9.10	0.50	0.50	0.5180	1460.00	0.72	0.72
9.20	0.50	0.50	0.5162	1459.99	0.71	0.71
9.30	0.50	0.50	0.5145	1459.99	0.70	0.70
9.40	0.50	0.50	0.5129	1459.99	0.70	0.70
9.50	0.50	0.50	0.5113	1459.98	0.69	0.69
9.60	0.50	0.50	0.5098	1459.98	0.68	0.68
9.70	0.50	0.50	0.5083	1459.98	0.67	0.67
9.80	0.50	0.50	0.5069	1459.98	0.67	0.67
9.90	0.50	0.50	0.5055	1459.97	0.66	0.66
10.00	0.50	0.50	0.5042	1459.97	0.65	0.65
10.10	0.50	0.50	0.5030	1459.97	0.65	0.65
10.20	0.50	0.50	0.5018	1459.97	0.64	0.64
10.30	0.50	0.50	0.5007	1459.96	0.64	0.64
10.40	0.50	0.50	0.4996	1459.96	0.63	0.63
10.50	0.40	0.40	0.4981	1459.96	0.62	0.62

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.40	0.40	0.4963	1459.95	0.62	0.62
10.70	0.40	0.40	0.4945	1459.95	0.61	0.61
10.80	0.40	0.40	0.4929	1459.95	0.60	0.60
10.90	0.40	0.40	0.4912	1459.95	0.59	0.59
11.00	0.40	0.40	0.4897	1459.94	0.58	0.58
11.10	0.40	0.40	0.4882	1459.94	0.58	0.58
11.20	0.40	0.40	0.4868	1459.94	0.57	0.57
11.30	0.40	0.40	0.4854	1459.93	0.56	0.56
11.40	0.40	0.40	0.4841	1459.93	0.56	0.56
11.50	0.40	0.40	0.4828	1459.93	0.55	0.55
11.60	0.40	0.40	0.4816	1459.93	0.54	0.54
11.70	0.40	0.40	0.4805	1459.92	0.54	0.54
11.80	0.30	0.30	0.4789	1459.92	0.53	0.53
11.90	0.30	0.30	0.4771	1459.92	0.52	0.52
12.00	0.30	0.30	0.4753	1459.91	0.51	0.51
12.10	0.30	0.30	0.4735	1459.91	0.50	0.50
12.20	0.30	0.30	0.4719	1459.91	0.497	0.497
12.30	0.30	0.30	0.4703	1459.90	0.489	0.489
12.40	0.30	0.30	0.4688	1459.90	0.482	0.482
12.50	0.30	0.30	0.4673	1459.90	0.475	0.475
12.60	0.30	0.30	0.4659	1459.90	0.470	0.470
12.70	0.20	0.20	0.4641	1459.89	0.463	0.463
12.80	0.20	0.20	0.4619	1459.89	0.455	0.455
12.90	0.20	0.20	0.4599	1459.88	0.447	0.447
13.00	0.20	0.20	0.4579	1459.88	0.439	0.439
13.10	0.20	0.20	0.4559	1459.88	0.431	0.431
13.20	0.20	0.20	0.4540	1459.87	0.424	0.424
13.30	0.20	0.20	0.4522	1459.87	0.417	0.417
13.40	0.20	0.20	0.4504	1459.87	0.410	0.410
13.50	0.20	0.20	0.4487	1459.86	0.404	0.404
13.60	0.20	0.20	0.4471	1459.86	0.397	0.397
13.70	0.10	0.10	0.4451	1459.86	0.389	0.389
13.80	0.10	0.10	0.4427	1459.85	0.380	0.380
13.90	0.10	0.10	0.4404	1459.85	0.371	0.371
14.00	0.10	0.10	0.4382	1459.84	0.363	0.363
14.10	0.10	0.10	0.4361	1459.84	0.355	0.355
14.20	0.10	0.10	0.4340	1459.84	0.347	0.347
14.30	0.10	0.10	0.4320	1459.83	0.339	0.339
14.40	0.10	0.10	0.4301	1459.83	0.331	0.331
14.50	0.10	0.10	0.4282	1459.82	0.324	0.324
14.60	0.00	0.00	0.4260	1459.82	0.315	0.315
14.70	0.00	0.00	0.4234	1459.81	0.306	0.306
14.80	0.00	0.00	0.4209	1459.81	0.296	0.296
14.90	0.00	0.00	0.4185	1459.81	0.287	0.287
15.00	0.00	0.00	0.4162	1459.80	0.278	0.278

Total Routing Mass Balance Discrepancy is -0.03%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.40	0.40	0.0000	1459.00	0.000	0.000
Max. Inflow	1.50	15.20	15.20	0.4619	1459.89	0.454	0.454
Max. Outflow	2.40	2.60	2.60	0.8088	1460.56	2.74	2.74
Final	15.00	0.00	0.00	0.4162	1459.80	0.278	0.278

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.10	1.10	0.0000	1459.00	0.000	0.000
0.10	1.20	1.20	0.0095	1459.02	0.000	0.000
0.20	1.30	1.30	0.0198	1459.04	0.000	0.000
0.30	1.50	1.50	0.0314	1459.06	0.000	0.000
0.40	1.70	1.70	0.0446	1459.09	0.000	0.000
0.50	1.90	1.90	0.0595	1459.11	0.000	0.000
0.60	2.00	2.00	0.0756	1459.15	0.000	0.000
0.70	2.60	2.60	0.0946	1459.18	0.000	0.000
0.80	3.10	3.10	0.1182	1459.23	0.000	0.000
0.90	3.60	3.60	0.1459	1459.28	0.000	0.000
1.00	5.80	5.80	0.1847	1459.36	0.000	0.000
1.10	10.40	10.40	0.2517	1459.48	0.000	0.000
1.20	18.90	18.90	0.3721	1459.72	0.151	0.151
1.30	28.90	28.90	0.5649	1460.09	0.99	0.99
1.40	33.50	33.50	0.8074	1460.55	2.72	2.72
1.50	32.90	32.90	1.0547	1461.03	3.83	3.83
1.60	26.90	26.90	1.2676	1461.38	4.45	4.45
1.70	20.40	20.40	1.4247	1461.65	4.85	4.85
1.80	15.60	15.60	1.5322	1461.83	5.11	5.11
1.90	12.60	12.60	1.6058	1461.95	5.28	5.28
2.00	9.60	9.60	1.6535	1462.03	5.39	5.39
2.10	8.10	8.10	1.6818	1462.08	5.45	5.45
2.20	6.50	6.50	1.6969	1462.10	5.49	5.49
2.30	5.70	5.70	1.7020	1462.11	5.50	5.50
2.40	5.00	5.00	1.7008	1462.11	5.49	5.49
2.50	4.50	4.50	1.6947	1462.10	5.48	5.48
2.60	4.10	4.10	1.6850	1462.08	5.46	5.46
2.70	3.80	3.80	1.6727	1462.06	5.43	5.43
2.80	3.50	3.50	1.6581	1462.04	5.40	5.40
2.90	3.30	3.30	1.6417	1462.01	5.36	5.36
3.00	3.10	3.10	1.6240	1461.98	5.32	5.32
3.10	3.00	3.00	1.6054	1461.95	5.28	5.28
3.20	2.80	2.80	1.5859	1461.92	5.24	5.24
3.30	2.70	2.70	1.5655	1461.88	5.19	5.19
3.40	2.60	2.60	1.5447	1461.85	5.14	5.14
3.50	2.50	2.50	1.5235	1461.81	5.09	5.09
3.60	2.30	2.30	1.5015	1461.78	5.04	5.04
3.70	2.30	2.30	1.4791	1461.74	4.99	4.99
3.80	2.20	2.20	1.4567	1461.70	4.93	4.93
3.90	2.20	2.20	1.4344	1461.66	4.88	4.88
4.00	2.10	2.10	1.4121	1461.63	4.82	4.82
4.10	2.10	2.10	1.3898	1461.59	4.76	4.76
4.20	2.00	2.00	1.3676	1461.55	4.71	4.71
4.30	2.00	2.00	1.3455	1461.51	4.65	4.65
4.40	1.90	1.90	1.3234	1461.48	4.59	4.59
4.50	1.90	1.90	1.3013	1461.44	4.54	4.54
4.60	1.90	1.90	1.2798	1461.40	4.48	4.48
4.70	1.80	1.80	1.2583	1461.37	4.42	4.42

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.80	1.80	1.2369	1461.33	4.36	4.36
4.90	1.70	1.70	1.2155	1461.30	4.30	4.30
5.00	1.70	1.70	1.1943	1461.26	4.24	4.24
5.10	1.70	1.70	1.1735	1461.22	4.18	4.18
5.20	1.60	1.60	1.1528	1461.19	4.12	4.12
5.30	1.60	1.60	1.1322	1461.16	4.06	4.06
5.40	1.50	1.50	1.1117	1461.12	4.00	4.00
5.50	1.50	1.50	1.0912	1461.09	3.94	3.94
5.60	1.50	1.50	1.0713	1461.05	3.88	3.88
5.70	1.40	1.40	1.0515	1461.02	3.82	3.82
5.80	1.40	1.40	1.0318	1460.98	3.75	3.75
5.90	1.40	1.40	1.0127	1460.95	3.68	3.68
6.00	1.40	1.40	0.9941	1460.91	3.61	3.61
6.10	1.40	1.40	0.9761	1460.88	3.54	3.54
6.20	1.30	1.30	0.9583	1460.84	3.47	3.47
6.30	1.30	1.30	0.9407	1460.81	3.40	3.40
6.40	1.30	1.30	0.9236	1460.78	3.33	3.33
6.50	1.30	1.30	0.9071	1460.74	3.26	3.26
6.60	1.30	1.30	0.8912	1460.71	3.19	3.19
6.70	1.30	1.30	0.8758	1460.68	3.13	3.13
6.80	1.30	1.30	0.8610	1460.66	3.06	3.06
6.90	1.30	1.30	0.8467	1460.63	3.00	3.00
7.00	1.20	1.20	0.8325	1460.60	2.93	2.93
7.10	1.20	1.20	0.8187	1460.57	2.82	2.82
7.20	1.20	1.20	0.8058	1460.55	2.71	2.71
7.30	1.20	1.20	0.7937	1460.53	2.61	2.61
7.40	1.20	1.20	0.7824	1460.51	2.52	2.52
7.50	1.10	1.10	0.7714	1460.48	2.44	2.44
7.60	1.10	1.10	0.7607	1460.46	2.36	2.36
7.70	1.10	1.10	0.7506	1460.44	2.29	2.29
7.80	1.10	1.10	0.7410	1460.43	2.22	2.22
7.90	1.10	1.10	0.7320	1460.41	2.16	2.16
8.00	1.00	1.00	0.7231	1460.39	2.10	2.10
8.10	1.00	1.00	0.7142	1460.37	2.04	2.04
8.20	1.00	1.00	0.7059	1460.36	1.98	1.98
8.30	1.00	1.00	0.6980	1460.34	1.93	1.93
8.40	1.00	1.00	0.6905	1460.33	1.88	1.88
8.50	1.00	1.00	0.6834	1460.31	1.83	1.83
8.60	1.00	1.00	0.6767	1460.30	1.79	1.79
8.70	1.00	1.00	0.6704	1460.29	1.74	1.74
8.80	0.90	0.90	0.6641	1460.28	1.69	1.69
8.90	0.90	0.90	0.6577	1460.27	1.64	1.64
9.00	0.90	0.90	0.6518	1460.25	1.60	1.60
9.10	0.90	0.90	0.6462	1460.24	1.55	1.55
9.20	0.90	0.90	0.6410	1460.23	1.51	1.51
9.30	0.90	0.90	0.6361	1460.22	1.48	1.48
9.40	0.90	0.90	0.6314	1460.21	1.44	1.44
9.50	0.90	0.90	0.6271	1460.21	1.41	1.41
9.60	0.90	0.90	0.6230	1460.20	1.38	1.38
9.70	0.90	0.90	0.6192	1460.19	1.35	1.35
9.80	0.90	0.90	0.6156	1460.18	1.33	1.33
9.90	0.90	0.90	0.6122	1460.18	1.30	1.30
10.00	0.80	0.80	0.6085	1460.17	1.28	1.28
10.10	0.80	0.80	0.6047	1460.16	1.25	1.25
10.20	0.80	0.80	0.6010	1460.16	1.23	1.23
10.30	0.80	0.80	0.5976	1460.15	1.20	1.20
10.40	0.80	0.80	0.5943	1460.14	1.18	1.18
10.50	0.80	0.80	0.5913	1460.14	1.16	1.16

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.80	0.80	0.5884	1460.13	1.14	1.14
10.70	0.80	0.80	0.5856	1460.13	1.12	1.12
10.80	0.80	0.80	0.5830	1460.12	1.11	1.11
10.90	0.80	0.80	0.5805	1460.12	1.09	1.09
11.00	0.80	0.80	0.5782	1460.11	1.07	1.07
11.10	0.80	0.80	0.5760	1460.11	1.06	1.06
11.20	0.70	0.70	0.5735	1460.10	1.04	1.04
11.30	0.70	0.70	0.5708	1460.10	1.02	1.02
11.40	0.70	0.70	0.5681	1460.09	1.01	1.01
11.50	0.70	0.70	0.5656	1460.09	1.00	1.00
11.60	0.70	0.70	0.5633	1460.08	0.98	0.98
11.70	0.60	0.60	0.5606	1460.08	0.97	0.97
11.80	0.60	0.60	0.5576	1460.07	0.95	0.95
11.90	0.60	0.60	0.5548	1460.07	0.93	0.93
12.00	0.60	0.60	0.5521	1460.06	0.92	0.92
12.10	0.60	0.60	0.5496	1460.06	0.90	0.90
12.20	0.50	0.50	0.5467	1460.05	0.89	0.89
12.30	0.50	0.50	0.5436	1460.05	0.87	0.87
12.40	0.50	0.50	0.5407	1460.04	0.85	0.85
12.50	0.50	0.50	0.5378	1460.03	0.83	0.83
12.60	0.50	0.50	0.5352	1460.03	0.82	0.82
12.70	0.50	0.50	0.5326	1460.02	0.80	0.80
12.80	0.40	0.40	0.5297	1460.02	0.79	0.79
12.90	0.40	0.40	0.5266	1460.01	0.77	0.77
13.00	0.40	0.40	0.5236	1460.01	0.75	0.75
13.10	0.40	0.40	0.5208	1460.00	0.73	0.73
13.20	0.40	0.40	0.5181	1460.00	0.72	0.72
13.30	0.30	0.30	0.5151	1459.99	0.71	0.71
13.40	0.30	0.30	0.5118	1459.98	0.69	0.69
13.50	0.30	0.30	0.5086	1459.98	0.67	0.67
13.60	0.30	0.30	0.5056	1459.97	0.66	0.66
13.70	0.30	0.30	0.5027	1459.97	0.65	0.65
13.80	0.20	0.20	0.4995	1459.96	0.63	0.63
13.90	0.20	0.20	0.4960	1459.95	0.61	0.61
14.00	0.20	0.20	0.4926	1459.95	0.60	0.60
14.10	0.20	0.20	0.4894	1459.94	0.58	0.58
14.20	0.20	0.20	0.4863	1459.94	0.57	0.57
14.30	0.10	0.10	0.4829	1459.93	0.55	0.55
14.40	0.10	0.10	0.4793	1459.92	0.53	0.53
14.50	0.10	0.10	0.4758	1459.92	0.52	0.52
14.60	0.10	0.10	0.4724	1459.91	0.499	0.499
14.70	0.10	0.10	0.4692	1459.90	0.484	0.484
14.80	0.00	0.00	0.4657	1459.90	0.469	0.469
14.90	0.00	0.00	0.4618	1459.89	0.454	0.454
15.00	0.00	0.00	0.4582	1459.88	0.440	0.440

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.10	1.10	0.0000	1459.00	0.000	0.000
Max. Inflow	1.40	33.50	33.50	0.8074	1460.55	2.72	2.72
Max. Outflow	2.30	5.70	5.70	1.7020	1462.11	5.50	5.50
Max. Elev.	2.40	5.00	5.00	1.7008	1462.11	5.49	5.49
Final	15.00	0.00	0.00	0.4582	1459.88	0.440	0.440

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.30	1.30	0.0000	1459.00	0.000	0.000
0.10	1.50	1.50	0.0116	1459.02	0.000	0.000
0.20	1.60	1.60	0.0244	1459.05	0.000	0.000
0.30	1.80	1.80	0.0384	1459.07	0.000	0.000
0.40	2.00	2.00	0.0541	1459.10	0.000	0.000
0.50	2.20	2.20	0.0715	1459.14	0.000	0.000
0.60	2.50	2.50	0.0909	1459.18	0.000	0.000
0.70	3.10	3.10	0.1140	1459.22	0.000	0.000
0.80	3.70	3.70	0.1421	1459.27	0.000	0.000
0.90	4.30	4.30	0.1752	1459.34	0.000	0.000
1.00	7.00	7.00	0.2219	1459.43	0.000	0.000
1.10	12.60	12.60	0.3028	1459.58	0.028	0.028
1.20	22.80	22.80	0.4473	1459.86	0.398	0.398
1.30	34.90	34.90	0.6767	1460.30	1.79	1.79
1.40	40.60	40.60	0.9668	1460.86	3.50	3.50
1.50	39.80	39.80	1.2662	1461.38	4.44	4.44
1.60	32.60	32.60	1.5260	1461.82	5.10	5.10
1.70	24.70	24.70	1.7188	1462.14	5.53	5.53
1.80	18.90	18.90	1.8521	1462.37	5.82	5.82
1.90	15.30	15.30	1.9446	1462.52	6.00	6.00
2.00	11.60	11.60	2.0056	1462.62	6.12	6.12
2.10	9.80	9.80	2.0431	1462.69	6.20	6.20
2.20	7.90	7.90	2.0649	1462.72	6.24	6.24
2.30	7.00	7.00	2.0748	1462.74	6.26	6.26
2.40	6.00	6.00	2.0768	1462.74	6.26	6.26
2.50	5.50	5.50	2.0726	1462.74	6.25	6.25
2.60	4.90	4.90	2.0639	1462.72	6.24	6.24
2.70	4.60	4.60	2.0517	1462.70	6.21	6.21
2.80	4.20	4.20	2.0369	1462.68	6.19	6.19
2.90	4.00	4.00	2.0198	1462.65	6.15	6.15
3.00	3.80	3.80	2.0013	1462.62	6.12	6.12
3.10	3.60	3.60	1.9815	1462.58	6.08	6.08
3.20	3.40	3.40	1.9604	1462.55	6.03	6.03
3.30	3.30	3.30	1.9384	1462.51	5.99	5.99
3.40	3.10	3.10	1.9155	1462.47	5.94	5.94
3.50	3.00	3.00	1.8918	1462.43	5.90	5.90
3.60	2.80	2.80	1.8672	1462.39	5.85	5.85
3.70	2.80	2.80	1.8422	1462.35	5.79	5.79
3.80	2.70	2.70	1.8173	1462.31	5.74	5.74
3.90	2.60	2.60	1.7919	1462.26	5.69	5.69
4.00	2.60	2.60	1.7666	1462.22	5.64	5.64
4.10	2.50	2.50	1.7414	1462.18	5.58	5.58
4.20	2.40	2.40	1.7157	1462.14	5.53	5.53
4.30	2.40	2.40	1.6901	1462.09	5.47	5.47
4.40	2.30	2.30	1.6645	1462.05	5.41	5.41
4.50	2.30	2.30	1.6390	1462.01	5.36	5.36
4.60	2.20	2.20	1.6136	1461.96	5.30	5.30
4.70	2.20	2.20	1.5882	1461.92	5.24	5.24

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.10	2.10	1.5629	1461.88	5.18	5.18
4.90	2.10	2.10	1.5377	1461.84	5.12	5.12
5.00	2.10	2.10	1.5129	1461.80	5.07	5.07
5.10	2.00	2.00	1.4882	1461.75	5.01	5.01
5.20	2.00	2.00	1.4636	1461.71	4.95	4.95
5.30	1.90	1.90	1.4391	1461.67	4.89	4.89
5.40	1.90	1.90	1.4147	1461.63	4.83	4.83
5.50	1.80	1.80	1.3903	1461.59	4.77	4.77
5.60	1.80	1.80	1.3660	1461.55	4.70	4.70
5.70	1.80	1.80	1.3423	1461.51	4.64	4.64
5.80	1.70	1.70	1.3186	1461.47	4.58	4.58
5.90	1.70	1.70	1.2951	1461.43	4.52	4.52
6.00	1.70	1.70	1.2720	1461.39	4.46	4.46
6.10	1.60	1.60	1.2491	1461.35	4.40	4.40
6.20	1.60	1.60	1.2262	1461.31	4.33	4.33
6.30	1.60	1.60	1.2039	1461.28	4.27	4.27
6.40	1.60	1.60	1.1821	1461.24	4.21	4.21
6.50	1.60	1.60	1.1608	1461.20	4.15	4.15
6.60	1.60	1.60	1.1400	1461.17	4.09	4.09
6.70	1.50	1.50	1.1193	1461.13	4.02	4.02
6.80	1.50	1.50	1.0986	1461.10	3.96	3.96
6.90	1.50	1.50	1.0785	1461.07	3.90	3.90
7.00	1.50	1.50	1.0589	1461.03	3.84	3.84
7.10	1.50	1.50	1.0398	1461.00	3.78	3.78
7.20	1.50	1.50	1.0213	1460.96	3.71	3.71
7.30	1.40	1.40	1.0029	1460.93	3.64	3.64
7.40	1.40	1.40	0.9846	1460.89	3.57	3.57
7.50	1.40	1.40	0.9669	1460.86	3.50	3.50
7.60	1.40	1.40	0.9498	1460.83	3.44	3.44
7.70	1.30	1.30	0.9329	1460.79	3.37	3.37
7.80	1.30	1.30	0.9160	1460.76	3.30	3.30
7.90	1.30	1.30	0.8998	1460.73	3.23	3.23
8.00	1.30	1.30	0.8841	1460.70	3.16	3.16
8.10	1.20	1.20	0.8686	1460.67	3.09	3.09
8.20	1.20	1.20	0.8532	1460.64	3.02	3.02
8.30	1.20	1.20	0.8384	1460.61	2.96	2.96
8.40	1.20	1.20	0.8243	1460.59	2.86	2.86
8.50	1.20	1.20	0.8110	1460.56	2.75	2.75
8.60	1.20	1.20	0.7986	1460.54	2.65	2.65
8.70	1.20	1.20	0.7870	1460.51	2.55	2.55
8.80	1.10	1.10	0.7757	1460.49	2.47	2.47
8.90	1.10	1.10	0.7647	1460.47	2.39	2.39
9.00	1.10	1.10	0.7544	1460.45	2.32	2.32
9.10	1.10	1.10	0.7446	1460.43	2.25	2.25
9.20	1.10	1.10	0.7354	1460.41	2.18	2.18
9.30	1.10	1.10	0.7267	1460.40	2.12	2.12
9.40	1.10	1.10	0.7184	1460.38	2.07	2.07
9.50	1.10	1.10	0.7107	1460.37	2.02	2.02
9.60	1.10	1.10	0.7033	1460.35	1.97	1.97
9.70	1.10	1.10	0.6963	1460.34	1.92	1.92
9.80	1.00	1.00	0.6893	1460.33	1.87	1.87
9.90	1.00	1.00	0.6823	1460.31	1.83	1.83
10.00	1.00	1.00	0.6757	1460.30	1.78	1.78
10.10	1.00	1.00	0.6694	1460.29	1.73	1.73
10.20	1.00	1.00	0.6636	1460.28	1.69	1.69
10.30	1.00	1.00	0.6581	1460.27	1.65	1.65
10.40	1.00	1.00	0.6529	1460.26	1.61	1.61
10.50	1.00	1.00	0.6480	1460.25	1.57	1.57

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.00	1.00	0.6435	1460.24	1.53	1.53
10.70	1.00	1.00	0.6392	1460.23	1.50	1.50
10.80	1.00	1.00	0.6352	1460.22	1.47	1.47
10.90	1.00	1.00	0.6315	1460.21	1.44	1.44
11.00	0.90	0.90	0.6275	1460.21	1.41	1.41
11.10	0.90	0.90	0.6234	1460.20	1.38	1.38
11.20	0.90	0.90	0.6196	1460.19	1.35	1.35
11.30	0.90	0.90	0.6159	1460.19	1.33	1.33
11.40	0.90	0.90	0.6125	1460.18	1.31	1.31
11.50	0.80	0.80	0.6088	1460.17	1.28	1.28
11.60	0.80	0.80	0.6050	1460.16	1.25	1.25
11.70	0.80	0.80	0.6013	1460.16	1.23	1.23
11.80	0.80	0.80	0.5979	1460.15	1.21	1.21
11.90	0.70	0.70	0.5942	1460.14	1.18	1.18
12.00	0.70	0.70	0.5903	1460.14	1.16	1.16
12.10	0.70	0.70	0.5867	1460.13	1.13	1.13
12.20	0.70	0.70	0.5832	1460.12	1.11	1.11
12.30	0.60	0.60	0.5795	1460.12	1.08	1.08
12.40	0.60	0.60	0.5756	1460.11	1.06	1.06
12.50	0.60	0.60	0.5720	1460.10	1.03	1.03
12.60	0.60	0.60	0.5685	1460.09	1.01	1.01
12.70	0.50	0.50	0.5648	1460.09	0.99	0.99
12.80	0.50	0.50	0.5608	1460.08	0.97	0.97
12.90	0.50	0.50	0.5570	1460.07	0.95	0.95
13.00	0.50	0.50	0.5534	1460.06	0.92	0.92
13.10	0.50	0.50	0.5500	1460.06	0.90	0.90
13.20	0.40	0.40	0.5463	1460.05	0.88	0.88
13.30	0.40	0.40	0.5424	1460.04	0.86	0.86
13.40	0.40	0.40	0.5387	1460.04	0.84	0.84
13.50	0.40	0.40	0.5352	1460.03	0.82	0.82
13.60	0.30	0.30	0.5314	1460.02	0.80	0.80
13.70	0.30	0.30	0.5274	1460.01	0.77	0.77
13.80	0.30	0.30	0.5236	1460.01	0.75	0.75
13.90	0.30	0.30	0.5200	1460.00	0.73	0.73
14.00	0.20	0.20	0.5161	1459.99	0.71	0.71
14.10	0.20	0.20	0.5119	1459.98	0.69	0.69
14.20	0.20	0.20	0.5079	1459.98	0.67	0.67
14.30	0.20	0.20	0.5041	1459.97	0.65	0.65
14.40	0.10	0.10	0.5000	1459.96	0.63	0.63
14.50	0.10	0.10	0.4957	1459.95	0.61	0.61
14.60	0.10	0.10	0.4916	1459.95	0.59	0.59
14.70	0.10	0.10	0.4876	1459.94	0.57	0.57
14.80	0.00	0.00	0.4834	1459.93	0.55	0.55
14.90	0.00	0.00	0.4789	1459.92	0.53	0.53
15.00	0.00	0.00	0.4746	1459.91	0.51	0.51

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.30	1.30	0.0000	1459.00	0.000	0.000
Max. Inflow	1.40	40.60	40.60	0.9668	1460.86	3.50	3.50
Max. Outflow	2.40	6.00	6.00	2.0768	1462.74	6.26	6.26
Max. Elev.	2.50	5.50	5.50	2.0726	1462.74	6.25	6.25
Final	15.00	0.00	0.00	0.4746	1459.91	0.51	0.51

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.50	1.50	0.0000	1459.00	0.000	0.000
0.10	1.70	1.70	0.0132	1459.03	0.000	0.000
0.20	1.80	1.80	0.0277	1459.05	0.000	0.000
0.30	2.00	2.00	0.0434	1459.08	0.000	0.000
0.40	2.30	2.30	0.0612	1459.12	0.000	0.000
0.50	2.50	2.50	0.0810	1459.16	0.000	0.000
0.60	2.80	2.80	0.1029	1459.20	0.000	0.000
0.70	3.50	3.50	0.1289	1459.25	0.000	0.000
0.80	4.20	4.20	0.1607	1459.31	0.000	0.000
0.90	4.90	4.90	0.1983	1459.38	0.000	0.000
1.00	8.00	8.00	0.2517	1459.48	0.000	0.000
1.10	14.30	14.30	0.3434	1459.66	0.091	0.091
1.20	25.80	25.80	0.5060	1459.97	0.66	0.66
1.30	39.60	39.60	0.7637	1460.47	2.38	2.38
1.40	45.90	45.90	1.0909	1461.09	3.94	3.94
1.50	45.10	45.10	1.4305	1461.66	4.87	4.87
1.60	36.90	36.90	1.7263	1462.15	5.55	5.55
1.70	28.00	28.00	1.9467	1462.52	6.01	6.01
1.80	21.40	21.40	2.1000	1462.78	6.31	6.31
1.90	17.30	17.30	2.2070	1462.96	6.51	6.51
2.00	13.20	13.20	2.2787	1463.07	6.63	6.63
2.10	11.10	11.10	2.3241	1463.14	6.70	6.70
2.20	8.90	8.90	2.3511	1463.18	6.74	6.74
2.30	7.90	7.90	2.3647	1463.20	6.76	6.76
2.40	6.80	6.80	2.3696	1463.21	6.77	6.77
2.50	6.20	6.20	2.3673	1463.20	6.77	6.77
2.60	5.60	5.60	2.3602	1463.19	6.76	6.76
2.70	5.20	5.20	2.3490	1463.18	6.74	6.74
2.80	4.80	4.80	2.3348	1463.16	6.72	6.72
2.90	4.50	4.50	2.3178	1463.13	6.69	6.69
3.00	4.30	4.30	2.2990	1463.10	6.66	6.66
3.10	4.10	4.10	2.2788	1463.07	6.63	6.63
3.20	3.90	3.90	2.2572	1463.04	6.59	6.59
3.30	3.70	3.70	2.2343	1463.01	6.56	6.56
3.40	3.50	3.50	2.2100	1462.97	6.51	6.51
3.50	3.40	3.40	2.1849	1462.92	6.47	6.47
3.60	3.20	3.20	2.1589	1462.88	6.42	6.42
3.70	3.10	3.10	2.1321	1462.84	6.37	6.37
3.80	3.10	3.10	2.1053	1462.79	6.32	6.32
3.90	3.00	3.00	2.0785	1462.75	6.27	6.27
4.00	2.90	2.90	2.0513	1462.70	6.21	6.21
4.10	2.80	2.80	2.0238	1462.65	6.16	6.16
4.20	2.80	2.80	1.9962	1462.61	6.11	6.11
4.30	2.70	2.70	1.9687	1462.56	6.05	6.05
4.40	2.70	2.70	1.9412	1462.52	6.00	6.00
4.50	2.60	2.60	1.9138	1462.47	5.94	5.94
4.60	2.50	2.50	1.8860	1462.42	5.89	5.89
4.70	2.50	2.50	1.8583	1462.38	5.83	5.83

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.40	2.40	1.8306	1462.33	5.77	5.77
4.90	2.40	2.40	1.8030	1462.28	5.71	5.71
5.00	2.30	2.30	1.7754	1462.24	5.65	5.65
5.10	2.30	2.30	1.7479	1462.19	5.60	5.60
5.20	2.20	2.20	1.7205	1462.14	5.54	5.54
5.30	2.20	2.20	1.6932	1462.10	5.48	5.48
5.40	2.10	2.10	1.6660	1462.05	5.42	5.42
5.50	2.10	2.10	1.6388	1462.01	5.36	5.36
5.60	2.00	2.00	1.6117	1461.96	5.30	5.30
5.70	2.00	2.00	1.5848	1461.92	5.23	5.23
5.80	1.90	1.90	1.5579	1461.87	5.17	5.17
5.90	1.90	1.90	1.5311	1461.83	5.11	5.11
6.00	1.90	1.90	1.5048	1461.78	5.05	5.05
6.10	1.90	1.90	1.4791	1461.74	4.99	4.99
6.20	1.80	1.80	1.4534	1461.70	4.92	4.92
6.30	1.80	1.80	1.4279	1461.65	4.86	4.86
6.40	1.80	1.80	1.4028	1461.61	4.80	4.80
6.50	1.80	1.80	1.3783	1461.57	4.74	4.74
6.60	1.80	1.80	1.3543	1461.53	4.67	4.67
6.70	1.80	1.80	1.3308	1461.49	4.61	4.61
6.80	1.70	1.70	1.3074	1461.45	4.55	4.55
6.90	1.70	1.70	1.2841	1461.41	4.49	4.49
7.00	1.70	1.70	1.2612	1461.37	4.43	4.43
7.10	1.70	1.70	1.2389	1461.33	4.37	4.37
7.20	1.60	1.60	1.2167	1461.30	4.31	4.31
7.30	1.60	1.60	1.1946	1461.26	4.24	4.24
7.40	1.60	1.60	1.1730	1461.22	4.18	4.18
7.50	1.60	1.60	1.1519	1461.19	4.12	4.12
7.60	1.50	1.50	1.1309	1461.15	4.06	4.06
7.70	1.50	1.50	1.1100	1461.12	4.00	4.00
7.80	1.50	1.50	1.0897	1461.08	3.94	3.94
7.90	1.50	1.50	1.0698	1461.05	3.87	3.87
8.00	1.40	1.40	1.0500	1461.02	3.81	3.81
8.10	1.40	1.40	1.0303	1460.98	3.75	3.75
8.20	1.40	1.40	1.0112	1460.95	3.67	3.67
8.30	1.40	1.40	0.9927	1460.91	3.61	3.61
8.40	1.40	1.40	0.9748	1460.88	3.54	3.54
8.50	1.30	1.30	0.9570	1460.84	3.47	3.47
8.60	1.30	1.30	0.9394	1460.81	3.40	3.40
8.70	1.30	1.30	0.9224	1460.77	3.32	3.32
8.80	1.30	1.30	0.9059	1460.74	3.26	3.26
8.90	1.30	1.30	0.8900	1460.71	3.19	3.19
9.00	1.30	1.30	0.8747	1460.68	3.12	3.12
9.10	1.20	1.20	0.8595	1460.65	3.05	3.05
9.20	1.20	1.20	0.8445	1460.62	2.99	2.99
9.30	1.20	1.20	0.8300	1460.60	2.91	2.91
9.40	1.20	1.20	0.8163	1460.57	2.80	2.80
9.50	1.20	1.20	0.8036	1460.55	2.69	2.69
9.60	1.20	1.20	0.7916	1460.52	2.59	2.59
9.70	1.20	1.20	0.7805	1460.50	2.50	2.50
9.80	1.20	1.20	0.7701	1460.48	2.43	2.43
9.90	1.20	1.20	0.7602	1460.46	2.36	2.36
10.00	1.20	1.20	0.7509	1460.44	2.29	2.29
10.10	1.20	1.20	0.7421	1460.43	2.23	2.23
10.20	1.10	1.10	0.7334	1460.41	2.17	2.17
10.30	1.10	1.10	0.7248	1460.39	2.11	2.11
10.40	1.10	1.10	0.7167	1460.38	2.06	2.06
10.50	1.10	1.10	0.7090	1460.36	2.00	2.00

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.10	1.10	0.7017	1460.35	1.96	1.96
10.70	1.10	1.10	0.6949	1460.34	1.91	1.91
10.80	1.10	1.10	0.6884	1460.32	1.87	1.87
10.90	1.10	1.10	0.6822	1460.31	1.82	1.82
11.00	1.10	1.10	0.6764	1460.30	1.79	1.79
11.10	1.00	1.00	0.6705	1460.29	1.74	1.74
11.20	1.00	1.00	0.6645	1460.28	1.69	1.69
11.30	1.00	1.00	0.6590	1460.27	1.65	1.65
11.40	1.00	1.00	0.6538	1460.26	1.61	1.61
11.50	0.90	0.90	0.6485	1460.25	1.57	1.57
11.60	0.90	0.90	0.6431	1460.24	1.53	1.53
11.70	0.90	0.90	0.6380	1460.23	1.49	1.49
11.80	0.90	0.90	0.6333	1460.22	1.45	1.45
11.90	0.80	0.80	0.6285	1460.21	1.42	1.42
12.00	0.80	0.80	0.6235	1460.20	1.38	1.38
12.10	0.80	0.80	0.6189	1460.19	1.35	1.35
12.20	0.80	0.80	0.6144	1460.18	1.32	1.32
12.30	0.70	0.70	0.6099	1460.17	1.29	1.29
12.40	0.70	0.70	0.6051	1460.16	1.26	1.26
12.50	0.70	0.70	0.6007	1460.16	1.23	1.23
12.60	0.60	0.60	0.5961	1460.15	1.19	1.19
12.70	0.60	0.60	0.5913	1460.14	1.16	1.16
12.80	0.60	0.60	0.5868	1460.13	1.13	1.13
12.90	0.60	0.60	0.5825	1460.12	1.10	1.10
13.00	0.50	0.50	0.5780	1460.11	1.07	1.07
13.10	0.50	0.50	0.5734	1460.10	1.04	1.04
13.20	0.50	0.50	0.5691	1460.09	1.01	1.01
13.30	0.50	0.50	0.5649	1460.09	0.99	0.99
13.40	0.40	0.40	0.5605	1460.08	0.97	0.97
13.50	0.40	0.40	0.5560	1460.07	0.94	0.94
13.60	0.40	0.40	0.5516	1460.06	0.91	0.91
13.70	0.30	0.30	0.5471	1460.05	0.89	0.89
13.80	0.30	0.30	0.5423	1460.04	0.86	0.86
13.90	0.30	0.30	0.5378	1460.03	0.83	0.83
14.00	0.30	0.30	0.5335	1460.03	0.81	0.81
14.10	0.20	0.20	0.5290	1460.02	0.78	0.78
14.20	0.20	0.20	0.5243	1460.01	0.76	0.76
14.30	0.20	0.20	0.5198	1460.00	0.73	0.73
14.40	0.20	0.20	0.5155	1459.99	0.71	0.71
14.50	0.10	0.10	0.5110	1459.98	0.69	0.69
14.60	0.10	0.10	0.5063	1459.97	0.66	0.66
14.70	0.10	0.10	0.5017	1459.97	0.64	0.64
14.80	0.10	0.10	0.4973	1459.96	0.62	0.62
14.90	0.00	0.00	0.4927	1459.95	0.60	0.60
15.00	0.00	0.00	0.4879	1459.94	0.57	0.57

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.50	1.50	0.0000	1459.00	0.000	0.000
Max. Inflow	1.40	45.90	45.90	1.0909	1461.09	3.94	3.94
Max. Outflow	2.50	6.20	6.20	2.3673	1463.20	6.77	6.77
Max. Elev.	2.40	6.80	6.80	2.3696	1463.21	6.77	6.77
Final	15.00	0.00	0.00	0.4879	1459.94	0.57	0.57

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.80	1.80	0.0000	1459.00	0.000	0.000
0.10	2.00	2.00	0.0157	1459.03	0.000	0.000
0.20	2.20	2.20	0.0331	1459.06	0.000	0.000
0.30	2.40	2.40	0.0521	1459.10	0.000	0.000
0.40	2.70	2.70	0.0731	1459.14	0.000	0.000
0.50	3.00	3.00	0.0967	1459.19	0.000	0.000
0.60	3.30	3.30	0.1227	1459.24	0.000	0.000
0.70	4.10	4.10	0.1533	1459.30	0.000	0.000
0.80	5.00	5.00	0.1909	1459.37	0.000	0.000
0.90	5.80	5.80	0.2355	1459.45	0.000	0.000
1.00	9.40	9.40	0.2982	1459.57	0.025	0.025
1.10	16.80	16.80	0.4054	1459.78	0.247	0.247
1.20	30.40	30.40	0.5945	1460.14	1.18	1.18
1.30	46.60	46.60	0.8945	1460.72	3.21	3.21
1.40	54.10	54.10	1.2789	1461.40	4.48	4.48
1.50	53.10	53.10	1.6809	1462.08	5.45	5.45
1.60	43.50	43.50	2.0320	1462.67	6.18	6.18
1.70	32.90	32.90	2.2947	1463.10	6.65	6.65
1.80	25.20	25.20	2.4786	1463.37	6.94	6.94
1.90	20.40	20.40	2.6089	1463.56	7.14	7.14
2.00	15.50	15.50	2.6977	1463.69	7.27	7.27
2.10	13.00	13.00	2.7550	1463.78	7.35	7.35
2.20	10.50	10.50	2.7912	1463.83	7.40	7.40
2.30	9.30	9.30	2.8117	1463.86	7.43	7.43
2.40	8.00	8.00	2.8217	1463.88	7.45	7.45
2.50	7.30	7.30	2.8234	1463.88	7.45	7.45
2.60	6.60	6.60	2.8193	1463.87	7.44	7.44
2.70	6.10	6.10	2.8103	1463.86	7.43	7.43
2.80	5.70	5.70	2.7978	1463.84	7.41	7.41
2.90	5.30	5.30	2.7821	1463.82	7.39	7.39
3.00	5.00	5.00	2.7637	1463.79	7.36	7.36
3.10	4.80	4.80	2.7434	1463.76	7.33	7.33
3.20	4.60	4.60	2.7218	1463.73	7.30	7.30
3.30	4.40	4.40	2.6988	1463.69	7.27	7.27
3.40	4.20	4.20	2.6744	1463.66	7.23	7.23
3.50	4.00	4.00	2.6487	1463.62	7.20	7.20
3.60	3.80	3.80	2.6216	1463.58	7.16	7.16
3.70	3.70	3.70	2.5936	1463.54	7.11	7.11
3.80	3.60	3.60	2.5652	1463.50	7.07	7.07
3.90	3.50	3.50	2.5363	1463.45	7.03	7.03
4.00	3.40	3.40	2.5069	1463.41	6.98	6.98
4.10	3.30	3.30	2.4770	1463.37	6.94	6.94
4.20	3.30	3.30	2.4472	1463.32	6.89	6.89
4.30	3.20	3.20	2.4172	1463.28	6.85	6.85
4.40	3.10	3.10	2.3869	1463.23	6.80	6.80
4.50	3.10	3.10	2.3565	1463.19	6.75	6.75
4.60	3.00	3.00	2.3261	1463.14	6.70	6.70
4.70	2.90	2.90	2.2953	1463.10	6.65	6.65

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.90	2.90	2.2645	1463.05	6.61	6.61
4.90	2.80	2.80	2.2337	1463.01	6.56	6.56
5.00	2.70	2.70	2.2024	1462.95	6.50	6.50
5.10	2.70	2.70	2.1713	1462.90	6.44	6.44
5.20	2.60	2.60	2.1402	1462.85	6.38	6.38
5.30	2.50	2.50	2.1088	1462.80	6.32	6.32
5.40	2.50	2.50	2.0774	1462.74	6.26	6.26
5.50	2.40	2.40	2.0461	1462.69	6.20	6.20
5.60	2.40	2.40	2.0149	1462.64	6.14	6.14
5.70	2.30	2.30	1.9839	1462.59	6.08	6.08
5.80	2.30	2.30	1.9529	1462.53	6.02	6.02
5.90	2.30	2.30	1.9224	1462.48	5.96	5.96
6.00	2.20	2.20	1.8920	1462.43	5.90	5.90
6.10	2.20	2.20	1.8617	1462.38	5.84	5.84
6.20	2.20	2.20	1.8319	1462.33	5.77	5.77
6.30	2.10	2.10	1.8022	1462.28	5.71	5.71
6.40	2.10	2.10	1.7726	1462.23	5.65	5.65
6.50	2.10	2.10	1.7435	1462.18	5.59	5.59
6.60	2.10	2.10	1.7150	1462.13	5.52	5.52
6.70	2.10	2.10	1.6869	1462.09	5.46	5.46
6.80	2.00	2.00	1.6590	1462.04	5.40	5.40
6.90	2.00	2.00	1.6311	1461.99	5.34	5.34
7.00	2.00	2.00	1.6038	1461.95	5.28	5.28
7.10	2.00	2.00	1.5770	1461.90	5.22	5.22
7.20	1.90	1.90	1.5502	1461.86	5.15	5.15
7.30	1.90	1.90	1.5236	1461.81	5.09	5.09
7.40	1.90	1.90	1.4975	1461.77	5.03	5.03
7.50	1.80	1.80	1.4714	1461.73	4.97	4.97
7.60	1.80	1.80	1.4455	1461.68	4.90	4.90
7.70	1.80	1.80	1.4201	1461.64	4.84	4.84
7.80	1.70	1.70	1.3949	1461.60	4.78	4.78
7.90	1.70	1.70	1.3697	1461.55	4.71	4.71
8.00	1.70	1.70	1.3450	1461.51	4.65	4.65
8.10	1.70	1.70	1.3209	1461.47	4.59	4.59
8.20	1.60	1.60	1.2969	1461.43	4.52	4.52
8.30	1.60	1.60	1.2730	1461.39	4.46	4.46
8.40	1.60	1.60	1.2496	1461.35	4.40	4.40
8.50	1.60	1.60	1.2267	1461.31	4.33	4.33
8.60	1.60	1.60	1.2044	1461.28	4.27	4.27
8.70	1.50	1.50	1.1822	1461.24	4.21	4.21
8.80	1.50	1.50	1.1600	1461.20	4.15	4.15
8.90	1.50	1.50	1.1384	1461.17	4.08	4.08
9.00	1.50	1.50	1.1174	1461.13	4.02	4.02
9.10	1.50	1.50	1.0968	1461.10	3.96	3.96
9.20	1.50	1.50	1.0767	1461.06	3.90	3.90
9.30	1.40	1.40	1.0568	1461.03	3.83	3.83
9.40	1.40	1.40	1.0369	1460.99	3.77	3.77
9.50	1.40	1.40	1.0176	1460.96	3.70	3.70
9.60	1.40	1.40	0.9989	1460.92	3.63	3.63
9.70	1.40	1.40	0.9808	1460.89	3.56	3.56
9.80	1.40	1.40	0.9632	1460.85	3.49	3.49
9.90	1.40	1.40	0.9462	1460.82	3.42	3.42
10.00	1.40	1.40	0.9298	1460.79	3.36	3.36
10.10	1.40	1.40	0.9139	1460.76	3.29	3.29
10.20	1.30	1.30	0.8982	1460.73	3.22	3.22
10.30	1.30	1.30	0.8825	1460.70	3.16	3.16
10.40	1.30	1.30	0.8675	1460.67	3.09	3.09
10.50	1.30	1.30	0.8529	1460.64	3.02	3.02

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.30	1.30	0.8390	1460.61	2.96	2.96
10.70	1.30	1.30	0.8256	1460.59	2.88	2.88
10.80	1.30	1.30	0.8130	1460.56	2.77	2.77
10.90	1.30	1.30	0.8012	1460.54	2.67	2.67
11.00	1.30	1.30	0.7903	1460.52	2.58	2.58
11.10	1.20	1.20	0.7796	1460.50	2.49	2.49
11.20	1.20	1.20	0.7692	1460.48	2.42	2.42
11.30	1.20	1.20	0.7594	1460.46	2.35	2.35
11.40	1.10	1.10	0.7498	1460.44	2.28	2.28
11.50	1.10	1.10	0.7402	1460.42	2.22	2.22
11.60	1.10	1.10	0.7313	1460.41	2.15	2.15
11.70	1.00	1.00	0.7224	1460.39	2.09	2.09
11.80	1.00	1.00	0.7136	1460.37	2.04	2.04
11.90	1.00	1.00	0.7053	1460.36	1.98	1.98
12.00	0.90	0.90	0.6970	1460.34	1.92	1.92
12.10	0.90	0.90	0.6888	1460.32	1.87	1.87
12.20	0.90	0.90	0.6810	1460.31	1.82	1.82
12.30	0.90	0.90	0.6736	1460.30	1.76	1.76
12.40	0.80	0.80	0.6663	1460.28	1.71	1.71
12.50	0.80	0.80	0.6590	1460.27	1.65	1.65
12.60	0.80	0.80	0.6522	1460.25	1.60	1.60
12.70	0.70	0.70	0.6454	1460.24	1.55	1.55
12.80	0.70	0.70	0.6386	1460.23	1.50	1.50
12.90	0.70	0.70	0.6322	1460.22	1.45	1.45
13.00	0.60	0.60	0.6258	1460.20	1.40	1.40
13.10	0.60	0.60	0.6194	1460.19	1.35	1.35
13.20	0.60	0.60	0.6134	1460.18	1.31	1.31
13.30	0.50	0.50	0.6073	1460.17	1.27	1.27
13.40	0.50	0.50	0.6011	1460.16	1.23	1.23
13.50	0.50	0.50	0.5952	1460.15	1.19	1.19
13.60	0.40	0.40	0.5893	1460.13	1.15	1.15
13.70	0.40	0.40	0.5833	1460.12	1.11	1.11
13.80	0.40	0.40	0.5776	1460.11	1.07	1.07
13.90	0.30	0.30	0.5718	1460.10	1.03	1.03
14.00	0.30	0.30	0.5659	1460.09	1.00	1.00
14.10	0.30	0.30	0.5603	1460.08	0.96	0.96
14.20	0.30	0.30	0.5549	1460.07	0.93	0.93
14.30	0.20	0.20	0.5494	1460.06	0.90	0.90
14.40	0.20	0.20	0.5437	1460.05	0.87	0.87
14.50	0.20	0.20	0.5383	1460.04	0.84	0.84
14.60	0.10	0.10	0.5328	1460.03	0.80	0.80
14.70	0.10	0.10	0.5271	1460.01	0.77	0.77
14.80	0.10	0.10	0.5217	1460.00	0.74	0.74
14.90	0.00	0.00	0.5161	1459.99	0.71	0.71
15.00	0.00	0.00	0.5104	1459.98	0.68	0.68

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-1\1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1459.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.80	1.80	0.0000	1459.00	0.000	0.000
Max. Inflow	1.40	54.10	54.10	1.2789	1461.40	4.48	4.48
Max. Outflow	2.50	7.30	7.30	2.8234	1463.88	7.45	7.45
Final	15.00	0.00	0.00	0.5104	1459.98	0.68	0.68

Project Files:

Outlet Structure Configuration: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-1\I-1.OSC

Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-1\I-1.EO

Outlet Structure Configuration for:

Stage 1: Circular Orifice

Invert Elevation = 1459.5 feet

Diameter = 1 feet

Discharge Coefficient = 0.6

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1459.00	0.00	N/A	N/A	N/A	N/A
1459.10	0.00	N/A	N/A	N/A	N/A
1459.20	0.00	N/A	N/A	N/A	N/A
1459.30	0.00	N/A	N/A	N/A	N/A
1459.40	0.00	N/A	N/A	N/A	N/A
1459.50	0.00	N/A	N/A	N/A	N/A
1459.60	0.03	N/A	N/A	N/A	N/A
1459.70	0.13	N/A	N/A	N/A	N/A
1459.80	0.28	N/A	N/A	N/A	N/A
1459.90	0.48	N/A	N/A	N/A	N/A
1460.00	0.73	N/A	N/A	N/A	N/A
1460.10	1.03	N/A	N/A	N/A	N/A
1460.20	1.38	N/A	N/A	N/A	N/A
1460.30	1.78	N/A	N/A	N/A	N/A
1460.40	2.13	N/A	N/A	N/A	N/A
1460.50	2.50	N/A	N/A	N/A	N/A
1460.60	2.93	N/A	N/A	N/A	N/A
1460.70	3.16	N/A	N/A	N/A	N/A
1460.80	3.38	N/A	N/A	N/A	N/A
1460.90	3.59	N/A	N/A	N/A	N/A
1461.00	3.78	N/A	N/A	N/A	N/A
1461.10	3.97	N/A	N/A	N/A	N/A
1461.20	4.14	N/A	N/A	N/A	N/A
1461.30	4.31	N/A	N/A	N/A	N/A
1461.40	4.47	N/A	N/A	N/A	N/A
1461.50	4.63	N/A	N/A	N/A	N/A
1461.60	4.78	N/A	N/A	N/A	N/A
1461.70	4.93	N/A	N/A	N/A	N/A
1461.80	5.07	N/A	N/A	N/A	N/A
1461.90	5.21	N/A	N/A	N/A	N/A
1462.00	5.35	N/A	N/A	N/A	N/A
1462.10	5.48	N/A	N/A	N/A	N/A
1462.20	5.61	N/A	N/A	N/A	N/A
1462.30	5.74	N/A	N/A	N/A	N/A
1462.40	5.86	N/A	N/A	N/A	N/A
1462.50	5.98	N/A	N/A	N/A	N/A
1462.60	6.10	N/A	N/A	N/A	N/A
1462.70	6.21	N/A	N/A	N/A	N/A
1462.80	6.33	N/A	N/A	N/A	N/A
1462.90	6.44	N/A	N/A	N/A	N/A
1463.00	6.55	N/A	N/A	N/A	N/A
1463.10	6.66	N/A	N/A	N/A	N/A
1463.20	6.76	N/A	N/A	N/A	N/A
1463.30	6.87	N/A	N/A	N/A	N/A
1463.40	6.97	N/A	N/A	N/A	N/A

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1463.50	7.07	N/A	N/A	N/A	N/A
1463.60	7.18	N/A	N/A	N/A	N/A
1463.70	7.27	N/A	N/A	N/A	N/A
1463.80	7.37	N/A	N/A	N/A	N/A
1463.90	7.47	N/A	N/A	N/A	N/A
1464.00	7.56	N/A	N/A	N/A	N/A
1464.10	7.66	N/A	N/A	N/A	N/A
1464.20	7.75	N/A	N/A	N/A	N/A
1464.30	7.84	N/A	N/A	N/A	N/A
1464.40	7.93	N/A	N/A	N/A	N/A
1464.50	8.02	N/A	N/A	N/A	N/A
1464.60	8.11	N/A	N/A	N/A	N/A
1464.70	8.20	N/A	N/A	N/A	N/A
1464.80	8.29	N/A	N/A	N/A	N/A
1464.90	8.37	N/A	N/A	N/A	N/A
1465.00	8.46	N/A	N/A	N/A	N/A

SCS Segmental Travel Time

Summary for From Basin I-1 to POI

Segment 1: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 357 ft, S = .05 ft/ft, n = .035

Travel Time = 0.4 minutes

Segment 2: Overland Flow

L = 150 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in

Travel Time = 28 minutes

Segment 3: Concentrated Flow

L = 1161 ft, S = .02 ft/ft, Unpaved surface

Travel Time = 8.5 minutes

Total Travel Time = 36.89 Minutes

DETENTION BASIN I-2

BRINKASH
ASSOCIATES, INC.
SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

POST AREA I

DRAINAGE AREA = 65.39 ac.

$T_c = 42$ minutes

CN = 79

1130	0.50 ac
1441	0.56 ac
1493	0.63 ac
SPURWAY	0.66 ac
TOT	0.69 ac

POST TO BASIN

ROUTED

$Q_1 = 46.9$ cfs

$Q_1 = 35.02$ cfs

$Q_2 = 67.3$ cfs

$Q_2 = 52.89$ cfs

$Q_{10} = 147.9$ cfs

$Q_{10} = 131.66$ cfs

$Q_{25} = 178.9$ cfs

$Q_{25} = 164.55$ cfs

$Q_{50} = 202.6$ cfs

$Q_{50} = 191.72$ cfs

$Q_{100} = 238.6$ cfs

$Q_{100} = 232.70$ cfs

TRAVEL TIME TO P.O.I

135' channel $A = 18 \text{ ft}^2$ $P = 9.4'$ $n = 0.035$ 3%

150' OVERLAND @ 2%

1280' CONCENTRATED @ 2%

$T_T = 29.75$ minutes

SCS TR55 Tabular Method

POST TO

Watershed Title: Post to Basin I-2

Basin I-2

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	65.380	79	0.177	1.19	42.000	45.000	0.000	0.000
Composite	65.380	79		1.19				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	10	41	43	21	12	8	5	3	2	0
Composite	1	3	10	41	43	21	12	8	5	3	2	0

The peak flow is 46.9 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	65.390	79	0.148	1.64	42.000	45.000	0.000	0.000
Composite	65.390	79		1.64				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	16	59	60	29	16	11	6	4	3	0
Composite	2	5	16	59	60	29	16	11	6	4	3	0

The peak flow is 67.3 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	65.390	79	0.100	3.41	42.000	45.000	0.000	0.000
Composite	65.390	79		3.41				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	13	40	133	129	60	32	21	12	8	5	0
Composite	5	13	40	133	129	60	32	21	12	8	5	0

The peak flow is 147.9 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	65.390	79	0.100	4.13	42.000	45.000	0.000	0.000
Composite	65.390	79		4.13				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	5	15	49	160	156	73	39	26	15	9	6	0
Composite	5	15	49	160	156	73	39	26	15	9	6	0

The peak flow is 178.9 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	65.390	79	0.100	4.68	42.000	45.000	0.000	0.000
Composite	65.390	79		4.68				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	6	17	55	182	176	82	44	29	17	11	7	0
Composite	6	17	55	182	176	82	44	29	17	11	7	0

The peak flow is 202.6 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	65.390	79	0.100	5.51	42.000	45.000	0.000	0.000
Composite	65.390	79		5.51				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-2

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	7	20	65	214	208	97	52	34	20	12	8	0
Composite	7	20	65	214	208	97	52	34	20	12	8	0

The peak flow is 238.6 cfs at 12.6 hrs.

I-2

Basin Storage/Elevation Input

Elevation (ft)	Area (acres)	Storage (acre-ft)
1439.00	.50	0.000
1441.00	.56	1.060
1443.00	.63	2.250
1444.00	.66	2.895
1445	.69	3.570

Project Files:

Outlet Structure Configuration: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\I-2.OSC

Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\I-2.EO

Outlet Structure Configuration for:

Stage 1: Rectangular Orifice

Invert Elevation = 1439.5 feet

Width = 4 feet

Height = 4.5 feet

Discharge Coefficient = 0.6

Stage 2: Emergency Spillway

Crest Elevation = 1444 feet

Crest Length = 28 feet

Discharge Coefficient = 3

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1439.00	0.00	N/A	N/A	N/A	N/A
1439.10	0.00	N/A	N/A	N/A	N/A
1439.20	0.00	N/A	N/A	N/A	N/A
1439.30	0.00	N/A	N/A	N/A	N/A
1439.40	0.00	N/A	N/A	N/A	N/A
1439.50	0.00	N/A	N/A	N/A	N/A
1439.60	0.39	N/A	N/A	N/A	N/A
1439.70	1.11	N/A	N/A	N/A	N/A
1439.80	2.04	N/A	N/A	N/A	N/A
1439.90	3.15	N/A	N/A	N/A	N/A
1440.00	4.40	N/A	N/A	N/A	N/A
1440.10	5.78	N/A	N/A	N/A	N/A
1440.20	7.28	N/A	N/A	N/A	N/A
1440.30	8.90	N/A	N/A	N/A	N/A
1440.40	10.62	N/A	N/A	N/A	N/A
1440.50	12.43	N/A	N/A	N/A	N/A
1440.60	14.34	N/A	N/A	N/A	N/A
1440.70	16.34	N/A	N/A	N/A	N/A
1440.80	18.43	N/A	N/A	N/A	N/A
1440.90	20.59	N/A	N/A	N/A	N/A
1441.00	22.84	N/A	N/A	N/A	N/A
1441.10	25.16	N/A	N/A	N/A	N/A
1441.20	27.56	N/A	N/A	N/A	N/A
1441.30	30.02	N/A	N/A	N/A	N/A
1441.40	32.56	N/A	N/A	N/A	N/A
1441.50	35.17	N/A	N/A	N/A	N/A
1441.60	37.84	N/A	N/A	N/A	N/A
1441.70	40.57	N/A	N/A	N/A	N/A
1441.80	43.37	N/A	N/A	N/A	N/A
1441.90	46.23	N/A	N/A	N/A	N/A
1442.00	49.15	N/A	N/A	N/A	N/A
1442.10	52.12	N/A	N/A	N/A	N/A
1442.20	55.16	N/A	N/A	N/A	N/A
1442.30	58.25	N/A	N/A	N/A	N/A
1442.40	61.40	N/A	N/A	N/A	N/A
1442.50	64.60	N/A	N/A	N/A	N/A
1442.60	67.86	N/A	N/A	N/A	N/A
1442.70	71.17	N/A	N/A	N/A	N/A
1442.80	74.53	N/A	N/A	N/A	N/A

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1442.90	77.94	N/A	N/A	N/A	N/A
1443.00	81.41	N/A	N/A	N/A	N/A
1443.10	84.92	N/A	N/A	N/A	N/A
1443.20	88.49	N/A	N/A	N/A	N/A
1443.30	92.10	N/A	N/A	N/A	N/A
1443.40	95.76	N/A	N/A	N/A	N/A
1443.50	99.46	N/A	N/A	N/A	N/A
1443.60	103.22	N/A	N/A	N/A	N/A
1443.70	107.01	N/A	N/A	N/A	N/A
1443.80	110.86	N/A	N/A	N/A	N/A
1443.90	114.75	N/A	N/A	N/A	N/A
1444.00	118.68	N/A	N/A	N/A	N/A
1444.10	135.52	N/A	N/A	N/A	N/A
1444.20	143.17	N/A	N/A	N/A	N/A
1444.30	152.20	N/A	N/A	N/A	N/A
1444.40	162.34	N/A	N/A	N/A	N/A
1444.50	173.42	N/A	N/A	N/A	N/A
1444.60	185.35	N/A	N/A	N/A	N/A
1444.70	198.06	N/A	N/A	N/A	N/A
1444.80	211.47	N/A	N/A	N/A	N/A
1444.90	225.54	N/A	N/A	N/A	N/A
1445.00	240.25	N/A	N/A	N/A	N/A

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\2_rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.00	1.00	0.0000	1439.00	0.000	0.000
0.10	1.10	1.10	0.0087	1439.02	0.000	0.000
0.20	1.20	1.20	0.0182	1439.03	0.000	0.000
0.30	1.30	1.30	0.0285	1439.05	0.000	0.000
0.40	1.50	1.50	0.0401	1439.08	0.000	0.000
0.50	1.60	1.60	0.0529	1439.10	0.000	0.000
0.60	1.80	1.80	0.0669	1439.13	0.000	0.000
0.70	2.10	2.10	0.0831	1439.16	0.000	0.000
0.80	2.40	2.40	0.1017	1439.19	0.000	0.000
0.90	2.70	2.70	0.1227	1439.23	0.000	0.000
1.00	3.50	3.50	0.1483	1439.28	0.000	0.000
1.10	5.40	5.40	0.1851	1439.35	0.000	0.000
1.20	10.00	10.00	0.2488	1439.47	0.000	0.000
1.30	18.50	18.50	0.3624	1439.68	1.00	1.00
1.40	30.10	30.10	0.5399	1440.02	4.65	4.65
1.50	40.80	40.80	0.7663	1440.45	11.45	11.45
1.60	46.90	46.90	0.9979	1440.88	20.22	20.22
1.70	46.90	46.90	1.1867	1441.21	27.88	27.88
1.80	42.90	42.90	1.3065	1441.41	32.93	32.93
1.90	36.60	36.60	1.3542	1441.50	35.02	35.02
2.00	30.30	30.30	1.3432	1441.48	34.54	34.54
2.10	25.80	25.80	1.2978	1441.40	32.55	32.55
2.20	21.30	21.30	1.2345	1441.29	29.86	29.86
2.30	18.50	18.50	1.1642	1441.18	26.96	26.96
2.40	15.60	15.60	1.0938	1441.06	24.16	24.16
2.50	13.90	13.90	1.0273	1440.94	21.45	21.45
2.60	12.10	12.10	0.9676	1440.83	18.98	18.98
2.70	11.00	11.00	0.9148	1440.73	16.89	16.89
2.80	9.80	9.80	0.8685	1440.64	15.12	15.12
2.90	9.00	9.00	0.8275	1440.56	13.61	13.61
3.00	8.30	8.30	0.7919	1440.49	12.33	12.33
3.10	7.70	7.70	0.7605	1440.44	11.25	11.25
3.20	7.20	7.20	0.7330	1440.38	10.32	10.32
3.30	6.70	6.70	0.7084	1440.34	9.53	9.53
3.40	6.40	6.40	0.6867	1440.30	8.83	8.83
3.50	6.10	6.10	0.6678	1440.26	8.25	8.25
3.60	5.70	5.70	0.6505	1440.23	7.72	7.72
3.70	5.50	5.50	0.6349	1440.20	7.25	7.25
3.80	5.30	5.30	0.6212	1440.17	6.86	6.86
3.90	5.10	5.10	0.6089	1440.15	6.51	6.51
4.00	4.90	4.90	0.5978	1440.13	6.20	6.20
4.10	4.80	4.80	0.5878	1440.11	5.91	5.91
4.20	4.70	4.70	0.5791	1440.09	5.68	5.68
4.30	4.60	4.60	0.5715	1440.08	5.48	5.48
4.40	4.50	4.50	0.5646	1440.07	5.30	5.30
4.50	4.40	4.40	0.5582	1440.05	5.13	5.13
4.60	4.30	4.30	0.5524	1440.04	4.98	4.98
4.70	4.20	4.20	0.5470	1440.03	4.84	4.84

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	4.10	4.10	0.5418	1440.02	4.70	4.70
4.90	4.00	4.00	0.5369	1440.01	4.58	4.58
5.00	3.90	3.90	0.5323	1440.00	4.46	4.46
5.10	3.80	3.80	0.5277	1440.00	4.34	4.34
5.20	3.70	3.70	0.5233	1439.99	4.24	4.24
5.30	3.60	3.60	0.5188	1439.98	4.13	4.13
5.40	3.60	3.60	0.5148	1439.97	4.04	4.04
5.50	3.50	3.50	0.5112	1439.96	3.95	3.95
5.60	3.40	3.40	0.5074	1439.96	3.86	3.86
5.70	3.30	3.30	0.5035	1439.95	3.77	3.77
5.80	3.30	3.30	0.5000	1439.94	3.69	3.69
5.90	3.20	3.20	0.4967	1439.94	3.61	3.61
6.00	3.10	3.10	0.4932	1439.93	3.53	3.53
6.10	3.10	3.10	0.4900	1439.93	3.45	3.45
6.20	3.10	3.10	0.4874	1439.92	3.39	3.39
6.30	3.00	3.00	0.4848	1439.92	3.33	3.33
6.40	3.00	3.00	0.4823	1439.91	3.27	3.27
6.50	2.90	2.90	0.4799	1439.91	3.21	3.21
6.60	2.90	2.90	0.4775	1439.90	3.16	3.16
6.70	2.90	2.90	0.4756	1439.90	3.12	3.12
6.80	2.80	2.80	0.4736	1439.89	3.07	3.07
6.90	2.80	2.80	0.4715	1439.89	3.03	3.03
7.00	2.80	2.80	0.4697	1439.89	2.99	2.99
7.10	2.70	2.70	0.4679	1439.88	2.96	2.96
7.20	2.70	2.70	0.4659	1439.88	2.91	2.91
7.30	2.70	2.70	0.4643	1439.88	2.88	2.88
7.40	2.70	2.70	0.4629	1439.87	2.85	2.85
7.50	2.60	2.60	0.4614	1439.87	2.82	2.82
7.60	2.60	2.60	0.4597	1439.87	2.79	2.79
7.70	2.60	2.60	0.4583	1439.87	2.76	2.76
7.80	2.50	2.50	0.4567	1439.86	2.72	2.72
7.90	2.50	2.50	0.4550	1439.86	2.69	2.69
8.00	2.50	2.50	0.4536	1439.86	2.66	2.66
8.10	2.50	2.50	0.4524	1439.85	2.63	2.63
8.20	2.40	2.40	0.4510	1439.85	2.60	2.60
8.30	2.40	2.40	0.4494	1439.85	2.57	2.57
8.40	2.40	2.40	0.4481	1439.85	2.54	2.54
8.50	2.30	2.30	0.4466	1439.84	2.51	2.51
8.60	2.30	2.30	0.4450	1439.84	2.48	2.48
8.70	2.30	2.30	0.4437	1439.84	2.45	2.45
8.80	2.30	2.30	0.4425	1439.84	2.43	2.43
8.90	2.20	2.20	0.4411	1439.83	2.40	2.40
9.00	2.20	2.20	0.4396	1439.83	2.37	2.37
9.10	2.20	2.20	0.4383	1439.83	2.34	2.34
9.20	2.20	2.20	0.4373	1439.83	2.32	2.32
9.30	2.10	2.10	0.4360	1439.82	2.29	2.29
9.40	2.10	2.10	0.4345	1439.82	2.26	2.26
9.50	2.10	2.10	0.4333	1439.82	2.24	2.24
9.60	2.10	2.10	0.4323	1439.82	2.21	2.21
9.70	2.10	2.10	0.4314	1439.81	2.20	2.20
9.80	2.00	2.00	0.4303	1439.81	2.17	2.17
9.90	2.00	2.00	0.4289	1439.81	2.15	2.15
10.00	2.00	2.00	0.4278	1439.81	2.12	2.12
10.10	2.00	2.00	0.4269	1439.81	2.10	2.10
10.20	1.90	1.90	0.4257	1439.80	2.08	2.08
10.30	1.90	1.90	0.4244	1439.80	2.05	2.05
10.40	1.90	1.90	0.4232	1439.80	2.03	2.03
10.50	1.90	1.90	0.4222	1439.80	2.01	2.01

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.90	1.90	0.4214	1439.80	2.00	2.00
10.70	1.80	1.80	0.4202	1439.79	1.98	1.98
10.80	1.80	1.80	0.4189	1439.79	1.95	1.95
10.90	1.80	1.80	0.4177	1439.79	1.93	1.93
11.00	1.80	1.80	0.4167	1439.79	1.91	1.91
11.10	1.70	1.70	0.4154	1439.78	1.89	1.89
11.20	1.70	1.70	0.4139	1439.78	1.87	1.87
11.30	1.70	1.70	0.4126	1439.78	1.84	1.84
11.40	1.60	1.60	0.4112	1439.78	1.82	1.82
11.50	1.60	1.60	0.4095	1439.77	1.79	1.79
11.60	1.50	1.50	0.4076	1439.77	1.76	1.76
11.70	1.50	1.50	0.4057	1439.77	1.72	1.72
11.80	1.40	1.40	0.4036	1439.76	1.68	1.68
11.90	1.40	1.40	0.4014	1439.76	1.65	1.65
12.00	1.30	1.30	0.3991	1439.75	1.61	1.61
12.10	1.30	1.30	0.3968	1439.75	1.56	1.56
12.20	1.20	1.20	0.3943	1439.74	1.52	1.52
12.30	1.20	1.20	0.3919	1439.74	1.48	1.48
12.40	1.20	1.20	0.3897	1439.74	1.44	1.44
12.50	1.10	1.10	0.3875	1439.73	1.40	1.40
12.60	1.10	1.10	0.3851	1439.73	1.36	1.36
12.70	1.00	1.00	0.3828	1439.72	1.32	1.32
12.80	1.00	1.00	0.3803	1439.72	1.28	1.28
12.90	0.90	0.90	0.3778	1439.71	1.23	1.23
13.00	0.90	0.90	0.3752	1439.71	1.19	1.19
13.10	0.80	0.80	0.3726	1439.70	1.14	1.14
13.20	0.80	0.80	0.3700	1439.70	1.10	1.10
13.30	0.80	0.80	0.3677	1439.69	1.07	1.07
13.40	0.70	0.70	0.3652	1439.69	1.03	1.03
13.50	0.70	0.70	0.3626	1439.68	1.00	1.00
13.60	0.60	0.60	0.3599	1439.68	0.96	0.96
13.70	0.60	0.60	0.3570	1439.67	0.92	0.92
13.80	0.50	0.50	0.3541	1439.67	0.88	0.88
13.90	0.50	0.50	0.3511	1439.66	0.84	0.84
14.00	0.40	0.40	0.3481	1439.66	0.80	0.80
14.10	0.40	0.40	0.3449	1439.65	0.76	0.76
14.20	0.40	0.40	0.3421	1439.65	0.72	0.72
14.30	0.30	0.30	0.3392	1439.64	0.68	0.68
14.40	0.30	0.30	0.3362	1439.63	0.64	0.64
14.50	0.20	0.20	0.3332	1439.63	0.60	0.60
14.60	0.20	0.20	0.3301	1439.62	0.56	0.56
14.70	0.10	0.10	0.3269	1439.62	0.51	0.51
14.80	0.10	0.10	0.3236	1439.61	0.470	0.470
14.90	0.00	0.00	0.3204	1439.60	0.425	0.425
15.00	0.00	0.00	0.3170	1439.60	0.386	0.386

Total Routing Mass Balance Discrepancy is -0.04%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\2_rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.00	1.00	0.0000	1439.00	0.000	0.000
Max. Inflow	1.70	46.90	46.90	1.1867	1441.21	27.88	27.88
Max. Outflow	1.90	36.60	36.60	1.3542	1441.50	35.02	35.02
Final	15.00	0.00	0.00	0.3170	1439.60	0.386	0.386

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\2_rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.70	1.70	0.0000	1439.00	0.000	0.000
0.10	1.90	1.90	0.0149	1439.03	0.000	0.000
0.20	2.10	2.10	0.0314	1439.06	0.000	0.000
0.30	2.30	2.30	0.0496	1439.09	0.000	0.000
0.40	2.60	2.60	0.0698	1439.13	0.000	0.000
0.50	2.80	2.80	0.0921	1439.17	0.000	0.000
0.60	3.10	3.10	0.1165	1439.22	0.000	0.000
0.70	3.60	3.60	0.1442	1439.27	0.000	0.000
0.80	4.10	4.10	0.1760	1439.33	0.000	0.000
0.90	4.60	4.60	0.2120	1439.40	0.000	0.000
1.00	5.90	5.90	0.2554	1439.48	0.000	0.000
1.10	8.90	8.90	0.3150	1439.59	0.371	0.371
1.20	15.90	15.90	0.4086	1439.77	1.77	1.77
1.30	28.30	28.30	0.5623	1440.06	5.24	5.24
1.40	44.60	44.60	0.7911	1440.49	12.30	12.30
1.50	59.30	59.30	1.0731	1441.02	23.35	23.35
1.60	67.30	67.30	1.3549	1441.50	35.05	35.05
1.70	66.40	66.40	1.5755	1441.87	45.26	45.26
1.80	60.30	60.30	1.6997	1442.08	51.38	51.38
1.90	51.20	51.20	1.7296	1442.13	52.89	52.89
2.00	42.10	42.10	1.6869	1442.05	50.74	50.74
2.10	35.70	35.70	1.6056	1441.92	46.72	46.72
2.20	29.30	29.30	1.5075	1441.75	42.03	42.03
2.30	25.30	25.30	1.4053	1441.58	37.31	37.31
2.40	21.30	21.30	1.3074	1441.42	32.97	32.97
2.50	18.80	18.80	1.2166	1441.26	29.12	29.12
2.60	16.30	16.30	1.1348	1441.13	25.78	25.78
2.70	14.70	14.70	1.0617	1441.00	22.91	22.91
2.80	13.20	13.20	0.9986	1440.88	20.25	20.25
2.90	12.10	12.10	0.9448	1440.78	18.07	18.07
3.00	11.00	11.00	0.8985	1440.70	16.25	16.25
3.10	10.30	10.30	0.8585	1440.62	14.74	14.74
3.20	9.60	9.60	0.8241	1440.56	13.48	13.48
3.30	8.90	8.90	0.7936	1440.50	12.39	12.39
3.40	8.50	8.50	0.7670	1440.45	11.47	11.47
3.50	8.00	8.00	0.7436	1440.40	10.67	10.67
3.60	7.50	7.50	0.7224	1440.36	9.98	9.98
3.70	7.30	7.30	0.7036	1440.33	9.37	9.37
3.80	7.00	7.00	0.6874	1440.30	8.85	8.85
3.90	6.70	6.70	0.6727	1440.27	8.40	8.40
4.00	6.40	6.40	0.6592	1440.24	7.99	7.99
4.10	6.30	6.30	0.6471	1440.22	7.62	7.62
4.20	6.20	6.20	0.6371	1440.20	7.31	7.31
4.30	6.00	6.00	0.6281	1440.19	7.06	7.06
4.40	5.90	5.90	0.6199	1440.17	6.82	6.82
4.50	5.70	5.70	0.6123	1440.16	6.61	6.61
4.60	5.60	5.60	0.6052	1440.14	6.41	6.41
4.70	5.50	5.50	0.5989	1440.13	6.23	6.23

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	5.30	5.30	0.5928	1440.12	6.05	6.05
4.90	5.20	5.20	0.5868	1440.11	5.89	5.89
5.00	5.10	5.10	0.5813	1440.10	5.73	5.73
5.10	4.90	4.90	0.5759	1440.09	5.59	5.59
5.20	4.80	4.80	0.5703	1440.08	5.45	5.45
5.30	4.70	4.70	0.5651	1440.07	5.31	5.31
5.40	4.60	4.60	0.5602	1440.06	5.18	5.18
5.50	4.50	4.50	0.5555	1440.05	5.06	5.06
5.60	4.40	4.40	0.5509	1440.04	4.94	4.94
5.70	4.30	4.30	0.5465	1440.03	4.83	4.83
5.80	4.30	4.30	0.5426	1440.02	4.72	4.72
5.90	4.20	4.20	0.5390	1440.02	4.63	4.63
6.00	4.10	4.10	0.5354	1440.01	4.54	4.54
6.10	4.00	4.00	0.5318	1440.00	4.44	4.44
6.20	4.00	4.00	0.5285	1440.00	4.36	4.36
6.30	3.90	3.90	0.5254	1439.99	4.29	4.29
6.40	3.90	3.90	0.5225	1439.99	4.22	4.22
6.50	3.80	3.80	0.5197	1439.98	4.15	4.15
6.60	3.80	3.80	0.5170	1439.98	4.09	4.09
6.70	3.70	3.70	0.5145	1439.97	4.03	4.03
6.80	3.70	3.70	0.5120	1439.97	3.97	3.97
6.90	3.60	3.60	0.5096	1439.96	3.91	3.91
7.00	3.60	3.60	0.5072	1439.96	3.86	3.86
7.10	3.60	3.60	0.5053	1439.95	3.81	3.81
7.20	3.50	3.50	0.5033	1439.95	3.77	3.77
7.30	3.50	3.50	0.5013	1439.95	3.72	3.72
7.40	3.40	3.40	0.4993	1439.94	3.67	3.67
7.50	3.40	3.40	0.4972	1439.94	3.62	3.62
7.60	3.40	3.40	0.4956	1439.94	3.58	3.58
7.70	3.30	3.30	0.4938	1439.93	3.54	3.54
7.80	3.30	3.30	0.4920	1439.93	3.50	3.50
7.90	3.30	3.30	0.4905	1439.93	3.46	3.46
8.00	3.20	3.20	0.4889	1439.92	3.43	3.43
8.10	3.20	3.20	0.4872	1439.92	3.39	3.39
8.20	3.10	3.10	0.4854	1439.92	3.34	3.34
8.30	3.10	3.10	0.4836	1439.91	3.30	3.30
8.40	3.10	3.10	0.4821	1439.91	3.26	3.26
8.50	3.00	3.00	0.4805	1439.91	3.23	3.23
8.60	3.00	3.00	0.4787	1439.90	3.19	3.19
8.70	3.00	3.00	0.4773	1439.90	3.15	3.15
8.80	2.90	2.90	0.4758	1439.90	3.12	3.12
8.90	2.90	2.90	0.4741	1439.90	3.09	3.09
9.00	2.80	2.80	0.4723	1439.89	3.05	3.05
9.10	2.80	2.80	0.4704	1439.89	3.01	3.01
9.20	2.80	2.80	0.4689	1439.89	2.98	2.98
9.30	2.80	2.80	0.4675	1439.88	2.95	2.95
9.40	2.70	2.70	0.4660	1439.88	2.92	2.92
9.50	2.70	2.70	0.4644	1439.88	2.88	2.88
9.60	2.70	2.70	0.4630	1439.87	2.85	2.85
9.70	2.60	2.60	0.4614	1439.87	2.82	2.82
9.80	2.60	2.60	0.4597	1439.87	2.79	2.79
9.90	2.60	2.60	0.4583	1439.87	2.76	2.76
10.00	2.60	2.60	0.4571	1439.86	2.73	2.73
10.10	2.50	2.50	0.4558	1439.86	2.70	2.70
10.20	2.50	2.50	0.4542	1439.86	2.67	2.67
10.30	2.50	2.50	0.4529	1439.85	2.64	2.64
10.40	2.50	2.50	0.4518	1439.85	2.62	2.62
10.50	2.40	2.40	0.4505	1439.85	2.59	2.59

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.40	2.40	0.4490	1439.85	2.56	2.56
10.70	2.40	2.40	0.4478	1439.85	2.54	2.54
10.80	2.40	2.40	0.4467	1439.84	2.52	2.52
10.90	2.30	2.30	0.4455	1439.84	2.49	2.49
11.00	2.30	2.30	0.4440	1439.84	2.46	2.46
11.10	2.20	2.20	0.4424	1439.84	2.43	2.43
11.20	2.20	2.20	0.4407	1439.83	2.39	2.39
11.30	2.10	2.10	0.4389	1439.83	2.35	2.35
11.40	2.10	2.10	0.4370	1439.82	2.31	2.31
11.50	2.00	2.00	0.4350	1439.82	2.27	2.27
11.60	2.00	2.00	0.4329	1439.82	2.23	2.23
11.70	1.90	1.90	0.4308	1439.81	2.18	2.18
11.80	1.80	1.80	0.4282	1439.81	2.13	2.13
11.90	1.80	1.80	0.4257	1439.80	2.08	2.08
12.00	1.70	1.70	0.4232	1439.80	2.03	2.03
12.10	1.70	1.70	0.4207	1439.79	1.98	1.98
12.20	1.60	1.60	0.4181	1439.79	1.94	1.94
12.30	1.50	1.50	0.4151	1439.78	1.89	1.89
12.40	1.50	1.50	0.4121	1439.78	1.83	1.83
12.50	1.40	1.40	0.4092	1439.77	1.78	1.78
12.60	1.40	1.40	0.4062	1439.77	1.73	1.73
12.70	1.30	1.30	0.4033	1439.76	1.68	1.68
12.80	1.30	1.30	0.4004	1439.76	1.63	1.63
12.90	1.20	1.20	0.3974	1439.75	1.58	1.58
13.00	1.10	1.10	0.3942	1439.74	1.52	1.52
13.10	1.10	1.10	0.3909	1439.74	1.46	1.46
13.20	1.00	1.00	0.3878	1439.73	1.41	1.41
13.30	1.00	1.00	0.3846	1439.73	1.35	1.35
13.40	0.90	0.90	0.3815	1439.72	1.30	1.30
13.50	0.90	0.90	0.3785	1439.71	1.24	1.24
13.60	0.80	0.80	0.3754	1439.71	1.19	1.19
13.70	0.70	0.70	0.3721	1439.70	1.13	1.13
13.80	0.70	0.70	0.3687	1439.70	1.08	1.08
13.90	0.60	0.60	0.3653	1439.69	1.04	1.04
14.00	0.60	0.60	0.3619	1439.68	0.99	0.99
14.10	0.50	0.50	0.3585	1439.68	0.94	0.94
14.20	0.50	0.50	0.3550	1439.67	0.90	0.90
14.30	0.40	0.40	0.3515	1439.66	0.85	0.85
14.40	0.30	0.30	0.3476	1439.66	0.80	0.80
14.50	0.30	0.30	0.3438	1439.65	0.74	0.74
14.60	0.20	0.20	0.3399	1439.64	0.69	0.69
14.70	0.20	0.20	0.3361	1439.63	0.64	0.64
14.80	0.10	0.10	0.3323	1439.63	0.59	0.59
14.90	0.10	0.10	0.3285	1439.62	0.53	0.53
15.00	0.00	0.00	0.3247	1439.61	0.483	0.483

Total Routing Mass Balance Discrepancy is -0.06%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-2\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-2\2_rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.70	1.70	0.0000	1439.00	0.000	0.000
Max. Inflow	1.60	67.30	67.30	1.3549	1441.50	35.05	35.05
Max. Outflow	1.90	51.20	51.20	1.7296	1442.13	52.89	52.89
Final	15.00	0.00	0.00	0.3247	1439.61	0.483	0.483

Modified Puls Routing

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	4.50	4.50	0.0000	1439.00	0.000	0.000
0.10	5.10	5.10	0.0397	1439.08	0.000	0.000
0.20	5.70	5.70	0.0843	1439.16	0.000	0.000
0.30	6.30	6.30	0.1339	1439.25	0.000	0.000
0.40	7.00	7.00	0.1888	1439.36	0.000	0.000
0.50	7.70	7.70	0.2496	1439.47	0.000	0.000
0.60	8.40	8.40	0.3146	1439.59	0.368	0.368
0.70	9.80	9.80	0.3828	1439.72	1.32	1.32
0.80	11.20	11.20	0.4532	1439.86	2.65	2.65
0.90	12.60	12.60	0.5231	1439.99	4.23	4.23
1.00	16.00	16.00	0.5981	1440.13	6.21	6.21
1.10	23.70	23.70	0.6985	1440.32	9.20	9.20
1.20	40.10	40.10	0.8626	1440.63	14.89	14.89
1.30	67.60	67.60	1.1389	1441.13	25.94	25.94
1.40	102.50	102.50	1.5522	1441.83	44.14	44.14
1.50	132.50	132.50	2.0514	1442.67	70.05	70.05
1.60	147.90	147.90	2.5216	1443.42	96.54	96.54
1.70	143.00	143.00	2.8466	1443.93	115.73	115.73
1.80	128.70	128.70	2.9470	1444.08	131.66	131.66
1.90	108.30	108.30	2.8925	1444.00	118.53	118.53
2.00	87.90	87.90	2.7575	1443.79	110.35	110.35
2.10	73.90	73.90	2.5616	1443.48	98.84	98.84
2.20	60.00	60.00	2.3480	1443.15	86.77	86.77
2.30	51.40	51.40	2.1397	1442.82	75.03	75.03
2.40	42.90	42.90	1.9524	1442.50	64.60	64.60
2.50	37.70	37.70	1.7877	1442.22	55.87	55.87
2.60	32.40	32.40	1.6453	1441.98	48.67	48.67
2.70	29.10	29.10	1.5219	1441.78	42.70	42.70
2.80	25.80	25.80	1.4161	1441.60	37.80	37.80
2.90	23.50	23.50	1.3243	1441.44	33.71	33.71
3.00	21.30	21.30	1.2449	1441.31	30.30	30.30
3.10	19.90	19.90	1.1765	1441.20	27.46	27.46
3.20	18.50	18.50	1.1180	1441.10	25.10	25.10
3.30	17.10	17.10	1.0660	1441.01	23.08	23.08
3.40	16.20	16.20	1.0208	1440.93	21.18	21.18
3.50	15.20	15.20	0.9821	1440.85	19.58	19.58
3.60	14.30	14.30	0.9479	1440.79	18.19	18.19
3.70	13.80	13.80	0.9185	1440.73	17.03	17.03
3.80	13.30	13.30	0.8937	1440.69	16.07	16.07
3.90	12.70	12.70	0.8718	1440.65	15.24	15.24
4.00	12.20	12.20	0.8518	1440.61	14.49	14.49
4.10	11.90	11.90	0.8343	1440.57	13.85	13.85
4.20	11.60	11.60	0.8192	1440.55	13.31	13.31
4.30	11.40	11.40	0.8062	1440.52	12.84	12.84
4.40	11.10	11.10	0.7948	1440.50	12.43	12.43
4.50	10.80	10.80	0.7841	1440.48	12.06	12.06
4.60	10.50	10.50	0.7739	1440.46	11.71	11.71
4.70	10.30	10.30	0.7644	1440.44	11.38	11.38

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	10.00	10.00	0.7555	1440.43	11.08	11.08
4.90	9.70	9.70	0.7466	1440.41	10.77	10.77
5.00	9.40	9.40	0.7377	1440.39	10.48	10.48
5.10	9.20	9.20	0.7292	1440.38	10.20	10.20
5.20	9.00	9.00	0.7211	1440.36	9.94	9.94
5.30	8.80	8.80	0.7136	1440.35	9.69	9.69
5.40	8.60	8.60	0.7063	1440.33	9.46	9.46
5.50	8.40	8.40	0.6994	1440.32	9.23	9.23
5.60	8.20	8.20	0.6926	1440.31	9.01	9.01
5.70	8.10	8.10	0.6863	1440.30	8.81	8.81
5.80	8.00	8.00	0.6807	1440.28	8.64	8.64
5.90	7.80	7.80	0.6752	1440.27	8.48	8.48
6.00	7.70	7.70	0.6699	1440.26	8.31	8.31
6.10	7.50	7.50	0.6647	1440.25	8.15	8.15
6.20	7.40	7.40	0.6595	1440.24	8.00	8.00
6.30	7.30	7.30	0.6547	1440.24	7.85	7.85
6.40	7.10	7.10	0.6500	1440.23	7.71	7.71
6.50	7.00	7.00	0.6451	1440.22	7.56	7.56
6.60	6.90	6.90	0.6407	1440.21	7.42	7.42
6.70	6.80	6.80	0.6365	1440.20	7.29	7.29
6.80	6.80	6.80	0.6328	1440.19	7.19	7.19
6.90	6.70	6.70	0.6295	1440.19	7.10	7.10
7.00	6.60	6.60	0.6262	1440.18	7.00	7.00
7.10	6.60	6.60	0.6232	1440.18	6.92	6.92
7.20	6.50	6.50	0.6205	1440.17	6.84	6.84
7.30	6.40	6.40	0.6176	1440.17	6.76	6.76
7.40	6.30	6.30	0.6146	1440.16	6.67	6.67
7.50	6.30	6.30	0.6118	1440.15	6.60	6.60
7.60	6.20	6.20	0.6093	1440.15	6.52	6.52
7.70	6.10	6.10	0.6065	1440.14	6.44	6.44
7.80	6.10	6.10	0.6040	1440.14	6.37	6.37
7.90	6.00	6.00	0.6016	1440.14	6.30	6.30
8.00	5.90	5.90	0.5989	1440.13	6.23	6.23
8.10	5.90	5.90	0.5965	1440.13	6.16	6.16
8.20	5.80	5.80	0.5942	1440.12	6.10	6.10
8.30	5.70	5.70	0.5916	1440.12	6.02	6.02
8.40	5.60	5.60	0.5889	1440.11	5.94	5.94
8.50	5.60	5.60	0.5863	1440.11	5.87	5.87
8.60	5.50	5.50	0.5839	1440.10	5.80	5.80
8.70	5.40	5.40	0.5813	1440.10	5.73	5.73
8.80	5.40	5.40	0.5788	1440.09	5.67	5.67
8.90	5.30	5.30	0.5764	1440.09	5.61	5.61
9.00	5.20	5.20	0.5738	1440.08	5.54	5.54
9.10	5.20	5.20	0.5713	1440.08	5.47	5.47
9.20	5.10	5.10	0.5689	1440.07	5.41	5.41
9.30	5.10	5.10	0.5665	1440.07	5.35	5.35
9.40	5.00	5.00	0.5643	1440.07	5.29	5.29
9.50	5.00	5.00	0.5621	1440.06	5.23	5.23
9.60	4.90	4.90	0.5600	1440.06	5.18	5.18
9.70	4.90	4.90	0.5579	1440.05	5.12	5.12
9.80	4.80	4.80	0.5559	1440.05	5.07	5.07
9.90	4.80	4.80	0.5539	1440.05	5.02	5.02
10.00	4.70	4.70	0.5519	1440.04	4.97	4.97
10.10	4.70	4.70	0.5499	1440.04	4.91	4.91
10.20	4.60	4.60	0.5479	1440.03	4.86	4.86
10.30	4.60	4.60	0.5459	1440.03	4.81	4.81
10.40	4.50	4.50	0.5440	1440.03	4.76	4.76
10.50	4.40	4.40	0.5417	1440.02	4.70	4.70

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	4.40	4.40	0.5394	1440.02	4.64	4.64
10.70	4.30	4.30	0.5373	1440.01	4.59	4.59
10.80	4.30	4.30	0.5351	1440.01	4.53	4.53
10.90	4.20	4.20	0.5330	1440.01	4.48	4.48
11.00	4.20	4.20	0.5310	1440.00	4.42	4.42
11.10	4.10	4.10	0.5289	1440.00	4.37	4.37
11.20	4.00	4.00	0.5265	1439.99	4.31	4.31
11.30	3.90	3.90	0.5238	1439.99	4.25	4.25
11.40	3.80	3.80	0.5208	1439.98	4.18	4.18
11.50	3.70	3.70	0.5176	1439.98	4.10	4.10
11.60	3.60	3.60	0.5142	1439.97	4.02	4.02
11.70	3.50	3.50	0.5106	1439.96	3.94	3.94
11.80	3.30	3.30	0.5065	1439.96	3.84	3.84
11.90	3.20	3.20	0.5021	1439.95	3.74	3.74
12.00	3.10	3.10	0.4977	1439.94	3.63	3.63
12.10	3.00	3.00	0.4933	1439.93	3.53	3.53
12.20	2.90	2.90	0.4889	1439.92	3.43	3.43
12.30	2.80	2.80	0.4846	1439.91	3.32	3.32
12.40	2.70	2.70	0.4803	1439.91	3.22	3.22
12.50	2.60	2.60	0.4759	1439.90	3.12	3.12
12.60	2.50	2.50	0.4716	1439.89	3.03	3.03
12.70	2.40	2.40	0.4671	1439.88	2.94	2.94
12.80	2.30	2.30	0.4627	1439.87	2.85	2.85
12.90	2.20	2.20	0.4581	1439.86	2.75	2.75
13.00	2.10	2.10	0.4535	1439.86	2.66	2.66
13.10	2.00	2.00	0.4489	1439.85	2.56	2.56
13.20	1.90	1.90	0.4443	1439.84	2.46	2.46
13.30	1.80	1.80	0.4396	1439.83	2.37	2.37
13.40	1.70	1.70	0.4349	1439.82	2.27	2.27
13.50	1.60	1.60	0.4302	1439.81	2.17	2.17
13.60	1.50	1.50	0.4254	1439.80	2.07	2.07
13.70	1.40	1.40	0.4207	1439.79	1.98	1.98
13.80	1.30	1.30	0.4158	1439.78	1.90	1.90
13.90	1.20	1.20	0.4108	1439.78	1.81	1.81
14.00	1.00	1.00	0.4053	1439.77	1.71	1.71
14.10	0.90	0.90	0.3994	1439.75	1.61	1.61
14.20	0.80	0.80	0.3935	1439.74	1.51	1.51
14.30	0.70	0.70	0.3877	1439.73	1.41	1.41
14.40	0.60	0.60	0.3819	1439.72	1.30	1.30
14.50	0.50	0.50	0.3761	1439.71	1.20	1.20
14.60	0.40	0.40	0.3703	1439.70	1.10	1.10
14.70	0.30	0.30	0.3644	1439.69	1.02	1.02
14.80	0.20	0.20	0.3584	1439.68	0.94	0.94
14.90	0.10	0.10	0.3522	1439.66	0.86	0.86
15.00	0.00	0.00	0.3459	1439.65	0.77	0.77

Total Routing Mass Balance Discrepancy is -0.09%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-2\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-2\2_rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	4.50	4.50	0.0000	1439.00	0.000	0.000
Max. Inflow	1.60	147.90	147.90	2.5216	1443.42	96.54	96.54
Max. Outflow	1.80	128.70	128.70	2.9470	1444.08	131.66	131.66
Final	15.00	0.00	0.00	0.3459	1439.65	0.77	0.77

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	5.50	5.50	0.0000	1439.00	0.000	0.000
0.10	6.20	6.20	0.0483	1439.09	0.000	0.000
0.20	6.90	6.90	0.1025	1439.19	0.000	0.000
0.30	7.60	7.60	0.1624	1439.31	0.000	0.000
0.40	8.40	8.40	0.2285	1439.43	0.000	0.000
0.50	9.30	9.30	0.3006	1439.57	0.264	0.264
0.60	10.10	10.10	0.3748	1439.71	1.18	1.18
0.70	11.80	11.80	0.4497	1439.85	2.58	2.58
0.80	13.50	13.50	0.5259	1439.99	4.30	4.30
0.90	15.20	15.20	0.6007	1440.13	6.28	6.28
1.00	19.40	19.40	0.6819	1440.29	8.68	8.68
1.10	28.70	28.70	0.7936	1440.50	12.39	12.39
1.20	48.50	48.50	0.9808	1440.85	19.52	19.52
1.30	81.80	81.80	1.3031	1441.41	32.78	32.78
1.40	124.00	124.00	1.7872	1442.22	55.85	55.85
1.50	160.30	160.30	2.3681	1443.18	87.88	87.88
1.60	178.90	178.90	2.9054	1444.02	121.28	121.28
1.70	173.00	173.00	3.1784	1444.42	164.55	164.55
1.80	155.70	155.70	3.1775	1444.42	164.39	164.39
1.90	131.00	131.00	3.0695	1444.26	148.45	148.45
2.00	106.30	106.30	2.9202	1444.04	124.97	124.97
2.10	89.40	89.40	2.7567	1443.79	110.30	110.30
2.20	72.60	72.60	2.5618	1443.48	98.85	98.85
2.30	62.20	62.20	2.3511	1443.16	86.94	86.94
2.40	51.90	51.90	2.1507	1442.83	75.66	75.66
2.50	45.60	45.60	1.9700	1442.53	65.56	65.56
2.60	39.20	39.20	1.8132	1442.27	57.19	57.19
2.70	35.20	35.20	1.6767	1442.04	50.23	50.23
2.80	31.20	31.20	1.5596	1441.84	44.50	44.50
2.90	28.50	28.50	1.4582	1441.67	39.73	39.73
3.00	25.70	25.70	1.3703	1441.52	35.74	35.74
3.10	24.00	24.00	1.2942	1441.39	32.40	32.40
3.20	22.40	22.40	1.2295	1441.29	29.65	29.65
3.30	20.70	20.70	1.1723	1441.19	27.29	27.29
3.40	19.50	19.50	1.1214	1441.10	25.24	25.24
3.50	18.40	18.40	1.0766	1441.03	23.49	23.49
3.60	17.30	17.30	1.0368	1440.96	21.86	21.86
3.70	16.70	16.70	1.0026	1440.89	20.41	20.41
3.80	16.00	16.00	0.9739	1440.84	19.24	19.24
3.90	15.40	15.40	0.9488	1440.79	18.22	18.22
4.00	14.80	14.80	0.9266	1440.75	17.35	17.35
4.10	14.40	14.40	0.9070	1440.71	16.58	16.58
4.20	14.10	14.10	0.8904	1440.68	15.94	15.94
4.30	13.80	13.80	0.8762	1440.65	15.41	15.41
4.40	13.40	13.40	0.8632	1440.63	14.92	14.92
4.50	13.10	13.10	0.8513	1440.61	14.47	14.47
4.60	12.70	12.70	0.8400	1440.59	14.06	14.06
4.70	12.40	12.40	0.8292	1440.57	13.67	13.67

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	12.10	12.10	0.8190	1440.55	13.30	13.30
4.90	11.70	11.70	0.8090	1440.53	12.94	12.94
5.00	11.40	11.40	0.7990	1440.51	12.58	12.58
5.10	11.10	11.10	0.7894	1440.49	12.24	12.24
5.20	10.90	10.90	0.7804	1440.47	11.93	11.93
5.30	10.60	10.60	0.7719	1440.46	11.64	11.64
5.40	10.40	10.40	0.7636	1440.44	11.36	11.36
5.50	10.10	10.10	0.7556	1440.43	11.08	11.08
5.60	10.00	10.00	0.7481	1440.41	10.83	10.83
5.70	9.80	9.80	0.7414	1440.40	10.60	10.60
5.80	9.60	9.60	0.7349	1440.39	10.38	10.38
5.90	9.50	9.50	0.7288	1440.38	10.19	10.19
6.00	9.30	9.30	0.7231	1440.36	10.00	10.00
6.10	9.10	9.10	0.7172	1440.35	9.81	9.81
6.20	8.90	8.90	0.7113	1440.34	9.62	9.62
6.30	8.80	8.80	0.7057	1440.33	9.44	9.44
6.40	8.60	8.60	0.7003	1440.32	9.26	9.26
6.50	8.40	8.40	0.6948	1440.31	9.08	9.08
6.60	8.40	8.40	0.6898	1440.30	8.92	8.92
6.70	8.30	8.30	0.6856	1440.29	8.79	8.79
6.80	8.20	8.20	0.6816	1440.29	8.67	8.67
6.90	8.10	8.10	0.6778	1440.28	8.55	8.55
7.00	8.00	8.00	0.6741	1440.27	8.44	8.44
7.10	7.90	7.90	0.6705	1440.27	8.33	8.33
7.20	7.80	7.80	0.6669	1440.26	8.22	8.22
7.30	7.80	7.80	0.6638	1440.25	8.13	8.13
7.40	7.70	7.70	0.6611	1440.25	8.04	8.04
7.50	7.60	7.60	0.6582	1440.24	7.96	7.96
7.60	7.50	7.50	0.6552	1440.24	7.87	7.87
7.70	7.40	7.40	0.6521	1440.23	7.77	7.77
7.80	7.30	7.30	0.6490	1440.23	7.68	7.68
7.90	7.30	7.30	0.6463	1440.22	7.59	7.59
8.00	7.20	7.20	0.6437	1440.22	7.52	7.52
8.10	7.10	7.10	0.6410	1440.21	7.43	7.43
8.20	7.00	7.00	0.6382	1440.20	7.35	7.35
8.30	6.90	6.90	0.6353	1440.20	7.26	7.26
8.40	6.80	6.80	0.6322	1440.19	7.17	7.17
8.50	6.80	6.80	0.6295	1440.19	7.10	7.10
8.60	6.70	6.70	0.6269	1440.18	7.02	7.02
8.70	6.60	6.60	0.6242	1440.18	6.95	6.95
8.80	6.50	6.50	0.6212	1440.17	6.86	6.86
8.90	6.40	6.40	0.6182	1440.17	6.78	6.78
9.00	6.30	6.30	0.6150	1440.16	6.69	6.69
9.10	6.30	6.30	0.6122	1440.16	6.61	6.61
9.20	6.20	6.20	0.6095	1440.15	6.53	6.53
9.30	6.10	6.10	0.6067	1440.15	6.45	6.45
9.40	6.10	6.10	0.6041	1440.14	6.38	6.38
9.50	6.00	6.00	0.6017	1440.14	6.31	6.31
9.60	5.90	5.90	0.5991	1440.13	6.23	6.23
9.70	5.90	5.90	0.5966	1440.13	6.16	6.16
9.80	5.80	5.80	0.5943	1440.12	6.10	6.10
9.90	5.80	5.80	0.5921	1440.12	6.04	6.04
10.00	5.70	5.70	0.5900	1440.11	5.98	5.98
10.10	5.60	5.60	0.5876	1440.11	5.91	5.91
10.20	5.60	5.60	0.5853	1440.10	5.84	5.84
10.30	5.50	5.50	0.5831	1440.10	5.78	5.78
10.40	5.40	5.40	0.5806	1440.10	5.72	5.72
10.50	5.40	5.40	0.5783	1440.09	5.66	5.66

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	5.30	5.30	0.5760	1440.09	5.60	5.60
10.70	5.30	5.30	0.5738	1440.08	5.54	5.54
10.80	5.20	5.20	0.5717	1440.08	5.48	5.48
10.90	5.10	5.10	0.5692	1440.07	5.42	5.42
11.00	5.10	5.10	0.5668	1440.07	5.36	5.36
11.10	4.90	4.90	0.5642	1440.06	5.29	5.29
11.20	4.80	4.80	0.5609	1440.06	5.20	5.20
11.30	4.70	4.70	0.5575	1440.05	5.11	5.11
11.40	4.60	4.60	0.5541	1440.05	5.02	5.02
11.50	4.40	4.40	0.5502	1440.04	4.92	4.92
11.60	4.30	4.30	0.5459	1440.03	4.81	4.81
11.70	4.20	4.20	0.5417	1440.02	4.70	4.70
11.80	4.10	4.10	0.5376	1440.01	4.59	4.59
11.90	3.90	3.90	0.5332	1440.01	4.48	4.48
12.00	3.80	3.80	0.5285	1440.00	4.36	4.36
12.10	3.70	3.70	0.5239	1439.99	4.25	4.25
12.20	3.50	3.50	0.5190	1439.98	4.14	4.14
12.30	3.40	3.40	0.5138	1439.97	4.01	4.01
12.40	3.30	3.30	0.5088	1439.96	3.90	3.90
12.50	3.20	3.20	0.5039	1439.95	3.78	3.78
12.60	3.00	3.00	0.4988	1439.94	3.66	3.66
12.70	2.90	2.90	0.4935	1439.93	3.53	3.53
12.80	2.80	2.80	0.4883	1439.92	3.41	3.41
12.90	2.70	2.70	0.4833	1439.91	3.29	3.29
13.00	2.50	2.50	0.4781	1439.90	3.17	3.17
13.10	2.40	2.40	0.4726	1439.89	3.05	3.05
13.20	2.30	2.30	0.4673	1439.88	2.94	2.94
13.30	2.20	2.20	0.4620	1439.87	2.83	2.83
13.40	2.00	2.00	0.4564	1439.86	2.72	2.72
13.50	1.90	1.90	0.4506	1439.85	2.60	2.60
13.60	1.80	1.80	0.4449	1439.84	2.48	2.48
13.70	1.60	1.60	0.4390	1439.83	2.35	2.35
13.80	1.50	1.50	0.4329	1439.82	2.23	2.23
13.90	1.40	1.40	0.4269	1439.81	2.10	2.10
14.00	1.30	1.30	0.4212	1439.80	1.99	1.99
14.10	1.10	1.10	0.4151	1439.78	1.89	1.89
14.20	1.00	1.00	0.4086	1439.77	1.77	1.77
14.30	0.90	0.90	0.4023	1439.76	1.66	1.66
14.40	0.80	0.80	0.3960	1439.75	1.55	1.55
14.50	0.60	0.60	0.3895	1439.74	1.44	1.44
14.60	0.50	0.50	0.3826	1439.72	1.32	1.32
14.70	0.40	0.40	0.3760	1439.71	1.20	1.20
14.80	0.30	0.30	0.3694	1439.70	1.09	1.09
14.90	0.10	0.10	0.3624	1439.68	1.00	1.00
15.00	0.00	0.00	0.3550	1439.67	0.90	0.90

Total Routing Mass Balance Discrepancy is -0.09%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	5.50	5.50	0.0000	1439.00	0.000	0.000
Max. Inflow	1.60	178.90	178.90	2.9054	1444.02	121.28	121.28
Max. Outflow	1.70	173.00	173.00	3.1784	1444.42	164.55	164.55
Max. Elev.	1.80	155.70	155.70	3.1775	1444.42	164.39	164.39
Final	15.00	0.00	0.00	0.3550	1439.67	0.90	0.90

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	6.20	6.20	0.0000	1439.00	0.000	0.000
0.10	7.00	7.00	0.0545	1439.10	0.000	0.000
0.20	7.80	7.80	0.1157	1439.22	0.000	0.000
0.30	8.60	8.60	0.1835	1439.35	0.000	0.000
0.40	9.60	9.60	0.2587	1439.49	0.000	0.000
0.50	10.50	10.50	0.3389	1439.64	0.68	0.68
0.60	11.50	11.50	0.4190	1439.79	1.95	1.95
0.70	13.40	13.40	0.4987	1439.94	3.66	3.66
0.80	15.30	15.30	0.5787	1440.09	5.67	5.67
0.90	17.20	17.20	0.6569	1440.24	7.92	7.92
1.00	22.00	22.00	0.7423	1440.40	10.62	10.62
1.10	32.50	32.50	0.8621	1440.63	14.88	14.88
1.20	54.90	54.90	1.0664	1441.01	23.09	23.09
1.30	92.70	92.70	1.4233	1441.61	38.13	38.13
1.40	140.50	140.50	1.9606	1442.51	65.05	65.05
1.50	181.50	181.50	2.6039	1443.55	101.29	101.29
1.60	202.60	202.60	3.1259	1444.34	156.47	156.47
1.70	195.90	195.90	3.3338	1444.65	191.72	191.72
1.80	176.30	176.30	3.3077	1444.61	186.80	186.80
1.90	148.30	148.30	3.1896	1444.44	166.38	166.38
2.00	120.40	120.40	3.0237	1444.19	142.46	142.46
2.10	101.30	101.30	2.8676	1443.96	117.01	117.01
2.20	82.20	82.20	2.7004	1443.70	106.95	106.95
2.30	70.50	70.50	2.4965	1443.38	95.10	95.10
2.40	58.80	58.80	2.2919	1443.07	83.69	83.69
2.50	51.60	51.60	2.1013	1442.75	72.85	72.85
2.60	44.40	44.40	1.9341	1442.47	63.61	63.61
2.70	39.90	39.90	1.7885	1442.22	55.91	55.91
2.80	35.40	35.40	1.6637	1442.02	49.58	49.58
2.90	32.20	32.20	1.5552	1441.83	44.29	44.29
3.00	29.10	29.10	1.4608	1441.67	39.85	39.85
3.10	27.20	27.20	1.3794	1441.54	36.15	36.15
3.20	25.30	25.30	1.3102	1441.42	33.10	33.10
3.30	23.40	23.40	1.2488	1441.32	30.46	30.46
3.40	22.10	22.10	1.1944	1441.23	28.20	28.20
3.50	20.90	20.90	1.1470	1441.15	26.27	26.27
3.60	19.60	19.60	1.1043	1441.07	24.57	24.57
3.70	18.90	18.90	1.0664	1441.01	23.09	23.09
3.80	18.20	18.20	1.0344	1440.95	21.76	21.76
3.90	17.40	17.40	1.0066	1440.90	20.58	20.58
4.00	16.70	16.70	0.9816	1440.85	19.56	19.56
4.10	16.30	16.30	0.9600	1440.81	18.67	18.67
4.20	16.00	16.00	0.9421	1440.78	17.96	17.96
4.30	15.60	15.60	0.9268	1440.75	17.36	17.36
4.40	15.20	15.20	0.9128	1440.72	16.81	16.81
4.50	14.80	14.80	0.9000	1440.70	16.30	16.30
4.60	14.40	14.40	0.8878	1440.68	15.84	15.84
4.70	14.00	14.00	0.8760	1440.65	15.40	15.40

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	13.70	13.70	0.8649	1440.63	14.98	14.98
4.90	13.30	13.30	0.8543	1440.61	14.58	14.58
5.00	12.90	12.90	0.8437	1440.59	14.19	14.19
5.10	12.60	12.60	0.8334	1440.57	13.82	13.82
5.20	12.30	12.30	0.8235	1440.55	13.46	13.46
5.30	12.00	12.00	0.8141	1440.54	13.12	13.12
5.40	11.80	11.80	0.8053	1440.52	12.80	12.80
5.50	11.50	11.50	0.7970	1440.50	12.51	12.51
5.60	11.30	11.30	0.7890	1440.49	12.23	12.23
5.70	11.10	11.10	0.7816	1440.48	11.97	11.97
5.80	10.90	10.90	0.7745	1440.46	11.73	11.73
5.90	10.70	10.70	0.7678	1440.45	11.50	11.50
6.00	10.50	10.50	0.7613	1440.44	11.28	11.28
6.10	10.30	10.30	0.7549	1440.42	11.06	11.06
6.20	10.10	10.10	0.7487	1440.41	10.85	10.85
6.30	9.90	9.90	0.7426	1440.40	10.64	10.64
6.40	9.70	9.70	0.7365	1440.39	10.44	10.44
6.50	9.60	9.60	0.7308	1440.38	10.25	10.25
6.60	9.50	9.50	0.7257	1440.37	10.09	10.09
6.70	9.40	9.40	0.7210	1440.36	9.94	9.94
6.80	9.30	9.30	0.7168	1440.35	9.80	9.80
6.90	9.20	9.20	0.7128	1440.35	9.67	9.67
7.00	9.10	9.10	0.7090	1440.34	9.55	9.55
7.10	9.00	9.00	0.7054	1440.33	9.43	9.43
7.20	8.90	8.90	0.7019	1440.32	9.32	9.32
7.30	8.80	8.80	0.6985	1440.32	9.21	9.21
7.40	8.70	8.70	0.6952	1440.31	9.10	9.10
7.50	8.60	8.60	0.6920	1440.31	8.99	8.99
7.60	8.50	8.50	0.6887	1440.30	8.89	8.89
7.70	8.40	8.40	0.6855	1440.29	8.79	8.79
7.80	8.30	8.30	0.6823	1440.29	8.69	8.69
7.90	8.20	8.20	0.6790	1440.28	8.59	8.59
8.00	8.10	8.10	0.6758	1440.28	8.49	8.49
8.10	8.00	8.00	0.6725	1440.27	8.39	8.39
8.20	7.90	7.90	0.6693	1440.26	8.30	8.30
8.30	7.80	7.80	0.6660	1440.26	8.20	8.20
8.40	7.70	7.70	0.6627	1440.25	8.10	8.10
8.50	7.60	7.60	0.6595	1440.24	8.00	8.00
8.60	7.50	7.50	0.6562	1440.24	7.90	7.90
8.70	7.50	7.50	0.6533	1440.23	7.81	7.81
8.80	7.40	7.40	0.6507	1440.23	7.73	7.73
8.90	7.30	7.30	0.6479	1440.22	7.64	7.64
9.00	7.20	7.20	0.6450	1440.22	7.56	7.56
9.10	7.10	7.10	0.6420	1440.21	7.46	7.46
9.20	7.00	7.00	0.6390	1440.21	7.37	7.37
9.30	7.00	7.00	0.6363	1440.20	7.29	7.29
9.40	6.90	6.90	0.6337	1440.20	7.22	7.22
9.50	6.80	6.80	0.6310	1440.19	7.14	7.14
9.60	6.70	6.70	0.6281	1440.19	7.06	7.06
9.70	6.70	6.70	0.6255	1440.18	6.98	6.98
9.80	6.60	6.60	0.6230	1440.18	6.91	6.91
9.90	6.50	6.50	0.6203	1440.17	6.84	6.84
10.00	6.40	6.40	0.6175	1440.17	6.76	6.76
10.10	6.40	6.40	0.6148	1440.16	6.68	6.68
10.20	6.30	6.30	0.6124	1440.16	6.61	6.61
10.30	6.20	6.20	0.6097	1440.15	6.54	6.54
10.40	6.20	6.20	0.6072	1440.15	6.47	6.47
10.50	6.10	6.10	0.6049	1440.14	6.40	6.40

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	6.00	6.00	0.6023	1440.14	6.33	6.33
10.70	5.90	5.90	0.5995	1440.13	6.25	6.25
10.80	5.90	5.90	0.5970	1440.13	6.17	6.17
10.90	5.80	5.80	0.5946	1440.12	6.11	6.11
11.00	5.70	5.70	0.5919	1440.12	6.03	6.03
11.10	5.60	5.60	0.5891	1440.11	5.95	5.95
11.20	5.40	5.40	0.5858	1440.11	5.86	5.86
11.30	5.30	5.30	0.5820	1440.10	5.75	5.75
11.40	5.20	5.20	0.5783	1440.09	5.65	5.65
11.50	5.00	5.00	0.5741	1440.08	5.55	5.55
11.60	4.90	4.90	0.5697	1440.08	5.43	5.43
11.70	4.70	4.70	0.5650	1440.07	5.31	5.31
11.80	4.60	4.60	0.5601	1440.06	5.18	5.18
11.90	4.40	4.40	0.5550	1440.05	5.05	5.05
12.00	4.30	4.30	0.5498	1440.04	4.91	4.91
12.10	4.20	4.20	0.5448	1440.03	4.78	4.78
12.20	4.00	4.00	0.5398	1440.02	4.65	4.65
12.30	3.90	3.90	0.5345	1440.01	4.51	4.51
12.40	3.70	3.70	0.5292	1440.00	4.38	4.38
12.50	3.60	3.60	0.5237	1439.99	4.25	4.25
12.60	3.40	3.40	0.5181	1439.98	4.11	4.11
12.70	3.30	3.30	0.5123	1439.97	3.98	3.98
12.80	3.20	3.20	0.5068	1439.96	3.85	3.85
12.90	3.00	3.00	0.5012	1439.95	3.72	3.72
13.00	2.90	2.90	0.4954	1439.94	3.58	3.58
13.10	2.70	2.70	0.4896	1439.92	3.44	3.44
13.20	2.60	2.60	0.4836	1439.91	3.30	3.30
13.30	2.40	2.40	0.4776	1439.90	3.16	3.16
13.40	2.30	2.30	0.4714	1439.89	3.03	3.03
13.50	2.10	2.10	0.4651	1439.88	2.90	2.90
13.60	2.00	2.00	0.4587	1439.87	2.76	2.76
13.70	1.90	1.90	0.4525	1439.85	2.63	2.63
13.80	1.70	1.70	0.4461	1439.84	2.50	2.50
13.90	1.60	1.60	0.4396	1439.83	2.37	2.37
14.00	1.40	1.40	0.4330	1439.82	2.23	2.23
14.10	1.30	1.30	0.4263	1439.80	2.09	2.09
14.20	1.10	1.10	0.4195	1439.79	1.96	1.96
14.30	1.00	1.00	0.4124	1439.78	1.84	1.84
14.40	0.90	0.90	0.4056	1439.77	1.72	1.72
14.50	0.70	0.70	0.3985	1439.75	1.60	1.60
14.60	0.60	0.60	0.3912	1439.74	1.47	1.47
14.70	0.40	0.40	0.3838	1439.72	1.34	1.34
14.80	0.30	0.30	0.3762	1439.71	1.20	1.20
14.90	0.10	0.10	0.3684	1439.70	1.08	1.08
15.00	0.00	0.00	0.3604	1439.68	0.97	0.97

Total Routing Mass Balance Discrepancy is -0.09%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\2_rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	6.20	6.20	0.0000	1439.00	0.000	0.000
Max. Inflow	1.60	202.60	202.60	3.1259	1444.34	156.47	156.47
Max. Outflow	1.70	195.90	195.90	3.3338	1444.65	191.72	191.72
Final	15.00	0.00	0.00	0.3604	1439.68	0.97	0.97

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\IBASINS\BASIN I-2\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\IBASINS\BASIN I-2\rev_to_topberm.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\IBASINS\BASIN I-2\I-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	7.30	7.30	0.0000	1439.00	0.000	0.000
0.10	8.30	8.30	0.0645	1439.12	0.000	0.000
0.20	9.20	9.20	0.1368	1439.26	0.000	0.000
0.30	10.10	10.10	0.2165	1439.41	0.000	0.000
0.40	11.30	11.30	0.3038	1439.57	0.287	0.287
0.50	12.40	12.40	0.3942	1439.74	1.52	1.52
0.60	13.50	13.50	0.4815	1439.91	3.25	3.25
0.70	15.80	15.80	0.5670	1440.07	5.36	5.36
0.80	18.00	18.00	0.6524	1440.23	7.78	7.78
0.90	20.30	20.30	0.7355	1440.39	10.40	10.40
1.00	25.90	25.90	0.8272	1440.56	13.60	13.60
1.10	38.30	38.30	0.9593	1440.81	18.64	18.64
1.20	64.70	64.70	1.1918	1441.22	28.09	28.09
1.30	109.20	109.20	1.6020	1441.91	46.54	46.54
1.40	165.40	165.40	2.2161	1442.94	79.44	79.44
1.50	213.80	213.80	2.9292	1444.05	127.21	127.21
1.60	238.60	238.60	3.4153	1444.77	207.55	207.55
1.70	230.70	230.70	3.5353	1444.95	232.70	232.70
1.80	207.70	207.70	3.4761	1444.86	220.04	220.04
1.90	174.70	174.70	3.3456	1444.67	193.94	193.94
2.00	141.80	141.80	3.1747	1444.41	163.93	163.93
2.10	119.30	119.30	2.9991	1444.15	139.67	139.67
2.20	96.80	96.80	2.8387	1443.91	115.25	115.25
2.30	83.00	83.00	2.6707	1443.65	105.20	105.20
2.40	69.20	69.20	2.4766	1443.35	93.97	93.97
2.50	60.80	60.80	2.2819	1443.05	83.15	83.15
2.60	52.30	52.30	2.1040	1442.76	73.01	73.01
2.70	47.00	47.00	1.9469	1442.49	64.30	64.30
2.80	41.60	41.60	1.8114	1442.26	57.10	57.10
2.90	38.00	38.00	1.6933	1442.06	51.06	51.06
3.00	34.30	34.30	1.5910	1441.89	46.01	46.01
3.10	32.10	32.10	1.5025	1441.74	41.79	41.79
3.20	29.80	29.80	1.4273	1441.62	38.31	38.31
3.30	27.60	27.60	1.3604	1441.51	35.29	35.29
3.40	26.10	26.10	1.3013	1441.41	32.70	32.70
3.50	24.60	24.60	1.2496	1441.32	30.50	30.50
3.60	23.10	23.10	1.2027	1441.24	28.54	28.54
3.70	22.20	22.20	1.1611	1441.17	26.84	26.84
3.80	21.40	21.40	1.1254	1441.11	25.40	25.40
3.90	20.50	20.50	1.0938	1441.06	24.16	24.16
4.00	19.70	19.70	1.0649	1441.01	23.03	23.03
4.10	19.20	19.20	1.0396	1440.96	21.98	21.98
4.20	18.80	18.80	1.0187	1440.92	21.09	21.09
4.30	18.30	18.30	1.0008	1440.89	20.34	20.34
4.40	17.90	17.90	0.9849	1440.86	19.69	19.69
4.50	17.40	17.40	0.9705	1440.83	19.10	19.10
4.60	17.00	17.00	0.9570	1440.81	18.55	18.55
4.70	16.50	16.50	0.9443	1440.78	18.04	18.04

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	16.10	16.10	0.9318	1440.76	17.56	17.56
4.90	15.60	15.60	0.9197	1440.74	17.08	17.08
5.00	15.20	15.20	0.9078	1440.71	16.61	16.61
5.10	14.90	14.90	0.8967	1440.69	16.18	16.18
5.20	14.50	14.50	0.8861	1440.67	15.78	15.78
5.30	14.20	14.20	0.8759	1440.65	15.39	15.39
5.40	13.80	13.80	0.8659	1440.63	15.02	15.02
5.50	13.50	13.50	0.8561	1440.62	14.65	14.65
5.60	13.30	13.30	0.8472	1440.60	14.31	14.31
5.70	13.10	13.10	0.8392	1440.58	14.02	14.02
5.80	12.80	12.80	0.8314	1440.57	13.75	13.75
5.90	12.60	12.60	0.8239	1440.56	13.47	13.47
6.00	12.40	12.40	0.8169	1440.54	13.22	13.22
6.10	12.20	12.20	0.8103	1440.53	12.98	12.98
6.20	11.90	11.90	0.8035	1440.52	12.74	12.74
6.30	11.70	11.70	0.7968	1440.50	12.50	12.50
6.40	11.50	11.50	0.7903	1440.49	12.27	12.27
6.50	11.30	11.30	0.7840	1440.48	12.06	12.06
6.60	11.10	11.10	0.7778	1440.47	11.84	11.84
6.70	11.00	11.00	0.7721	1440.46	11.65	11.65
6.80	10.90	10.90	0.7670	1440.45	11.47	11.47
6.90	10.80	10.80	0.7625	1440.44	11.32	11.32
7.00	10.70	10.70	0.7584	1440.43	11.18	11.18
7.10	10.60	10.60	0.7546	1440.42	11.05	11.05
7.20	10.50	10.50	0.7510	1440.42	10.92	10.92
7.30	10.40	10.40	0.7476	1440.41	10.81	10.81
7.40	10.20	10.20	0.7439	1440.40	10.68	10.68
7.50	10.10	10.10	0.7400	1440.40	10.55	10.55
7.60	10.00	10.00	0.7364	1440.39	10.43	10.43
7.70	9.90	9.90	0.7329	1440.38	10.32	10.32
7.80	9.80	9.80	0.7295	1440.38	10.21	10.21
7.90	9.70	9.70	0.7261	1440.37	10.10	10.10
8.00	9.60	9.60	0.7228	1440.36	9.99	9.99
8.10	9.50	9.50	0.7196	1440.36	9.89	9.89
8.20	9.30	9.30	0.7160	1440.35	9.77	9.77
8.30	9.20	9.20	0.7122	1440.34	9.65	9.65
8.40	9.10	9.10	0.7086	1440.34	9.53	9.53
8.50	9.00	9.00	0.7051	1440.33	9.42	9.42
8.60	8.90	8.90	0.7017	1440.32	9.31	9.31
8.70	8.80	8.80	0.6983	1440.32	9.20	9.20
8.80	8.70	8.70	0.6951	1440.31	9.09	9.09
8.90	8.60	8.60	0.6918	1440.31	8.99	8.99
9.00	8.40	8.40	0.6883	1440.30	8.87	8.87
9.10	8.40	8.40	0.6848	1440.29	8.77	8.77
9.20	8.30	8.30	0.6817	1440.29	8.67	8.67
9.30	8.20	8.20	0.6786	1440.28	8.58	8.58
9.40	8.10	8.10	0.6755	1440.27	8.48	8.48
9.50	8.00	8.00	0.6723	1440.27	8.39	8.39
9.60	7.90	7.90	0.6691	1440.26	8.29	8.29
9.70	7.90	7.90	0.6662	1440.26	8.20	8.20
9.80	7.80	7.80	0.6636	1440.25	8.12	8.12
9.90	7.70	7.70	0.6609	1440.25	8.04	8.04
10.00	7.60	7.60	0.6580	1440.24	7.95	7.95
10.10	7.50	7.50	0.6551	1440.24	7.86	7.86
10.20	7.40	7.40	0.6521	1440.23	7.77	7.77
10.30	7.30	7.30	0.6490	1440.22	7.68	7.68
10.40	7.30	7.30	0.6462	1440.22	7.59	7.59
10.50	7.20	7.20	0.6437	1440.21	7.52	7.52

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	7.10	7.10	0.6410	1440.21	7.43	7.43
10.70	7.00	7.00	0.6382	1440.20	7.35	7.35
10.80	6.90	6.90	0.6353	1440.20	7.26	7.26
10.90	6.80	6.80	0.6322	1440.19	7.17	7.17
11.00	6.80	6.80	0.6295	1440.19	7.10	7.10
11.10	6.60	6.60	0.6265	1440.18	7.01	7.01
11.20	6.40	6.40	0.6227	1440.18	6.91	6.91
11.30	6.20	6.20	0.6183	1440.17	6.78	6.78
11.40	6.10	6.10	0.6136	1440.16	6.65	6.65
11.50	5.90	5.90	0.6088	1440.15	6.51	6.51
11.60	5.70	5.70	0.6036	1440.14	6.36	6.36
11.70	5.60	5.60	0.5983	1440.13	6.21	6.21
11.80	5.40	5.40	0.5930	1440.12	6.06	6.06
11.90	5.20	5.20	0.5874	1440.11	5.90	5.90
12.00	5.10	5.10	0.5818	1440.10	5.75	5.75
12.10	4.90	4.90	0.5762	1440.09	5.60	5.60
12.20	4.70	4.70	0.5703	1440.08	5.45	5.45
12.30	4.60	4.60	0.5643	1440.07	5.29	5.29
12.40	4.40	4.40	0.5584	1440.05	5.14	5.14
12.50	4.20	4.20	0.5522	1440.04	4.97	4.97
12.60	4.10	4.10	0.5460	1440.03	4.81	4.81
12.70	3.90	3.90	0.5400	1440.02	4.66	4.66
12.80	3.70	3.70	0.5336	1440.01	4.49	4.49
12.90	3.50	3.50	0.5269	1439.99	4.32	4.32
13.00	3.40	3.40	0.5203	1439.98	4.17	4.17
13.10	3.20	3.20	0.5138	1439.97	4.01	4.01
13.20	3.00	3.00	0.5069	1439.96	3.85	3.85
13.30	2.90	2.90	0.5001	1439.94	3.69	3.69
13.40	2.70	2.70	0.4934	1439.93	3.53	3.53
13.50	2.50	2.50	0.4864	1439.92	3.37	3.37
13.60	2.40	2.40	0.4795	1439.91	3.20	3.20
13.70	2.20	2.20	0.4726	1439.89	3.05	3.05
13.80	2.00	2.00	0.4654	1439.88	2.90	2.90
13.90	1.90	1.90	0.4581	1439.86	2.75	2.75
14.00	1.70	1.70	0.4509	1439.85	2.60	2.60
14.10	1.50	1.50	0.4433	1439.84	2.44	2.44
14.20	1.40	1.40	0.4357	1439.82	2.29	2.29
14.30	1.20	1.20	0.4282	1439.81	2.13	2.13
14.40	1.00	1.00	0.4203	1439.79	1.98	1.98
14.50	0.80	0.80	0.4120	1439.78	1.83	1.83
14.60	0.70	0.70	0.4037	1439.76	1.69	1.69
14.70	0.50	0.50	0.3953	1439.75	1.54	1.54
14.80	0.30	0.30	0.3865	1439.73	1.38	1.38
14.90	0.20	0.20	0.3778	1439.71	1.23	1.23
15.00	0.00	0.00	0.3690	1439.70	1.09	1.09

Total Routing Mass Balance Discrepancy is -0.09%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\2_rev_to_topberm.E
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI\BASINS\BASIN I-2\1-2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1439.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	7.30	7.30	0.0000	1439.00	0.000	0.000
Max. Inflow	1.60	238.60	238.60	3.4153	1444.77	207.55	207.55
Max. Outflow	1.70	230.70	230.70	3.5353	1444.95	232.70	232.70
Final	15.00	0.00	0.00	0.3690	1439.70	1.09	1.09

SCS Segmental Travel Time

Summary for From Basin I-2 to POI

Segment 1: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 135 ft, S = .05 ft/ft, n = .035
Travel Time = 0.2 minutes

Segment 2: Overland Flow

L = 100 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 20.2 minutes

Segment 3: Concentrated Flow

L = 1280 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 9.3 minutes

Total Travel Time = 29.75 Minutes

POST
DETENTION TO BASIN I-3

BRINKASH

ASSOCIATES, INC.
SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

POST AREA I

DETENTION BASIN I-3

DRAINAGE AREA = 1.42 ac

$T_c = 5 \text{ min}$

Channel $A = 18$ $WP = 9.4$ $n = .035$

$CN_j = 94.45$

$$CN_w = \frac{98(0.58 \text{ ac}) + 92(0.84 \text{ ac})}{1.42} = 94.45$$

POST TO BASIN

ROUTED

$Q_1 = 5.4 \text{ cfs}$

$Q_1 = .71 \text{ cfs}$

$Q_2 = 6.7 \text{ cfs}$

$Q_2 = 1.28 \text{ cfs}$

$Q_{10} = 11.3 \text{ cfs}$

$Q_{10} = 3.28 \text{ cfs}$

$Q_{25} = 13.1 \text{ cfs}$

$Q_{25} = 3.78 \text{ cfs}$

$Q_{50} = 14.4 \text{ cfs}$

$Q_{50} = 4.07 \text{ cfs}$

$Q_{100} = 16.4 \text{ cfs}$

$Q_{100} = 4.50 \text{ cfs}$

TRAVEL TIME TO POI.

610' CHANNEL $A = 18$ $WP = 9.4$ $n = .035$ @ 6%
150' OVERLAND @ 2%
1279' CONCENTRATED @ 2%

$T_t = 38.04 \text{ minutes}$

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1.420	94	0.100	2.39	5.000	6.000	0.000	0.000
Composite	1.420	94		2.39				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	2	3	1	0	0	0	0	0	0	0	0
Composite	0	2	3	1	0	0	0	0	0	0	0	0

The peak flow is 5.4 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1.420	94	0.100	2.98	5.000	6.000	0.000	0.000
Composite	1.420	94		2.98				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	2	4	1	1	0	0	0	0	0	0	0
Composite	0	2	4	1	1	0	0	0	0	0	0	0

The peak flow is 6.7 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1.420	94	0.100	5.05	5.000	6.000	0.000	0.000
Composite	1.420	94		5.05				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	4	7	1	1	1	1	0	0	0	0	0
Composite	0	4	7	1	1	1	1	0	0	0	0	0

The peak flow is 11.3 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1.420	94	0.100	5.84	5.000	6.000	0.000	0.000
Composite	1.420	94		5.84				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	4	8	2	1	1	1	0	0	0	0	0
Composite	0	4	8	2	1	1	1	0	0	0	0	0

The peak flow is 13.1 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1.420	94	0.100	6.44	5.000	6.000	0.000	0.000
Composite	1.420	94		6.44				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	5	9	2	1	1	1	1	0	0	0	0
Composite	0	5	9	2	1	1	1	1	0	0	0	0

The peak flow is 14.4 cfs at 12.1 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	1.420	94	0.100	7.34	5.000	6.000	0.000	0.000
Composite	1.420	94		7.34				

SCS TR55 Tabular Method

Watershed Title: Post to Basin I-3

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	5	10	2	1	1	1	1	0	0	0	0
Composite	0	5	10	2	1	1	1	1	0	0	0	0

The peak flow is 16.4 cfs at 12.1 hrs.

BASIN I-3

Basin Storage/Elevation Input

Elevation (ft)	Area (acres)	Storage (acre-ft)
1481	.13	0.000
1483	.16	0.290
1484	.17	0.455

Project Files:

Outlet Structure Configuration: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.OSC
Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Outlet Structure Configuration for:

Stage 1: Circular Orifice

Invert Elevation = 1481.5 feet

Diameter = 1 feet

Discharge Coefficient = 0.6

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1481.00	0.00	N/A	N/A	N/A	N/A
1481.10	0.00	N/A	N/A	N/A	N/A
1481.20	0.00	N/A	N/A	N/A	N/A
1481.30	0.00	N/A	N/A	N/A	N/A
1481.40	0.00	N/A	N/A	N/A	N/A
1481.50	0.00	N/A	N/A	N/A	N/A
1481.60	0.03	N/A	N/A	N/A	N/A
1481.70	0.13	N/A	N/A	N/A	N/A
1481.80	0.28	N/A	N/A	N/A	N/A
1481.90	0.48	N/A	N/A	N/A	N/A
1482.00	0.73	N/A	N/A	N/A	N/A
1482.10	1.03	N/A	N/A	N/A	N/A
1482.20	1.38	N/A	N/A	N/A	N/A
1482.30	1.78	N/A	N/A	N/A	N/A
1482.40	2.13	N/A	N/A	N/A	N/A
1482.50	2.50	N/A	N/A	N/A	N/A
1482.60	2.93	N/A	N/A	N/A	N/A
1482.70	3.16	N/A	N/A	N/A	N/A
1482.80	3.38	N/A	N/A	N/A	N/A
1482.90	3.59	N/A	N/A	N/A	N/A
1483.00	3.78	N/A	N/A	N/A	N/A
1483.10	3.97	N/A	N/A	N/A	N/A
1483.20	4.14	N/A	N/A	N/A	N/A
1483.30	4.31	N/A	N/A	N/A	N/A
1483.40	4.47	N/A	N/A	N/A	N/A
1483.50	4.63	N/A	N/A	N/A	N/A
1483.60	4.78	N/A	N/A	N/A	N/A
1483.70	4.93	N/A	N/A	N/A	N/A
1483.80	5.07	N/A	N/A	N/A	N/A
1483.90	5.21	N/A	N/A	N/A	N/A
1484.00	5.35	N/A	N/A	N/A	N/A

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.10	0.10	0.0000	1481.00	0.000	0.000
0.10	0.10	0.10	0.0008	1481.01	0.000	0.000
0.20	0.20	0.20	0.0021	1481.01	0.000	0.000
0.30	0.20	0.20	0.0037	1481.03	0.000	0.000
0.40	0.20	0.20	0.0054	1481.04	0.000	0.000
0.50	0.20	0.20	0.0070	1481.05	0.000	0.000
0.60	0.30	0.30	0.0091	1481.06	0.000	0.000
0.70	0.80	0.80	0.0136	1481.09	0.000	0.000
0.80	1.30	1.30	0.0223	1481.15	0.000	0.000
0.90	1.80	1.80	0.0351	1481.24	0.000	0.000
1.00	3.40	3.40	0.0566	1481.39	0.000	0.000
1.10	5.40	5.40	0.0927	1481.64	0.071	0.071
1.20	3.30	3.30	0.1266	1481.87	0.424	0.424
1.30	1.20	1.20	0.1407	1481.97	0.66	0.66
1.40	0.80	0.80	0.1434	1481.99	0.70	0.70
1.50	0.70	0.70	0.1437	1481.99	0.71	0.71
1.60	0.60	0.60	0.1433	1481.99	0.70	0.70
1.70	0.50	0.50	0.1421	1481.98	0.68	0.68
1.80	0.40	0.40	0.1404	1481.97	0.65	0.65
1.90	0.40	0.40	0.1384	1481.96	0.62	0.62
2.00	0.40	0.40	0.1368	1481.94	0.59	0.59
2.10	0.30	0.30	0.1349	1481.93	0.56	0.56
2.20	0.30	0.30	0.1330	1481.92	0.52	0.52
2.30	0.30	0.30	0.1313	1481.91	0.491	0.491
2.40	0.30	0.30	0.1298	1481.90	0.468	0.468
2.50	0.30	0.30	0.1285	1481.89	0.450	0.450
2.60	0.20	0.20	0.1269	1481.88	0.428	0.428
2.70	0.20	0.20	0.1251	1481.86	0.404	0.404
2.80	0.20	0.20	0.1235	1481.85	0.381	0.381
2.90	0.20	0.20	0.1221	1481.84	0.362	0.362
3.00	0.20	0.20	0.1209	1481.83	0.344	0.344
3.10	0.20	0.20	0.1197	1481.83	0.329	0.329
3.20	0.20	0.20	0.1187	1481.82	0.315	0.315
3.30	0.20	0.20	0.1178	1481.81	0.302	0.302
3.40	0.20	0.20	0.1170	1481.81	0.291	0.291
3.50	0.20	0.20	0.1163	1481.80	0.281	0.281
3.60	0.20	0.20	0.1157	1481.80	0.274	0.274
3.70	0.20	0.20	0.1151	1481.79	0.268	0.268
3.80	0.20	0.20	0.1146	1481.79	0.262	0.262
3.90	0.20	0.20	0.1141	1481.79	0.257	0.257
4.00	0.20	0.20	0.1136	1481.78	0.252	0.252
4.10	0.20	0.20	0.1132	1481.78	0.248	0.248
4.20	0.10	0.10	0.1124	1481.78	0.240	0.240
4.30	0.10	0.10	0.1113	1481.77	0.229	0.229
4.40	0.10	0.10	0.1103	1481.76	0.218	0.218
4.50	0.10	0.10	0.1093	1481.75	0.209	0.209
4.60	0.10	0.10	0.1085	1481.75	0.200	0.200
4.70	0.10	0.10	0.1077	1481.74	0.192	0.192

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.10	0.10	0.1070	1481.74	0.184	0.184
4.90	0.10	0.10	0.1063	1481.73	0.177	0.177
5.00	0.10	0.10	0.1057	1481.73	0.171	0.171
5.10	0.10	0.10	0.1051	1481.73	0.165	0.165
5.20	0.10	0.10	0.1046	1481.72	0.160	0.160
5.30	0.10	0.10	0.1041	1481.72	0.155	0.155
5.40	0.10	0.10	0.1037	1481.72	0.151	0.151
5.50	0.10	0.10	0.1033	1481.71	0.146	0.146
5.60	0.10	0.10	0.1029	1481.71	0.143	0.143
5.70	0.10	0.10	0.1026	1481.71	0.139	0.139
5.80	0.10	0.10	0.1023	1481.71	0.136	0.136
5.90	0.10	0.10	0.1020	1481.70	0.133	0.133
6.00	0.10	0.10	0.1017	1481.70	0.130	0.130
6.10	0.10	0.10	0.1015	1481.70	0.128	0.128
6.20	0.10	0.10	0.1013	1481.70	0.126	0.126
6.30	0.10	0.10	0.1011	1481.70	0.125	0.125
6.40	0.10	0.10	0.1008	1481.70	0.124	0.124
6.50	0.10	0.10	0.1007	1481.69	0.123	0.123
6.60	0.10	0.10	0.1005	1481.69	0.121	0.121
6.70	0.10	0.10	0.1003	1481.69	0.120	0.120
6.80	0.10	0.10	0.1001	1481.69	0.119	0.119
6.90	0.10	0.10	0.1000	1481.69	0.118	0.118
7.00	0.10	0.10	0.0998	1481.69	0.117	0.117
7.10	0.10	0.10	0.0997	1481.69	0.116	0.116
7.20	0.10	0.10	0.0996	1481.69	0.115	0.115
7.30	0.10	0.10	0.0994	1481.69	0.115	0.115
7.40	0.10	0.10	0.0993	1481.69	0.114	0.114
7.50	0.10	0.10	0.0992	1481.68	0.113	0.113
7.60	0.10	0.10	0.0991	1481.68	0.113	0.113
7.70	0.10	0.10	0.0990	1481.68	0.112	0.112
7.80	0.10	0.10	0.0989	1481.68	0.111	0.111
7.90	0.10	0.10	0.0988	1481.68	0.111	0.111
8.00	0.10	0.10	0.0987	1481.68	0.110	0.110
8.10	0.10	0.10	0.0987	1481.68	0.110	0.110
8.20	0.10	0.10	0.0986	1481.68	0.109	0.109
8.30	0.10	0.10	0.0985	1481.68	0.109	0.109
8.40	0.10	0.10	0.0984	1481.68	0.108	0.108
8.50	0.10	0.10	0.0984	1481.68	0.108	0.108
8.60	0.10	0.10	0.0983	1481.68	0.107	0.107
8.70	0.10	0.10	0.0983	1481.68	0.107	0.107
8.80	0.10	0.10	0.0982	1481.68	0.107	0.107
8.90	0.10	0.10	0.0981	1481.68	0.106	0.106
9.00	0.10	0.10	0.0981	1481.68	0.106	0.106
9.10	0.10	0.10	0.0980	1481.68	0.106	0.106
9.20	0.10	0.10	0.0980	1481.68	0.105	0.105
9.30	0.10	0.10	0.0980	1481.68	0.105	0.105
9.40	0.10	0.10	0.0979	1481.68	0.105	0.105
9.50	0.10	0.10	0.0979	1481.68	0.105	0.105
9.60	0.10	0.10	0.0978	1481.68	0.104	0.104
9.70	0.10	0.10	0.0978	1481.68	0.104	0.104
9.80	0.10	0.10	0.0978	1481.67	0.104	0.104
9.90	0.10	0.10	0.0977	1481.67	0.104	0.104
10.00	0.10	0.10	0.0977	1481.67	0.103	0.103
10.10	0.10	0.10	0.0977	1481.67	0.103	0.103
10.20	0.10	0.10	0.0977	1481.67	0.103	0.103
10.30	0.10	0.10	0.0976	1481.67	0.103	0.103
10.40	0.10	0.10	0.0976	1481.67	0.103	0.103
10.50	0.10	0.10	0.0976	1481.67	0.103	0.103

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.10	0.10	0.0976	1481.67	0.103	0.103
10.70	0.10	0.10	0.0975	1481.67	0.102	0.102
10.80	0.10	0.10	0.0975	1481.67	0.102	0.102
10.90	0.10	0.10	0.0975	1481.67	0.102	0.102
11.00	0.10	0.10	0.0975	1481.67	0.102	0.102
11.10	0.10	0.10	0.0975	1481.67	0.102	0.102
11.20	0.10	0.10	0.0975	1481.67	0.102	0.102
11.30	0.10	0.10	0.0974	1481.67	0.102	0.102
11.40	0.10	0.10	0.0974	1481.67	0.102	0.102
11.50	0.10	0.10	0.0974	1481.67	0.102	0.102
11.60	0.10	0.10	0.0974	1481.67	0.101	0.101
11.70	0.10	0.10	0.0974	1481.67	0.101	0.101
11.80	0.10	0.10	0.0974	1481.67	0.101	0.101
11.90	0.00	0.00	0.0970	1481.67	0.099	0.099
12.00	0.00	0.00	0.0962	1481.66	0.093	0.093
12.10	0.00	0.00	0.0954	1481.66	0.089	0.089
12.20	0.00	0.00	0.0947	1481.65	0.084	0.084
12.30	0.00	0.00	0.0940	1481.65	0.080	0.080
12.40	0.00	0.00	0.0934	1481.64	0.075	0.075
12.50	0.00	0.00	0.0928	1481.64	0.072	0.072
12.60	0.00	0.00	0.0922	1481.64	0.068	0.068
12.70	0.00	0.00	0.0917	1481.63	0.064	0.064
12.80	0.00	0.00	0.0911	1481.63	0.061	0.061
12.90	0.00	0.00	0.0907	1481.63	0.058	0.058
13.00	0.00	0.00	0.0902	1481.62	0.055	0.055
13.10	0.00	0.00	0.0898	1481.62	0.052	0.052
13.20	0.00	0.00	0.0893	1481.62	0.049	0.049
13.30	0.00	0.00	0.0889	1481.61	0.047	0.047
13.40	0.00	0.00	0.0886	1481.61	0.044	0.044
13.50	0.00	0.00	0.0882	1481.61	0.042	0.042
13.60	0.00	0.00	0.0879	1481.61	0.040	0.040
13.70	0.00	0.00	0.0876	1481.60	0.038	0.038
13.80	0.00	0.00	0.0873	1481.60	0.036	0.036
13.90	0.00	0.00	0.0870	1481.60	0.034	0.034
14.00	0.00	0.00	0.0867	1481.60	0.033	0.033
14.10	0.00	0.00	0.0864	1481.60	0.033	0.033
14.20	0.00	0.00	0.0861	1481.59	0.032	0.032
14.30	0.00	0.00	0.0859	1481.59	0.031	0.031
14.40	0.00	0.00	0.0856	1481.59	0.031	0.031
14.50	0.00	0.00	0.0854	1481.59	0.030	0.030
14.60	0.00	0.00	0.0851	1481.59	0.030	0.030
14.70	0.00	0.00	0.0849	1481.59	0.029	0.029
14.80	0.00	0.00	0.0846	1481.58	0.028	0.028
14.90	0.00	0.00	0.0844	1481.58	0.028	0.028
15.00	0.00	0.00	0.0842	1481.58	0.027	0.027

Total Routing Mass Balance Discrepancy is -0.10%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.10	0.10	0.0000	1481.00	0.000	0.000
Max. Inflow	1.10	5.40	5.40	0.0927	1481.64	0.071	0.071
Max. Outflow	1.50	0.70	0.70	0.1437	1481.99	0.71	0.71
Max. Elev.	1.60	0.60	0.60	0.1433	1481.99	0.70	0.70
Final	15.00	0.00	0.00	0.0842	1481.58	0.027	0.027

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.20	0.20	0.0000	1481.00	0.000	0.000
0.10	0.20	0.20	0.0017	1481.01	0.000	0.000
0.20	0.20	0.20	0.0033	1481.02	0.000	0.000
0.30	0.20	0.20	0.0050	1481.03	0.000	0.000
0.40	0.30	0.30	0.0070	1481.05	0.000	0.000
0.50	0.30	0.30	0.0095	1481.07	0.000	0.000
0.60	0.40	0.40	0.0124	1481.09	0.000	0.000
0.70	1.00	1.00	0.0182	1481.13	0.000	0.000
0.80	1.60	1.60	0.0289	1481.20	0.000	0.000
0.90	2.20	2.20	0.0446	1481.31	0.000	0.000
1.00	4.30	4.30	0.0715	1481.49	0.000	0.000
1.10	6.70	6.70	0.1158	1481.80	0.275	0.275
1.20	4.20	4.20	0.1558	1482.07	0.95	0.95
1.30	1.40	1.40	0.1697	1482.17	1.28	1.28
1.40	1.00	1.00	0.1691	1482.17	1.26	1.26
1.50	0.80	0.80	0.1664	1482.15	1.20	1.20
1.60	0.70	0.70	0.1630	1482.12	1.12	1.12
1.70	0.60	0.60	0.1595	1482.10	1.03	1.03
1.80	0.50	0.50	0.1558	1482.08	0.96	0.96
1.90	0.50	0.50	0.1524	1482.05	0.88	0.88
2.00	0.40	0.40	0.1491	1482.03	0.81	0.81
2.10	0.40	0.40	0.1459	1482.01	0.75	0.75
2.20	0.40	0.40	0.1432	1481.99	0.70	0.70
2.30	0.40	0.40	0.1409	1481.97	0.66	0.66
2.40	0.30	0.30	0.1385	1481.96	0.62	0.62
2.50	0.30	0.30	0.1361	1481.94	0.58	0.58
2.60	0.30	0.30	0.1340	1481.92	0.54	0.54
2.70	0.30	0.30	0.1321	1481.91	0.51	0.51
2.80	0.30	0.30	0.1305	1481.90	0.479	0.479
2.90	0.30	0.30	0.1291	1481.89	0.459	0.459
3.00	0.30	0.30	0.1279	1481.88	0.442	0.442
3.10	0.20	0.20	0.1264	1481.87	0.421	0.421
3.20	0.20	0.20	0.1247	1481.86	0.397	0.397
3.30	0.20	0.20	0.1231	1481.85	0.376	0.376
3.40	0.20	0.20	0.1218	1481.84	0.357	0.357
3.50	0.20	0.20	0.1205	1481.83	0.340	0.340
3.60	0.20	0.20	0.1194	1481.82	0.325	0.325
3.70	0.20	0.20	0.1185	1481.82	0.311	0.311
3.80	0.20	0.20	0.1176	1481.81	0.299	0.299
3.90	0.20	0.20	0.1168	1481.81	0.288	0.288
4.00	0.20	0.20	0.1161	1481.80	0.279	0.279
4.10	0.20	0.20	0.1155	1481.80	0.272	0.272
4.20	0.20	0.20	0.1149	1481.79	0.266	0.266
4.30	0.20	0.20	0.1144	1481.79	0.261	0.261
4.40	0.20	0.20	0.1139	1481.79	0.256	0.256
4.50	0.20	0.20	0.1135	1481.78	0.251	0.251
4.60	0.20	0.20	0.1131	1481.78	0.247	0.247
4.70	0.20	0.20	0.1127	1481.78	0.243	0.243

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.20	0.20	0.1124	1481.78	0.240	0.240
4.90	0.20	0.20	0.1121	1481.77	0.236	0.236
5.00	0.20	0.20	0.1118	1481.77	0.233	0.233
5.10	0.10	0.10	0.1111	1481.77	0.227	0.227
5.20	0.10	0.10	0.1101	1481.76	0.216	0.216
5.30	0.10	0.10	0.1092	1481.75	0.207	0.207
5.40	0.10	0.10	0.1083	1481.75	0.198	0.198
5.50	0.10	0.10	0.1076	1481.74	0.190	0.190
5.60	0.10	0.10	0.1068	1481.74	0.183	0.183
5.70	0.10	0.10	0.1062	1481.73	0.176	0.176
5.80	0.10	0.10	0.1056	1481.73	0.170	0.170
5.90	0.10	0.10	0.1050	1481.72	0.164	0.164
6.00	0.10	0.10	0.1045	1481.72	0.159	0.159
6.10	0.10	0.10	0.1040	1481.72	0.154	0.154
6.20	0.10	0.10	0.1036	1481.72	0.150	0.150
6.30	0.10	0.10	0.1032	1481.71	0.146	0.146
6.40	0.10	0.10	0.1029	1481.71	0.142	0.142
6.50	0.10	0.10	0.1025	1481.71	0.139	0.139
6.60	0.10	0.10	0.1022	1481.71	0.135	0.135
6.70	0.10	0.10	0.1019	1481.70	0.133	0.133
6.80	0.10	0.10	0.1017	1481.70	0.130	0.130
6.90	0.10	0.10	0.1014	1481.70	0.128	0.128
7.00	0.10	0.10	0.1012	1481.70	0.126	0.126
7.10	0.10	0.10	0.1010	1481.70	0.125	0.125
7.20	0.10	0.10	0.1008	1481.70	0.124	0.124
7.30	0.10	0.10	0.1006	1481.69	0.122	0.122
7.40	0.10	0.10	0.1004	1481.69	0.121	0.121
7.50	0.10	0.10	0.1003	1481.69	0.120	0.120
7.60	0.10	0.10	0.1001	1481.69	0.119	0.119
7.70	0.10	0.10	0.1000	1481.69	0.118	0.118
7.80	0.10	0.10	0.0998	1481.69	0.117	0.117
7.90	0.10	0.10	0.0997	1481.69	0.116	0.116
8.00	0.10	0.10	0.0995	1481.69	0.115	0.115
8.10	0.10	0.10	0.0994	1481.69	0.115	0.115
8.20	0.10	0.10	0.0993	1481.69	0.114	0.114
8.30	0.10	0.10	0.0992	1481.68	0.113	0.113
8.40	0.10	0.10	0.0991	1481.68	0.112	0.112
8.50	0.10	0.10	0.0990	1481.68	0.112	0.112
8.60	0.10	0.10	0.0989	1481.68	0.111	0.111
8.70	0.10	0.10	0.0988	1481.68	0.111	0.111
8.80	0.10	0.10	0.0987	1481.68	0.110	0.110
8.90	0.10	0.10	0.0986	1481.68	0.109	0.109
9.00	0.10	0.10	0.0986	1481.68	0.109	0.109
9.10	0.10	0.10	0.0985	1481.68	0.109	0.109
9.20	0.10	0.10	0.0984	1481.68	0.108	0.108
9.30	0.10	0.10	0.0984	1481.68	0.108	0.108
9.40	0.10	0.10	0.0983	1481.68	0.107	0.107
9.50	0.10	0.10	0.0982	1481.68	0.107	0.107
9.60	0.10	0.10	0.0982	1481.68	0.107	0.107
9.70	0.10	0.10	0.0981	1481.68	0.106	0.106
9.80	0.10	0.10	0.0981	1481.68	0.106	0.106
9.90	0.10	0.10	0.0980	1481.68	0.106	0.106
10.00	0.10	0.10	0.0980	1481.68	0.105	0.105
10.10	0.10	0.10	0.0979	1481.68	0.105	0.105
10.20	0.10	0.10	0.0979	1481.68	0.105	0.105
10.30	0.10	0.10	0.0979	1481.68	0.104	0.104
10.40	0.10	0.10	0.0978	1481.68	0.104	0.104
10.50	0.10	0.10	0.0978	1481.67	0.104	0.104

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.10	0.10	0.0978	1481.67	0.104	0.104
10.70	0.10	0.10	0.0977	1481.67	0.104	0.104
10.80	0.10	0.10	0.0977	1481.67	0.103	0.103
10.90	0.10	0.10	0.0977	1481.67	0.103	0.103
11.00	0.10	0.10	0.0977	1481.67	0.103	0.103
11.10	0.10	0.10	0.0976	1481.67	0.103	0.103
11.20	0.10	0.10	0.0976	1481.67	0.103	0.103
11.30	0.10	0.10	0.0976	1481.67	0.103	0.103
11.40	0.10	0.10	0.0976	1481.67	0.102	0.102
11.50	0.10	0.10	0.0975	1481.67	0.102	0.102
11.60	0.10	0.10	0.0975	1481.67	0.102	0.102
11.70	0.10	0.10	0.0975	1481.67	0.102	0.102
11.80	0.10	0.10	0.0975	1481.67	0.102	0.102
11.90	0.10	0.10	0.0975	1481.67	0.102	0.102
12.00	0.10	0.10	0.0975	1481.67	0.102	0.102
12.10	0.10	0.10	0.0974	1481.67	0.102	0.102
12.20	0.10	0.10	0.0974	1481.67	0.102	0.102
12.30	0.10	0.10	0.0974	1481.67	0.102	0.102
12.40	0.10	0.10	0.0974	1481.67	0.101	0.101
12.50	0.00	0.00	0.0970	1481.67	0.099	0.099
12.60	0.00	0.00	0.0962	1481.66	0.094	0.094
12.70	0.00	0.00	0.0954	1481.66	0.089	0.089
12.80	0.00	0.00	0.0947	1481.65	0.084	0.084
12.90	0.00	0.00	0.0941	1481.65	0.080	0.080
13.00	0.00	0.00	0.0934	1481.64	0.076	0.076
13.10	0.00	0.00	0.0928	1481.64	0.072	0.072
13.20	0.00	0.00	0.0922	1481.64	0.068	0.068
13.30	0.00	0.00	0.0917	1481.63	0.064	0.064
13.40	0.00	0.00	0.0912	1481.63	0.061	0.061
13.50	0.00	0.00	0.0907	1481.63	0.058	0.058
13.60	0.00	0.00	0.0902	1481.62	0.055	0.055
13.70	0.00	0.00	0.0898	1481.62	0.052	0.052
13.80	0.00	0.00	0.0893	1481.62	0.049	0.049
13.90	0.00	0.00	0.0890	1481.61	0.047	0.047
14.00	0.00	0.00	0.0886	1481.61	0.044	0.044
14.10	0.00	0.00	0.0882	1481.61	0.042	0.042
14.20	0.00	0.00	0.0879	1481.61	0.040	0.040
14.30	0.00	0.00	0.0876	1481.60	0.038	0.038
14.40	0.00	0.00	0.0873	1481.60	0.036	0.036
14.50	0.00	0.00	0.0870	1481.60	0.034	0.034
14.60	0.00	0.00	0.0867	1481.60	0.033	0.033
14.70	0.00	0.00	0.0864	1481.60	0.033	0.033
14.80	0.00	0.00	0.0862	1481.59	0.032	0.032
14.90	0.00	0.00	0.0859	1481.59	0.031	0.031
15.00	0.00	0.00	0.0856	1481.59	0.031	0.031

Total Routing Mass Balance Discrepancy is -0.20%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.20	0.20	0.0000	1481.00	0.000	0.000
Max. Inflow	1.10	6.70	6.70	0.1158	1481.80	0.275	0.275
Max. Outflow	1.30	1.40	1.40	0.1697	1482.17	1.28	1.28
Max. Elev.	1.40	1.00	1.00	0.1691	1482.17	1.26	1.26
Final	15.00	0.00	0.00	0.0856	1481.59	0.031	0.031

Modified Puls Routing

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.30	0.30	0.0000	1481.00	0.000	0.000
0.10	0.30	0.30	0.0025	1481.02	0.000	0.000
0.20	0.30	0.30	0.0050	1481.03	0.000	0.000
0.30	0.40	0.40	0.0079	1481.05	0.000	0.000
0.40	0.50	0.50	0.0116	1481.08	0.000	0.000
0.50	0.50	0.50	0.0157	1481.11	0.000	0.000
0.60	0.60	0.60	0.0202	1481.14	0.000	0.000
0.70	1.60	1.60	0.0293	1481.20	0.000	0.000
0.80	2.70	2.70	0.0471	1481.33	0.000	0.000
0.90	3.70	3.70	0.0735	1481.51	0.002	0.002
1.00	7.30	7.30	0.1177	1481.81	0.301	0.301
1.10	11.30	11.30	0.1862	1482.28	1.72	1.72
1.20	7.00	7.00	0.2420	1482.67	3.09	3.09
1.30	2.40	2.40	0.2545	1482.76	3.28	3.28
1.40	1.60	1.60	0.2445	1482.69	3.13	3.13
1.50	1.40	1.40	0.2319	1482.60	2.93	2.93
1.60	1.20	1.20	0.2199	1482.52	2.57	2.57
1.70	1.00	1.00	0.2090	1482.44	2.28	2.28
1.80	0.90	0.90	0.1990	1482.37	2.04	2.04
1.90	0.80	0.80	0.1901	1482.31	1.82	1.82
2.00	0.70	0.70	0.1821	1482.26	1.61	1.61
2.10	0.70	0.70	0.1754	1482.21	1.42	1.42
2.20	0.60	0.60	0.1696	1482.17	1.28	1.28
2.30	0.60	0.60	0.1645	1482.14	1.15	1.15
2.40	0.60	0.60	0.1604	1482.11	1.05	1.05
2.50	0.50	0.50	0.1565	1482.08	0.97	0.97
2.60	0.50	0.50	0.1530	1482.06	0.90	0.90
2.70	0.50	0.50	0.1500	1482.03	0.83	0.83
2.80	0.50	0.50	0.1474	1482.02	0.78	0.78
2.90	0.40	0.40	0.1449	1482.00	0.73	0.73
3.00	0.40	0.40	0.1424	1481.98	0.68	0.68
3.10	0.40	0.40	0.1402	1481.97	0.65	0.65
3.20	0.40	0.40	0.1383	1481.95	0.61	0.61
3.30	0.40	0.40	0.1366	1481.94	0.58	0.58
3.40	0.40	0.40	0.1352	1481.93	0.56	0.56
3.50	0.40	0.40	0.1340	1481.92	0.54	0.54
3.60	0.40	0.40	0.1329	1481.92	0.52	0.52
3.70	0.40	0.40	0.1320	1481.91	0.50	0.50
3.80	0.30	0.30	0.1308	1481.90	0.483	0.483
3.90	0.30	0.30	0.1294	1481.89	0.462	0.462
4.00	0.30	0.30	0.1281	1481.88	0.445	0.445
4.10	0.30	0.30	0.1270	1481.88	0.429	0.429
4.20	0.30	0.30	0.1260	1481.87	0.415	0.415
4.30	0.30	0.30	0.1251	1481.86	0.403	0.403
4.40	0.30	0.30	0.1243	1481.86	0.392	0.392
4.50	0.30	0.30	0.1235	1481.85	0.382	0.382
4.60	0.30	0.30	0.1229	1481.85	0.373	0.373
4.70	0.30	0.30	0.1223	1481.84	0.365	0.365

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.30	0.30	0.1218	1481.84	0.358	0.358
4.90	0.30	0.30	0.1214	1481.84	0.352	0.352
5.00	0.30	0.30	0.1210	1481.83	0.346	0.346
5.10	0.30	0.30	0.1206	1481.83	0.341	0.341
5.20	0.20	0.20	0.1199	1481.83	0.331	0.331
5.30	0.20	0.20	0.1189	1481.82	0.317	0.317
5.40	0.20	0.20	0.1180	1481.81	0.304	0.304
5.50	0.20	0.20	0.1172	1481.81	0.293	0.293
5.60	0.20	0.20	0.1164	1481.80	0.283	0.283
5.70	0.20	0.20	0.1158	1481.80	0.275	0.275
5.80	0.20	0.20	0.1152	1481.79	0.269	0.269
5.90	0.20	0.20	0.1146	1481.79	0.263	0.263
6.00	0.20	0.20	0.1141	1481.79	0.258	0.258
6.10	0.20	0.20	0.1137	1481.78	0.253	0.253
6.20	0.20	0.20	0.1133	1481.78	0.249	0.249
6.30	0.20	0.20	0.1129	1481.78	0.245	0.245
6.40	0.20	0.20	0.1125	1481.78	0.241	0.241
6.50	0.20	0.20	0.1122	1481.77	0.238	0.238
6.60	0.20	0.20	0.1119	1481.77	0.235	0.235
6.70	0.20	0.20	0.1116	1481.77	0.232	0.232
6.80	0.20	0.20	0.1114	1481.77	0.229	0.229
6.90	0.20	0.20	0.1111	1481.77	0.227	0.227
7.00	0.20	0.20	0.1109	1481.77	0.225	0.225
7.10	0.20	0.20	0.1107	1481.76	0.223	0.223
7.20	0.20	0.20	0.1105	1481.76	0.221	0.221
7.30	0.20	0.20	0.1104	1481.76	0.219	0.219
7.40	0.20	0.20	0.1102	1481.76	0.218	0.218
7.50	0.20	0.20	0.1101	1481.76	0.216	0.216
7.60	0.20	0.20	0.1100	1481.76	0.215	0.215
7.70	0.20	0.20	0.1098	1481.76	0.214	0.214
7.80	0.20	0.20	0.1097	1481.76	0.213	0.213
7.90	0.20	0.20	0.1096	1481.76	0.212	0.212
8.00	0.20	0.20	0.1095	1481.76	0.211	0.211
8.10	0.20	0.20	0.1095	1481.76	0.210	0.210
8.20	0.20	0.20	0.1094	1481.75	0.209	0.209
8.30	0.20	0.20	0.1093	1481.75	0.208	0.208
8.40	0.20	0.20	0.1092	1481.75	0.208	0.208
8.50	0.20	0.20	0.1092	1481.75	0.207	0.207
8.60	0.20	0.20	0.1091	1481.75	0.206	0.206
8.70	0.20	0.20	0.1091	1481.75	0.206	0.206
8.80	0.20	0.20	0.1090	1481.75	0.205	0.205
8.90	0.10	0.10	0.1086	1481.75	0.201	0.201
9.00	0.10	0.10	0.1078	1481.74	0.193	0.193
9.10	0.10	0.10	0.1071	1481.74	0.185	0.185
9.20	0.10	0.10	0.1064	1481.73	0.178	0.178
9.30	0.10	0.10	0.1058	1481.73	0.172	0.172
9.40	0.10	0.10	0.1052	1481.73	0.166	0.166
9.50	0.10	0.10	0.1047	1481.72	0.161	0.161
9.60	0.10	0.10	0.1042	1481.72	0.156	0.156
9.70	0.10	0.10	0.1037	1481.72	0.151	0.151
9.80	0.10	0.10	0.1033	1481.71	0.147	0.147
9.90	0.10	0.10	0.1030	1481.71	0.143	0.143
10.00	0.10	0.10	0.1026	1481.71	0.140	0.140
10.10	0.10	0.10	0.1023	1481.71	0.136	0.136
10.20	0.10	0.10	0.1020	1481.70	0.133	0.133
10.30	0.10	0.10	0.1018	1481.70	0.131	0.131
10.40	0.10	0.10	0.1015	1481.70	0.128	0.128
10.50	0.10	0.10	0.1013	1481.70	0.127	0.127

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.10	0.10	0.1011	1481.70	0.125	0.125
10.70	0.10	0.10	0.1009	1481.70	0.124	0.124
10.80	0.10	0.10	0.1007	1481.69	0.123	0.123
10.90	0.10	0.10	0.1005	1481.69	0.122	0.122
11.00	0.10	0.10	0.1003	1481.69	0.120	0.120
11.10	0.10	0.10	0.1002	1481.69	0.119	0.119
11.20	0.10	0.10	0.1000	1481.69	0.118	0.118
11.30	0.10	0.10	0.0999	1481.69	0.117	0.117
11.40	0.10	0.10	0.0997	1481.69	0.116	0.116
11.50	0.10	0.10	0.0996	1481.69	0.116	0.116
11.60	0.10	0.10	0.0995	1481.69	0.115	0.115
11.70	0.10	0.10	0.0993	1481.69	0.114	0.114
11.80	0.10	0.10	0.0992	1481.68	0.113	0.113
11.90	0.10	0.10	0.0991	1481.68	0.113	0.113
12.00	0.10	0.10	0.0990	1481.68	0.112	0.112
12.10	0.10	0.10	0.0989	1481.68	0.111	0.111
12.20	0.10	0.10	0.0988	1481.68	0.111	0.111
12.30	0.10	0.10	0.0987	1481.68	0.110	0.110
12.40	0.10	0.10	0.0987	1481.68	0.110	0.110
12.50	0.10	0.10	0.0986	1481.68	0.109	0.109
12.60	0.10	0.10	0.0985	1481.68	0.109	0.109
12.70	0.10	0.10	0.0984	1481.68	0.108	0.108
12.80	0.10	0.10	0.0984	1481.68	0.108	0.108
12.90	0.10	0.10	0.0983	1481.68	0.107	0.107
13.00	0.10	0.10	0.0983	1481.68	0.107	0.107
13.10	0.10	0.10	0.0982	1481.68	0.107	0.107
13.20	0.10	0.10	0.0981	1481.68	0.106	0.106
13.30	0.10	0.10	0.0981	1481.68	0.106	0.106
13.40	0.10	0.10	0.0980	1481.68	0.106	0.106
13.50	0.10	0.10	0.0980	1481.68	0.105	0.105
13.60	0.00	0.00	0.0976	1481.67	0.102	0.102
13.70	0.00	0.00	0.0967	1481.67	0.097	0.097
13.80	0.00	0.00	0.0960	1481.66	0.092	0.092
13.90	0.00	0.00	0.0952	1481.66	0.087	0.087
14.00	0.00	0.00	0.0945	1481.65	0.083	0.083
14.10	0.00	0.00	0.0938	1481.65	0.078	0.078
14.20	0.00	0.00	0.0932	1481.64	0.074	0.074
14.30	0.00	0.00	0.0926	1481.64	0.070	0.070
14.40	0.00	0.00	0.0920	1481.64	0.067	0.067
14.50	0.00	0.00	0.0915	1481.63	0.063	0.063
14.60	0.00	0.00	0.0910	1481.63	0.060	0.060
14.70	0.00	0.00	0.0905	1481.62	0.057	0.057
14.80	0.00	0.00	0.0901	1481.62	0.054	0.054
14.90	0.00	0.00	0.0896	1481.62	0.051	0.051
15.00	0.00	0.00	0.0892	1481.62	0.048	0.048

Total Routing Mass Balance Discrepancy is -0.18%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.30	0.30	0.0000	1481.00	0.000	0.000
Max. Inflow	1.10	11.30	11.30	0.1862	1482.28	1.72	1.72
Max. Outflow	1.30	2.40	2.40	0.2545	1482.76	3.28	3.28
Final	15.00	0.00	0.00	0.0892	1481.62	0.048	0.048

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.30	0.30	0.0000	1481.00	0.000	0.000
0.10	0.40	0.40	0.0029	1481.02	0.000	0.000
0.20	0.40	0.40	0.0062	1481.04	0.000	0.000
0.30	0.40	0.40	0.0095	1481.07	0.000	0.000
0.40	0.50	0.50	0.0132	1481.09	0.000	0.000
0.50	0.60	0.60	0.0178	1481.12	0.000	0.000
0.60	0.70	0.70	0.0231	1481.16	0.000	0.000
0.70	1.90	1.90	0.0339	1481.23	0.000	0.000
0.80	3.10	3.10	0.0545	1481.38	0.000	0.000
0.90	4.30	4.30	0.0850	1481.59	0.029	0.029
1.00	8.40	8.40	0.1351	1481.93	0.56	0.56
1.10	13.10	13.10	0.2119	1482.46	2.36	2.36
1.20	8.10	8.10	0.2749	1482.90	3.58	3.58
1.30	2.80	2.80	0.2896	1483.00	3.78	3.78
1.40	1.90	1.90	0.2784	1482.92	3.63	3.63
1.50	1.60	1.60	0.2638	1482.82	3.42	3.42
1.60	1.30	1.30	0.2484	1482.71	3.19	3.19
1.70	1.10	1.10	0.2330	1482.61	2.94	2.94
1.80	1.00	1.00	0.2190	1482.51	2.54	2.54
1.90	0.90	0.90	0.2071	1482.43	2.23	2.23
2.00	0.90	0.90	0.1971	1482.36	1.99	1.99
2.10	0.80	0.80	0.1885	1482.30	1.78	1.78
2.20	0.70	0.70	0.1808	1482.25	1.57	1.57
2.30	0.70	0.70	0.1744	1482.20	1.39	1.39
2.40	0.70	0.70	0.1692	1482.17	1.27	1.27
2.50	0.60	0.60	0.1645	1482.14	1.15	1.15
2.60	0.60	0.60	0.1604	1482.11	1.05	1.05
2.70	0.60	0.60	0.1569	1482.08	0.98	0.98
2.80	0.50	0.50	0.1537	1482.06	0.91	0.91
2.90	0.50	0.50	0.1506	1482.04	0.85	0.85
3.00	0.50	0.50	0.1479	1482.02	0.79	0.79
3.10	0.50	0.50	0.1457	1482.01	0.74	0.74
3.20	0.50	0.50	0.1438	1481.99	0.71	0.71
3.30	0.40	0.40	0.1418	1481.98	0.67	0.67
3.40	0.40	0.40	0.1397	1481.96	0.64	0.64
3.50	0.40	0.40	0.1379	1481.95	0.61	0.61
3.60	0.40	0.40	0.1363	1481.94	0.58	0.58
3.70	0.40	0.40	0.1349	1481.93	0.55	0.55
3.80	0.40	0.40	0.1337	1481.92	0.53	0.53
3.90	0.40	0.40	0.1327	1481.92	0.52	0.52
4.00	0.40	0.40	0.1318	1481.91	0.50	0.50
4.10	0.40	0.40	0.1310	1481.90	0.487	0.487
4.20	0.40	0.40	0.1303	1481.90	0.476	0.476
4.30	0.40	0.40	0.1297	1481.90	0.468	0.468
4.40	0.30	0.30	0.1288	1481.89	0.455	0.455
4.50	0.30	0.30	0.1276	1481.88	0.438	0.438
4.60	0.30	0.30	0.1265	1481.87	0.423	0.423
4.70	0.30	0.30	0.1256	1481.87	0.410	0.410

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.30	0.30	0.1247	1481.86	0.398	0.398
4.90	0.30	0.30	0.1240	1481.86	0.387	0.387
5.00	0.30	0.30	0.1233	1481.85	0.378	0.378
5.10	0.30	0.30	0.1227	1481.85	0.369	0.369
5.20	0.30	0.30	0.1221	1481.84	0.362	0.362
5.30	0.30	0.30	0.1216	1481.84	0.355	0.355
5.40	0.30	0.30	0.1212	1481.84	0.349	0.349
5.50	0.30	0.30	0.1208	1481.83	0.344	0.344
5.60	0.30	0.30	0.1205	1481.83	0.339	0.339
5.70	0.30	0.30	0.1202	1481.83	0.335	0.335
5.80	0.30	0.30	0.1199	1481.83	0.331	0.331
5.90	0.30	0.30	0.1197	1481.83	0.328	0.328
6.00	0.30	0.30	0.1194	1481.82	0.325	0.325
6.10	0.30	0.30	0.1192	1481.82	0.322	0.322
6.20	0.30	0.30	0.1191	1481.82	0.320	0.320
6.30	0.30	0.30	0.1189	1481.82	0.318	0.318
6.40	0.20	0.20	0.1184	1481.82	0.310	0.310
6.50	0.20	0.20	0.1175	1481.81	0.298	0.298
6.60	0.20	0.20	0.1168	1481.81	0.288	0.288
6.70	0.20	0.20	0.1161	1481.80	0.278	0.278
6.80	0.20	0.20	0.1155	1481.80	0.271	0.271
6.90	0.20	0.20	0.1149	1481.79	0.266	0.266
7.00	0.20	0.20	0.1144	1481.79	0.260	0.260
7.10	0.20	0.20	0.1139	1481.79	0.255	0.255
7.20	0.20	0.20	0.1135	1481.78	0.251	0.251
7.30	0.20	0.20	0.1131	1481.78	0.247	0.247
7.40	0.20	0.20	0.1127	1481.78	0.243	0.243
7.50	0.20	0.20	0.1123	1481.78	0.239	0.239
7.60	0.20	0.20	0.1120	1481.77	0.236	0.236
7.70	0.20	0.20	0.1117	1481.77	0.233	0.233
7.80	0.20	0.20	0.1115	1481.77	0.231	0.231
7.90	0.20	0.20	0.1112	1481.77	0.228	0.228
8.00	0.20	0.20	0.1110	1481.77	0.226	0.226
8.10	0.20	0.20	0.1108	1481.76	0.224	0.224
8.20	0.20	0.20	0.1106	1481.76	0.222	0.222
8.30	0.20	0.20	0.1105	1481.76	0.220	0.220
8.40	0.20	0.20	0.1103	1481.76	0.218	0.218
8.50	0.20	0.20	0.1101	1481.76	0.217	0.217
8.60	0.20	0.20	0.1100	1481.76	0.215	0.215
8.70	0.20	0.20	0.1099	1481.76	0.214	0.214
8.80	0.20	0.20	0.1098	1481.76	0.213	0.213
8.90	0.20	0.20	0.1097	1481.76	0.212	0.212
9.00	0.20	0.20	0.1096	1481.76	0.211	0.211
9.10	0.20	0.20	0.1095	1481.76	0.210	0.210
9.20	0.20	0.20	0.1094	1481.76	0.209	0.209
9.30	0.20	0.20	0.1093	1481.75	0.209	0.209
9.40	0.20	0.20	0.1093	1481.75	0.208	0.208
9.50	0.20	0.20	0.1092	1481.75	0.207	0.207
9.60	0.20	0.20	0.1092	1481.75	0.207	0.207
9.70	0.20	0.20	0.1091	1481.75	0.206	0.206
9.80	0.20	0.20	0.1091	1481.75	0.206	0.206
9.90	0.20	0.20	0.1090	1481.75	0.205	0.205
10.00	0.20	0.20	0.1090	1481.75	0.205	0.205
10.10	0.20	0.20	0.1089	1481.75	0.204	0.204
10.20	0.20	0.20	0.1089	1481.75	0.204	0.204
10.30	0.20	0.20	0.1089	1481.75	0.204	0.204
10.40	0.20	0.20	0.1088	1481.75	0.203	0.203
10.50	0.20	0.20	0.1088	1481.75	0.203	0.203

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.20	0.20	0.1088	1481.75	0.203	0.203
10.70	0.20	0.20	0.1088	1481.75	0.203	0.203
10.80	0.20	0.20	0.1087	1481.75	0.202	0.202
10.90	0.20	0.20	0.1087	1481.75	0.202	0.202
11.00	0.20	0.20	0.1087	1481.75	0.202	0.202
11.10	0.20	0.20	0.1087	1481.75	0.202	0.202
11.20	0.10	0.10	0.1083	1481.75	0.198	0.198
11.30	0.10	0.10	0.1075	1481.74	0.190	0.190
11.40	0.10	0.10	0.1068	1481.74	0.182	0.182
11.50	0.10	0.10	0.1061	1481.73	0.176	0.176
11.60	0.10	0.10	0.1055	1481.73	0.169	0.169
11.70	0.10	0.10	0.1050	1481.72	0.164	0.164
11.80	0.10	0.10	0.1045	1481.72	0.159	0.159
11.90	0.10	0.10	0.1040	1481.72	0.154	0.154
12.00	0.10	0.10	0.1036	1481.71	0.149	0.149
12.10	0.10	0.10	0.1032	1481.71	0.145	0.145
12.20	0.10	0.10	0.1028	1481.71	0.142	0.142
12.30	0.10	0.10	0.1025	1481.71	0.138	0.138
12.40	0.10	0.10	0.1022	1481.71	0.135	0.135
12.50	0.10	0.10	0.1019	1481.70	0.132	0.132
12.60	0.10	0.10	0.1017	1481.70	0.130	0.130
12.70	0.10	0.10	0.1014	1481.70	0.128	0.128
12.80	0.10	0.10	0.1012	1481.70	0.126	0.126
12.90	0.10	0.10	0.1010	1481.70	0.125	0.125
13.00	0.10	0.10	0.1008	1481.70	0.123	0.123
13.10	0.10	0.10	0.1006	1481.69	0.122	0.122
13.20	0.10	0.10	0.1004	1481.69	0.121	0.121
13.30	0.10	0.10	0.1003	1481.69	0.120	0.120
13.40	0.10	0.10	0.1001	1481.69	0.119	0.119
13.50	0.10	0.10	0.0999	1481.69	0.118	0.118
13.60	0.10	0.10	0.0998	1481.69	0.117	0.117
13.70	0.10	0.10	0.0997	1481.69	0.116	0.116
13.80	0.00	0.00	0.0991	1481.68	0.113	0.113
13.90	0.00	0.00	0.0982	1481.68	0.107	0.107
14.00	0.00	0.00	0.0974	1481.67	0.101	0.101
14.10	0.00	0.00	0.0966	1481.67	0.096	0.096
14.20	0.00	0.00	0.0958	1481.66	0.091	0.091
14.30	0.00	0.00	0.0950	1481.66	0.086	0.086
14.40	0.00	0.00	0.0944	1481.65	0.082	0.082
14.50	0.00	0.00	0.0937	1481.65	0.077	0.077
14.60	0.00	0.00	0.0931	1481.64	0.073	0.073
14.70	0.00	0.00	0.0925	1481.64	0.070	0.070
14.80	0.00	0.00	0.0919	1481.63	0.066	0.066
14.90	0.00	0.00	0.0914	1481.63	0.062	0.062
15.00	0.00	0.00	0.0909	1481.63	0.059	0.059

Total Routing Mass Balance Discrepancy is -0.14%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-3\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASIN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.30	0.30	0.0000	1481.00	0.000	0.000
Max. Inflow	1.10	13.10	13.10	0.2119	1482.46	2.36	2.36
Max. Outflow	1.30	2.80	2.80	0.2896	1483.00	3.78	3.78
Final	15.00	0.00	0.00	0.0909	1481.63	0.059	0.059

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.30	0.30	0.0000	1481.00	0.000	0.000
0.10	0.40	0.40	0.0029	1481.02	0.000	0.000
0.20	0.40	0.40	0.0062	1481.04	0.000	0.000
0.30	0.50	0.50	0.0099	1481.07	0.000	0.000
0.40	0.60	0.60	0.0145	1481.10	0.000	0.000
0.50	0.70	0.70	0.0198	1481.14	0.000	0.000
0.60	0.80	0.80	0.0260	1481.18	0.000	0.000
0.70	2.10	2.10	0.0380	1481.26	0.000	0.000
0.80	3.40	3.40	0.0607	1481.42	0.000	0.000
0.90	4.80	4.80	0.0943	1481.65	0.081	0.081
1.00	9.20	9.20	0.1485	1482.02	0.80	0.80
1.10	14.40	14.40	0.2307	1482.59	2.89	2.89
1.20	9.00	9.00	0.2994	1483.06	3.89	3.89
1.30	3.10	3.10	0.3165	1483.16	4.07	4.07
1.40	2.10	2.10	0.3049	1483.09	3.95	3.95
1.50	1.80	1.80	0.2891	1482.99	3.77	3.77
1.60	1.50	1.50	0.2725	1482.88	3.55	3.55
1.70	1.20	1.20	0.2554	1482.76	3.30	3.30
1.80	1.10	1.10	0.2387	1482.65	3.04	3.04
1.90	1.00	1.00	0.2237	1482.54	2.68	2.68
2.00	0.90	0.90	0.2109	1482.45	2.33	2.33
2.10	0.90	0.90	0.2002	1482.38	2.06	2.06
2.20	0.80	0.80	0.1910	1482.32	1.84	1.84
2.30	0.80	0.80	0.1833	1482.26	1.64	1.64
2.40	0.70	0.70	0.1767	1482.22	1.46	1.46
2.50	0.70	0.70	0.1710	1482.18	1.31	1.31
2.60	0.70	0.70	0.1664	1482.15	1.20	1.20
2.70	0.60	0.60	0.1623	1482.12	1.10	1.10
2.80	0.60	0.60	0.1585	1482.09	1.01	1.01
2.90	0.60	0.60	0.1554	1482.07	0.95	0.95
3.00	0.50	0.50	0.1524	1482.05	0.88	0.88
3.10	0.50	0.50	0.1495	1482.03	0.82	0.82
3.20	0.50	0.50	0.1470	1482.01	0.77	0.77
3.30	0.50	0.50	0.1449	1482.00	0.73	0.73
3.40	0.50	0.50	0.1432	1481.99	0.70	0.70
3.50	0.50	0.50	0.1416	1481.98	0.67	0.67
3.60	0.50	0.50	0.1403	1481.97	0.65	0.65
3.70	0.40	0.40	0.1388	1481.96	0.62	0.62
3.80	0.40	0.40	0.1371	1481.95	0.59	0.59
3.90	0.40	0.40	0.1356	1481.94	0.57	0.57
4.00	0.40	0.40	0.1343	1481.93	0.54	0.54
4.10	0.40	0.40	0.1332	1481.92	0.52	0.52
4.20	0.40	0.40	0.1322	1481.91	0.51	0.51
4.30	0.40	0.40	0.1314	1481.91	0.494	0.494
4.40	0.40	0.40	0.1307	1481.90	0.481	0.481
4.50	0.40	0.40	0.1300	1481.90	0.472	0.472
4.60	0.40	0.40	0.1295	1481.89	0.464	0.464
4.70	0.40	0.40	0.1290	1481.89	0.457	0.457

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.30	0.30	0.1281	1481.88	0.445	0.445
4.90	0.30	0.30	0.1270	1481.88	0.430	0.430
5.00	0.30	0.30	0.1260	1481.87	0.416	0.416
5.10	0.30	0.30	0.1251	1481.86	0.403	0.403
5.20	0.30	0.30	0.1243	1481.86	0.392	0.392
5.30	0.30	0.30	0.1236	1481.85	0.382	0.382
5.40	0.30	0.30	0.1229	1481.85	0.373	0.373
5.50	0.30	0.30	0.1224	1481.84	0.365	0.365
5.60	0.30	0.30	0.1219	1481.84	0.358	0.358
5.70	0.30	0.30	0.1214	1481.84	0.352	0.352
5.80	0.30	0.30	0.1210	1481.83	0.346	0.346
5.90	0.30	0.30	0.1206	1481.83	0.341	0.341
6.00	0.30	0.30	0.1203	1481.83	0.337	0.337
6.10	0.30	0.30	0.1200	1481.83	0.333	0.333
6.20	0.30	0.30	0.1198	1481.83	0.329	0.329
6.30	0.30	0.30	0.1195	1481.82	0.326	0.326
6.40	0.30	0.30	0.1193	1481.82	0.323	0.323
6.50	0.30	0.30	0.1192	1481.82	0.321	0.321
6.60	0.30	0.30	0.1190	1481.82	0.318	0.318
6.70	0.30	0.30	0.1188	1481.82	0.316	0.316
6.80	0.30	0.30	0.1187	1481.82	0.315	0.315
6.90	0.30	0.30	0.1186	1481.82	0.313	0.313
7.00	0.30	0.30	0.1185	1481.82	0.312	0.312
7.10	0.30	0.30	0.1184	1481.82	0.310	0.310
7.20	0.20	0.20	0.1179	1481.81	0.304	0.304
7.30	0.20	0.20	0.1171	1481.81	0.293	0.293
7.40	0.20	0.20	0.1164	1481.80	0.283	0.283
7.50	0.20	0.20	0.1158	1481.80	0.274	0.274
7.60	0.20	0.20	0.1152	1481.79	0.268	0.268
7.70	0.20	0.20	0.1146	1481.79	0.263	0.263
7.80	0.20	0.20	0.1141	1481.79	0.258	0.258
7.90	0.20	0.20	0.1137	1481.78	0.253	0.253
8.00	0.20	0.20	0.1132	1481.78	0.249	0.249
8.10	0.20	0.20	0.1129	1481.78	0.245	0.245
8.20	0.20	0.20	0.1125	1481.78	0.241	0.241
8.30	0.20	0.20	0.1122	1481.77	0.238	0.238
8.40	0.20	0.20	0.1119	1481.77	0.235	0.235
8.50	0.20	0.20	0.1116	1481.77	0.232	0.232
8.60	0.20	0.20	0.1114	1481.77	0.229	0.229
8.70	0.20	0.20	0.1111	1481.77	0.227	0.227
8.80	0.20	0.20	0.1109	1481.77	0.225	0.225
8.90	0.20	0.20	0.1107	1481.76	0.223	0.223
9.00	0.20	0.20	0.1105	1481.76	0.221	0.221
9.10	0.20	0.20	0.1104	1481.76	0.219	0.219
9.20	0.20	0.20	0.1102	1481.76	0.218	0.218
9.30	0.20	0.20	0.1101	1481.76	0.216	0.216
9.40	0.20	0.20	0.1099	1481.76	0.215	0.215
9.50	0.20	0.20	0.1098	1481.76	0.214	0.214
9.60	0.20	0.20	0.1097	1481.76	0.213	0.213
9.70	0.20	0.20	0.1096	1481.76	0.211	0.211
9.80	0.20	0.20	0.1095	1481.76	0.211	0.211
9.90	0.20	0.20	0.1094	1481.76	0.210	0.210
10.00	0.20	0.20	0.1094	1481.75	0.209	0.209
10.10	0.20	0.20	0.1093	1481.75	0.208	0.208
10.20	0.20	0.20	0.1092	1481.75	0.208	0.208
10.30	0.20	0.20	0.1092	1481.75	0.207	0.207
10.40	0.20	0.20	0.1091	1481.75	0.206	0.206
10.50	0.20	0.20	0.1091	1481.75	0.206	0.206

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.20	0.20	0.1090	1481.75	0.205	0.205
10.70	0.20	0.20	0.1090	1481.75	0.205	0.205
10.80	0.20	0.20	0.1089	1481.75	0.205	0.205
10.90	0.20	0.20	0.1089	1481.75	0.204	0.204
11.00	0.20	0.20	0.1089	1481.75	0.204	0.204
11.10	0.20	0.20	0.1088	1481.75	0.203	0.203
11.20	0.20	0.20	0.1088	1481.75	0.203	0.203
11.30	0.20	0.20	0.1088	1481.75	0.203	0.203
11.40	0.20	0.20	0.1088	1481.75	0.203	0.203
11.50	0.20	0.20	0.1087	1481.75	0.202	0.202
11.60	0.10	0.10	0.1083	1481.75	0.198	0.198
11.70	0.10	0.10	0.1076	1481.74	0.190	0.190
11.80	0.10	0.10	0.1068	1481.74	0.183	0.183
11.90	0.10	0.10	0.1062	1481.73	0.176	0.176
12.00	0.10	0.10	0.1056	1481.73	0.170	0.170
12.10	0.10	0.10	0.1050	1481.72	0.164	0.164
12.20	0.10	0.10	0.1045	1481.72	0.159	0.159
12.30	0.10	0.10	0.1040	1481.72	0.154	0.154
12.40	0.10	0.10	0.1036	1481.72	0.150	0.150
12.50	0.10	0.10	0.1032	1481.71	0.146	0.146
12.60	0.10	0.10	0.1029	1481.71	0.142	0.142
12.70	0.10	0.10	0.1025	1481.71	0.139	0.139
12.80	0.10	0.10	0.1022	1481.71	0.135	0.135
12.90	0.10	0.10	0.1019	1481.70	0.133	0.133
13.00	0.10	0.10	0.1017	1481.70	0.130	0.130
13.10	0.10	0.10	0.1014	1481.70	0.128	0.128
13.20	0.10	0.10	0.1012	1481.70	0.126	0.126
13.30	0.10	0.10	0.1010	1481.70	0.125	0.125
13.40	0.10	0.10	0.1008	1481.70	0.124	0.124
13.50	0.10	0.10	0.1006	1481.69	0.122	0.122
13.60	0.10	0.10	0.1004	1481.69	0.121	0.121
13.70	0.10	0.10	0.1003	1481.69	0.120	0.120
13.80	0.10	0.10	0.1001	1481.69	0.119	0.119
13.90	0.00	0.00	0.0996	1481.69	0.115	0.115
14.00	0.00	0.00	0.0986	1481.68	0.109	0.109
14.10	0.00	0.00	0.0977	1481.67	0.104	0.104
14.20	0.00	0.00	0.0969	1481.67	0.098	0.098
14.30	0.00	0.00	0.0961	1481.66	0.093	0.093
14.40	0.00	0.00	0.0954	1481.66	0.088	0.088
14.50	0.00	0.00	0.0947	1481.65	0.084	0.084
14.60	0.00	0.00	0.0940	1481.65	0.079	0.079
14.70	0.00	0.00	0.0934	1481.64	0.075	0.075
14.80	0.00	0.00	0.0927	1481.64	0.071	0.071
14.90	0.00	0.00	0.0922	1481.64	0.068	0.068
15.00	0.00	0.00	0.0916	1481.63	0.064	0.064

Total Routing Mass Balance Discrepancy is -0.13%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.30	0.30	0.0000	1481.00	0.000	0.000
Max. Inflow	1.10	14.40	14.40	0.2307	1482.59	2.89	2.89
Max. Outflow	1.30	3.10	3.10	0.3165	1483.16	4.07	4.07
Final	15.00	0.00	0.00	0.0916	1481.63	0.064	0.064

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \BASINS\BASN I-3\3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.40	0.40	0.0000	1481.00	0.000	0.000
0.10	0.40	0.40	0.0033	1481.02	0.000	0.000
0.20	0.50	0.50	0.0070	1481.05	0.000	0.000
0.30	0.60	0.60	0.0116	1481.08	0.000	0.000
0.40	0.70	0.70	0.0169	1481.12	0.000	0.000
0.50	0.80	0.80	0.0231	1481.16	0.000	0.000
0.60	0.90	0.90	0.0302	1481.21	0.000	0.000
0.70	2.40	2.40	0.0438	1481.30	0.000	0.000
0.80	3.90	3.90	0.0698	1481.48	0.000	0.000
0.90	5.40	5.40	0.1075	1481.74	0.189	0.189
1.00	10.50	10.50	0.1674	1482.15	1.22	1.22
1.10	16.40	16.40	0.2596	1482.79	3.36	3.36
1.20	10.20	10.20	0.3379	1483.29	4.30	4.30
1.30	3.50	3.50	0.3581	1483.41	4.50	4.50
1.40	2.40	2.40	0.3459	1483.34	4.37	4.37
1.50	2.00	2.00	0.3286	1483.23	4.20	4.20
1.60	1.70	1.70	0.3100	1483.12	4.00	4.00
1.70	1.40	1.40	0.2906	1483.00	3.79	3.79
1.80	1.20	1.20	0.2711	1482.87	3.53	3.53
1.90	1.20	1.20	0.2530	1482.75	3.26	3.26
2.00	1.10	1.10	0.2366	1482.63	3.00	3.00
2.10	1.00	1.00	0.2220	1482.53	2.63	2.63
2.20	0.90	0.90	0.2095	1482.45	2.30	2.30
2.30	0.90	0.90	0.1990	1482.37	2.04	2.04
2.40	0.80	0.80	0.1901	1482.31	1.82	1.82
2.50	0.80	0.80	0.1825	1482.26	1.62	1.62
2.60	0.70	0.70	0.1761	1482.21	1.44	1.44
2.70	0.70	0.70	0.1705	1482.18	1.30	1.30
2.80	0.70	0.70	0.1660	1482.15	1.19	1.19
2.90	0.70	0.70	0.1624	1482.12	1.10	1.10
3.00	0.60	0.60	0.1590	1482.10	1.02	1.02
3.10	0.60	0.60	0.1558	1482.07	0.95	0.95
3.20	0.60	0.60	0.1531	1482.06	0.90	0.90
3.30	0.60	0.60	0.1508	1482.04	0.85	0.85
3.40	0.50	0.50	0.1485	1482.02	0.80	0.80
3.50	0.50	0.50	0.1462	1482.01	0.76	0.76
3.60	0.50	0.50	0.1443	1482.00	0.72	0.72
3.70	0.50	0.50	0.1426	1481.98	0.69	0.69
3.80	0.50	0.50	0.1411	1481.97	0.66	0.66
3.90	0.50	0.50	0.1399	1481.97	0.64	0.64
4.00	0.50	0.50	0.1388	1481.96	0.62	0.62
4.10	0.50	0.50	0.1378	1481.95	0.61	0.61
4.20	0.50	0.50	0.1370	1481.95	0.59	0.59
4.30	0.40	0.40	0.1359	1481.94	0.57	0.57
4.40	0.40	0.40	0.1346	1481.93	0.55	0.55
4.50	0.40	0.40	0.1335	1481.92	0.53	0.53
4.60	0.40	0.40	0.1325	1481.91	0.51	0.51
4.70	0.40	0.40	0.1316	1481.91	0.497	0.497

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.40	0.40	0.1308	1481.90	0.484	0.484
4.90	0.40	0.40	0.1302	1481.90	0.474	0.474
5.00	0.40	0.40	0.1296	1481.89	0.466	0.466
5.10	0.40	0.40	0.1291	1481.89	0.459	0.459
5.20	0.40	0.40	0.1286	1481.89	0.452	0.452
5.30	0.40	0.40	0.1282	1481.88	0.447	0.447
5.40	0.30	0.30	0.1275	1481.88	0.436	0.436
5.50	0.30	0.30	0.1264	1481.87	0.421	0.421
5.60	0.30	0.30	0.1255	1481.87	0.408	0.408
5.70	0.30	0.30	0.1246	1481.86	0.397	0.397
5.80	0.30	0.30	0.1239	1481.85	0.386	0.386
5.90	0.30	0.30	0.1232	1481.85	0.377	0.377
6.00	0.30	0.30	0.1226	1481.85	0.368	0.368
6.10	0.30	0.30	0.1221	1481.84	0.361	0.361
6.20	0.30	0.30	0.1216	1481.84	0.354	0.354
6.30	0.30	0.30	0.1212	1481.84	0.349	0.349
6.40	0.30	0.30	0.1208	1481.83	0.343	0.343
6.50	0.30	0.30	0.1204	1481.83	0.339	0.339
6.60	0.30	0.30	0.1201	1481.83	0.334	0.334
6.70	0.30	0.30	0.1199	1481.83	0.331	0.331
6.80	0.30	0.30	0.1196	1481.83	0.327	0.327
6.90	0.30	0.30	0.1194	1481.82	0.324	0.324
7.00	0.30	0.30	0.1192	1481.82	0.322	0.322
7.10	0.30	0.30	0.1191	1481.82	0.319	0.319
7.20	0.30	0.30	0.1189	1481.82	0.317	0.317
7.30	0.30	0.30	0.1188	1481.82	0.315	0.315
7.40	0.30	0.30	0.1187	1481.82	0.314	0.314
7.50	0.30	0.30	0.1185	1481.82	0.312	0.312
7.60	0.30	0.30	0.1184	1481.82	0.311	0.311
7.70	0.30	0.30	0.1184	1481.82	0.310	0.310
7.80	0.30	0.30	0.1183	1481.82	0.309	0.309
7.90	0.20	0.20	0.1178	1481.81	0.302	0.302
8.00	0.20	0.20	0.1170	1481.81	0.291	0.291
8.10	0.20	0.20	0.1163	1481.80	0.281	0.281
8.20	0.20	0.20	0.1157	1481.80	0.274	0.274
8.30	0.20	0.20	0.1151	1481.79	0.268	0.268
8.40	0.20	0.20	0.1146	1481.79	0.262	0.262
8.50	0.20	0.20	0.1141	1481.79	0.257	0.257
8.60	0.20	0.20	0.1136	1481.78	0.252	0.252
8.70	0.20	0.20	0.1132	1481.78	0.248	0.248
8.80	0.20	0.20	0.1128	1481.78	0.244	0.244
8.90	0.20	0.20	0.1125	1481.78	0.241	0.241
9.00	0.20	0.20	0.1121	1481.77	0.237	0.237
9.10	0.20	0.20	0.1118	1481.77	0.234	0.234
9.20	0.20	0.20	0.1116	1481.77	0.231	0.231
9.30	0.20	0.20	0.1113	1481.77	0.229	0.229
9.40	0.20	0.20	0.1111	1481.77	0.227	0.227
9.50	0.20	0.20	0.1109	1481.77	0.224	0.224
9.60	0.20	0.20	0.1107	1481.76	0.222	0.222
9.70	0.20	0.20	0.1105	1481.76	0.221	0.221
9.80	0.20	0.20	0.1103	1481.76	0.219	0.219
9.90	0.20	0.20	0.1102	1481.76	0.217	0.217
10.00	0.20	0.20	0.1101	1481.76	0.216	0.216
10.10	0.20	0.20	0.1099	1481.76	0.215	0.215
10.20	0.20	0.20	0.1098	1481.76	0.213	0.213
10.30	0.20	0.20	0.1097	1481.76	0.212	0.212
10.40	0.20	0.20	0.1096	1481.76	0.211	0.211
10.50	0.20	0.20	0.1095	1481.76	0.210	0.210

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.20	0.20	0.1094	1481.76	0.210	0.210
10.70	0.20	0.20	0.1094	1481.75	0.209	0.209
10.80	0.20	0.20	0.1093	1481.75	0.208	0.208
10.90	0.20	0.20	0.1092	1481.75	0.207	0.207
11.00	0.20	0.20	0.1092	1481.75	0.207	0.207
11.10	0.20	0.20	0.1091	1481.75	0.206	0.206
11.20	0.20	0.20	0.1091	1481.75	0.206	0.206
11.30	0.20	0.20	0.1090	1481.75	0.205	0.205
11.40	0.20	0.20	0.1090	1481.75	0.205	0.205
11.50	0.20	0.20	0.1089	1481.75	0.204	0.204
11.60	0.20	0.20	0.1089	1481.75	0.204	0.204
11.70	0.20	0.20	0.1089	1481.75	0.204	0.204
11.80	0.20	0.20	0.1088	1481.75	0.203	0.203
11.90	0.20	0.20	0.1088	1481.75	0.203	0.203
12.00	0.10	0.10	0.1084	1481.75	0.199	0.199
12.10	0.10	0.10	0.1076	1481.74	0.191	0.191
12.20	0.10	0.10	0.1069	1481.74	0.183	0.183
12.30	0.10	0.10	0.1062	1481.73	0.177	0.177
12.40	0.10	0.10	0.1056	1481.73	0.170	0.170
12.50	0.10	0.10	0.1051	1481.73	0.165	0.165
12.60	0.10	0.10	0.1046	1481.72	0.159	0.159
12.70	0.10	0.10	0.1041	1481.72	0.155	0.155
12.80	0.10	0.10	0.1036	1481.72	0.150	0.150
12.90	0.10	0.10	0.1033	1481.71	0.146	0.146
13.00	0.10	0.10	0.1029	1481.71	0.142	0.142
13.10	0.10	0.10	0.1026	1481.71	0.139	0.139
13.20	0.10	0.10	0.1022	1481.71	0.136	0.136
13.30	0.10	0.10	0.1020	1481.70	0.133	0.133
13.40	0.10	0.10	0.1017	1481.70	0.130	0.130
13.50	0.10	0.10	0.1015	1481.70	0.128	0.128
13.60	0.10	0.10	0.1012	1481.70	0.126	0.126
13.70	0.10	0.10	0.1010	1481.70	0.125	0.125
13.80	0.10	0.10	0.1008	1481.70	0.124	0.124
13.90	0.10	0.10	0.1006	1481.69	0.122	0.122
14.00	0.00	0.00	0.1001	1481.69	0.119	0.119
14.10	0.00	0.00	0.0991	1481.68	0.112	0.112
14.20	0.00	0.00	0.0982	1481.68	0.107	0.107
14.30	0.00	0.00	0.0973	1481.67	0.101	0.101
14.40	0.00	0.00	0.0965	1481.67	0.096	0.096
14.50	0.00	0.00	0.0958	1481.66	0.091	0.091
14.60	0.00	0.00	0.0950	1481.66	0.086	0.086
14.70	0.00	0.00	0.0943	1481.65	0.082	0.082
14.80	0.00	0.00	0.0937	1481.65	0.077	0.077
14.90	0.00	0.00	0.0931	1481.64	0.073	0.073
15.00	0.00	0.00	0.0925	1481.64	0.069	0.069

Total Routing Mass Balance Discrepancy is -0.16%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASN I-3\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASN I-3\3.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI \IBASINS\BASN I-3\I-3.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1481.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.40	0.40	0.0000	1481.00	0.000	0.000
Max. Inflow	1.10	16.40	16.40	0.2596	1482.79	3.36	3.36
Max. Outflow	1.30	3.50	3.50	0.3581	1483.41	4.50	4.50
Final	15.00	0.00	0.00	0.0925	1481.64	0.069	0.069

SCS Segmental Travel Time

Summary for From Basin I-3 to POI

Segment 1: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 610 ft, S = .06 ft/ft, n = .035

Travel Time = 0.6 minutes

Segment 2: Concentrated Flow

L = 1279 ft, S = .02 ft/ft, Unpaved surface

Travel Time = 9.3 minutes

Total Travel Time = 9.97 Minutes

SCS Segmental Travel Time

Summary for From Basin I-3 to POI

Segment 1: Channel Flow

A = 18 sq. ft, P = 9.4 ft, L = 610 ft, S = .05 ft/ft, n = .035

Travel Time = 0.7 minutes

Segment 2: Overland Flow

L = 150 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in

Travel Time = 28 minutes

Segment 3: Concentrated Flow

L = 1279 ft, S = .02 ft/ft, Unpaved surface

Travel Time = 9.3 minutes

Total Travel Time = 38.04 Minutes

Hydrograph Combination

I1 + I3 *hr*

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-1\routed\0036.D	01/13/2010	0036	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-3\routed\0038.D	01/13/2010	0038	150	0.1000
COMBINED HYDROGRAPH	01/13/2010	0036	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.00	0.00	0.00
01/13/2010	0106	0.00	0.00	0.00
01/13/2010	0112	0.00	0.00	0.00
01/13/2010	0118	0.00	0.00	0.00
01/13/2010	0124	0.00	0.00	0.00
01/13/2010	0130	0.00	0.00	0.00
01/13/2010	0136	0.00	0.00	0.00
01/13/2010	0142	0.00	0.05	0.05
01/13/2010	0148	0.00	0.31	0.31
01/13/2010	0154	0.00	0.58	0.58
01/13/2010	0200	0.00	0.69	0.69
01/13/2010	0206	0.03	0.71	0.74
01/13/2010	0212	0.20	0.70	0.90
01/13/2010	0218	0.43	0.69	1.11
01/13/2010	0224	0.65	0.66	1.31
01/13/2010	0230	0.85	0.63	1.48
01/13/2010	0236	1.00	0.60	1.60
01/13/2010	0242	1.13	0.57	1.69
01/13/2010	0248	1.22	0.53	1.75
01/13/2010	0254	1.28	0.50	1.78
01/13/2010	0300	1.32	0.48	1.80
01/13/2010	0306	1.35	0.46	1.81
01/13/2010	0312	1.37	0.44	1.80
01/13/2010	0318	1.38	0.41	1.79
01/13/2010	0324	1.38	0.39	1.77
01/13/2010	0330	1.38	0.37	1.75
01/13/2010	0336	1.38	0.35	1.73
01/13/2010	0342	1.37	0.33	1.70
01/13/2010	0348	1.36	0.32	1.68
01/13/2010	0354	1.34	0.31	1.65
01/13/2010	0400	1.33	0.29	1.62
01/13/2010	0406	1.31	0.28	1.59
01/13/2010	0412	1.29	0.28	1.57
01/13/2010	0418	1.27	0.27	1.54
01/13/2010	0424	1.25	0.26	1.52
01/13/2010	0430	1.24	0.26	1.49
01/13/2010	0436	1.22	0.25	1.47
01/13/2010	0442	1.20	0.25	1.45
01/13/2010	0448	1.18	0.24	1.42
01/13/2010	0454	1.16	0.23	1.39
01/13/2010	0500	1.14	0.22	1.36
01/13/2010	0506	1.12	0.21	1.33
01/13/2010	0512	1.10	0.20	1.30
01/13/2010	0518	1.08	0.19	1.28
01/13/2010	0524	1.06	0.19	1.25
01/13/2010	0530	1.04	0.18	1.22
01/13/2010	0536	1.02	0.17	1.20

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0542	1.01	0.17	1.18
01/13/2010	0548	0.99	0.16	1.16
01/13/2010	0554	0.98	0.16	1.14
01/13/2010	0600	0.96	0.15	1.12
01/13/2010	0606	0.95	0.15	1.10
01/13/2010	0612	0.93	0.14	1.08
01/13/2010	0618	0.92	0.14	1.06
01/13/2010	0624	0.90	0.14	1.04
01/13/2010	0630	0.89	0.13	1.02
01/13/2010	0636	0.87	0.13	1.00
01/13/2010	0642	0.86	0.13	0.99
01/13/2010	0648	0.85	0.13	0.98
01/13/2010	0654	0.84	0.13	0.96
01/13/2010	0700	0.82	0.12	0.95
01/13/2010	0706	0.81	0.12	0.93
01/13/2010	0712	0.79	0.12	0.92
01/13/2010	0718	0.78	0.12	0.90
01/13/2010	0724	0.77	0.12	0.89
01/13/2010	0730	0.75	0.12	0.87
01/13/2010	0736	0.74	0.12	0.86
01/13/2010	0742	0.73	0.12	0.85
01/13/2010	0748	0.72	0.12	0.84
01/13/2010	0754	0.71	0.11	0.83
01/13/2010	0800	0.70	0.11	0.82
01/13/2010	0806	0.70	0.11	0.81
01/13/2010	0812	0.69	0.11	0.80
01/13/2010	0818	0.68	0.11	0.79
01/13/2010	0824	0.67	0.11	0.79
01/13/2010	0830	0.67	0.11	0.78
01/13/2010	0836	0.66	0.11	0.77
01/13/2010	0842	0.65	0.11	0.76
01/13/2010	0848	0.64	0.11	0.75
01/13/2010	0854	0.63	0.11	0.74
01/13/2010	0900	0.62	0.11	0.73
01/13/2010	0906	0.61	0.11	0.72
01/13/2010	0912	0.60	0.11	0.71
01/13/2010	0918	0.60	0.11	0.70
01/13/2010	0924	0.59	0.11	0.69
01/13/2010	0930	0.58	0.11	0.69
01/13/2010	0936	0.57	0.11	0.68
01/13/2010	0942	0.57	0.11	0.67
01/13/2010	0948	0.56	0.11	0.67
01/13/2010	0954	0.55	0.11	0.66
01/13/2010	1000	0.55	0.10	0.65
01/13/2010	1006	0.54	0.10	0.65
01/13/2010	1012	0.54	0.10	0.64
01/13/2010	1018	0.53	0.10	0.64
01/13/2010	1024	0.53	0.10	0.63
01/13/2010	1030	0.52	0.10	0.62
01/13/2010	1036	0.52	0.10	0.62
01/13/2010	1042	0.51	0.10	0.62
01/13/2010	1048	0.51	0.10	0.61
01/13/2010	1054	0.50	0.10	0.61
01/13/2010	1100	0.50	0.10	0.60
01/13/2010	1106	0.49	0.10	0.60
01/13/2010	1112	0.49	0.10	0.59
01/13/2010	1118	0.48	0.10	0.58
01/13/2010	1124	0.47	0.10	0.57
01/13/2010	1130	0.47	0.10	0.57

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1136	0.46	0.10	0.56
01/13/2010	1142	0.46	0.10	0.56
01/13/2010	1148	0.45	0.10	0.55
01/13/2010	1154	0.45	0.10	0.55
01/13/2010	1200	0.44	0.10	0.54
01/13/2010	1206	0.44	0.10	0.54
01/13/2010	1212	0.43	0.10	0.54
01/13/2010	1218	0.43	0.10	0.53
01/13/2010	1224	0.43	0.10	0.53
01/13/2010	1230	0.42	0.10	0.52
01/13/2010	1236	0.42	0.10	0.51
01/13/2010	1242	0.41	0.09	0.50
01/13/2010	1248	0.41	0.09	0.49
01/13/2010	1254	0.40	0.08	0.48
01/13/2010	1300	0.39	0.08	0.47
01/13/2010	1306	0.39	0.07	0.46
01/13/2010	1312	0.38	0.07	0.45
01/13/2010	1318	0.38	0.07	0.44
01/13/2010	1324	0.37	0.06	0.43
01/13/2010	1330	0.36	0.06	0.42
01/13/2010	1336	0.36	0.06	0.42
01/13/2010	1342	0.35	0.05	0.41
01/13/2010	1348	0.35	0.05	0.40
01/13/2010	1354	0.34	0.05	0.39
01/13/2010	1400	0.34	0.04	0.38
01/13/2010	1406	0.33	0.04	0.37
01/13/2010	1412	0.32	0.04	0.36
01/13/2010	1418	0.31	0.04	0.35
01/13/2010	1424	0.31	0.04	0.34
01/13/2010	1430	0.30	0.03	0.34
01/13/2010	1436	0.29	0.03	0.33
01/13/2010	1442	0.29	0.03	0.32
01/13/2010	1448	0.28	0.03	0.31
01/13/2010	1454	0.28	0.03	0.31
01/13/2010	1500	0.27	0.03	0.30
01/13/2010	1506	0.27	0.03	0.30
01/13/2010	1512	0.26	0.03	0.29
01/13/2010	1518	0.26	0.03	0.28
01/13/2010	1524	0.25	0.03	0.28
01/13/2010	1530	0.24	0.03	0.27
01/13/2010	1536	0.24	0.00	0.24
01/13/2010	1542	0.00	0.00	0.00

Hydrograph Combination

I1 + I3 2yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO116251N\SIBASIN I-1\routed\0036.D	01/13/2010	0036	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO116251N\SIBASIN I-3\routed\0037.D	01/13/2010	0036	150	0.1000
COMBINED HYDROGRAPH	01/13/2010	0036	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.00	0.00	0.00
01/13/2010	0106	0.00	0.00	0.00
01/13/2010	0112	0.00	0.00	0.00
01/13/2010	0118	0.00	0.00	0.00
01/13/2010	0124	0.00	0.00	0.00
01/13/2010	0130	0.00	0.00	0.00
01/13/2010	0136	0.00	0.00	0.00
01/13/2010	0142	0.00	0.18	0.18
01/13/2010	0148	0.00	0.73	0.73
01/13/2010	0154	0.00	1.17	1.17
01/13/2010	0200	0.08	1.27	1.35
01/13/2010	0206	0.45	1.22	1.67
01/13/2010	0212	1.03	1.14	2.17
01/13/2010	0218	1.62	1.06	2.68
01/13/2010	0224	2.03	0.98	3.01
01/13/2010	0230	2.31	0.91	3.21
01/13/2010	0236	2.49	0.84	3.33
01/13/2010	0242	2.62	0.77	3.39
01/13/2010	0248	2.70	0.72	3.41
01/13/2010	0254	2.73	0.67	3.40
01/13/2010	0300	2.74	0.63	3.37
01/13/2010	0306	2.72	0.59	3.31
01/13/2010	0312	2.69	0.55	3.24
01/13/2010	0318	2.65	0.52	3.16
01/13/2010	0324	2.60	0.49	3.09
01/13/2010	0330	2.54	0.47	3.01
01/13/2010	0336	2.48	0.45	2.93
01/13/2010	0342	2.43	0.43	2.86
01/13/2010	0348	2.38	0.41	2.79
01/13/2010	0354	2.33	0.38	2.71
01/13/2010	0400	2.28	0.36	2.64
01/13/2010	0406	2.23	0.35	2.57
01/13/2010	0412	2.17	0.33	2.50
01/13/2010	0418	2.12	0.32	2.43
01/13/2010	0424	2.07	0.30	2.37
01/13/2010	0430	2.02	0.29	2.31
01/13/2010	0436	1.97	0.28	2.26
01/13/2010	0442	1.93	0.27	2.20
01/13/2010	0448	1.88	0.27	2.15
01/13/2010	0454	1.84	0.26	2.10
01/13/2010	0500	1.80	0.26	2.05
01/13/2010	0506	1.75	0.25	2.00
01/13/2010	0512	1.70	0.25	1.95
01/13/2010	0518	1.66	0.24	1.91
01/13/2010	0524	1.62	0.24	1.86
01/13/2010	0530	1.58	0.24	1.82
01/13/2010	0536	1.54	0.23	1.77

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0542	1.50	0.23	1.73
01/13/2010	0548	1.46	0.22	1.68
01/13/2010	0554	1.42	0.21	1.63
01/13/2010	0600	1.38	0.20	1.59
01/13/2010	0606	1.35	0.19	1.55
01/13/2010	0612	1.32	0.19	1.51
01/13/2010	0618	1.29	0.18	1.47
01/13/2010	0624	1.27	0.17	1.44
01/13/2010	0630	1.24	0.17	1.41
01/13/2010	0636	1.22	0.16	1.38
01/13/2010	0642	1.19	0.16	1.34
01/13/2010	0648	1.16	0.15	1.31
01/13/2010	0654	1.14	0.15	1.28
01/13/2010	0700	1.11	0.14	1.26
01/13/2010	0706	1.09	0.14	1.23
01/13/2010	0712	1.07	0.14	1.21
01/13/2010	0718	1.05	0.13	1.18
01/13/2010	0724	1.03	0.13	1.16
01/13/2010	0730	1.01	0.13	1.14
01/13/2010	0736	1.00	0.13	1.13
01/13/2010	0742	0.99	0.13	1.11
01/13/2010	0748	0.97	0.12	1.09
01/13/2010	0754	0.95	0.12	1.08
01/13/2010	0800	0.94	0.12	1.06
01/13/2010	0806	0.92	0.12	1.04
01/13/2010	0812	0.91	0.12	1.02
01/13/2010	0818	0.89	0.12	1.01
01/13/2010	0824	0.88	0.12	0.99
01/13/2010	0830	0.86	0.12	0.98
01/13/2010	0836	0.85	0.12	0.97
01/13/2010	0842	0.84	0.11	0.96
01/13/2010	0848	0.83	0.11	0.94
01/13/2010	0854	0.82	0.11	0.93
01/13/2010	0900	0.81	0.11	0.92
01/13/2010	0906	0.79	0.11	0.90
01/13/2010	0912	0.78	0.11	0.89
01/13/2010	0918	0.76	0.11	0.88
01/13/2010	0924	0.75	0.11	0.86
01/13/2010	0930	0.74	0.11	0.85
01/13/2010	0936	0.73	0.11	0.84
01/13/2010	0942	0.72	0.11	0.83
01/13/2010	0948	0.71	0.11	0.82
01/13/2010	0954	0.70	0.11	0.81
01/13/2010	1000	0.70	0.11	0.80
01/13/2010	1006	0.69	0.11	0.79
01/13/2010	1012	0.68	0.11	0.79
01/13/2010	1018	0.67	0.11	0.78
01/13/2010	1024	0.67	0.11	0.77
01/13/2010	1030	0.66	0.11	0.77
01/13/2010	1036	0.65	0.11	0.76
01/13/2010	1042	0.65	0.11	0.75
01/13/2010	1048	0.64	0.10	0.75
01/13/2010	1054	0.64	0.10	0.74
01/13/2010	1100	0.63	0.10	0.74
01/13/2010	1106	0.62	0.10	0.73
01/13/2010	1112	0.62	0.10	0.72
01/13/2010	1118	0.61	0.10	0.71
01/13/2010	1124	0.60	0.10	0.70
01/13/2010	1130	0.59	0.10	0.69

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1136	0.58	0.10	0.69
01/13/2010	1142	0.58	0.10	0.68
01/13/2010	1148	0.57	0.10	0.67
01/13/2010	1154	0.56	0.10	0.67
01/13/2010	1200	0.56	0.10	0.66
01/13/2010	1206	0.55	0.10	0.65
01/13/2010	1212	0.54	0.10	0.65
01/13/2010	1218	0.54	0.10	0.64
01/13/2010	1224	0.53	0.10	0.63
01/13/2010	1230	0.52	0.10	0.62
01/13/2010	1236	0.51	0.10	0.62
01/13/2010	1242	0.50	0.10	0.61
01/13/2010	1248	0.50	0.10	0.60
01/13/2010	1254	0.49	0.10	0.59
01/13/2010	1300	0.48	0.10	0.58
01/13/2010	1306	0.48	0.10	0.57
01/13/2010	1312	0.47	0.10	0.57
01/13/2010	1318	0.46	0.09	0.55
01/13/2010	1324	0.45	0.09	0.54
01/13/2010	1330	0.45	0.08	0.53
01/13/2010	1336	0.44	0.08	0.52
01/13/2010	1342	0.43	0.07	0.50
01/13/2010	1348	0.42	0.07	0.49
01/13/2010	1354	0.42	0.07	0.48
01/13/2010	1400	0.41	0.06	0.47
01/13/2010	1406	0.40	0.06	0.46
01/13/2010	1412	0.40	0.06	0.45
01/13/2010	1418	0.39	0.05	0.44
01/13/2010	1424	0.38	0.05	0.43
01/13/2010	1430	0.37	0.05	0.42
01/13/2010	1436	0.36	0.05	0.41
01/13/2010	1442	0.35	0.04	0.40
01/13/2010	1448	0.35	0.04	0.39
01/13/2010	1454	0.34	0.04	0.38
01/13/2010	1500	0.33	0.04	0.37
01/13/2010	1506	0.32	0.03	0.36
01/13/2010	1512	0.32	0.03	0.35
01/13/2010	1518	0.31	0.03	0.34
01/13/2010	1524	0.30	0.03	0.33
01/13/2010	1530	0.29	0.03	0.32
01/13/2010	1536	0.28	0.00	0.28
01/13/2010	1542	0.00	0.00	0.00

Hydrograph Combination

I1 + I3 10yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\SIBASIN I-1\routed\0036.HYD	01/13/2010	0036	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\SIBASIN I-3\routed\0038.HYD	01/13/2010	0038	150	0.1000
COMBINED HYDROGRAPH	01/13/2010	0036	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.00	0.00	0.00
01/13/2010	0106	0.00	0.00	0.00
01/13/2010	0112	0.00	0.00	0.00
01/13/2010	0118	0.00	0.00	0.00
01/13/2010	0124	0.00	0.00	0.00
01/13/2010	0130	0.00	0.00	0.00
01/13/2010	0136	0.00	0.20	0.20
01/13/2010	0142	0.00	1.25	1.25
01/13/2010	0148	0.15	2.63	2.79
01/13/2010	0154	0.99	3.22	4.21
01/13/2010	0200	2.72	3.18	5.91
01/13/2010	0206	3.83	2.99	6.82
01/13/2010	0212	4.45	2.69	7.13
01/13/2010	0218	4.85	2.38	7.23
01/13/2010	0224	5.11	2.12	7.23
01/13/2010	0230	5.28	1.89	7.17
01/13/2010	0236	5.39	1.68	7.07
01/13/2010	0242	5.45	1.48	6.93
01/13/2010	0248	5.49	1.32	6.81
01/13/2010	0254	5.50	1.19	6.69
01/13/2010	0300	5.49	1.09	6.58
01/13/2010	0306	5.48	1.00	6.48
01/13/2010	0312	5.46	0.92	6.38
01/13/2010	0318	5.43	0.85	6.29
01/13/2010	0324	5.40	0.80	6.20
01/13/2010	0330	5.36	0.75	6.11
01/13/2010	0336	5.32	0.70	6.02
01/13/2010	0342	5.28	0.66	5.94
01/13/2010	0348	5.24	0.62	5.86
01/13/2010	0354	5.19	0.59	5.78
01/13/2010	0400	5.14	0.57	5.71
01/13/2010	0406	5.09	0.55	5.64
01/13/2010	0412	5.04	0.53	5.57
01/13/2010	0418	4.99	0.51	5.49
01/13/2010	0424	4.93	0.49	5.42
01/13/2010	0430	4.88	0.47	5.35
01/13/2010	0436	4.82	0.45	5.27
01/13/2010	0442	4.76	0.43	5.20
01/13/2010	0448	4.71	0.42	5.13
01/13/2010	0454	4.65	0.41	5.06
01/13/2010	0500	4.59	0.40	4.99
01/13/2010	0506	4.54	0.38	4.92
01/13/2010	0512	4.48	0.38	4.86
01/13/2010	0518	4.42	0.37	4.79
01/13/2010	0524	4.36	0.36	4.72
01/13/2010	0530	4.30	0.35	4.66
01/13/2010	0536	4.24	0.35	4.59

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0542	4.18	0.34	4.53
01/13/2010	0548	4.12	0.33	4.46
01/13/2010	0554	4.06	0.32	4.38
01/13/2010	0600	4.00	0.31	4.31
01/13/2010	0606	3.94	0.30	4.24
01/13/2010	0612	3.88	0.29	4.17
01/13/2010	0618	3.82	0.28	4.09
01/13/2010	0624	3.75	0.27	4.02
01/13/2010	0630	3.68	0.26	3.94
01/13/2010	0636	3.61	0.26	3.87
01/13/2010	0642	3.54	0.25	3.80
01/13/2010	0648	3.47	0.25	3.72
01/13/2010	0654	3.40	0.25	3.65
01/13/2010	0700	3.33	0.24	3.57
01/13/2010	0706	3.26	0.24	3.50
01/13/2010	0712	3.19	0.24	3.43
01/13/2010	0718	3.13	0.23	3.36
01/13/2010	0724	3.06	0.23	3.29
01/13/2010	0730	3.00	0.23	3.22
01/13/2010	0736	2.93	0.23	3.16
01/13/2010	0742	2.82	0.22	3.04
01/13/2010	0748	2.71	0.22	2.93
01/13/2010	0754	2.61	0.22	2.83
01/13/2010	0800	2.52	0.22	2.74
01/13/2010	0806	2.44	0.22	2.65
01/13/2010	0812	2.36	0.22	2.58
01/13/2010	0818	2.29	0.21	2.50
01/13/2010	0824	2.22	0.21	2.44
01/13/2010	0830	2.16	0.21	2.37
01/13/2010	0836	2.10	0.21	2.31
01/13/2010	0842	2.04	0.21	2.25
01/13/2010	0848	1.98	0.21	2.19
01/13/2010	0854	1.93	0.21	2.14
01/13/2010	0900	1.88	0.21	2.09
01/13/2010	0906	1.83	0.21	2.04
01/13/2010	0912	1.79	0.21	1.99
01/13/2010	0918	1.74	0.21	1.95
01/13/2010	0924	1.69	0.21	1.90
01/13/2010	0930	1.64	0.20	1.84
01/13/2010	0936	1.60	0.20	1.79
01/13/2010	0942	1.55	0.19	1.74
01/13/2010	0948	1.51	0.18	1.69
01/13/2010	0954	1.48	0.17	1.65
01/13/2010	1000	1.44	0.17	1.61
01/13/2010	1006	1.41	0.16	1.57
01/13/2010	1012	1.38	0.16	1.53
01/13/2010	1018	1.35	0.15	1.50
01/13/2010	1024	1.33	0.15	1.47
01/13/2010	1030	1.30	0.14	1.45
01/13/2010	1036	1.28	0.14	1.42
01/13/2010	1042	1.25	0.14	1.39
01/13/2010	1048	1.23	0.13	1.36
01/13/2010	1054	1.20	0.13	1.34
01/13/2010	1100	1.18	0.13	1.31
01/13/2010	1106	1.16	0.13	1.29
01/13/2010	1112	1.14	0.13	1.27
01/13/2010	1118	1.12	0.12	1.25
01/13/2010	1124	1.11	0.12	1.23
01/13/2010	1130	1.09	0.12	1.21

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1136	1.07	0.12	1.19
01/13/2010	1142	1.06	0.12	1.18
01/13/2010	1148	1.04	0.12	1.16
01/13/2010	1154	1.02	0.12	1.14
01/13/2010	1200	1.01	0.12	1.13
01/13/2010	1206	1.00	0.12	1.11
01/13/2010	1212	0.98	0.12	1.10
01/13/2010	1218	0.97	0.11	1.08
01/13/2010	1224	0.95	0.11	1.06
01/13/2010	1230	0.93	0.11	1.05
01/13/2010	1236	0.92	0.11	1.03
01/13/2010	1242	0.90	0.11	1.01
01/13/2010	1248	0.89	0.11	1.00
01/13/2010	1254	0.87	0.11	0.98
01/13/2010	1300	0.85	0.11	0.96
01/13/2010	1306	0.83	0.11	0.94
01/13/2010	1312	0.82	0.11	0.93
01/13/2010	1318	0.80	0.11	0.91
01/13/2010	1324	0.79	0.11	0.89
01/13/2010	1330	0.77	0.11	0.88
01/13/2010	1336	0.75	0.11	0.86
01/13/2010	1342	0.73	0.11	0.84
01/13/2010	1348	0.72	0.11	0.83
01/13/2010	1354	0.71	0.11	0.81
01/13/2010	1400	0.69	0.11	0.80
01/13/2010	1406	0.67	0.11	0.78
01/13/2010	1412	0.66	0.10	0.76
01/13/2010	1418	0.65	0.10	0.74
01/13/2010	1424	0.63	0.09	0.72
01/13/2010	1430	0.61	0.09	0.70
01/13/2010	1436	0.60	0.08	0.68
01/13/2010	1442	0.58	0.08	0.66
01/13/2010	1448	0.57	0.08	0.64
01/13/2010	1454	0.55	0.07	0.62
01/13/2010	1500	0.53	0.07	0.60
01/13/2010	1506	0.52	0.06	0.58
01/13/2010	1512	0.50	0.06	0.56
01/13/2010	1518	0.48	0.06	0.54
01/13/2010	1524	0.47	0.05	0.52
01/13/2010	1530	0.45	0.05	0.51
01/13/2010	1536	0.44	0.00	0.44
01/13/2010	1542	0.00	0.00	0.00

Hydrograph Combination

I1+I3 25yr.

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-1\routed\056 HYD	01/13/2010	0036	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-3\routed\058 HYD	01/13/2010	0036	150	0.1000
COMBINED HYDROGRAPH	01/13/2010	0036	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.00	0.00	0.00
01/13/2010	0106	0.00	0.00	0.00
01/13/2010	0112	0.00	0.00	0.00
01/13/2010	0118	0.00	0.00	0.00
01/13/2010	0124	0.00	0.00	0.00
01/13/2010	0130	0.00	0.02	0.02
01/13/2010	0136	0.00	0.38	0.38
01/13/2010	0142	0.03	1.76	1.78
01/13/2010	0148	0.40	3.17	3.57
01/13/2010	0154	1.79	3.71	5.50
01/13/2010	0200	3.50	3.68	7.18
01/13/2010	0206	4.44	3.49	7.93
01/13/2010	0212	5.10	3.27	8.37
01/13/2010	0218	5.53	3.03	8.56
01/13/2010	0224	5.82	2.68	8.49
01/13/2010	0230	6.00	2.34	8.34
01/13/2010	0236	6.12	2.07	8.20
01/13/2010	0242	6.20	1.85	8.05
01/13/2010	0248	6.24	1.64	7.88
01/13/2010	0254	6.26	1.45	7.71
01/13/2010	0300	6.26	1.31	7.57
01/13/2010	0306	6.25	1.19	7.45
01/13/2010	0312	6.24	1.09	7.32
01/13/2010	0318	6.21	1.00	7.22
01/13/2010	0324	6.19	0.93	7.12
01/13/2010	0330	6.15	0.87	7.02
01/13/2010	0336	6.12	0.81	6.93
01/13/2010	0342	6.08	0.76	6.84
01/13/2010	0348	6.03	0.72	6.76
01/13/2010	0354	5.99	0.69	6.68
01/13/2010	0400	5.94	0.65	6.60
01/13/2010	0406	5.90	0.62	6.51
01/13/2010	0412	5.85	0.59	6.43
01/13/2010	0418	5.79	0.56	6.36
01/13/2010	0424	5.74	0.54	6.28
01/13/2010	0430	5.69	0.52	6.21
01/13/2010	0436	5.64	0.51	6.14
01/13/2010	0442	5.58	0.49	6.07
01/13/2010	0448	5.53	0.48	6.01
01/13/2010	0454	5.47	0.47	5.94
01/13/2010	0500	5.41	0.46	5.87
01/13/2010	0506	5.36	0.44	5.80
01/13/2010	0512	5.30	0.43	5.73
01/13/2010	0518	5.24	0.41	5.66
01/13/2010	0524	5.18	0.40	5.59
01/13/2010	0530	5.12	0.39	5.52
01/13/2010	0536	5.07	0.38	5.45

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0542	5.01	0.37	5.38
01/13/2010	0548	4.95	0.36	5.31
01/13/2010	0554	4.89	0.36	5.25
01/13/2010	0600	4.83	0.35	5.18
01/13/2010	0606	4.77	0.35	5.11
01/13/2010	0612	4.70	0.34	5.05
01/13/2010	0618	4.64	0.34	4.98
01/13/2010	0624	4.58	0.33	4.91
01/13/2010	0630	4.52	0.33	4.85
01/13/2010	0636	4.46	0.33	4.78
01/13/2010	0642	4.40	0.32	4.72
01/13/2010	0648	4.33	0.32	4.65
01/13/2010	0654	4.27	0.32	4.59
01/13/2010	0700	4.21	0.31	4.52
01/13/2010	0706	4.15	0.30	4.45
01/13/2010	0712	4.09	0.29	4.38
01/13/2010	0718	4.02	0.28	4.31
01/13/2010	0724	3.96	0.27	4.24
01/13/2010	0730	3.90	0.27	4.17
01/13/2010	0736	3.84	0.26	4.10
01/13/2010	0742	3.78	0.26	4.04
01/13/2010	0748	3.71	0.25	3.96
01/13/2010	0754	3.64	0.25	3.89
01/13/2010	0800	3.57	0.24	3.82
01/13/2010	0806	3.50	0.24	3.75
01/13/2010	0812	3.44	0.24	3.67
01/13/2010	0818	3.37	0.23	3.60
01/13/2010	0824	3.30	0.23	3.53
01/13/2010	0830	3.23	0.23	3.46
01/13/2010	0836	3.16	0.23	3.39
01/13/2010	0842	3.09	0.22	3.32
01/13/2010	0848	3.02	0.22	3.25
01/13/2010	0854	2.96	0.22	3.18
01/13/2010	0900	2.86	0.22	3.08
01/13/2010	0906	2.75	0.22	2.97
01/13/2010	0912	2.65	0.22	2.87
01/13/2010	0918	2.55	0.21	2.77
01/13/2010	0924	2.47	0.21	2.68
01/13/2010	0930	2.39	0.21	2.60
01/13/2010	0936	2.32	0.21	2.53
01/13/2010	0942	2.25	0.21	2.46
01/13/2010	0948	2.18	0.21	2.39
01/13/2010	0954	2.12	0.21	2.33
01/13/2010	1000	2.07	0.21	2.28
01/13/2010	1006	2.02	0.21	2.22
01/13/2010	1012	1.97	0.21	2.17
01/13/2010	1018	1.92	0.21	2.13
01/13/2010	1024	1.87	0.21	2.08
01/13/2010	1030	1.83	0.21	2.03
01/13/2010	1036	1.78	0.20	1.99
01/13/2010	1042	1.73	0.20	1.94
01/13/2010	1048	1.69	0.20	1.89
01/13/2010	1054	1.65	0.20	1.85
01/13/2010	1100	1.61	0.20	1.81
01/13/2010	1106	1.57	0.20	1.77
01/13/2010	1112	1.53	0.20	1.74
01/13/2010	1118	1.50	0.20	1.70
01/13/2010	1124	1.47	0.20	1.67
01/13/2010	1130	1.44	0.20	1.64

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1136	1.41	0.20	1.61
01/13/2010	1142	1.38	0.20	1.58
01/13/2010	1148	1.35	0.20	1.55
01/13/2010	1154	1.33	0.19	1.52
01/13/2010	1200	1.31	0.18	1.49
01/13/2010	1206	1.28	0.18	1.46
01/13/2010	1212	1.25	0.17	1.43
01/13/2010	1218	1.23	0.17	1.40
01/13/2010	1224	1.21	0.16	1.37
01/13/2010	1230	1.18	0.16	1.34
01/13/2010	1236	1.16	0.15	1.31
01/13/2010	1242	1.13	0.15	1.28
01/13/2010	1248	1.11	0.14	1.25
01/13/2010	1254	1.08	0.14	1.22
01/13/2010	1300	1.06	0.14	1.19
01/13/2010	1306	1.03	0.13	1.17
01/13/2010	1312	1.01	0.13	1.14
01/13/2010	1318	0.99	0.13	1.12
01/13/2010	1324	0.97	0.13	1.09
01/13/2010	1330	0.95	0.13	1.07
01/13/2010	1336	0.92	0.12	1.05
01/13/2010	1342	0.90	0.12	1.03
01/13/2010	1348	0.88	0.12	1.00
01/13/2010	1354	0.86	0.12	0.98
01/13/2010	1400	0.84	0.12	0.96
01/13/2010	1406	0.82	0.12	0.94
01/13/2010	1412	0.80	0.12	0.91
01/13/2010	1418	0.77	0.12	0.89
01/13/2010	1424	0.75	0.11	0.86
01/13/2010	1430	0.73	0.11	0.84
01/13/2010	1436	0.71	0.10	0.81
01/13/2010	1442	0.69	0.10	0.79
01/13/2010	1448	0.67	0.09	0.76
01/13/2010	1454	0.65	0.09	0.74
01/13/2010	1500	0.63	0.08	0.72
01/13/2010	1506	0.61	0.08	0.69
01/13/2010	1512	0.59	0.07	0.67
01/13/2010	1518	0.57	0.07	0.64
01/13/2010	1524	0.55	0.07	0.62
01/13/2010	1530	0.53	0.06	0.59
01/13/2010	1536	0.51	0.00	0.51
01/13/2010	1542	0.00	0.00	0.00

Hydrograph Combination

I + I3 *SOYR*

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-1\routed\0038.HYD	01/13/2010	0038	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-3\routed\0038.HYD	01/13/2010	0038	150	0.1000
COMBINED HYDROGRAPH	01/13/2010	0038	175	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0038	0.00	0.00	0.00
01/13/2010	0044	0.00	0.00	0.00
01/13/2010	0050	0.00	0.00	0.00
01/13/2010	0056	0.00	0.00	0.00
01/13/2010	0102	0.00	0.00	0.00
01/13/2010	0108	0.00	0.00	0.00
01/13/2010	0114	0.00	0.00	0.00
01/13/2010	0120	0.00	0.00	0.00
01/13/2010	0126	0.00	0.00	0.00
01/13/2010	0132	0.08	0.00	0.08
01/13/2010	0138	0.80	0.00	0.80
01/13/2010	0144	2.89	0.00	2.89
01/13/2010	0150	3.89	0.00	3.89
01/13/2010	0156	4.07	0.00	4.07
01/13/2010	0202	3.95	0.00	3.95
01/13/2010	0208	3.77	0.00	3.77
01/13/2010	0214	3.55	0.00	3.55
01/13/2010	0220	3.30	0.00	3.30
01/13/2010	0226	3.04	0.00	3.04
01/13/2010	0232	2.68	0.00	2.68
01/13/2010	0238	2.33	0.00	2.33
01/13/2010	0244	2.06	0.00	2.06
01/13/2010	0250	1.84	0.00	1.84
01/13/2010	0256	1.64	0.00	1.64
01/13/2010	0302	1.46	0.00	1.46
01/13/2010	0308	1.31	0.00	1.31
01/13/2010	0314	1.20	0.00	1.20
01/13/2010	0320	1.10	0.00	1.10
01/13/2010	0326	1.01	0.00	1.01
01/13/2010	0332	0.95	0.00	0.95
01/13/2010	0338	0.88	0.00	0.88
01/13/2010	0344	0.82	0.00	0.82
01/13/2010	0350	0.77	0.00	0.77
01/13/2010	0356	0.73	0.00	0.73
01/13/2010	0402	0.70	0.00	0.70
01/13/2010	0408	0.67	0.03	0.70
01/13/2010	0414	0.65	0.28	0.93
01/13/2010	0420	0.62	1.24	1.86
01/13/2010	0426	0.59	2.90	3.49
01/13/2010	0432	0.57	4.25	4.81
01/13/2010	0438	0.54	5.09	5.64
01/13/2010	0444	0.52	5.70	6.23
01/13/2010	0450	0.51	6.11	6.62
01/13/2010	0456	0.49	6.37	6.87
01/13/2010	0502	0.48	6.55	7.03
01/13/2010	0508	0.47	6.65	7.12
01/13/2010	0514	0.46	6.71	7.18
01/13/2010	0520	0.46	6.75	7.21
01/13/2010	0526	0.45	6.77	7.21
01/13/2010	0532	0.43	6.77	7.20
01/13/2010	0538	0.42	6.76	7.18

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0544	0.40	6.75	7.15
01/13/2010	0550	0.39	6.73	7.12
01/13/2010	0556	0.38	6.71	7.09
01/13/2010	0602	0.37	6.68	7.05
01/13/2010	0608	0.37	6.65	7.01
01/13/2010	0614	0.36	6.62	6.97
01/13/2010	0620	0.35	6.58	6.93
01/13/2010	0626	0.35	6.54	6.89
01/13/2010	0632	0.34	6.50	6.84
01/13/2010	0638	0.34	6.45	6.79
01/13/2010	0644	0.33	6.40	6.73
01/13/2010	0650	0.33	6.35	6.68
01/13/2010	0656	0.33	6.30	6.63
01/13/2010	0702	0.32	6.25	6.57
01/13/2010	0708	0.32	6.20	6.52
01/13/2010	0714	0.32	6.14	6.46
01/13/2010	0720	0.32	6.09	6.40
01/13/2010	0726	0.31	6.03	6.35
01/13/2010	0732	0.31	5.98	6.29
01/13/2010	0738	0.31	5.92	6.23
01/13/2010	0744	0.31	5.87	6.18
01/13/2010	0750	0.30	5.81	6.11
01/13/2010	0756	0.29	5.75	6.04
01/13/2010	0802	0.28	5.69	5.98
01/13/2010	0808	0.27	5.63	5.91
01/13/2010	0814	0.27	5.58	5.84
01/13/2010	0820	0.26	5.52	5.78
01/13/2010	0826	0.26	5.46	5.71
01/13/2010	0832	0.25	5.40	5.65
01/13/2010	0838	0.25	5.34	5.58
01/13/2010	0844	0.24	5.27	5.52
01/13/2010	0850	0.24	5.21	5.45
01/13/2010	0856	0.24	5.15	5.39
01/13/2010	0902	0.23	5.09	5.32
01/13/2010	0908	0.23	5.03	5.26
01/13/2010	0914	0.23	4.96	5.19
01/13/2010	0920	0.23	4.90	5.13
01/13/2010	0926	0.22	4.84	5.06
01/13/2010	0932	0.22	4.78	5.00
01/13/2010	0938	0.22	4.72	4.94
01/13/2010	0944	0.22	4.65	4.87
01/13/2010	0950	0.22	4.59	4.81
01/13/2010	0956	0.22	4.53	4.75
01/13/2010	1002	0.21	4.47	4.69
01/13/2010	1008	0.21	4.41	4.62
01/13/2010	1014	0.21	4.35	4.56
01/13/2010	1020	0.21	4.29	4.50
01/13/2010	1026	0.21	4.22	4.43
01/13/2010	1032	0.21	4.16	4.37
01/13/2010	1038	0.21	4.10	4.31
01/13/2010	1044	0.21	4.04	4.25
01/13/2010	1050	0.21	3.98	4.18
01/13/2010	1056	0.21	3.92	4.12
01/13/2010	1102	0.21	3.85	4.06
01/13/2010	1108	0.21	3.79	4.00
01/13/2010	1114	0.21	3.72	3.93
01/13/2010	1120	0.20	3.65	3.86
01/13/2010	1126	0.20	3.58	3.79
01/13/2010	1132	0.20	3.51	3.72

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1138	0.20	3.44	3.65
01/13/2010	1144	0.20	3.37	3.58
01/13/2010	1150	0.20	3.30	3.51
01/13/2010	1156	0.20	3.23	3.44
01/13/2010	1202	0.20	3.17	3.37
01/13/2010	1208	0.20	3.10	3.30
01/13/2010	1214	0.20	3.03	3.23
01/13/2010	1220	0.19	2.96	3.15
01/13/2010	1226	0.18	2.87	3.06
01/13/2010	1232	0.18	2.76	2.94
01/13/2010	1238	0.17	2.66	2.83
01/13/2010	1244	0.16	2.56	2.73
01/13/2010	1250	0.16	2.48	2.64
01/13/2010	1256	0.15	2.40	2.56
01/13/2010	1302	0.15	2.34	2.49
01/13/2010	1308	0.15	2.27	2.42
01/13/2010	1314	0.14	2.21	2.35
01/13/2010	1320	0.14	2.15	2.29
01/13/2010	1326	0.14	2.09	2.23
01/13/2010	1332	0.13	2.04	2.17
01/13/2010	1338	0.13	1.99	2.12
01/13/2010	1344	0.13	1.94	2.07
01/13/2010	1350	0.13	1.90	2.02
01/13/2010	1356	0.12	1.85	1.98
01/13/2010	1402	0.12	1.81	1.94
01/13/2010	1408	0.12	1.77	1.89
01/13/2010	1414	0.12	1.73	1.85
01/13/2010	1420	0.12	1.68	1.80
01/13/2010	1426	0.12	1.64	1.76
01/13/2010	1432	0.12	1.60	1.71
01/13/2010	1438	0.11	1.56	1.67
01/13/2010	1444	0.10	1.52	1.62
01/13/2010	1450	0.10	1.48	1.58
01/13/2010	1456	0.09	1.44	1.54
01/13/2010	1502	0.09	1.40	1.49
01/13/2010	1508	0.08	1.37	1.45
01/13/2010	1514	0.08	1.34	1.42
01/13/2010	1520	0.08	1.31	1.38
01/13/2010	1526	0.07	1.28	1.35
01/13/2010	1532	0.07	1.25	1.31
01/13/2010	1538	0.06	1.22	1.28
01/13/2010	1544	0.00	1.18	1.18
01/13/2010	1550	0.00	1.15	1.15
01/13/2010	1556	0.00	1.12	1.12
01/13/2010	1602	0.00	1.09	1.09
01/13/2010	1608	0.00	1.06	1.06
01/13/2010	1614	0.00	1.03	1.03
01/13/2010	1620	0.00	1.01	1.01
01/13/2010	1626	0.00	0.98	0.98
01/13/2010	1632	0.00	0.96	0.96
01/13/2010	1638	0.00	0.93	0.93
01/13/2010	1644	0.00	0.90	0.90
01/13/2010	1650	0.00	0.88	0.88
01/13/2010	1656	0.00	0.85	0.85
01/13/2010	1702	0.00	0.83	0.83
01/13/2010	1708	0.00	0.80	0.80
01/13/2010	1714	0.00	0.77	0.77
01/13/2010	1720	0.00	0.75	0.75
01/13/2010	1726	0.00	0.72	0.72

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1732	0.00	0.70	0.70
01/13/2010	1738	0.00	0.68	0.68
01/13/2010	1744	0.00	0.66	0.66
01/13/2010	1750	0.00	0.63	0.63
01/13/2010	1756	0.00	0.61	0.61
01/13/2010	1802	0.00	0.00	0.00

Hydrograph Combination

I1 + I3 100yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO\11\BASIN\SIBASIN I-1\routed\0036.HYD	01/13/2010	0036	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO\11\BASIN\SIBASIN I-3\routed\0038.HYD	01/13/2010	0038	150	0.1000
COMBINED HYDROGRAPH	01/13/2010	0036	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.00	0.00	0.00
01/13/2010	0106	0.00	0.00	0.00
01/13/2010	0112	0.00	0.00	0.00
01/13/2010	0118	0.00	0.00	0.00
01/13/2010	0124	0.00	0.00	0.00
01/13/2010	0130	0.00	0.13	0.13
01/13/2010	0136	0.03	0.88	0.90
01/13/2010	0142	0.25	2.65	2.89
01/13/2010	0148	1.18	3.98	5.17
01/13/2010	0154	3.21	4.43	7.64
01/13/2010	0200	4.48	4.42	8.89
01/13/2010	0206	5.45	4.26	9.71
01/13/2010	0212	6.18	4.07	10.25
01/13/2010	0218	6.65	3.86	10.51
01/13/2010	0224	6.94	3.61	10.55
01/13/2010	0230	7.14	3.35	10.49
01/13/2010	0236	7.27	3.09	10.36
01/13/2010	0242	7.35	2.76	10.11
01/13/2010	0248	7.40	2.41	9.81
01/13/2010	0254	7.43	2.12	9.55
01/13/2010	0300	7.45	1.89	9.34
01/13/2010	0306	7.45	1.69	9.13
01/13/2010	0312	7.44	1.50	8.94
01/13/2010	0318	7.43	1.35	8.78
01/13/2010	0324	7.41	1.23	8.64
01/13/2010	0330	7.39	1.13	8.52
01/13/2010	0336	7.36	1.05	8.41
01/13/2010	0342	7.33	0.98	8.31
01/13/2010	0348	7.30	0.92	8.22
01/13/2010	0354	7.27	0.87	8.14
01/13/2010	0400	7.23	0.82	8.05
01/13/2010	0406	7.20	0.77	7.97
01/13/2010	0412	7.16	0.73	7.88
01/13/2010	0418	7.11	0.70	7.81
01/13/2010	0424	7.07	0.67	7.74
01/13/2010	0430	7.03	0.65	7.68
01/13/2010	0436	6.98	0.63	7.61
01/13/2010	0442	6.94	0.61	7.55
01/13/2010	0448	6.89	0.60	7.49
01/13/2010	0454	6.85	0.58	7.43
01/13/2010	0500	6.80	0.56	7.36
01/13/2010	0506	6.75	0.54	7.29
01/13/2010	0512	6.70	0.52	7.22
01/13/2010	0518	6.65	0.50	7.16
01/13/2010	0524	6.61	0.49	7.09
01/13/2010	0530	6.56	0.48	7.03
01/13/2010	0536	6.50	0.47	6.97

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0542	6.44	0.46	6.90
01/13/2010	0548	6.38	0.45	6.84
01/13/2010	0554	6.32	0.45	6.77
01/13/2010	0600	6.26	0.44	6.70
01/13/2010	0606	6.20	0.43	6.63
01/13/2010	0612	6.14	0.41	6.56
01/13/2010	0618	6.08	0.40	6.48
01/13/2010	0624	6.02	0.39	6.41
01/13/2010	0630	5.96	0.38	6.34
01/13/2010	0636	5.90	0.37	6.27
01/13/2010	0642	5.84	0.36	6.20
01/13/2010	0648	5.77	0.36	6.13
01/13/2010	0654	5.71	0.35	6.06
01/13/2010	0700	5.65	0.35	5.99
01/13/2010	0706	5.59	0.34	5.93
01/13/2010	0712	5.52	0.34	5.86
01/13/2010	0718	5.46	0.33	5.80
01/13/2010	0724	5.40	0.33	5.73
01/13/2010	0730	5.34	0.33	5.66
01/13/2010	0736	5.28	0.32	5.60
01/13/2010	0742	5.22	0.32	5.54
01/13/2010	0748	5.15	0.32	5.47
01/13/2010	0754	5.09	0.32	5.41
01/13/2010	0800	5.03	0.31	5.34
01/13/2010	0806	4.97	0.31	5.28
01/13/2010	0812	4.90	0.31	5.22
01/13/2010	0818	4.84	0.31	5.15
01/13/2010	0824	4.78	0.31	5.09
01/13/2010	0830	4.71	0.30	5.02
01/13/2010	0836	4.65	0.29	4.95
01/13/2010	0842	4.59	0.28	4.87
01/13/2010	0848	4.52	0.28	4.80
01/13/2010	0854	4.46	0.27	4.73
01/13/2010	0900	4.40	0.26	4.66
01/13/2010	0906	4.33	0.26	4.59
01/13/2010	0912	4.27	0.25	4.53
01/13/2010	0918	4.21	0.25	4.46
01/13/2010	0924	4.15	0.25	4.39
01/13/2010	0930	4.08	0.24	4.32
01/13/2010	0936	4.02	0.24	4.26
01/13/2010	0942	3.96	0.24	4.19
01/13/2010	0948	3.90	0.23	4.13
01/13/2010	0954	3.83	0.23	4.06
01/13/2010	1000	3.77	0.23	4.00
01/13/2010	1006	3.70	0.23	3.92
01/13/2010	1012	3.63	0.22	3.85
01/13/2010	1018	3.56	0.22	3.78
01/13/2010	1024	3.49	0.22	3.71
01/13/2010	1030	3.42	0.22	3.64
01/13/2010	1036	3.36	0.22	3.57
01/13/2010	1042	3.29	0.22	3.50
01/13/2010	1048	3.22	0.21	3.44
01/13/2010	1054	3.16	0.21	3.37
01/13/2010	1100	3.09	0.21	3.30
01/13/2010	1106	3.02	0.21	3.23
01/13/2010	1112	2.96	0.21	3.17
01/13/2010	1118	2.88	0.21	3.08
01/13/2010	1124	2.77	0.21	2.98
01/13/2010	1130	2.67	0.21	2.88

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1136	2.58	0.21	2.79
01/13/2010	1142	2.49	0.21	2.70
01/13/2010	1148	2.42	0.21	2.63
01/13/2010	1154	2.35	0.21	2.56
01/13/2010	1200	2.28	0.20	2.49
01/13/2010	1206	2.22	0.20	2.42
01/13/2010	1212	2.15	0.20	2.36
01/13/2010	1218	2.09	0.20	2.30
01/13/2010	1224	2.04	0.20	2.24
01/13/2010	1230	1.98	0.20	2.18
01/13/2010	1236	1.92	0.20	2.12
01/13/2010	1242	1.87	0.19	2.06
01/13/2010	1248	1.82	0.19	2.00
01/13/2010	1254	1.76	0.18	1.94
01/13/2010	1300	1.71	0.17	1.88
01/13/2010	1306	1.65	0.17	1.82
01/13/2010	1312	1.60	0.16	1.76
01/13/2010	1318	1.55	0.16	1.70
01/13/2010	1324	1.50	0.15	1.65
01/13/2010	1330	1.45	0.15	1.59
01/13/2010	1336	1.40	0.14	1.54
01/13/2010	1342	1.35	0.14	1.49
01/13/2010	1348	1.31	0.14	1.45
01/13/2010	1354	1.27	0.13	1.40
01/13/2010	1400	1.23	0.13	1.36
01/13/2010	1406	1.19	0.13	1.32
01/13/2010	1412	1.15	0.13	1.28
01/13/2010	1418	1.11	0.13	1.23
01/13/2010	1424	1.07	0.12	1.19
01/13/2010	1430	1.03	0.12	1.15
01/13/2010	1436	1.00	0.12	1.12
01/13/2010	1442	0.96	0.11	1.08
01/13/2010	1448	0.93	0.11	1.04
01/13/2010	1454	0.90	0.10	1.00
01/13/2010	1500	0.87	0.10	0.97
01/13/2010	1506	0.84	0.09	0.93
01/13/2010	1512	0.80	0.09	0.89
01/13/2010	1518	0.77	0.08	0.85
01/13/2010	1524	0.74	0.08	0.82
01/13/2010	1530	0.71	0.07	0.79
01/13/2010	1536	0.68	0.00	0.68
01/13/2010	1542	0.00	0.00	0.00

Hydrograph Combination

I1, I2 + I3 1yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-2\routed\0020.HYD	01/13/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-combined I-1 & I-2\0001.HYD	01/13/2010	0000	151	0.1000
COMBINED HYDROGRAPH	01/13/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0000	0.00	0.00	0.00
01/13/2010	0006	0.00	0.00	0.00
01/13/2010	0012	0.00	0.00	0.00
01/13/2010	0018	0.00	0.00	0.00
01/13/2010	0024	0.00	0.00	0.00
01/13/2010	0030	0.00	0.00	0.00
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.00	0.00	0.00
01/13/2010	0106	0.05	0.00	0.05
01/13/2010	0112	0.31	0.00	0.31
01/13/2010	0118	0.58	0.00	0.58
01/13/2010	0124	0.69	0.00	0.69
01/13/2010	0130	0.74	0.00	0.74
01/13/2010	0136	0.90	0.00	0.90
01/13/2010	0142	1.11	0.17	1.28
01/13/2010	0148	1.31	1.61	2.92
01/13/2010	0154	1.48	5.79	7.27
01/13/2010	0200	1.60	12.91	14.51
01/13/2010	0206	1.69	21.50	23.19
01/13/2010	0212	1.75	28.72	30.47
01/13/2010	0218	1.78	33.28	35.06
01/13/2010	0224	1.80	34.94	36.74
01/13/2010	0230	1.81	34.21	36.02
01/13/2010	0236	1.80	32.10	33.90
01/13/2010	0242	1.79	29.38	31.17
01/13/2010	0248	1.77	26.49	28.26
01/13/2010	0254	1.75	23.71	25.46
01/13/2010	0300	1.73	21.04	22.77
01/13/2010	0306	1.70	18.63	20.33
01/13/2010	0312	1.68	16.59	18.27
01/13/2010	0318	1.65	14.87	16.52
01/13/2010	0324	1.62	13.39	15.01
01/13/2010	0330	1.59	12.15	13.74
01/13/2010	0336	1.57	11.10	12.67
01/13/2010	0342	1.54	10.19	11.73
01/13/2010	0348	1.52	9.41	10.93
01/13/2010	0354	1.49	8.73	10.22
01/13/2010	0400	1.47	8.16	9.63
01/13/2010	0406	1.45	7.65	9.10
01/13/2010	0412	1.42	7.19	8.61
01/13/2010	0418	1.39	6.80	8.19
01/13/2010	0424	1.36	6.46	7.82
01/13/2010	0430	1.33	6.15	7.48
01/13/2010	0436	1.30	5.87	7.17
01/13/2010	0442	1.28	5.64	6.92
01/13/2010	0448	1.25	5.45	6.70
01/13/2010	0454	1.22	5.27	6.49
01/13/2010	0500	1.20	5.11	6.31

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0506	1.18	4.96	6.14
01/13/2010	0512	1.16	4.82	5.98
01/13/2010	0518	1.14	4.68	5.82
01/13/2010	0524	1.12	4.56	5.68
01/13/2010	0530	1.10	4.44	5.54
01/13/2010	0536	1.08	4.32	5.40
01/13/2010	0542	1.06	4.22	5.28
01/13/2010	0548	1.04	4.12	5.16
01/13/2010	0554	1.02	4.02	5.04
01/13/2010	0600	1.00	3.94	4.94
01/13/2010	0606	0.99	3.85	4.84
01/13/2010	0612	0.98	3.76	4.74
01/13/2010	0618	0.96	3.67	4.63
01/13/2010	0624	0.95	3.60	4.55
01/13/2010	0630	0.93	3.52	4.45
01/13/2010	0636	0.92	3.44	4.36
01/13/2010	0642	0.90	3.38	4.28
01/13/2010	0648	0.89	3.32	4.21
01/13/2010	0654	0.87	3.26	4.13
01/13/2010	0700	0.86	3.20	4.06
01/13/2010	0706	0.85	3.15	4.00
01/13/2010	0712	0.84	3.11	3.95
01/13/2010	0718	0.83	3.07	3.90
01/13/2010	0724	0.82	3.02	3.84
01/13/2010	0730	0.81	2.99	3.80
01/13/2010	0736	0.80	2.95	3.75
01/13/2010	0742	0.79	2.91	3.70
01/13/2010	0748	0.79	2.88	3.67
01/13/2010	0754	0.78	2.85	3.63
01/13/2010	0800	0.77	2.81	3.58
01/13/2010	0806	0.76	2.78	3.54
01/13/2010	0812	0.75	2.75	3.50
01/13/2010	0818	0.74	2.72	3.46
01/13/2010	0824	0.73	2.68	3.41
01/13/2010	0830	0.72	2.65	3.37
01/13/2010	0836	0.71	2.63	3.34
01/13/2010	0842	0.70	2.60	3.30
01/13/2010	0848	0.69	2.57	3.26
01/13/2010	0854	0.69	2.54	3.23
01/13/2010	0900	0.68	2.51	3.19
01/13/2010	0906	0.67	2.48	3.15
01/13/2010	0912	0.67	2.45	3.12
01/13/2010	0918	0.66	2.42	3.08
01/13/2010	0924	0.65	2.39	3.04
01/13/2010	0930	0.65	2.36	3.01
01/13/2010	0936	0.64	2.34	2.98
01/13/2010	0942	0.64	2.31	2.95
01/13/2010	0948	0.63	2.29	2.92
01/13/2010	0954	0.62	2.26	2.88
01/13/2010	1000	0.62	2.23	2.85
01/13/2010	1006	0.62	2.21	2.83
01/13/2010	1012	0.61	2.19	2.80
01/13/2010	1018	0.61	2.17	2.78
01/13/2010	1024	0.60	2.14	2.74
01/13/2010	1030	0.60	2.12	2.72
01/13/2010	1036	0.59	2.10	2.69
01/13/2010	1042	0.58	2.07	2.65
01/13/2010	1048	0.57	2.05	2.62
01/13/2010	1054	0.57	2.03	2.60

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1100	0.56	2.01	2.57
01/13/2010	1106	0.56	1.99	2.55
01/13/2010	1112	0.55	1.97	2.52
01/13/2010	1118	0.55	1.95	2.50
01/13/2010	1124	0.54	1.93	2.47
01/13/2010	1130	0.54	1.91	2.45
01/13/2010	1136	0.54	1.89	2.43
01/13/2010	1142	0.53	1.86	2.39
01/13/2010	1148	0.53	1.84	2.37
01/13/2010	1154	0.52	1.81	2.33
01/13/2010	1200	0.51	1.78	2.29
01/13/2010	1206	0.50	1.75	2.25
01/13/2010	1212	0.49	1.72	2.21
01/13/2010	1218	0.48	1.68	2.16
01/13/2010	1224	0.47	1.64	2.11
01/13/2010	1230	0.46	1.60	2.06
01/13/2010	1236	0.45	1.56	2.01
01/13/2010	1242	0.44	1.51	1.95
01/13/2010	1248	0.43	1.47	1.90
01/13/2010	1254	0.42	1.43	1.85
01/13/2010	1300	0.42	1.39	1.81
01/13/2010	1306	0.41	1.35	1.76
01/13/2010	1312	0.40	1.31	1.71
01/13/2010	1318	0.39	1.27	1.66
01/13/2010	1324	0.38	1.22	1.60
01/13/2010	1330	0.37	1.18	1.55
01/13/2010	1336	0.36	1.13	1.49
01/13/2010	1342	0.35	1.09	1.44
01/13/2010	1348	0.34	1.06	1.40
01/13/2010	1354	0.34	1.03	1.37
01/13/2010	1400	0.33	0.99	1.32
01/13/2010	1406	0.32	0.95	1.27
01/13/2010	1412	0.31	0.92	1.23
01/13/2010	1418	0.31	0.88	1.19
01/13/2010	1424	0.30	0.84	1.14
01/13/2010	1430	0.30	0.79	1.09
01/13/2010	1436	0.29	0.75	1.04
01/13/2010	1442	0.28	0.71	0.99
01/13/2010	1448	0.28	0.67	0.95
01/13/2010	1454	0.27	0.63	0.90
01/13/2010	1500	0.24	0.59	0.83
01/13/2010	1506	0.00	0.55	0.55
01/13/2010	1512	0.00	0.51	0.51
01/13/2010	1518	0.00	0.46	0.46
01/13/2010	1524	0.00	0.00	0.00

Hydrograph Combination

I1, I2 + I3 2yr.

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-2\routed\029D	01/13/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-combined I-1 & I-2\029D	01/13/2010	0000	151	0.1000
COMBINED HYDROGRAPH	01/13/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0000	0.00	0.00	0.00
01/13/2010	0006	0.00	0.00	0.00
01/13/2010	0012	0.00	0.00	0.00
01/13/2010	0018	0.00	0.00	0.00
01/13/2010	0024	0.00	0.00	0.00
01/13/2010	0030	0.00	0.00	0.00
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.00	0.00	0.00
01/13/2010	0106	0.18	0.00	0.18
01/13/2010	0112	0.73	0.00	0.73
01/13/2010	0118	1.17	0.00	1.17
01/13/2010	0124	1.35	0.00	1.35
01/13/2010	0130	1.67	0.06	1.73
01/13/2010	0136	2.17	0.60	2.77
01/13/2010	0142	2.68	2.35	5.03
01/13/2010	0148	3.01	6.41	9.42
01/13/2010	0154	3.21	14.14	17.35
01/13/2010	0200	3.33	25.30	28.63
01/13/2010	0206	3.39	36.75	40.14
01/13/2010	0212	3.41	46.28	49.69
01/13/2010	0218	3.40	51.63	55.03
01/13/2010	0224	3.37	52.53	55.90
01/13/2010	0230	3.31	50.07	53.38
01/13/2010	0236	3.24	45.94	49.18
01/13/2010	0242	3.16	41.24	44.40
01/13/2010	0248	3.09	36.59	39.68
01/13/2010	0254	3.01	32.33	35.34
01/13/2010	0300	2.93	28.56	31.49
01/13/2010	0306	2.86	25.30	28.16
01/13/2010	0312	2.79	22.46	25.25
01/13/2010	0318	2.71	19.89	22.60
01/13/2010	0324	2.64	17.76	20.40
01/13/2010	0330	2.57	16.00	18.57
01/13/2010	0336	2.50	14.53	17.03
01/13/2010	0342	2.43	13.30	15.73
01/13/2010	0348	2.37	12.23	14.60
01/13/2010	0354	2.31	11.34	13.65
01/13/2010	0400	2.26	10.56	12.82
01/13/2010	0406	2.20	9.88	12.08
01/13/2010	0412	2.15	9.28	11.43
01/13/2010	0418	2.10	8.77	10.87
01/13/2010	0424	2.05	8.33	10.38
01/13/2010	0430	2.00	7.93	9.93
01/13/2010	0436	1.95	7.57	9.52
01/13/2010	0442	1.91	7.27	9.18
01/13/2010	0448	1.86	7.02	8.88
01/13/2010	0454	1.82	6.79	8.61
01/13/2010	0500	1.77	6.58	8.35



Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0506	1.73	6.38	8.11
01/13/2010	0512	1.68	6.20	7.88
01/13/2010	0518	1.63	6.03	7.66
01/13/2010	0524	1.59	5.86	7.45
01/13/2010	0530	1.55	5.71	7.26
01/13/2010	0536	1.51	5.57	7.08
01/13/2010	0542	1.47	5.42	6.89
01/13/2010	0548	1.44	5.29	6.73
01/13/2010	0554	1.41	5.16	6.57
01/13/2010	0600	1.38	5.04	6.42
01/13/2010	0606	1.34	4.92	6.26
01/13/2010	0612	1.31	4.81	6.12
01/13/2010	0618	1.28	4.71	5.99
01/13/2010	0624	1.26	4.62	5.88
01/13/2010	0630	1.23	4.52	5.75
01/13/2010	0636	1.21	4.43	5.64
01/13/2010	0642	1.18	4.35	5.53
01/13/2010	0648	1.16	4.28	5.44
01/13/2010	0654	1.14	4.21	5.35
01/13/2010	0700	1.13	4.14	5.27
01/13/2010	0706	1.11	4.08	5.19
01/13/2010	0712	1.09	4.02	5.11
01/13/2010	0718	1.08	3.96	5.04
01/13/2010	0724	1.06	3.90	4.96
01/13/2010	0730	1.04	3.85	4.89
01/13/2010	0736	1.02	3.80	4.82
01/13/2010	0742	1.01	3.76	4.77
01/13/2010	0748	0.99	3.71	4.70
01/13/2010	0754	0.98	3.66	4.64
01/13/2010	0800	0.97	3.62	4.59
01/13/2010	0806	0.96	3.58	4.54
01/13/2010	0812	0.94	3.53	4.47
01/13/2010	0818	0.93	3.49	4.42
01/13/2010	0824	0.92	3.46	4.38
01/13/2010	0830	0.90	3.42	4.32
01/13/2010	0836	0.89	3.38	4.27
01/13/2010	0842	0.88	3.34	4.22
01/13/2010	0848	0.86	3.29	4.15
01/13/2010	0854	0.85	3.26	4.11
01/13/2010	0900	0.84	3.22	4.06
01/13/2010	0906	0.83	3.18	4.01
01/13/2010	0912	0.82	3.15	3.97
01/13/2010	0918	0.81	3.11	3.92
01/13/2010	0924	0.80	3.08	3.88
01/13/2010	0930	0.79	3.04	3.83
01/13/2010	0936	0.79	3.00	3.79
01/13/2010	0942	0.78	2.97	3.75
01/13/2010	0948	0.77	2.94	3.71
01/13/2010	0954	0.77	2.91	3.68
01/13/2010	1000	0.76	2.88	3.64
01/13/2010	1006	0.75	2.85	3.60
01/13/2010	1012	0.75	2.82	3.57
01/13/2010	1018	0.74	2.78	3.52
01/13/2010	1024	0.74	2.75	3.49
01/13/2010	1030	0.73	2.73	3.46
01/13/2010	1036	0.72	2.70	3.42
01/13/2010	1042	0.71	2.67	3.38
01/13/2010	1048	0.70	2.64	3.34
01/13/2010	1054	0.69	2.62	3.31

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1100	0.69	2.59	3.28
01/13/2010	1106	0.68	2.56	3.24
01/13/2010	1112	0.67	2.53	3.20
01/13/2010	1118	0.67	2.51	3.18
01/13/2010	1124	0.66	2.48	3.14
01/13/2010	1130	0.65	2.45	3.10
01/13/2010	1136	0.65	2.42	3.07
01/13/2010	1142	0.64	2.38	3.02
01/13/2010	1148	0.63	2.35	2.98
01/13/2010	1154	0.62	2.31	2.93
01/13/2010	1200	0.62	2.26	2.88
01/13/2010	1206	0.61	2.22	2.83
01/13/2010	1212	0.60	2.18	2.78
01/13/2010	1218	0.59	2.12	2.71
01/13/2010	1224	0.58	2.07	2.65
01/13/2010	1230	0.57	2.02	2.59
01/13/2010	1236	0.57	1.98	2.55
01/13/2010	1242	0.55	1.93	2.48
01/13/2010	1248	0.54	1.88	2.42
01/13/2010	1254	0.53	1.83	2.36
01/13/2010	1300	0.52	1.77	2.29
01/13/2010	1306	0.50	1.72	2.22
01/13/2010	1312	0.49	1.67	2.16
01/13/2010	1318	0.48	1.62	2.10
01/13/2010	1324	0.47	1.57	2.04
01/13/2010	1330	0.46	1.51	1.97
01/13/2010	1336	0.45	1.45	1.90
01/13/2010	1342	0.44	1.40	1.84
01/13/2010	1348	0.43	1.34	1.77
01/13/2010	1354	0.42	1.29	1.71
01/13/2010	1400	0.41	1.23	1.64
01/13/2010	1406	0.40	1.18	1.58
01/13/2010	1412	0.39	1.12	1.51
01/13/2010	1418	0.38	1.07	1.45
01/13/2010	1424	0.37	1.03	1.40
01/13/2010	1430	0.36	0.98	1.34
01/13/2010	1436	0.35	0.93	1.28
01/13/2010	1442	0.34	0.89	1.23
01/13/2010	1448	0.33	0.84	1.17
01/13/2010	1454	0.32	0.79	1.11
01/13/2010	1500	0.28	0.73	1.01
01/13/2010	1506	0.00	0.68	0.68
01/13/2010	1512	0.00	0.63	0.63
01/13/2010	1518	0.00	0.58	0.58
01/13/2010	1524	0.00	0.00	0.00

Hydrograph Combination

I1, I2 + I3 10yr.

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO1102510\BASIN I-2\routed\0029.HYD	01/13/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO1102510\combined I-1 & I-2\routed\0000.HYD	01/13/2010	0000	151	0.1000
COMBINED HYDROGRAPH	01/13/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0000	0.00	0.00	0.00
01/13/2010	0006	0.00	0.00	0.00
01/13/2010	0012	0.00	0.00	0.00
01/13/2010	0018	0.00	0.00	0.00
01/13/2010	0024	0.00	0.00	0.00
01/13/2010	0030	0.00	0.00	0.00
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.00	0.00	0.00
01/13/2010	0100	0.20	0.06	0.26
01/13/2010	0106	1.25	0.53	1.78
01/13/2010	0112	2.79	1.54	4.33
01/13/2010	0118	4.21	2.91	7.12
01/13/2010	0124	5.91	4.56	10.47
01/13/2010	0130	6.82	6.71	13.53
01/13/2010	0136	7.13	10.15	17.28
01/13/2010	0142	7.23	16.73	23.96
01/13/2010	0148	7.23	28.98	36.21
01/13/2010	0154	7.17	48.46	55.63
01/13/2010	0200	7.07	74.46	81.53
01/13/2010	0206	6.93	99.74	106.67
01/13/2010	0212	6.81	118.38	125.19
01/13/2010	0218	6.69	129.47	136.16 ←
01/13/2010	0224	6.58	117.17	123.75
01/13/2010	0230	6.48	108.43	114.91
01/13/2010	0236	6.38	96.83	103.21
01/13/2010	0242	6.29	84.81	91.10
01/13/2010	0248	6.20	73.29	79.49
01/13/2010	0254	6.11	63.14	69.25
01/13/2010	0300	6.02	54.67	60.69
01/13/2010	0306	5.94	47.68	53.62
01/13/2010	0312	5.86	41.89	47.75
01/13/2010	0318	5.78	37.11	42.89
01/13/2010	0324	5.71	33.14	38.85
01/13/2010	0330	5.64	29.83	35.47
01/13/2010	0336	5.57	27.07	32.64
01/13/2010	0342	5.49	24.77	30.26
01/13/2010	0348	5.42	22.76	28.18
01/13/2010	0354	5.35	20.91	26.26
01/13/2010	0400	5.27	19.35	24.62
01/13/2010	0406	5.20	18.00	23.20
01/13/2010	0412	5.13	16.87	22.00
01/13/2010	0418	5.06	15.93	20.99
01/13/2010	0424	4.99	15.12	20.11
01/13/2010	0430	4.92	14.38	19.30
01/13/2010	0436	4.86	13.76	18.62
01/13/2010	0442	4.79	13.23	18.02
01/13/2010	0448	4.72	12.77	17.49
01/13/2010	0454	4.66	12.36	17.02
01/13/2010	0500	4.59	12.00	16.59

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0506	4.53	11.66	16.19
01/13/2010	0512	4.46	11.33	15.79
01/13/2010	0518	4.38	11.03	15.41
01/13/2010	0524	4.31	10.72	15.03
01/13/2010	0530	4.24	10.43	14.67
01/13/2010	0536	4.17	10.16	14.33
01/13/2010	0542	4.09	9.90	13.99
01/13/2010	0548	4.02	9.65	13.67
01/13/2010	0554	3.94	9.42	13.36
01/13/2010	0600	3.87	9.20	13.07
01/13/2010	0606	3.80	8.98	12.78
01/13/2010	0612	3.72	8.78	12.50
01/13/2010	0618	3.65	8.61	12.26
01/13/2010	0624	3.57	8.45	12.02
01/13/2010	0630	3.50	8.29	11.79
01/13/2010	0636	3.43	8.13	11.56
01/13/2010	0642	3.36	7.97	11.33
01/13/2010	0648	3.29	7.83	11.12
01/13/2010	0654	3.22	7.68	10.90
01/13/2010	0700	3.16	7.54	10.70
01/13/2010	0706	3.04	7.40	10.44
01/13/2010	0712	2.93	7.28	10.21
01/13/2010	0718	2.83	7.17	10.00
01/13/2010	0724	2.74	7.08	9.82
01/13/2010	0730	2.65	6.99	9.64
01/13/2010	0736	2.58	6.91	9.49
01/13/2010	0742	2.50	6.83	9.33
01/13/2010	0748	2.44	6.75	9.19
01/13/2010	0754	2.37	6.66	9.03
01/13/2010	0800	2.31	6.58	8.89
01/13/2010	0806	2.25	6.51	8.76
01/13/2010	0812	2.19	6.43	8.62
01/13/2010	0818	2.14	6.36	8.50
01/13/2010	0824	2.09	6.29	8.38
01/13/2010	0830	2.04	6.22	8.26
01/13/2010	0836	1.99	6.15	8.14
01/13/2010	0842	1.95	6.08	8.03
01/13/2010	0848	1.90	6.01	7.91
01/13/2010	0854	1.84	5.93	7.77
01/13/2010	0900	1.79	5.86	7.65
01/13/2010	0906	1.74	5.79	7.53
01/13/2010	0912	1.69	5.72	7.41
01/13/2010	0918	1.65	5.66	7.31
01/13/2010	0924	1.61	5.60	7.21
01/13/2010	0930	1.57	5.53	7.10
01/13/2010	0936	1.53	5.46	6.99
01/13/2010	0942	1.50	5.40	6.90
01/13/2010	0948	1.47	5.34	6.81
01/13/2010	0954	1.45	5.28	6.73
01/13/2010	1000	1.42	5.23	6.65
01/13/2010	1006	1.39	5.17	6.56
01/13/2010	1012	1.36	5.12	6.48
01/13/2010	1018	1.34	5.06	6.40
01/13/2010	1024	1.31	5.01	6.32
01/13/2010	1030	1.29	4.96	6.25
01/13/2010	1036	1.27	4.91	6.18
01/13/2010	1042	1.25	4.85	6.10
01/13/2010	1048	1.23	4.80	6.03
01/13/2010	1054	1.21	4.75	5.96

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1100	1.19	4.69	5.88
01/13/2010	1106	1.18	4.63	5.81
01/13/2010	1112	1.16	4.58	5.74
01/13/2010	1118	1.14	4.52	5.66
01/13/2010	1124	1.13	4.47	5.60
01/13/2010	1130	1.11	4.41	5.52
01/13/2010	1136	1.10	4.36	5.46
01/13/2010	1142	1.08	4.30	5.38
01/13/2010	1148	1.06	4.24	5.30
01/13/2010	1154	1.05	4.17	5.22
01/13/2010	1200	1.03	4.09	5.12
01/13/2010	1206	1.01	4.01	5.02
01/13/2010	1212	1.00	3.92	4.92
01/13/2010	1218	0.98	3.82	4.80
01/13/2010	1224	0.96	3.72	4.68
01/13/2010	1230	0.94	3.62	4.56
01/13/2010	1236	0.93	3.51	4.44
01/13/2010	1242	0.91	3.41	4.32
01/13/2010	1248	0.89	3.31	4.20
01/13/2010	1254	0.88	3.21	4.09
01/13/2010	1300	0.86	3.11	3.97
01/13/2010	1306	0.84	3.02	3.86
01/13/2010	1312	0.83	2.92	3.75
01/13/2010	1318	0.81	2.83	3.64
01/13/2010	1324	0.80	2.74	3.54
01/13/2010	1330	0.78	2.64	3.42
01/13/2010	1336	0.76	2.54	3.30
01/13/2010	1342	0.74	2.45	3.19
01/13/2010	1348	0.72	2.35	3.07
01/13/2010	1354	0.70	2.25	2.95
01/13/2010	1400	0.68	2.16	2.84
01/13/2010	1406	0.66	2.06	2.72
01/13/2010	1412	0.64	1.97	2.61
01/13/2010	1418	0.62	1.88	2.50
01/13/2010	1424	0.60	1.79	2.39
01/13/2010	1430	0.58	1.70	2.28
01/13/2010	1436	0.56	1.59	2.15
01/13/2010	1442	0.54	1.49	2.03
01/13/2010	1448	0.52	1.39	1.91
01/13/2010	1454	0.51	1.29	1.80
01/13/2010	1500	0.44	1.18	1.62
01/13/2010	1506	0.00	1.09	1.09
01/13/2010	1512	0.00	1.01	1.01
01/13/2010	1518	0.00	0.93	0.93
01/13/2010	1524	0.00	0.00	0.00

Hydrograph Combination

I1, I2+I3

25yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-2\ROUTED HYD	01/13/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01132010\BASIN I-combined I-1 & I-2\ROUTED HYD	01/13/2010	0000	151	0.1000
COMBINED HYDROGRAPH	01/13/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0000	0.00	0.00	0.00
01/13/2010	0006	0.00	0.00	0.00
01/13/2010	0012	0.00	0.00	0.00
01/13/2010	0018	0.00	0.00	0.00
01/13/2010	0024	0.00	0.00	0.00
01/13/2010	0030	0.00	0.00	0.00
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.02	0.04	0.06
01/13/2010	0100	0.38	0.42	0.80
01/13/2010	0106	1.78	1.41	3.19
01/13/2010	0112	3.57	2.86	6.43
01/13/2010	0118	5.50	4.63	10.13
01/13/2010	0124	7.18	6.68	13.86
01/13/2010	0130	7.93	9.30	17.23
01/13/2010	0136	8.37	13.58	21.95
01/13/2010	0142	8.56	21.73	30.29
01/13/2010	0148	8.49	36.63	45.12
01/13/2010	0154	8.34	61.19	69.53
01/13/2010	0200	8.20	93.45	101.65
01/13/2010	0206	8.05	128.49	136.54
01/13/2010	0212	7.88	164.52	172.40 
01/13/2010	0218	7.71	161.73	169.44
01/13/2010	0224	7.57	144.54	152.11
01/13/2010	0230	7.45	122.52	129.97
01/13/2010	0236	7.32	108.39	115.71
01/13/2010	0242	7.22	96.87	104.09
01/13/2010	0248	7.12	85.06	92.18
01/13/2010	0254	7.02	73.98	81.00
01/13/2010	0300	6.93	64.17	71.10
01/13/2010	0306	6.84	56.03	62.87
01/13/2010	0312	6.76	49.28	56.04
01/13/2010	0318	6.68	43.71	50.39
01/13/2010	0324	6.60	39.07	45.67
01/13/2010	0330	6.51	35.18	41.69
01/13/2010	0336	6.43	31.94	38.37
01/13/2010	0342	6.36	29.26	35.62
01/13/2010	0348	6.28	26.95	33.23
01/13/2010	0354	6.21	24.95	31.16
01/13/2010	0400	6.14	23.22	29.36
01/13/2010	0406	6.07	21.62	27.69
01/13/2010	0412	6.01	20.22	26.23
01/13/2010	0418	5.94	19.07	25.01
01/13/2010	0424	5.87	18.08	23.95
01/13/2010	0430	5.80	17.22	23.02
01/13/2010	0436	5.73	16.47	22.20
01/13/2010	0442	5.66	15.85	21.51
01/13/2010	0448	5.59	15.32	20.91
01/13/2010	0454	5.52	14.84	20.36
01/13/2010	0500	5.45	14.40	19.85

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0506	5.38	13.99	19.37
01/13/2010	0512	5.31	13.61	18.92
01/13/2010	0518	5.25	13.24	18.49
01/13/2010	0524	5.18	12.88	18.06
01/13/2010	0530	5.11	12.52	17.63
01/13/2010	0536	5.05	12.19	17.24
01/13/2010	0542	4.98	11.88	16.86
01/13/2010	0548	4.91	11.59	16.50
01/13/2010	0554	4.85	11.31	16.16
01/13/2010	0600	4.78	11.04	15.82
01/13/2010	0606	4.72	10.79	15.51
01/13/2010	0612	4.65	10.56	15.21
01/13/2010	0618	4.59	10.35	14.94
01/13/2010	0624	4.52	10.16	14.68
01/13/2010	0630	4.45	9.97	14.42
01/13/2010	0636	4.38	9.78	14.16
01/13/2010	0642	4.31	9.59	13.90
01/13/2010	0648	4.24	9.41	13.65
01/13/2010	0654	4.17	9.23	13.40
01/13/2010	0700	4.10	9.06	13.16
01/13/2010	0706	4.04	8.90	12.94
01/13/2010	0712	3.96	8.77	12.73
01/13/2010	0718	3.89	8.65	12.54
01/13/2010	0724	3.82	8.54	12.36
01/13/2010	0730	3.75	8.42	12.17
01/13/2010	0736	3.67	8.31	11.98
01/13/2010	0742	3.60	8.21	11.81
01/13/2010	0748	3.53	8.12	11.65
01/13/2010	0754	3.46	8.03	11.49
01/13/2010	0800	3.39	7.94	11.33
01/13/2010	0806	3.32	7.85	11.17
01/13/2010	0812	3.25	7.76	11.01
01/13/2010	0818	3.18	7.66	10.84
01/13/2010	0824	3.08	7.58	10.66
01/13/2010	0830	2.97	7.50	10.47
01/13/2010	0836	2.87	7.42	10.29
01/13/2010	0842	2.77	7.33	10.10
01/13/2010	0848	2.68	7.25	9.93
01/13/2010	0854	2.60	7.16	9.76
01/13/2010	0900	2.53	7.08	9.61
01/13/2010	0906	2.46	7.01	9.47
01/13/2010	0912	2.39	6.93	9.32
01/13/2010	0918	2.33	6.85	9.18
01/13/2010	0924	2.28	6.76	9.04
01/13/2010	0930	2.22	6.67	8.89
01/13/2010	0936	2.17	6.59	8.76
01/13/2010	0942	2.13	6.52	8.65
01/13/2010	0948	2.08	6.44	8.52
01/13/2010	0954	2.03	6.37	8.40
01/13/2010	1000	1.99	6.30	8.29
01/13/2010	1006	1.94	6.22	8.16
01/13/2010	1012	1.89	6.15	8.04
01/13/2010	1018	1.85	6.09	7.94
01/13/2010	1024	1.81	6.03	7.84
01/13/2010	1030	1.77	5.96	7.73
01/13/2010	1036	1.74	5.90	7.64
01/13/2010	1042	1.70	5.83	7.53
01/13/2010	1048	1.67	5.77	7.44
01/13/2010	1054	1.64	5.71	7.35

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1100	1.61	5.65	7.26
01/13/2010	1106	1.58	5.59	7.17
01/13/2010	1112	1.55	5.53	7.08
01/13/2010	1118	1.52	5.47	6.99
01/13/2010	1124	1.49	5.41	6.90
01/13/2010	1130	1.46	5.34	6.80
01/13/2010	1136	1.43	5.27	6.70
01/13/2010	1142	1.40	5.19	6.59
01/13/2010	1148	1.37	5.10	6.47
01/13/2010	1154	1.34	5.01	6.35
01/13/2010	1200	1.31	4.90	6.21
01/13/2010	1206	1.28	4.79	6.07
01/13/2010	1212	1.25	4.68	5.93
01/13/2010	1218	1.22	4.57	5.79
01/13/2010	1224	1.19	4.46	5.65
01/13/2010	1230	1.17	4.34	5.51
01/13/2010	1236	1.14	4.23	5.37
01/13/2010	1242	1.12	4.12	5.24
01/13/2010	1248	1.09	3.99	5.08
01/13/2010	1254	1.07	3.88	4.95
01/13/2010	1300	1.05	3.76	4.81
01/13/2010	1306	1.03	3.64	4.67
01/13/2010	1312	1.00	3.51	4.51
01/13/2010	1318	0.98	3.39	4.37
01/13/2010	1324	0.96	3.27	4.23
01/13/2010	1330	0.94	3.15	4.09
01/13/2010	1336	0.91	3.04	3.95
01/13/2010	1342	0.89	2.92	3.81
01/13/2010	1348	0.86	2.81	3.67
01/13/2010	1354	0.84	2.70	3.54
01/13/2010	1400	0.81	2.58	3.39
01/13/2010	1406	0.79	2.46	3.25
01/13/2010	1412	0.76	2.33	3.09
01/13/2010	1418	0.74	2.21	2.95
01/13/2010	1424	0.72	2.09	2.81
01/13/2010	1430	0.69	1.98	2.67
01/13/2010	1436	0.67	1.87	2.54
01/13/2010	1442	0.64	1.75	2.39
01/13/2010	1448	0.62	1.64	2.26
01/13/2010	1454	0.59	1.53	2.12
01/13/2010	1500	0.51	1.42	1.93
01/13/2010	1506	0.00	1.30	1.30
01/13/2010	1512	0.00	1.18	1.18
01/13/2010	1518	0.00	1.07	1.07
01/13/2010	1524	0.00	0.00	0.00

Hydrograph Combination

I1, I2 + I3 25yr

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\COMBINED HYDROGRAPH	01/13/2010	0000	176	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\COMBINED HYDROGRAPH	01/13/2010	0000	176	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\COMBINED HYDROGRAPH	01/13/2010	0000	176	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0000	0.00	0.00	0.00
01/13/2010	0006	0.00	0.00	0.00
01/13/2010	0012	0.00	0.00	0.00
01/13/2010	0018	0.00	0.00	0.00
01/13/2010	0024	0.00	0.00	0.00
01/13/2010	0030	0.00	0.00	0.00
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.00	0.00
01/13/2010	0054	0.08	0.11	0.19
01/13/2010	0100	0.80	0.89	1.69
01/13/2010	0106	2.89	2.24	5.13
01/13/2010	0112	3.89	3.99	7.88
01/13/2010	0118	4.07	6.04	10.11
01/13/2010	0124	3.95	8.37	12.32
01/13/2010	0130	3.77	11.33	15.10
01/13/2010	0136	3.55	16.24	19.79
01/13/2010	0142	3.30	25.60	28.90
01/13/2010	0148	3.04	42.61	45.65
01/13/2010	0154	2.68	71.09	73.77
01/13/2010	0200	2.33	110.49	112.82
01/13/2010	0206	2.06	162.35	164.41
01/13/2010	0212	1.84	190.90	192.74
01/13/2010	0218	1.64	183.40	185.04
01/13/2010	0224	1.46	162.39	163.85
01/13/2010	0230	1.31	138.22	139.53
01/13/2010	0236	1.20	115.34	116.54
01/13/2010	0242	1.10	104.98	106.08
01/13/2010	0248	1.01	93.20	94.21
01/13/2010	0254	0.95	81.89	82.84
01/13/2010	0300	0.88	71.31	72.19
01/13/2010	0306	0.82	62.33	63.15
01/13/2010	0312	0.77	54.86	55.63
01/13/2010	0318	0.73	48.70	49.43
01/13/2010	0324	0.70	43.55	44.25
01/13/2010	0330	0.70	39.23	39.93
01/13/2010	0336	0.93	35.64	36.57
01/13/2010	0342	1.86	32.66	34.52
01/13/2010	0348	3.49	30.09	33.58
01/13/2010	0354	4.81	27.88	32.69
01/13/2010	0400	5.64	25.99	31.63
01/13/2010	0406	6.23	24.32	30.55
01/13/2010	0412	6.62	22.87	29.49
01/13/2010	0418	6.87	21.56	28.43
01/13/2010	0424	7.03	20.41	27.44
01/13/2010	0430	7.12	19.41	26.53
01/13/2010	0436	7.18	18.56	25.74
01/13/2010	0442	7.21	17.86	25.07
01/13/2010	0448	7.21	17.27	24.48
01/13/2010	0454	7.20	16.73	23.93
01/13/2010	0500	7.18	16.23	23.41

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0506	7.15	15.77	22.92
01/13/2010	0512	7.12	15.33	22.45
01/13/2010	0518	7.09	14.92	22.01
01/13/2010	0524	7.05	14.52	21.57
01/13/2010	0530	7.01	14.13	21.14
01/13/2010	0536	6.97	13.76	20.73
01/13/2010	0542	6.93	13.41	20.34
01/13/2010	0548	6.89	13.07	19.96
01/13/2010	0554	6.84	12.75	19.59
01/13/2010	0600	6.79	12.46	19.25
01/13/2010	0606	6.73	12.19	18.92
01/13/2010	0612	6.68	11.93	18.61
01/13/2010	0618	6.63	11.69	18.32
01/13/2010	0624	6.57	11.46	18.03
01/13/2010	0630	6.52	11.24	17.76
01/13/2010	0636	6.46	11.02	17.48
01/13/2010	0642	6.40	10.81	17.21
01/13/2010	0648	6.35	10.60	16.95
01/13/2010	0654	6.29	10.41	16.70
01/13/2010	0700	6.23	10.22	16.45
01/13/2010	0706	6.18	10.06	16.24
01/13/2010	0712	6.11	9.91	16.02
01/13/2010	0718	6.04	9.78	15.82
01/13/2010	0724	5.98	9.65	15.63
01/13/2010	0730	5.91	9.53	15.44
01/13/2010	0736	5.84	9.41	15.25
01/13/2010	0742	5.78	9.30	15.08
01/13/2010	0748	5.71	9.19	14.90
01/13/2010	0754	5.65	9.08	14.73
01/13/2010	0800	5.58	8.97	14.55
01/13/2010	0806	5.52	8.87	14.39
01/13/2010	0812	5.45	8.77	14.22
01/13/2010	0818	5.39	8.68	14.07
01/13/2010	0824	5.32	8.58	13.90
01/13/2010	0830	5.26	8.48	13.74
01/13/2010	0836	5.19	8.38	13.57
01/13/2010	0842	5.13	8.28	13.41
01/13/2010	0848	5.06	8.18	13.24
01/13/2010	0854	5.00	8.08	13.08
01/13/2010	0900	4.94	7.98	12.92
01/13/2010	0906	4.87	7.88	12.75
01/13/2010	0912	4.81	7.79	12.60
01/13/2010	0918	4.75	7.71	12.46
01/13/2010	0924	4.69	7.63	12.32
01/13/2010	0930	4.62	7.54	12.16
01/13/2010	0936	4.56	7.45	12.01
01/13/2010	0942	4.50	7.36	11.86
01/13/2010	0948	4.43	7.28	11.71
01/13/2010	0954	4.37	7.20	11.57
01/13/2010	1000	4.31	7.13	11.44
01/13/2010	1006	4.25	7.05	11.30
01/13/2010	1012	4.18	6.97	11.15
01/13/2010	1018	4.12	6.90	11.02
01/13/2010	1024	4.06	6.82	10.88
01/13/2010	1030	4.00	6.74	10.74
01/13/2010	1036	3.93	6.67	10.60
01/13/2010	1042	3.86	6.60	10.46
01/13/2010	1048	3.79	6.52	10.31
01/13/2010	1054	3.72	6.45	10.17

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1100	3.65	6.39	10.04
01/13/2010	1106	3.58	6.31	9.89
01/13/2010	1112	3.51	6.23	9.74
01/13/2010	1118	3.44	6.16	9.60
01/13/2010	1124	3.37	6.09	9.46
01/13/2010	1130	3.30	6.02	9.32
01/13/2010	1136	3.23	5.94	9.17
01/13/2010	1142	3.15	5.84	8.99
01/13/2010	1148	3.06	5.74	8.80
01/13/2010	1154	2.94	5.64	8.58
01/13/2010	1200	2.83	5.53	8.36
01/13/2010	1206	2.73	5.41	8.14
01/13/2010	1212	2.64	5.29	7.93
01/13/2010	1218	2.56	5.16	7.72
01/13/2010	1224	2.49	5.03	7.52
01/13/2010	1230	2.42	4.89	7.31
01/13/2010	1236	2.35	4.76	7.11
01/13/2010	1242	2.29	4.63	6.92
01/13/2010	1248	2.23	4.49	6.72
01/13/2010	1254	2.17	4.36	6.53
01/13/2010	1300	2.12	4.23	6.35
01/13/2010	1306	2.07	4.09	6.16
01/13/2010	1312	2.02	3.96	5.98
01/13/2010	1318	1.98	3.83	5.81
01/13/2010	1324	1.94	3.69	5.63
01/13/2010	1330	1.89	3.56	5.45
01/13/2010	1336	1.85	3.42	5.27
01/13/2010	1342	1.80	3.28	5.08
01/13/2010	1348	1.76	3.14	4.90
01/13/2010	1354	1.71	3.01	4.72
01/13/2010	1400	1.67	2.88	4.55
01/13/2010	1406	1.62	2.74	4.36
01/13/2010	1412	1.58	2.61	4.19
01/13/2010	1418	1.54	2.48	4.02
01/13/2010	1424	1.49	2.34	3.83
01/13/2010	1430	1.45	2.21	3.66
01/13/2010	1436	1.42	2.07	3.49
01/13/2010	1442	1.38	1.94	3.32
01/13/2010	1448	1.35	1.82	3.17
01/13/2010	1454	1.31	1.70	3.01
01/13/2010	1500	1.28	1.57	2.85
01/13/2010	1506	1.18	1.45	2.63
01/13/2010	1512	1.15	1.31	2.46
01/13/2010	1518	1.12	1.18	2.30
01/13/2010	1524	1.09	0.00	1.09
01/13/2010	1530	1.06	0.00	1.06
01/13/2010	1536	1.03	0.00	1.03
01/13/2010	1542	1.01	0.00	1.01
01/13/2010	1548	0.98	0.00	0.98
01/13/2010	1554	0.96	0.00	0.96
01/13/2010	1600	0.93	0.00	0.93
01/13/2010	1606	0.90	0.00	0.90
01/13/2010	1612	0.88	0.00	0.88
01/13/2010	1618	0.85	0.00	0.85
01/13/2010	1624	0.83	0.00	0.83
01/13/2010	1630	0.80	0.00	0.80
01/13/2010	1636	0.77	0.00	0.77
01/13/2010	1642	0.75	0.00	0.75
01/13/2010	1648	0.72	0.00	0.72

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1654	0.70	0.00	0.70
01/13/2010	1700	0.68	0.00	0.68
01/13/2010	1706	0.66	0.00	0.66
01/13/2010	1712	0.63	0.00	0.63
01/13/2010	1718	0.61	0.00	0.61
01/13/2010	1724	0.00	0.00	0.00
01/13/2010	1730	0.00	0.00	0.00

Hydrograph Combination

I1, I2 + I3 100yr.

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcstrev_12_22_09\01132010\BASIN I-2\routed\000.HYD	01/13/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcstrev_12_22_09\01132010\BASIN I-1 & I-2\routed\000.HYD	01/13/2010	0000	151	0.1000
COMBINED HYDROGRAPH	01/13/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0000	0.00	0.00	0.00
01/13/2010	0006	0.00	0.00	0.00
01/13/2010	0012	0.00	0.00	0.00
01/13/2010	0018	0.00	0.00	0.00
01/13/2010	0024	0.00	0.00	0.00
01/13/2010	0030	0.00	0.00	0.00
01/13/2010	0036	0.00	0.00	0.00
01/13/2010	0042	0.00	0.00	0.00
01/13/2010	0048	0.00	0.05	0.05
01/13/2010	0054	0.13	0.49	0.62
01/13/2010	0100	0.90	1.81	2.71
01/13/2010	0106	2.89	3.60	6.49
01/13/2010	0112	5.17	5.76	10.93
01/13/2010	0118	7.64	8.22	15.86
01/13/2010	0124	8.89	10.94	19.83
01/13/2010	0130	9.71	14.44	24.15
01/13/2010	0136	10.25	20.22	30.47
01/13/2010	0142	10.51	31.17	41.68
01/13/2010	0148	10.55	52.03	62.58
01/13/2010	0154	10.49	87.40	97.89
01/13/2010	0200	10.36	140.60	150.96
01/13/2010	0206	10.11	211.74	221.85
01/13/2010	0212	9.81	230.59	240.40 
01/13/2010	0218	9.55	215.69	225.24
01/13/2010	0224	9.34	188.94	198.28
01/13/2010	0230	9.13	159.88	169.01
01/13/2010	0236	8.94	135.60	144.54
01/13/2010	0242	8.78	113.57	122.35
01/13/2010	0248	8.64	103.33	111.97
01/13/2010	0254	8.52	92.17	100.69
01/13/2010	0300	8.41	81.46	89.87
01/13/2010	0306	8.31	71.56	79.87
01/13/2010	0312	8.22	63.10	71.32
01/13/2010	0318	8.14	56.09	64.23
01/13/2010	0324	8.05	50.22	58.27
01/13/2010	0330	7.97	45.31	53.28
01/13/2010	0336	7.88	41.21	49.09
01/13/2010	0342	7.81	37.81	45.62
01/13/2010	0348	7.74	34.86	42.60
01/13/2010	0354	7.68	32.34	40.02
01/13/2010	0400	7.61	30.17	37.78
01/13/2010	0406	7.55	28.26	35.81
01/13/2010	0412	7.49	26.60	34.09
01/13/2010	0418	7.43	25.19	32.62
01/13/2010	0424	7.36	23.97	31.33
01/13/2010	0430	7.29	22.86	30.15
01/13/2010	0436	7.22	21.83	29.05
01/13/2010	0442	7.16	20.97	28.13
01/13/2010	0448	7.09	20.23	27.32
01/13/2010	0454	7.03	19.59	26.62
01/13/2010	0500	6.97	19.01	25.98

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	0506	6.90	18.47	25.37
01/13/2010	0512	6.84	17.96	24.80
01/13/2010	0518	6.77	17.48	24.25
01/13/2010	0524	6.70	17.00	23.70
01/13/2010	0530	6.63	16.54	23.17
01/13/2010	0536	6.56	16.11	22.67
01/13/2010	0542	6.48	15.72	22.20
01/13/2010	0548	6.41	15.33	21.74
01/13/2010	0554	6.34	14.96	21.30
01/13/2010	0600	6.27	14.59	20.86
01/13/2010	0606	6.20	14.27	20.47
01/13/2010	0612	6.13	13.98	20.11
01/13/2010	0618	6.06	13.70	19.76
01/13/2010	0624	5.99	13.43	19.42
01/13/2010	0630	5.93	13.18	19.11
01/13/2010	0636	5.86	12.94	18.80
01/13/2010	0642	5.80	12.70	18.50
01/13/2010	0648	5.73	12.46	18.19
01/13/2010	0654	5.66	12.24	17.90
01/13/2010	0700	5.60	12.02	17.62
01/13/2010	0706	5.54	11.81	17.35
01/13/2010	0712	5.47	11.62	17.09
01/13/2010	0718	5.41	11.45	16.86
01/13/2010	0724	5.34	11.29	16.63
01/13/2010	0730	5.28	11.16	16.44
01/13/2010	0736	5.22	11.03	16.25
01/13/2010	0742	5.15	10.90	16.05
01/13/2010	0748	5.09	10.78	15.87
01/13/2010	0754	5.02	10.66	15.68
01/13/2010	0800	4.95	10.53	15.48
01/13/2010	0806	4.87	10.41	15.28
01/13/2010	0812	4.80	10.30	15.10
01/13/2010	0818	4.73	10.19	14.92
01/13/2010	0824	4.66	10.08	14.74
01/13/2010	0830	4.59	9.98	14.57
01/13/2010	0836	4.53	9.87	14.40
01/13/2010	0842	4.46	9.75	14.21
01/13/2010	0848	4.39	9.63	14.02
01/13/2010	0854	4.32	9.51	13.83
01/13/2010	0900	4.26	9.40	13.66
01/13/2010	0906	4.19	9.29	13.48
01/13/2010	0912	4.13	9.18	13.31
01/13/2010	0918	4.06	9.08	13.14
01/13/2010	0924	4.00	8.97	12.97
01/13/2010	0930	3.92	8.86	12.78
01/13/2010	0936	3.85	8.75	12.60
01/13/2010	0942	3.78	8.66	12.44
01/13/2010	0948	3.71	8.56	12.27
01/13/2010	0954	3.64	8.47	12.11
01/13/2010	1000	3.57	8.37	11.94
01/13/2010	1006	3.50	8.27	11.77
01/13/2010	1012	3.44	8.19	11.63
01/13/2010	1018	3.37	8.11	11.48
01/13/2010	1024	3.30	8.03	11.33
01/13/2010	1030	3.23	7.94	11.17
01/13/2010	1036	3.17	7.85	11.02
01/13/2010	1042	3.08	7.75	10.83
01/13/2010	1048	2.98	7.66	10.64
01/13/2010	1054	2.88	7.58	10.46

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/13/2010	1100	2.79	7.50	10.29
01/13/2010	1106	2.70	7.42	10.12
01/13/2010	1112	2.63	7.33	9.96
01/13/2010	1118	2.56	7.25	9.81
01/13/2010	1124	2.49	7.16	9.65
01/13/2010	1130	2.42	7.08	9.50
01/13/2010	1136	2.36	6.99	9.35
01/13/2010	1142	2.30	6.88	9.18
01/13/2010	1148	2.24	6.76	9.00
01/13/2010	1154	2.18	6.62	8.80
01/13/2010	1200	2.12	6.49	8.61
01/13/2010	1206	2.06	6.34	8.40
01/13/2010	1212	2.00	6.19	8.19
01/13/2010	1218	1.94	6.04	7.98
01/13/2010	1224	1.88	5.88	7.76
01/13/2010	1230	1.82	5.72	7.54
01/13/2010	1236	1.76	5.58	7.34
01/13/2010	1242	1.70	5.42	7.12
01/13/2010	1248	1.65	5.27	6.92
01/13/2010	1254	1.59	5.11	6.70
01/13/2010	1300	1.54	4.95	6.49
01/13/2010	1306	1.49	4.79	6.28
01/13/2010	1312	1.45	4.63	6.08
01/13/2010	1318	1.40	4.46	5.86
01/13/2010	1324	1.36	4.30	5.66
01/13/2010	1330	1.32	4.14	5.46
01/13/2010	1336	1.28	3.99	5.27
01/13/2010	1342	1.23	3.82	5.05
01/13/2010	1348	1.19	3.66	4.85
01/13/2010	1354	1.15	3.51	4.66
01/13/2010	1400	1.12	3.34	4.46
01/13/2010	1406	1.08	3.18	4.26
01/13/2010	1412	1.04	3.03	4.07
01/13/2010	1418	1.00	2.88	3.88
01/13/2010	1424	0.97	2.73	3.70
01/13/2010	1430	0.93	2.58	3.51
01/13/2010	1436	0.89	2.42	3.31
01/13/2010	1442	0.85	2.26	3.11
01/13/2010	1448	0.82	2.10	2.92
01/13/2010	1454	0.79	1.95	2.74
01/13/2010	1500	0.68	1.81	2.49
01/13/2010	1506	0.00	1.66	1.66
01/13/2010	1512	0.00	1.51	1.51
01/13/2010	1518	0.00	1.36	1.36
01/13/2010	1524	0.00	0.00	0.00

POST TO
DETENTION BASIN K-1

BRINKASH ASSOCIATES, INC. SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

DETENTION
BASIN K-1

POST AREA K

DRAINAGE AREA = 25.64 AC.

$T_c = 35.00$ MINUTES

CN = 80.62

POST TO BASIN

ROUTED

$Q_1 = 24.0$ cfs .226

$Q_1 = 14.55$ cfs.

$Q_2 = 33.9$ cfs .3673

$Q_2 = 23.43$ cfs.

$Q_{10} = 71.6$ cfs .93.06

$Q_{10} = 56.9$ cfs.

$Q_{25} = 86.2$ cfs .116.42

$Q_{25} = 70.50$ cfs.

$Q_{50} = 97.3$ cfs .132.38

$Q_{50} = 79.14$ cfs.

$Q_{100} = 114.2$ cfs.

$Q_{100} =$ cfs.

11.155 FEET TO 110.3

2.27 MINUTES

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	25.640	81	0.160	1.29	35.000	30.000	0.000	4.980
Composite	25.640	81		1.29				

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	10	24	14	6	4	3	2	1	1	0
Composite	1	2	10	24	14	6	4	3	2	1	1	0

The peak flow is 24.0 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	25.640	81	0.134	1.76	35.000	30.000	0.000	4.980
Composite	25.640	81		1.76				

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	16	34	19	8	5	4	2	2	1	0
Composite	1	3	16	34	19	8	5	4	2	2	1	0

The peak flow is 33.9 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	25.640	81	0.100	3.57	35.000	30.000	0.000	4.980
Composite	25.640	81		3.57				

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	37	72	37	15	9	7	5	3	2	0
Composite	2	7	37	72	37	15	9	7	5	3	2	0

The peak flow is 71.6 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	25.640	81	0.100	4.30	35.000	30.000	0.000	4.980
Composite	25.640	81		4.30				

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	9	45	86	45	18	11	8	6	4	2	0
Composite	3	9	45	86	45	18	11	8	6	4	2	0

The peak flow is 86.2 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	25.640	81	0.100	4.86	35.000	30.000	0.000	4.980
Composite	25.640	81		4.86				

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	10	51	97	50	21	13	9	6	4	3	0
Composite	3	10	51	97	50	21	13	9	6	4	3	0

The peak flow is 97.3 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	25.640	81	0.100	5.70	35.000	30.000	0.000	4.980
Composite	25.640	81		5.70				

SCS TR55 Tabular Method

Watershed Title: Post to Basin K-1

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)												
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0	
1	4	12	60	114	59	24	15	11	7	5	3	0	
Composite	4	12	60	114	59	24	15	11	7	5	3	0	

The peak flow is 114.2 cfs at 12.5 hrs.

BASIN K-1

Basin Storage/Elevation Input

NOTE: ELEV. ADJUSTED 5.0' HIGHER

Elevation (ft)	Area (acres)	Storage (acre-ft)	<i>GRADING PLAN BOTTOM = 1454 SPILLWAY = 1459 TOP = 1460</i>
1449	.35	0.000	
1451	.40	0.750	
1453	.46	1.610	
1454	.49	2.085	

Project Files:

Outlet Structure Configuration: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.OSC

Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Outlet Structure Configuration for: *K-1*

NOTE: ELEV. ADJUSTMENT OF 5.0' HIGHER ON GRADING PLAN

Stage 1: Rectangular Orifice

Invert Elevation = 1449.5 feet
 Width = 2.5 feet
 Height = 2 feet
 Discharge Coefficient = 0.6

Stage 2: Rectangular Orifice

Invert Elevation = 1451.1 feet
 Width = 3 feet
 Height = 1.9 feet
 Discharge Coefficient = 0.6

Stage 3: Rectangular Orifice

Invert Elevation = 1453 feet
 Width = 2.67 feet
 Height = 0.67 feet
 Discharge Coefficient = 0.6

Stage 4: Emergency Spillway

Crest Elevation = 1454 feet
 Crest Length = 10 feet
 Discharge Coefficient = 3

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1449.00	0.00	N/A	N/A	N/A	N/A
1449.10	0.00	N/A	N/A	N/A	N/A
1449.20	0.00	N/A	N/A	N/A	N/A
1449.30	0.00	N/A	N/A	N/A	N/A
1449.40	0.00	N/A	N/A	N/A	N/A
1449.50	0.00	N/A	N/A	N/A	N/A
1449.60	0.25	N/A	N/A	N/A	N/A
1449.70	0.70	N/A	N/A	N/A	N/A
1449.80	1.28	N/A	N/A	N/A	N/A
1449.90	1.97	N/A	N/A	N/A	N/A
1450.00	2.75	N/A	N/A	N/A	N/A
1450.10	3.62	N/A	N/A	N/A	N/A
1450.20	4.56	N/A	N/A	N/A	N/A
1450.30	5.57	N/A	N/A	N/A	N/A
1450.40	6.64	N/A	N/A	N/A	N/A
1450.50	7.78	N/A	N/A	N/A	N/A
1450.60	8.98	N/A	N/A	N/A	N/A
1450.70	10.23	N/A	N/A	N/A	N/A
1450.80	11.53	N/A	N/A	N/A	N/A
1450.90	12.89	N/A	N/A	N/A	N/A
1451.00	14.29	N/A	N/A	N/A	N/A
1451.10	15.75	N/A	N/A	N/A	N/A
1451.20	17.54	N/A	N/A	N/A	N/A
1451.30	19.62	N/A	N/A	N/A	N/A
1451.40	21.91	N/A	N/A	N/A	N/A
1451.50	24.37	N/A	N/A	N/A	N/A
1451.60	28.55	N/A	N/A	N/A	N/A

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1451.70	30.71	N/A	N/A	N/A	N/A
1451.80	32.91	N/A	N/A	N/A	N/A
1451.90	35.16	N/A	N/A	N/A	N/A
1452.00	37.45	N/A	N/A	N/A	N/A
1452.10	39.78	N/A	N/A	N/A	N/A
1452.20	42.15	N/A	N/A	N/A	N/A
1452.30	44.57	N/A	N/A	N/A	N/A
1452.40	47.02	N/A	N/A	N/A	N/A
1452.50	49.50	N/A	N/A	N/A	N/A
1452.60	52.03	N/A	N/A	N/A	N/A
1452.70	54.59	N/A	N/A	N/A	N/A
1452.80	57.19	N/A	N/A	N/A	N/A
1452.90	59.83	N/A	N/A	N/A	N/A
1453.00	62.50	N/A	N/A	N/A	N/A
1453.10	67.21	N/A	N/A	N/A	N/A
1453.20	69.73	N/A	N/A	N/A	N/A
1453.30	72.33	N/A	N/A	N/A	N/A
1453.40	74.99	N/A	N/A	N/A	N/A
1453.50	77.68	N/A	N/A	N/A	N/A
1453.60	80.42	N/A	N/A	N/A	N/A
1453.70	83.52	N/A	N/A	N/A	N/A
1453.80	85.91	N/A	N/A	N/A	N/A
1453.90	88.20	N/A	N/A	N/A	N/A
1454.00	90.39	N/A	N/A	N/A	N/A
1454.10	93.46	N/A	N/A	N/A	N/A
1454.20	97.25	N/A	N/A	N/A	N/A
1454.30	101.49	N/A	N/A	N/A	N/A
1454.40	106.10	N/A	N/A	N/A	N/A
1454.50	111.01	N/A	N/A	N/A	N/A
1454.60	116.21	N/A	N/A	N/A	N/A
1454.70	121.65	N/A	N/A	N/A	N/A
1454.80	127.33	N/A	N/A	N/A	N/A
1454.90	133.22	N/A	N/A	N/A	N/A
1455.00	139.32	N/A	N/A	N/A	N/A

BASIN K1 ROUTED

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin1.HYD

Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES

Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs

Starting Pool Elevation = 1449.00 feet

Time Interval = 0.1000000 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.60	0.60	0.0000	1449.00	0.000	0.000
0.10	0.70	0.70	0.0054	1449.01	0.000	0.000
0.20	0.70	0.70	0.0112	1449.03	0.000	0.000
0.30	0.80	0.80	0.0174	1449.05	0.000	0.000
0.40	0.90	0.90	0.0244	1449.07	0.000	0.000
0.50	1.00	1.00	0.0322	1449.09	0.000	0.000
0.60	1.10	1.10	0.0409	1449.11	0.000	0.000
0.70	1.40	1.40	0.0512	1449.14	0.000	0.000
0.80	1.60	1.60	0.0636	1449.17	0.000	0.000
0.90	1.90	1.90	0.0781	1449.21	0.000	0.000
1.00	3.00	3.00	0.0983	1449.26	0.000	0.000
1.10	5.50	5.50	0.1335	1449.36	0.000	0.000
1.20	10.30	10.30	0.1985	1449.53	0.072	0.072
1.30	17.00	17.00	0.3053	1449.81	1.38	1.38
1.40	22.10	22.10	0.4431	1450.18	4.38	4.38
1.50	24.00	24.00	0.5809	1450.55	8.37	8.37
1.60	21.80	21.80	0.6862	1450.83	11.94	11.94
1.70	17.90	17.90	0.7430	1450.98	14.03	14.03
1.80	14.20	14.20	0.7576	1451.02	14.55	14.55
1.90	11.60	11.60	0.7457	1450.99	14.13	14.13
2.00	8.90	8.90	0.7179	1450.91	13.09	13.09
2.10	7.50	7.50	0.6828	1450.82	11.81	11.81
2.20	6.10	6.10	0.6466	1450.72	10.54	10.54
2.30	5.30	5.30	0.6115	1450.63	9.36	9.36
2.40	4.60	4.60	0.5793	1450.55	8.32	8.32
2.50	4.10	4.10	0.5503	1450.47	7.41	7.41
2.60	3.70	3.70	0.5245	1450.40	6.63	6.63
2.70	3.50	3.50	0.5021	1450.34	5.99	5.99
2.80	3.20	3.20	0.4826	1450.29	5.44	5.44
2.90	3.00	3.00	0.4653	1450.24	4.97	4.97
3.00	2.80	2.80	0.4499	1450.20	4.55	4.55
3.10	2.70	2.70	0.4364	1450.16	4.21	4.21
3.20	2.60	2.60	0.4247	1450.13	3.92	3.92
3.30	2.40	2.40	0.4140	1450.10	3.65	3.65
3.40	2.30	2.30	0.4042	1450.08	3.42	3.42
3.50	2.20	2.20	0.3953	1450.05	3.22	3.22
3.60	2.10	2.10	0.3873	1450.03	3.03	3.03
3.70	2.10	2.10	0.3802	1450.01	2.87	2.87
3.80	2.00	2.00	0.3740	1450.00	2.73	2.73
3.90	2.00	2.00	0.3685	1449.98	2.61	2.61
4.00	1.90	1.90	0.3634	1449.97	2.51	2.51
4.10	1.90	1.90	0.3588	1449.96	2.41	2.41
4.20	1.80	1.80	0.3545	1449.95	2.32	2.32
4.30	1.80	1.80	0.3505	1449.94	2.24	2.24
4.40	1.80	1.80	0.3472	1449.93	2.17	2.17
4.50	1.70	1.70	0.3440	1449.92	2.10	2.10
4.60	1.70	1.70	0.3409	1449.91	2.04	2.04
4.70	1.60	1.60	0.3379	1449.90	1.98	1.98

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.60	1.60	0.3351	1449.89	1.92	1.92
4.90	1.60	1.60	0.3326	1449.89	1.88	1.88
5.00	1.50	1.50	0.3301	1449.88	1.83	1.83
5.10	1.50	1.50	0.3275	1449.87	1.78	1.78
5.20	1.50	1.50	0.3253	1449.87	1.74	1.74
5.30	1.40	1.40	0.3231	1449.86	1.70	1.70
5.40	1.40	1.40	0.3207	1449.86	1.66	1.66
5.50	1.40	1.40	0.3188	1449.85	1.62	1.62
5.60	1.30	1.30	0.3167	1449.84	1.58	1.58
5.70	1.30	1.30	0.3145	1449.84	1.54	1.54
5.80	1.30	1.30	0.3126	1449.83	1.51	1.51
5.90	1.30	1.30	0.3110	1449.83	1.48	1.48
6.00	1.30	1.30	0.3096	1449.83	1.45	1.45
6.10	1.20	1.20	0.3080	1449.82	1.43	1.43
6.20	1.20	1.20	0.3063	1449.82	1.39	1.39
6.30	1.20	1.20	0.3048	1449.81	1.37	1.37
6.40	1.20	1.20	0.3035	1449.81	1.34	1.34
6.50	1.20	1.20	0.3024	1449.81	1.32	1.32
6.60	1.20	1.20	0.3015	1449.80	1.31	1.31
6.70	1.20	1.20	0.3007	1449.80	1.29	1.29
6.80	1.20	1.20	0.3000	1449.80	1.28	1.28
6.90	1.10	1.10	0.2990	1449.80	1.26	1.26
7.00	1.10	1.10	0.2977	1449.79	1.24	1.24
7.10	1.10	1.10	0.2966	1449.79	1.23	1.23
7.20	1.10	1.10	0.2956	1449.79	1.21	1.21
7.30	1.10	1.10	0.2948	1449.79	1.20	1.20
7.40	1.10	1.10	0.2940	1449.78	1.19	1.19
7.50	1.10	1.10	0.2934	1449.78	1.18	1.18
7.60	1.00	1.00	0.2924	1449.78	1.16	1.16
7.70	1.00	1.00	0.2912	1449.78	1.14	1.14
7.80	1.00	1.00	0.2901	1449.77	1.12	1.12
7.90	1.00	1.00	0.2891	1449.77	1.11	1.11
8.00	1.00	1.00	0.2883	1449.77	1.10	1.10
8.10	1.00	1.00	0.2875	1449.77	1.08	1.08
8.20	1.00	1.00	0.2869	1449.77	1.07	1.07
8.30	0.90	0.90	0.2859	1449.76	1.06	1.06
8.40	0.90	0.90	0.2847	1449.76	1.04	1.04
8.50	0.90	0.90	0.2836	1449.76	1.02	1.02
8.60	0.90	0.90	0.2826	1449.75	1.01	1.01
8.70	0.90	0.90	0.2818	1449.75	1.00	1.00
8.80	0.90	0.90	0.2810	1449.75	0.98	0.98
8.90	0.90	0.90	0.2804	1449.75	0.97	0.97
9.00	0.80	0.80	0.2794	1449.75	0.96	0.96
9.10	0.80	0.80	0.2782	1449.74	0.94	0.94
9.20	0.80	0.80	0.2771	1449.74	0.92	0.92
9.30	0.80	0.80	0.2762	1449.74	0.91	0.91
9.40	0.80	0.80	0.2753	1449.73	0.89	0.89
9.50	0.80	0.80	0.2746	1449.73	0.88	0.88
9.60	0.80	0.80	0.2739	1449.73	0.87	0.87
9.70	0.80	0.80	0.2734	1449.73	0.86	0.86
9.80	0.80	0.80	0.2729	1449.73	0.86	0.86
9.90	0.80	0.80	0.2724	1449.73	0.85	0.85
10.00	0.80	0.80	0.2720	1449.73	0.84	0.84
10.10	0.80	0.80	0.2717	1449.72	0.84	0.84
10.20	0.80	0.80	0.2714	1449.72	0.83	0.83
10.30	0.80	0.80	0.2711	1449.72	0.83	0.83
10.40	0.80	0.80	0.2709	1449.72	0.83	0.83
10.50	0.80	0.80	0.2707	1449.72	0.82	0.82

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.80	0.80	0.2705	1449.72	0.82	0.82
10.70	0.70	0.70	0.2700	1449.72	0.81	0.81
10.80	0.70	0.70	0.2691	1449.72	0.80	0.80
10.90	0.70	0.70	0.2683	1449.72	0.79	0.79
11.00	0.70	0.70	0.2677	1449.71	0.78	0.78
11.10	0.70	0.70	0.2671	1449.71	0.77	0.77
11.20	0.70	0.70	0.2665	1449.71	0.76	0.76
11.30	0.70	0.70	0.2661	1449.71	0.75	0.75
11.40	0.70	0.70	0.2657	1449.71	0.75	0.75
11.50	0.60	0.60	0.2649	1449.71	0.73	0.73
11.60	0.60	0.60	0.2639	1449.70	0.72	0.72
11.70	0.60	0.60	0.2630	1449.70	0.70	0.70
11.80	0.60	0.60	0.2622	1449.70	0.69	0.69
11.90	0.60	0.60	0.2615	1449.70	0.68	0.68
12.00	0.50	0.50	0.2604	1449.69	0.67	0.67
12.10	0.50	0.50	0.2591	1449.69	0.65	0.65
12.20	0.50	0.50	0.2578	1449.69	0.64	0.64
12.30	0.50	0.50	0.2567	1449.69	0.63	0.63
12.40	0.50	0.50	0.2557	1449.68	0.61	0.61
12.50	0.50	0.50	0.2548	1449.68	0.60	0.60
12.60	0.40	0.40	0.2536	1449.68	0.59	0.59
12.70	0.40	0.40	0.2521	1449.67	0.57	0.57
12.80	0.40	0.40	0.2508	1449.67	0.56	0.56
12.90	0.40	0.40	0.2496	1449.67	0.54	0.54
13.00	0.40	0.40	0.2484	1449.66	0.53	0.53
13.10	0.30	0.30	0.2471	1449.66	0.51	0.51
13.20	0.30	0.30	0.2454	1449.65	0.491	0.491
13.30	0.30	0.30	0.2439	1449.65	0.473	0.473
13.40	0.30	0.30	0.2425	1449.65	0.456	0.456
13.50	0.30	0.30	0.2413	1449.64	0.442	0.442
13.60	0.30	0.30	0.2402	1449.64	0.428	0.428
13.70	0.20	0.20	0.2388	1449.64	0.411	0.411
13.80	0.20	0.20	0.2371	1449.63	0.391	0.391
13.90	0.20	0.20	0.2356	1449.63	0.373	0.373
14.00	0.20	0.20	0.2342	1449.63	0.357	0.357
14.10	0.20	0.20	0.2330	1449.62	0.342	0.342
14.20	0.10	0.10	0.2315	1449.62	0.324	0.324
14.30	0.10	0.10	0.2297	1449.61	0.303	0.303
14.40	0.10	0.10	0.2281	1449.61	0.284	0.284
14.50	0.10	0.10	0.2267	1449.60	0.266	0.266
14.60	0.10	0.10	0.2254	1449.60	0.251	0.251
14.70	0.10	0.10	0.2242	1449.60	0.241	0.241
14.80	0.00	0.00	0.2226	1449.59	0.231	0.231
14.90	0.00	0.00	0.2208	1449.59	0.218	0.218
15.00	0.00	0.00	0.2190	1449.58	0.207	0.207

Total Routing Mass Balance Discrepancy is -0.06%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1000000 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.60	0.60	0.0000	1449.00	0.000	0.000
Max. Inflow	1.50	24.00	24.00	0.5809	1450.55	8.37	8.37
Max. Outflow	1.80	14.20	14.20	0.7576	1451.02	14.55	14.55
Final	15.00	0.00	0.00	0.2190	1449.58	0.207	0.207

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.90	0.90	0.0000	1449.00	0.000	0.000
0.10	1.10	1.10	0.0083	1449.02	0.000	0.000
0.20	1.20	1.20	0.0178	1449.05	0.000	0.000
0.30	1.30	1.30	0.0281	1449.08	0.000	0.000
0.40	1.50	1.50	0.0397	1449.11	0.000	0.000
0.50	1.60	1.60	0.0525	1449.14	0.000	0.000
0.60	1.80	1.80	0.0665	1449.18	0.000	0.000
0.70	2.20	2.20	0.0831	1449.22	0.000	0.000
0.80	2.60	2.60	0.1029	1449.27	0.000	0.000
0.90	3.10	3.10	0.1264	1449.34	0.000	0.000
1.00	4.90	4.90	0.1595	1449.43	0.000	0.000
1.10	8.70	8.70	0.2150	1449.57	0.180	0.180
1.20	16.00	16.00	0.3102	1449.83	1.47	1.47
1.30	25.70	25.70	0.4569	1450.22	4.74	4.74
1.40	32.20	32.20	0.6347	1450.69	10.13	10.13
1.50	33.90	33.90	0.7997	1451.12	16.03	16.03
1.60	30.00	30.00	0.9097	1451.37	21.26	21.26
1.70	24.10	24.10	0.9486	1451.46	23.43	23.43
1.80	18.90	18.90	0.9357	1451.43	22.69	22.69
1.90	15.30	15.30	0.8980	1451.34	20.63	20.63
2.00	11.80	11.80	0.8496	1451.23	18.20	18.20
2.10	9.80	9.80	0.7977	1451.11	15.94	15.94
2.20	7.90	7.90	0.7465	1450.99	14.16	14.16
2.30	6.90	6.90	0.6980	1450.86	12.36	12.36
2.40	5.90	5.90	0.6551	1450.75	10.84	10.84
2.50	5.40	5.40	0.6175	1450.65	9.56	9.56
2.60	4.80	4.80	0.5850	1450.56	8.50	8.50
2.70	4.50	4.50	0.5569	1450.49	7.61	7.61
2.80	4.10	4.10	0.5326	1450.42	6.87	6.87
2.90	3.90	3.90	0.5114	1450.36	6.25	6.25
3.00	3.70	3.70	0.4933	1450.32	5.73	5.73
3.10	3.50	3.50	0.4775	1450.27	5.30	5.30
3.20	3.30	3.30	0.4634	1450.24	4.92	4.92
3.30	3.20	3.20	0.4510	1450.20	4.58	4.58
3.40	3.00	3.00	0.4399	1450.17	4.30	4.30
3.50	2.90	2.90	0.4297	1450.15	4.05	4.05
3.60	2.70	2.70	0.4204	1450.12	3.81	3.81
3.70	2.70	2.70	0.4121	1450.10	3.61	3.61
3.80	2.60	2.60	0.4048	1450.08	3.44	3.44
3.90	2.50	2.50	0.3981	1450.06	3.28	3.28
4.00	2.50	2.50	0.3922	1450.05	3.15	3.15
4.10	2.40	2.40	0.3869	1450.03	3.03	3.03
4.20	2.40	2.40	0.3822	1450.02	2.92	2.92
4.30	2.30	2.30	0.3779	1450.01	2.82	2.82
4.40	2.30	2.30	0.3740	1450.00	2.73	2.73
4.50	2.20	2.20	0.3704	1449.99	2.65	2.65
4.60	2.20	2.20	0.3669	1449.98	2.58	2.58
4.70	2.10	2.10	0.3636	1449.97	2.51	2.51

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.10	2.10	0.3605	1449.96	2.45	2.45
4.90	2.00	2.00	0.3574	1449.95	2.38	2.38
5.00	2.00	2.00	0.3545	1449.95	2.32	2.32
5.10	1.90	1.90	0.3517	1449.94	2.26	2.26
5.20	1.90	1.90	0.3489	1449.93	2.21	2.21
5.30	1.90	1.90	0.3466	1449.92	2.16	2.16
5.40	1.80	1.80	0.3442	1449.92	2.11	2.11
5.50	1.80	1.80	0.3419	1449.91	2.06	2.06
5.60	1.70	1.70	0.3395	1449.91	2.01	2.01
5.70	1.70	1.70	0.3372	1449.90	1.96	1.96
5.80	1.70	1.70	0.3352	1449.89	1.92	1.92
5.90	1.60	1.60	0.3330	1449.89	1.89	1.89
6.00	1.60	1.60	0.3308	1449.88	1.85	1.85
6.10	1.60	1.60	0.3290	1449.88	1.81	1.81
6.20	1.60	1.60	0.3273	1449.87	1.78	1.78
6.30	1.60	1.60	0.3260	1449.87	1.76	1.76
6.40	1.50	1.50	0.3244	1449.87	1.73	1.73
6.50	1.50	1.50	0.3226	1449.86	1.69	1.69
6.60	1.50	1.50	0.3211	1449.86	1.67	1.67
6.70	1.50	1.50	0.3199	1449.85	1.64	1.64
6.80	1.50	1.50	0.3188	1449.85	1.62	1.62
6.90	1.50	1.50	0.3178	1449.85	1.61	1.61
7.00	1.50	1.50	0.3170	1449.85	1.59	1.59
7.10	1.40	1.40	0.3159	1449.84	1.57	1.57
7.20	1.40	1.40	0.3146	1449.84	1.55	1.55
7.30	1.40	1.40	0.3135	1449.84	1.53	1.53
7.40	1.40	1.40	0.3125	1449.83	1.51	1.51
7.50	1.40	1.40	0.3117	1449.83	1.49	1.49
7.60	1.30	1.30	0.3106	1449.83	1.47	1.47
7.70	1.30	1.30	0.3093	1449.83	1.45	1.45
7.80	1.30	1.30	0.3081	1449.82	1.43	1.43
7.90	1.30	1.30	0.3071	1449.82	1.41	1.41
8.00	1.20	1.20	0.3059	1449.82	1.39	1.39
8.10	1.20	1.20	0.3045	1449.81	1.36	1.36
8.20	1.20	1.20	0.3032	1449.81	1.34	1.34
8.30	1.20	1.20	0.3022	1449.81	1.32	1.32
8.40	1.20	1.20	0.3013	1449.80	1.30	1.30
8.50	1.20	1.20	0.3005	1449.80	1.29	1.29
8.60	1.10	1.10	0.2994	1449.80	1.27	1.27
8.70	1.10	1.10	0.2981	1449.80	1.25	1.25
8.80	1.10	1.10	0.2970	1449.79	1.23	1.23
8.90	1.10	1.10	0.2960	1449.79	1.22	1.22
9.00	1.10	1.10	0.2951	1449.79	1.20	1.20
9.10	1.10	1.10	0.2943	1449.79	1.19	1.19
9.20	1.10	1.10	0.2936	1449.78	1.18	1.18
9.30	1.10	1.10	0.2930	1449.78	1.17	1.17
9.40	1.10	1.10	0.2924	1449.78	1.16	1.16
9.50	1.00	1.00	0.2916	1449.78	1.15	1.15
9.60	1.00	1.00	0.2904	1449.78	1.13	1.13
9.70	1.00	1.00	0.2894	1449.77	1.11	1.11
9.80	1.00	1.00	0.2885	1449.77	1.10	1.10
9.90	1.00	1.00	0.2878	1449.77	1.09	1.09
10.00	1.00	1.00	0.2871	1449.77	1.08	1.08
10.10	1.00	1.00	0.2865	1449.76	1.07	1.07
10.20	1.00	1.00	0.2859	1449.76	1.06	1.06
10.30	1.00	1.00	0.2855	1449.76	1.05	1.05
10.40	1.00	1.00	0.2851	1449.76	1.05	1.05
10.50	1.00	1.00	0.2847	1449.76	1.04	1.04

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.00	1.00	0.2844	1449.76	1.04	1.04
10.70	1.00	1.00	0.2841	1449.76	1.03	1.03
10.80	0.90	0.90	0.2835	1449.76	1.02	1.02
10.90	0.90	0.90	0.2825	1449.75	1.01	1.01
11.00	0.90	0.90	0.2817	1449.75	0.99	0.99
11.10	0.90	0.90	0.2810	1449.75	0.98	0.98
11.20	0.90	0.90	0.2803	1449.75	0.97	0.97
11.30	0.90	0.90	0.2798	1449.75	0.96	0.96
11.40	0.80	0.80	0.2789	1449.74	0.95	0.95
11.50	0.80	0.80	0.2777	1449.74	0.93	0.93
11.60	0.80	0.80	0.2767	1449.74	0.92	0.92
11.70	0.80	0.80	0.2758	1449.74	0.90	0.90
11.80	0.70	0.70	0.2746	1449.73	0.88	0.88
11.90	0.70	0.70	0.2732	1449.73	0.86	0.86
12.00	0.70	0.70	0.2719	1449.73	0.84	0.84
12.10	0.70	0.70	0.2708	1449.72	0.83	0.83
12.20	0.70	0.70	0.2698	1449.72	0.81	0.81
12.30	0.60	0.60	0.2686	1449.72	0.79	0.79
12.40	0.60	0.60	0.2671	1449.71	0.77	0.77
12.50	0.60	0.60	0.2658	1449.71	0.75	0.75
12.60	0.60	0.60	0.2647	1449.71	0.73	0.73
12.70	0.50	0.50	0.2633	1449.70	0.71	0.71
12.80	0.50	0.50	0.2617	1449.70	0.69	0.69
12.90	0.50	0.50	0.2602	1449.69	0.67	0.67
13.00	0.50	0.50	0.2589	1449.69	0.65	0.65
13.10	0.40	0.40	0.2573	1449.69	0.63	0.63
13.20	0.40	0.40	0.2554	1449.68	0.61	0.61
13.30	0.40	0.40	0.2538	1449.68	0.59	0.59
13.40	0.40	0.40	0.2523	1449.67	0.57	0.57
13.50	0.30	0.30	0.2505	1449.67	0.55	0.55
13.60	0.30	0.30	0.2485	1449.66	0.53	0.53
13.70	0.30	0.30	0.2467	1449.66	0.51	0.51
13.80	0.30	0.30	0.2451	1449.65	0.487	0.487
13.90	0.30	0.30	0.2436	1449.65	0.469	0.469
14.00	0.20	0.20	0.2419	1449.65	0.449	0.449
14.10	0.20	0.20	0.2399	1449.64	0.425	0.425
14.20	0.20	0.20	0.2382	1449.64	0.404	0.404
14.30	0.20	0.20	0.2366	1449.63	0.385	0.385
14.40	0.10	0.10	0.2347	1449.63	0.363	0.363
14.50	0.10	0.10	0.2326	1449.62	0.338	0.338
14.60	0.10	0.10	0.2308	1449.62	0.315	0.315
14.70	0.10	0.10	0.2291	1449.61	0.295	0.295
14.80	0.00	0.00	0.2271	1449.61	0.272	0.272
14.90	0.00	0.00	0.2250	1449.60	0.246	0.246
15.00	0.00	0.00	0.2230	1449.60	0.233	0.233

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.90	0.90	0.0000	1449.00	0.000	0.000
Max. Inflow	1.50	33.90	33.90	0.7997	1451.12	16.03	16.03
Max. Outflow	1.70	24.10	24.10	0.9486	1451.46	23.43	23.43
Final	15.00	0.00	0.00	0.2230	1449.60	0.233	0.233

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\10.HYD

Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\11.ES

Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs

Starting Pool Elevation = 1449.00 feet

Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	2.30	2.30	0.0000	1449.00	0.000	0.000
0.10	2.60	2.60	0.0202	1449.05	0.000	0.000
0.20	2.90	2.90	0.0430	1449.12	0.000	0.000
0.30	3.20	3.20	0.0682	1449.18	0.000	0.000
0.40	3.60	3.60	0.0963	1449.26	0.000	0.000
0.50	4.00	4.00	0.1277	1449.34	0.000	0.000
0.60	4.30	4.30	0.1620	1449.43	0.000	0.000
0.70	5.40	5.40	0.2017	1449.54	0.093	0.093
0.80	6.40	6.40	0.2479	1449.66	0.52	0.52
0.90	7.40	7.40	0.2976	1449.79	1.24	1.24
1.00	11.80	11.80	0.3616	1449.96	2.47	2.47
1.10	20.80	20.80	0.4656	1450.24	4.98	4.98
1.20	37.40	37.40	0.6425	1450.71	10.40	10.40
1.30	58.30	58.30	0.9076	1451.37	21.14	21.14
1.40	70.40	70.40	1.1941	1452.03	38.22	38.22
1.50	71.60	71.60	1.4139	1452.54	50.61	50.61
1.60	61.40	61.40	1.5192	1452.79	56.90	56.90
1.70	48.00	48.00	1.5046	1452.76	56.02	56.02
1.80	37.00	37.00	1.4150	1452.55	50.68	50.68
1.90	29.80	29.80	1.2996	1452.28	44.04	44.04
2.00	22.70	22.70	1.1798	1452.00	37.44	37.44
2.10	18.90	18.90	1.0668	1451.74	31.52	31.52
2.20	15.20	15.20	0.9734	1451.52	25.18	25.18
2.30	13.20	13.20	0.9008	1451.35	20.78	20.78
2.40	11.30	11.30	0.8424	1451.22	17.85	17.85
2.50	10.30	10.30	0.7929	1451.10	15.74	15.74
2.60	9.20	9.20	0.7494	1451.00	14.27	14.27
2.70	8.50	8.50	0.7106	1450.90	12.82	12.82
2.80	7.80	7.80	0.6771	1450.81	11.61	11.61
2.90	7.40	7.40	0.6481	1450.73	10.60	10.60
3.00	7.00	7.00	0.6235	1450.66	9.76	9.76
3.10	6.60	6.60	0.6020	1450.61	9.04	9.04
3.20	6.30	6.30	0.5831	1450.56	8.44	8.44
3.30	6.00	6.00	0.5664	1450.51	7.90	7.90
3.40	5.70	5.70	0.5513	1450.47	7.44	7.44
3.50	5.40	5.40	0.5374	1450.43	7.02	7.02
3.60	5.20	5.20	0.5248	1450.40	6.64	6.64
3.70	5.00	5.00	0.5134	1450.37	6.31	6.31
3.80	4.90	4.90	0.5034	1450.34	6.02	6.02
3.90	4.80	4.80	0.4947	1450.32	5.77	5.77
4.00	4.70	4.70	0.4872	1450.30	5.56	5.56
4.10	4.60	4.60	0.4804	1450.28	5.38	5.38
4.20	4.50	4.50	0.4743	1450.27	5.21	5.21
4.30	4.40	4.40	0.4686	1450.25	5.06	5.06
4.40	4.30	4.30	0.4633	1450.24	4.92	4.92
4.50	4.20	4.20	0.4584	1450.22	4.78	4.78
4.60	4.10	4.10	0.4537	1450.21	4.66	4.66
4.70	4.00	4.00	0.4492	1450.20	4.54	4.54

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	3.90	3.90	0.4448	1450.19	4.43	4.43
4.90	3.80	3.80	0.4405	1450.18	4.32	4.32
5.00	3.70	3.70	0.4362	1450.16	4.21	4.21
5.10	3.60	3.60	0.4320	1450.15	4.11	4.11
5.20	3.60	3.60	0.4282	1450.14	4.01	4.01
5.30	3.50	3.50	0.4248	1450.13	3.92	3.92
5.40	3.40	3.40	0.4212	1450.12	3.84	3.84
5.50	3.30	3.30	0.4176	1450.11	3.74	3.74
5.60	3.20	3.20	0.4139	1450.10	3.65	3.65
5.70	3.20	3.20	0.4105	1450.10	3.57	3.57
5.80	3.10	3.10	0.4073	1450.09	3.50	3.50
5.90	3.10	3.10	0.4043	1450.08	3.43	3.43
6.00	3.00	3.00	0.4015	1450.07	3.36	3.36
6.10	3.00	3.00	0.3988	1450.06	3.30	3.30
6.20	2.90	2.90	0.3961	1450.06	3.24	3.24
6.30	2.90	2.90	0.3936	1450.05	3.18	3.18
6.40	2.90	2.90	0.3915	1450.04	3.13	3.13
6.50	2.90	2.90	0.3897	1450.04	3.09	3.09
6.60	2.80	2.80	0.3879	1450.03	3.05	3.05
6.70	2.80	2.80	0.3860	1450.03	3.01	3.01
6.80	2.80	2.80	0.3845	1450.03	2.97	2.97
6.90	2.70	2.70	0.3828	1450.02	2.93	2.93
7.00	2.70	2.70	0.3811	1450.02	2.89	2.89
7.10	2.70	2.70	0.3796	1450.01	2.86	2.86
7.20	2.60	2.60	0.3781	1450.01	2.82	2.82
7.30	2.60	2.60	0.3764	1450.00	2.78	2.78
7.40	2.50	2.50	0.3746	1450.00	2.74	2.74
7.50	2.50	2.50	0.3728	1449.99	2.70	2.70
7.60	2.50	2.50	0.3712	1449.99	2.67	2.67
7.70	2.40	2.40	0.3695	1449.99	2.64	2.64
7.80	2.40	2.40	0.3677	1449.98	2.60	2.60
7.90	2.30	2.30	0.3658	1449.98	2.56	2.56
8.00	2.30	2.30	0.3639	1449.97	2.52	2.52
8.10	2.30	2.30	0.3622	1449.97	2.48	2.48
8.20	2.20	2.20	0.3604	1449.96	2.45	2.45
8.30	2.20	2.20	0.3585	1449.96	2.41	2.41
8.40	2.20	2.20	0.3570	1449.95	2.37	2.37
8.50	2.10	2.10	0.3553	1449.95	2.34	2.34
8.60	2.10	2.10	0.3534	1449.94	2.30	2.30
8.70	2.10	2.10	0.3519	1449.94	2.27	2.27
8.80	2.10	2.10	0.3506	1449.94	2.24	2.24
8.90	2.00	2.00	0.3492	1449.93	2.21	2.21
9.00	2.00	2.00	0.3476	1449.93	2.18	2.18
9.10	2.00	2.00	0.3462	1449.92	2.15	2.15
9.20	2.00	2.00	0.3451	1449.92	2.13	2.13
9.30	2.00	2.00	0.3441	1449.92	2.11	2.11
9.40	1.90	1.90	0.3429	1449.91	2.08	2.08
9.50	1.90	1.90	0.3415	1449.91	2.05	2.05
9.60	1.90	1.90	0.3404	1449.91	2.03	2.03
9.70	1.90	1.90	0.3394	1449.91	2.01	2.01
9.80	1.90	1.90	0.3386	1449.90	1.99	1.99
9.90	1.90	1.90	0.3379	1449.90	1.98	1.98
10.00	1.90	1.90	0.3373	1449.90	1.96	1.96
10.10	1.80	1.80	0.3364	1449.90	1.95	1.95
10.20	1.80	1.80	0.3353	1449.89	1.93	1.93
10.30	1.80	1.80	0.3343	1449.89	1.91	1.91
10.40	1.80	1.80	0.3335	1449.89	1.89	1.89
10.50	1.80	1.80	0.3328	1449.89	1.88	1.88

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.80	1.80	0.3321	1449.89	1.87	1.87
10.70	1.80	1.80	0.3316	1449.88	1.86	1.86
10.80	1.70	1.70	0.3308	1449.88	1.84	1.84
10.90	1.70	1.70	0.3297	1449.88	1.82	1.82
11.00	1.70	1.70	0.3287	1449.88	1.81	1.81
11.10	1.70	1.70	0.3279	1449.87	1.79	1.79
11.20	1.60	1.60	0.3268	1449.87	1.77	1.77
11.30	1.60	1.60	0.3255	1449.87	1.75	1.75
11.40	1.50	1.50	0.3240	1449.86	1.72	1.72
11.50	1.50	1.50	0.3223	1449.86	1.69	1.69
11.60	1.50	1.50	0.3208	1449.86	1.66	1.66
11.70	1.40	1.40	0.3192	1449.85	1.63	1.63
11.80	1.40	1.40	0.3174	1449.85	1.60	1.60
11.90	1.30	1.30	0.3155	1449.84	1.56	1.56
12.00	1.30	1.30	0.3135	1449.84	1.53	1.53
12.10	1.20	1.20	0.3114	1449.83	1.49	1.49
12.20	1.20	1.20	0.3092	1449.82	1.45	1.45
12.30	1.20	1.20	0.3073	1449.82	1.41	1.41
12.40	1.10	1.10	0.3053	1449.81	1.37	1.37
12.50	1.10	1.10	0.3032	1449.81	1.34	1.34
12.60	1.00	1.00	0.3010	1449.80	1.30	1.30
12.70	1.00	1.00	0.2987	1449.80	1.26	1.26
12.80	0.90	0.90	0.2963	1449.79	1.22	1.22
12.90	0.90	0.90	0.2938	1449.78	1.18	1.18
13.00	0.90	0.90	0.2916	1449.78	1.15	1.15
13.10	0.80	0.80	0.2893	1449.77	1.11	1.11
13.20	0.80	0.80	0.2869	1449.77	1.07	1.07
13.30	0.70	0.70	0.2844	1449.76	1.04	1.04
13.40	0.70	0.70	0.2818	1449.75	0.99	0.99
13.50	0.60	0.60	0.2791	1449.74	0.95	0.95
13.60	0.60	0.60	0.2763	1449.74	0.91	0.91
13.70	0.60	0.60	0.2739	1449.73	0.87	0.87
13.80	0.50	0.50	0.2714	1449.72	0.83	0.83
13.90	0.50	0.50	0.2688	1449.72	0.79	0.79
14.00	0.40	0.40	0.2661	1449.71	0.75	0.75
14.10	0.40	0.40	0.2634	1449.70	0.71	0.71
14.20	0.30	0.30	0.2606	1449.70	0.67	0.67
14.30	0.30	0.30	0.2576	1449.69	0.64	0.64
14.40	0.30	0.30	0.2550	1449.68	0.61	0.61
14.50	0.20	0.20	0.2522	1449.67	0.57	0.57
14.60	0.20	0.20	0.2493	1449.67	0.54	0.54
14.70	0.10	0.10	0.2462	1449.66	0.50	0.50
14.80	0.10	0.10	0.2431	1449.65	0.463	0.463
14.90	0.00	0.00	0.2398	1449.64	0.424	0.424
15.00	0.00	0.00	0.2365	1449.63	0.384	0.384

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\11.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	2.30	2.30	0.0000	1449.00	0.000	0.000
Max. Inflow	1.50	71.60	71.60	1.4139	1452.54	50.61	50.61
Max. Outflow	1.60	61.40	61.40	1.5192	1452.79	56.90	56.90
Final	15.00	0.00	0.00	0.2365	1449.63	0.384	0.384

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	3.10	3.10	0.0000	1449.00	0.000	0.000
0.10	3.50	3.50	0.0273	1449.07	0.000	0.000
0.20	3.90	3.90	0.0579	1449.15	0.000	0.000
0.30	4.30	4.30	0.0917	1449.25	0.000	0.000
0.40	4.80	4.80	0.1293	1449.35	0.000	0.000
0.50	5.40	5.40	0.1715	1449.46	0.000	0.000
0.60	5.90	5.90	0.2174	1449.58	0.196	0.196
0.70	7.30	7.30	0.2679	1449.71	0.78	0.78
0.80	8.70	8.70	0.3237	1449.86	1.71	1.71
0.90	10.10	10.10	0.3822	1450.02	2.92	2.92
1.00	16.00	16.00	0.4583	1450.22	4.78	4.78
1.10	28.20	28.20	0.5859	1450.56	8.53	8.53
1.20	50.90	50.90	0.8096	1451.14	16.44	16.44
1.30	79.20	79.20	1.1345	1451.89	35.03	35.03
1.40	95.60	95.60	1.4854	1452.71	54.86	54.86
1.50	97.30	97.30	1.7561	1453.31	72.54	72.54
1.60	83.40	83.40	1.8754	1453.56	79.29	79.29
1.70	65.20	65.20	1.8421	1453.49	77.38	77.38
1.80	50.30	50.30	1.7103	1453.21	70.02	70.02
1.90	40.50	40.50	1.5525	1452.87	58.94	58.94
2.00	30.80	30.80	1.3983	1452.51	49.70	49.70
2.10	25.70	25.70	1.2547	1452.17	41.53	41.53
2.20	20.60	20.60	1.1305	1451.89	34.82	34.82
2.30	18.00	18.00	1.0247	1451.64	29.39	29.39
2.40	15.40	15.40	0.9453	1451.45	23.24	23.24
2.50	13.90	13.90	0.8874	1451.32	20.07	20.07
2.60	12.50	12.50	0.8402	1451.21	17.74	17.74
2.70	11.60	11.60	0.8002	1451.12	16.05	16.05
2.80	10.60	10.60	0.7645	1451.03	14.78	14.78
2.90	10.00	10.00	0.7323	1450.95	13.63	13.63
3.00	9.50	9.50	0.7045	1450.88	12.60	12.60
3.10	9.00	9.00	0.6804	1450.81	11.73	11.73
3.20	8.60	8.60	0.6593	1450.76	10.98	10.98
3.30	8.10	8.10	0.6403	1450.71	10.32	10.32
3.40	7.80	7.80	0.6230	1450.66	9.74	9.74
3.50	7.40	7.40	0.6075	1450.62	9.22	9.22
3.60	7.00	7.00	0.5927	1450.58	8.74	8.74
3.70	6.80	6.80	0.5793	1450.55	8.31	8.31
3.80	6.70	6.70	0.5678	1450.51	7.95	7.95
3.90	6.50	6.50	0.5580	1450.49	7.64	7.64
4.00	6.40	6.40	0.5492	1450.46	7.38	7.38
4.10	6.20	6.20	0.5413	1450.44	7.14	7.14
4.20	6.10	6.10	0.5340	1450.42	6.92	6.92
4.30	5.90	5.90	0.5273	1450.41	6.71	6.71
4.40	5.80	5.80	0.5209	1450.39	6.53	6.53
4.50	5.60	5.60	0.5148	1450.37	6.35	6.35
4.60	5.50	5.50	0.5089	1450.36	6.18	6.18
4.70	5.40	5.40	0.5035	1450.34	6.03	6.03

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	5.30	5.30	0.4985	1450.33	5.88	5.88
4.90	5.20	5.20	0.4938	1450.32	5.75	5.75
5.00	5.10	5.10	0.4894	1450.31	5.62	5.62
5.10	4.90	4.90	0.4848	1450.29	5.49	5.49
5.20	4.80	4.80	0.4800	1450.28	5.37	5.37
5.30	4.70	4.70	0.4754	1450.27	5.24	5.24
5.40	4.60	4.60	0.4710	1450.26	5.12	5.12
5.50	4.50	4.50	0.4668	1450.25	5.01	5.01
5.60	4.40	4.40	0.4626	1450.23	4.90	4.90
5.70	4.30	4.30	0.4586	1450.22	4.79	4.79
5.80	4.20	4.20	0.4546	1450.21	4.68	4.68
5.90	4.20	4.20	0.4510	1450.20	4.58	4.58
6.00	4.10	4.10	0.4478	1450.19	4.50	4.50
6.10	4.00	4.00	0.4444	1450.19	4.42	4.42
6.20	4.00	4.00	0.4413	1450.18	4.34	4.34
6.30	4.00	4.00	0.4388	1450.17	4.27	4.27
6.40	3.90	3.90	0.4363	1450.16	4.21	4.21
6.50	3.90	3.90	0.4340	1450.16	4.15	4.15
6.60	3.90	3.90	0.4321	1450.15	4.11	4.11
6.70	3.80	3.80	0.4302	1450.15	4.06	4.06
6.80	3.80	3.80	0.4282	1450.14	4.01	4.01
6.90	3.70	3.70	0.4263	1450.14	3.96	3.96
7.00	3.70	3.70	0.4243	1450.13	3.91	3.91
7.10	3.60	3.60	0.4224	1450.13	3.86	3.86
7.20	3.60	3.60	0.4204	1450.12	3.81	3.81
7.30	3.50	3.50	0.4184	1450.12	3.76	3.76
7.40	3.50	3.50	0.4164	1450.11	3.71	3.71
7.50	3.40	3.40	0.4144	1450.11	3.66	3.66
7.60	3.30	3.30	0.4121	1450.10	3.61	3.61
7.70	3.30	3.30	0.4098	1450.09	3.55	3.55
7.80	3.20	3.20	0.4075	1450.09	3.50	3.50
7.90	3.20	3.20	0.4052	1450.08	3.45	3.45
8.00	3.10	3.10	0.4030	1450.08	3.40	3.40
8.10	3.10	3.10	0.4007	1450.07	3.34	3.34
8.20	3.00	3.00	0.3985	1450.06	3.29	3.29
8.30	3.00	3.00	0.3963	1450.06	3.24	3.24
8.40	3.00	3.00	0.3945	1450.05	3.20	3.20
8.50	2.90	2.90	0.3926	1450.05	3.16	3.16
8.60	2.90	2.90	0.3906	1450.04	3.11	3.11
8.70	2.80	2.80	0.3887	1450.04	3.07	3.07
8.80	2.80	2.80	0.3867	1450.03	3.02	3.02
8.90	2.80	2.80	0.3850	1450.03	2.98	2.98
9.00	2.70	2.70	0.3833	1450.02	2.94	2.94
9.10	2.70	2.70	0.3814	1450.02	2.90	2.90
9.20	2.70	2.70	0.3799	1450.01	2.86	2.86
9.30	2.70	2.70	0.3787	1450.01	2.84	2.84
9.40	2.60	2.60	0.3773	1450.01	2.80	2.80
9.50	2.60	2.60	0.3757	1450.00	2.77	2.77
9.60	2.60	2.60	0.3745	1450.00	2.74	2.74
9.70	2.60	2.60	0.3734	1450.00	2.72	2.72
9.80	2.60	2.60	0.3725	1449.99	2.70	2.70
9.90	2.50	2.50	0.3714	1449.99	2.68	2.68
10.00	2.50	2.50	0.3700	1449.99	2.65	2.65
10.10	2.50	2.50	0.3689	1449.98	2.62	2.62
10.20	2.50	2.50	0.3680	1449.98	2.60	2.60
10.30	2.50	2.50	0.3672	1449.98	2.59	2.59
10.40	2.50	2.50	0.3665	1449.98	2.57	2.57
10.50	2.40	2.40	0.3656	1449.98	2.55	2.55

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.40	2.40	0.3644	1449.97	2.53	2.53
10.70	2.40	2.40	0.3634	1449.97	2.51	2.51
10.80	2.40	2.40	0.3626	1449.97	2.49	2.49
10.90	2.40	2.40	0.3619	1449.97	2.48	2.48
11.00	2.30	2.30	0.3609	1449.96	2.46	2.46
11.10	2.30	2.30	0.3597	1449.96	2.43	2.43
11.20	2.20	2.20	0.3583	1449.96	2.40	2.40
11.30	2.20	2.20	0.3568	1449.95	2.37	2.37
11.40	2.10	2.10	0.3551	1449.95	2.34	2.34
11.50	2.00	2.00	0.3529	1449.94	2.29	2.29
11.60	2.00	2.00	0.3507	1449.94	2.24	2.24
11.70	1.90	1.90	0.3485	1449.93	2.20	2.20
11.80	1.90	1.90	0.3462	1449.92	2.15	2.15
11.90	1.80	1.80	0.3439	1449.92	2.10	2.10
12.00	1.80	1.80	0.3416	1449.91	2.05	2.05
12.10	1.70	1.70	0.3393	1449.91	2.01	2.01
12.20	1.60	1.60	0.3366	1449.90	1.95	1.95
12.30	1.60	1.60	0.3339	1449.89	1.90	1.90
12.40	1.50	1.50	0.3312	1449.88	1.85	1.85
12.50	1.50	1.50	0.3285	1449.88	1.80	1.80
12.60	1.40	1.40	0.3258	1449.87	1.75	1.75
12.70	1.30	1.30	0.3227	1449.86	1.70	1.70
12.80	1.30	1.30	0.3197	1449.85	1.64	1.64
12.90	1.20	1.20	0.3167	1449.84	1.58	1.58
13.00	1.20	1.20	0.3137	1449.84	1.53	1.53
13.10	1.10	1.10	0.3108	1449.83	1.48	1.48
13.20	1.10	1.10	0.3079	1449.82	1.42	1.42
13.30	1.00	1.00	0.3050	1449.81	1.37	1.37
13.40	0.90	0.90	0.3018	1449.81	1.31	1.31
13.50	0.90	0.90	0.2986	1449.80	1.26	1.26
13.60	0.80	0.80	0.2955	1449.79	1.21	1.21
13.70	0.80	0.80	0.2923	1449.78	1.16	1.16
13.80	0.70	0.70	0.2891	1449.77	1.11	1.11
13.90	0.60	0.60	0.2856	1449.76	1.05	1.05
14.00	0.60	0.60	0.2820	1449.75	1.00	1.00
14.10	0.50	0.50	0.2785	1449.74	0.95	0.95
14.20	0.50	0.50	0.2751	1449.73	0.89	0.89
14.30	0.40	0.40	0.2717	1449.72	0.84	0.84
14.40	0.40	0.40	0.2683	1449.72	0.79	0.79
14.50	0.30	0.30	0.2649	1449.71	0.73	0.73
14.60	0.20	0.20	0.2611	1449.70	0.68	0.68
14.70	0.20	0.20	0.2573	1449.69	0.63	0.63
14.80	0.10	0.10	0.2535	1449.68	0.59	0.59
14.90	0.10	0.10	0.2497	1449.67	0.54	0.54
15.00	0.00	0.00	0.2458	1449.66	0.496	0.496

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	3.10	3.10	0.0000	1449.00	0.000	0.000
Max. Inflow	1.50	97.30	97.30	1.7561	1453.31	72.54	72.54
Max. Outflow	1.60	83.40	83.40	1.8754	1453.56	79.29	79.29
Final	15.00	0.00	0.00	0.2458	1449.66	0.496	0.496

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	3.70	3.70	0.0000	1449.00	0.000	0.000
0.10	4.10	4.10	0.0322	1449.09	0.000	0.000
0.20	4.60	4.60	0.0682	1449.18	0.000	0.000
0.30	5.10	5.10	0.1083	1449.29	0.000	0.000
0.40	5.70	5.70	0.1529	1449.41	0.000	0.000
0.50	6.30	6.30	0.2021	1449.54	0.096	0.096
0.60	6.90	6.90	0.2538	1449.68	0.59	0.59
0.70	8.60	8.60	0.3094	1449.83	1.45	1.45
0.80	10.20	10.20	0.3701	1449.99	2.65	2.65
0.90	11.90	11.90	0.4334	1450.16	4.14	4.14
1.00	18.80	18.80	0.5167	1450.38	6.40	6.40
1.10	33.10	33.10	0.6593	1450.76	10.98	10.99
1.20	59.70	59.70	0.9096	1451.37	21.25	21.25
1.30	93.00	93.00	1.2762	1452.22	42.73	42.73
1.40	112.20	112.20	1.6676	1453.12	67.75	67.75
1.50	114.20	114.20	1.9720	1453.76	85.01	85.01
1.60	97.80	97.80	2.0854	1454.25	99.55	99.55
1.70	76.50	76.50	2.0311	1453.89	87.89	87.89
1.80	59.00	59.00	1.8954	1453.60	80.44	80.44
1.90	47.60	47.60	1.7134	1453.22	70.20	70.20
2.00	36.10	36.10	1.5311	1452.82	57.63	57.63
2.10	30.20	30.20	1.3687	1452.44	47.98	47.98
2.20	24.20	24.20	1.2294	1452.12	40.13	40.13
2.30	21.10	21.10	1.1110	1451.84	33.80	33.80
2.40	18.00	18.00	1.0137	1451.61	28.84	28.84
2.50	16.40	16.40	0.9416	1451.45	23.03	23.03
2.60	14.70	14.70	0.8912	1451.33	20.27	20.27
2.70	13.60	13.60	0.8492	1451.23	18.18	18.18
2.80	12.50	12.50	0.8134	1451.15	16.60	16.60
2.90	11.80	11.80	0.7817	1451.07	15.36	15.36
3.00	11.10	11.10	0.7533	1451.01	14.41	14.41
3.10	10.60	10.60	0.7279	1450.94	13.46	13.46
3.20	10.10	10.10	0.7056	1450.88	12.64	12.64
3.30	9.50	9.50	0.6852	1450.83	11.90	11.90
3.40	9.10	9.10	0.6664	1450.78	11.23	11.23
3.50	8.70	8.70	0.6496	1450.73	10.65	10.65
3.60	8.20	8.20	0.6337	1450.69	10.10	10.10
3.70	8.00	8.00	0.6192	1450.65	9.61	9.61
3.80	7.90	7.90	0.6071	1450.62	9.21	9.21
3.90	7.70	7.70	0.5968	1450.59	8.87	8.87
4.00	7.50	7.50	0.5875	1450.57	8.58	8.58
4.10	7.30	7.30	0.5789	1450.54	8.30	8.30
4.20	7.10	7.10	0.5709	1450.52	8.05	8.05
4.30	7.00	7.00	0.5636	1450.50	7.81	7.81
4.40	6.80	6.80	0.5569	1450.49	7.61	7.61
4.50	6.60	6.60	0.5502	1450.47	7.41	7.41
4.60	6.50	6.50	0.5439	1450.45	7.22	7.22
4.70	6.30	6.30	0.5379	1450.43	7.03	7.03

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	6.20	6.20	0.5321	1450.42	6.86	6.86
4.90	6.10	6.10	0.5269	1450.41	6.70	6.70
5.00	5.90	5.90	0.5218	1450.39	6.55	6.55
5.10	5.80	5.80	0.5166	1450.38	6.40	6.40
5.20	5.70	5.70	0.5118	1450.37	6.26	6.26
5.30	5.50	5.50	0.5069	1450.35	6.12	6.12
5.40	5.40	5.40	0.5019	1450.34	5.98	5.98
5.50	5.30	5.30	0.4972	1450.33	5.85	5.85
5.60	5.20	5.20	0.4928	1450.31	5.72	5.72
5.70	5.10	5.10	0.4886	1450.30	5.60	5.60
5.80	5.00	5.00	0.4845	1450.29	5.49	5.49
5.90	4.90	4.90	0.4806	1450.28	5.38	5.38
6.00	4.80	4.80	0.4766	1450.27	5.27	5.27
6.10	4.70	4.70	0.4727	1450.26	5.17	5.17
6.20	4.70	4.70	0.4692	1450.25	5.07	5.07
6.30	4.70	4.70	0.4665	1450.24	5.00	5.00
6.40	4.60	4.60	0.4639	1450.24	4.93	4.93
6.50	4.60	4.60	0.4614	1450.23	4.86	4.86
6.60	4.50	4.50	0.4591	1450.22	4.80	4.80
6.70	4.50	4.50	0.4568	1450.22	4.74	4.74
6.80	4.40	4.40	0.4547	1450.21	4.68	4.68
6.90	4.40	4.40	0.4526	1450.21	4.63	4.63
7.00	4.30	4.30	0.4505	1450.20	4.57	4.57
7.10	4.30	4.30	0.4485	1450.20	4.52	4.52
7.20	4.20	4.20	0.4465	1450.19	4.47	4.47
7.30	4.10	4.10	0.4441	1450.18	4.41	4.41
7.40	4.10	4.10	0.4418	1450.18	4.35	4.35
7.50	4.00	4.00	0.4396	1450.17	4.29	4.29
7.60	3.90	3.90	0.4370	1450.17	4.23	4.23
7.70	3.90	3.90	0.4345	1450.16	4.17	4.17
7.80	3.80	3.80	0.4321	1450.15	4.11	4.11
7.90	3.70	3.70	0.4294	1450.15	4.04	4.04
8.00	3.70	3.70	0.4269	1450.14	3.98	3.98
8.10	3.60	3.60	0.4244	1450.13	3.92	3.92
8.20	3.60	3.60	0.4221	1450.13	3.86	3.86
8.30	3.50	3.50	0.4198	1450.12	3.80	3.80
8.40	3.50	3.50	0.4176	1450.11	3.74	3.74
8.50	3.40	3.40	0.4154	1450.11	3.69	3.69
8.60	3.40	3.40	0.4132	1450.10	3.63	3.63
8.70	3.30	3.30	0.4111	1450.10	3.58	3.58
8.80	3.30	3.30	0.4089	1450.09	3.53	3.53
8.90	3.20	3.20	0.4068	1450.09	3.48	3.48
9.00	3.20	3.20	0.4046	1450.08	3.43	3.43
9.10	3.20	3.20	0.4029	1450.07	3.39	3.39
9.20	3.20	3.20	0.4014	1450.07	3.36	3.36
9.30	3.10	3.10	0.3998	1450.07	3.32	3.32
9.40	3.10	3.10	0.3981	1450.06	3.28	3.28
9.50	3.10	3.10	0.3967	1450.06	3.25	3.25
9.60	3.10	3.10	0.3956	1450.06	3.23	3.23
9.70	3.00	3.00	0.3943	1450.05	3.20	3.20
9.80	3.00	3.00	0.3928	1450.05	3.16	3.16
9.90	3.00	3.00	0.3916	1450.04	3.13	3.13
10.00	3.00	3.00	0.3906	1450.04	3.11	3.11
10.10	2.90	2.90	0.3894	1450.04	3.08	3.08
10.20	2.90	2.90	0.3880	1450.04	3.05	3.05
10.30	2.90	2.90	0.3868	1450.03	3.02	3.02
10.40	2.90	2.90	0.3859	1450.03	3.00	3.00
10.50	2.90	2.90	0.3851	1450.03	2.98	2.98

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.80	2.80	0.3841	1450.02	2.96	2.96
10.70	2.80	2.80	0.3829	1450.02	2.93	2.93
10.80	2.80	2.80	0.3819	1450.02	2.91	2.91
10.90	2.80	2.80	0.3811	1450.02	2.89	2.89
11.00	2.70	2.70	0.3800	1450.01	2.87	2.87
11.10	2.70	2.70	0.3787	1450.01	2.84	2.84
11.20	2.60	2.60	0.3773	1450.01	2.80	2.80
11.30	2.50	2.50	0.3754	1450.00	2.76	2.76
11.40	2.50	2.50	0.3734	1450.00	2.72	2.72
11.50	2.40	2.40	0.3714	1449.99	2.68	2.68
11.60	2.30	2.30	0.3689	1449.98	2.62	2.62
11.70	2.30	2.30	0.3664	1449.98	2.57	2.57
11.80	2.20	2.20	0.3640	1449.97	2.52	2.52
11.90	2.10	2.10	0.3612	1449.96	2.46	2.46
12.00	2.10	2.10	0.3584	1449.96	2.40	2.40
12.10	2.00	2.00	0.3557	1449.95	2.35	2.35
12.20	1.90	1.90	0.3527	1449.94	2.29	2.29
12.30	1.80	1.80	0.3494	1449.93	2.22	2.22
12.40	1.80	1.80	0.3462	1449.92	2.15	2.15
12.50	1.70	1.70	0.3432	1449.92	2.09	2.09
12.60	1.60	1.60	0.3398	1449.91	2.02	2.02
12.70	1.60	1.60	0.3367	1449.90	1.95	1.95
12.80	1.50	1.50	0.3336	1449.89	1.90	1.90
12.90	1.40	1.40	0.3302	1449.88	1.83	1.83
13.00	1.40	1.40	0.3268	1449.87	1.77	1.77
13.10	1.30	1.30	0.3236	1449.86	1.71	1.71
13.20	1.20	1.20	0.3200	1449.85	1.65	1.65
13.30	1.20	1.20	0.3166	1449.84	1.58	1.58
13.40	1.10	1.10	0.3133	1449.84	1.52	1.52
13.50	1.00	1.00	0.3097	1449.83	1.46	1.46
13.60	1.00	1.00	0.3062	1449.82	1.39	1.39
13.70	0.90	0.90	0.3028	1449.81	1.33	1.33
13.80	0.80	0.80	0.2991	1449.80	1.26	1.26
13.90	0.80	0.80	0.2955	1449.79	1.21	1.21
14.00	0.70	0.70	0.2919	1449.78	1.15	1.15
14.10	0.60	0.60	0.2880	1449.77	1.09	1.09
14.20	0.50	0.50	0.2838	1449.76	1.03	1.03
14.30	0.50	0.50	0.2797	1449.75	0.96	0.96
14.40	0.40	0.40	0.2757	1449.74	0.90	0.90
14.50	0.30	0.30	0.2714	1449.72	0.83	0.83
14.60	0.30	0.30	0.2673	1449.71	0.77	0.77
14.70	0.20	0.20	0.2633	1449.70	0.71	0.71
14.80	0.10	0.10	0.2589	1449.69	0.65	0.65
14.90	0.10	0.10	0.2545	1449.68	0.60	0.60
15.00	0.00	0.00	0.2502	1449.67	0.55	0.55

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\post_to_basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\11.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	3.70	3.70	0.0000	1449.00	0.000	0.000
Max. Inflow	1.50	114.20	114.20	1.9720	1453.76	85.01	85.01
Max. Outflow	1.60	97.80	97.80	2.0854	1454.25	99.55	99.55
Final	15.00	0.00	0.00	0.2502	1449.67	0.55	0.55

BRINKASH ASSOCIATES, INC. SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

DETENTION
BASIN K-2

POST AREA K

$D.A. = 22.78$ AC.

Bottom = 1449

$T_c = 33$ minutes

EMERGENCY
SPILLWAY = 1454

CN = 80.62

POST TO BASIN

ROUTED

$Q_1 = 21.7$ cfs

$Q_1 = 8.10$

$Q_2 = 30.5$ cfs

$Q_2 = 13.36$

$Q_{10} = 64.4$ cfs

$Q_{10} = 36.16$

$Q_{25} = 77.5$ cfs

$Q_{25} = 45.86$

$Q_{50} = 87.5$ cfs

$Q_{50} = 53.24$

$Q_{100} = 102.7$ cfs

$Q_{100} = 59.05$

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	22.780	81	0.160	1.29	33.000	30.000	0.000	3.000
Composite	22.780	81		1.29				

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	10	22	12	5	3	2	2	1	1	0
Composite	1	2	10	22	12	5	3	2	2	1	1	0

The peak flow is 21.7 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	22.780	81	0.134	1.76	33.000	30.000	0.000	3.000
Composite	22.780	81		1.76				

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	16	31	16	7	4	3	2	1	1	0
Composite	1	3	16	31	16	7	4	3	2	1	1	0

The peak flow is 30.5 cfs at 12.5 hrs.

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	22.780	81	0.100	3.57	33.000	30.000	0.000	3.000
Composite	22.780	81		3.57				

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	7	36	64	31	13	8	6	4	3	2	0
Composite	2	7	36	64	31	13	8	6	4	3	2	0

The peak flow is 64.4 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	22.780	81	0.100	4.30	33.000	30.000	0.000	3.000
Composite	22.780	81		4.30				

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	8	43	77	38	16	10	7	5	3	2	0
Composite	3	8	43	77	38	16	10	7	5	3	2	0

The peak flow is 77.5 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	22.780	81	0.100	4.86	33.000	30.000	0.000	3.000
Composite	22.780	81		4.86				

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	9	48	87	42	18	11	8	6	4	2	0
Composite	3	9	48	87	42	18	11	8	6	4	2	0

The peak flow is 87.5 cfs at 12.4 hrs.

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	22.780	81	0.100	5.70	33.000	30.000	0.000	3.000
Composite	22.780	81		5.70				

SCS TR55 Tabular Method

Watershed Title: Post To Basin K-2

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	11	57	102	50	21	13	10	7	4	3	0
Composite	3	11	57	102	50	21	13	10	7	4	3	0

The peak flow is 102.7 cfs at 12.4 hrs.

BASIN K-2

Basin Storage/Elevation Input

Elevation (ft)	Area (acres)	Storage (acre-ft)
1449	.51	0.000
1451	.57	1.080
1453	.64	2.290
1454	.67	2.945

Project Files:

Outlet Structure Configuration: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\k-2.OSC
Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\k-2.EO

Outlet Structure Configuration for: *K-2*

Stage 1: Rectangular Orifice

Invert Elevation = 1449.5 feet
Width = 2 feet
Height = 2 feet
Discharge Coefficient = 0.6

Stage 2: Rectangular Orifice

Invert Elevation = 1451.6 feet
Width = 2.5 feet
Height = 1.9 feet
Discharge Coefficient = 0.6

Stage 3: Rectangular Orifice

Invert Elevation = 1453.6 feet
Width = 2 feet
Height = 0.3 feet
Discharge Coefficient = 0.6

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1449.00	0.00	N/A	N/A	N/A	N/A
1449.10	0.00	N/A	N/A	N/A	N/A
1449.20	0.00	N/A	N/A	N/A	N/A
1449.30	0.00	N/A	N/A	N/A	N/A
1449.40	0.00	N/A	N/A	N/A	N/A
1449.50	0.00	N/A	N/A	N/A	N/A
1449.60	0.20	N/A	N/A	N/A	N/A
1449.70	0.56	N/A	N/A	N/A	N/A
1449.80	1.02	N/A	N/A	N/A	N/A
1449.90	1.58	N/A	N/A	N/A	N/A
1450.00	2.20	N/A	N/A	N/A	N/A
1450.10	2.89	N/A	N/A	N/A	N/A
1450.20	3.65	N/A	N/A	N/A	N/A
1450.30	4.46	N/A	N/A	N/A	N/A
1450.40	5.32	N/A	N/A	N/A	N/A
1450.50	6.23	N/A	N/A	N/A	N/A
1450.60	7.19	N/A	N/A	N/A	N/A
1450.70	8.19	N/A	N/A	N/A	N/A
1450.80	9.23	N/A	N/A	N/A	N/A
1450.90	10.32	N/A	N/A	N/A	N/A
1451.00	11.44	N/A	N/A	N/A	N/A
1451.10	12.61	N/A	N/A	N/A	N/A
1451.20	13.81	N/A	N/A	N/A	N/A
1451.30	15.04	N/A	N/A	N/A	N/A
1451.40	16.31	N/A	N/A	N/A	N/A
1451.50	17.62	N/A	N/A	N/A	N/A
1451.60	20.20	N/A	N/A	N/A	N/A
1451.70	21.34	N/A	N/A	N/A	N/A
1451.80	22.66	N/A	N/A	N/A	N/A
1451.90	24.07	N/A	N/A	N/A	N/A
1452.00	25.56	N/A	N/A	N/A	N/A
1452.10	27.11	N/A	N/A	N/A	N/A

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1452.20	28.73	N/A	N/A	N/A	N/A
1452.30	30.40	N/A	N/A	N/A	N/A
1452.40	32.11	N/A	N/A	N/A	N/A
1452.50	33.88	N/A	N/A	N/A	N/A
1452.60	35.69	N/A	N/A	N/A	N/A
1452.70	37.54	N/A	N/A	N/A	N/A
1452.80	39.44	N/A	N/A	N/A	N/A
1452.90	41.37	N/A	N/A	N/A	N/A
1453.00	43.34	N/A	N/A	N/A	N/A
1453.10	45.35	N/A	N/A	N/A	N/A
1453.20	47.39	N/A	N/A	N/A	N/A
1453.30	49.47	N/A	N/A	N/A	N/A
1453.40	51.59	N/A	N/A	N/A	N/A
1453.50	53.73	N/A	N/A	N/A	N/A
1453.60	57.35	N/A	N/A	N/A	N/A
1453.70	59.18	N/A	N/A	N/A	N/A
1453.80	61.12	N/A	N/A	N/A	N/A
1453.90	63.21	N/A	N/A	N/A	N/A
1454.00	65.02	N/A	N/A	N/A	N/A

BASIN K-2
ROUTED

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.50	0.50	0.0000	1449.00	0.000	0.000
0.10	0.60	0.60	0.0045	1449.01	0.000	0.000
0.20	0.70	0.70	0.0099	1449.03	0.000	0.000
0.30	0.70	0.70	0.0157	1449.04	0.000	0.000
0.40	0.80	0.80	0.0219	1449.06	0.000	0.000
0.50	0.90	0.90	0.0289	1449.08	0.000	0.000
0.60	1.00	1.00	0.0368	1449.10	0.000	0.000
0.70	1.20	1.20	0.0459	1449.12	0.000	0.000
0.80	1.50	1.50	0.0570	1449.15	0.000	0.000
0.90	1.70	1.70	0.0702	1449.19	0.000	0.000
1.00	2.90	2.90	0.0893	1449.24	0.000	0.000
1.10	5.40	5.40	0.1236	1449.33	0.000	0.000
1.20	10.30	10.30	0.1884	1449.50	0.006	0.006
1.30	16.80	16.80	0.2954	1449.79	1.21	1.21
1.40	20.90	20.90	0.4295	1450.15	4.04	4.04
1.50	21.70	21.70	0.5573	1450.49	7.62	7.62
1.60	18.90	18.90	0.6496	1450.73	10.65	10.65
1.70	15.00	15.00	0.6950	1450.85	12.26	12.26
1.80	11.80	11.80	0.7033	1450.88	12.55	12.55
1.90	9.60	9.60	0.6899	1450.84	12.07	12.07
2.00	7.40	7.40	0.6642	1450.77	11.16	11.16
2.10	6.30	6.30	0.6331	1450.69	10.08	10.08
2.20	5.10	5.10	0.6013	1450.60	9.02	9.02
2.30	4.50	4.50	0.5705	1450.52	8.03	8.03
2.40	3.90	3.90	0.5424	1450.45	7.17	7.17
2.50	3.60	3.60	0.5172	1450.38	6.42	6.42
2.60	3.20	3.20	0.4949	1450.32	5.78	5.78
2.70	3.00	3.00	0.4750	1450.27	5.23	5.23
2.80	2.80	2.80	0.4577	1450.22	4.76	4.76
2.90	2.60	2.60	0.4423	1450.18	4.36	4.36
3.00	2.50	2.50	0.4287	1450.14	4.02	4.02
3.10	2.40	2.40	0.4169	1450.11	3.73	3.73
3.20	2.20	2.20	0.4062	1450.08	3.47	3.47
3.30	2.10	2.10	0.3962	1450.06	3.24	3.24
3.40	2.00	2.00	0.3873	1450.03	3.03	3.03
3.50	2.00	2.00	0.3795	1450.01	2.85	2.85
3.60	1.90	1.90	0.3726	1449.99	2.70	2.70
3.70	1.80	1.80	0.3661	1449.98	2.57	2.57
3.80	1.80	1.80	0.3603	1449.96	2.44	2.44
3.90	1.70	1.70	0.3550	1449.95	2.33	2.33
4.00	1.70	1.70	0.3502	1449.93	2.23	2.23
4.10	1.70	1.70	0.3461	1449.92	2.15	2.15
4.20	1.60	1.60	0.3424	1449.91	2.07	2.07
4.30	1.60	1.60	0.3388	1449.90	1.99	1.99
4.40	1.60	1.60	0.3358	1449.90	1.94	1.94
4.50	1.50	1.50	0.3328	1449.89	1.88	1.88
4.60	1.50	1.50	0.3299	1449.88	1.83	1.83
4.70	1.50	1.50	0.3274	1449.87	1.78	1.78

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.40	1.40	0.3248	1449.87	1.73	1.73
4.90	1.40	1.40	0.3222	1449.86	1.69	1.69
5.00	1.40	1.40	0.3200	1449.85	1.65	1.65
5.10	1.30	1.30	0.3178	1449.85	1.60	1.60
5.20	1.30	1.30	0.3154	1449.84	1.56	1.56
5.30	1.30	1.30	0.3134	1449.84	1.52	1.52
5.40	1.20	1.20	0.3113	1449.83	1.49	1.49
5.50	1.20	1.20	0.3091	1449.82	1.45	1.45
5.60	1.20	1.20	0.3072	1449.82	1.41	1.41
5.70	1.20	1.20	0.3056	1449.82	1.38	1.38
5.80	1.20	1.20	0.3042	1449.81	1.36	1.36
5.90	1.10	1.10	0.3026	1449.81	1.33	1.33
6.00	1.10	1.10	0.3009	1449.80	1.29	1.29
6.10	1.10	1.10	0.2994	1449.80	1.27	1.27
6.20	1.10	1.10	0.2981	1449.80	1.25	1.25
6.30	1.10	1.10	0.2969	1449.79	1.23	1.23
6.40	1.10	1.10	0.2959	1449.79	1.21	1.21
6.50	1.10	1.10	0.2950	1449.79	1.20	1.20
6.60	1.00	1.00	0.2939	1449.78	1.18	1.18
6.70	1.00	1.00	0.2924	1449.78	1.16	1.16
6.80	1.00	1.00	0.2912	1449.78	1.14	1.14
6.90	1.00	1.00	0.2901	1449.77	1.12	1.12
7.00	1.00	1.00	0.2891	1449.77	1.11	1.11
7.10	1.00	1.00	0.2883	1449.77	1.10	1.10
7.20	1.00	1.00	0.2875	1449.77	1.08	1.08
7.30	1.00	1.00	0.2869	1449.77	1.07	1.07
7.40	0.90	0.90	0.2859	1449.76	1.06	1.06
7.50	0.90	0.90	0.2847	1449.76	1.04	1.04
7.60	0.90	0.90	0.2836	1449.76	1.02	1.02
7.70	0.90	0.90	0.2826	1449.75	1.01	1.01
7.80	0.90	0.90	0.2818	1449.75	1.00	1.00
7.90	0.90	0.90	0.2810	1449.75	0.98	0.98
8.00	0.90	0.90	0.2804	1449.75	0.97	0.97
8.10	0.90	0.90	0.2798	1449.75	0.96	0.96
8.20	0.80	0.80	0.2789	1449.74	0.95	0.95
8.30	0.80	0.80	0.2778	1449.74	0.93	0.93
8.40	0.80	0.80	0.2767	1449.74	0.92	0.92
8.50	0.80	0.80	0.2758	1449.74	0.90	0.90
8.60	0.80	0.80	0.2750	1449.73	0.89	0.89
8.70	0.80	0.80	0.2743	1449.73	0.88	0.88
8.80	0.80	0.80	0.2737	1449.73	0.87	0.87
8.90	0.80	0.80	0.2732	1449.73	0.86	0.86
9.00	0.80	0.80	0.2727	1449.73	0.85	0.85
9.10	0.70	0.70	0.2719	1449.73	0.84	0.84
9.20	0.70	0.70	0.2708	1449.72	0.82	0.82
9.30	0.70	0.70	0.2698	1449.72	0.81	0.81
9.40	0.70	0.70	0.2690	1449.72	0.80	0.80
9.50	0.70	0.70	0.2682	1449.72	0.78	0.78
9.60	0.70	0.70	0.2676	1449.71	0.77	0.77
9.70	0.70	0.70	0.2670	1449.71	0.77	0.77
9.80	0.70	0.70	0.2665	1449.71	0.76	0.76
9.90	0.70	0.70	0.2660	1449.71	0.75	0.75
10.00	0.70	0.70	0.2656	1449.71	0.74	0.74
10.10	0.70	0.70	0.2653	1449.71	0.74	0.74
10.20	0.70	0.70	0.2650	1449.71	0.73	0.73
10.30	0.70	0.70	0.2647	1449.71	0.73	0.73
10.40	0.70	0.70	0.2645	1449.71	0.73	0.73
10.50	0.70	0.70	0.2643	1449.71	0.72	0.72

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.70	0.70	0.2641	1449.70	0.72	0.72
10.70	0.70	0.70	0.2639	1449.70	0.72	0.72
10.80	0.70	0.70	0.2638	1449.70	0.72	0.72
10.90	0.70	0.70	0.2637	1449.70	0.71	0.71
11.00	0.60	0.60	0.2632	1449.70	0.71	0.71
11.10	0.60	0.60	0.2623	1449.70	0.69	0.69
11.20	0.60	0.60	0.2616	1449.70	0.69	0.69
11.30	0.60	0.60	0.2609	1449.70	0.68	0.68
11.40	0.60	0.60	0.2603	1449.69	0.67	0.67
11.50	0.60	0.60	0.2598	1449.69	0.66	0.66
11.60	0.60	0.60	0.2593	1449.69	0.66	0.66
11.70	0.50	0.50	0.2584	1449.69	0.65	0.65
11.80	0.50	0.50	0.2573	1449.69	0.63	0.63
11.90	0.50	0.50	0.2562	1449.68	0.62	0.62
12.00	0.50	0.50	0.2553	1449.68	0.61	0.61
12.10	0.50	0.50	0.2544	1449.68	0.60	0.60
12.20	0.50	0.50	0.2536	1449.68	0.59	0.59
12.30	0.40	0.40	0.2525	1449.67	0.58	0.58
12.40	0.40	0.40	0.2511	1449.67	0.56	0.56
12.50	0.40	0.40	0.2499	1449.67	0.54	0.54
12.60	0.40	0.40	0.2487	1449.66	0.53	0.53
12.70	0.40	0.40	0.2477	1449.66	0.52	0.52
12.80	0.40	0.40	0.2468	1449.66	0.51	0.51
12.90	0.30	0.30	0.2455	1449.66	0.493	0.493
13.00	0.30	0.30	0.2440	1449.65	0.474	0.474
13.10	0.30	0.30	0.2427	1449.65	0.458	0.458
13.20	0.30	0.30	0.2414	1449.64	0.443	0.443
13.30	0.30	0.30	0.2403	1449.64	0.429	0.429
13.40	0.30	0.30	0.2393	1449.64	0.417	0.417
13.50	0.20	0.20	0.2379	1449.64	0.401	0.401
13.60	0.20	0.20	0.2364	1449.63	0.382	0.382
13.70	0.20	0.20	0.2349	1449.63	0.365	0.365
13.80	0.20	0.20	0.2336	1449.62	0.350	0.350
13.90	0.20	0.20	0.2325	1449.62	0.335	0.335
14.00	0.20	0.20	0.2314	1449.62	0.323	0.323
14.10	0.10	0.10	0.2300	1449.61	0.306	0.306
14.20	0.10	0.10	0.2284	1449.61	0.287	0.287
14.30	0.10	0.10	0.2269	1449.61	0.269	0.269
14.40	0.10	0.10	0.2256	1449.60	0.253	0.253
14.50	0.10	0.10	0.2244	1449.60	0.242	0.242
14.60	0.10	0.10	0.2232	1449.60	0.234	0.234
14.70	0.00	0.00	0.2218	1449.59	0.225	0.225
14.80	0.00	0.00	0.2199	1449.59	0.213	0.213
14.90	0.00	0.00	0.2182	1449.58	0.202	0.202
15.00	0.00	0.00	0.2166	1449.58	0.191	0.191

Total Routing Mass Balance Discrepancy is -0.05%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.50	0.50	0.0000	1449.00	0.000	0.000
Max. Inflow	1.50	21.70	21.70	0.5573	1450.49	7.62	7.62
Max. Outflow	1.80	11.80	11.80	0.7033	1450.88	12.55	12.55
Final	15.00	0.00	0.00	0.2166	1449.58	0.191	0.191

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.90	0.90	0.0000	1449.00	0.000	0.000
0.10	1.00	1.00	0.0079	1449.02	0.000	0.000
0.20	1.10	1.10	0.0165	1449.04	0.000	0.000
0.30	1.20	1.20	0.0260	1449.07	0.000	0.000
0.40	1.30	1.30	0.0364	1449.10	0.000	0.000
0.50	1.50	1.50	0.0479	1449.13	0.000	0.000
0.60	1.60	1.60	0.0607	1449.16	0.000	0.000
0.70	2.00	2.00	0.0756	1449.20	0.000	0.000
0.80	2.40	2.40	0.0938	1449.25	0.000	0.000
0.90	2.80	2.80	0.1153	1449.31	0.000	0.000
1.00	4.60	4.60	0.1459	1449.39	0.000	0.000
1.10	8.40	8.40	0.1993	1449.53	0.077	0.077
1.20	15.60	15.60	0.2933	1449.78	1.17	1.17
1.30	24.80	24.80	0.4378	1450.17	4.25	4.25
1.40	30.00	30.00	0.6084	1450.62	9.26	9.26
1.50	30.50	30.50	0.7598	1451.02	14.62	14.62
1.60	26.00	26.00	0.8563	1451.25	18.52	18.52
1.70	20.30	20.30	0.8880	1451.32	20.10	20.10
1.80	15.80	15.80	0.8740	1451.29	19.38	19.38
1.90	12.80	12.80	0.8390	1451.21	17.69	17.69
2.00	9.90	9.90	0.7944	1451.10	15.81	15.81
2.10	8.30	8.30	0.7459	1450.99	14.14	14.14
2.20	6.70	6.70	0.6983	1450.86	12.37	12.37
2.30	5.90	5.90	0.6546	1450.75	10.82	10.82
2.40	5.10	5.10	0.6160	1450.64	9.51	9.51
2.50	4.70	4.70	0.5824	1450.55	8.42	8.42
2.60	4.20	4.20	0.5534	1450.48	7.50	7.50
2.70	3.90	3.90	0.5281	1450.41	6.74	6.74
2.80	3.60	3.60	0.5060	1450.35	6.10	6.10
2.90	3.40	3.40	0.4868	1450.30	5.55	5.55
3.00	3.20	3.20	0.4701	1450.25	5.10	5.10
3.10	3.10	3.10	0.4556	1450.22	4.71	4.71
3.20	2.90	2.90	0.4429	1450.18	4.38	4.38
3.30	2.80	2.80	0.4314	1450.15	4.09	4.09
3.40	2.70	2.70	0.4214	1450.12	3.84	3.84
3.50	2.50	2.50	0.4121	1450.10	3.61	3.61
3.60	2.40	2.40	0.4034	1450.08	3.41	3.41
3.70	2.40	2.40	0.3958	1450.06	3.23	3.23
3.80	2.30	2.30	0.3891	1450.04	3.08	3.08
3.90	2.20	2.20	0.3829	1450.02	2.93	2.93
4.00	2.20	2.20	0.3774	1450.01	2.81	2.81
4.10	2.10	2.10	0.3724	1449.99	2.70	2.70
4.20	2.10	2.10	0.3679	1449.98	2.60	2.60
4.30	2.10	2.10	0.3640	1449.97	2.52	2.52
4.40	2.00	2.00	0.3605	1449.96	2.45	2.45
4.50	2.00	2.00	0.3570	1449.95	2.38	2.38
4.60	1.90	1.90	0.3538	1449.94	2.31	2.31
4.70	1.90	1.90	0.3507	1449.94	2.24	2.24

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.80	1.80	0.3477	1449.93	2.18	2.18
4.90	1.80	1.80	0.3448	1449.92	2.12	2.12
5.00	1.80	1.80	0.3424	1449.91	2.07	2.07
5.10	1.70	1.70	0.3399	1449.91	2.02	2.02
5.20	1.70	1.70	0.3375	1449.90	1.97	1.97
5.30	1.60	1.60	0.3351	1449.89	1.92	1.92
5.40	1.60	1.60	0.3326	1449.89	1.88	1.88
5.50	1.60	1.60	0.3305	1449.88	1.84	1.84
5.60	1.50	1.50	0.3282	1449.88	1.80	1.80
5.70	1.50	1.50	0.3260	1449.87	1.76	1.76
5.80	1.50	1.50	0.3240	1449.86	1.72	1.72
5.90	1.50	1.50	0.3223	1449.86	1.69	1.69
6.00	1.40	1.40	0.3205	1449.86	1.65	1.65
6.10	1.40	1.40	0.3185	1449.85	1.62	1.62
6.20	1.40	1.40	0.3168	1449.85	1.59	1.59
6.30	1.40	1.40	0.3154	1449.84	1.56	1.56
6.40	1.40	1.40	0.3142	1449.84	1.54	1.54
6.50	1.40	1.40	0.3131	1449.84	1.52	1.52
6.60	1.30	1.30	0.3118	1449.83	1.50	1.50
6.70	1.30	1.30	0.3103	1449.83	1.47	1.47
6.80	1.30	1.30	0.3090	1449.82	1.44	1.44
6.90	1.30	1.30	0.3079	1449.82	1.42	1.42
7.00	1.30	1.30	0.3070	1449.82	1.41	1.41
7.10	1.30	1.30	0.3061	1449.82	1.39	1.39
7.20	1.30	1.30	0.3054	1449.82	1.38	1.38
7.30	1.20	1.20	0.3045	1449.81	1.36	1.36
7.40	1.20	1.20	0.3032	1449.81	1.34	1.34
7.50	1.20	1.20	0.3022	1449.81	1.32	1.32
7.60	1.20	1.20	0.3013	1449.80	1.30	1.30
7.70	1.20	1.20	0.3005	1449.80	1.29	1.29
7.80	1.10	1.10	0.2994	1449.80	1.27	1.27
7.90	1.10	1.10	0.2981	1449.80	1.25	1.25
8.00	1.10	1.10	0.2970	1449.79	1.23	1.23
8.10	1.10	1.10	0.2959	1449.79	1.22	1.22
8.20	1.10	1.10	0.2951	1449.79	1.20	1.20
8.30	1.10	1.10	0.2943	1449.79	1.19	1.19
8.40	1.00	1.00	0.2932	1449.78	1.17	1.17
8.50	1.00	1.00	0.2918	1449.78	1.15	1.15
8.60	1.00	1.00	0.2907	1449.78	1.13	1.13
8.70	1.00	1.00	0.2896	1449.77	1.12	1.12
8.80	1.00	1.00	0.2887	1449.77	1.10	1.10
8.90	1.00	1.00	0.2879	1449.77	1.09	1.09
9.00	1.00	1.00	0.2872	1449.77	1.08	1.08
9.10	1.00	1.00	0.2866	1449.76	1.07	1.07
9.20	0.90	0.90	0.2857	1449.76	1.06	1.06
9.30	0.90	0.90	0.2845	1449.76	1.04	1.04
9.40	0.90	0.90	0.2834	1449.76	1.02	1.02
9.50	0.90	0.90	0.2825	1449.75	1.01	1.01
9.60	0.90	0.90	0.2816	1449.75	0.99	0.99
9.70	0.90	0.90	0.2809	1449.75	0.98	0.98
9.80	0.90	0.90	0.2803	1449.75	0.97	0.97
9.90	0.90	0.90	0.2797	1449.75	0.96	0.96
10.00	0.90	0.90	0.2792	1449.75	0.96	0.96
10.10	0.90	0.90	0.2788	1449.74	0.95	0.95
10.20	0.90	0.90	0.2784	1449.74	0.94	0.94
10.30	0.90	0.90	0.2781	1449.74	0.94	0.94
10.40	0.90	0.90	0.2778	1449.74	0.93	0.93
10.50	0.90	0.90	0.2775	1449.74	0.93	0.93

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.90	0.90	0.2773	1449.74	0.93	0.93
10.70	0.80	0.80	0.2767	1449.74	0.92	0.92
10.80	0.80	0.80	0.2758	1449.74	0.90	0.90
10.90	0.80	0.80	0.2750	1449.73	0.89	0.89
11.00	0.80	0.80	0.2743	1449.73	0.88	0.88
11.10	0.80	0.80	0.2737	1449.73	0.87	0.87
11.20	0.80	0.80	0.2732	1449.73	0.86	0.86
11.30	0.80	0.80	0.2727	1449.73	0.85	0.85
11.40	0.70	0.70	0.2719	1449.73	0.84	0.84
11.50	0.70	0.70	0.2708	1449.72	0.82	0.82
11.60	0.70	0.70	0.2698	1449.72	0.81	0.81
11.70	0.70	0.70	0.2690	1449.72	0.80	0.80
11.80	0.70	0.70	0.2682	1449.72	0.78	0.78
11.90	0.60	0.60	0.2672	1449.71	0.77	0.77
12.00	0.60	0.60	0.2659	1449.71	0.75	0.75
12.10	0.60	0.60	0.2647	1449.71	0.73	0.73
12.20	0.60	0.60	0.2637	1449.70	0.71	0.71
12.30	0.60	0.60	0.2628	1449.70	0.70	0.70
12.40	0.50	0.50	0.2616	1449.70	0.69	0.69
12.50	0.50	0.50	0.2602	1449.69	0.67	0.67
12.60	0.50	0.50	0.2588	1449.69	0.65	0.65
12.70	0.50	0.50	0.2576	1449.69	0.64	0.64
12.80	0.50	0.50	0.2566	1449.68	0.62	0.62
12.90	0.40	0.40	0.2552	1449.68	0.61	0.61
13.00	0.40	0.40	0.2535	1449.68	0.59	0.59
13.10	0.40	0.40	0.2521	1449.67	0.57	0.57
13.20	0.40	0.40	0.2507	1449.67	0.55	0.55
13.30	0.40	0.40	0.2495	1449.67	0.54	0.54
13.40	0.30	0.30	0.2480	1449.66	0.52	0.52
13.50	0.30	0.30	0.2463	1449.66	0.50	0.50
13.60	0.30	0.30	0.2447	1449.65	0.482	0.482
13.70	0.30	0.30	0.2432	1449.65	0.465	0.465
13.80	0.20	0.20	0.2415	1449.64	0.445	0.445
13.90	0.20	0.20	0.2396	1449.64	0.421	0.421
14.00	0.20	0.20	0.2379	1449.63	0.401	0.401
14.10	0.20	0.20	0.2363	1449.63	0.382	0.382
14.20	0.20	0.20	0.2349	1449.63	0.364	0.364
14.30	0.10	0.10	0.2332	1449.62	0.344	0.344
14.40	0.10	0.10	0.2313	1449.62	0.321	0.321
14.50	0.10	0.10	0.2295	1449.61	0.300	0.300
14.60	0.10	0.10	0.2279	1449.61	0.281	0.281
14.70	0.10	0.10	0.2265	1449.60	0.264	0.264
14.80	0.00	0.00	0.2248	1449.60	0.245	0.245
14.90	0.00	0.00	0.2229	1449.59	0.232	0.232
15.00	0.00	0.00	0.2210	1449.59	0.220	0.220

Total Routing Mass Balance Discrepancy is -0.09%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.90	0.90	0.0000	1449.00	0.000	0.000
Max. Inflow	1.50	30.50	30.50	0.7598	1451.02	14.62	14.62
Max. Outflow	1.70	20.30	20.30	0.8880	1451.32	20.10	20.10
Final	15.00	0.00	0.00	0.2210	1449.59	0.220	0.220

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	2.10	2.10	0.0000	1449.00	0.000	0.000
0.10	2.40	2.40	0.0186	1449.05	0.000	0.000
0.20	2.60	2.60	0.0393	1449.11	0.000	0.000
0.30	2.90	2.90	0.0620	1449.17	0.000	0.000
0.40	3.20	3.20	0.0872	1449.23	0.000	0.000
0.50	3.60	3.60	0.1153	1449.31	0.000	0.000
0.60	3.90	3.90	0.1463	1449.39	0.000	0.000
0.70	4.90	4.90	0.1826	1449.49	0.000	0.000
0.80	5.90	5.90	0.2262	1449.60	0.260	0.260
0.90	6.90	6.90	0.2744	1449.73	0.88	0.88
1.00	11.10	11.10	0.3370	1449.90	1.96	1.96
1.10	19.70	19.70	0.4386	1450.17	4.27	4.27
1.20	35.60	35.60	0.6108	1450.63	9.34	9.34
1.30	54.80	54.80	0.8671	1451.27	19.05	19.05
1.40	64.40	64.40	1.1359	1451.90	35.11	35.11
1.50	64.00	64.00	1.3319	1452.35	45.87	45.87
1.60	53.20	53.20	1.4168	1452.55	50.78	50.78
1.70	40.70	40.70	1.3913	1452.49	49.29	49.29
1.80	31.20	31.20	1.3021	1452.28	44.18	44.18
1.90	25.20	25.20	1.1946	1452.03	38.24	38.24
2.00	19.20	19.20	1.0858	1451.78	32.49	32.49
2.10	16.10	16.10	0.9876	1451.55	26.56	26.56
2.20	13.00	13.00	0.9102	1451.37	21.28	21.28
2.30	11.40	11.40	0.8481	1451.23	18.13	18.13
2.40	9.80	9.80	0.7954	1451.11	15.84	15.84
2.50	8.90	8.90	0.7484	1451.00	14.23	14.23
2.60	8.00	8.00	0.7070	1450.89	12.69	12.69
2.70	7.40	7.40	0.6711	1450.79	11.40	11.40
2.80	6.90	6.90	0.6404	1450.71	10.33	10.33
2.90	6.50	6.50	0.6141	1450.64	9.45	9.45
3.00	6.10	6.10	0.5912	1450.58	8.69	8.69
3.10	5.80	5.80	0.5712	1450.52	8.06	8.06
3.20	5.60	5.60	0.5539	1450.48	7.52	7.52
3.30	5.30	5.30	0.5387	1450.44	7.06	7.06
3.40	5.00	5.00	0.5247	1450.40	6.63	6.63
3.50	4.80	4.80	0.5119	1450.37	6.27	6.27
3.60	4.60	4.60	0.5003	1450.33	5.93	5.93
3.70	4.50	4.50	0.4901	1450.31	5.64	5.64
3.80	4.40	4.40	0.4812	1450.28	5.40	5.40
3.90	4.20	4.20	0.4731	1450.26	5.18	5.18
4.00	4.10	4.10	0.4654	1450.24	4.97	4.97
4.10	4.00	4.00	0.4586	1450.22	4.79	4.79
4.20	4.00	4.00	0.4527	1450.21	4.63	4.63
4.30	3.90	3.90	0.4476	1450.19	4.50	4.50
4.40	3.80	3.80	0.4428	1450.18	4.38	4.38
4.50	3.70	3.70	0.4381	1450.17	4.26	4.26
4.60	3.60	3.60	0.4336	1450.16	4.14	4.14
4.70	3.50	3.50	0.4291	1450.14	4.03	4.03

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	3.50	3.50	0.4251	1450.13	3.93	3.93
4.90	3.40	3.40	0.4215	1450.12	3.84	3.84
5.00	3.30	3.30	0.4178	1450.11	3.75	3.75
5.10	3.20	3.20	0.4141	1450.10	3.66	3.66
5.20	3.20	3.20	0.4107	1450.10	3.57	3.57
5.30	3.10	3.10	0.4075	1450.09	3.50	3.50
5.40	3.00	3.00	0.4041	1450.08	3.42	3.42
5.50	2.90	2.90	0.4005	1450.07	3.34	3.34
5.60	2.90	2.90	0.3972	1450.06	3.26	3.26
5.70	2.80	2.80	0.3941	1450.05	3.19	3.19
5.80	2.80	2.80	0.3911	1450.04	3.12	3.12
5.90	2.70	2.70	0.3883	1450.04	3.06	3.06
6.00	2.70	2.70	0.3856	1450.03	3.00	3.00
6.10	2.60	2.60	0.3830	1450.02	2.94	2.94
6.20	2.60	2.60	0.3805	1450.02	2.88	2.88
6.30	2.60	2.60	0.3784	1450.01	2.83	2.83
6.40	2.60	2.60	0.3767	1450.00	2.79	2.79
6.50	2.50	2.50	0.3748	1450.00	2.75	2.75
6.60	2.50	2.50	0.3730	1450.00	2.71	2.71
6.70	2.50	2.50	0.3714	1449.99	2.68	2.68
6.80	2.50	2.50	0.3700	1449.99	2.65	2.65
6.90	2.40	2.40	0.3685	1449.98	2.62	2.62
7.00	2.40	2.40	0.3669	1449.98	2.58	2.58
7.10	2.40	2.40	0.3655	1449.98	2.55	2.55
7.20	2.30	2.30	0.3640	1449.97	2.52	2.52
7.30	2.30	2.30	0.3623	1449.97	2.49	2.49
7.40	2.30	2.30	0.3609	1449.96	2.46	2.46
7.50	2.20	2.20	0.3593	1449.96	2.42	2.42
7.60	2.20	2.20	0.3576	1449.95	2.39	2.39
7.70	2.10	2.10	0.3558	1449.95	2.35	2.35
7.80	2.10	2.10	0.3539	1449.94	2.31	2.31
7.90	2.10	2.10	0.3523	1449.94	2.28	2.28
8.00	2.00	2.00	0.3506	1449.94	2.24	2.24
8.10	2.00	2.00	0.3487	1449.93	2.20	2.20
8.20	2.00	2.00	0.3472	1449.93	2.17	2.17
8.30	2.00	2.00	0.3459	1449.92	2.14	2.14
8.40	1.90	1.90	0.3444	1449.92	2.11	2.11
8.50	1.90	1.90	0.3428	1449.91	2.08	2.08
8.60	1.90	1.90	0.3414	1449.91	2.05	2.05
8.70	1.90	1.90	0.3403	1449.91	2.03	2.03
8.80	1.80	1.80	0.3390	1449.90	2.00	2.00
8.90	1.80	1.80	0.3375	1449.90	1.97	1.97
9.00	1.80	1.80	0.3362	1449.90	1.94	1.94
9.10	1.80	1.80	0.3351	1449.89	1.92	1.92
9.20	1.80	1.80	0.3341	1449.89	1.91	1.91
9.30	1.70	1.70	0.3329	1449.89	1.88	1.88
9.40	1.70	1.70	0.3315	1449.88	1.86	1.86
9.50	1.70	1.70	0.3303	1449.88	1.84	1.84
9.60	1.70	1.70	0.3293	1449.88	1.82	1.82
9.70	1.70	1.70	0.3284	1449.88	1.80	1.80
9.80	1.70	1.70	0.3276	1449.87	1.79	1.79
9.90	1.70	1.70	0.3269	1449.87	1.77	1.77
10.00	1.70	1.70	0.3264	1449.87	1.76	1.76
10.10	1.60	1.60	0.3255	1449.87	1.75	1.75
10.20	1.60	1.60	0.3244	1449.87	1.73	1.73
10.30	1.60	1.60	0.3234	1449.86	1.71	1.71
10.40	1.60	1.60	0.3226	1449.86	1.69	1.69
10.50	1.60	1.60	0.3219	1449.86	1.68	1.68

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.60	1.60	0.3212	1449.86	1.67	1.67
10.70	1.60	1.60	0.3207	1449.86	1.66	1.66
10.80	1.60	1.60	0.3203	1449.85	1.65	1.65
10.90	1.50	1.50	0.3195	1449.85	1.64	1.64
11.00	1.50	1.50	0.3184	1449.85	1.62	1.62
11.10	1.50	1.50	0.3175	1449.85	1.60	1.60
11.20	1.40	1.40	0.3164	1449.84	1.58	1.58
11.30	1.40	1.40	0.3150	1449.84	1.55	1.55
11.40	1.40	1.40	0.3138	1449.84	1.53	1.53
11.50	1.30	1.30	0.3124	1449.83	1.51	1.51
11.60	1.30	1.30	0.3108	1449.83	1.48	1.48
11.70	1.30	1.30	0.3095	1449.83	1.45	1.45
11.80	1.20	1.20	0.3079	1449.82	1.42	1.42
11.90	1.20	1.20	0.3062	1449.82	1.39	1.39
12.00	1.10	1.10	0.3043	1449.81	1.36	1.36
12.10	1.10	1.10	0.3024	1449.81	1.32	1.32
12.20	1.10	1.10	0.3007	1449.80	1.29	1.29
12.30	1.00	1.00	0.2988	1449.80	1.26	1.26
12.40	1.00	1.00	0.2968	1449.79	1.23	1.23
12.50	1.00	1.00	0.2950	1449.79	1.20	1.20
12.60	0.90	0.90	0.2931	1449.78	1.17	1.17
12.70	0.90	0.90	0.2910	1449.78	1.14	1.14
12.80	0.80	0.80	0.2887	1449.77	1.10	1.10
12.90	0.80	0.80	0.2864	1449.76	1.07	1.07
13.00	0.80	0.80	0.2843	1449.76	1.03	1.03
13.10	0.70	0.70	0.2821	1449.75	1.00	1.00
13.20	0.70	0.70	0.2798	1449.75	0.96	0.96
13.30	0.60	0.60	0.2773	1449.74	0.93	0.93
13.40	0.60	0.60	0.2748	1449.73	0.89	0.89
13.50	0.60	0.60	0.2726	1449.73	0.85	0.85
13.60	0.50	0.50	0.2702	1449.72	0.82	0.82
13.70	0.50	0.50	0.2678	1449.71	0.78	0.78
13.80	0.50	0.50	0.2656	1449.71	0.74	0.74
13.90	0.40	0.40	0.2633	1449.70	0.71	0.71
14.00	0.40	0.40	0.2609	1449.70	0.68	0.68
14.10	0.30	0.30	0.2583	1449.69	0.65	0.65
14.20	0.30	0.30	0.2556	1449.68	0.61	0.61
14.30	0.30	0.30	0.2531	1449.68	0.58	0.58
14.40	0.20	0.20	0.2505	1449.67	0.55	0.55
14.50	0.20	0.20	0.2477	1449.66	0.52	0.52
14.60	0.20	0.20	0.2452	1449.65	0.489	0.489
14.70	0.10	0.10	0.2426	1449.65	0.457	0.457
14.80	0.10	0.10	0.2398	1449.64	0.423	0.423
14.90	0.00	0.00	0.2368	1449.63	0.388	0.388
15.00	0.00	0.00	0.2338	1449.62	0.351	0.351

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	2.10	2.10	0.0000	1449.00	0.000	0.000
Max. Inflow	1.40	64.40	64.40	1.1359	1451.90	35.11	35.11
Max. Outflow	1.60	53.20	53.20	1.4168	1452.55	50.78	50.78
Final	15.00	0.00	0.00	0.2338	1449.62	0.351	0.351

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	2.50	2.50	0.0000	1449.00	0.000	0.000
0.10	2.80	2.80	0.0219	1449.06	0.000	0.000
0.20	3.10	3.10	0.0463	1449.12	0.000	0.000
0.30	3.40	3.40	0.0731	1449.20	0.000	0.000
0.40	3.90	3.90	0.1033	1449.28	0.000	0.000
0.50	4.30	4.30	0.1372	1449.37	0.000	0.000
0.60	4.70	4.70	0.1744	1449.47	0.000	0.000
0.70	5.90	5.90	0.2174	1449.58	0.196	0.196
0.80	7.10	7.10	0.2671	1449.71	0.77	0.77
0.90	8.30	8.30	0.3207	1449.86	1.66	1.66
1.00	13.30	13.30	0.3903	1450.04	3.10	3.10
1.10	23.70	23.70	0.5053	1450.35	6.08	6.08
1.20	42.90	42.90	0.7034	1450.88	12.56	12.56
1.30	66.00	66.00	0.9906	1451.56	26.85	26.85
1.40	77.50	77.50	1.2923	1452.26	43.63	43.63
1.50	77.00	77.00	1.5161	1452.78	56.71	56.71
1.60	64.00	64.00	1.6069	1452.99	62.31	62.31
1.70	49.00	49.00	1.5687	1452.90	59.94	59.94
1.80	37.60	37.60	1.4588	1452.65	53.27	53.27
1.90	30.40	30.40	1.3304	1452.35	45.79	45.79
2.00	23.10	23.10	1.2025	1452.05	38.67	38.67
2.10	19.40	19.40	1.0844	1451.78	32.42	32.42
2.20	15.60	15.60	0.9859	1451.55	26.40	26.40
2.30	13.70	13.70	0.9100	1451.37	21.27	21.27
2.40	11.80	11.80	0.8518	1451.24	18.31	18.31
2.50	10.70	10.70	0.8025	1451.12	16.14	16.14
2.60	9.60	9.60	0.7593	1451.02	14.61	14.61
2.70	9.00	9.00	0.7212	1450.92	13.21	13.21
2.80	8.30	8.30	0.6884	1450.84	12.02	12.02
2.90	7.80	7.80	0.6598	1450.76	11.00	11.00
3.00	7.30	7.30	0.6349	1450.69	10.14	10.14
3.10	7.00	7.00	0.6132	1450.64	9.41	9.41
3.20	6.70	6.70	0.5945	1450.59	8.80	8.80
3.30	6.40	6.40	0.5781	1450.54	8.28	8.28
3.40	6.10	6.10	0.5633	1450.50	7.80	7.80
3.50	5.80	5.80	0.5497	1450.47	7.39	7.39
3.60	5.50	5.50	0.5369	1450.43	7.00	7.00
3.70	5.40	5.40	0.5255	1450.40	6.66	6.66
3.80	5.20	5.20	0.5154	1450.38	6.37	6.37
3.90	5.10	5.10	0.5064	1450.35	6.11	6.11
4.00	5.00	5.00	0.4986	1450.33	5.89	5.89
4.10	4.90	4.90	0.4917	1450.31	5.69	5.69
4.20	4.80	4.80	0.4855	1450.30	5.51	5.51
4.30	4.70	4.70	0.4798	1450.28	5.36	5.36
4.40	4.50	4.50	0.4742	1450.26	5.21	5.21
4.50	4.40	4.40	0.4685	1450.25	5.06	5.06
4.60	4.30	4.30	0.4633	1450.24	4.91	4.91
4.70	4.30	4.30	0.4587	1450.22	4.79	4.79

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	4.20	4.20	0.4547	1450.21	4.68	4.68
4.90	4.10	4.10	0.4507	1450.20	4.58	4.58
5.00	4.00	4.00	0.4468	1450.19	4.48	4.48
5.10	3.90	3.90	0.4429	1450.18	4.38	4.38
5.20	3.80	3.80	0.4389	1450.17	4.28	4.28
5.30	3.70	3.70	0.4350	1450.16	4.18	4.18
5.40	3.60	3.60	0.4310	1450.15	4.08	4.08
5.50	3.50	3.50	0.4270	1450.14	3.98	3.98
5.60	3.50	3.50	0.4234	1450.13	3.89	3.89
5.70	3.40	3.40	0.4201	1450.12	3.81	3.81
5.80	3.30	3.30	0.4167	1450.11	3.72	3.72
5.90	3.30	3.30	0.4136	1450.10	3.64	3.64
6.00	3.20	3.20	0.4106	1450.10	3.57	3.57
6.10	3.20	3.20	0.4078	1450.09	3.51	3.51
6.20	3.20	3.20	0.4055	1450.08	3.45	3.45
6.30	3.10	3.10	0.4032	1450.08	3.40	3.40
6.40	3.10	3.10	0.4009	1450.07	3.35	3.35
6.50	3.10	3.10	0.3990	1450.06	3.31	3.31
6.60	3.00	3.00	0.3971	1450.06	3.26	3.26
6.70	3.00	3.00	0.3951	1450.05	3.22	3.22
6.80	3.00	3.00	0.3935	1450.05	3.18	3.18
6.90	2.90	2.90	0.3918	1450.05	3.14	3.14
7.00	2.90	2.90	0.3900	1450.04	3.10	3.10
7.10	2.90	2.90	0.3885	1450.04	3.06	3.06
7.20	2.80	2.80	0.3869	1450.03	3.03	3.03
7.30	2.80	2.80	0.3852	1450.03	2.99	2.99
7.40	2.70	2.70	0.3834	1450.02	2.95	2.95
7.50	2.70	2.70	0.3816	1450.02	2.90	2.90
7.60	2.60	2.60	0.3797	1450.01	2.86	2.86
7.70	2.60	2.60	0.3777	1450.01	2.81	2.81
7.80	2.50	2.50	0.3757	1450.00	2.77	2.77
7.90	2.50	2.50	0.3737	1450.00	2.72	2.72
8.00	2.40	2.40	0.3716	1449.99	2.68	2.68
8.10	2.40	2.40	0.3695	1449.99	2.64	2.64
8.20	2.40	2.40	0.3677	1449.98	2.60	2.60
8.30	2.40	2.40	0.3662	1449.98	2.57	2.57
8.40	2.30	2.30	0.3645	1449.97	2.53	2.53
8.50	2.30	2.30	0.3628	1449.97	2.50	2.50
8.60	2.30	2.30	0.3613	1449.96	2.46	2.46
8.70	2.20	2.20	0.3596	1449.96	2.43	2.43
8.80	2.20	2.20	0.3579	1449.95	2.39	2.39
8.90	2.20	2.20	0.3564	1449.95	2.36	2.36
9.00	2.10	2.10	0.3548	1449.95	2.33	2.33
9.10	2.10	2.10	0.3531	1449.94	2.29	2.29
9.20	2.10	2.10	0.3516	1449.94	2.26	2.26
9.30	2.10	2.10	0.3504	1449.93	2.24	2.24
9.40	2.10	2.10	0.3493	1449.93	2.21	2.21
9.50	2.10	2.10	0.3484	1449.93	2.20	2.20
9.60	2.10	2.10	0.3477	1449.93	2.18	2.18
9.70	2.00	2.00	0.3467	1449.93	2.16	2.16
9.80	2.00	2.00	0.3455	1449.92	2.13	2.13
9.90	2.00	2.00	0.3445	1449.92	2.11	2.11
10.00	2.00	2.00	0.3436	1449.92	2.10	2.10
10.10	2.00	2.00	0.3429	1449.91	2.08	2.08
10.20	2.00	2.00	0.3423	1449.91	2.07	2.07
10.30	1.90	1.90	0.3414	1449.91	2.05	2.05
10.40	1.90	1.90	0.3402	1449.91	2.03	2.03
10.50	1.90	1.90	0.3393	1449.91	2.01	2.01

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.90	1.90	0.3385	1449.90	1.99	1.99
10.70	1.90	1.90	0.3378	1449.90	1.97	1.97
10.80	1.90	1.90	0.3372	1449.90	1.96	1.96
10.90	1.90	1.90	0.3368	1449.90	1.95	1.95
11.00	1.80	1.80	0.3360	1449.90	1.94	1.94
11.10	1.80	1.80	0.3349	1449.89	1.92	1.92
11.20	1.70	1.70	0.3336	1449.89	1.90	1.90
11.30	1.70	1.70	0.3321	1449.89	1.87	1.87
11.40	1.70	1.70	0.3308	1449.88	1.84	1.84
11.50	1.60	1.60	0.3293	1449.88	1.82	1.82
11.60	1.60	1.60	0.3276	1449.87	1.79	1.79
11.70	1.50	1.50	0.3258	1449.87	1.75	1.75
11.80	1.50	1.50	0.3239	1449.86	1.72	1.72
11.90	1.40	1.40	0.3218	1449.86	1.68	1.68
12.00	1.40	1.40	0.3197	1449.85	1.64	1.64
12.10	1.30	1.30	0.3174	1449.85	1.60	1.60
12.20	1.30	1.30	0.3151	1449.84	1.56	1.56
12.30	1.20	1.20	0.3128	1449.83	1.51	1.51
12.40	1.20	1.20	0.3104	1449.83	1.47	1.47
12.50	1.10	1.10	0.3079	1449.82	1.42	1.42
12.60	1.10	1.10	0.3054	1449.82	1.38	1.38
12.70	1.10	1.10	0.3033	1449.81	1.34	1.34
12.80	1.00	1.00	0.3011	1449.80	1.30	1.30
12.90	1.00	1.00	0.2988	1449.80	1.26	1.26
13.00	0.90	0.90	0.2964	1449.79	1.22	1.22
13.10	0.90	0.90	0.2939	1449.78	1.18	1.18
13.20	0.80	0.80	0.2913	1449.78	1.14	1.14
13.30	0.80	0.80	0.2886	1449.77	1.10	1.10
13.40	0.70	0.70	0.2859	1449.76	1.06	1.06
13.50	0.70	0.70	0.2831	1449.76	1.02	1.02
13.60	0.60	0.60	0.2803	1449.75	0.97	0.97
13.70	0.60	0.60	0.2774	1449.74	0.93	0.93
13.80	0.60	0.60	0.2748	1449.73	0.89	0.89
13.90	0.50	0.50	0.2722	1449.73	0.85	0.85
14.00	0.50	0.50	0.2695	1449.72	0.81	0.81
14.10	0.40	0.40	0.2668	1449.71	0.76	0.76
14.20	0.40	0.40	0.2640	1449.70	0.72	0.72
14.30	0.30	0.30	0.2611	1449.70	0.68	0.68
14.40	0.30	0.30	0.2581	1449.69	0.64	0.64
14.50	0.20	0.20	0.2550	1449.68	0.61	0.61
14.60	0.20	0.20	0.2518	1449.67	0.57	0.57
14.70	0.10	0.10	0.2485	1449.66	0.53	0.53
14.80	0.10	0.10	0.2451	1449.65	0.488	0.488
14.90	0.00	0.00	0.2417	1449.65	0.446	0.446
15.00	0.00	0.00	0.2382	1449.64	0.404	0.404

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	2.50	2.50	0.0000	1449.00	0.000	0.000
Max. Inflow	1.40	77.50	77.50	1.2923	1452.26	43.63	43.63
Max. Outflow	1.60	64.00	64.00	1.6069	1452.99	62.31	62.31
Final	15.00	0.00	0.00	0.2382	1449.64	0.404	0.404

Modified Puls Routing

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	2.90	2.90	0.0000	1449.00	0.000	0.000
0.10	3.20	3.20	0.0252	1449.07	0.000	0.000
0.20	3.50	3.50	0.0529	1449.14	0.000	0.000
0.30	3.90	3.90	0.0835	1449.22	0.000	0.000
0.40	4.40	4.40	0.1178	1449.31	0.000	0.000
0.50	4.90	4.90	0.1562	1449.42	0.000	0.000
0.60	5.40	5.40	0.1985	1449.53	0.072	0.072
0.70	6.70	6.70	0.2461	1449.66	0.499	0.499
0.80	8.00	8.00	0.2995	1449.80	1.27	1.27
0.90	9.30	9.30	0.3560	1449.95	2.36	2.36
1.00	15.00	15.00	0.4300	1450.15	4.05	4.05
1.10	26.80	26.80	0.5548	1450.48	7.55	7.55
1.20	48.40	48.40	0.7722	1451.05	15.04	15.04
1.30	74.50	74.50	1.0840	1451.78	32.40	32.40
1.40	87.50	87.50	1.4111	1452.54	50.45	50.45
1.50	86.90	86.90	1.6490	1453.08	66.37	66.37
1.60	72.20	72.20	1.7369	1453.27	71.48	71.48
1.70	55.30	55.30	1.6847	1453.16	68.65	68.65
1.80	42.40	42.40	1.5594	1452.88	59.36	59.36
1.90	34.30	34.30	1.4203	1452.56	50.99	50.99
2.00	26.10	26.10	1.2814	1452.24	43.02	43.02
2.10	21.90	21.90	1.1532	1451.94	36.02	36.02
2.20	17.60	17.60	1.0424	1451.68	30.28	30.28
2.30	15.50	15.50	0.9556	1451.48	23.83	23.83
2.40	13.30	13.30	0.8922	1451.33	20.32	20.32
2.50	12.10	12.10	0.8399	1451.21	17.73	17.73
2.60	10.90	10.90	0.7961	1451.11	15.87	15.87
2.70	10.10	10.10	0.7572	1451.02	14.54	14.54
2.80	9.30	9.30	0.7225	1450.93	13.26	13.26
2.90	8.80	8.80	0.6923	1450.85	12.16	12.16
3.00	8.30	8.30	0.6663	1450.78	11.23	11.23
3.10	7.90	7.90	0.6437	1450.72	10.44	10.44
3.20	7.50	7.50	0.6238	1450.66	9.77	9.77
3.30	7.20	7.20	0.6062	1450.62	9.18	9.18
3.40	6.90	6.90	0.5907	1450.58	8.68	8.68
3.50	6.50	6.50	0.5762	1450.54	8.22	8.22
3.60	6.20	6.20	0.5626	1450.50	7.78	7.78
3.70	6.10	6.10	0.5506	1450.47	7.42	7.42
3.80	5.90	5.90	0.5402	1450.44	7.10	7.10
3.90	5.80	5.80	0.5310	1450.42	6.82	6.82
4.00	5.60	5.60	0.5227	1450.39	6.58	6.58
4.10	5.50	5.50	0.5151	1450.37	6.36	6.36
4.20	5.40	5.40	0.5084	1450.36	6.17	6.17
4.30	5.30	5.30	0.5024	1450.34	5.99	5.99
4.40	5.10	5.10	0.4965	1450.32	5.83	5.83
4.50	5.00	5.00	0.4908	1450.31	5.66	5.66
4.60	4.90	4.90	0.4855	1450.30	5.51	5.51
4.70	4.80	4.80	0.4806	1450.28	5.38	5.38

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	4.70	4.70	0.4759	1450.27	5.25	5.25
4.90	4.60	4.60	0.4714	1450.26	5.13	5.13
5.00	4.50	4.50	0.4671	1450.25	5.02	5.02
5.10	4.40	4.40	0.4629	1450.23	4.90	4.90
5.20	4.30	4.30	0.4587	1450.22	4.79	4.79
5.30	4.20	4.20	0.4547	1450.21	4.68	4.68
5.40	4.10	4.10	0.4508	1450.20	4.58	4.58
5.50	4.00	4.00	0.4468	1450.19	4.48	4.48
5.60	3.90	3.90	0.4429	1450.18	4.38	4.38
5.70	3.80	3.80	0.4389	1450.17	4.28	4.28
5.80	3.80	3.80	0.4353	1450.16	4.19	4.19
5.90	3.70	3.70	0.4321	1450.15	4.11	4.11
6.00	3.60	3.60	0.4286	1450.14	4.02	4.02
6.10	3.60	3.60	0.4255	1450.14	3.94	3.94
6.20	3.60	3.60	0.4229	1450.13	3.88	3.88
6.30	3.60	3.60	0.4205	1450.12	3.82	3.82
6.40	3.50	3.50	0.4181	1450.12	3.76	3.76
6.50	3.50	3.50	0.4162	1450.11	3.71	3.71
6.60	3.50	3.50	0.4143	1450.11	3.66	3.66
6.70	3.40	3.40	0.4123	1450.10	3.61	3.61
6.80	3.40	3.40	0.4107	1450.10	3.57	3.57
6.90	3.40	3.40	0.4090	1450.09	3.54	3.54
7.00	3.30	3.30	0.4072	1450.09	3.49	3.49
7.10	3.30	3.30	0.4054	1450.08	3.45	3.45
7.20	3.20	3.20	0.4035	1450.08	3.41	3.41
7.30	3.20	3.20	0.4015	1450.07	3.36	3.36
7.40	3.10	3.10	0.3996	1450.07	3.32	3.32
7.50	3.10	3.10	0.3975	1450.06	3.27	3.27
7.60	3.00	3.00	0.3955	1450.06	3.22	3.22
7.70	3.00	3.00	0.3934	1450.05	3.18	3.18
7.80	2.90	2.90	0.3913	1450.04	3.13	3.13
7.90	2.90	2.90	0.3892	1450.04	3.08	3.08
8.00	2.80	2.80	0.3871	1450.03	3.03	3.03
8.10	2.80	2.80	0.3850	1450.03	2.98	2.98
8.20	2.70	2.70	0.3829	1450.02	2.93	2.93
8.30	2.70	2.70	0.3811	1450.02	2.89	2.89
8.40	2.60	2.60	0.3793	1450.01	2.85	2.85
8.50	2.60	2.60	0.3774	1450.01	2.81	2.81
8.60	2.60	2.60	0.3759	1450.00	2.77	2.77
8.70	2.60	2.60	0.3742	1450.00	2.73	2.73
8.80	2.50	2.50	0.3724	1449.99	2.70	2.70
8.90	2.50	2.50	0.3709	1449.99	2.67	2.67
9.00	2.40	2.40	0.3693	1449.99	2.63	2.63
9.10	2.40	2.40	0.3675	1449.98	2.59	2.59
9.20	2.40	2.40	0.3660	1449.98	2.56	2.56
9.30	2.40	2.40	0.3648	1449.97	2.54	2.54
9.40	2.40	2.40	0.3637	1449.97	2.52	2.52
9.50	2.40	2.40	0.3625	1449.97	2.49	2.49
9.60	2.30	2.30	0.3610	1449.96	2.46	2.46
9.70	2.30	2.30	0.3598	1449.96	2.43	2.43
9.80	2.30	2.30	0.3588	1449.96	2.41	2.41
9.90	2.30	2.30	0.3579	1449.95	2.39	2.39
10.00	2.30	2.30	0.3568	1449.95	2.37	2.37
10.10	2.20	2.20	0.3555	1449.95	2.34	2.34
10.20	2.20	2.20	0.3544	1449.95	2.32	2.32
10.30	2.20	2.20	0.3535	1449.94	2.30	2.30
10.40	2.20	2.20	0.3527	1449.94	2.29	2.29
10.50	2.20	2.20	0.3521	1449.94	2.27	2.27

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.10	2.10	0.3511	1449.94	2.25	2.25
10.70	2.10	2.10	0.3500	1449.93	2.23	2.23
10.80	2.10	2.10	0.3490	1449.93	2.21	2.21
10.90	2.10	2.10	0.3482	1449.93	2.19	2.19
11.00	2.10	2.10	0.3475	1449.93	2.18	2.18
11.10	2.00	2.00	0.3465	1449.92	2.16	2.16
11.20	2.00	2.00	0.3453	1449.92	2.13	2.13
11.30	1.90	1.90	0.3440	1449.92	2.10	2.10
11.40	1.90	1.90	0.3424	1449.91	2.07	2.07
11.50	1.80	1.80	0.3407	1449.91	2.04	2.04
11.60	1.80	1.80	0.3389	1449.90	2.00	2.00
11.70	1.70	1.70	0.3370	1449.90	1.96	1.96
11.80	1.70	1.70	0.3351	1449.89	1.92	1.92
11.90	1.60	1.60	0.3330	1449.89	1.88	1.88
12.00	1.60	1.60	0.3308	1449.88	1.84	1.84
12.10	1.50	1.50	0.3285	1449.88	1.80	1.80
12.20	1.50	1.50	0.3262	1449.87	1.76	1.76
12.30	1.40	1.40	0.3238	1449.86	1.72	1.72
12.40	1.30	1.30	0.3210	1449.86	1.66	1.66
12.50	1.30	1.30	0.3182	1449.85	1.61	1.61
12.60	1.20	1.20	0.3154	1449.84	1.56	1.56
12.70	1.20	1.20	0.3126	1449.83	1.51	1.51
12.80	1.10	1.10	0.3099	1449.83	1.46	1.46
12.90	1.10	1.10	0.3071	1449.82	1.41	1.41
13.00	1.00	1.00	0.3043	1449.81	1.36	1.36
13.10	1.00	1.00	0.3016	1449.80	1.31	1.31
13.20	0.90	0.90	0.2988	1449.80	1.26	1.26
13.30	0.90	0.90	0.2960	1449.79	1.22	1.22
13.40	0.80	0.80	0.2932	1449.78	1.17	1.17
13.50	0.80	0.80	0.2903	1449.77	1.13	1.13
13.60	0.70	0.70	0.2874	1449.77	1.08	1.08
13.70	0.70	0.70	0.2844	1449.76	1.04	1.04
13.80	0.60	0.60	0.2814	1449.75	0.99	0.99
13.90	0.60	0.60	0.2784	1449.74	0.94	0.94
14.00	0.50	0.50	0.2753	1449.73	0.90	0.90
14.10	0.50	0.50	0.2723	1449.73	0.85	0.85
14.20	0.40	0.40	0.2692	1449.72	0.80	0.80
14.30	0.40	0.40	0.2661	1449.71	0.75	0.75
14.40	0.30	0.30	0.2630	1449.70	0.70	0.70
14.50	0.30	0.30	0.2598	1449.69	0.66	0.66
14.60	0.20	0.20	0.2565	1449.68	0.62	0.62
14.70	0.20	0.20	0.2532	1449.68	0.58	0.58
14.80	0.10	0.10	0.2498	1449.67	0.54	0.54
14.90	0.10	0.10	0.2463	1449.66	0.50	0.50
15.00	0.00	0.00	0.2427	1449.65	0.459	0.459

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	2.90	2.90	0.0000	1449.00	0.000	0.000
Max. Inflow	1.40	87.50	87.50	1.4111	1452.54	50.45	50.45
Max. Outflow	1.60	72.20	72.20	1.7369	1453.27	71.48	71.48
Final	15.00	0.00	0.00	0.2427	1449.65	0.459	0.459

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	3.30	3.30	0.0000	1449.00	0.000	0.000
0.10	3.80	3.80	0.0293	1449.08	0.000	0.000
0.20	4.20	4.20	0.0624	1449.17	0.000	0.000
0.30	4.60	4.60	0.0988	1449.26	0.000	0.000
0.40	5.10	5.10	0.1388	1449.37	0.000	0.000
0.50	5.70	5.70	0.1835	1449.49	0.000	0.000
0.60	6.30	6.30	0.2317	1449.62	0.327	0.327
0.70	7.80	7.80	0.2843	1449.76	1.04	1.04
0.80	9.40	9.40	0.3426	1449.91	2.07	2.07
0.90	11.00	11.00	0.4042	1450.08	3.42	3.42
1.00	17.60	17.60	0.4854	1450.29	5.51	5.51
1.10	31.40	31.40	0.6246	1450.67	9.80	9.80
1.20	56.80	56.80	0.8694	1451.28	19.16	19.16
1.30	87.40	87.40	1.2220	1452.10	39.73	39.73
1.40	102.70	102.70	1.5902	1452.95	61.27	61.27
1.50	102.00	102.00	1.8591	1453.52	78.35	78.35
1.60	84.80	84.80	1.9587	1453.73	84.34	84.34
1.70	64.90	64.90	1.8962	1453.60	80.49	80.49
1.80	49.80	49.80	1.7412	1453.28	71.71	71.71
1.90	40.20	40.20	1.5690	1452.91	59.95	59.95
2.00	30.60	30.60	1.4065	1452.53	50.18	50.18
2.10	25.70	25.70	1.2591	1452.18	41.78	41.78
2.20	20.70	20.70	1.1337	1451.89	34.99	34.99
2.30	18.20	18.20	1.0278	1451.65	29.54	29.54
2.40	15.60	15.60	0.9486	1451.46	23.43	23.43
2.50	14.20	14.20	0.8911	1451.33	20.27	20.27
2.60	12.80	12.80	0.8447	1451.22	17.96	17.96
2.70	11.90	11.90	0.8054	1451.13	16.26	16.26
2.80	11.00	11.00	0.7708	1451.05	15.00	15.00
2.90	10.30	10.30	0.7395	1450.97	13.90	13.90
3.00	9.70	9.70	0.7116	1450.90	12.85	12.85
3.10	9.30	9.30	0.6875	1450.83	11.98	11.98
3.20	8.90	8.90	0.6667	1450.78	11.24	11.24
3.30	8.40	8.40	0.6480	1450.73	10.59	10.59
3.40	8.00	8.00	0.6307	1450.68	10.00	10.00
3.50	7.70	7.70	0.6151	1450.64	9.48	9.48
3.60	7.30	7.30	0.6007	1450.60	9.00	9.00
3.70	7.10	7.10	0.5876	1450.57	8.58	8.58
3.80	6.90	6.90	0.5760	1450.54	8.21	8.21
3.90	6.80	6.80	0.5661	1450.51	7.89	7.89
4.00	6.60	6.60	0.5573	1450.49	7.62	7.62
4.10	6.40	6.40	0.5491	1450.46	7.37	7.37
4.20	6.30	6.30	0.5416	1450.44	7.15	7.15
4.30	6.20	6.20	0.5350	1450.43	6.95	6.95
4.40	6.00	6.00	0.5288	1450.41	6.76	6.76
4.50	5.90	5.90	0.5228	1450.39	6.58	6.58
4.60	5.80	5.80	0.5174	1450.38	6.43	6.43
4.70	5.60	5.60	0.5121	1450.37	6.27	6.27

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	5.50	5.50	0.5067	1450.35	6.12	6.12
4.90	5.40	5.40	0.5018	1450.34	5.98	5.98
5.00	5.30	5.30	0.4972	1450.33	5.84	5.84
5.10	5.20	5.20	0.4928	1450.31	5.72	5.72
5.20	5.00	5.00	0.4882	1450.30	5.59	5.59
5.30	4.90	4.90	0.4835	1450.29	5.46	5.46
5.40	4.80	4.80	0.4789	1450.28	5.34	5.34
5.50	4.70	4.70	0.4746	1450.27	5.22	5.22
5.60	4.60	4.60	0.4704	1450.25	5.10	5.10
5.70	4.50	4.50	0.4662	1450.24	4.99	4.99
5.80	4.40	4.40	0.4622	1450.23	4.88	4.88
5.90	4.30	4.30	0.4582	1450.22	4.78	4.78
6.00	4.30	4.30	0.4547	1450.21	4.68	4.68
6.10	4.20	4.20	0.4515	1450.20	4.60	4.60
6.20	4.20	4.20	0.4485	1450.20	4.52	4.52
6.30	4.10	4.10	0.4457	1450.19	4.45	4.45
6.40	4.10	4.10	0.4431	1450.18	4.38	4.38
6.50	4.10	4.10	0.4410	1450.18	4.33	4.33
6.60	4.00	4.00	0.4389	1450.17	4.28	4.28
6.70	4.00	4.00	0.4368	1450.17	4.23	4.23
6.80	3.90	3.90	0.4348	1450.16	4.17	4.17
6.90	3.90	3.90	0.4327	1450.15	4.12	4.12
7.00	3.90	3.90	0.4310	1450.15	4.08	4.08
7.10	3.80	3.80	0.4293	1450.15	4.04	4.04
7.20	3.70	3.70	0.4272	1450.14	3.98	3.98
7.30	3.70	3.70	0.4250	1450.13	3.93	3.93
7.40	3.60	3.60	0.4229	1450.13	3.88	3.88
7.50	3.50	3.50	0.4205	1450.12	3.82	3.82
7.60	3.50	3.50	0.4181	1450.12	3.76	3.76
7.70	3.40	3.40	0.4158	1450.11	3.70	3.70
7.80	3.40	3.40	0.4136	1450.10	3.64	3.64
7.90	3.30	3.30	0.4114	1450.10	3.59	3.59
8.00	3.20	3.20	0.4088	1450.09	3.53	3.53
8.10	3.20	3.20	0.4063	1450.08	3.47	3.47
8.20	3.20	3.20	0.4043	1450.08	3.43	3.43
8.30	3.10	3.10	0.4022	1450.07	3.38	3.38
8.40	3.10	3.10	0.4001	1450.07	3.33	3.33
8.50	3.00	3.00	0.3980	1450.06	3.28	3.28
8.60	3.00	3.00	0.3958	1450.06	3.23	3.23
8.70	3.00	3.00	0.3941	1450.05	3.19	3.19
8.80	2.90	2.90	0.3923	1450.05	3.15	3.15
8.90	2.90	2.90	0.3904	1450.04	3.11	3.11
9.00	2.80	2.80	0.3885	1450.04	3.06	3.06
9.10	2.80	2.80	0.3865	1450.03	3.02	3.02
9.20	2.80	2.80	0.3849	1450.03	2.98	2.98
9.30	2.80	2.80	0.3835	1450.02	2.95	2.95
9.40	2.80	2.80	0.3824	1450.02	2.92	2.92
9.50	2.70	2.70	0.3811	1450.02	2.89	2.89
9.60	2.70	2.70	0.3797	1450.01	2.86	2.86
9.70	2.70	2.70	0.3785	1450.01	2.83	2.83
9.80	2.70	2.70	0.3775	1450.01	2.81	2.81
9.90	2.70	2.70	0.3767	1450.00	2.79	2.79
10.00	2.60	2.60	0.3756	1450.00	2.77	2.77
10.10	2.60	2.60	0.3744	1450.00	2.74	2.74
10.20	2.60	2.60	0.3733	1450.00	2.72	2.72
10.30	2.60	2.60	0.3724	1449.99	2.70	2.70
10.40	2.60	2.60	0.3717	1449.99	2.68	2.68
10.50	2.50	2.50	0.3707	1449.99	2.66	2.66

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.50	2.50	0.3695	1449.99	2.64	2.64
10.70	2.50	2.50	0.3684	1449.98	2.61	2.61
10.80	2.50	2.50	0.3676	1449.98	2.60	2.60
10.90	2.50	2.50	0.3668	1449.98	2.58	2.58
11.00	2.40	2.40	0.3658	1449.98	2.56	2.56
11.10	2.40	2.40	0.3646	1449.97	2.53	2.53
11.20	2.30	2.30	0.3632	1449.97	2.51	2.51
11.30	2.30	2.30	0.3617	1449.96	2.47	2.47
11.40	2.20	2.20	0.3600	1449.96	2.44	2.44
11.50	2.10	2.10	0.3578	1449.95	2.39	2.39
11.60	2.10	2.10	0.3556	1449.95	2.35	2.35
11.70	2.00	2.00	0.3533	1449.94	2.30	2.30
11.80	1.90	1.90	0.3507	1449.94	2.24	2.24
11.90	1.90	1.90	0.3481	1449.93	2.19	2.19
12.00	1.80	1.80	0.3455	1449.92	2.13	2.13
12.10	1.80	1.80	0.3429	1449.92	2.08	2.08
12.20	1.70	1.70	0.3404	1449.91	2.03	2.03
12.30	1.60	1.60	0.3375	1449.90	1.97	1.97
12.40	1.60	1.60	0.3347	1449.89	1.92	1.92
12.50	1.50	1.50	0.3319	1449.89	1.86	1.86
12.60	1.50	1.50	0.3291	1449.88	1.81	1.81
12.70	1.40	1.40	0.3263	1449.87	1.76	1.76
12.80	1.30	1.30	0.3231	1449.86	1.70	1.70
12.90	1.30	1.30	0.3200	1449.85	1.65	1.65
13.00	1.20	1.20	0.3170	1449.85	1.59	1.59
13.10	1.20	1.20	0.3140	1449.84	1.54	1.54
13.20	1.10	1.10	0.3110	1449.83	1.48	1.48
13.30	1.00	1.00	0.3077	1449.82	1.42	1.42
13.40	1.00	1.00	0.3045	1449.81	1.36	1.36
13.50	0.90	0.90	0.3013	1449.80	1.30	1.30
13.60	0.90	0.90	0.2982	1449.80	1.25	1.25
13.70	0.80	0.80	0.2951	1449.79	1.20	1.20
13.80	0.70	0.70	0.2916	1449.78	1.15	1.15
13.90	0.70	0.70	0.2881	1449.77	1.09	1.09
14.00	0.60	0.60	0.2847	1449.76	1.04	1.04
14.10	0.50	0.50	0.2809	1449.75	0.98	0.98
14.20	0.50	0.50	0.2771	1449.74	0.92	0.92
14.30	0.40	0.40	0.2735	1449.73	0.87	0.87
14.40	0.40	0.40	0.2698	1449.72	0.81	0.81
14.50	0.30	0.30	0.2663	1449.71	0.75	0.75
14.60	0.20	0.20	0.2623	1449.70	0.69	0.69
14.70	0.20	0.20	0.2585	1449.69	0.65	0.65
14.80	0.10	0.10	0.2545	1449.68	0.60	0.60
14.90	0.10	0.10	0.2506	1449.67	0.55	0.55
15.00	0.00	0.00	0.2466	1449.66	0.51	0.51

Total Routing Mass Balance Discrepancy is -0.11%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-2\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI K\basins\basin k-1\k-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1449.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	3.30	3.30	0.0000	1449.00	0.000	0.000
Max. Inflow	1.40	102.70	102.70	1.5902	1452.95	61.27	61.27
Max. Outflow	1.60	84.80	84.80	1.9587	1453.73	84.34	84.34
Final	15.00	0.00	0.00	0.2466	1449.66	0.51	0.51

SCS Segmental Travel Time

Summary for From Basins to POI

Segment 1: Overland Flow

L = 150 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in

Travel Time = 28 minutes

Total Travel Time = 28.00 Minutes

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO1122010\basin k-1\routed\10000	01/12/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\RO1122010\basin k-2\routed\10000	01/12/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0000	0.00	0.00	0.00
01/12/2010	0006	0.00	0.00	0.00
01/12/2010	0012	0.00	0.00	0.00
01/12/2010	0018	0.00	0.00	0.00
01/12/2010	0024	0.00	0.00	0.00
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.00	0.00
01/12/2010	0042	0.00	0.00	0.00
01/12/2010	0048	0.00	0.00	0.00
01/12/2010	0054	0.00	0.00	0.00
01/12/2010	0100	0.00	0.00	0.00
01/12/2010	0106	0.00	0.00	0.00
01/12/2010	0112	0.07	0.00	0.07
01/12/2010	0118	1.38	0.00	1.38
01/12/2010	0124	4.38	0.00	4.38
01/12/2010	0130	8.37	0.00	8.37
01/12/2010	0136	11.94	0.00	11.94
01/12/2010	0142	14.03	0.41	14.44
01/12/2010	0148	14.55	2.15	16.70
01/12/2010	0154	14.13	5.24	19.36
01/12/2010	0200	13.09	8.63	21.72
01/12/2010	0206	11.81	11.18	23.00
01/12/2010	0212	10.54	12.35	22.90
01/12/2010	0218	9.36	12.39	21.75
01/12/2010	0224	8.32	11.77	20.08
01/12/2010	0230	7.41	10.80	18.21
01/12/2010	0236	6.63	9.73	16.35
01/12/2010	0242	5.99	8.69	14.68
01/12/2010	0248	5.44	7.75	13.18
01/12/2010	0254	4.97	6.92	11.89
01/12/2010	0300	4.55	6.21	10.76
01/12/2010	0306	4.21	5.60	9.81
01/12/2010	0312	3.92	5.07	9.00
01/12/2010	0318	3.65	4.63	8.28
01/12/2010	0324	3.42	4.25	7.67
01/12/2010	0330	3.22	3.92	7.14
01/12/2010	0336	3.03	3.64	6.68
01/12/2010	0342	2.87	3.39	6.27
01/12/2010	0348	2.73	3.17	5.90
01/12/2010	0354	2.61	2.97	5.59
01/12/2010	0400	2.51	2.80	5.31
01/12/2010	0406	2.41	2.66	5.07
01/12/2010	0412	2.32	2.53	4.85
01/12/2010	0418	2.24	2.41	4.65
01/12/2010	0424	2.17	2.30	4.47
01/12/2010	0430	2.10	2.21	4.31
01/12/2010	0436	2.04	2.12	4.16
01/12/2010	0442	1.98	2.04	4.02
01/12/2010	0448	1.92	1.98	3.90
01/12/2010	0454	1.88	1.92	3.80
01/12/2010	0500	1.83	1.86	3.69

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0506	1.78	1.81	3.60
01/12/2010	0512	1.74	1.77	3.51
01/12/2010	0518	1.70	1.72	3.42
01/12/2010	0524	1.66	1.67	3.33
01/12/2010	0530	1.62	1.63	3.26
01/12/2010	0536	1.58	1.59	3.17
01/12/2010	0542	1.54	1.55	3.09
01/12/2010	0548	1.51	1.51	3.02
01/12/2010	0554	1.48	1.47	2.95
01/12/2010	0600	1.45	1.43	2.89
01/12/2010	0606	1.43	1.40	2.83
01/12/2010	0612	1.39	1.37	2.77
01/12/2010	0618	1.37	1.35	2.71
01/12/2010	0624	1.34	1.32	2.66
01/12/2010	0630	1.32	1.29	2.61
01/12/2010	0636	1.31	1.26	2.57
01/12/2010	0642	1.29	1.24	2.53
01/12/2010	0648	1.28	1.23	2.50
01/12/2010	0654	1.26	1.21	2.47
01/12/2010	0700	1.24	1.19	2.44
01/12/2010	0706	1.23	1.18	2.40
01/12/2010	0712	1.21	1.15	2.36
01/12/2010	0718	1.20	1.14	2.33
01/12/2010	0724	1.19	1.12	2.30
01/12/2010	0730	1.18	1.10	2.28
01/12/2010	0736	1.16	1.09	2.25
01/12/2010	0742	1.14	1.08	2.22
01/12/2010	0748	1.12	1.07	2.19
01/12/2010	0754	1.11	1.05	2.16
01/12/2010	0800	1.10	1.03	2.13
01/12/2010	0806	1.08	1.02	2.10
01/12/2010	0812	1.07	1.00	2.08
01/12/2010	0818	1.06	0.99	2.05
01/12/2010	0824	1.04	0.98	2.02
01/12/2010	0830	1.02	0.97	1.99
01/12/2010	0836	1.01	0.96	1.97
01/12/2010	0842	1.00	0.94	1.94
01/12/2010	0848	0.98	0.93	1.91
01/12/2010	0854	0.97	0.91	1.89
01/12/2010	0900	0.96	0.90	1.86
01/12/2010	0906	0.94	0.89	1.83
01/12/2010	0912	0.92	0.88	1.80
01/12/2010	0918	0.91	0.87	1.78
01/12/2010	0924	0.89	0.86	1.75
01/12/2010	0930	0.88	0.85	1.73
01/12/2010	0936	0.87	0.84	1.71
01/12/2010	0942	0.86	0.82	1.68
01/12/2010	0948	0.86	0.81	1.66
01/12/2010	0954	0.85	0.79	1.64
01/12/2010	1000	0.84	0.78	1.63
01/12/2010	1006	0.84	0.77	1.61
01/12/2010	1012	0.83	0.76	1.60
01/12/2010	1018	0.83	0.76	1.59
01/12/2010	1024	0.83	0.75	1.57
01/12/2010	1030	0.82	0.74	1.57
01/12/2010	1036	0.82	0.74	1.56
01/12/2010	1042	0.81	0.73	1.54
01/12/2010	1048	0.80	0.73	1.53
01/12/2010	1054	0.79	0.73	1.51

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1100	0.78	0.72	1.50
01/12/2010	1106	0.77	0.72	1.49
01/12/2010	1112	0.76	0.72	1.48
01/12/2010	1118	0.75	0.72	1.47
01/12/2010	1124	0.75	0.71	1.46
01/12/2010	1130	0.73	0.70	1.44
01/12/2010	1136	0.72	0.69	1.41
01/12/2010	1142	0.70	0.68	1.39
01/12/2010	1148	0.69	0.67	1.37
01/12/2010	1154	0.68	0.67	1.35
01/12/2010	1200	0.67	0.66	1.33
01/12/2010	1206	0.65	0.65	1.31
01/12/2010	1212	0.64	0.64	1.28
01/12/2010	1218	0.63	0.63	1.26
01/12/2010	1224	0.61	0.62	1.23
01/12/2010	1230	0.60	0.61	1.21
01/12/2010	1236	0.59	0.60	1.19
01/12/2010	1242	0.57	0.59	1.16
01/12/2010	1248	0.56	0.57	1.13
01/12/2010	1254	0.54	0.55	1.10
01/12/2010	1300	0.53	0.54	1.07
01/12/2010	1306	0.51	0.53	1.04
01/12/2010	1312	0.49	0.51	1.01
01/12/2010	1318	0.47	0.50	0.98
01/12/2010	1324	0.46	0.49	0.94
01/12/2010	1330	0.44	0.47	0.91
01/12/2010	1336	0.43	0.45	0.88
01/12/2010	1342	0.41	0.44	0.85
01/12/2010	1348	0.39	0.43	0.82
01/12/2010	1354	0.37	0.41	0.79
01/12/2010	1400	0.36	0.40	0.75
01/12/2010	1406	0.34	0.38	0.72
01/12/2010	1412	0.32	0.36	0.68
01/12/2010	1418	0.30	0.34	0.65
01/12/2010	1424	0.28	0.33	0.61
01/12/2010	1430	0.27	0.32	0.58
01/12/2010	1436	0.25	0.30	0.55
01/12/2010	1442	0.24	0.28	0.52
01/12/2010	1448	0.23	0.26	0.49
01/12/2010	1454	0.22	0.25	0.47
01/12/2010	1500	0.21	0.24	0.45
01/12/2010	1506	0.00	0.23	0.23
01/12/2010	1512	0.00	0.22	0.22
01/12/2010	1518	0.00	0.21	0.21
01/12/2010	1524	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\basin k-1\routed\2010	01/12/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\basin k-2\routed\2010	01/12/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0000	0.00	0.00	0.00
01/12/2010	0006	0.00	0.00	0.00
01/12/2010	0012	0.00	0.00	0.00
01/12/2010	0018	0.00	0.00	0.00
01/12/2010	0024	0.00	0.00	0.00
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.00	0.00
01/12/2010	0042	0.00	0.00	0.00
01/12/2010	0048	0.00	0.00	0.00
01/12/2010	0054	0.00	0.00	0.00
01/12/2010	0100	0.00	0.00	0.00
01/12/2010	0106	0.18	0.00	0.18
01/12/2010	0112	1.47	0.00	1.47
01/12/2010	0118	4.74	0.00	4.74
01/12/2010	0124	10.13	0.00	10.13
01/12/2010	0130	16.03	0.03	16.05
01/12/2010	0136	21.26	0.44	21.70
01/12/2010	0142	23.43	2.20	25.63
01/12/2010	0148	22.69	5.92	28.61
01/12/2010	0154	20.63	11.05	31.68
01/12/2010	0200	18.20	15.92	34.12
01/12/2010	0206	15.94	19.05	34.99
01/12/2010	0212	14.16	19.86	34.02
01/12/2010	0218	12.36	18.82	31.18
01/12/2010	0224	10.84	17.06	27.90
01/12/2010	0230	9.56	15.25	24.81
01/12/2010	0236	8.50	13.55	22.05
01/12/2010	0242	7.61	11.86	19.47
01/12/2010	0248	6.87	10.38	17.26
01/12/2010	0254	6.25	9.14	15.40
01/12/2010	0300	5.73	8.11	13.84
01/12/2010	0306	5.30	7.25	12.54
01/12/2010	0312	4.92	6.52	11.44
01/12/2010	0318	4.58	5.91	10.50
01/12/2010	0324	4.30	5.40	9.70
01/12/2010	0330	4.05	4.97	9.02
01/12/2010	0336	3.81	4.60	8.41
01/12/2010	0342	3.61	4.28	7.89
01/12/2010	0348	3.44	4.01	7.45
01/12/2010	0354	3.28	3.76	7.05
01/12/2010	0400	3.15	3.54	6.69
01/12/2010	0406	3.03	3.35	6.37
01/12/2010	0412	2.92	3.18	6.10
01/12/2010	0418	2.82	3.03	5.85
01/12/2010	0424	2.73	2.89	5.62
01/12/2010	0430	2.65	2.77	5.42
01/12/2010	0436	2.58	2.67	5.25
01/12/2010	0442	2.51	2.58	5.09
01/12/2010	0448	2.45	2.50	4.94
01/12/2010	0454	2.38	2.42	4.81
01/12/2010	0500	2.32	2.35	4.68

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0506	2.26	2.29	4.55
01/12/2010	0512	2.21	2.22	4.43
01/12/2010	0518	2.16	2.16	4.32
01/12/2010	0524	2.11	2.10	4.21
01/12/2010	0530	2.06	2.05	4.11
01/12/2010	0536	2.01	2.00	4.01
01/12/2010	0542	1.96	1.95	3.92
01/12/2010	0548	1.92	1.91	3.83
01/12/2010	0554	1.89	1.86	3.75
01/12/2010	0600	1.85	1.82	3.67
01/12/2010	0606	1.81	1.78	3.59
01/12/2010	0612	1.78	1.74	3.52
01/12/2010	0618	1.76	1.71	3.46
01/12/2010	0624	1.73	1.68	3.40
01/12/2010	0630	1.69	1.64	3.34
01/12/2010	0636	1.67	1.61	3.28
01/12/2010	0642	1.64	1.58	3.22
01/12/2010	0648	1.62	1.55	3.18
01/12/2010	0654	1.61	1.53	3.14
01/12/2010	0700	1.59	1.51	3.10
01/12/2010	0706	1.57	1.49	3.06
01/12/2010	0712	1.55	1.46	3.01
01/12/2010	0718	1.53	1.44	2.96
01/12/2010	0724	1.51	1.42	2.93
01/12/2010	0730	1.49	1.40	2.89
01/12/2010	0736	1.47	1.39	2.86
01/12/2010	0742	1.45	1.37	2.82
01/12/2010	0748	1.43	1.35	2.78
01/12/2010	0754	1.41	1.33	2.74
01/12/2010	0800	1.39	1.31	2.70
01/12/2010	0806	1.36	1.30	2.66
01/12/2010	0812	1.34	1.28	2.62
01/12/2010	0818	1.32	1.26	2.58
01/12/2010	0824	1.30	1.24	2.54
01/12/2010	0830	1.29	1.23	2.51
01/12/2010	0836	1.27	1.21	2.48
01/12/2010	0842	1.25	1.20	2.45
01/12/2010	0848	1.23	1.18	2.41
01/12/2010	0854	1.22	1.17	2.38
01/12/2010	0900	1.20	1.15	2.35
01/12/2010	0906	1.19	1.13	2.32
01/12/2010	0912	1.18	1.11	2.29
01/12/2010	0918	1.17	1.10	2.27
01/12/2010	0924	1.16	1.09	2.25
01/12/2010	0930	1.15	1.08	2.22
01/12/2010	0936	1.13	1.07	2.19
01/12/2010	0942	1.11	1.05	2.16
01/12/2010	0948	1.10	1.03	2.13
01/12/2010	0954	1.09	1.02	2.10
01/12/2010	1000	1.08	1.00	2.08
01/12/2010	1006	1.07	0.99	2.06
01/12/2010	1012	1.06	0.98	2.04
01/12/2010	1018	1.05	0.97	2.02
01/12/2010	1024	1.05	0.96	2.01
01/12/2010	1030	1.04	0.95	1.99
01/12/2010	1036	1.04	0.95	1.98
01/12/2010	1042	1.03	0.94	1.97
01/12/2010	1048	1.02	0.94	1.96
01/12/2010	1054	1.01	0.93	1.94

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1100	0.99	0.93	1.92
01/12/2010	1106	0.98	0.92	1.91
01/12/2010	1112	0.97	0.91	1.88
01/12/2010	1118	0.96	0.90	1.86
01/12/2010	1124	0.95	0.89	1.84
01/12/2010	1130	0.93	0.88	1.81
01/12/2010	1136	0.92	0.87	1.78
01/12/2010	1142	0.90	0.86	1.76
01/12/2010	1148	0.88	0.85	1.73
01/12/2010	1154	0.86	0.84	1.70
01/12/2010	1200	0.84	0.82	1.66
01/12/2010	1206	0.83	0.81	1.63
01/12/2010	1212	0.81	0.79	1.60
01/12/2010	1218	0.79	0.78	1.57
01/12/2010	1224	0.77	0.76	1.53
01/12/2010	1230	0.75	0.74	1.49
01/12/2010	1236	0.73	0.73	1.45
01/12/2010	1242	0.71	0.71	1.42
01/12/2010	1248	0.69	0.70	1.38
01/12/2010	1254	0.67	0.68	1.35
01/12/2010	1300	0.65	0.66	1.32
01/12/2010	1306	0.63	0.65	1.28
01/12/2010	1312	0.61	0.63	1.24
01/12/2010	1318	0.59	0.62	1.21
01/12/2010	1324	0.57	0.60	1.17
01/12/2010	1330	0.55	0.58	1.13
01/12/2010	1336	0.53	0.57	1.09
01/12/2010	1342	0.51	0.55	1.06
01/12/2010	1348	0.49	0.53	1.02
01/12/2010	1354	0.47	0.52	0.98
01/12/2010	1400	0.45	0.49	0.94
01/12/2010	1406	0.43	0.48	0.90
01/12/2010	1412	0.40	0.46	0.86
01/12/2010	1418	0.38	0.44	0.82
01/12/2010	1424	0.36	0.41	0.78
01/12/2010	1430	0.34	0.39	0.73
01/12/2010	1436	0.32	0.38	0.69
01/12/2010	1442	0.29	0.36	0.65
01/12/2010	1448	0.27	0.34	0.61
01/12/2010	1454	0.25	0.31	0.56
01/12/2010	1500	0.23	0.29	0.53
01/12/2010	1506	0.00	0.28	0.28
01/12/2010	1512	0.00	0.26	0.26
01/12/2010	1518	0.00	0.24	0.24
01/12/2010	1524	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01/12/2010\basin k-1\routed\1000.D	01/12/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01/12/2010\basin k-2\routed\1000.D	01/12/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0000	0.00	0.00	0.00
01/12/2010	0006	0.00	0.00	0.00
01/12/2010	0012	0.00	0.00	0.00
01/12/2010	0018	0.00	0.00	0.00
01/12/2010	0024	0.00	0.00	0.00
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.00	0.00
01/12/2010	0042	0.09	0.00	0.09
01/12/2010	0048	0.52	0.00	0.52
01/12/2010	0054	1.24	0.00	1.24
01/12/2010	0100	2.47	0.00	2.47
01/12/2010	0106	4.98	0.00	4.98
01/12/2010	0112	10.40	0.09	10.49
01/12/2010	0118	21.14	0.47	21.61
01/12/2010	0124	38.22	1.24	39.46
01/12/2010	0130	50.61	2.73	53.34
01/12/2010	0136	56.90	5.96	62.86
01/12/2010	0142	56.02	12.57	68.59
01/12/2010	0148	50.68	24.40	75.08
01/12/2010	0154	44.04	38.69	82.73
01/12/2010	0200	37.44	47.51	84.95
01/12/2010	0206	31.52	50.29	81.80
01/12/2010	0212	25.18	47.59	72.77
01/12/2010	0218	20.78	42.20	62.98
01/12/2010	0224	17.85	36.33	54.18
01/12/2010	0230	15.74	30.52	46.26
01/12/2010	0236	14.27	24.80	39.07
01/12/2010	0242	12.82	20.23	33.05
01/12/2010	0248	11.61	17.37	28.97
01/12/2010	0254	10.60	15.31	25.90
01/12/2010	0300	9.76	13.72	23.48
01/12/2010	0306	9.04	12.26	21.30
01/12/2010	0312	8.44	11.04	19.48
01/12/2010	0318	7.90	10.03	17.94
01/12/2010	0324	7.44	9.19	16.64
01/12/2010	0330	7.02	8.48	15.50
01/12/2010	0336	6.64	7.88	14.51
01/12/2010	0342	6.31	7.37	13.68
01/12/2010	0348	6.02	6.92	12.94
01/12/2010	0354	5.77	6.51	12.29
01/12/2010	0400	5.56	6.16	11.71
01/12/2010	0406	5.38	5.84	11.21
01/12/2010	0412	5.21	5.56	10.77
01/12/2010	0418	5.06	5.32	10.38
01/12/2010	0424	4.92	5.11	10.03
01/12/2010	0430	4.78	4.91	9.69
01/12/2010	0436	4.66	4.73	9.39
01/12/2010	0442	4.54	4.59	9.12
01/12/2010	0448	4.43	4.46	8.88
01/12/2010	0454	4.32	4.34	8.65
01/12/2010	0500	4.21	4.22	8.43

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0506	4.11	4.11	8.21
01/12/2010	0512	4.01	4.00	8.01
01/12/2010	0518	3.92	3.90	7.83
01/12/2010	0524	3.84	3.81	7.65
01/12/2010	0530	3.74	3.72	7.46
01/12/2010	0536	3.65	3.63	7.28
01/12/2010	0542	3.57	3.55	7.12
01/12/2010	0548	3.50	3.47	6.97
01/12/2010	0554	3.43	3.39	6.82
01/12/2010	0600	3.36	3.31	6.68
01/12/2010	0606	3.30	3.24	6.54
01/12/2010	0612	3.24	3.17	6.41
01/12/2010	0618	3.18	3.10	6.28
01/12/2010	0624	3.13	3.04	6.17
01/12/2010	0630	3.09	2.98	6.07
01/12/2010	0636	3.05	2.92	5.96
01/12/2010	0642	3.01	2.86	5.87
01/12/2010	0648	2.97	2.82	5.79
01/12/2010	0654	2.93	2.78	5.71
01/12/2010	0700	2.89	2.73	5.63
01/12/2010	0706	2.86	2.70	5.56
01/12/2010	0712	2.82	2.67	5.49
01/12/2010	0718	2.78	2.64	5.42
01/12/2010	0724	2.74	2.60	5.35
01/12/2010	0730	2.70	2.57	5.28
01/12/2010	0736	2.67	2.54	5.21
01/12/2010	0742	2.64	2.51	5.15
01/12/2010	0748	2.60	2.48	5.08
01/12/2010	0754	2.56	2.45	5.00
01/12/2010	0800	2.52	2.41	4.93
01/12/2010	0806	2.48	2.38	4.86
01/12/2010	0812	2.45	2.34	4.78
01/12/2010	0818	2.41	2.30	4.71
01/12/2010	0824	2.37	2.26	4.64
01/12/2010	0830	2.34	2.23	4.57
01/12/2010	0836	2.30	2.19	4.49
01/12/2010	0842	2.27	2.16	4.43
01/12/2010	0848	2.24	2.13	4.38
01/12/2010	0854	2.21	2.10	4.31
01/12/2010	0900	2.18	2.07	4.25
01/12/2010	0906	2.15	2.04	4.19
01/12/2010	0912	2.13	2.02	4.14
01/12/2010	0918	2.11	1.99	4.09
01/12/2010	0924	2.08	1.96	4.04
01/12/2010	0930	2.05	1.94	3.99
01/12/2010	0936	2.03	1.92	3.95
01/12/2010	0942	2.01	1.90	3.91
01/12/2010	0948	1.99	1.88	3.87
01/12/2010	0954	1.98	1.85	3.83
01/12/2010	1000	1.96	1.83	3.79
01/12/2010	1006	1.95	1.81	3.76
01/12/2010	1012	1.93	1.80	3.72
01/12/2010	1018	1.91	1.78	3.69
01/12/2010	1024	1.89	1.77	3.66
01/12/2010	1030	1.88	1.76	3.64
01/12/2010	1036	1.87	1.74	3.61
01/12/2010	1042	1.86	1.72	3.58
01/12/2010	1048	1.84	1.70	3.55
01/12/2010	1054	1.82	1.69	3.51

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1100	1.81	1.68	3.48
01/12/2010	1106	1.79	1.67	3.46
01/12/2010	1112	1.77	1.66	3.43
01/12/2010	1118	1.75	1.65	3.39
01/12/2010	1124	1.72	1.63	3.35
01/12/2010	1130	1.69	1.61	3.30
01/12/2010	1136	1.66	1.59	3.26
01/12/2010	1142	1.63	1.57	3.20
01/12/2010	1148	1.60	1.55	3.15
01/12/2010	1154	1.56	1.52	3.09
01/12/2010	1200	1.53	1.50	3.02
01/12/2010	1206	1.49	1.47	2.96
01/12/2010	1212	1.45	1.44	2.89
01/12/2010	1218	1.41	1.41	2.83
01/12/2010	1224	1.37	1.38	2.76
01/12/2010	1230	1.34	1.35	2.68
01/12/2010	1236	1.30	1.31	2.61
01/12/2010	1242	1.26	1.28	2.54
01/12/2010	1248	1.22	1.25	2.47
01/12/2010	1254	1.18	1.22	2.40
01/12/2010	1300	1.15	1.19	2.34
01/12/2010	1306	1.11	1.16	2.27
01/12/2010	1312	1.07	1.13	2.20
01/12/2010	1318	1.04	1.09	2.13
01/12/2010	1324	0.99	1.06	2.05
01/12/2010	1330	0.95	1.02	1.98
01/12/2010	1336	0.91	0.99	1.90
01/12/2010	1342	0.87	0.95	1.82
01/12/2010	1348	0.83	0.91	1.75
01/12/2010	1354	0.79	0.88	1.67
01/12/2010	1400	0.75	0.84	1.59
01/12/2010	1406	0.71	0.80	1.51
01/12/2010	1412	0.67	0.77	1.44
01/12/2010	1418	0.64	0.73	1.37
01/12/2010	1424	0.61	0.70	1.30
01/12/2010	1430	0.57	0.67	1.24
01/12/2010	1436	0.54	0.64	1.17
01/12/2010	1442	0.50	0.60	1.10
01/12/2010	1448	0.46	0.57	1.04
01/12/2010	1454	0.42	0.54	0.96
01/12/2010	1500	0.38	0.51	0.89
01/12/2010	1506	0.00	0.48	0.48
01/12/2010	1512	0.00	0.45	0.45
01/12/2010	1518	0.00	0.41	0.41
01/12/2010	1524	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01\12\2010\basin k-1\routed\2008.D	01/12/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01\12\2010\basin k-2\routed\2008.D	01/12/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0000	0.00	0.00	0.00
01/12/2010	0006	0.00	0.00	0.00
01/12/2010	0012	0.00	0.00	0.00
01/12/2010	0018	0.00	0.00	0.00
01/12/2010	0024	0.00	0.00	0.00
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.04	0.00	0.04
01/12/2010	0042	0.43	0.00	0.43
01/12/2010	0048	1.16	0.00	1.16
01/12/2010	0054	2.18	0.00	2.18
01/12/2010	0100	3.78	0.00	3.78
01/12/2010	0106	6.99	0.07	7.06
01/12/2010	0112	13.91	0.39	14.29
01/12/2010	0118	29.91	1.06	30.98
01/12/2010	0124	47.26	2.14	49.40
01/12/2010	0130	62.45	4.09	66.54
01/12/2010	0136	70.60	8.24	78.84
01/12/2010	0142	68.87	17.32	86.19
01/12/2010	0148	60.46	32.45	92.90
01/12/2010	0154	52.34	47.99	100.33
01/12/2010	0200	44.34	58.58	102.91
01/12/2010	0206	37.19	61.52	98.71
01/12/2010	0212	31.27	57.71	88.98
01/12/2010	0218	24.95	50.77	75.72
01/12/2010	0224	20.92	43.42	64.33
01/12/2010	0230	18.16	36.59	54.75
01/12/2010	0236	16.19	30.41	46.60
01/12/2010	0242	14.77	24.69	39.46
01/12/2010	0248	13.50	20.28	33.78
01/12/2010	0254	12.35	17.58	29.93
01/12/2010	0300	11.39	15.63	27.02
01/12/2010	0306	10.59	14.14	24.73
01/12/2010	0312	9.90	12.81	22.71
01/12/2010	0318	9.29	11.68	20.97
01/12/2010	0324	8.76	10.72	19.47
01/12/2010	0330	8.28	9.90	18.18
01/12/2010	0336	7.83	9.21	17.04
01/12/2010	0342	7.45	8.63	16.08
01/12/2010	0348	7.13	8.12	15.25
01/12/2010	0354	6.85	7.67	14.51
01/12/2010	0400	6.60	7.26	13.86
01/12/2010	0406	6.39	6.89	13.28
01/12/2010	0412	6.19	6.56	12.75
01/12/2010	0418	6.01	6.28	12.30
01/12/2010	0424	5.84	6.04	11.88
01/12/2010	0430	5.67	5.82	11.49
01/12/2010	0436	5.52	5.63	11.15
01/12/2010	0442	5.39	5.46	10.85
01/12/2010	0448	5.26	5.31	10.57
01/12/2010	0454	5.14	5.16	10.29
01/12/2010	0500	5.02	5.01	10.03

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0506	4.91	4.87	9.78
01/12/2010	0512	4.79	4.75	9.55
01/12/2010	0518	4.69	4.65	9.33
01/12/2010	0524	4.58	4.54	9.12
01/12/2010	0530	4.48	4.44	8.92
01/12/2010	0536	4.38	4.34	8.72
01/12/2010	0542	4.28	4.25	8.52
01/12/2010	0548	4.19	4.15	8.34
01/12/2010	0554	4.11	4.05	8.15
01/12/2010	0600	4.02	3.95	7.97
01/12/2010	0606	3.94	3.86	7.80
01/12/2010	0612	3.87	3.78	7.65
01/12/2010	0618	3.80	3.70	7.49
01/12/2010	0624	3.74	3.62	7.36
01/12/2010	0630	3.69	3.55	7.24
01/12/2010	0636	3.63	3.49	7.12
01/12/2010	0642	3.59	3.44	7.03
01/12/2010	0648	3.55	3.38	6.93
01/12/2010	0654	3.51	3.33	6.84
01/12/2010	0700	3.47	3.29	6.76
01/12/2010	0706	3.43	3.25	6.68
01/12/2010	0712	3.39	3.20	6.59
01/12/2010	0718	3.35	3.16	6.51
01/12/2010	0724	3.31	3.12	6.43
01/12/2010	0730	3.26	3.09	6.35
01/12/2010	0736	3.22	3.05	6.27
01/12/2010	0742	3.17	3.01	6.18
01/12/2010	0748	3.12	2.97	6.10
01/12/2010	0754	3.08	2.93	6.01
01/12/2010	0800	3.03	2.89	5.92
01/12/2010	0806	2.98	2.84	5.82
01/12/2010	0812	2.93	2.80	5.73
01/12/2010	0818	2.89	2.75	5.64
01/12/2010	0824	2.85	2.71	5.56
01/12/2010	0830	2.81	2.67	5.47
01/12/2010	0836	2.77	2.62	5.39
01/12/2010	0842	2.73	2.59	5.32
01/12/2010	0848	2.70	2.56	5.25
01/12/2010	0854	2.66	2.52	5.18
01/12/2010	0900	2.62	2.49	5.10
01/12/2010	0906	2.58	2.45	5.03
01/12/2010	0912	2.55	2.42	4.97
01/12/2010	0918	2.53	2.38	4.91
01/12/2010	0924	2.50	2.35	4.85
01/12/2010	0930	2.47	2.32	4.79
01/12/2010	0936	2.44	2.28	4.72
01/12/2010	0942	2.42	2.25	4.67
01/12/2010	0948	2.40	2.23	4.63
01/12/2010	0954	2.38	2.21	4.59
01/12/2010	1000	2.36	2.19	4.55
01/12/2010	1006	2.34	2.17	4.51
01/12/2010	1012	2.32	2.15	4.47
01/12/2010	1018	2.30	2.13	4.42
01/12/2010	1024	2.28	2.11	4.39
01/12/2010	1030	2.27	2.09	4.36
01/12/2010	1036	2.25	2.08	4.33
01/12/2010	1042	2.23	2.06	4.29
01/12/2010	1048	2.21	2.04	4.25
01/12/2010	1054	2.19	2.02	4.21

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1100	2.17	2.00	4.17
01/12/2010	1106	2.16	1.98	4.14
01/12/2010	1112	2.13	1.97	4.10
01/12/2010	1118	2.10	1.96	4.06
01/12/2010	1124	2.07	1.95	4.02
01/12/2010	1130	2.03	1.93	3.97
01/12/2010	1136	2.00	1.91	3.91
01/12/2010	1142	1.96	1.89	3.85
01/12/2010	1148	1.92	1.86	3.78
01/12/2010	1154	1.88	1.84	3.72
01/12/2010	1200	1.84	1.81	3.65
01/12/2010	1206	1.80	1.78	3.58
01/12/2010	1212	1.75	1.74	3.49
01/12/2010	1218	1.70	1.70	3.41
01/12/2010	1224	1.65	1.67	3.32
01/12/2010	1230	1.60	1.63	3.23
01/12/2010	1236	1.55	1.58	3.14
01/12/2010	1242	1.50	1.54	3.05
01/12/2010	1248	1.45	1.50	2.95
01/12/2010	1254	1.40	1.45	2.86
01/12/2010	1300	1.35	1.41	2.76
01/12/2010	1306	1.30	1.37	2.67
01/12/2010	1312	1.26	1.33	2.58
01/12/2010	1318	1.21	1.29	2.50
01/12/2010	1324	1.17	1.25	2.42
01/12/2010	1330	1.13	1.21	2.33
01/12/2010	1336	1.08	1.17	2.25
01/12/2010	1342	1.03	1.13	2.16
01/12/2010	1348	0.99	1.09	2.08
01/12/2010	1354	0.94	1.04	1.99
01/12/2010	1400	0.89	1.00	1.90
01/12/2010	1406	0.85	0.96	1.80
01/12/2010	1412	0.80	0.91	1.71
01/12/2010	1418	0.75	0.87	1.62
01/12/2010	1424	0.70	0.83	1.54
01/12/2010	1430	0.66	0.79	1.45
01/12/2010	1436	0.62	0.75	1.37
01/12/2010	1442	0.58	0.71	1.29
01/12/2010	1448	0.54	0.67	1.21
01/12/2010	1454	0.50	0.63	1.13
01/12/2010	1500	0.46	0.59	1.05
01/12/2010	1506	0.00	0.55	0.55
01/12/2010	1512	0.00	0.51	0.51
01/12/2010	1518	0.00	0.47	0.47
01/12/2010	1524	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\basin k-1\routed\5000.D	01/12/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\basin k-2\routed\5000.D	01/12/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0000	0.00	0.00	0.00
01/12/2010	0006	0.00	0.00	0.00
01/12/2010	0012	0.00	0.00	0.00
01/12/2010	0018	0.00	0.00	0.00
01/12/2010	0024	0.00	0.00	0.00
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.20	0.00	0.20
01/12/2010	0042	0.78	0.00	0.78
01/12/2010	0048	1.71	0.00	1.71
01/12/2010	0054	2.92	0.00	2.92
01/12/2010	0100	4.78	0.02	4.80
01/12/2010	0106	8.53	0.21	8.74
01/12/2010	0112	16.44	0.76	17.20
01/12/2010	0118	35.03	1.63	36.67
01/12/2010	0124	54.86	2.92	57.78
01/12/2010	0130	72.54	5.22	77.75
01/12/2010	0136	79.29	10.04	89.33
01/12/2010	0142	77.38	20.83	98.20
01/12/2010	0148	70.02	38.42	108.44
01/12/2010	0154	58.94	55.75	114.70
01/12/2010	0200	49.70	68.07	117.77
01/12/2010	0206	41.53	70.54	112.07
01/12/2010	0212	34.82	65.56	100.38
01/12/2010	0218	29.39	56.57	85.96
01/12/2010	0224	23.24	48.33	71.57
01/12/2010	0230	20.07	40.69	60.76
01/12/2010	0236	17.74	34.11	51.85
01/12/2010	0242	16.05	28.13	44.17
01/12/2010	0248	14.78	22.66	37.44
01/12/2010	0254	13.63	19.46	33.09
01/12/2010	0300	12.60	17.11	29.71
01/12/2010	0306	11.73	15.43	27.15
01/12/2010	0312	10.98	14.11	25.10
01/12/2010	0318	10.32	12.89	23.22
01/12/2010	0324	9.74	11.85	21.59
01/12/2010	0330	9.22	10.97	20.19
01/12/2010	0336	8.74	10.22	18.96
01/12/2010	0342	8.31	9.57	17.89
01/12/2010	0348	7.95	9.01	16.97
01/12/2010	0354	7.64	8.52	16.17
01/12/2010	0400	7.38	8.07	15.45
01/12/2010	0406	7.14	7.66	14.80
01/12/2010	0412	6.92	7.31	14.23
01/12/2010	0418	6.71	7.01	13.72
01/12/2010	0424	6.53	6.74	13.27
01/12/2010	0430	6.35	6.50	12.86
01/12/2010	0436	6.18	6.30	12.48
01/12/2010	0442	6.03	6.11	12.14
01/12/2010	0448	5.88	5.94	11.82
01/12/2010	0454	5.75	5.77	11.52
01/12/2010	0500	5.62	5.61	11.23

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0506	5.49	5.47	10.96
01/12/2010	0512	5.37	5.34	10.70
01/12/2010	0518	5.24	5.21	10.46
01/12/2010	0524	5.12	5.09	10.22
01/12/2010	0530	5.01	4.98	9.99
01/12/2010	0536	4.90	4.87	9.76
01/12/2010	0542	4.79	4.76	9.54
01/12/2010	0548	4.68	4.65	9.33
01/12/2010	0554	4.58	4.54	9.13
01/12/2010	0600	4.50	4.44	8.94
01/12/2010	0606	4.42	4.34	8.76
01/12/2010	0612	4.34	4.25	8.59
01/12/2010	0618	4.27	4.16	8.44
01/12/2010	0624	4.21	4.08	8.29
01/12/2010	0630	4.15	3.99	8.15
01/12/2010	0636	4.11	3.92	8.03
01/12/2010	0642	4.06	3.86	7.92
01/12/2010	0648	4.01	3.80	7.81
01/12/2010	0654	3.96	3.74	7.70
01/12/2010	0700	3.91	3.69	7.60
01/12/2010	0706	3.86	3.64	7.51
01/12/2010	0712	3.81	3.60	7.41
01/12/2010	0718	3.76	3.56	7.33
01/12/2010	0724	3.71	3.52	7.24
01/12/2010	0730	3.66	3.48	7.15
01/12/2010	0736	3.61	3.44	7.04
01/12/2010	0742	3.55	3.39	6.95
01/12/2010	0748	3.50	3.35	6.85
01/12/2010	0754	3.45	3.30	6.75
01/12/2010	0800	3.40	3.26	6.65
01/12/2010	0806	3.34	3.21	6.55
01/12/2010	0812	3.29	3.16	6.45
01/12/2010	0818	3.24	3.11	6.35
01/12/2010	0824	3.20	3.06	6.26
01/12/2010	0830	3.16	3.01	6.17
01/12/2010	0836	3.11	2.97	6.08
01/12/2010	0842	3.07	2.92	5.99
01/12/2010	0848	3.02	2.88	5.90
01/12/2010	0854	2.98	2.84	5.82
01/12/2010	0900	2.94	2.79	5.74
01/12/2010	0906	2.90	2.76	5.66
01/12/2010	0912	2.86	2.72	5.59
01/12/2010	0918	2.84	2.69	5.52
01/12/2010	0924	2.80	2.65	5.46
01/12/2010	0930	2.77	2.62	5.39
01/12/2010	0936	2.74	2.58	5.32
01/12/2010	0942	2.72	2.55	5.27
01/12/2010	0948	2.70	2.53	5.23
01/12/2010	0954	2.68	2.51	5.18
01/12/2010	1000	2.65	2.48	5.13
01/12/2010	1006	2.62	2.45	5.07
01/12/2010	1012	2.60	2.43	5.03
01/12/2010	1018	2.59	2.41	4.99
01/12/2010	1024	2.57	2.39	4.96
01/12/2010	1030	2.55	2.36	4.92
01/12/2010	1036	2.53	2.34	4.87
01/12/2010	1042	2.51	2.32	4.82
01/12/2010	1048	2.49	2.30	4.79
01/12/2010	1054	2.48	2.28	4.76

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1100	2.46	2.27	4.72
01/12/2010	1106	2.43	2.24	4.68
01/12/2010	1112	2.40	2.22	4.62
01/12/2010	1118	2.37	2.20	4.57
01/12/2010	1124	2.34	2.19	4.52
01/12/2010	1130	2.29	2.17	4.46
01/12/2010	1136	2.24	2.15	4.39
01/12/2010	1142	2.20	2.12	4.32
01/12/2010	1148	2.15	2.09	4.24
01/12/2010	1154	2.10	2.06	4.16
01/12/2010	1200	2.05	2.02	4.08
01/12/2010	1206	2.01	1.99	3.99
01/12/2010	1212	1.95	1.95	3.90
01/12/2010	1218	1.90	1.91	3.81
01/12/2010	1224	1.85	1.87	3.72
01/12/2010	1230	1.80	1.83	3.63
01/12/2010	1236	1.75	1.79	3.54
01/12/2010	1242	1.70	1.75	3.44
01/12/2010	1248	1.64	1.70	3.34
01/12/2010	1254	1.58	1.65	3.23
01/12/2010	1300	1.53	1.60	3.13
01/12/2010	1306	1.48	1.54	3.02
01/12/2010	1312	1.42	1.49	2.92
01/12/2010	1318	1.37	1.44	2.81
01/12/2010	1324	1.31	1.39	2.70
01/12/2010	1330	1.26	1.34	2.60
01/12/2010	1336	1.21	1.29	2.50
01/12/2010	1342	1.16	1.25	2.40
01/12/2010	1348	1.11	1.20	2.31
01/12/2010	1354	1.05	1.16	2.21
01/12/2010	1400	1.00	1.11	2.11
01/12/2010	1406	0.95	1.07	2.01
01/12/2010	1412	0.89	1.02	1.91
01/12/2010	1418	0.84	0.97	1.81
01/12/2010	1424	0.79	0.93	1.71
01/12/2010	1430	0.73	0.88	1.61
01/12/2010	1436	0.68	0.83	1.51
01/12/2010	1442	0.63	0.78	1.42
01/12/2010	1448	0.59	0.74	1.32
01/12/2010	1454	0.54	0.69	1.23
01/12/2010	1500	0.50	0.65	1.15
01/12/2010	1506	0.00	0.61	0.61
01/12/2010	1512	0.00	0.57	0.57
01/12/2010	1518	0.00	0.53	0.53
01/12/2010	1524	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01/12/2010\basin k-1\routed\10008.YD	01/12/2010	0000	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01/12/2010\basin k-2\routed\10008.YD	01/12/2010	0000	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0000	155	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0000	0.00	0.00	0.00
01/12/2010	0006	0.00	0.00	0.00
01/12/2010	0012	0.00	0.00	0.00
01/12/2010	0018	0.00	0.00	0.00
01/12/2010	0024	0.00	0.00	0.00
01/12/2010	0030	0.10	0.00	0.10
01/12/2010	0036	0.59	0.00	0.59
01/12/2010	0042	1.45	0.00	1.45
01/12/2010	0048	2.65	0.00	2.65
01/12/2010	0054	4.14	0.00	4.14
01/12/2010	0100	6.40	0.11	6.51
01/12/2010	0106	10.99	0.56	11.55
01/12/2010	0112	21.25	1.38	22.63
01/12/2010	0118	42.73	2.52	45.25
01/12/2010	0124	67.75	4.12	71.86
01/12/2010	0130	85.01	6.94	91.95
01/12/2010	0136	99.55	12.92	112.47
01/12/2010	0142	87.89	26.02	113.90
01/12/2010	0148	80.44	46.91	127.35
01/12/2010	0154	70.20	66.96	137.16
01/12/2010	0200	57.63	80.35	137.98
01/12/2010	0206	47.98	83.06	131.04
01/12/2010	0212	40.13	77.57	117.70
01/12/2010	0218	33.80	67.79	101.60
01/12/2010	0224	28.84	56.69	85.53
01/12/2010	0230	23.03	47.38	70.40
01/12/2010	0236	20.27	39.51	59.78
01/12/2010	0242	18.18	33.17	51.35
01/12/2010	0248	16.60	27.50	44.10
01/12/2010	0254	15.36	22.37	37.74
01/12/2010	0300	14.41	19.50	33.90
01/12/2010	0306	13.46	17.40	30.86
01/12/2010	0312	12.64	15.84	28.48
01/12/2010	0318	11.90	14.63	26.53
01/12/2010	0324	11.23	13.55	24.78
01/12/2010	0330	10.65	12.56	23.21
01/12/2010	0336	10.10	11.74	21.83
01/12/2010	0342	9.61	11.03	20.64
01/12/2010	0348	9.21	10.39	19.60
01/12/2010	0354	8.87	9.82	18.70
01/12/2010	0400	8.58	9.32	17.89
01/12/2010	0406	8.30	8.86	17.16
01/12/2010	0412	8.05	8.46	16.50
01/12/2010	0418	7.81	8.11	15.92
01/12/2010	0424	7.61	7.80	15.41
01/12/2010	0430	7.41	7.54	14.95
01/12/2010	0436	7.22	7.30	14.51
01/12/2010	0442	7.03	7.08	14.11
01/12/2010	0448	6.86	6.88	13.74
01/12/2010	0454	6.70	6.70	13.40
01/12/2010	0500	6.55	6.53	13.08

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0506	6.40	6.37	12.78
01/12/2010	0512	6.26	6.22	12.48
01/12/2010	0518	6.12	6.07	12.19
01/12/2010	0524	5.98	5.93	11.91
01/12/2010	0530	5.85	5.80	11.65
01/12/2010	0536	5.72	5.67	11.39
01/12/2010	0542	5.60	5.54	11.14
01/12/2010	0548	5.49	5.42	10.91
01/12/2010	0554	5.38	5.30	10.68
01/12/2010	0600	5.27	5.18	10.45
01/12/2010	0606	5.17	5.07	10.24
01/12/2010	0612	5.07	4.96	10.03
01/12/2010	0618	5.00	4.85	9.85
01/12/2010	0624	4.93	4.75	9.67
01/12/2010	0630	4.86	4.65	9.52
01/12/2010	0636	4.80	4.57	9.37
01/12/2010	0642	4.74	4.50	9.24
01/12/2010	0648	4.68	4.43	9.11
01/12/2010	0654	4.63	4.37	8.99
01/12/2010	0700	4.57	4.31	8.88
01/12/2010	0706	4.52	4.26	8.78
01/12/2010	0712	4.47	4.21	8.68
01/12/2010	0718	4.41	4.16	8.57
01/12/2010	0724	4.35	4.11	8.46
01/12/2010	0730	4.29	4.07	8.36
01/12/2010	0736	4.23	4.02	8.25
01/12/2010	0742	4.17	3.97	8.13
01/12/2010	0748	4.11	3.91	8.02
01/12/2010	0754	4.04	3.86	7.90
01/12/2010	0800	3.98	3.80	7.77
01/12/2010	0806	3.92	3.74	7.65
01/12/2010	0812	3.86	3.68	7.54
01/12/2010	0818	3.80	3.63	7.42
01/12/2010	0824	3.74	3.57	7.31
01/12/2010	0830	3.69	3.51	7.20
01/12/2010	0836	3.63	3.46	7.09
01/12/2010	0842	3.58	3.41	6.99
01/12/2010	0848	3.53	3.36	6.90
01/12/2010	0854	3.48	3.31	6.80
01/12/2010	0900	3.43	3.26	6.70
01/12/2010	0906	3.39	3.22	6.61
01/12/2010	0912	3.36	3.18	6.54
01/12/2010	0918	3.32	3.14	6.46
01/12/2010	0924	3.28	3.09	6.38
01/12/2010	0930	3.25	3.05	6.30
01/12/2010	0936	3.23	3.00	6.23
01/12/2010	0942	3.20	2.97	6.16
01/12/2010	0948	3.16	2.94	6.10
01/12/2010	0954	3.13	2.91	6.05
01/12/2010	1000	3.11	2.88	5.99
01/12/2010	1006	3.08	2.85	5.93
01/12/2010	1012	3.05	2.82	5.87
01/12/2010	1018	3.02	2.80	5.83
01/12/2010	1024	3.00	2.78	5.78
01/12/2010	1030	2.98	2.76	5.74
01/12/2010	1036	2.96	2.73	5.69
01/12/2010	1042	2.93	2.71	5.64
01/12/2010	1048	2.91	2.69	5.60
01/12/2010	1054	2.89	2.67	5.57

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1100	2.87	2.65	5.52
01/12/2010	1106	2.84	2.63	5.47
01/12/2010	1112	2.80	2.61	5.41
01/12/2010	1118	2.76	2.59	5.35
01/12/2010	1124	2.72	2.57	5.29
01/12/2010	1130	2.68	2.55	5.23
01/12/2010	1136	2.62	2.52	5.15
01/12/2010	1142	2.57	2.49	5.07
01/12/2010	1148	2.52	2.46	4.98
01/12/2010	1154	2.46	2.42	4.88
01/12/2010	1200	2.40	2.38	4.78
01/12/2010	1206	2.35	2.33	4.68
01/12/2010	1212	2.29	2.28	4.56
01/12/2010	1218	2.22	2.22	4.44
01/12/2010	1224	2.15	2.17	4.32
01/12/2010	1230	2.09	2.12	4.20
01/12/2010	1236	2.02	2.06	4.08
01/12/2010	1242	1.95	2.01	3.96
01/12/2010	1248	1.90	1.95	3.85
01/12/2010	1254	1.83	1.90	3.73
01/12/2010	1300	1.77	1.85	3.62
01/12/2010	1306	1.71	1.80	3.51
01/12/2010	1312	1.65	1.74	3.39
01/12/2010	1318	1.58	1.68	3.27
01/12/2010	1324	1.52	1.63	3.15
01/12/2010	1330	1.46	1.57	3.03
01/12/2010	1336	1.39	1.52	2.91
01/12/2010	1342	1.33	1.46	2.79
01/12/2010	1348	1.26	1.40	2.66
01/12/2010	1354	1.21	1.34	2.55
01/12/2010	1400	1.15	1.29	2.44
01/12/2010	1406	1.09	1.23	2.33
01/12/2010	1412	1.03	1.18	2.21
01/12/2010	1418	0.96	1.13	2.09
01/12/2010	1424	0.90	1.08	1.98
01/12/2010	1430	0.83	1.02	1.86
01/12/2010	1436	0.77	0.96	1.73
01/12/2010	1442	0.71	0.90	1.61
01/12/2010	1448	0.65	0.85	1.50
01/12/2010	1454	0.60	0.79	1.39
01/12/2010	1500	0.55	0.73	1.28
01/12/2010	1506	0.00	0.68	0.68
01/12/2010	1512	0.00	0.63	0.63
01/12/2010	1518	0.00	0.58	0.58
01/12/2010	1524	0.00	0.00	0.00

POST TO
DETENTION BASIN L-1

BRINKASH

ASSOCIATES, INC.

SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

DETENTION BASIN L-1

POST AREA 'L'

DRAINAGE AREA = 10.35 AC.

BOTTOM 1495
SPILLWAY 1498
TOP 1499

$T_c = 19.5$ minutes

CN = 82.31

POST TO BASIN

RUNTED FLOWRATES

$Q_1 = 14.4$ cfs

$Q_1 = 0.93$ cfs

$Q_2 = 20.0$ cfs

$Q_2 = 2.62$ cfs

$Q_{10} = 40.4$ cfs

$Q_{10} = 13.12$ cfs

$Q_{25} = 48.4$ cfs

$Q_{25} = 15.78$ cfs

$Q_{50} = 54.4$ cfs

$Q_{50} = 17.60$ cfs

$Q_{100} = 63.6$ cfs

$Q_{100} = 26.04$ cfs

TRAVEL TIME TO P.O.I

$T_L = 30.19$ minutes

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

1 Year Type II Storm: Precipitation = 3 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	10.350	82	0.143	1.40	19.500	18.000	0.000	1.500
Composite	10.350	82		1.40				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

1 Year Type II Storm: Precipitation = 3 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	2	14	7	3	2	1	1	1	1	0	0
Composite	0	2	14	7	3	2	1	1	1	1	0	0

The peak flow is 14.4 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	10.350	82	0.119	1.89	19.500	18.000	0.000	1.500
Composite	10.350	82		1.89				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	3	19	9	4	2	2	1	1	1	0	0
Composite	1	3	19	9	4	2	2	1	1	1	0	0

The peak flow is 20.0 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	10.350	82	0.100	3.74	19.500	18.000	0.000	1.500
Composite	10.350	82		3.74				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	7	39	18	7	4	3	3	2	1	1	0
Composite	1	7	39	18	7	4	3	3	2	1	1	0

The peak flow is 40.4 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	10.350	82	0.100	4.48	19.500	18.000	0.000	1.500
Composite	10.350	82		4.48				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	8	47	22	9	5	4	3	2	1	1	0
Composite	1	8	47	22	9	5	4	3	2	1	1	0

The peak flow is 48.4 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	10.350	82	0.100	5.04	19.500	18.000	0.000	1.500
Composite	10.350	82		5.04				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	9	53	25	10	5	4	3	3	2	1	0
Composite	2	9	53	25	10	5	4	3	3	2	1	0

The peak flow is 54.4 cfs at 12.3 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	10.350	82	0.100	5.90	19.500	18.000	0.000	1.500
Composite	10.350	82		5.90				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-1

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	11	62	29	11	6	5	4	3	2	1	0
Composite	2	11	62	29	11	6	5	4	3	2	1	0

The peak flow is 63.6 cfs at 12.3 hrs.

BASIN L-1

Basin Storage/Elevation Input

Elevation (ft)	Area (acres)	Storage (acre-ft)
1495.00	.58	0.000
1497.00	.68	1.260
1498.00	.73	1.965

Project Files:

Outlet Structure Configuration: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\I-1.OSC

Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\I-1.EO

Outlet Structure Configuration for:

Stage 1: Circular Orifice

Invert Elevation = 1495.75 feet

Diameter = 1 feet

Discharge Coefficient = 0.6

Stage 2: Rectangular Orifice

Invert Elevation = 1496 feet

Width = 2.5 feet

Height = 1 feet

Discharge Coefficient = 0.6

Stage 3: Emergency Spillway

Crest Elevation = 1498 feet

Crest Length = 10 feet

Discharge Coefficient = 3

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1495.00	0.00	N/A	N/A	N/A	N/A
1495.10	0.00	N/A	N/A	N/A	N/A
1495.20	0.00	N/A	N/A	N/A	N/A
1495.30	0.00	N/A	N/A	N/A	N/A
1495.40	0.00	N/A	N/A	N/A	N/A
1495.50	0.00	N/A	N/A	N/A	N/A
1495.60	0.00	N/A	N/A	N/A	N/A
1495.70	0.00	N/A	N/A	N/A	N/A
1495.80	0.01	N/A	N/A	N/A	N/A
1495.90	0.07	N/A	N/A	N/A	N/A
1496.00	0.20	N/A	N/A	N/A	N/A
1496.10	0.62	N/A	N/A	N/A	N/A
1496.20	1.29	N/A	N/A	N/A	N/A
1496.30	2.15	N/A	N/A	N/A	N/A
1496.40	3.17	N/A	N/A	N/A	N/A
1496.50	4.33	N/A	N/A	N/A	N/A
1496.60	5.57	N/A	N/A	N/A	N/A
1496.70	6.87	N/A	N/A	N/A	N/A
1496.80	8.37	N/A	N/A	N/A	N/A
1496.90	9.69	N/A	N/A	N/A	N/A
1497.00	11.05	N/A	N/A	N/A	N/A
1497.10	12.81	N/A	N/A	N/A	N/A
1497.20	13.76	N/A	N/A	N/A	N/A
1497.30	14.64	N/A	N/A	N/A	N/A
1497.40	15.48	N/A	N/A	N/A	N/A
1497.50	16.27	N/A	N/A	N/A	N/A
1497.60	17.02	N/A	N/A	N/A	N/A
1497.70	17.74	N/A	N/A	N/A	N/A
1497.80	18.43	N/A	N/A	N/A	N/A
1497.90	19.10	N/A	N/A	N/A	N/A
1498.00	19.75	N/A	N/A	N/A	N/A
1498.10	21.32	N/A	N/A	N/A	N/A
1498.20	23.66	N/A	N/A	N/A	N/A
1498.30	26.49	N/A	N/A	N/A	N/A

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1498.40	29.73	N/A	N/A	N/A	N/A
1498.50	33.30	N/A	N/A	N/A	N/A
1498.60	37.18	N/A	N/A	N/A	N/A
1498.70	41.34	N/A	N/A	N/A	N/A
1498.80	45.76	N/A	N/A	N/A	N/A
1498.90	50.42	N/A	N/A	N/A	N/A
1499.00	55.30	N/A	N/A	N/A	N/A

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.100000 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.40	0.40	0.0000	1495.00	0.000	0.000
0.10	0.40	0.40	0.0033	1495.01	0.000	0.000
0.20	0.40	0.40	0.0066	1495.01	0.000	0.000
0.30	0.50	0.50	0.0103	1495.02	0.000	0.000
0.40	0.60	0.60	0.0149	1495.02	0.000	0.000
0.50	0.60	0.60	0.0198	1495.03	0.000	0.000
0.60	0.70	0.70	0.0252	1495.04	0.000	0.000
0.70	1.20	1.20	0.0331	1495.05	0.000	0.000
0.80	1.60	1.60	0.0446	1495.07	0.000	0.000
0.90	2.00	2.00	0.0595	1495.09	0.000	0.000
1.00	4.20	4.20	0.0851	1495.14	0.000	0.000
1.10	8.50	8.50	0.1376	1495.22	0.000	0.000
1.20	13.70	13.70	0.2293	1495.36	0.000	0.000
1.30	14.40	14.40	0.3455	1495.55	0.000	0.000
1.40	10.70	10.70	0.4492	1495.71	0.001	0.001
1.50	7.10	7.10	0.5226	1495.83	0.028	0.028
1.60	5.00	5.00	0.5721	1495.91	0.084	0.084
1.70	3.70	3.70	0.6071	1495.96	0.152	0.152
1.80	2.90	2.90	0.6329	1496.01	0.215	0.215
1.90	2.40	2.40	0.6525	1496.04	0.346	0.346
2.00	2.00	2.00	0.6674	1496.06	0.446	0.446
2.10	1.80	1.80	0.6791	1496.08	0.52	0.52
2.20	1.60	1.60	0.6885	1496.09	0.59	0.59
2.30	1.50	1.50	0.6962	1496.11	0.65	0.65
2.40	1.40	1.40	0.7025	1496.12	0.72	0.72
2.50	1.30	1.30	0.7075	1496.12	0.77	0.77
2.60	1.30	1.30	0.7117	1496.13	0.82	0.82
2.70	1.20	1.20	0.7151	1496.14	0.85	0.85
2.80	1.10	1.10	0.7175	1496.14	0.88	0.88
2.90	1.10	1.10	0.7192	1496.14	0.90	0.90
3.00	1.00	1.00	0.7204	1496.14	0.91	0.91
3.10	1.00	1.00	0.7211	1496.15	0.92	0.92
3.20	1.00	1.00	0.7218	1496.15	0.93	0.93
3.30	0.90	0.90	0.7219	1496.15	0.93	0.93
3.40	0.90	0.90	0.7217	1496.15	0.93	0.93
3.50	0.90	0.90	0.7215	1496.15	0.92	0.92
3.60	0.80	0.80	0.7209	1496.14	0.92	0.92
3.70	0.80	0.80	0.7200	1496.14	0.91	0.91
3.80	0.80	0.80	0.7192	1496.14	0.90	0.90
3.90	0.80	0.80	0.7184	1496.14	0.89	0.89
4.00	0.80	0.80	0.7177	1496.14	0.88	0.88
4.10	0.80	0.80	0.7170	1496.14	0.88	0.88
4.20	0.70	0.70	0.7161	1496.14	0.86	0.86
4.30	0.70	0.70	0.7148	1496.14	0.85	0.85
4.40	0.70	0.70	0.7136	1496.13	0.84	0.84
4.50	0.70	0.70	0.7125	1496.13	0.83	0.83
4.60	0.70	0.70	0.7115	1496.13	0.82	0.82
4.70	0.70	0.70	0.7106	1496.13	0.81	0.81

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.60	0.60	0.7093	1496.13	0.79	0.79
4.90	0.60	0.60	0.7078	1496.12	0.78	0.78
5.00	0.60	0.60	0.7064	1496.12	0.76	0.76
5.10	0.60	0.60	0.7051	1496.12	0.75	0.75
5.20	0.60	0.60	0.7040	1496.12	0.73	0.73
5.30	0.60	0.60	0.7029	1496.12	0.72	0.72
5.40	0.60	0.60	0.7019	1496.11	0.71	0.71
5.50	0.50	0.50	0.7006	1496.11	0.70	0.70
5.60	0.50	0.50	0.6991	1496.11	0.68	0.68
5.70	0.50	0.50	0.6976	1496.11	0.67	0.67
5.80	0.50	0.50	0.6963	1496.11	0.65	0.65
5.90	0.50	0.50	0.6951	1496.10	0.64	0.64
6.00	0.50	0.50	0.6940	1496.10	0.63	0.63
6.10	0.50	0.50	0.6930	1496.10	0.62	0.62
6.20	0.50	0.50	0.6920	1496.10	0.61	0.61
6.30	0.50	0.50	0.6912	1496.10	0.60	0.60
6.40	0.50	0.50	0.6903	1496.10	0.60	0.60
6.50	0.50	0.50	0.6895	1496.09	0.59	0.59
6.60	0.50	0.50	0.6888	1496.09	0.59	0.59
6.70	0.50	0.50	0.6881	1496.09	0.58	0.58
6.80	0.50	0.50	0.6874	1496.09	0.58	0.58
6.90	0.50	0.50	0.6867	1496.09	0.58	0.58
7.00	0.50	0.50	0.6861	1496.09	0.57	0.57
7.10	0.50	0.50	0.6856	1496.09	0.57	0.57
7.20	0.40	0.40	0.6846	1496.09	0.56	0.56
7.30	0.40	0.40	0.6833	1496.09	0.55	0.55
7.40	0.40	0.40	0.6821	1496.08	0.54	0.54
7.50	0.40	0.40	0.6809	1496.08	0.54	0.54
7.60	0.40	0.40	0.6798	1496.08	0.53	0.53
7.70	0.40	0.40	0.6788	1496.08	0.52	0.52
7.80	0.40	0.40	0.6778	1496.08	0.52	0.52
7.90	0.40	0.40	0.6769	1496.07	0.51	0.51
8.00	0.40	0.40	0.6760	1496.07	0.50	0.50
8.10	0.40	0.40	0.6752	1496.07	0.498	0.498
8.20	0.40	0.40	0.6744	1496.07	0.493	0.493
8.30	0.40	0.40	0.6736	1496.07	0.488	0.488
8.40	0.40	0.40	0.6729	1496.07	0.483	0.483
8.50	0.40	0.40	0.6723	1496.07	0.479	0.479
8.60	0.40	0.40	0.6716	1496.07	0.474	0.474
8.70	0.40	0.40	0.6710	1496.07	0.470	0.470
8.80	0.40	0.40	0.6705	1496.06	0.467	0.467
8.90	0.30	0.30	0.6695	1496.06	0.460	0.460
9.00	0.30	0.30	0.6683	1496.06	0.452	0.452
9.10	0.30	0.30	0.6670	1496.06	0.443	0.443
9.20	0.30	0.30	0.6659	1496.06	0.436	0.436
9.30	0.30	0.30	0.6648	1496.06	0.428	0.428
9.40	0.30	0.30	0.6638	1496.05	0.422	0.422
9.50	0.30	0.30	0.6628	1496.05	0.415	0.415
9.60	0.30	0.30	0.6619	1496.05	0.409	0.409
9.70	0.30	0.30	0.6610	1496.05	0.403	0.403
9.80	0.30	0.30	0.6601	1496.05	0.397	0.397
9.90	0.30	0.30	0.6594	1496.05	0.392	0.392
10.00	0.30	0.30	0.6586	1496.05	0.387	0.387
10.10	0.30	0.30	0.6579	1496.04	0.383	0.383
10.20	0.30	0.30	0.6573	1496.04	0.378	0.378
10.30	0.30	0.30	0.6566	1496.04	0.374	0.374
10.40	0.30	0.30	0.6560	1496.04	0.370	0.370
10.50	0.30	0.30	0.6555	1496.04	0.366	0.366

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.30	0.30	0.6549	1496.04	0.363	0.363
10.70	0.30	0.30	0.6544	1496.04	0.359	0.359
10.80	0.30	0.30	0.6540	1496.04	0.356	0.356
10.90	0.30	0.30	0.6535	1496.04	0.353	0.353
11.00	0.30	0.30	0.6531	1496.04	0.350	0.350
11.10	0.30	0.30	0.6527	1496.04	0.348	0.348
11.20	0.30	0.30	0.6523	1496.04	0.345	0.345
11.30	0.30	0.30	0.6519	1496.04	0.343	0.343
11.40	0.30	0.30	0.6516	1496.03	0.340	0.340
11.50	0.30	0.30	0.6513	1496.03	0.338	0.338
11.60	0.30	0.30	0.6510	1496.03	0.336	0.336
11.70	0.30	0.30	0.6507	1496.03	0.334	0.334
11.80	0.20	0.20	0.6500	1496.03	0.330	0.330
11.90	0.20	0.20	0.6490	1496.03	0.323	0.323
12.00	0.20	0.20	0.6480	1496.03	0.316	0.316
12.10	0.20	0.20	0.6470	1496.03	0.310	0.310
12.20	0.20	0.20	0.6461	1496.03	0.304	0.304
12.30	0.20	0.20	0.6453	1496.02	0.298	0.298
12.40	0.20	0.20	0.6445	1496.02	0.293	0.293
12.50	0.20	0.20	0.6438	1496.02	0.288	0.288
12.60	0.20	0.20	0.6431	1496.02	0.283	0.283
12.70	0.20	0.20	0.6424	1496.02	0.279	0.279
12.80	0.20	0.20	0.6418	1496.02	0.275	0.275
12.90	0.20	0.20	0.6412	1496.02	0.271	0.271
13.00	0.20	0.20	0.6406	1496.02	0.267	0.267
13.10	0.10	0.10	0.6397	1496.02	0.261	0.261
13.20	0.10	0.10	0.6384	1496.01	0.252	0.252
13.30	0.10	0.10	0.6371	1496.01	0.244	0.244
13.40	0.10	0.10	0.6360	1496.01	0.236	0.236
13.50	0.10	0.10	0.6349	1496.01	0.229	0.229
13.60	0.10	0.10	0.6339	1496.01	0.222	0.222
13.70	0.10	0.10	0.6329	1496.01	0.215	0.215
13.80	0.10	0.10	0.6320	1496.00	0.209	0.209
13.90	0.10	0.10	0.6311	1496.00	0.203	0.203
14.00	0.10	0.10	0.6302	1496.00	0.198	0.198
14.10	0.10	0.10	0.6294	1496.00	0.195	0.195
14.20	0.10	0.10	0.6287	1496.00	0.193	0.193
14.30	0.10	0.10	0.6279	1496.00	0.192	0.192
14.40	0.00	0.00	0.6267	1496.00	0.190	0.190
14.50	0.00	0.00	0.6252	1495.99	0.187	0.187
14.60	0.00	0.00	0.6237	1495.99	0.184	0.184
14.70	0.00	0.00	0.6221	1495.99	0.181	0.181
14.80	0.00	0.00	0.6207	1495.99	0.178	0.178
14.90	0.00	0.00	0.6192	1495.98	0.175	0.175
15.00	0.00	0.00	0.6178	1495.98	0.172	0.172

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.100000 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.40	0.40	0.0000	1495.00	0.000	0.000
Max. Inflow	1.30	14.40	14.40	0.3455	1495.55	0.000	0.000
Max. Outflow	3.40	0.90	0.90	0.7217	1496.15	0.93	0.93
Max. Elev.	3.50	0.90	0.90	0.7215	1496.15	0.92	0.92
Final	15.00	0.00	0.00	0.6178	1495.98	0.172	0.172

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.50	0.50	0.0000	1495.00	0.000	0.000
0.10	0.60	0.60	0.0045	1495.01	0.000	0.000
0.20	0.70	0.70	0.0099	1495.02	0.000	0.000
0.30	0.80	0.80	0.0161	1495.03	0.000	0.000
0.40	0.90	0.90	0.0231	1495.04	0.000	0.000
0.50	1.00	1.00	0.0310	1495.05	0.000	0.000
0.60	1.10	1.10	0.0397	1495.06	0.000	0.000
0.70	1.80	1.80	0.0517	1495.08	0.000	0.000
0.80	2.50	2.50	0.0694	1495.11	0.000	0.000
0.90	3.10	3.10	0.0926	1495.15	0.000	0.000
1.00	6.30	6.30	0.1314	1495.21	0.000	0.000
1.10	12.30	12.30	0.2083	1495.33	0.000	0.000
1.20	19.20	19.20	0.3384	1495.54	0.000	0.000
1.30	20.00	20.00	0.5004	1495.79	0.008	0.008
1.40	14.50	14.50	0.6418	1496.02	0.275	0.275
1.50	9.40	9.40	0.7350	1496.17	1.07	1.07
1.60	6.50	6.50	0.7891	1496.25	1.74	1.74
1.70	4.90	4.90	0.8200	1496.30	2.17	2.17
1.80	3.80	3.80	0.8369	1496.33	2.44	2.44
1.90	3.20	3.20	0.8451	1496.34	2.57	2.57
2.00	2.60	2.60	0.8476	1496.35	2.62	2.62
2.10	2.40	2.40	0.8467	1496.34	2.60	2.60
2.20	2.10	2.10	0.8440	1496.34	2.56	2.56
2.30	2.00	2.00	0.8401	1496.33	2.49	2.49
2.40	1.80	1.80	0.8355	1496.33	2.42	2.42
2.50	1.70	1.70	0.8303	1496.32	2.34	2.34
2.60	1.60	1.60	0.8250	1496.31	2.25	2.25
2.70	1.60	1.60	0.8200	1496.30	2.17	2.17
2.80	1.50	1.50	0.8151	1496.29	2.10	2.10
2.90	1.40	1.40	0.8100	1496.29	2.03	2.03
3.00	1.30	1.30	0.8047	1496.28	1.96	1.96
3.10	1.30	1.30	0.7996	1496.27	1.89	1.89
3.20	1.20	1.20	0.7946	1496.26	1.82	1.82
3.30	1.20	1.20	0.7897	1496.25	1.75	1.75
3.40	1.10	1.10	0.7850	1496.25	1.69	1.69
3.50	1.10	1.10	0.7804	1496.24	1.63	1.63
3.60	1.10	1.10	0.7763	1496.23	1.57	1.57
3.70	1.00	1.00	0.7722	1496.23	1.51	1.51
3.80	1.00	1.00	0.7682	1496.22	1.46	1.46
3.90	1.00	1.00	0.7646	1496.21	1.41	1.41
4.00	1.00	1.00	0.7614	1496.21	1.37	1.37
4.10	1.00	1.00	0.7585	1496.20	1.33	1.33
4.20	0.90	0.90	0.7556	1496.20	1.29	1.29
4.30	0.90	0.90	0.7525	1496.19	1.26	1.26
4.40	0.90	0.90	0.7497	1496.19	1.23	1.23
4.50	0.90	0.90	0.7471	1496.19	1.20	1.20
4.60	0.90	0.90	0.7448	1496.18	1.17	1.17
4.70	0.80	0.80	0.7422	1496.18	1.14	1.14

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	0.80	0.80	0.7395	1496.17	1.12	1.12
4.90	0.80	0.80	0.7370	1496.17	1.09	1.09
5.00	0.80	0.80	0.7347	1496.17	1.06	1.06
5.10	0.80	0.80	0.7326	1496.16	1.04	1.04
5.20	0.70	0.70	0.7303	1496.16	1.02	1.02
5.30	0.70	0.70	0.7278	1496.16	0.99	0.99
5.40	0.70	0.70	0.7255	1496.15	0.97	0.97
5.50	0.70	0.70	0.7234	1496.15	0.94	0.94
5.60	0.70	0.70	0.7215	1496.15	0.92	0.92
5.70	0.70	0.70	0.7197	1496.14	0.90	0.90
5.80	0.70	0.70	0.7181	1496.14	0.89	0.89
5.90	0.70	0.70	0.7166	1496.14	0.87	0.87
6.00	0.70	0.70	0.7153	1496.14	0.86	0.86
6.10	0.60	0.60	0.7136	1496.13	0.84	0.84
6.20	0.60	0.60	0.7117	1496.13	0.82	0.82
6.30	0.60	0.60	0.7100	1496.13	0.80	0.80
6.40	0.60	0.60	0.7084	1496.13	0.78	0.78
6.50	0.60	0.60	0.7070	1496.12	0.77	0.77
6.60	0.60	0.60	0.7057	1496.12	0.75	0.75
6.70	0.60	0.60	0.7045	1496.12	0.74	0.74
6.80	0.60	0.60	0.7034	1496.12	0.73	0.73
6.90	0.60	0.60	0.7023	1496.12	0.72	0.72
7.00	0.60	0.60	0.7014	1496.11	0.71	0.71
7.10	0.60	0.60	0.7006	1496.11	0.70	0.70
7.20	0.60	0.60	0.6998	1496.11	0.69	0.69
7.30	0.60	0.60	0.6991	1496.11	0.68	0.68
7.40	0.60	0.60	0.6984	1496.11	0.68	0.68
7.50	0.50	0.50	0.6974	1496.11	0.66	0.66
7.60	0.50	0.50	0.6961	1496.11	0.65	0.65
7.70	0.50	0.50	0.6949	1496.10	0.64	0.64
7.80	0.50	0.50	0.6939	1496.10	0.63	0.63
7.90	0.50	0.50	0.6928	1496.10	0.62	0.62
8.00	0.50	0.50	0.6919	1496.10	0.61	0.61
8.10	0.50	0.50	0.6910	1496.10	0.60	0.60
8.20	0.50	0.50	0.6902	1496.10	0.60	0.60
8.30	0.50	0.50	0.6894	1496.09	0.59	0.59
8.40	0.50	0.50	0.6887	1496.09	0.59	0.59
8.50	0.50	0.50	0.6880	1496.09	0.58	0.58
8.60	0.50	0.50	0.6873	1496.09	0.58	0.58
8.70	0.50	0.50	0.6866	1496.09	0.57	0.57
8.80	0.40	0.40	0.6856	1496.09	0.57	0.57
8.90	0.40	0.40	0.6843	1496.09	0.56	0.56
9.00	0.40	0.40	0.6830	1496.08	0.55	0.55
9.10	0.40	0.40	0.6818	1496.08	0.54	0.54
9.20	0.40	0.40	0.6807	1496.08	0.53	0.53
9.30	0.40	0.40	0.6796	1496.08	0.53	0.53
9.40	0.40	0.40	0.6786	1496.08	0.52	0.52
9.50	0.40	0.40	0.6776	1496.08	0.51	0.51
9.60	0.40	0.40	0.6767	1496.07	0.51	0.51
9.70	0.40	0.40	0.6758	1496.07	0.50	0.50
9.80	0.40	0.40	0.6750	1496.07	0.497	0.497
9.90	0.40	0.40	0.6742	1496.07	0.491	0.491
10.00	0.40	0.40	0.6735	1496.07	0.487	0.487
10.10	0.40	0.40	0.6728	1496.07	0.482	0.482
10.20	0.40	0.40	0.6721	1496.07	0.477	0.477
10.30	0.40	0.40	0.6715	1496.07	0.473	0.473
10.40	0.40	0.40	0.6709	1496.07	0.469	0.469
10.50	0.40	0.40	0.6703	1496.06	0.466	0.466

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.40	0.40	0.6698	1496.06	0.462	0.462
10.70	0.40	0.40	0.6693	1496.06	0.459	0.459
10.80	0.40	0.40	0.6688	1496.06	0.456	0.456
10.90	0.40	0.40	0.6684	1496.06	0.453	0.453
11.00	0.40	0.40	0.6680	1496.06	0.450	0.450
11.10	0.40	0.40	0.6676	1496.06	0.447	0.447
11.20	0.40	0.40	0.6672	1496.06	0.445	0.445
11.30	0.40	0.40	0.6668	1496.06	0.442	0.442
11.40	0.30	0.30	0.6661	1496.06	0.437	0.437
11.50	0.30	0.30	0.6650	1496.06	0.430	0.430
11.60	0.30	0.30	0.6640	1496.05	0.423	0.423
11.70	0.30	0.30	0.6630	1496.05	0.416	0.416
11.80	0.30	0.30	0.6620	1496.05	0.410	0.410
11.90	0.30	0.30	0.6611	1496.05	0.404	0.404
12.00	0.30	0.30	0.6603	1496.05	0.399	0.399
12.10	0.30	0.30	0.6595	1496.05	0.393	0.393
12.20	0.30	0.30	0.6588	1496.05	0.388	0.388
12.30	0.30	0.30	0.6581	1496.05	0.383	0.383
12.40	0.30	0.30	0.6574	1496.04	0.379	0.379
12.50	0.20	0.20	0.6563	1496.04	0.372	0.372
12.60	0.20	0.20	0.6550	1496.04	0.363	0.363
12.70	0.20	0.20	0.6537	1496.04	0.354	0.354
12.80	0.20	0.20	0.6524	1496.04	0.346	0.346
12.90	0.20	0.20	0.6512	1496.03	0.338	0.338
13.00	0.20	0.20	0.6501	1496.03	0.331	0.331
13.10	0.20	0.20	0.6491	1496.03	0.324	0.324
13.20	0.20	0.20	0.6481	1496.03	0.317	0.317
13.30	0.20	0.20	0.6471	1496.03	0.311	0.311
13.40	0.20	0.20	0.6463	1496.03	0.305	0.305
13.50	0.10	0.10	0.6450	1496.02	0.296	0.296
13.60	0.10	0.10	0.6434	1496.02	0.286	0.286
13.70	0.10	0.10	0.6419	1496.02	0.276	0.276
13.80	0.10	0.10	0.6405	1496.02	0.266	0.266
13.90	0.10	0.10	0.6392	1496.02	0.257	0.257
14.00	0.10	0.10	0.6379	1496.01	0.249	0.249
14.10	0.10	0.10	0.6367	1496.01	0.241	0.241
14.20	0.10	0.10	0.6356	1496.01	0.233	0.233
14.30	0.10	0.10	0.6345	1496.01	0.226	0.226
14.40	0.10	0.10	0.6335	1496.01	0.219	0.219
14.50	0.00	0.00	0.6321	1496.00	0.210	0.210
14.60	0.00	0.00	0.6305	1496.00	0.199	0.199
14.70	0.00	0.00	0.6288	1496.00	0.194	0.194
14.80	0.00	0.00	0.6272	1496.00	0.191	0.191
14.90	0.00	0.00	0.6257	1495.99	0.188	0.188
15.00	0.00	0.00	0.6241	1495.99	0.185	0.185

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.50	0.50	0.0000	1495.00	0.000	0.000
Max. Inflow	1.30	20.00	20.00	0.5004	1495.79	0.008	0.008
Max. Outflow	2.00	2.60	2.60	0.8476	1496.35	2.62	2.62
Final	15.00	0.00	0.00	0.6241	1495.99	0.185	0.185

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.20	1.20	0.0000	1495.00	0.000	0.000
0.10	1.40	1.40	0.0107	1495.02	0.000	0.000
0.20	1.50	1.50	0.0227	1495.04	0.000	0.000
0.30	1.70	1.70	0.0360	1495.06	0.000	0.000
0.40	1.90	1.90	0.0508	1495.08	0.000	0.000
0.50	2.20	2.20	0.0678	1495.11	0.000	0.000
0.60	2.50	2.50	0.0872	1495.14	0.000	0.000
0.70	3.90	3.90	0.1136	1495.18	0.000	0.000
0.80	5.40	5.40	0.1521	1495.24	0.000	0.000
0.90	6.90	6.90	0.2029	1495.32	0.000	0.000
1.00	13.50	13.50	0.2872	1495.46	0.000	0.000
1.10	25.80	25.80	0.4496	1495.71	0.001	0.001
1.20	39.30	39.30	0.7151	1496.14	0.85	0.85
1.30	40.40	40.40	1.0171	1496.61	5.76	5.76
1.40	28.70	28.70	1.2353	1496.96	10.52	10.52
1.50	18.30	18.30	1.3330	1497.10	12.84	12.84
1.60	12.70	12.70	1.3538	1497.13	13.12	13.12
1.70	9.40	9.40	1.3376	1497.11	12.91	12.91
1.80	7.20	7.20	1.3027	1497.06	12.12	12.12
1.90	6.10	6.10	1.2618	1497.00	11.10	11.10
2.00	5.00	5.00	1.2197	1496.94	10.18	10.18
2.10	4.50	4.50	1.1784	1496.87	9.30	9.30
2.20	4.10	4.10	1.1404	1496.81	8.50	8.50
2.30	3.80	3.80	1.1061	1496.76	7.70	7.70
2.40	3.50	3.50	1.0756	1496.71	6.98	6.98
2.50	3.30	3.30	1.0484	1496.66	6.40	6.40
2.60	3.10	3.10	1.0240	1496.63	5.90	5.90
2.70	3.00	3.00	1.0022	1496.59	5.46	5.46
2.80	2.80	2.80	0.9827	1496.56	5.07	5.07
2.90	2.70	2.70	0.9650	1496.53	4.72	4.72
3.00	2.60	2.60	0.9491	1496.51	4.41	4.41
3.10	2.50	2.50	0.9349	1496.48	4.14	4.14
3.20	2.30	2.30	0.9215	1496.46	3.90	3.90
3.30	2.20	2.20	0.9089	1496.44	3.66	3.66
3.40	2.20	2.20	0.8976	1496.43	3.46	3.46
3.50	2.10	2.10	0.8876	1496.41	3.27	3.27
3.60	2.00	2.00	0.8782	1496.39	3.11	3.11
3.70	2.00	2.00	0.8696	1496.38	2.97	2.97
3.80	1.90	1.90	0.8617	1496.37	2.84	2.84
3.90	1.90	1.90	0.8544	1496.36	2.72	2.72
4.00	1.90	1.90	0.8480	1496.35	2.62	2.62
4.10	1.80	1.80	0.8420	1496.34	2.52	2.52
4.20	1.80	1.80	0.8364	1496.33	2.43	2.43
4.30	1.80	1.80	0.8315	1496.32	2.35	2.35
4.40	1.70	1.70	0.8268	1496.31	2.28	2.28
4.50	1.70	1.70	0.8223	1496.31	2.21	2.21
4.60	1.60	1.60	0.8180	1496.30	2.14	2.14
4.70	1.60	1.60	0.8138	1496.29	2.08	2.08

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.60	1.60	0.8100	1496.29	2.03	2.03
4.90	1.50	1.50	0.8063	1496.28	1.98	1.98
5.00	1.50	1.50	0.8025	1496.27	1.93	1.93
5.10	1.40	1.40	0.7988	1496.27	1.88	1.88
5.20	1.40	1.40	0.7950	1496.26	1.83	1.83
5.30	1.40	1.40	0.7917	1496.26	1.78	1.78
5.40	1.40	1.40	0.7887	1496.25	1.74	1.74
5.50	1.30	1.30	0.7857	1496.25	1.70	1.70
5.60	1.30	1.30	0.7826	1496.24	1.66	1.66
5.70	1.30	1.30	0.7798	1496.24	1.62	1.62
5.80	1.30	1.30	0.7773	1496.23	1.58	1.58
5.90	1.20	1.20	0.7747	1496.23	1.55	1.55
6.00	1.20	1.20	0.7720	1496.23	1.51	1.51
6.10	1.20	1.20	0.7695	1496.22	1.48	1.48
6.20	1.20	1.20	0.7674	1496.22	1.45	1.45
6.30	1.20	1.20	0.7654	1496.22	1.42	1.42
6.40	1.20	1.20	0.7637	1496.21	1.40	1.40
6.50	1.20	1.20	0.7621	1496.21	1.38	1.38
6.60	1.10	1.10	0.7604	1496.21	1.35	1.35
6.70	1.10	1.10	0.7584	1496.20	1.33	1.33
6.80	1.10	1.10	0.7566	1496.20	1.30	1.30
6.90	1.10	1.10	0.7550	1496.20	1.28	1.28
7.00	1.10	1.10	0.7536	1496.20	1.27	1.27
7.10	1.10	1.10	0.7523	1496.19	1.25	1.25
7.20	1.10	1.10	0.7511	1496.19	1.24	1.24
7.30	1.10	1.10	0.7499	1496.19	1.23	1.23
7.40	1.00	1.00	0.7485	1496.19	1.21	1.21
7.50	1.00	1.00	0.7469	1496.19	1.19	1.19
7.60	1.00	1.00	0.7453	1496.18	1.18	1.18
7.70	1.00	1.00	0.7439	1496.18	1.16	1.16
7.80	1.00	1.00	0.7426	1496.18	1.15	1.15
7.90	1.00	1.00	0.7414	1496.18	1.14	1.14
8.00	1.00	1.00	0.7403	1496.18	1.13	1.13
8.10	1.00	1.00	0.7394	1496.17	1.11	1.11
8.20	0.90	0.90	0.7381	1496.17	1.10	1.10
8.30	0.90	0.90	0.7365	1496.17	1.08	1.08
8.40	0.90	0.90	0.7350	1496.17	1.07	1.07
8.50	0.90	0.90	0.7337	1496.17	1.05	1.05
8.60	0.90	0.90	0.7325	1496.16	1.04	1.04
8.70	0.90	0.90	0.7314	1496.16	1.03	1.03
8.80	0.80	0.80	0.7299	1496.16	1.01	1.01
8.90	0.80	0.80	0.7283	1496.16	1.00	1.00
9.00	0.80	0.80	0.7267	1496.15	0.98	0.98
9.10	0.80	0.80	0.7253	1496.15	0.96	0.96
9.20	0.80	0.80	0.7240	1496.15	0.95	0.95
9.30	0.80	0.80	0.7228	1496.15	0.94	0.94
9.40	0.80	0.80	0.7217	1496.15	0.93	0.93
9.50	0.80	0.80	0.7207	1496.14	0.91	0.91
9.60	0.80	0.80	0.7198	1496.14	0.90	0.90
9.70	0.80	0.80	0.7190	1496.14	0.90	0.90
9.80	0.80	0.80	0.7182	1496.14	0.89	0.89
9.90	0.80	0.80	0.7176	1496.14	0.88	0.88
10.00	0.80	0.80	0.7169	1496.14	0.87	0.87
10.10	0.80	0.80	0.7163	1496.14	0.87	0.87
10.20	0.80	0.80	0.7158	1496.14	0.86	0.86
10.30	0.80	0.80	0.7153	1496.14	0.86	0.86
10.40	0.70	0.70	0.7145	1496.13	0.85	0.85
10.50	0.70	0.70	0.7133	1496.13	0.83	0.83

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.70	0.70	0.7122	1496.13	0.82	0.82
10.70	0.70	0.70	0.7113	1496.13	0.81	0.81
10.80	0.70	0.70	0.7104	1496.13	0.80	0.80
10.90	0.70	0.70	0.7095	1496.13	0.79	0.79
11.00	0.70	0.70	0.7088	1496.13	0.79	0.79
11.10	0.70	0.70	0.7081	1496.12	0.78	0.78
11.20	0.70	0.70	0.7075	1496.12	0.77	0.77
11.30	0.70	0.70	0.7069	1496.12	0.77	0.77
11.40	0.70	0.70	0.7064	1496.12	0.76	0.76
11.50	0.60	0.60	0.7055	1496.12	0.75	0.75
11.60	0.60	0.60	0.7043	1496.12	0.74	0.74
11.70	0.60	0.60	0.7032	1496.12	0.73	0.73
11.80	0.60	0.60	0.7022	1496.12	0.72	0.72
11.90	0.60	0.60	0.7013	1496.11	0.71	0.71
12.00	0.50	0.50	0.7001	1496.11	0.69	0.69
12.10	0.50	0.50	0.6985	1496.11	0.68	0.68
12.20	0.50	0.50	0.6971	1496.11	0.66	0.66
12.30	0.50	0.50	0.6959	1496.10	0.65	0.65
12.40	0.50	0.50	0.6947	1496.10	0.64	0.64
12.50	0.50	0.50	0.6936	1496.10	0.62	0.62
12.60	0.40	0.40	0.6922	1496.10	0.61	0.61
12.70	0.40	0.40	0.6905	1496.10	0.60	0.60
12.80	0.40	0.40	0.6889	1496.09	0.59	0.59
12.90	0.40	0.40	0.6874	1496.09	0.58	0.58
13.00	0.40	0.40	0.6860	1496.09	0.57	0.57
13.10	0.30	0.30	0.6842	1496.09	0.56	0.56
13.20	0.30	0.30	0.6821	1496.08	0.54	0.54
13.30	0.30	0.30	0.6801	1496.08	0.53	0.53
13.40	0.30	0.30	0.6783	1496.08	0.52	0.52
13.50	0.30	0.30	0.6765	1496.07	0.51	0.51
13.60	0.30	0.30	0.6749	1496.07	0.496	0.496
13.70	0.20	0.20	0.6729	1496.07	0.483	0.483
13.80	0.20	0.20	0.6706	1496.06	0.467	0.467
13.90	0.20	0.20	0.6685	1496.06	0.453	0.453
14.00	0.20	0.20	0.6664	1496.06	0.439	0.439
14.10	0.20	0.20	0.6645	1496.06	0.427	0.427
14.20	0.10	0.10	0.6623	1496.05	0.412	0.412
14.30	0.10	0.10	0.6598	1496.05	0.395	0.395
14.40	0.10	0.10	0.6574	1496.04	0.379	0.379
14.50	0.10	0.10	0.6552	1496.04	0.364	0.364
14.60	0.10	0.10	0.6530	1496.04	0.350	0.350
14.70	0.10	0.10	0.6510	1496.03	0.336	0.336
14.80	0.00	0.00	0.6487	1496.03	0.321	0.321
14.90	0.00	0.00	0.6461	1496.03	0.304	0.304
15.00	0.00	0.00	0.6437	1496.02	0.287	0.287

Total Routing Mass Balance Discrepancy is -0.12%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.20	1.20	0.0000	1495.00	0.000	0.000
Max. Inflow	1.30	40.40	40.40	1.0171	1496.61	5.76	5.76
Max. Outflow	1.60	12.70	12.70	1.3538	1497.13	13.12	13.12
Final	15.00	0.00	0.00	0.6437	1496.02	0.287	0.287

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.40	1.40	0.0000	1495.00	0.000	0.000
0.10	1.60	1.60	0.0124	1495.02	0.000	0.000
0.20	1.80	1.80	0.0264	1495.04	0.000	0.000
0.30	2.00	2.00	0.0421	1495.07	0.000	0.000
0.40	2.30	2.30	0.0599	1495.10	0.000	0.000
0.50	2.60	2.60	0.0802	1495.13	0.000	0.000
0.60	2.90	2.90	0.1029	1495.16	0.000	0.000
0.70	4.70	4.70	0.1343	1495.21	0.000	0.000
0.80	6.50	6.50	0.1806	1495.29	0.000	0.000
0.90	8.20	8.20	0.2413	1495.38	0.000	0.000
1.00	16.20	16.20	0.3421	1495.54	0.000	0.000
1.10	30.80	30.80	0.5362	1495.85	0.042	0.042
1.20	47.10	47.10	0.8471	1496.35	2.61	2.61
1.30	48.40	48.40	1.1914	1496.89	9.57	9.57
1.40	34.40	34.40	1.4354	1497.25	14.19	14.19
1.50	21.90	21.90	1.5453	1497.41	15.51	15.51
1.60	15.20	15.20	1.5693	1497.44	15.78	15.78
1.70	11.20	11.20	1.5489	1497.41	15.55	15.55
1.80	8.70	8.70	1.5047	1497.35	15.03	15.03
1.90	7.30	7.30	1.4494	1497.27	14.36	14.36
2.00	6.00	6.00	1.3888	1497.18	13.59	13.59
2.10	5.40	5.40	1.3272	1497.10	12.73	12.73
2.20	4.90	4.90	1.2704	1497.02	11.31	11.31
2.30	4.50	4.50	1.2203	1496.94	10.20	10.20
2.40	4.20	4.20	1.1759	1496.87	9.25	9.25
2.50	4.00	4.00	1.1368	1496.80	8.43	8.43
2.60	3.70	3.70	1.1023	1496.75	7.61	7.61
2.70	3.60	3.60	1.0725	1496.70	6.90	6.90
2.80	3.40	3.40	1.0466	1496.66	6.37	6.37
2.90	3.20	3.20	1.0232	1496.62	5.88	5.88
3.00	3.10	3.10	1.0024	1496.59	5.46	5.46
3.10	2.90	2.90	0.9836	1496.56	5.09	5.09
3.20	2.80	2.80	0.9665	1496.53	4.75	4.75
3.30	2.70	2.70	0.9512	1496.51	4.45	4.45
3.40	2.60	2.60	0.9374	1496.49	4.19	4.19
3.50	2.50	2.50	0.9248	1496.47	3.96	3.96
3.60	2.40	2.40	0.9132	1496.45	3.74	3.74
3.70	2.40	2.40	0.9029	1496.43	3.55	3.55
3.80	2.30	2.30	0.8937	1496.42	3.38	3.38
3.90	2.30	2.30	0.8853	1496.41	3.23	3.23
4.00	2.20	2.20	0.8778	1496.39	3.10	3.10
4.10	2.20	2.20	0.8708	1496.38	2.99	2.99
4.20	2.20	2.20	0.8647	1496.37	2.89	2.89
4.30	2.10	2.10	0.8589	1496.36	2.80	2.80
4.40	2.10	2.10	0.8535	1496.36	2.71	2.71
4.50	2.00	2.00	0.8484	1496.35	2.63	2.63
4.60	2.00	2.00	0.8435	1496.34	2.55	2.55
4.70	1.90	1.90	0.8389	1496.33	2.47	2.47

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.90	1.90	0.8345	1496.33	2.40	2.40
4.90	1.80	1.80	0.8302	1496.32	2.33	2.33
5.00	1.80	1.80	0.8260	1496.31	2.27	2.27
5.10	1.70	1.70	0.8220	1496.31	2.20	2.20
5.20	1.70	1.70	0.8181	1496.30	2.14	2.14
5.30	1.70	1.70	0.8147	1496.29	2.09	2.09
5.40	1.60	1.60	0.8112	1496.29	2.05	2.05
5.50	1.60	1.60	0.8077	1496.28	2.00	2.00
5.60	1.60	1.60	0.8046	1496.28	1.96	1.96
5.70	1.50	1.50	0.8014	1496.27	1.91	1.91
5.80	1.50	1.50	0.7982	1496.27	1.87	1.87
5.90	1.50	1.50	0.7953	1496.26	1.83	1.83
6.00	1.50	1.50	0.7927	1496.26	1.79	1.79
6.10	1.40	1.40	0.7900	1496.25	1.76	1.76
6.20	1.40	1.40	0.7872	1496.25	1.72	1.72
6.30	1.40	1.40	0.7847	1496.25	1.69	1.69
6.40	1.40	1.40	0.7825	1496.24	1.65	1.65
6.50	1.40	1.40	0.7805	1496.24	1.63	1.63
6.60	1.40	1.40	0.7787	1496.24	1.60	1.60
6.70	1.30	1.30	0.7767	1496.23	1.58	1.58
6.80	1.30	1.30	0.7746	1496.23	1.55	1.55
6.90	1.30	1.30	0.7727	1496.23	1.52	1.52
7.00	1.30	1.30	0.7709	1496.22	1.50	1.50
7.10	1.30	1.30	0.7694	1496.22	1.48	1.48
7.20	1.30	1.30	0.7680	1496.22	1.46	1.46
7.30	1.30	1.30	0.7668	1496.22	1.44	1.44
7.40	1.20	1.20	0.7653	1496.22	1.42	1.42
7.50	1.20	1.20	0.7636	1496.21	1.40	1.40
7.60	1.20	1.20	0.7620	1496.21	1.38	1.38
7.70	1.20	1.20	0.7607	1496.21	1.36	1.36
7.80	1.20	1.20	0.7594	1496.21	1.34	1.34
7.90	1.20	1.20	0.7583	1496.20	1.33	1.33
8.00	1.20	1.20	0.7574	1496.20	1.31	1.31
8.10	1.10	1.10	0.7561	1496.20	1.29	1.29
8.20	1.10	1.10	0.7546	1496.20	1.28	1.28
8.30	1.10	1.10	0.7532	1496.20	1.26	1.26
8.40	1.10	1.10	0.7519	1496.19	1.25	1.25
8.50	1.10	1.10	0.7507	1496.19	1.24	1.24
8.60	1.00	1.00	0.7492	1496.19	1.22	1.22
8.70	1.00	1.00	0.7475	1496.19	1.20	1.20
8.80	1.00	1.00	0.7459	1496.18	1.18	1.18
8.90	1.00	1.00	0.7444	1496.18	1.17	1.17
9.00	1.00	1.00	0.7431	1496.18	1.15	1.15
9.10	1.00	1.00	0.7419	1496.18	1.14	1.14
9.20	1.00	1.00	0.7407	1496.18	1.13	1.13
9.30	0.90	0.90	0.7393	1496.17	1.11	1.11
9.40	0.90	0.90	0.7376	1496.17	1.10	1.10
9.50	0.90	0.90	0.7361	1496.17	1.08	1.08
9.60	0.90	0.90	0.7347	1496.17	1.06	1.06
9.70	0.90	0.90	0.7334	1496.16	1.05	1.05
9.80	0.90	0.90	0.7322	1496.16	1.04	1.04
9.90	0.90	0.90	0.7311	1496.16	1.03	1.03
10.00	0.90	0.90	0.7301	1496.16	1.02	1.02
10.10	0.90	0.90	0.7292	1496.16	1.01	1.01
10.20	0.90	0.90	0.7284	1496.16	1.00	1.00
10.30	0.90	0.90	0.7276	1496.16	0.99	0.99
10.40	0.90	0.90	0.7269	1496.15	0.98	0.98
10.50	0.90	0.90	0.7263	1496.15	0.97	0.97

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.90	0.90	0.7257	1496.15	0.97	0.97
10.70	0.90	0.90	0.7251	1496.15	0.96	0.96
10.80	0.90	0.90	0.7246	1496.15	0.96	0.96
10.90	0.90	0.90	0.7242	1496.15	0.95	0.95
11.00	0.90	0.90	0.7238	1496.15	0.95	0.95
11.10	0.80	0.80	0.7230	1496.15	0.94	0.94
11.20	0.80	0.80	0.7219	1496.15	0.93	0.93
11.30	0.80	0.80	0.7209	1496.14	0.92	0.92
11.40	0.80	0.80	0.7200	1496.14	0.91	0.91
11.50	0.80	0.80	0.7191	1496.14	0.90	0.90
11.60	0.70	0.70	0.7180	1496.14	0.89	0.89
11.70	0.70	0.70	0.7165	1496.14	0.87	0.87
11.80	0.70	0.70	0.7152	1496.14	0.85	0.85
11.90	0.70	0.70	0.7139	1496.13	0.84	0.84
12.00	0.70	0.70	0.7128	1496.13	0.83	0.83
12.10	0.60	0.60	0.7114	1496.13	0.81	0.81
12.20	0.60	0.60	0.7097	1496.13	0.80	0.80
12.30	0.60	0.60	0.7082	1496.12	0.78	0.78
12.40	0.60	0.60	0.7067	1496.12	0.76	0.76
12.50	0.50	0.50	0.7050	1496.12	0.75	0.75
12.60	0.50	0.50	0.7031	1496.12	0.73	0.73
12.70	0.50	0.50	0.7013	1496.11	0.71	0.71
12.80	0.50	0.50	0.6997	1496.11	0.69	0.69
12.90	0.50	0.50	0.6982	1496.11	0.67	0.67
13.00	0.40	0.40	0.6964	1496.11	0.65	0.65
13.10	0.40	0.40	0.6944	1496.10	0.63	0.63
13.20	0.40	0.40	0.6926	1496.10	0.61	0.61
13.30	0.40	0.40	0.6908	1496.10	0.60	0.60
13.40	0.30	0.30	0.6888	1496.09	0.59	0.59
13.50	0.30	0.30	0.6865	1496.09	0.57	0.57
13.60	0.30	0.30	0.6843	1496.09	0.56	0.56
13.70	0.30	0.30	0.6822	1496.08	0.54	0.54
13.80	0.30	0.30	0.6802	1496.08	0.53	0.53
13.90	0.20	0.20	0.6780	1496.08	0.52	0.52
14.00	0.20	0.20	0.6754	1496.07	0.500	0.500
14.10	0.20	0.20	0.6730	1496.07	0.483	0.483
14.20	0.20	0.20	0.6707	1496.07	0.468	0.468
14.30	0.20	0.20	0.6686	1496.06	0.454	0.454
14.40	0.10	0.10	0.6661	1496.06	0.437	0.437
14.50	0.10	0.10	0.6634	1496.05	0.419	0.419
14.60	0.10	0.10	0.6609	1496.05	0.402	0.402
14.70	0.10	0.10	0.6584	1496.05	0.386	0.386
14.80	0.00	0.00	0.6557	1496.04	0.368	0.368
14.90	0.00	0.00	0.6528	1496.04	0.348	0.348
15.00	0.00	0.00	0.6500	1496.03	0.329	0.329

Total Routing Mass Balance Discrepancy is -0.12%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.40	1.40	0.0000	1495.00	0.000	0.000
Max. Inflow	1.30	48.40	48.40	1.1914	1496.89	9.57	9.57
Max. Outflow	1.60	15.20	15.20	1.5693	1497.44	15.78	15.78
Final	15.00	0.00	0.00	0.6500	1496.03	0.329	0.329

Modified Puls Routing

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.60	1.60	0.0000	1495.00	0.000	0.000
0.10	1.80	1.80	0.0140	1495.02	0.000	0.000
0.20	2.00	2.00	0.0298	1495.05	0.000	0.000
0.30	2.20	2.20	0.0471	1495.08	0.000	0.000
0.40	2.60	2.60	0.0669	1495.11	0.000	0.000
0.50	3.00	3.00	0.0901	1495.14	0.000	0.000
0.60	3.30	3.30	0.1161	1495.18	0.000	0.000
0.70	5.30	5.30	0.1517	1495.24	0.000	0.000
0.80	7.30	7.30	0.2037	1495.32	0.000	0.000
0.90	9.20	9.20	0.2719	1495.43	0.000	0.000
1.00	18.20	18.20	0.3851	1495.61	0.000	0.000
1.10	34.70	34.70	0.6031	1495.96	0.144	0.144
1.20	53.00	53.00	0.9469	1496.50	4.36	4.36
1.30	54.40	54.40	1.3207	1497.09	12.57	12.57
1.40	38.70	38.70	1.5875	1497.46	15.98	15.98
1.50	24.70	24.70	1.7118	1497.64	17.31	17.31
1.60	17.10	17.10	1.7403	1497.68	17.60	17.60
1.70	12.60	12.60	1.7184	1497.65	17.38	17.38
1.80	9.70	9.70	1.6690	1497.58	16.87	16.87
1.90	8.20	8.20	1.6064	1497.49	16.20	16.20
2.00	6.70	6.70	1.5373	1497.39	15.42	15.42
2.10	6.10	6.10	1.4662	1497.29	14.58	14.58
2.20	5.50	5.50	1.3973	1497.20	13.71	13.71
2.30	5.10	5.10	1.3315	1497.10	12.82	12.82
2.40	4.70	4.70	1.2721	1497.02	11.36	11.36
2.50	4.50	4.50	1.2210	1496.94	10.21	10.21
2.60	4.20	4.20	1.1765	1496.87	9.26	9.26
2.70	4.00	4.00	1.1372	1496.81	8.44	8.44
2.80	3.80	3.80	1.1030	1496.75	7.63	7.63
2.90	3.60	3.60	1.0734	1496.70	6.93	6.93
3.00	3.40	3.40	1.0474	1496.66	6.38	6.38
3.10	3.30	3.30	1.0243	1496.63	5.91	5.91
3.20	3.20	3.20	1.0040	1496.59	5.49	5.49
3.30	3.00	3.00	0.9857	1496.57	5.13	5.13
3.40	2.90	2.90	0.9691	1496.54	4.80	4.80
3.50	2.80	2.80	0.9542	1496.52	4.51	4.51
3.60	2.70	2.70	0.9407	1496.49	4.25	4.25
3.70	2.70	2.70	0.9288	1496.47	4.03	4.03
3.80	2.60	2.60	0.9182	1496.46	3.83	3.84
3.90	2.60	2.60	0.9087	1496.44	3.66	3.66
4.00	2.50	2.50	0.9002	1496.43	3.50	3.50
4.10	2.50	2.50	0.8925	1496.42	3.36	3.36
4.20	2.40	2.40	0.8855	1496.41	3.23	3.23
4.30	2.40	2.40	0.8790	1496.40	3.12	3.12
4.40	2.30	2.30	0.8731	1496.39	3.03	3.03
4.50	2.30	2.30	0.8674	1496.38	2.93	2.93
4.60	2.20	2.20	0.8621	1496.37	2.85	2.85
4.70	2.20	2.20	0.8571	1496.36	2.77	2.77

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.10	2.10	0.8523	1496.35	2.69	2.69
4.90	2.00	2.00	0.8473	1496.35	2.61	2.61
5.00	2.00	2.00	0.8426	1496.34	2.53	2.53
5.10	1.90	1.90	0.8381	1496.33	2.46	2.46
5.20	1.90	1.90	0.8337	1496.32	2.39	2.39
5.30	1.90	1.90	0.8299	1496.32	2.33	2.33
5.40	1.80	1.80	0.8262	1496.31	2.27	2.27
5.50	1.80	1.80	0.8226	1496.31	2.21	2.21
5.60	1.80	1.80	0.8194	1496.30	2.16	2.16
5.70	1.70	1.70	0.8162	1496.30	2.11	2.11
5.80	1.70	1.70	0.8130	1496.29	2.07	2.07
5.90	1.70	1.70	0.8101	1496.29	2.03	2.03
6.00	1.70	1.70	0.8075	1496.28	2.00	2.00
6.10	1.60	1.60	0.8048	1496.28	1.96	1.96
6.20	1.60	1.60	0.8020	1496.27	1.92	1.92
6.30	1.60	1.60	0.7995	1496.27	1.89	1.89
6.40	1.60	1.60	0.7972	1496.27	1.86	1.86
6.50	1.60	1.60	0.7952	1496.26	1.83	1.83
6.60	1.50	1.50	0.7930	1496.26	1.80	1.80
6.70	1.50	1.50	0.7907	1496.26	1.77	1.77
6.80	1.50	1.50	0.7886	1496.25	1.74	1.74
6.90	1.50	1.50	0.7868	1496.25	1.71	1.71
7.00	1.50	1.50	0.7851	1496.25	1.69	1.69
7.10	1.50	1.50	0.7836	1496.24	1.67	1.67
7.20	1.40	1.40	0.7819	1496.24	1.65	1.65
7.30	1.40	1.40	0.7800	1496.24	1.62	1.62
7.40	1.40	1.40	0.7782	1496.24	1.60	1.60
7.50	1.40	1.40	0.7767	1496.23	1.58	1.58
7.60	1.40	1.40	0.7753	1496.23	1.56	1.56
7.70	1.40	1.40	0.7741	1496.23	1.54	1.54
7.80	1.30	1.30	0.7726	1496.23	1.52	1.52
7.90	1.30	1.30	0.7709	1496.22	1.50	1.50
8.00	1.30	1.30	0.7694	1496.22	1.48	1.48
8.10	1.30	1.30	0.7680	1496.22	1.46	1.46
8.20	1.30	1.30	0.7668	1496.22	1.44	1.44
8.30	1.20	1.20	0.7653	1496.22	1.42	1.42
8.40	1.20	1.20	0.7636	1496.21	1.40	1.40
8.50	1.20	1.20	0.7620	1496.21	1.38	1.38
8.60	1.20	1.20	0.7607	1496.21	1.36	1.36
8.70	1.10	1.10	0.7590	1496.21	1.33	1.33
8.80	1.10	1.10	0.7572	1496.20	1.31	1.31
8.90	1.10	1.10	0.7556	1496.20	1.29	1.29
9.00	1.10	1.10	0.7541	1496.20	1.27	1.27
9.10	1.10	1.10	0.7527	1496.20	1.26	1.26
9.20	1.10	1.10	0.7515	1496.19	1.24	1.24
9.30	1.10	1.10	0.7503	1496.19	1.23	1.23
9.40	1.10	1.10	0.7493	1496.19	1.22	1.22
9.50	1.10	1.10	0.7483	1496.19	1.21	1.21
9.60	1.10	1.10	0.7474	1496.19	1.20	1.20
9.70	1.00	1.00	0.7462	1496.19	1.19	1.19
9.80	1.00	1.00	0.7448	1496.18	1.17	1.17
9.90	1.00	1.00	0.7434	1496.18	1.16	1.16
10.00	1.00	1.00	0.7421	1496.18	1.14	1.14
10.10	1.00	1.00	0.7410	1496.18	1.13	1.13
10.20	1.00	1.00	0.7400	1496.18	1.12	1.12
10.30	1.00	1.00	0.7390	1496.17	1.11	1.11
10.40	1.00	1.00	0.7381	1496.17	1.10	1.10
10.50	1.00	1.00	0.7373	1496.17	1.09	1.09

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.00	1.00	0.7366	1496.17	1.08	1.08
10.70	1.00	1.00	0.7359	1496.17	1.08	1.08
10.80	1.00	1.00	0.7353	1496.17	1.07	1.07
10.90	1.00	1.00	0.7347	1496.17	1.06	1.06
11.00	1.00	1.00	0.7342	1496.17	1.06	1.06
11.10	1.00	1.00	0.7338	1496.17	1.05	1.05
11.20	0.90	0.90	0.7329	1496.16	1.05	1.05
11.30	0.90	0.90	0.7318	1496.16	1.03	1.03
11.40	0.90	0.90	0.7307	1496.16	1.02	1.02
11.50	0.90	0.90	0.7298	1496.16	1.01	1.01
11.60	0.80	0.80	0.7285	1496.16	1.00	1.00
11.70	0.80	0.80	0.7269	1496.15	0.98	0.98
11.80	0.80	0.80	0.7255	1496.15	0.97	0.97
11.90	0.80	0.80	0.7242	1496.15	0.95	0.95
12.00	0.70	0.70	0.7226	1496.15	0.93	0.93
12.10	0.70	0.70	0.7207	1496.14	0.91	0.91
12.20	0.70	0.70	0.7190	1496.14	0.90	0.90
12.30	0.70	0.70	0.7175	1496.14	0.88	0.88
12.40	0.60	0.60	0.7157	1496.14	0.86	0.86
12.50	0.60	0.60	0.7136	1496.13	0.84	0.84
12.60	0.60	0.60	0.7117	1496.13	0.82	0.82
12.70	0.60	0.60	0.7100	1496.13	0.80	0.80
12.80	0.50	0.50	0.7080	1496.12	0.78	0.78
12.90	0.50	0.50	0.7058	1496.12	0.75	0.75
13.00	0.50	0.50	0.7038	1496.12	0.73	0.73
13.10	0.50	0.50	0.7020	1496.11	0.71	0.71
13.20	0.40	0.40	0.6999	1496.11	0.69	0.69
13.30	0.40	0.40	0.6976	1496.11	0.67	0.67
13.40	0.40	0.40	0.6955	1496.10	0.64	0.64
13.50	0.40	0.40	0.6935	1496.10	0.62	0.62
13.60	0.30	0.30	0.6914	1496.10	0.61	0.61
13.70	0.30	0.30	0.6889	1496.09	0.59	0.59
13.80	0.30	0.30	0.6866	1496.09	0.57	0.57
13.90	0.30	0.30	0.6844	1496.09	0.56	0.56
14.00	0.20	0.20	0.6819	1496.08	0.54	0.54
14.10	0.20	0.20	0.6791	1496.08	0.52	0.52
14.20	0.20	0.20	0.6765	1496.07	0.51	0.51
14.30	0.20	0.20	0.6740	1496.07	0.490	0.490
14.40	0.10	0.10	0.6713	1496.07	0.472	0.472
14.50	0.10	0.10	0.6683	1496.06	0.452	0.452
14.60	0.10	0.10	0.6655	1496.06	0.433	0.433
14.70	0.10	0.10	0.6628	1496.05	0.415	0.415
14.80	0.00	0.00	0.6599	1496.05	0.396	0.396
14.90	0.00	0.00	0.6567	1496.04	0.374	0.374
15.00	0.00	0.00	0.6537	1496.04	0.354	0.354

Total Routing Mass Balance Discrepancy is -0.12%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.60	1.60	0.0000	1495.00	0.000	0.000
Max. Inflow	1.30	54.40	54.40	1.3207	1497.09	12.57	12.57
Max. Outflow	1.60	17.10	17.10	1.7403	1497.68	17.60	17.60
Final	15.00	0.00	0.00	0.6537	1496.04	0.354	0.354

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\100.HYD

Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES

Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs

Starting Pool Elevation = 1495.00 feet

Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.90	1.90	0.0000	1495.00	0.000	0.000
0.10	2.10	2.10	0.0165	1495.03	0.000	0.000
0.20	2.40	2.40	0.0351	1495.06	0.000	0.000
0.30	2.60	2.60	0.0558	1495.09	0.000	0.000
0.40	3.00	3.00	0.0789	1495.13	0.000	0.000
0.50	3.40	3.40	0.1054	1495.17	0.000	0.000
0.60	3.90	3.90	0.1355	1495.22	0.000	0.000
0.70	6.20	6.20	0.1773	1495.28	0.000	0.000
0.80	8.50	8.50	0.2380	1495.38	0.000	0.000
0.90	10.80	10.80	0.3178	1495.50	0.000	0.000
1.00	21.30	21.30	0.4504	1495.72	0.001	0.001
1.10	40.60	40.60	0.7032	1496.12	0.73	0.73
1.20	62.00	62.00	1.0935	1496.74	7.41	7.41
1.30	63.60	63.60	1.5191	1497.37	15.20	15.20
1.40	45.20	45.20	1.8295	1497.81	18.49	18.49
1.50	28.90	28.90	1.9645	1498.00	22.93	22.93
1.60	20.00	20.00	1.9642	1498.00	26.04	26.04
1.70	14.80	14.80	1.9205	1497.94	19.34	19.34
1.80	11.40	11.40	1.8709	1497.87	18.88	18.88
1.90	9.60	9.60	1.8043	1497.77	18.24	18.24
2.00	7.80	7.80	1.7285	1497.67	17.48	17.48
2.10	7.10	7.10	1.6490	1497.55	16.66	16.66
2.20	6.40	6.40	1.5707	1497.44	15.80	15.80
2.30	5.90	5.90	1.4946	1497.33	14.92	14.92
2.40	5.50	5.50	1.4222	1497.23	14.02	14.02
2.50	5.20	5.20	1.3542	1497.13	13.13	13.13
2.60	4.90	4.90	1.2926	1497.05	11.87	11.87
2.70	4.70	4.70	1.2394	1496.97	10.61	10.61
2.80	4.40	4.40	1.1934	1496.89	9.62	9.62
2.90	4.20	4.20	1.1530	1496.83	8.77	8.77
3.00	4.00	4.00	1.1177	1496.77	7.98	7.98
3.10	3.90	3.90	1.0873	1496.73	7.26	7.26
3.20	3.70	3.70	1.0612	1496.68	6.67	6.67
3.30	3.50	3.50	1.0379	1496.65	6.19	6.19
3.40	3.40	3.40	1.0170	1496.61	5.76	5.76
3.50	3.30	3.30	0.9986	1496.59	5.39	5.39
3.60	3.20	3.20	0.9823	1496.56	5.06	5.06
3.70	3.10	3.10	0.9677	1496.54	4.78	4.78
3.80	3.10	3.10	0.9549	1496.52	4.52	4.52
3.90	3.00	3.00	0.9436	1496.50	4.30	4.30
4.00	3.00	3.00	0.9336	1496.48	4.12	4.12
4.10	2.90	2.90	0.9247	1496.47	3.95	3.95
4.20	2.80	2.80	0.9162	1496.45	3.80	3.80
4.30	2.80	2.80	0.9085	1496.44	3.66	3.66
4.40	2.70	2.70	0.9016	1496.43	3.53	3.53
4.50	2.70	2.70	0.8952	1496.42	3.41	3.41
4.60	2.60	2.60	0.8893	1496.41	3.30	3.30
4.70	2.50	2.50	0.8835	1496.40	3.20	3.20

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.50	2.50	0.8781	1496.39	3.11	3.11
4.90	2.40	2.40	0.8730	1496.39	3.03	3.03
5.00	2.30	2.30	0.8678	1496.38	2.94	2.94
5.10	2.30	2.30	0.8628	1496.37	2.86	2.86
5.20	2.20	2.20	0.8581	1496.36	2.78	2.78
5.30	2.20	2.20	0.8536	1496.36	2.71	2.71
5.40	2.10	2.10	0.8492	1496.35	2.64	2.64
5.50	2.10	2.10	0.8450	1496.34	2.57	2.57
5.60	2.10	2.10	0.8414	1496.34	2.51	2.51
5.70	2.00	2.00	0.8378	1496.33	2.46	2.46
5.80	2.00	2.00	0.8342	1496.32	2.40	2.40
5.90	2.00	2.00	0.8312	1496.32	2.35	2.35
6.00	1.90	1.90	0.8281	1496.31	2.30	2.30
6.10	1.90	1.90	0.8250	1496.31	2.25	2.25
6.20	1.90	1.90	0.8223	1496.31	2.21	2.21
6.30	1.90	1.90	0.8199	1496.30	2.17	2.17
6.40	1.80	1.80	0.8174	1496.30	2.13	2.13
6.50	1.80	1.80	0.8148	1496.29	2.10	2.10
6.60	1.80	1.80	0.8125	1496.29	2.06	2.06
6.70	1.80	1.80	0.8104	1496.29	2.04	2.04
6.80	1.80	1.80	0.8086	1496.28	2.01	2.01
6.90	1.70	1.70	0.8066	1496.28	1.98	1.98
7.00	1.70	1.70	0.8043	1496.28	1.95	1.95
7.10	1.70	1.70	0.8024	1496.27	1.93	1.93
7.20	1.70	1.70	0.8006	1496.27	1.90	1.90
7.30	1.70	1.70	0.7990	1496.27	1.88	1.88
7.40	1.60	1.60	0.7972	1496.27	1.86	1.86
7.50	1.60	1.60	0.7952	1496.26	1.83	1.83
7.60	1.60	1.60	0.7934	1496.26	1.80	1.80
7.70	1.60	1.60	0.7918	1496.26	1.78	1.78
7.80	1.60	1.60	0.7904	1496.26	1.76	1.76
7.90	1.50	1.50	0.7887	1496.25	1.74	1.74
8.00	1.50	1.50	0.7869	1496.25	1.71	1.71
8.10	1.50	1.50	0.7852	1496.25	1.69	1.69
8.20	1.50	1.50	0.7837	1496.24	1.67	1.67
8.30	1.40	1.40	0.7820	1496.24	1.65	1.65
8.40	1.40	1.40	0.7800	1496.24	1.62	1.62
8.50	1.40	1.40	0.7783	1496.24	1.60	1.60
8.60	1.40	1.40	0.7768	1496.23	1.58	1.58
8.70	1.30	1.30	0.7750	1496.23	1.55	1.55
8.80	1.30	1.30	0.7730	1496.23	1.53	1.53
8.90	1.30	1.30	0.7712	1496.22	1.50	1.50
9.00	1.30	1.30	0.7697	1496.22	1.48	1.48
9.10	1.30	1.30	0.7683	1496.22	1.46	1.46
9.20	1.30	1.30	0.7670	1496.22	1.44	1.44
9.30	1.20	1.20	0.7655	1496.22	1.42	1.42
9.40	1.20	1.20	0.7638	1496.21	1.40	1.40
9.50	1.20	1.20	0.7622	1496.21	1.38	1.38
9.60	1.20	1.20	0.7608	1496.21	1.36	1.36
9.70	1.20	1.20	0.7596	1496.21	1.34	1.34
9.80	1.20	1.20	0.7585	1496.20	1.33	1.33
9.90	1.20	1.20	0.7575	1496.20	1.31	1.31
10.00	1.20	1.20	0.7566	1496.20	1.30	1.30
10.10	1.20	1.20	0.7558	1496.20	1.29	1.29
10.20	1.20	1.20	0.7551	1496.20	1.28	1.28
10.30	1.20	1.20	0.7544	1496.20	1.28	1.28
10.40	1.20	1.20	0.7538	1496.20	1.27	1.27
10.50	1.20	1.20	0.7533	1496.20	1.26	1.26

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.20	1.20	0.7528	1496.20	1.26	1.26
10.70	1.20	1.20	0.7523	1496.19	1.25	1.25
10.80	1.20	1.20	0.7519	1496.19	1.25	1.25
10.90	1.20	1.20	0.7515	1496.19	1.24	1.24
11.00	1.10	1.10	0.7507	1496.19	1.24	1.24
11.10	1.10	1.10	0.7497	1496.19	1.23	1.23
11.20	1.10	1.10	0.7487	1496.19	1.21	1.21
11.30	1.10	1.10	0.7478	1496.19	1.20	1.20
11.40	1.00	1.00	0.7465	1496.19	1.19	1.19
11.50	1.00	1.00	0.7450	1496.18	1.18	1.18
11.60	1.00	1.00	0.7436	1496.18	1.16	1.16
11.70	0.90	0.90	0.7420	1496.18	1.14	1.14
11.80	0.90	0.90	0.7401	1496.18	1.12	1.12
11.90	0.90	0.90	0.7383	1496.17	1.10	1.10
12.00	0.90	0.90	0.7367	1496.17	1.09	1.09
12.10	0.80	0.80	0.7348	1496.17	1.07	1.07
12.20	0.80	0.80	0.7327	1496.16	1.04	1.04
12.30	0.80	0.80	0.7308	1496.16	1.02	1.02
12.40	0.70	0.70	0.7286	1496.16	1.00	1.00
12.50	0.70	0.70	0.7263	1496.15	0.97	0.97
12.60	0.70	0.70	0.7241	1496.15	0.95	0.95
12.70	0.70	0.70	0.7221	1496.15	0.93	0.93
12.80	0.60	0.60	0.7199	1496.14	0.91	0.91
12.90	0.60	0.60	0.7175	1496.14	0.88	0.88
13.00	0.60	0.60	0.7153	1496.14	0.86	0.86
13.10	0.50	0.50	0.7129	1496.13	0.83	0.83
13.20	0.50	0.50	0.7102	1496.13	0.80	0.80
13.30	0.50	0.50	0.7079	1496.12	0.78	0.78
13.40	0.50	0.50	0.7057	1496.12	0.75	0.75
13.50	0.40	0.40	0.7033	1496.12	0.73	0.73
13.60	0.40	0.40	0.7007	1496.11	0.70	0.70
13.70	0.40	0.40	0.6983	1496.11	0.67	0.67
13.80	0.30	0.30	0.6957	1496.10	0.65	0.65
13.90	0.30	0.30	0.6930	1496.10	0.62	0.62
14.00	0.30	0.30	0.6905	1496.10	0.60	0.60
14.10	0.30	0.30	0.6880	1496.09	0.58	0.58
14.20	0.20	0.20	0.6854	1496.09	0.57	0.57
14.30	0.20	0.20	0.6824	1496.08	0.55	0.55
14.40	0.20	0.20	0.6796	1496.08	0.53	0.53
14.50	0.10	0.10	0.6766	1496.07	0.51	0.51
14.60	0.10	0.10	0.6733	1496.07	0.485	0.485
14.70	0.10	0.10	0.6702	1496.06	0.465	0.465
14.80	0.10	0.10	0.6673	1496.06	0.445	0.445
14.90	0.00	0.00	0.6641	1496.05	0.424	0.424
15.00	0.00	0.00	0.6607	1496.05	0.401	0.401

Total Routing Mass Balance Discrepancy is -0.13%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1.ES
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-1\1-1.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1495.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.90	1.90	0.0000	1495.00	0.000	0.000
Max. Inflow	1.30	63.60	63.60	1.5191	1497.37	15.20	15.20
Max. Outflow	1.60	20.00	20.00	1.9642	1498.00	26.04	26.04
Final	15.00	0.00	0.00	0.6607	1496.05	0.401	0.401

SCS Segmental Travel Time

Summary for From Basin L-1 to POI

Segment 1: Overland Flow

L = 150 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 28 minutes

Segment 2: Concentrated Flow

L = 300 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 2.2 minutes

Total Travel Time = 30.19 Minutes

POST TO
DETENTION BASIN L-2

BRINKASH ASSOCIATES, INC. SURVEYING & ENGINEERING

1713 CENTRE STREET • ASHLAND, PA 17921 • (570)-875-1018 (PHONE) • (570)-875-1670 (FAX)

DETENTION BASIN L-2 POST TO AREA L

DRAINAGE AREA = 23.97 AC.
 $T_C = 42$ minutes
 $CN = 80$

BOTTOM 1496
SPILLWAY 1499
TOP 1500

POST TO BASIN

$Q_1 = 18.3$ cfs
 $Q_2 = 26.0$ cfs
 $Q_{10} = 53.8$ cfs
 $Q_{25} = 67.3$ cfs
 $Q_{50} = 76.0$ cfs
 $Q_{100} = 89.3$ cfs

ROUTED

$Q_1 = 10.97$ cfs
 $Q_2 = 16.68$ cfs
 $Q_{10} = 39.96$ cfs
 $Q_{25} = 49.18$ cfs
 $Q_{50} = 56.37$ cfs
 $Q_{100} = 70.83$ cfs

TRAVEL TIME TO P.O.I.

$T_T = 31.18$ minutes

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

Type II Storm: Precipitation = 3.0 inches

POST TO
BASIN L-2

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	23.970	80	0.167	1.25	42.000	45.000	0.000	0.000
Composite	23.970	80		1.25				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

1 Year Type II Storm: Precipitation = 3.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	0	1	4	16	17	8	5	3	2	1	1	0
Composite	0	1	4	16	17	8	5	3	2	1	1	0

The peak flow is 18.3 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

2 Year Type II Storm: Precipitation = 3.6 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	23.970	80	0.139	1.72	42.000	45.000	0.000	0.000
Composite	23.970	80		1.72				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

2 Year Type II Storm: Precipitation = 3.6 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	1	2	6	23	23	11	6	4	2	2	1	0
Composite	1	2	6	23	23	11	6	4	2	2	1	0

The peak flow is 26.0 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

10 Year Type II Storm: Precipitation = 5.7 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	I/A/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	23.970	80	0.100	3.51	42.000	45.000	0.000	0.000
Composite	23.970	80		3.51				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

10 Year Type II Storm: Precipitation = 5.7 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	5	15	50	49	23	12	8	5	3	2	0
Composite	2	5	15	50	49	23	12	8	5	3	2	0

The peak flow is 55.8 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

25 Year Type II Storm: Precipitation = 6.5 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	23.970	80	0.100	4.24	42.000	45.000	0.000	0.000
Composite	23.970	80		4.24				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

25 Year Type II Storm: Precipitation = 6.5 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	18	60	59	27	15	10	6	3	2	0
Composite	2	6	18	60	59	27	15	10	6	3	2	0

The peak flow is 67.3 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

50 Year Type II Storm: Precipitation = 7.1 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	23.970	80	0.100	4.79	42.000	45.000	0.000	0.000
Composite	23.970	80		4.79				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

50 Year Type II Storm: Precipitation = 7.1 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	2	6	21	68	66	31	17	11	6	4	3	0
Composite	2	6	21	68	66	31	17	11	6	4	3	0

The peak flow is 76.0 cfs at 12.6 hrs.

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

100 Year Type II Storm: Precipitation = 8.0 inches

Summary of Input Parameters

Subarea	Area (acres)	Curve Number	IA/P	Runoff (in)	Tc (min)	Adj. Tc (min)	Tt (min)	Adj. Tt (min)
1	23.970	80	0.100	5.63	42.000	45.000	0.000	0.000
Composite	23.970	80		5.63				

SCS TR55 Tabular Method

Watershed Title: Post to Basin L-2

100 Year Type II Storm: Precipitation = 8.0 inches

Individual Subarea and Composite Hydrographs

Subarea	Time (hrs)											
	11.0	11.9	12.2	12.5	12.8	13.2	13.6	14.0	15.0	17.0	20.0	26.0
1	3	8	24	80	78	36	20	13	7	5	3	0
Composite	3	8	24	80	78	36	20	13	7	5	3	0

The peak flow is 89.3 cfs at 12.6 hrs.

Basin Storage/Elevation Input

Elevation (ft)	Storage (acre-ft)
1496.00	0.0000
1498.00	1.3100
1499.00	2.0300
1500.00	2.7950

Project Files:

Outlet Structure Configuration: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\I2.OSC

Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\I2.EO

Outlet Structure Configuration for:

Stage 1: Rectangular Orifice

Invert Elevation = 1496 feet

Width = 3.75 feet

Height = 3 feet

Discharge Coefficient = 0.6

Stage 2: Emergency Spillway

Crest Elevation = 1499 feet

Crest Length = 10 feet

Discharge Coefficient = 3

Basin Rating Curve

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1496.00	0.00	N/A	N/A	N/A	N/A
1496.10	0.37	N/A	N/A	N/A	N/A
1496.20	1.04	N/A	N/A	N/A	N/A
1496.30	1.92	N/A	N/A	N/A	N/A
1496.40	2.95	N/A	N/A	N/A	N/A
1496.50	4.12	N/A	N/A	N/A	N/A
1496.60	5.42	N/A	N/A	N/A	N/A
1496.70	6.83	N/A	N/A	N/A	N/A
1496.80	8.34	N/A	N/A	N/A	N/A
1496.90	9.95	N/A	N/A	N/A	N/A
1497.00	11.66	N/A	N/A	N/A	N/A
1497.10	13.45	N/A	N/A	N/A	N/A
1497.20	15.32	N/A	N/A	N/A	N/A
1497.30	17.28	N/A	N/A	N/A	N/A
1497.40	19.31	N/A	N/A	N/A	N/A
1497.50	21.42	N/A	N/A	N/A	N/A
1497.60	23.59	N/A	N/A	N/A	N/A
1497.70	25.84	N/A	N/A	N/A	N/A
1497.80	28.15	N/A	N/A	N/A	N/A
1497.90	30.53	N/A	N/A	N/A	N/A
1498.00	32.97	N/A	N/A	N/A	N/A
1498.10	35.48	N/A	N/A	N/A	N/A
1498.20	38.04	N/A	N/A	N/A	N/A
1498.30	40.66	N/A	N/A	N/A	N/A
1498.40	43.34	N/A	N/A	N/A	N/A
1498.50	46.08	N/A	N/A	N/A	N/A
1498.60	48.87	N/A	N/A	N/A	N/A
1498.70	51.72	N/A	N/A	N/A	N/A
1498.80	54.62	N/A	N/A	N/A	N/A
1498.90	57.57	N/A	N/A	N/A	N/A
1499.00	60.57	N/A	N/A	N/A	N/A
1499.10	69.47	N/A	N/A	N/A	N/A
1499.20	73.31	N/A	N/A	N/A	N/A
1499.30	77.60	N/A	N/A	N/A	N/A
1499.40	82.26	N/A	N/A	N/A	N/A
1499.50	87.21	N/A	N/A	N/A	N/A
1499.60	92.44	N/A	N/A	N/A	N/A
1499.70	97.91	N/A	N/A	N/A	N/A
1499.80	103.62	N/A	N/A	N/A	N/A

Basin Water Elevation	Basin Outflow (cfs)	Riser Box Water Elevation	Tailwater Elevation (ft)	Outfall Culvert Control	Outfall Culvert Override?
1499.90	109.53	N/A	N/A	N/A	N/A
1500.00	115.65	N/A	N/A	N/A	N/A

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\12.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.40	0.40	0.0000	1496.00	0.000	0.000
0.10	0.50	0.50	0.0036	1496.01	0.020	0.020
0.20	0.50	0.50	0.0075	1496.01	0.042	0.042
0.30	0.60	0.60	0.0116	1496.02	0.065	0.065
0.40	0.60	0.60	0.0159	1496.02	0.090	0.090
0.50	0.70	0.70	0.0205	1496.03	0.115	0.115
0.60	0.70	0.70	0.0252	1496.04	0.142	0.142
0.70	0.90	0.90	0.0305	1496.05	0.172	0.172
0.80	1.00	1.00	0.0368	1496.06	0.207	0.207
0.90	1.10	1.10	0.0436	1496.07	0.246	0.246
1.00	1.50	1.50	0.0521	1496.08	0.293	0.293
1.10	2.20	2.20	0.0647	1496.10	0.364	0.364
1.20	4.10	4.10	0.0868	1496.13	0.59	0.59
1.30	7.40	7.40	0.1277	1496.20	1.01	1.01
1.40	11.90	11.90	0.1954	1496.30	1.90	1.90
1.50	16.00	16.00	0.2887	1496.44	3.43	3.43
1.60	18.30	18.30	0.3938	1496.60	5.44	5.44
1.70	18.20	18.20	0.4909	1496.75	7.58	7.58
1.80	16.60	16.60	0.5648	1496.86	9.34	9.34
1.90	14.20	14.20	0.6101	1496.93	10.49	10.49
2.00	11.70	11.70	0.6284	1496.96	10.97	10.97
2.10	9.90	9.90	0.6272	1496.96	10.93	10.93
2.20	8.20	8.20	0.6131	1496.94	10.57	10.57
2.30	7.10	7.10	0.5914	1496.90	10.00	10.00
2.40	6.00	6.00	0.5655	1496.86	9.36	9.36
2.50	5.30	5.30	0.5376	1496.82	8.68	8.68
2.60	4.60	4.60	0.5096	1496.78	8.01	8.01
2.70	4.20	4.20	0.4824	1496.74	7.38	7.38
2.80	3.70	3.70	0.4565	1496.70	6.78	6.78
2.90	3.40	3.40	0.4320	1496.66	6.26	6.26
3.00	3.10	3.10	0.4091	1496.63	5.77	5.77
3.10	2.90	2.90	0.3881	1496.59	5.32	5.32
3.20	2.80	2.80	0.3692	1496.56	4.95	4.95
3.30	2.60	2.60	0.3521	1496.54	4.61	4.61
3.40	2.40	2.40	0.3360	1496.51	4.29	4.29
3.50	2.30	2.30	0.3211	1496.49	4.01	4.01
3.60	2.20	2.20	0.3076	1496.47	3.76	3.76
3.70	2.10	2.10	0.2952	1496.45	3.54	3.54
3.80	2.00	2.00	0.2837	1496.43	3.34	3.34
3.90	1.90	1.90	0.2730	1496.42	3.15	3.15
4.00	1.90	1.90	0.2634	1496.40	2.97	2.97
4.10	1.80	1.80	0.2547	1496.39	2.83	2.83
4.20	1.80	1.80	0.2467	1496.38	2.71	2.71
4.30	1.70	1.70	0.2393	1496.37	2.59	2.59
4.40	1.70	1.70	0.2324	1496.36	2.48	2.48
4.50	1.70	1.70	0.2263	1496.35	2.39	2.39
4.60	1.60	1.60	0.2206	1496.34	2.30	2.30
4.70	1.60	1.60	0.2152	1496.33	2.21	2.21

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	1.50	1.50	0.2101	1496.32	2.13	2.13
4.90	1.50	1.50	0.2052	1496.31	2.05	2.05
5.00	1.50	1.50	0.2009	1496.31	1.98	1.98
5.10	1.40	1.40	0.1968	1496.30	1.92	1.92
5.20	1.40	1.40	0.1927	1496.29	1.86	1.86
5.30	1.40	1.40	0.1891	1496.29	1.82	1.82
5.40	1.30	1.30	0.1854	1496.28	1.77	1.77
5.50	1.30	1.30	0.1817	1496.28	1.72	1.72
5.60	1.30	1.30	0.1785	1496.27	1.67	1.67
5.70	1.30	1.30	0.1755	1496.27	1.64	1.64
5.80	1.20	1.20	0.1725	1496.26	1.60	1.60
5.90	1.20	1.20	0.1694	1496.26	1.55	1.55
6.00	1.20	1.20	0.1666	1496.25	1.52	1.52
6.10	1.20	1.20	0.1641	1496.25	1.48	1.48
6.20	1.20	1.20	0.1619	1496.25	1.45	1.45
6.30	1.10	1.10	0.1595	1496.24	1.42	1.42
6.40	1.10	1.10	0.1570	1496.24	1.39	1.39
6.50	1.10	1.10	0.1547	1496.24	1.36	1.36
6.60	1.10	1.10	0.1527	1496.23	1.33	1.33
6.70	1.10	1.10	0.1509	1496.23	1.31	1.31
6.80	1.10	1.10	0.1493	1496.23	1.29	1.29
6.90	1.10	1.10	0.1478	1496.23	1.27	1.27
7.00	1.00	1.00	0.1461	1496.22	1.24	1.24
7.10	1.00	1.00	0.1442	1496.22	1.22	1.22
7.20	1.00	1.00	0.1425	1496.22	1.20	1.20
7.30	1.00	1.00	0.1409	1496.22	1.18	1.18
7.40	1.00	1.00	0.1396	1496.21	1.16	1.16
7.50	1.00	1.00	0.1383	1496.21	1.14	1.14
7.60	1.00	1.00	0.1372	1496.21	1.13	1.13
7.70	1.00	1.00	0.1363	1496.21	1.11	1.11
7.80	1.00	1.00	0.1354	1496.21	1.10	1.10
7.90	0.90	0.90	0.1342	1496.21	1.09	1.09
8.00	0.90	0.90	0.1327	1496.20	1.07	1.07
8.10	0.90	0.90	0.1314	1496.20	1.05	1.05
8.20	0.90	0.90	0.1303	1496.20	1.04	1.04
8.30	0.90	0.90	0.1292	1496.20	1.02	1.02
8.40	0.90	0.90	0.1282	1496.20	1.01	1.01
8.50	0.90	0.90	0.1273	1496.19	1.00	1.00
8.60	0.90	0.90	0.1265	1496.19	1.00	1.00
8.70	0.90	0.90	0.1257	1496.19	0.99	0.99
8.80	0.80	0.80	0.1246	1496.19	0.98	0.98
8.90	0.80	0.80	0.1232	1496.19	0.96	0.96
9.00	0.80	0.80	0.1219	1496.19	0.95	0.95
9.10	0.80	0.80	0.1207	1496.18	0.94	0.94
9.20	0.80	0.80	0.1196	1496.18	0.93	0.93
9.30	0.80	0.80	0.1186	1496.18	0.92	0.92
9.40	0.80	0.80	0.1177	1496.18	0.91	0.91
9.50	0.80	0.80	0.1169	1496.18	0.90	0.90
9.60	0.80	0.80	0.1161	1496.18	0.89	0.89
9.70	0.80	0.80	0.1154	1496.18	0.88	0.88
9.80	0.80	0.80	0.1147	1496.18	0.88	0.88
9.90	0.80	0.80	0.1141	1496.17	0.87	0.87
10.00	0.70	0.70	0.1132	1496.17	0.86	0.86
10.10	0.70	0.70	0.1119	1496.17	0.85	0.85
10.20	0.70	0.70	0.1108	1496.17	0.83	0.83
10.30	0.70	0.70	0.1097	1496.17	0.82	0.82
10.40	0.70	0.70	0.1087	1496.17	0.81	0.81
10.50	0.70	0.70	0.1078	1496.17	0.80	0.80

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.70	0.70	0.1070	1496.16	0.80	0.80
10.70	0.70	0.70	0.1062	1496.16	0.79	0.79
10.80	0.70	0.70	0.1055	1496.16	0.78	0.78
10.90	0.70	0.70	0.1049	1496.16	0.77	0.77
11.00	0.70	0.70	0.1043	1496.16	0.77	0.77
11.10	0.70	0.70	0.1038	1496.16	0.76	0.76
11.20	0.60	0.60	0.1029	1496.16	0.75	0.75
11.30	0.60	0.60	0.1016	1496.16	0.74	0.74
11.40	0.60	0.60	0.1005	1496.15	0.73	0.73
11.50	0.60	0.60	0.0995	1496.15	0.72	0.72
11.60	0.60	0.60	0.0986	1496.15	0.71	0.71
11.70	0.60	0.60	0.0977	1496.15	0.70	0.70
11.80	0.50	0.50	0.0965	1496.15	0.69	0.69
11.90	0.50	0.50	0.0950	1496.15	0.67	0.67
12.00	0.50	0.50	0.0936	1496.14	0.66	0.66
12.10	0.50	0.50	0.0924	1496.14	0.65	0.65
12.20	0.50	0.50	0.0912	1496.14	0.63	0.63
12.30	0.50	0.50	0.0902	1496.14	0.62	0.62
12.40	0.40	0.40	0.0888	1496.14	0.61	0.61
12.50	0.40	0.40	0.0871	1496.13	0.59	0.59
12.60	0.40	0.40	0.0856	1496.13	0.58	0.58
12.70	0.40	0.40	0.0842	1496.13	0.56	0.56
12.80	0.40	0.40	0.0829	1496.13	0.55	0.55
12.90	0.40	0.40	0.0818	1496.13	0.54	0.54
13.00	0.30	0.30	0.0803	1496.12	0.52	0.52
13.10	0.30	0.30	0.0785	1496.12	0.50	0.50
13.20	0.30	0.30	0.0769	1496.12	0.487	0.487
13.30	0.30	0.30	0.0754	1496.12	0.471	0.471
13.40	0.30	0.30	0.0741	1496.11	0.457	0.457
13.50	0.30	0.30	0.0728	1496.11	0.445	0.445
13.60	0.20	0.20	0.0713	1496.11	0.429	0.429
13.70	0.20	0.20	0.0695	1496.11	0.410	0.410
13.80	0.20	0.20	0.0678	1496.10	0.393	0.393
13.90	0.20	0.20	0.0663	1496.10	0.377	0.377
14.00	0.20	0.20	0.0649	1496.10	0.365	0.365
14.10	0.20	0.20	0.0635	1496.10	0.358	0.358
14.20	0.10	0.10	0.0619	1496.09	0.348	0.348
14.30	0.10	0.10	0.0599	1496.09	0.337	0.337
14.40	0.10	0.10	0.0579	1496.09	0.326	0.326
14.50	0.10	0.10	0.0561	1496.09	0.316	0.316
14.60	0.10	0.10	0.0544	1496.08	0.306	0.306
14.70	0.10	0.10	0.0527	1496.08	0.297	0.297
14.80	0.00	0.00	0.0507	1496.08	0.286	0.286
14.90	0.00	0.00	0.0484	1496.07	0.273	0.273
15.00	0.00	0.00	0.0462	1496.07	0.260	0.260

Total Routing Mass Balance Discrepancy is -0.02%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\1.HYD
 Storage/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.40	0.40	0.0000	1496.00	0.000	0.000
Max. Inflow	1.60	18.30	18.30	0.3938	1496.60	5.44	5.44
Max. Outflow	2.00	11.70	11.70	0.6284	1496.96	10.97	10.97
Max. Elev.	2.10	9.90	9.90	0.6272	1496.96	10.93	10.93
Final	15.00	0.00	0.00	0.0462	1496.07	0.260	0.260

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	0.70	0.70	0.0000	1496.00	0.000	0.000
0.10	0.80	0.80	0.0061	1496.01	0.034	0.034
0.20	0.80	0.80	0.0122	1496.02	0.069	0.069
0.30	0.90	0.90	0.0186	1496.03	0.105	0.105
0.40	1.00	1.00	0.0254	1496.04	0.143	0.143
0.50	1.10	1.10	0.0327	1496.05	0.184	0.184
0.60	1.20	1.20	0.0405	1496.06	0.228	0.228
0.70	1.40	1.40	0.0492	1496.08	0.277	0.277
0.80	1.70	1.70	0.0594	1496.09	0.335	0.335
0.90	1.90	1.90	0.0712	1496.11	0.427	0.427
1.00	2.40	2.40	0.0848	1496.13	0.57	0.57
1.10	3.60	3.60	0.1041	1496.16	0.77	0.77
1.20	6.30	6.30	0.1372	1496.21	1.13	1.13
1.30	11.10	11.10	0.1965	1496.30	1.92	1.92
1.40	17.40	17.40	0.2920	1496.45	3.49	3.49
1.50	23.00	23.00	0.4198	1496.64	5.99	5.99
1.60	26.00	26.00	0.5594	1496.85	9.21	9.21
1.70	25.60	25.60	0.6832	1497.04	12.43	12.43
1.80	23.20	23.20	0.7718	1497.18	14.92	14.92
1.90	19.70	19.70	0.8200	1497.25	16.34	16.34
2.00	16.10	16.10	0.8315	1497.27	16.68	16.68
2.10	13.60	13.60	0.8180	1497.25	16.28	16.28
2.20	11.20	11.20	0.7895	1497.21	15.43	15.43
2.30	9.60	9.60	0.7523	1497.15	14.36	14.36
2.40	8.10	8.10	0.7116	1497.09	13.20	13.20
2.50	7.10	7.10	0.6699	1497.02	12.07	12.07
2.60	6.20	6.20	0.6296	1496.96	11.00	11.00
2.70	5.60	5.60	0.5916	1496.90	10.01	10.01
2.80	5.00	5.00	0.5563	1496.85	9.14	9.14
2.90	4.60	4.60	0.5238	1496.80	8.34	8.34
3.00	4.10	4.10	0.4937	1496.75	7.64	7.64
3.10	3.90	3.90	0.4662	1496.71	7.01	7.01
3.20	3.60	3.60	0.4416	1496.67	6.46	6.46
3.30	3.40	3.40	0.4191	1496.64	5.98	5.98
3.40	3.20	3.20	0.3987	1496.61	5.54	5.54
3.50	3.00	3.00	0.3801	1496.58	5.16	5.16
3.60	2.80	2.80	0.3628	1496.55	4.82	4.82
3.70	2.70	2.70	0.3470	1496.53	4.51	4.51
3.80	2.60	2.60	0.3328	1496.51	4.23	4.23
3.90	2.50	2.50	0.3200	1496.49	3.99	3.99
4.00	2.40	2.40	0.3081	1496.47	3.77	3.77
4.10	2.40	2.40	0.2976	1496.45	3.59	3.59
4.20	2.30	2.30	0.2881	1496.44	3.42	3.42
4.30	2.30	2.30	0.2795	1496.43	3.26	3.26
4.40	2.20	2.20	0.2717	1496.42	3.12	3.12
4.50	2.20	2.20	0.2646	1496.40	3.00	3.00
4.60	2.10	2.10	0.2581	1496.39	2.89	2.89
4.70	2.10	2.10	0.2520	1496.39	2.79	2.79

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	2.00	2.00	0.2462	1496.38	2.70	2.70
4.90	1.90	1.90	0.2404	1496.37	2.61	2.61
5.00	1.90	1.90	0.2349	1496.36	2.52	2.52
5.10	1.90	1.90	0.2301	1496.35	2.45	2.45
5.20	1.80	1.80	0.2255	1496.34	2.37	2.37
5.30	1.80	1.80	0.2210	1496.34	2.30	2.30
5.40	1.70	1.70	0.2167	1496.33	2.23	2.23
5.50	1.70	1.70	0.2126	1496.33	2.17	2.17
5.60	1.70	1.70	0.2090	1496.32	2.11	2.11
5.70	1.60	1.60	0.2054	1496.31	2.06	2.06
5.80	1.60	1.60	0.2018	1496.31	2.00	2.00
5.90	1.60	1.60	0.1987	1496.30	1.95	1.95
6.00	1.50	1.50	0.1956	1496.30	1.90	1.90
6.10	1.50	1.50	0.1925	1496.29	1.86	1.86
6.20	1.50	1.50	0.1896	1496.29	1.82	1.82
6.30	1.50	1.50	0.1871	1496.29	1.79	1.79
6.40	1.40	1.40	0.1844	1496.28	1.75	1.75
6.50	1.40	1.40	0.1817	1496.28	1.72	1.72
6.60	1.40	1.40	0.1792	1496.27	1.68	1.68
6.70	1.40	1.40	0.1769	1496.27	1.65	1.65
6.80	1.40	1.40	0.1750	1496.27	1.63	1.63
6.90	1.40	1.40	0.1732	1496.26	1.60	1.60
7.00	1.30	1.30	0.1712	1496.26	1.58	1.58
7.10	1.30	1.30	0.1690	1496.26	1.55	1.55
7.20	1.30	1.30	0.1670	1496.26	1.52	1.52
7.30	1.30	1.30	0.1653	1496.25	1.50	1.50
7.40	1.30	1.30	0.1637	1496.25	1.48	1.48
7.50	1.30	1.30	0.1623	1496.25	1.46	1.46
7.60	1.30	1.30	0.1611	1496.25	1.44	1.44
7.70	1.20	1.20	0.1596	1496.24	1.42	1.42
7.80	1.20	1.20	0.1578	1496.24	1.40	1.40
7.90	1.20	1.20	0.1563	1496.24	1.38	1.38
8.00	1.20	1.20	0.1548	1496.24	1.36	1.36
8.10	1.20	1.20	0.1536	1496.23	1.34	1.34
8.20	1.20	1.20	0.1525	1496.23	1.33	1.33
8.30	1.20	1.20	0.1515	1496.23	1.32	1.32
8.40	1.10	1.10	0.1502	1496.23	1.30	1.30
8.50	1.10	1.10	0.1486	1496.23	1.28	1.28
8.60	1.10	1.10	0.1472	1496.23	1.26	1.26
8.70	1.10	1.10	0.1460	1496.22	1.24	1.24
8.80	1.10	1.10	0.1449	1496.22	1.23	1.23
8.90	1.10	1.10	0.1439	1496.22	1.21	1.21
9.00	1.10	1.10	0.1430	1496.22	1.20	1.20
9.10	1.10	1.10	0.1422	1496.22	1.19	1.19
9.20	1.00	1.00	0.1411	1496.22	1.18	1.18
9.30	1.00	1.00	0.1397	1496.21	1.16	1.16
9.40	1.00	1.00	0.1384	1496.21	1.14	1.14
9.50	1.00	1.00	0.1373	1496.21	1.13	1.13
9.60	1.00	1.00	0.1363	1496.21	1.11	1.11
9.70	1.00	1.00	0.1354	1496.21	1.10	1.10
9.80	1.00	1.00	0.1346	1496.21	1.09	1.09
9.90	1.00	1.00	0.1339	1496.20	1.08	1.08
10.00	1.00	1.00	0.1333	1496.20	1.07	1.07
10.10	1.00	1.00	0.1327	1496.20	1.07	1.07
10.20	0.90	0.90	0.1318	1496.20	1.05	1.05
10.30	0.90	0.90	0.1306	1496.20	1.04	1.04
10.40	0.90	0.90	0.1295	1496.20	1.03	1.03
10.50	0.90	0.90	0.1285	1496.20	1.02	1.02

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	0.90	0.90	0.1275	1496.20	1.01	1.01
10.70	0.90	0.90	0.1267	1496.19	1.00	1.00
10.80	0.90	0.90	0.1259	1496.19	0.99	0.99
10.90	0.90	0.90	0.1252	1496.19	0.98	0.98
11.00	0.90	0.90	0.1245	1496.19	0.98	0.98
11.10	0.80	0.80	0.1235	1496.19	0.97	0.97
11.20	0.80	0.80	0.1222	1496.19	0.95	0.95
11.30	0.80	0.80	0.1210	1496.19	0.94	0.94
11.40	0.80	0.80	0.1199	1496.18	0.93	0.93
11.50	0.80	0.80	0.1189	1496.18	0.92	0.92
11.60	0.70	0.70	0.1175	1496.18	0.90	0.90
11.70	0.70	0.70	0.1159	1496.18	0.89	0.89
11.80	0.70	0.70	0.1144	1496.18	0.87	0.87
11.90	0.70	0.70	0.1131	1496.17	0.86	0.86
12.00	0.60	0.60	0.1114	1496.17	0.84	0.84
12.10	0.60	0.60	0.1095	1496.17	0.82	0.82
12.20	0.60	0.60	0.1077	1496.16	0.80	0.80
12.30	0.60	0.60	0.1061	1496.16	0.79	0.79
12.40	0.60	0.60	0.1046	1496.16	0.77	0.77
12.50	0.50	0.50	0.1029	1496.16	0.75	0.75
12.60	0.50	0.50	0.1009	1496.15	0.73	0.73
12.70	0.50	0.50	0.0990	1496.15	0.71	0.71
12.80	0.50	0.50	0.0973	1496.15	0.70	0.70
12.90	0.50	0.50	0.0958	1496.15	0.68	0.68
13.00	0.40	0.40	0.0939	1496.14	0.66	0.66
13.10	0.40	0.40	0.0919	1496.14	0.64	0.64
13.20	0.40	0.40	0.0900	1496.14	0.62	0.62
13.30	0.40	0.40	0.0882	1496.14	0.60	0.60
13.40	0.30	0.30	0.0862	1496.13	0.58	0.58
13.50	0.30	0.30	0.0840	1496.13	0.56	0.56
13.60	0.30	0.30	0.0819	1496.13	0.54	0.54
13.70	0.30	0.30	0.0800	1496.12	0.52	0.52
13.80	0.30	0.30	0.0783	1496.12	0.50	0.50
13.90	0.20	0.20	0.0763	1496.12	0.480	0.480
14.00	0.20	0.20	0.0741	1496.11	0.457	0.457
14.10	0.20	0.20	0.0721	1496.11	0.436	0.436
14.20	0.20	0.20	0.0702	1496.11	0.417	0.417
14.30	0.20	0.20	0.0685	1496.10	0.399	0.399
14.40	0.10	0.10	0.0665	1496.10	0.379	0.379
14.50	0.10	0.10	0.0642	1496.10	0.362	0.362
14.60	0.10	0.10	0.0621	1496.10	0.350	0.350
14.70	0.10	0.10	0.0601	1496.09	0.339	0.339
14.80	0.00	0.00	0.0578	1496.09	0.325	0.325
14.90	0.00	0.00	0.0551	1496.08	0.311	0.311
15.00	0.00	0.00	0.0526	1496.08	0.297	0.297

Total Routing Mass Balance Discrepancy is -0.05%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\2.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	0.70	0.70	0.0000	1496.00	0.000	0.000
Max. Inflow	1.60	26.00	26.00	0.5594	1496.85	9.21	9.21
Max. Outflow	2.00	16.10	16.10	0.8315	1497.27	16.68	16.68
Final	15.00	0.00	0.00	0.0526	1496.08	0.297	0.297

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	1.70	1.70	0.0000	1496.00	0.000	0.000
0.10	1.90	1.90	0.0145	1496.02	0.082	0.082
0.20	2.10	2.10	0.0300	1496.05	0.169	0.169
0.30	2.40	2.40	0.0468	1496.07	0.264	0.264
0.40	2.60	2.60	0.0649	1496.10	0.366	0.366
0.50	2.90	2.90	0.0838	1496.13	0.56	0.56
0.60	3.20	3.20	0.1036	1496.16	0.76	0.76
0.70	3.70	3.70	0.1249	1496.19	0.98	0.98
0.80	4.20	4.20	0.1482	1496.23	1.27	1.27
0.90	4.70	4.70	0.1731	1496.26	1.60	1.60
1.00	6.10	6.10	0.2028	1496.31	2.01	2.01
1.10	8.90	8.90	0.2454	1496.38	2.69	2.69
1.20	15.10	15.10	0.3172	1496.48	3.94	3.94
1.30	25.50	25.50	0.4419	1496.68	6.47	6.47
1.40	38.70	38.70	0.6345	1496.97	11.12	11.12
1.50	50.00	50.00	0.8800	1497.34	18.16	18.16
1.60	55.80	55.80	1.1326	1497.73	26.51	26.51
1.70	53.90	53.90	1.3363	1498.04	33.89	33.89
1.80	48.50	48.50	1.4612	1498.21	38.30	38.30
1.90	40.80	40.80	1.5068	1498.27	39.96	39.96
2.00	33.10	33.10	1.4851	1498.24	39.17	39.17
2.10	27.90	27.90	1.4227	1498.16	36.93	36.93
2.20	22.60	22.60	1.3385	1498.04	33.96	33.96
2.30	19.40	19.40	1.2454	1497.90	30.56	30.56
2.40	16.20	16.20	1.1536	1497.76	27.25	27.25
2.50	14.20	14.20	1.0665	1497.63	24.23	24.23
2.60	12.20	12.20	0.9864	1497.51	21.55	21.55
2.70	11.00	11.00	0.9139	1497.40	19.21	19.21
2.80	9.70	9.70	0.8489	1497.30	17.20	17.20
2.90	8.90	8.90	0.7908	1497.21	15.47	15.47
3.00	8.00	8.00	0.7390	1497.13	13.98	13.98
3.10	7.50	7.50	0.6928	1497.06	12.69	12.69
3.20	7.00	7.00	0.6524	1497.00	11.59	11.59
3.30	6.40	6.40	0.6159	1496.94	10.64	10.64
3.40	6.10	6.10	0.5831	1496.89	9.80	9.80
3.50	5.70	5.70	0.5539	1496.85	9.08	9.08
3.60	5.40	5.40	0.5274	1496.81	8.43	8.43
3.70	5.20	5.20	0.5039	1496.77	7.88	7.88
3.80	5.00	5.00	0.4829	1496.74	7.39	7.39
3.90	4.80	4.80	0.4641	1496.71	6.96	6.96
4.00	4.60	4.60	0.4470	1496.68	6.58	6.58
4.10	4.50	4.50	0.4316	1496.66	6.25	6.25
4.20	4.40	4.40	0.4180	1496.64	5.96	5.96
4.30	4.30	4.30	0.4058	1496.62	5.69	5.69
4.40	4.20	4.20	0.3948	1496.60	5.46	5.46
4.50	4.10	4.10	0.3849	1496.59	5.26	5.26
4.60	4.00	4.00	0.3756	1496.57	5.07	5.07
4.70	3.90	3.90	0.3671	1496.56	4.90	4.90

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	3.80	3.80	0.3590	1496.55	4.74	4.74
4.90	3.70	3.70	0.3514	1496.54	4.59	4.59
5.00	3.60	3.60	0.3442	1496.53	4.45	4.45
5.10	3.50	3.50	0.3373	1496.52	4.32	4.32
5.20	3.40	3.40	0.3307	1496.51	4.18	4.18
5.30	3.30	3.30	0.3243	1496.50	4.06	4.06
5.40	3.20	3.20	0.3180	1496.49	3.95	3.95
5.50	3.20	3.20	0.3122	1496.48	3.85	3.85
5.60	3.10	3.10	0.3069	1496.47	3.75	3.75
5.70	3.10	3.10	0.3019	1496.46	3.66	3.66
5.80	3.00	3.00	0.2971	1496.45	3.58	3.58
5.90	2.90	2.90	0.2923	1496.45	3.49	3.49
6.00	2.90	2.90	0.2878	1496.44	3.41	3.41
6.10	2.80	2.80	0.2835	1496.43	3.33	3.33
6.20	2.80	2.80	0.2794	1496.43	3.26	3.26
6.30	2.70	2.70	0.2754	1496.42	3.19	3.19
6.40	2.70	2.70	0.2717	1496.42	3.12	3.12
6.50	2.60	2.60	0.2680	1496.41	3.06	3.06
6.60	2.60	2.60	0.2645	1496.40	2.99	2.99
6.70	2.60	2.60	0.2615	1496.40	2.94	2.94
6.80	2.60	2.60	0.2588	1496.40	2.90	2.90
6.90	2.50	2.50	0.2561	1496.39	2.86	2.86
7.00	2.50	2.50	0.2534	1496.39	2.81	2.81
7.10	2.50	2.50	0.2509	1496.38	2.77	2.77
7.20	2.40	2.40	0.2484	1496.38	2.73	2.73
7.30	2.40	2.40	0.2458	1496.38	2.69	2.69
7.40	2.40	2.40	0.2435	1496.37	2.66	2.66
7.50	2.40	2.40	0.2415	1496.37	2.63	2.63
7.60	2.30	2.30	0.2394	1496.37	2.59	2.59
7.70	2.30	2.30	0.2371	1496.36	2.56	2.56
7.80	2.30	2.30	0.2351	1496.36	2.53	2.53
7.90	2.30	2.30	0.2334	1496.36	2.50	2.50
8.00	2.20	2.20	0.2315	1496.35	2.47	2.47
8.10	2.20	2.20	0.2294	1496.35	2.43	2.43
8.20	2.20	2.20	0.2276	1496.35	2.41	2.41
8.30	2.20	2.20	0.2260	1496.35	2.38	2.38
8.40	2.10	2.10	0.2242	1496.34	2.35	2.35
8.50	2.10	2.10	0.2222	1496.34	2.32	2.32
8.60	2.10	2.10	0.2205	1496.34	2.29	2.29
8.70	2.10	2.10	0.2190	1496.33	2.27	2.27
8.80	2.00	2.00	0.2173	1496.33	2.24	2.24
8.90	2.00	2.00	0.2154	1496.33	2.21	2.21
9.00	2.00	2.00	0.2138	1496.33	2.19	2.19
9.10	2.00	2.00	0.2123	1496.32	2.16	2.16
9.20	1.90	1.90	0.2106	1496.32	2.14	2.14
9.30	1.90	1.90	0.2088	1496.32	2.11	2.11
9.40	1.90	1.90	0.2072	1496.32	2.08	2.08
9.50	1.90	1.90	0.2057	1496.31	2.06	2.06
9.60	1.90	1.90	0.2045	1496.31	2.04	2.04
9.70	1.80	1.80	0.2030	1496.31	2.02	2.02
9.80	1.80	1.80	0.2013	1496.31	1.99	1.99
9.90	1.80	1.80	0.1998	1496.31	1.97	1.97
10.00	1.80	1.80	0.1985	1496.30	1.95	1.95
10.10	1.80	1.80	0.1974	1496.30	1.93	1.93
10.20	1.70	1.70	0.1960	1496.30	1.91	1.91
10.30	1.70	1.70	0.1944	1496.30	1.89	1.89
10.40	1.70	1.70	0.1929	1496.30	1.87	1.87
10.50	1.70	1.70	0.1916	1496.29	1.85	1.85

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	1.70	1.70	0.1904	1496.29	1.83	1.83
10.70	1.60	1.60	0.1890	1496.29	1.81	1.81
10.80	1.60	1.60	0.1873	1496.29	1.79	1.79
10.90	1.60	1.60	0.1858	1496.28	1.77	1.77
11.00	1.60	1.60	0.1844	1496.28	1.75	1.75
11.10	1.50	1.50	0.1828	1496.28	1.73	1.73
11.20	1.50	1.50	0.1810	1496.28	1.71	1.71
11.30	1.50	1.50	0.1794	1496.27	1.69	1.69
11.40	1.40	1.40	0.1775	1496.27	1.66	1.66
11.50	1.40	1.40	0.1755	1496.27	1.63	1.63
11.60	1.30	1.30	0.1732	1496.27	1.61	1.61
11.70	1.30	1.30	0.1708	1496.26	1.57	1.57
11.80	1.30	1.30	0.1687	1496.26	1.54	1.54
11.90	1.20	1.20	0.1664	1496.25	1.51	1.51
12.00	1.20	1.20	0.1639	1496.25	1.48	1.48
12.10	1.10	1.10	0.1613	1496.25	1.45	1.45
12.20	1.10	1.10	0.1586	1496.24	1.41	1.41
12.30	1.10	1.10	0.1562	1496.24	1.38	1.38
12.40	1.00	1.00	0.1536	1496.23	1.34	1.34
12.50	1.00	1.00	0.1509	1496.23	1.31	1.31
12.60	0.90	0.90	0.1481	1496.23	1.27	1.27
12.70	0.90	0.90	0.1452	1496.22	1.23	1.23
12.80	0.90	0.90	0.1426	1496.22	1.20	1.20
12.90	0.80	0.80	0.1399	1496.21	1.16	1.16
13.00	0.80	0.80	0.1371	1496.21	1.12	1.12
13.10	0.70	0.70	0.1341	1496.21	1.08	1.08
13.20	0.70	0.70	0.1311	1496.20	1.04	1.04
13.30	0.70	0.70	0.1284	1496.20	1.02	1.02
13.40	0.60	0.60	0.1255	1496.19	0.99	0.99
13.50	0.60	0.60	0.1224	1496.19	0.95	0.95
13.60	0.60	0.60	0.1196	1496.18	0.93	0.93
13.70	0.50	0.50	0.1166	1496.18	0.90	0.90
13.80	0.50	0.50	0.1135	1496.17	0.86	0.86
13.90	0.40	0.40	0.1102	1496.17	0.83	0.83
14.00	0.40	0.40	0.1068	1496.16	0.79	0.79
14.10	0.40	0.40	0.1037	1496.16	0.76	0.76
14.20	0.30	0.30	0.1004	1496.15	0.73	0.73
14.30	0.30	0.30	0.0970	1496.15	0.69	0.69
14.40	0.20	0.20	0.0935	1496.14	0.66	0.66
14.50	0.20	0.20	0.0899	1496.14	0.62	0.62
14.60	0.20	0.20	0.0866	1496.13	0.59	0.59
14.70	0.10	0.10	0.0831	1496.13	0.55	0.55
14.80	0.10	0.10	0.0795	1496.12	0.51	0.51
14.90	0.00	0.00	0.0759	1496.12	0.476	0.476
15.00	0.00	0.00	0.0721	1496.11	0.437	0.437

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\10.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	1.70	1.70	0.0000	1496.00	0.000	0.000
Max. Inflow	1.60	55.80	55.80	1.1326	1497.73	26.51	26.51
Max. Outflow	1.90	40.80	40.80	1.5068	1498.27	39.96	39.96
Final	15.00	0.00	0.00	0.0721	1496.11	0.437	0.437

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	2.10	2.10	0.0000	1496.00	0.000	0.000
0.10	2.30	2.30	0.0178	1496.03	0.100	0.100
0.20	2.60	2.60	0.0367	1496.06	0.207	0.207
0.30	2.90	2.90	0.0573	1496.09	0.323	0.323
0.40	3.20	3.20	0.0791	1496.12	0.51	0.51
0.50	3.50	3.50	0.1016	1496.16	0.74	0.74
0.60	3.80	3.80	0.1246	1496.19	0.98	0.98
0.70	4.40	4.40	0.1492	1496.23	1.29	1.29
0.80	5.10	5.10	0.1763	1496.27	1.65	1.65
0.90	5.70	5.70	0.2056	1496.31	2.06	2.06
1.00	7.30	7.30	0.2401	1496.37	2.60	2.60
1.10	10.80	10.80	0.2899	1496.44	3.45	3.45
1.20	18.20	18.20	0.3746	1496.57	5.05	5.05
1.30	30.80	30.80	0.5219	1496.80	8.29	8.29
1.40	46.60	46.60	0.7486	1497.14	14.25	14.25
1.50	60.30	60.30	1.0356	1497.58	23.18	23.18
1.60	67.30	67.30	1.3282	1498.03	33.61	33.61
1.70	65.00	65.00	1.5624	1498.35	42.02	42.02
1.80	58.50	58.50	1.7034	1498.55	47.37	47.37
1.90	49.30	49.30	1.7498	1498.61	49.18	49.18
2.00	40.00	40.00	1.7176	1498.57	47.92	47.93
2.10	33.60	33.60	1.6382	1498.46	44.87	44.87
2.20	27.30	27.30	1.5351	1498.31	41.00	41.00
2.30	23.40	23.40	1.4226	1498.16	36.92	36.92
2.40	19.50	19.50	1.3109	1498.00	33.00	33.00
2.50	17.10	17.10	1.2055	1497.84	29.11	29.11
2.60	14.80	14.80	1.1106	1497.70	25.74	25.74
2.70	13.20	13.20	1.0256	1497.57	22.85	22.85
2.80	11.70	11.70	0.9499	1497.45	20.37	20.37
2.90	10.70	10.70	0.8829	1497.35	18.25	18.25
3.00	9.70	9.70	0.8238	1497.26	16.45	16.45
3.10	9.00	9.00	0.7714	1497.18	14.91	14.91
3.20	8.40	8.40	0.7256	1497.11	13.59	13.59
3.30	7.80	7.80	0.6848	1497.05	12.47	12.47
3.40	7.30	7.30	0.6482	1496.99	11.48	11.48
3.50	6.90	6.90	0.6155	1496.94	10.63	10.63
3.60	6.50	6.50	0.5862	1496.90	9.87	9.87
3.70	6.30	6.30	0.5601	1496.86	9.23	9.23
3.80	6.00	6.00	0.5370	1496.82	8.66	8.66
3.90	5.80	5.80	0.5163	1496.79	8.16	8.16
4.00	5.60	5.60	0.4977	1496.76	7.73	7.73
4.10	5.40	5.40	0.4809	1496.73	7.34	7.34
4.20	5.30	5.30	0.4658	1496.71	7.00	7.00
4.30	5.20	5.20	0.4526	1496.69	6.70	6.70
4.40	5.00	5.00	0.4405	1496.67	6.44	6.44
4.50	4.90	4.90	0.4292	1496.66	6.20	6.20
4.60	4.80	4.80	0.4189	1496.64	5.98	5.98
4.70	4.70	4.70	0.4096	1496.63	5.78	5.78

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	4.50	4.50	0.4007	1496.61	5.58	5.58
4.90	4.40	4.40	0.3921	1496.60	5.40	5.40
5.00	4.30	4.30	0.3841	1496.59	5.24	5.24
5.10	4.20	4.20	0.3765	1496.58	5.09	5.09
5.20	4.10	4.10	0.3693	1496.56	4.95	4.95
5.30	4.00	4.00	0.3624	1496.55	4.81	4.81
5.40	3.90	3.90	0.3559	1496.54	4.68	4.68
5.50	3.80	3.80	0.3495	1496.53	4.56	4.56
5.60	3.70	3.70	0.3433	1496.52	4.43	4.43
5.70	3.70	3.70	0.3377	1496.52	4.32	4.32
5.80	3.60	3.60	0.3326	1496.51	4.22	4.22
5.90	3.60	3.60	0.3278	1496.50	4.13	4.13
6.00	3.50	3.50	0.3234	1496.49	4.05	4.05
6.10	3.40	3.40	0.3188	1496.49	3.97	3.97
6.20	3.40	3.40	0.3144	1496.48	3.89	3.89
6.30	3.30	3.30	0.3103	1496.47	3.81	3.81
6.40	3.20	3.20	0.3060	1496.47	3.74	3.74
6.50	3.20	3.20	0.3018	1496.46	3.66	3.66
6.60	3.10	3.10	0.2979	1496.46	3.59	3.59
6.70	3.10	3.10	0.2941	1496.45	3.52	3.52
6.80	3.10	3.10	0.2909	1496.44	3.47	3.47
6.90	3.00	3.00	0.2877	1496.44	3.41	3.41
7.00	3.00	3.00	0.2845	1496.43	3.35	3.35
7.10	3.00	3.00	0.2818	1496.43	3.30	3.30
7.20	3.00	3.00	0.2795	1496.43	3.26	3.26
7.30	2.90	2.90	0.2771	1496.42	3.22	3.22
7.40	2.90	2.90	0.2746	1496.42	3.17	3.17
7.50	2.90	2.90	0.2725	1496.42	3.14	3.14
7.60	2.80	2.80	0.2703	1496.41	3.10	3.10
7.70	2.80	2.80	0.2680	1496.41	3.06	3.06
7.80	2.80	2.80	0.2660	1496.41	3.02	3.02
7.90	2.70	2.70	0.2640	1496.40	2.98	2.98
8.00	2.70	2.70	0.2618	1496.40	2.95	2.95
8.10	2.70	2.70	0.2599	1496.40	2.92	2.92
8.20	2.60	2.60	0.2578	1496.39	2.88	2.88
8.30	2.60	2.60	0.2556	1496.39	2.85	2.85
8.40	2.60	2.60	0.2537	1496.39	2.82	2.82
8.50	2.50	2.50	0.2516	1496.38	2.78	2.78
8.60	2.50	2.50	0.2494	1496.38	2.75	2.75
8.70	2.50	2.50	0.2475	1496.38	2.72	2.72
8.80	2.40	2.40	0.2454	1496.38	2.69	2.69
8.90	2.40	2.40	0.2431	1496.37	2.65	2.65
9.00	2.40	2.40	0.2412	1496.37	2.62	2.62
9.10	2.40	2.40	0.2395	1496.37	2.59	2.59
9.20	2.30	2.30	0.2376	1496.36	2.56	2.56
9.30	2.30	2.30	0.2355	1496.36	2.53	2.53
9.40	2.30	2.30	0.2338	1496.36	2.50	2.50
9.50	2.30	2.30	0.2322	1496.35	2.48	2.48
9.60	2.20	2.20	0.2304	1496.35	2.45	2.45
9.70	2.20	2.20	0.2285	1496.35	2.42	2.42
9.80	2.20	2.20	0.2268	1496.35	2.39	2.39
9.90	2.20	2.20	0.2253	1496.34	2.37	2.37
10.00	2.10	2.10	0.2236	1496.34	2.34	2.34
10.10	2.10	2.10	0.2217	1496.34	2.31	2.31
10.20	2.10	2.10	0.2200	1496.34	2.29	2.29
10.30	2.10	2.10	0.2186	1496.33	2.26	2.26
10.40	2.00	2.00	0.2169	1496.33	2.24	2.24
10.50	2.00	2.00	0.2151	1496.33	2.21	2.21

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.00	2.00	0.2135	1496.33	2.18	2.18
10.70	2.00	2.00	0.2121	1496.32	2.16	2.16
10.80	2.00	2.00	0.2108	1496.32	2.14	2.14
10.90	1.90	1.90	0.2093	1496.32	2.12	2.12
11.00	1.90	1.90	0.2076	1496.32	2.09	2.09
11.10	1.90	1.90	0.2062	1496.32	2.07	2.07
11.20	1.80	1.80	0.2045	1496.31	2.04	2.04
11.30	1.80	1.80	0.2026	1496.31	2.01	2.01
11.40	1.70	1.70	0.2006	1496.31	1.98	1.98
11.50	1.70	1.70	0.1984	1496.30	1.95	1.95
11.60	1.60	1.60	0.1961	1496.30	1.91	1.91
11.70	1.60	1.60	0.1937	1496.30	1.88	1.88
11.80	1.50	1.50	0.1911	1496.29	1.84	1.84
11.90	1.50	1.50	0.1884	1496.29	1.81	1.81
12.00	1.40	1.40	0.1856	1496.28	1.77	1.77
12.10	1.40	1.40	0.1827	1496.28	1.73	1.73
12.20	1.30	1.30	0.1797	1496.27	1.69	1.69
12.30	1.30	1.30	0.1767	1496.27	1.65	1.65
12.40	1.20	1.20	0.1735	1496.27	1.61	1.61
12.50	1.20	1.20	0.1703	1496.26	1.57	1.57
12.60	1.10	1.10	0.1671	1496.26	1.52	1.52
12.70	1.10	1.10	0.1637	1496.25	1.48	1.48
12.80	1.00	1.00	0.1604	1496.25	1.43	1.43
12.90	1.00	1.00	0.1570	1496.24	1.39	1.39
13.00	1.00	1.00	0.1539	1496.24	1.35	1.35
13.10	0.90	0.90	0.1508	1496.23	1.31	1.31
13.20	0.90	0.90	0.1476	1496.23	1.26	1.26
13.30	0.80	0.80	0.1444	1496.22	1.22	1.22
13.40	0.80	0.80	0.1411	1496.22	1.18	1.18
13.50	0.70	0.70	0.1377	1496.21	1.13	1.13
13.60	0.70	0.70	0.1343	1496.21	1.09	1.09
13.70	0.60	0.60	0.1309	1496.20	1.04	1.04
13.80	0.60	0.60	0.1274	1496.20	1.01	1.01
13.90	0.50	0.50	0.1238	1496.19	0.97	0.97
14.00	0.50	0.50	0.1201	1496.18	0.93	0.93
14.10	0.40	0.40	0.1163	1496.18	0.89	0.89
14.20	0.40	0.40	0.1124	1496.17	0.85	0.85
14.30	0.30	0.30	0.1084	1496.17	0.81	0.81
14.40	0.30	0.30	0.1044	1496.16	0.77	0.77
14.50	0.20	0.20	0.1002	1496.15	0.73	0.73
14.60	0.20	0.20	0.0961	1496.15	0.68	0.68
14.70	0.10	0.10	0.0918	1496.14	0.64	0.64
14.80	0.10	0.10	0.0876	1496.13	0.60	0.60
14.90	0.00	0.00	0.0832	1496.13	0.55	0.55
15.00	0.00	0.00	0.0789	1496.12	0.51	0.51

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\25.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\I2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	2.10	2.10	0.0000	1496.00	0.000	0.000
Max. Inflow	1.60	67.30	67.30	1.3282	1498.03	33.61	33.61
Max. Outflow	1.90	49.30	49.30	1.7498	1498.61	49.18	49.18
Final	15.00	0.00	0.00	0.0789	1496.12	0.51	0.51

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	2.30	2.30	0.0000	1496.00	0.000	0.000
0.10	2.60	2.60	0.0198	1496.03	0.111	0.111
0.20	2.90	2.90	0.0411	1496.06	0.232	0.232
0.30	3.20	3.20	0.0639	1496.10	0.360	0.360
0.40	3.60	3.60	0.0880	1496.13	0.60	0.60
0.50	3.90	3.90	0.1130	1496.17	0.86	0.86
0.60	4.30	4.30	0.1386	1496.21	1.14	1.14
0.70	5.00	5.00	0.1660	1496.25	1.51	1.51
0.80	5.70	5.70	0.1961	1496.30	1.91	1.91
0.90	6.50	6.50	0.2286	1496.35	2.42	2.42
1.00	8.20	8.20	0.2668	1496.41	3.04	3.04
1.10	12.20	12.20	0.3220	1496.49	4.02	4.02
1.20	20.60	20.60	0.4164	1496.64	5.92	5.92
1.30	34.80	34.80	0.5806	1496.89	9.73	9.73
1.40	52.70	52.70	0.8329	1497.27	16.72	16.72
1.50	68.10	68.10	1.1507	1497.76	27.15	27.15
1.60	76.00	76.00	1.4738	1498.23	38.76	38.76
1.70	73.50	73.50	1.7312	1498.59	48.45	48.45
1.80	66.20	66.20	1.8830	1498.80	54.50	54.50
1.90	55.70	55.70	1.9286	1498.86	56.37	56.37
2.00	45.20	45.20	1.8868	1498.80	54.65	54.65
2.10	38.00	38.00	1.7943	1498.67	50.94	50.94
2.20	30.80	30.80	1.6766	1498.51	46.34	46.34
2.30	26.40	26.40	1.5498	1498.33	41.55	41.55
2.40	22.10	22.10	1.4256	1498.16	37.03	37.03
2.50	19.40	19.40	1.3081	1498.00	32.90	32.90
2.60	16.70	16.70	1.2016	1497.83	28.97	28.97
2.70	15.00	15.00	1.1070	1497.69	25.62	25.62
2.80	13.30	13.30	1.0239	1497.56	22.79	22.79
2.90	12.10	12.10	0.9505	1497.45	20.39	20.39
3.00	10.90	10.90	0.8855	1497.35	18.33	18.33
3.10	10.20	10.20	0.8284	1497.27	16.59	16.59
3.20	9.50	9.50	0.7788	1497.19	15.12	15.12
3.30	8.80	8.80	0.7347	1497.12	13.85	13.85
3.40	8.30	8.30	0.6954	1497.06	12.76	12.76
3.50	7.80	7.80	0.6604	1497.01	11.80	11.80
3.60	7.40	7.40	0.6290	1496.96	10.98	10.98
3.70	7.10	7.10	0.6012	1496.92	10.26	10.26
3.80	6.80	6.80	0.5764	1496.88	9.63	9.63
3.90	6.50	6.50	0.5541	1496.85	9.08	9.08
4.00	6.30	6.30	0.5340	1496.82	8.59	8.59
4.10	6.10	6.10	0.5160	1496.79	8.16	8.16
4.20	6.00	6.00	0.5001	1496.76	7.79	7.79
4.30	5.80	5.80	0.4859	1496.74	7.46	7.46
4.40	5.70	5.70	0.4730	1496.72	7.16	7.16
4.50	5.60	5.60	0.4616	1496.71	6.90	6.90
4.60	5.40	5.40	0.4510	1496.69	6.67	6.67
4.70	5.30	5.30	0.4410	1496.67	6.45	6.45

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	5.10	5.10	0.4315	1496.66	6.25	6.25
4.90	5.00	5.00	0.4224	1496.65	6.05	6.05
5.00	4.80	4.80	0.4137	1496.63	5.86	5.86
5.10	4.70	4.70	0.4052	1496.62	5.68	5.68
5.20	4.60	4.60	0.3974	1496.61	5.51	5.51
5.30	4.50	4.50	0.3901	1496.60	5.36	5.36
5.40	4.40	4.40	0.3831	1496.59	5.22	5.22
5.50	4.30	4.30	0.3765	1496.58	5.09	5.09
5.60	4.20	4.20	0.3700	1496.57	4.96	4.96
5.70	4.20	4.20	0.3642	1496.56	4.85	4.85
5.80	4.10	4.10	0.3589	1496.55	4.74	4.74
5.90	4.00	4.00	0.3536	1496.54	4.64	4.64
6.00	3.90	3.90	0.3483	1496.53	4.53	4.53
6.10	3.90	3.90	0.3435	1496.52	4.44	4.44
6.20	3.80	3.80	0.3390	1496.52	4.35	4.35
6.30	3.70	3.70	0.3344	1496.51	4.26	4.26
6.40	3.70	3.70	0.3302	1496.50	4.17	4.17
6.50	3.60	3.60	0.3262	1496.50	4.10	4.10
6.60	3.50	3.50	0.3219	1496.49	4.02	4.02
6.70	3.50	3.50	0.3179	1496.49	3.95	3.95
6.80	3.50	3.50	0.3145	1496.48	3.89	3.89
6.90	3.40	3.40	0.3111	1496.48	3.83	3.83
7.00	3.40	3.40	0.3078	1496.47	3.77	3.77
7.10	3.40	3.40	0.3050	1496.47	3.72	3.72
7.20	3.30	3.30	0.3021	1496.46	3.67	3.67
7.30	3.30	3.30	0.2993	1496.46	3.62	3.62
7.40	3.30	3.30	0.2969	1496.45	3.57	3.57
7.50	3.20	3.20	0.2944	1496.45	3.53	3.53
7.60	3.20	3.20	0.2919	1496.45	3.48	3.48
7.70	3.20	3.20	0.2897	1496.44	3.44	3.44
7.80	3.10	3.10	0.2874	1496.44	3.40	3.40
7.90	3.10	3.10	0.2851	1496.44	3.36	3.36
8.00	3.00	3.00	0.2827	1496.43	3.32	3.32
8.10	3.00	3.00	0.2802	1496.43	3.28	3.28
8.20	3.00	3.00	0.2781	1496.43	3.24	3.24
8.30	2.90	2.90	0.2759	1496.42	3.20	3.20
8.40	2.90	2.90	0.2736	1496.42	3.16	3.16
8.50	2.90	2.90	0.2716	1496.42	3.12	3.12
8.60	2.80	2.80	0.2695	1496.41	3.08	3.08
8.70	2.80	2.80	0.2674	1496.41	3.04	3.04
8.80	2.80	2.80	0.2655	1496.41	3.01	3.01
8.90	2.70	2.70	0.2635	1496.40	2.98	2.98
9.00	2.70	2.70	0.2613	1496.40	2.94	2.94
9.10	2.70	2.70	0.2595	1496.40	2.91	2.91
9.20	2.60	2.60	0.2575	1496.39	2.88	2.88
9.30	2.60	2.60	0.2553	1496.39	2.84	2.84
9.40	2.60	2.60	0.2534	1496.39	2.81	2.81
9.50	2.60	2.60	0.2518	1496.38	2.79	2.79
9.60	2.50	2.50	0.2499	1496.38	2.76	2.76
9.70	2.50	2.50	0.2479	1496.38	2.73	2.73
9.80	2.50	2.50	0.2462	1496.38	2.70	2.70
9.90	2.40	2.40	0.2442	1496.37	2.67	2.67
10.00	2.40	2.40	0.2422	1496.37	2.64	2.64
10.10	2.40	2.40	0.2403	1496.37	2.61	2.61
10.20	2.40	2.40	0.2387	1496.37	2.58	2.58
10.30	2.30	2.30	0.2369	1496.36	2.55	2.55
10.40	2.30	2.30	0.2350	1496.36	2.52	2.52
10.50	2.30	2.30	0.2332	1496.36	2.49	2.49

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.30	2.30	0.2317	1496.35	2.47	2.47
10.70	2.20	2.20	0.2300	1496.35	2.44	2.44
10.80	2.20	2.20	0.2281	1496.35	2.41	2.41
10.90	2.20	2.20	0.2265	1496.35	2.39	2.39
11.00	2.20	2.20	0.2250	1496.34	2.36	2.36
11.10	2.10	2.10	0.2233	1496.34	2.34	2.34
11.20	2.00	2.00	0.2211	1496.34	2.30	2.30
11.30	2.00	2.00	0.2187	1496.33	2.27	2.27
11.40	1.90	1.90	0.2163	1496.33	2.23	2.23
11.50	1.90	1.90	0.2137	1496.33	2.19	2.19
11.60	1.80	1.80	0.2111	1496.32	2.15	2.15
11.70	1.80	1.80	0.2084	1496.32	2.10	2.10
11.80	1.70	1.70	0.2057	1496.31	2.06	2.06
11.90	1.70	1.70	0.2029	1496.31	2.02	2.02
12.00	1.60	1.60	0.2001	1496.31	1.97	1.97
12.10	1.60	1.60	0.1972	1496.30	1.93	1.93
12.20	1.50	1.50	0.1942	1496.30	1.89	1.89
12.30	1.50	1.50	0.1912	1496.29	1.84	1.84
12.40	1.40	1.40	0.1881	1496.29	1.80	1.80
12.50	1.30	1.30	0.1846	1496.28	1.76	1.76
12.60	1.30	1.30	0.1810	1496.28	1.71	1.71
12.70	1.20	1.20	0.1774	1496.27	1.66	1.66
12.80	1.20	1.20	0.1738	1496.27	1.61	1.61
12.90	1.10	1.10	0.1702	1496.26	1.56	1.56
13.00	1.10	1.10	0.1665	1496.25	1.52	1.52
13.10	1.00	1.00	0.1629	1496.25	1.47	1.47
13.20	1.00	1.00	0.1592	1496.24	1.42	1.42
13.30	0.90	0.90	0.1556	1496.24	1.37	1.37
13.40	0.90	0.90	0.1519	1496.23	1.32	1.32
13.50	0.80	0.80	0.1482	1496.23	1.27	1.27
13.60	0.80	0.80	0.1445	1496.22	1.22	1.22
13.70	0.70	0.70	0.1408	1496.22	1.17	1.17
13.80	0.60	0.60	0.1367	1496.21	1.12	1.12
13.90	0.60	0.60	0.1326	1496.20	1.06	1.06
14.00	0.50	0.50	0.1286	1496.20	1.02	1.02
14.10	0.50	0.50	0.1245	1496.19	0.98	0.98
14.20	0.40	0.40	0.1203	1496.18	0.93	0.93
14.30	0.40	0.40	0.1161	1496.18	0.89	0.89
14.40	0.30	0.30	0.1118	1496.17	0.85	0.85
14.50	0.30	0.30	0.1075	1496.16	0.80	0.80
14.60	0.20	0.20	0.1031	1496.16	0.76	0.76
14.70	0.20	0.20	0.0987	1496.15	0.71	0.71
14.80	0.10	0.10	0.0943	1496.14	0.66	0.66
14.90	0.10	0.10	0.0898	1496.14	0.62	0.62
15.00	0.00	0.00	0.0853	1496.13	0.57	0.57

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\50.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	2.30	2.30	0.0000	1496.00	0.000	0.000
Max. Inflow	1.60	76.00	76.00	1.4738	1498.23	38.76	38.76
Max. Outflow	1.90	55.70	55.70	1.9286	1498.86	56.37	56.37
Final	15.00	0.00	0.00	0.0853	1496.13	0.57	0.57

Modified Puls Routing

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
0.00	2.70	2.70	0.0000	1496.00	0.000	0.000
0.10	3.10	3.10	0.0234	1496.04	0.132	0.132
0.20	3.40	3.40	0.0486	1496.07	0.274	0.274
0.30	3.80	3.80	0.0753	1496.12	0.470	0.470
0.40	4.20	4.20	0.1033	1496.16	0.76	0.76
0.50	4.60	4.60	0.1321	1496.20	1.06	1.06
0.60	5.10	5.10	0.1618	1496.25	1.45	1.45
0.70	5.90	5.90	0.1935	1496.30	1.88	1.88
0.80	6.70	6.70	0.2279	1496.35	2.41	2.41
0.90	7.60	7.60	0.2646	1496.40	3.00	3.00
1.00	9.70	9.70	0.3081	1496.47	3.77	3.77
1.10	14.30	14.30	0.3711	1496.57	4.98	4.98
1.20	24.20	24.20	0.4794	1496.73	7.31	7.31
1.30	40.90	40.90	0.6685	1497.02	12.03	12.03
1.40	61.90	61.90	0.9583	1497.46	20.64	20.64
1.50	80.10	80.10	1.3219	1498.02	33.38	33.38
1.60	89.30	89.30	1.6903	1498.53	46.87	46.87
1.70	86.40	86.40	1.9808	1498.93	58.52	58.52
1.80	77.70	77.70	2.1260	1499.13	70.45	70.45
1.90	65.40	65.40	2.1335	1499.14	70.83	70.83
2.00	53.10	53.10	2.0639	1499.04	64.52	64.52
2.10	44.70	44.70	1.9628	1498.91	57.77	57.77
2.20	36.20	36.20	1.8403	1498.74	52.78	52.78
2.30	31.10	31.10	1.7044	1498.55	47.41	47.41
2.40	25.90	25.90	1.5693	1498.36	42.27	42.27
2.50	22.80	22.80	1.4406	1498.18	37.56	37.56
2.60	19.60	19.60	1.3226	1498.02	33.41	33.41
2.70	17.60	17.60	1.2163	1497.86	29.51	29.51
2.80	15.60	15.60	1.1234	1497.72	26.19	26.19
2.90	14.20	14.20	1.0417	1497.59	23.38	23.38
3.00	12.90	12.90	0.9702	1497.48	21.02	21.02
3.10	12.00	12.00	0.9076	1497.39	19.02	19.02
3.20	11.20	11.20	0.8533	1497.30	17.33	17.33
3.30	10.30	10.30	0.8048	1497.23	15.89	15.89
3.40	9.80	9.80	0.7618	1497.16	14.63	14.63
3.50	9.20	9.20	0.7239	1497.11	13.55	13.55
3.60	8.60	8.60	0.6894	1497.05	12.60	12.60
3.70	8.30	8.30	0.6586	1497.01	11.76	11.76
3.80	8.00	8.00	0.6317	1496.96	11.05	11.05
3.90	7.70	7.70	0.6078	1496.93	10.43	10.43
4.00	7.40	7.40	0.5863	1496.90	9.87	9.87
4.10	7.20	7.20	0.5670	1496.87	9.40	9.40
4.20	7.00	7.00	0.5498	1496.84	8.97	8.97
4.30	6.90	6.90	0.5346	1496.82	8.60	8.60
4.40	6.70	6.70	0.5210	1496.80	8.27	8.27
4.50	6.50	6.50	0.5084	1496.78	7.98	7.98
4.60	6.40	6.40	0.4969	1496.76	7.71	7.71
4.70	6.20	6.20	0.4862	1496.74	7.47	7.47



Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
4.80	6.00	6.00	0.4759	1496.73	7.23	7.23
4.90	5.90	5.90	0.4662	1496.71	7.01	7.01
5.00	5.70	5.70	0.4571	1496.70	6.80	6.80
5.10	5.60	5.60	0.4484	1496.69	6.61	6.61
5.20	5.40	5.40	0.4400	1496.67	6.43	6.43
5.30	5.30	5.30	0.4318	1496.66	6.25	6.25
5.40	5.20	5.20	0.4242	1496.65	6.09	6.09
5.50	5.10	5.10	0.4171	1496.64	5.94	5.94
5.60	5.00	5.00	0.4103	1496.63	5.79	5.79
5.70	4.90	4.90	0.4040	1496.62	5.65	5.65
5.80	4.80	4.80	0.3979	1496.61	5.52	5.52
5.90	4.70	4.70	0.3920	1496.60	5.40	5.40
6.00	4.60	4.60	0.3863	1496.59	5.28	5.28
6.10	4.60	4.60	0.3810	1496.58	5.18	5.18
6.20	4.50	4.50	0.3762	1496.57	5.09	5.09
6.30	4.40	4.40	0.3714	1496.57	4.99	4.99
6.40	4.30	4.30	0.3665	1496.56	4.89	4.89
6.50	4.20	4.20	0.3616	1496.55	4.80	4.80
6.60	4.20	4.20	0.3570	1496.55	4.71	4.71
6.70	4.10	4.10	0.3528	1496.54	4.62	4.62
6.80	4.10	4.10	0.3488	1496.53	4.54	4.54
6.90	4.00	4.00	0.3450	1496.53	4.47	4.47
7.00	4.00	4.00	0.3415	1496.52	4.40	4.40
7.10	4.00	4.00	0.3384	1496.52	4.34	4.34
7.20	3.90	3.90	0.3355	1496.51	4.28	4.28
7.30	3.90	3.90	0.3326	1496.51	4.22	4.22
7.40	3.80	3.80	0.3297	1496.50	4.17	4.17
7.50	3.80	3.80	0.3269	1496.50	4.11	4.11
7.60	3.70	3.70	0.3242	1496.50	4.06	4.06
7.70	3.70	3.70	0.3214	1496.49	4.01	4.01
7.80	3.70	3.70	0.3190	1496.49	3.97	3.97
7.90	3.60	3.60	0.3165	1496.48	3.92	3.92
8.00	3.60	3.60	0.3140	1496.48	3.88	3.88
8.10	3.50	3.50	0.3115	1496.48	3.83	3.83
8.20	3.50	3.50	0.3089	1496.47	3.79	3.79
8.30	3.50	3.50	0.3067	1496.47	3.75	3.75
8.40	3.40	3.40	0.3044	1496.47	3.71	3.71
8.50	3.40	3.40	0.3020	1496.46	3.67	3.67
8.60	3.30	3.30	0.2996	1496.46	3.62	3.62
8.70	3.30	3.30	0.2971	1496.45	3.58	3.58
8.80	3.20	3.20	0.2946	1496.45	3.53	3.53
8.90	3.20	3.20	0.2920	1496.45	3.49	3.49
9.00	3.20	3.20	0.2898	1496.44	3.45	3.45
9.10	3.10	3.10	0.2876	1496.44	3.41	3.41
9.20	3.10	3.10	0.2852	1496.44	3.36	3.36
9.30	3.10	3.10	0.2832	1496.43	3.33	3.33
9.40	3.00	3.00	0.2810	1496.43	3.29	3.29
9.50	3.00	3.00	0.2788	1496.43	3.25	3.25
9.60	3.00	3.00	0.2769	1496.42	3.22	3.22
9.70	2.90	2.90	0.2748	1496.42	3.18	3.18
9.80	2.90	2.90	0.2727	1496.42	3.14	3.14
9.90	2.90	2.90	0.2708	1496.41	3.11	3.11
10.00	2.80	2.80	0.2689	1496.41	3.07	3.07
10.10	2.80	2.80	0.2668	1496.41	3.03	3.03
10.20	2.80	2.80	0.2650	1496.41	3.00	3.00
10.30	2.70	2.70	0.2630	1496.40	2.97	2.97
10.40	2.70	2.70	0.2610	1496.40	2.93	2.93
10.50	2.70	2.70	0.2592	1496.40	2.90	2.90

Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
10.60	2.70	2.70	0.2576	1496.39	2.88	2.88
10.70	2.60	2.60	0.2558	1496.39	2.85	2.85
10.80	2.60	2.60	0.2538	1496.39	2.82	2.82
10.90	2.60	2.60	0.2521	1496.39	2.79	2.79
11.00	2.50	2.50	0.2503	1496.38	2.76	2.76
11.10	2.50	2.50	0.2482	1496.38	2.73	2.73
11.20	2.40	2.40	0.2460	1496.38	2.70	2.70
11.30	2.30	2.30	0.2433	1496.37	2.65	2.65
11.40	2.30	2.30	0.2406	1496.37	2.61	2.61
11.50	2.20	2.20	0.2378	1496.36	2.57	2.57
11.60	2.10	2.10	0.2346	1496.36	2.52	2.52
11.70	2.10	2.10	0.2313	1496.35	2.46	2.46
11.80	2.00	2.00	0.2281	1496.35	2.41	2.41
11.90	2.00	2.00	0.2249	1496.34	2.36	2.36
12.00	1.90	1.90	0.2217	1496.34	2.31	2.31
12.10	1.80	1.80	0.2181	1496.33	2.26	2.26
12.20	1.80	1.80	0.2146	1496.33	2.20	2.20
12.30	1.70	1.70	0.2111	1496.32	2.15	2.15
12.40	1.60	1.60	0.2072	1496.32	2.08	2.08
12.50	1.60	1.60	0.2035	1496.31	2.03	2.03
12.60	1.50	1.50	0.1998	1496.31	1.97	1.97
12.70	1.50	1.50	0.1962	1496.30	1.91	1.91
12.80	1.40	1.40	0.1926	1496.29	1.86	1.86
12.90	1.30	1.30	0.1885	1496.29	1.81	1.81
13.00	1.30	1.30	0.1846	1496.28	1.76	1.76
13.10	1.20	1.20	0.1806	1496.28	1.70	1.70
13.20	1.10	1.10	0.1763	1496.27	1.65	1.65
13.30	1.10	1.10	0.1720	1496.26	1.59	1.59
13.40	1.00	1.00	0.1678	1496.26	1.53	1.53
13.50	0.90	0.90	0.1632	1496.25	1.47	1.47
13.60	0.90	0.90	0.1587	1496.24	1.41	1.41
13.70	0.80	0.80	0.1543	1496.24	1.35	1.35
13.80	0.80	0.80	0.1500	1496.23	1.30	1.30
13.90	0.70	0.70	0.1457	1496.22	1.24	1.24
14.00	0.60	0.60	0.1411	1496.22	1.18	1.18
14.10	0.60	0.60	0.1366	1496.21	1.12	1.12
14.20	0.50	0.50	0.1321	1496.20	1.06	1.06
14.30	0.40	0.40	0.1273	1496.19	1.01	1.01
14.40	0.40	0.40	0.1225	1496.19	0.96	0.96
14.50	0.30	0.30	0.1177	1496.18	0.91	0.91
14.60	0.30	0.30	0.1129	1496.17	0.86	0.86
14.70	0.20	0.20	0.1081	1496.17	0.81	0.81
14.80	0.10	0.10	0.1029	1496.16	0.75	0.75
14.90	0.10	0.10	0.0977	1496.15	0.70	0.70
15.00	0.00	0.00	0.0926	1496.14	0.65	0.65

Total Routing Mass Balance Discrepancy is -0.08%

**Modified Puls Routing
Summary of Results**

Inflow Hydrograph: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\post to basin\100.HYD
 Storage/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2_rev_to_top_berm.l
 Discharge/Elevation Curve: \\Server\mikejr\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\POI L\BASINS\BASIN L-2\2.EO

Basin Bypass Capacity = 0.0 cfs
 Starting Pool Elevation = 1496.00 feet
 Time Interval = 0.1 hours
 Total number of Inflow points = 151

	Event Time (hours)	Hydrograph Inflow (cfs)	Basin Inflow (cfs)	Storage Used (acre-ft)	Elevation Above MSL (feet)	Basin Outflow (cfs)	Outflow Total (cfs)
Start	0.00	2.70	2.70	0.0000	1496.00	0.000	0.000
Max. Inflow	1.60	89.30	89.30	1.6903	1498.53	46.87	46.87
Max. Outflow	1.90	65.40	65.40	2.1335	1499.14	70.83	70.83
Final	15.00	0.00	0.00	0.0926	1496.14	0.65	0.65

SCS Segmental Travel Time

Summary for Post to Poi L-2

Segment 1: Overland Flow

L = 150 ft, S = .02 ft/ft, n = .4, P(2yr/24hr) = 3.6 in
Travel Time = 28 minutes

Segment 2: Concentrated Flow

L = 435 ft, S = .02 ft/ft, Unpaved surface
Travel Time = 3.2 minutes

Total Travel Time = 31.18 Minutes

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-1\route01.HYD	01/12/2010	0030	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-2\route02.HYD	01/12/2010	0030	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0030	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.02	0.02
01/12/2010	0042	0.00	0.04	0.04
01/12/2010	0048	0.00	0.06	0.06
01/12/2010	0054	0.00	0.09	0.09
01/12/2010	0100	0.00	0.11	0.11
01/12/2010	0106	0.00	0.14	0.14
01/12/2010	0112	0.00	0.17	0.17
01/12/2010	0118	0.00	0.20	0.20
01/12/2010	0124	0.00	0.24	0.24
01/12/2010	0130	0.00	0.29	0.29
01/12/2010	0136	0.00	0.35	0.35
01/12/2010	0142	0.00	0.55	0.55
01/12/2010	0148	0.00	0.94	0.94
01/12/2010	0154	0.00	1.75	1.75
01/12/2010	0200	0.03	3.17	3.20
01/12/2010	0206	0.08	5.10	5.18
01/12/2010	0212	0.15	7.22	7.37
01/12/2010	0218	0.22	9.05	9.26
01/12/2010	0224	0.35	10.30	10.64
01/12/2010	0230	0.45	10.89	11.33
01/12/2010	0236	0.52	10.94	11.46
01/12/2010	0242	0.59	10.63	11.22
01/12/2010	0248	0.65	10.10	10.75
01/12/2010	0254	0.72	9.47	10.19
01/12/2010	0300	0.77	8.79	9.56
01/12/2010	0306	0.82	8.12	8.94
01/12/2010	0312	0.85	7.48	8.34
01/12/2010	0318	0.88	6.88	7.76
01/12/2010	0324	0.90	6.34	7.24
01/12/2010	0330	0.91	5.85	6.76
01/12/2010	0336	0.92	5.40	6.31
01/12/2010	0342	0.93	5.01	5.94
01/12/2010	0348	0.93	4.66	5.59
01/12/2010	0354	0.93	4.34	5.27
01/12/2010	0400	0.92	4.05	4.98
01/12/2010	0406	0.92	3.81	4.72
01/12/2010	0412	0.91	3.58	4.49
01/12/2010	0418	0.90	3.37	4.27
01/12/2010	0424	0.89	3.18	4.07
01/12/2010	0430	0.88	3.00	3.88
01/12/2010	0436	0.88	2.86	3.73
01/12/2010	0442	0.86	2.73	3.59
01/12/2010	0448	0.85	2.61	3.46
01/12/2010	0454	0.84	2.50	3.34
01/12/2010	0500	0.83	2.40	3.23
01/12/2010	0506	0.82	2.31	3.13
01/12/2010	0512	0.81	2.22	3.03
01/12/2010	0518	0.79	2.14	2.94
01/12/2010	0524	0.78	2.07	2.84
01/12/2010	0530	0.76	2.00	2.76

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0536	0.75	1.93	2.68
01/12/2010	0542	0.73	1.87	2.61
01/12/2010	0548	0.72	1.82	2.55
01/12/2010	0554	0.71	1.78	2.49
01/12/2010	0600	0.70	1.73	2.43
01/12/2010	0606	0.68	1.68	2.36
01/12/2010	0612	0.67	1.64	2.31
01/12/2010	0618	0.65	1.60	2.25
01/12/2010	0624	0.64	1.56	2.20
01/12/2010	0630	0.63	1.52	2.15
01/12/2010	0636	0.62	1.49	2.11
01/12/2010	0642	0.61	1.46	2.07
01/12/2010	0648	0.60	1.43	2.03
01/12/2010	0654	0.60	1.39	1.99
01/12/2010	0700	0.59	1.36	1.96
01/12/2010	0706	0.59	1.34	1.93
01/12/2010	0712	0.58	1.31	1.90
01/12/2010	0718	0.58	1.29	1.87
01/12/2010	0724	0.58	1.27	1.85
01/12/2010	0730	0.57	1.25	1.82
01/12/2010	0736	0.57	1.22	1.79
01/12/2010	0742	0.56	1.20	1.76
01/12/2010	0748	0.55	1.18	1.73
01/12/2010	0754	0.54	1.16	1.70
01/12/2010	0800	0.54	1.14	1.68
01/12/2010	0806	0.53	1.13	1.66
01/12/2010	0812	0.52	1.12	1.64
01/12/2010	0818	0.52	1.10	1.62
01/12/2010	0824	0.51	1.09	1.60
01/12/2010	0830	0.50	1.07	1.57
01/12/2010	0836	0.50	1.05	1.55
01/12/2010	0842	0.49	1.04	1.53
01/12/2010	0848	0.49	1.03	1.51
01/12/2010	0854	0.48	1.02	1.50
01/12/2010	0900	0.48	1.01	1.48
01/12/2010	0906	0.47	1.00	1.47
01/12/2010	0912	0.47	0.99	1.46
01/12/2010	0918	0.47	0.98	1.45
01/12/2010	0924	0.46	0.97	1.43
01/12/2010	0930	0.45	0.95	1.40
01/12/2010	0936	0.44	0.94	1.38
01/12/2010	0942	0.44	0.93	1.36
01/12/2010	0948	0.43	0.92	1.35
01/12/2010	0954	0.42	0.91	1.33
01/12/2010	1000	0.42	0.90	1.31
01/12/2010	1006	0.41	0.89	1.30
01/12/2010	1012	0.40	0.88	1.29
01/12/2010	1018	0.40	0.88	1.27
01/12/2010	1024	0.39	0.87	1.26
01/12/2010	1030	0.39	0.86	1.25
01/12/2010	1036	0.38	0.85	1.23
01/12/2010	1042	0.38	0.84	1.21
01/12/2010	1048	0.37	0.83	1.20
01/12/2010	1054	0.37	0.82	1.19
01/12/2010	1100	0.37	0.81	1.17
01/12/2010	1106	0.36	0.80	1.16
01/12/2010	1112	0.36	0.79	1.15
01/12/2010	1118	0.36	0.78	1.14
01/12/2010	1124	0.35	0.78	1.13

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1130	0.35	0.77	1.12
01/12/2010	1136	0.35	0.76	1.11
01/12/2010	1142	0.34	0.75	1.10
01/12/2010	1148	0.34	0.74	1.09
01/12/2010	1154	0.34	0.73	1.07
01/12/2010	1200	0.34	0.72	1.06
01/12/2010	1206	0.34	0.71	1.05
01/12/2010	1212	0.33	0.70	1.04
01/12/2010	1218	0.33	0.69	1.02
01/12/2010	1224	0.32	0.68	1.00
01/12/2010	1230	0.32	0.66	0.98
01/12/2010	1236	0.31	0.65	0.96
01/12/2010	1242	0.30	0.64	0.94
01/12/2010	1248	0.30	0.62	0.92
01/12/2010	1254	0.29	0.61	0.90
01/12/2010	1300	0.29	0.59	0.88
01/12/2010	1306	0.28	0.58	0.86
01/12/2010	1312	0.28	0.56	0.84
01/12/2010	1318	0.27	0.55	0.83
01/12/2010	1324	0.27	0.54	0.81
01/12/2010	1330	0.27	0.52	0.79
01/12/2010	1336	0.26	0.51	0.77
01/12/2010	1342	0.25	0.49	0.74
01/12/2010	1348	0.24	0.47	0.72
01/12/2010	1354	0.24	0.46	0.70
01/12/2010	1400	0.23	0.45	0.68
01/12/2010	1406	0.22	0.43	0.65
01/12/2010	1412	0.22	0.41	0.63
01/12/2010	1418	0.21	0.40	0.60
01/12/2010	1424	0.20	0.38	0.58
01/12/2010	1430	0.20	0.37	0.57
01/12/2010	1436	0.19	0.36	0.55
01/12/2010	1442	0.19	0.35	0.54
01/12/2010	1448	0.19	0.34	0.53
01/12/2010	1454	0.19	0.33	0.52
01/12/2010	1500	0.19	0.32	0.50
01/12/2010	1506	0.18	0.31	0.49
01/12/2010	1512	0.18	0.30	0.48
01/12/2010	1518	0.18	0.29	0.47
01/12/2010	1524	0.18	0.27	0.45
01/12/2010	1530	0.17	0.00	0.17
01/12/2010	1536	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-1\route0030\HYD	01/12/2010	0030	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-2\route0030\HYD	01/12/2010	0030	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0030	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.03	0.03
01/12/2010	0042	0.00	0.06	0.06
01/12/2010	0048	0.00	0.10	0.10
01/12/2010	0054	0.00	0.14	0.14
01/12/2010	0100	0.00	0.18	0.18
01/12/2010	0106	0.00	0.22	0.22
01/12/2010	0112	0.00	0.27	0.27
01/12/2010	0118	0.00	0.33	0.33
01/12/2010	0124	0.00	0.41	0.41
01/12/2010	0130	0.00	0.54	0.54
01/12/2010	0136	0.00	0.73	0.73
01/12/2010	0142	0.00	1.07	1.07
01/12/2010	0148	0.01	1.78	1.79
01/12/2010	0154	0.27	3.22	3.50
01/12/2010	0200	1.07	5.58	6.64
01/12/2010	0206	1.74	8.68	10.42
01/12/2010	0212	2.17	11.89	14.06
01/12/2010	0218	2.44	14.50	16.95
01/12/2010	0224	2.57	16.10	18.68
01/12/2010	0230	2.62	16.62	19.24
01/12/2010	0236	2.60	16.35	18.95
01/12/2010	0242	2.56	15.57	18.13
01/12/2010	0248	2.49	14.54	17.03
01/12/2010	0254	2.42	13.40	15.82
01/12/2010	0300	2.34	12.26	14.59
01/12/2010	0306	2.25	11.17	13.42
01/12/2010	0312	2.17	10.17	12.34
01/12/2010	0318	2.10	9.28	11.38
01/12/2010	0324	2.03	8.47	10.50
01/12/2010	0330	1.96	7.76	9.71
01/12/2010	0336	1.89	7.11	9.00
01/12/2010	0342	1.82	6.55	8.37
01/12/2010	0348	1.75	6.06	7.81
01/12/2010	0354	1.69	5.61	7.30
01/12/2010	0400	1.63	5.23	6.85
01/12/2010	0406	1.57	4.88	6.45
01/12/2010	0412	1.51	4.56	6.07
01/12/2010	0418	1.46	4.27	5.73
01/12/2010	0424	1.41	4.03	5.44
01/12/2010	0430	1.37	3.81	5.18
01/12/2010	0436	1.33	3.62	4.94
01/12/2010	0442	1.29	3.44	4.73
01/12/2010	0448	1.26	3.29	4.54
01/12/2010	0454	1.23	3.15	4.37
01/12/2010	0500	1.20	3.02	4.21
01/12/2010	0506	1.17	2.90	4.08
01/12/2010	0512	1.14	2.81	3.95
01/12/2010	0518	1.12	2.71	3.83
01/12/2010	0524	1.09	2.62	3.71
01/12/2010	0530	1.06	2.54	3.60

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0536	1.04	2.46	3.50
01/12/2010	0542	1.02	2.38	3.40
01/12/2010	0548	0.99	2.31	3.30
01/12/2010	0554	0.97	2.25	3.21
01/12/2010	0600	0.94	2.18	3.12
01/12/2010	0606	0.92	2.12	3.04
01/12/2010	0612	0.90	2.06	2.97
01/12/2010	0618	0.89	2.01	2.89
01/12/2010	0624	0.87	1.96	2.83
01/12/2010	0630	0.86	1.91	2.77
01/12/2010	0636	0.84	1.87	2.71
01/12/2010	0642	0.82	1.83	2.65
01/12/2010	0648	0.80	1.80	2.60
01/12/2010	0654	0.78	1.76	2.54
01/12/2010	0700	0.77	1.72	2.49
01/12/2010	0706	0.75	1.69	2.44
01/12/2010	0712	0.74	1.66	2.40
01/12/2010	0718	0.73	1.63	2.36
01/12/2010	0724	0.72	1.61	2.33
01/12/2010	0730	0.71	1.58	2.29
01/12/2010	0736	0.70	1.55	2.25
01/12/2010	0742	0.69	1.53	2.22
01/12/2010	0748	0.68	1.50	2.19
01/12/2010	0754	0.68	1.48	2.16
01/12/2010	0800	0.66	1.46	2.13
01/12/2010	0806	0.65	1.45	2.10
01/12/2010	0812	0.64	1.43	2.06
01/12/2010	0818	0.63	1.40	2.03
01/12/2010	0824	0.62	1.38	2.00
01/12/2010	0830	0.61	1.36	1.97
01/12/2010	0836	0.60	1.35	1.95
01/12/2010	0842	0.60	1.33	1.93
01/12/2010	0848	0.59	1.32	1.91
01/12/2010	0854	0.59	1.30	1.89
01/12/2010	0900	0.58	1.28	1.86
01/12/2010	0906	0.58	1.26	1.84
01/12/2010	0912	0.57	1.25	1.82
01/12/2010	0918	0.57	1.23	1.80
01/12/2010	0924	0.56	1.22	1.78
01/12/2010	0930	0.55	1.20	1.75
01/12/2010	0936	0.54	1.19	1.74
01/12/2010	0942	0.53	1.18	1.71
01/12/2010	0948	0.53	1.16	1.69
01/12/2010	0954	0.52	1.14	1.67
01/12/2010	1000	0.51	1.13	1.64
01/12/2010	1006	0.51	1.12	1.62
01/12/2010	1012	0.50	1.10	1.61
01/12/2010	1018	0.50	1.09	1.59
01/12/2010	1024	0.49	1.08	1.57
01/12/2010	1030	0.49	1.07	1.56
01/12/2010	1036	0.48	1.07	1.55
01/12/2010	1042	0.48	1.06	1.53
01/12/2010	1048	0.47	1.04	1.51
01/12/2010	1054	0.47	1.03	1.50
01/12/2010	1100	0.47	1.02	1.48
01/12/2010	1106	0.46	1.01	1.47
01/12/2010	1112	0.46	1.00	1.46
01/12/2010	1118	0.46	0.99	1.45
01/12/2010	1124	0.45	0.98	1.44

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1130	0.45	0.98	1.43
01/12/2010	1136	0.45	0.97	1.41
01/12/2010	1142	0.44	0.95	1.40
01/12/2010	1148	0.44	0.94	1.38
01/12/2010	1154	0.44	0.93	1.37
01/12/2010	1200	0.43	0.92	1.35
01/12/2010	1206	0.42	0.91	1.33
01/12/2010	1212	0.42	0.89	1.31
01/12/2010	1218	0.41	0.88	1.29
01/12/2010	1224	0.40	0.86	1.26
01/12/2010	1230	0.40	0.84	1.24
01/12/2010	1236	0.39	0.83	1.22
01/12/2010	1242	0.39	0.81	1.19
01/12/2010	1248	0.38	0.79	1.17
01/12/2010	1254	0.38	0.77	1.15
01/12/2010	1300	0.37	0.76	1.13
01/12/2010	1306	0.36	0.74	1.10
01/12/2010	1312	0.35	0.72	1.07
01/12/2010	1318	0.35	0.70	1.05
01/12/2010	1324	0.34	0.68	1.02
01/12/2010	1330	0.33	0.66	1.00
01/12/2010	1336	0.32	0.64	0.97
01/12/2010	1342	0.32	0.62	0.94
01/12/2010	1348	0.31	0.61	0.92
01/12/2010	1354	0.30	0.59	0.89
01/12/2010	1400	0.30	0.56	0.86
01/12/2010	1406	0.29	0.54	0.83
01/12/2010	1412	0.28	0.52	0.80
01/12/2010	1418	0.27	0.50	0.77
01/12/2010	1424	0.26	0.48	0.74
01/12/2010	1430	0.25	0.46	0.71
01/12/2010	1436	0.24	0.44	0.68
01/12/2010	1442	0.23	0.42	0.65
01/12/2010	1448	0.23	0.40	0.63
01/12/2010	1454	0.22	0.38	0.60
01/12/2010	1500	0.21	0.36	0.58
01/12/2010	1506	0.20	0.35	0.55
01/12/2010	1512	0.19	0.34	0.53
01/12/2010	1518	0.19	0.33	0.52
01/12/2010	1524	0.19	0.31	0.50
01/12/2010	1530	0.18	0.00	0.18
01/12/2010	1536	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-1\routed030.HYD	01/12/2010	0030	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-2\routed030.HYD	01/12/2010	0030	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0030	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.07	0.07
01/12/2010	0042	0.00	0.15	0.15
01/12/2010	0048	0.00	0.25	0.25
01/12/2010	0054	0.00	0.35	0.35
01/12/2010	0100	0.00	0.53	0.53
01/12/2010	0106	0.00	0.73	0.73
01/12/2010	0112	0.00	0.94	0.94
01/12/2010	0118	0.00	1.22	1.22
01/12/2010	0124	0.00	1.55	1.55
01/12/2010	0130	0.00	1.95	1.95
01/12/2010	0136	0.00	2.57	2.58
01/12/2010	0142	0.85	3.73	4.58
01/12/2010	0148	5.76	6.05	11.81
01/12/2010	0154	10.52	10.35	20.87
01/12/2010	0200	12.84	16.99	29.83
01/12/2010	0206	13.12	25.12	38.25
01/12/2010	0212	12.91	32.66	45.56
01/12/2010	0218	12.12	37.56	49.68
01/12/2010	0224	11.10	39.68	50.78
01/12/2010	0230	10.18	39.30	49.49
01/12/2010	0236	9.30	37.30	46.60
01/12/2010	0242	8.50	34.46	42.96
01/12/2010	0248	7.70	31.13	38.83
01/12/2010	0254	6.98	27.81	34.78
01/12/2010	0300	6.40	24.73	31.13
01/12/2010	0306	5.90	21.99	27.89
01/12/2010	0312	5.46	19.60	25.06
01/12/2010	0318	5.07	17.54	22.61
01/12/2010	0324	4.72	15.76	20.48
01/12/2010	0330	4.41	14.23	18.63
01/12/2010	0336	4.14	12.91	17.05
01/12/2010	0342	3.90	11.77	15.67
01/12/2010	0348	3.66	10.80	14.46
01/12/2010	0354	3.46	9.94	13.39
01/12/2010	0400	3.27	9.20	12.47
01/12/2010	0406	3.11	8.53	11.64
01/12/2010	0412	2.97	7.97	10.94
01/12/2010	0418	2.84	7.47	10.31
01/12/2010	0424	2.72	7.03	9.75
01/12/2010	0430	2.62	6.64	9.26
01/12/2010	0436	2.52	6.30	8.83
01/12/2010	0442	2.43	6.00	8.44
01/12/2010	0448	2.35	5.74	8.09
01/12/2010	0454	2.28	5.50	7.78
01/12/2010	0500	2.21	5.29	7.50
01/12/2010	0506	2.14	5.10	7.24
01/12/2010	0512	2.08	4.93	7.01
01/12/2010	0518	2.03	4.77	6.80
01/12/2010	0524	1.98	4.62	6.60
01/12/2010	0530	1.93	4.48	6.40

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0536	1.88	4.34	6.21
01/12/2010	0542	1.83	4.21	6.03
01/12/2010	0548	1.78	4.08	5.86
01/12/2010	0554	1.74	3.97	5.71
01/12/2010	0600	1.70	3.87	5.56
01/12/2010	0606	1.66	3.77	5.42
01/12/2010	0612	1.62	3.68	5.29
01/12/2010	0618	1.58	3.59	5.18
01/12/2010	0624	1.55	3.51	5.05
01/12/2010	0630	1.51	3.42	4.93
01/12/2010	0636	1.48	3.35	4.82
01/12/2010	0642	1.45	3.27	4.72
01/12/2010	0648	1.42	3.20	4.62
01/12/2010	0654	1.40	3.13	4.53
01/12/2010	0700	1.38	3.07	4.44
01/12/2010	0706	1.35	3.00	4.36
01/12/2010	0712	1.33	2.95	4.28
01/12/2010	0718	1.30	2.91	4.21
01/12/2010	0724	1.28	2.86	4.15
01/12/2010	0730	1.27	2.82	4.09
01/12/2010	0736	1.25	2.78	4.03
01/12/2010	0742	1.24	2.74	3.98
01/12/2010	0748	1.23	2.70	3.93
01/12/2010	0754	1.21	2.66	3.88
01/12/2010	0800	1.19	2.63	3.83
01/12/2010	0806	1.18	2.60	3.78
01/12/2010	0812	1.16	2.56	3.73
01/12/2010	0818	1.15	2.53	3.68
01/12/2010	0824	1.14	2.50	3.64
01/12/2010	0830	1.13	2.47	3.60
01/12/2010	0836	1.11	2.44	3.55
01/12/2010	0842	1.10	2.41	3.51
01/12/2010	0848	1.08	2.38	3.47
01/12/2010	0854	1.07	2.36	3.42
01/12/2010	0900	1.05	2.33	3.38
01/12/2010	0906	1.04	2.30	3.34
01/12/2010	0912	1.03	2.27	3.30
01/12/2010	0918	1.01	2.25	3.26
01/12/2010	0924	1.00	2.22	3.21
01/12/2010	0930	0.98	2.19	3.17
01/12/2010	0936	0.96	2.17	3.13
01/12/2010	0942	0.95	2.14	3.09
01/12/2010	0948	0.94	2.11	3.05
01/12/2010	0954	0.93	2.09	3.01
01/12/2010	1000	0.91	2.06	2.98
01/12/2010	1006	0.90	2.04	2.95
01/12/2010	1012	0.90	2.02	2.92
01/12/2010	1018	0.89	2.00	2.88
01/12/2010	1024	0.88	1.97	2.85
01/12/2010	1030	0.87	1.95	2.82
01/12/2010	1036	0.87	1.93	2.80
01/12/2010	1042	0.86	1.91	2.77
01/12/2010	1048	0.86	1.89	2.75
01/12/2010	1054	0.85	1.87	2.72
01/12/2010	1100	0.83	1.85	2.69
01/12/2010	1106	0.82	1.84	2.66
01/12/2010	1112	0.81	1.82	2.63
01/12/2010	1118	0.80	1.80	2.60
01/12/2010	1124	0.79	1.78	2.57

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1130	0.79	1.76	2.54
01/12/2010	1136	0.78	1.74	2.52
01/12/2010	1142	0.77	1.71	2.49
01/12/2010	1148	0.77	1.69	2.46
01/12/2010	1154	0.76	1.67	2.43
01/12/2010	1200	0.75	1.64	2.39
01/12/2010	1206	0.74	1.61	2.35
01/12/2010	1212	0.73	1.58	2.31
01/12/2010	1218	0.72	1.55	2.27
01/12/2010	1224	0.71	1.52	2.23
01/12/2010	1230	0.69	1.49	2.18
01/12/2010	1236	0.68	1.45	2.13
01/12/2010	1242	0.66	1.42	2.08
01/12/2010	1248	0.65	1.38	2.03
01/12/2010	1254	0.64	1.35	1.98
01/12/2010	1300	0.62	1.31	1.94
01/12/2010	1306	0.61	1.28	1.89
01/12/2010	1312	0.60	1.24	1.84
01/12/2010	1318	0.59	1.20	1.79
01/12/2010	1324	0.58	1.17	1.75
01/12/2010	1330	0.57	1.13	1.70
01/12/2010	1336	0.56	1.09	1.65
01/12/2010	1342	0.54	1.05	1.60
01/12/2010	1348	0.53	1.02	1.55
01/12/2010	1354	0.52	0.99	1.51
01/12/2010	1400	0.51	0.96	1.47
01/12/2010	1406	0.50	0.93	1.43
01/12/2010	1412	0.48	0.90	1.38
01/12/2010	1418	0.47	0.87	1.34
01/12/2010	1424	0.45	0.83	1.29
01/12/2010	1430	0.44	0.80	1.24
01/12/2010	1436	0.43	0.77	1.19
01/12/2010	1442	0.41	0.73	1.15
01/12/2010	1448	0.39	0.70	1.09
01/12/2010	1454	0.38	0.66	1.04
01/12/2010	1500	0.36	0.63	0.99
01/12/2010	1506	0.35	0.59	0.94
01/12/2010	1512	0.34	0.56	0.89
01/12/2010	1518	0.32	0.52	0.84
01/12/2010	1524	0.30	0.48	0.79
01/12/2010	1530	0.29	0.00	0.29
01/12/2010	1536	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BIBASIN L-1\route0026.HYD	01/12/2010	0030	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BIBASIN L-2\route0025.HYD	01/12/2010	0030	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0030	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.08	0.08
01/12/2010	0042	0.00	0.19	0.19
01/12/2010	0048	0.00	0.30	0.30
01/12/2010	0054	0.00	0.48	0.48
01/12/2010	0100	0.00	0.70	0.70
01/12/2010	0106	0.00	0.94	0.94
01/12/2010	0112	0.00	1.23	1.23
01/12/2010	0118	0.00	1.59	1.59
01/12/2010	0124	0.00	1.99	1.99
01/12/2010	0130	0.00	2.51	2.51
01/12/2010	0136	0.04	3.31	3.35
01/12/2010	0142	2.61	4.79	7.39
01/12/2010	0148	9.57	7.75	17.33
01/12/2010	0154	14.19	13.26	27.45
01/12/2010	0200	15.51	21.69	37.21
01/12/2010	0206	15.78	31.87	47.65
01/12/2010	0212	15.55	40.62	56.17
01/12/2010	0218	15.03	46.48	61.52
01/12/2010	0224	14.36	48.88	63.24
01/12/2010	0230	13.59	48.13	61.73
01/12/2010	0236	12.73	45.38	58.11
01/12/2010	0242	11.31	41.64	52.96
01/12/2010	0248	10.20	37.60	47.80
01/12/2010	0254	9.25	33.66	42.91
01/12/2010	0300	8.43	29.76	38.19
01/12/2010	0306	7.61	26.30	33.92
01/12/2010	0312	6.90	23.33	30.23
01/12/2010	0318	6.37	20.78	27.15
01/12/2010	0324	5.88	18.60	24.49
01/12/2010	0330	5.46	16.75	22.21
01/12/2010	0336	5.09	15.16	20.25
01/12/2010	0342	4.75	13.81	18.56
01/12/2010	0348	4.45	12.66	17.11
01/12/2010	0354	4.19	11.65	15.83
01/12/2010	0400	3.96	10.77	14.73
01/12/2010	0406	3.74	10.00	13.74
01/12/2010	0412	3.55	9.34	12.89
01/12/2010	0418	3.38	8.76	12.14
01/12/2010	0424	3.23	8.25	11.48
01/12/2010	0430	3.10	7.80	10.91
01/12/2010	0436	2.99	7.41	10.40
01/12/2010	0442	2.89	7.05	9.94
01/12/2010	0448	2.80	6.75	9.55
01/12/2010	0454	2.71	6.48	9.19
01/12/2010	0500	2.63	6.24	8.86
01/12/2010	0506	2.55	6.01	8.56
01/12/2010	0512	2.47	5.81	8.28
01/12/2010	0518	2.40	5.62	8.02
01/12/2010	0524	2.33	5.43	7.76
01/12/2010	0530	2.27	5.27	7.53

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0536	2.20	5.12	7.32
01/12/2010	0542	2.14	4.97	7.11
01/12/2010	0548	2.09	4.84	6.93
01/12/2010	0554	2.05	4.70	6.75
01/12/2010	0600	2.00	4.58	6.58
01/12/2010	0606	1.96	4.45	6.41
01/12/2010	0612	1.91	4.34	6.25
01/12/2010	0618	1.87	4.24	6.11
01/12/2010	0624	1.83	4.14	5.97
01/12/2010	0630	1.79	4.06	5.86
01/12/2010	0636	1.76	3.98	5.74
01/12/2010	0642	1.72	3.90	5.62
01/12/2010	0648	1.69	3.83	5.51
01/12/2010	0654	1.65	3.75	5.40
01/12/2010	0700	1.63	3.67	5.30
01/12/2010	0706	1.60	3.60	5.21
01/12/2010	0712	1.58	3.54	5.11
01/12/2010	0718	1.55	3.48	5.02
01/12/2010	0724	1.52	3.42	4.94
01/12/2010	0730	1.50	3.36	4.86
01/12/2010	0736	1.48	3.31	4.79
01/12/2010	0742	1.46	3.27	4.73
01/12/2010	0748	1.44	3.23	4.67
01/12/2010	0754	1.42	3.18	4.60
01/12/2010	0800	1.40	3.14	4.54
01/12/2010	0806	1.38	3.10	4.48
01/12/2010	0812	1.36	3.06	4.42
01/12/2010	0818	1.34	3.03	4.37
01/12/2010	0824	1.33	2.99	4.32
01/12/2010	0830	1.31	2.95	4.26
01/12/2010	0836	1.29	2.92	4.21
01/12/2010	0842	1.28	2.89	4.17
01/12/2010	0848	1.26	2.85	4.12
01/12/2010	0854	1.25	2.82	4.07
01/12/2010	0900	1.24	2.79	4.03
01/12/2010	0906	1.22	2.76	3.98
01/12/2010	0912	1.20	2.72	3.93
01/12/2010	0918	1.18	2.69	3.88
01/12/2010	0924	1.17	2.66	3.83
01/12/2010	0930	1.15	2.63	3.78
01/12/2010	0936	1.14	2.60	3.74
01/12/2010	0942	1.13	2.57	3.70
01/12/2010	0948	1.11	2.54	3.65
01/12/2010	0954	1.10	2.51	3.60
01/12/2010	1000	1.08	2.48	3.56
01/12/2010	1006	1.06	2.45	3.52
01/12/2010	1012	1.05	2.42	3.47
01/12/2010	1018	1.04	2.40	3.43
01/12/2010	1024	1.03	2.37	3.40
01/12/2010	1030	1.02	2.35	3.36
01/12/2010	1036	1.01	2.32	3.32
01/12/2010	1042	1.00	2.29	3.29
01/12/2010	1048	0.99	2.27	3.26
01/12/2010	1054	0.98	2.24	3.22
01/12/2010	1100	0.97	2.21	3.19
01/12/2010	1106	0.97	2.19	3.15
01/12/2010	1112	0.96	2.16	3.13
01/12/2010	1118	0.96	2.14	3.10
01/12/2010	1124	0.95	2.12	3.07

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1130	0.95	2.10	3.04
01/12/2010	1136	0.94	2.07	3.01
01/12/2010	1142	0.93	2.05	2.97
01/12/2010	1148	0.92	2.02	2.93
01/12/2010	1154	0.91	1.98	2.89
01/12/2010	1200	0.90	1.95	2.85
01/12/2010	1206	0.89	1.92	2.80
01/12/2010	1212	0.87	1.88	2.75
01/12/2010	1218	0.85	1.85	2.70
01/12/2010	1224	0.84	1.81	2.66
01/12/2010	1230	0.83	1.78	2.61
01/12/2010	1236	0.81	1.74	2.55
01/12/2010	1242	0.80	1.70	2.49
01/12/2010	1248	0.78	1.66	2.44
01/12/2010	1254	0.76	1.62	2.38
01/12/2010	1300	0.75	1.57	2.32
01/12/2010	1306	0.73	1.53	2.26
01/12/2010	1312	0.71	1.49	2.19
01/12/2010	1318	0.69	1.44	2.13
01/12/2010	1324	0.67	1.40	2.07
01/12/2010	1330	0.65	1.36	2.01
01/12/2010	1336	0.63	1.31	1.95
01/12/2010	1342	0.61	1.27	1.89
01/12/2010	1348	0.60	1.23	1.83
01/12/2010	1354	0.59	1.18	1.77
01/12/2010	1400	0.57	1.14	1.71
01/12/2010	1406	0.56	1.10	1.65
01/12/2010	1412	0.54	1.05	1.59
01/12/2010	1418	0.53	1.01	1.54
01/12/2010	1424	0.52	0.98	1.49
01/12/2010	1430	0.50	0.94	1.44
01/12/2010	1436	0.48	0.90	1.38
01/12/2010	1442	0.47	0.86	1.33
01/12/2010	1448	0.45	0.82	1.27
01/12/2010	1454	0.44	0.78	1.21
01/12/2010	1500	0.42	0.73	1.15
01/12/2010	1506	0.40	0.69	1.09
01/12/2010	1512	0.39	0.65	1.03
01/12/2010	1518	0.37	0.60	0.97
01/12/2010	1524	0.35	0.56	0.91
01/12/2010	1530	0.33	0.00	0.33
01/12/2010	1536	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\0030\BASIN L-1\route0030.HYD	01/12/2010	0030	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\0030\BASIN L-2\route0030.HYD	01/12/2010	0030	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0030	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.09	0.09
01/12/2010	0042	0.00	0.21	0.21
01/12/2010	0048	0.00	0.34	0.34
01/12/2010	0054	0.00	0.56	0.56
01/12/2010	0100	0.00	0.81	0.81
01/12/2010	0106	0.00	1.10	1.10
01/12/2010	0112	0.00	1.45	1.45
01/12/2010	0118	0.00	1.84	1.84
01/12/2010	0124	0.00	2.34	2.34
01/12/2010	0130	0.00	2.93	2.93
01/12/2010	0136	0.14	3.86	4.00
01/12/2010	0142	4.36	5.60	9.97
01/12/2010	0148	12.57	9.10	21.67
01/12/2010	0154	15.98	15.56	31.54
01/12/2010	0200	17.31	25.42	42.73
01/12/2010	0206	17.60	36.83	54.43
01/12/2010	0212	17.38	46.84	64.22
01/12/2010	0218	16.87	53.49	70.36
01/12/2010	0224	16.20	56.06	72.25
01/12/2010	0230	15.42	54.94	70.36
01/12/2010	0236	14.58	51.56	66.13
01/12/2010	0242	13.71	47.10	60.81
01/12/2010	0248	12.82	42.35	55.17
01/12/2010	0254	11.36	37.78	49.14
01/12/2010	0300	10.21	33.59	43.80
01/12/2010	0306	9.26	29.63	38.89
01/12/2010	0312	8.44	26.18	34.61
01/12/2010	0318	7.63	23.26	30.90
01/12/2010	0324	6.93	20.79	27.71
01/12/2010	0330	6.38	18.68	25.06
01/12/2010	0336	5.91	16.88	22.79
01/12/2010	0342	5.49	15.36	20.86
01/12/2010	0348	5.13	14.07	19.20
01/12/2010	0354	4.80	12.94	17.75
01/12/2010	0400	4.51	11.96	16.47
01/12/2010	0406	4.25	11.12	15.37
01/12/2010	0412	4.03	10.38	14.41
01/12/2010	0418	3.84	9.74	13.57
01/12/2010	0424	3.66	9.17	12.83
01/12/2010	0430	3.50	8.67	12.17
01/12/2010	0436	3.36	8.23	11.59
01/12/2010	0442	3.23	7.85	11.08
01/12/2010	0448	3.12	7.51	10.64
01/12/2010	0454	3.03	7.21	10.24
01/12/2010	0500	2.93	6.94	9.88
01/12/2010	0506	2.85	6.70	9.55
01/12/2010	0512	2.77	6.49	9.25
01/12/2010	0518	2.69	6.28	8.97
01/12/2010	0524	2.61	6.08	8.69
01/12/2010	0530	2.53	5.89	8.43

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0536	2.46	5.71	8.17
01/12/2010	0542	2.39	5.54	7.93
01/12/2010	0548	2.33	5.39	7.72
01/12/2010	0554	2.27	5.25	7.52
01/12/2010	0600	2.21	5.11	7.32
01/12/2010	0606	2.16	4.98	7.14
01/12/2010	0612	2.11	4.87	6.98
01/12/2010	0618	2.07	4.76	6.83
01/12/2010	0624	2.03	4.66	6.69
01/12/2010	0630	2.00	4.55	6.55
01/12/2010	0636	1.96	4.45	6.41
01/12/2010	0642	1.92	4.36	6.28
01/12/2010	0648	1.89	4.27	6.16
01/12/2010	0654	1.86	4.19	6.04
01/12/2010	0700	1.83	4.11	5.94
01/12/2010	0706	1.80	4.03	5.83
01/12/2010	0712	1.77	3.96	5.73
01/12/2010	0718	1.74	3.90	5.64
01/12/2010	0724	1.71	3.84	5.55
01/12/2010	0730	1.69	3.78	5.47
01/12/2010	0736	1.67	3.73	5.40
01/12/2010	0742	1.65	3.68	5.32
01/12/2010	0748	1.62	3.63	5.25
01/12/2010	0754	1.60	3.58	5.18
01/12/2010	0800	1.58	3.54	5.11
01/12/2010	0806	1.56	3.49	5.05
01/12/2010	0812	1.54	3.45	4.99
01/12/2010	0818	1.52	3.41	4.93
01/12/2010	0824	1.50	3.37	4.87
01/12/2010	0830	1.48	3.33	4.80
01/12/2010	0836	1.46	3.28	4.74
01/12/2010	0842	1.44	3.24	4.68
01/12/2010	0848	1.42	3.20	4.62
01/12/2010	0854	1.40	3.16	4.56
01/12/2010	0900	1.38	3.13	4.50
01/12/2010	0906	1.36	3.09	4.45
01/12/2010	0912	1.33	3.05	4.39
01/12/2010	0918	1.31	3.02	4.33
01/12/2010	0924	1.29	2.98	4.27
01/12/2010	0930	1.27	2.94	4.22
01/12/2010	0936	1.26	2.91	4.17
01/12/2010	0942	1.24	2.88	4.13
01/12/2010	0948	1.23	2.85	4.08
01/12/2010	0954	1.22	2.82	4.04
01/12/2010	1000	1.21	2.79	4.00
01/12/2010	1006	1.20	2.76	3.96
01/12/2010	1012	1.19	2.73	3.92
01/12/2010	1018	1.17	2.70	3.88
01/12/2010	1024	1.16	2.67	3.83
01/12/2010	1030	1.14	2.64	3.79
01/12/2010	1036	1.13	2.61	3.74
01/12/2010	1042	1.12	2.59	3.71
01/12/2010	1048	1.11	2.56	3.67
01/12/2010	1054	1.10	2.53	3.63
01/12/2010	1100	1.09	2.50	3.59
01/12/2010	1106	1.08	2.48	3.56
01/12/2010	1112	1.08	2.45	3.53
01/12/2010	1118	1.07	2.42	3.49
01/12/2010	1124	1.06	2.39	3.46

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1130	1.06	2.37	3.43
01/12/2010	1136	1.05	2.34	3.40
01/12/2010	1142	1.05	2.31	3.35
01/12/2010	1148	1.03	2.27	3.31
01/12/2010	1154	1.02	2.23	3.26
01/12/2010	1200	1.01	2.19	3.21
01/12/2010	1206	1.00	2.15	3.15
01/12/2010	1212	0.98	2.11	3.09
01/12/2010	1218	0.97	2.07	3.03
01/12/2010	1224	0.95	2.02	2.98
01/12/2010	1230	0.93	1.98	2.91
01/12/2010	1236	0.91	1.93	2.85
01/12/2010	1242	0.90	1.89	2.79
01/12/2010	1248	0.88	1.85	2.73
01/12/2010	1254	0.86	1.81	2.67
01/12/2010	1300	0.84	1.76	2.60
01/12/2010	1306	0.82	1.72	2.53
01/12/2010	1312	0.80	1.67	2.47
01/12/2010	1318	0.78	1.62	2.40
01/12/2010	1324	0.75	1.57	2.33
01/12/2010	1330	0.73	1.52	2.26
01/12/2010	1336	0.71	1.48	2.19
01/12/2010	1342	0.69	1.43	2.12
01/12/2010	1348	0.67	1.38	2.04
01/12/2010	1354	0.64	1.33	1.97
01/12/2010	1400	0.62	1.28	1.90
01/12/2010	1406	0.61	1.23	1.84
01/12/2010	1412	0.59	1.18	1.77
01/12/2010	1418	0.57	1.13	1.70
01/12/2010	1424	0.56	1.07	1.63
01/12/2010	1430	0.54	1.03	1.57
01/12/2010	1436	0.52	0.98	1.51
01/12/2010	1442	0.51	0.94	1.45
01/12/2010	1448	0.49	0.90	1.39
01/12/2010	1454	0.47	0.85	1.32
01/12/2010	1500	0.45	0.81	1.26
01/12/2010	1506	0.43	0.76	1.20
01/12/2010	1512	0.42	0.72	1.13
01/12/2010	1518	0.40	0.67	1.07
01/12/2010	1524	0.37	0.63	1.00
01/12/2010	1530	0.35	0.00	0.35
01/12/2010	1536	0.00	0.00	0.00

Hydrograph Combination

Filename	Start Date (mo/da/year)	Start Time (hr:min)	Points	Step (hours)
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-1\route0030.HYD	01/12/2010	0030	150	0.1000
\\Server\mikej\forestburgh\forestburgh\SWM-Calcs\rev_12_22_09\01122010\BASIN L-2\route0030.HYD	01/12/2010	0030	150	0.1000
COMBINED HYDROGRAPH	01/12/2010	0030	152	0.1000

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0030	0.00	0.00	0.00
01/12/2010	0036	0.00	0.11	0.11
01/12/2010	0042	0.00	0.25	0.25
01/12/2010	0048	0.00	0.44	0.44
01/12/2010	0054	0.00	0.71	0.71
01/12/2010	0100	0.00	1.01	1.01
01/12/2010	0106	0.00	1.39	1.39
01/12/2010	0112	0.00	1.81	1.81
01/12/2010	0118	0.00	2.32	2.32
01/12/2010	0124	0.00	2.90	2.90
01/12/2010	0130	0.00	3.64	3.65
01/12/2010	0136	0.73	4.78	5.51
01/12/2010	0142	7.41	6.92	14.33
01/12/2010	0148	15.20	11.24	26.45
01/12/2010	0154	18.49	19.20	37.69
01/12/2010	0200	22.93	31.26	54.19
01/12/2010	0206	26.04	44.62	70.66
01/12/2010	0212	19.34	56.58	75.92
01/12/2010	0218	18.88	68.46	87.34
01/12/2010	0224	18.24	70.76	89.00
01/12/2010	0230	17.48	65.57	83.05
01/12/2010	0236	16.66	58.89	75.55
01/12/2010	0242	15.80	53.61	69.40
01/12/2010	0248	14.92	48.31	63.22
01/12/2010	0254	14.02	43.13	57.15
01/12/2010	0300	13.13	38.35	51.48
01/12/2010	0306	11.87	34.10	45.97
01/12/2010	0312	10.61	30.16	40.77
01/12/2010	0318	9.62	26.74	36.36
01/12/2010	0324	8.77	23.85	32.62
01/12/2010	0330	7.98	21.41	29.39
01/12/2010	0336	7.26	19.35	26.61
01/12/2010	0342	6.67	17.61	24.28
01/12/2010	0348	6.19	16.13	22.31
01/12/2010	0354	5.76	14.84	20.60
01/12/2010	0400	5.39	13.73	19.11
01/12/2010	0406	5.06	12.76	17.82
01/12/2010	0412	4.78	11.90	16.67
01/12/2010	0418	4.52	11.17	15.69
01/12/2010	0424	4.30	10.53	14.84
01/12/2010	0430	4.12	9.97	14.09
01/12/2010	0436	3.95	9.48	13.43
01/12/2010	0442	3.80	9.05	12.84
01/12/2010	0448	3.66	8.66	12.32
01/12/2010	0454	3.53	8.33	11.86
01/12/2010	0500	3.41	8.03	11.44
01/12/2010	0506	3.30	7.76	11.06
01/12/2010	0512	3.20	7.51	10.71
01/12/2010	0518	3.11	7.27	10.38
01/12/2010	0524	3.03	7.04	10.07
01/12/2010	0530	2.94	6.83	9.77

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	0536	2.86	6.64	9.50
01/12/2010	0542	2.78	6.46	9.24
01/12/2010	0548	2.71	6.28	8.99
01/12/2010	0554	2.64	6.12	8.76
01/12/2010	0600	2.57	5.96	8.53
01/12/2010	0606	2.51	5.82	8.33
01/12/2010	0612	2.46	5.68	8.13
01/12/2010	0618	2.40	5.54	7.94
01/12/2010	0624	2.35	5.42	7.77
01/12/2010	0630	2.30	5.30	7.60
01/12/2010	0636	2.25	5.20	7.45
01/12/2010	0642	2.21	5.10	7.31
01/12/2010	0648	2.17	5.01	7.17
01/12/2010	0654	2.13	4.91	7.04
01/12/2010	0700	2.10	4.81	6.91
01/12/2010	0706	2.06	4.72	6.78
01/12/2010	0712	2.04	4.64	6.67
01/12/2010	0718	2.01	4.56	6.57
01/12/2010	0724	1.98	4.48	6.46
01/12/2010	0730	1.95	4.41	6.36
01/12/2010	0736	1.93	4.35	6.27
01/12/2010	0742	1.90	4.29	6.19
01/12/2010	0748	1.88	4.23	6.11
01/12/2010	0754	1.86	4.17	6.03
01/12/2010	0800	1.83	4.12	5.95
01/12/2010	0806	1.80	4.07	5.87
01/12/2010	0812	1.78	4.02	5.80
01/12/2010	0818	1.76	3.98	5.74
01/12/2010	0824	1.74	3.93	5.67
01/12/2010	0830	1.71	3.89	5.60
01/12/2010	0836	1.69	3.84	5.53
01/12/2010	0842	1.67	3.80	5.47
01/12/2010	0848	1.65	3.76	5.40
01/12/2010	0854	1.62	3.71	5.34
01/12/2010	0900	1.60	3.67	5.27
01/12/2010	0906	1.58	3.63	5.21
01/12/2010	0912	1.55	3.58	5.14
01/12/2010	0918	1.53	3.54	5.07
01/12/2010	0924	1.50	3.49	5.00
01/12/2010	0930	1.48	3.45	4.93
01/12/2010	0936	1.46	3.41	4.87
01/12/2010	0942	1.44	3.37	4.81
01/12/2010	0948	1.42	3.33	4.76
01/12/2010	0954	1.40	3.30	4.69
01/12/2010	1000	1.38	3.26	4.63
01/12/2010	1006	1.36	3.22	4.58
01/12/2010	1012	1.34	3.18	4.53
01/12/2010	1018	1.33	3.15	4.47
01/12/2010	1024	1.31	3.11	4.43
01/12/2010	1030	1.30	3.08	4.38
01/12/2010	1036	1.29	3.04	4.33
01/12/2010	1042	1.28	3.01	4.29
01/12/2010	1048	1.28	2.97	4.25
01/12/2010	1054	1.27	2.94	4.21
01/12/2010	1100	1.26	2.91	4.17
01/12/2010	1106	1.26	2.88	4.14
01/12/2010	1112	1.25	2.86	4.11
01/12/2010	1118	1.25	2.83	4.07
01/12/2010	1124	1.24	2.80	4.04

Date	Time	Hyd A Contribution	Hyd B Contribution	Combined Hydrograph
01/12/2010	1130	1.24	2.77	4.01
01/12/2010	1136	1.23	2.74	3.96
01/12/2010	1142	1.21	2.70	3.92
01/12/2010	1148	1.20	2.66	3.87
01/12/2010	1154	1.19	2.62	3.81
01/12/2010	1200	1.18	2.57	3.75
01/12/2010	1206	1.16	2.52	3.68
01/12/2010	1212	1.14	2.47	3.62
01/12/2010	1218	1.12	2.42	3.54
01/12/2010	1224	1.10	2.37	3.47
01/12/2010	1230	1.09	2.32	3.41
01/12/2010	1236	1.07	2.27	3.33
01/12/2010	1242	1.04	2.21	3.25
01/12/2010	1248	1.02	2.15	3.18
01/12/2010	1254	1.00	2.09	3.09
01/12/2010	1300	0.97	2.03	3.01
01/12/2010	1306	0.95	1.98	2.93
01/12/2010	1312	0.93	1.92	2.85
01/12/2010	1318	0.91	1.87	2.78
01/12/2010	1324	0.88	1.82	2.70
01/12/2010	1330	0.86	1.76	2.62
01/12/2010	1336	0.83	1.71	2.54
01/12/2010	1342	0.80	1.66	2.46
01/12/2010	1348	0.78	1.60	2.37
01/12/2010	1354	0.75	1.54	2.29
01/12/2010	1400	0.73	1.48	2.21
01/12/2010	1406	0.70	1.42	2.12
01/12/2010	1412	0.67	1.36	2.04
01/12/2010	1418	0.65	1.31	1.95
01/12/2010	1424	0.62	1.25	1.87
01/12/2010	1430	0.60	1.19	1.79
01/12/2010	1436	0.58	1.13	1.71
01/12/2010	1442	0.57	1.07	1.63
01/12/2010	1448	0.55	1.01	1.56
01/12/2010	1454	0.53	0.96	1.49
01/12/2010	1500	0.51	0.91	1.42
01/12/2010	1506	0.49	0.87	1.35
01/12/2010	1512	0.46	0.82	1.28
01/12/2010	1518	0.45	0.76	1.21
01/12/2010	1524	0.42	0.71	1.13
01/12/2010	1530	0.40	0.00	0.40
01/12/2010	1536	0.00	0.00	0.00

Section 8.6
Drywell Calculations

BRINKASH

ASSOCIATES, INC.

1713 Centre Street ♦ Ashland Pa 17921 ♦ Phone: (570)-875-1018 ♦ Fax: (570)-875-1670

Date: 1/5/2010

Lost Lake Drywells- 0.5 in/hr Infiltration Rates

Pre-Development

Description	Soils Type	CN	Area (Ac.)
Woods - Fair	B	98.00	0.0275

Total		98.00		0.0275
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Runoff Volume

CN= 98.00
 P= 8.00 :100yr/24hr rainfall (inches)
 $S = 1000 / CN - 10 = 0.20$
 $Ia = 0.20S = 0.04$
 $Q = (P - Ia)^2 / (P - Ia) + S = 7.76$

Total Volume of Runoff = $7.76 / 12 \times 1200.00$ s.f. = 776.02 c.f.
 Volume of Stone Req'd: 776.02×2.50 (voids)= 1940.05 c.f.
 For One Drywell $23.00 \times 23.00 \times 2.7500 = 1454.75$ c.f.
 Infiltration Volume: Bed Area 529.00 Infiltr. Rate 0.50 Infiltr. Per. 24.00 hr storm event
 Infiltration Volume = Bed Area (sf) x Infiltration Design Rate (in/hr) x Infiltration Period (hr) / 12= 529.00 c.f.
 Total Volume Provided = 1983.75 c.f.
 Use (4) Drywells; Each @ 132.25 s.f. or 11.50 x 11.50 x 2.75
 Total Volume Provided: 1454.7500 + 529.00 = 1983.75 c.f.

BRINKASH

ASSOCIATES, INC.

1713 Centre Street ♦ Ashland Pa 17921 ♦ Phone: (570)-875-1018 ♦ Fax: (570)-875-1670

Date: 1/5/2010

Lost Lake Drywells- 0.9 in/hr Infiltration Rates

Pre-Development

Description	Soils Type	CN	Area (Ac.)
Woods - Fair	B	98.00	0.0275

Total 98.00 0.0275

Runoff Volume

CN= 98.00
 P= 8.00 :100yr/24hr rainfall (inches)
 $S = 1000 / CN - 10 = 0.20$
 $la = 0.20S = 0.04$
 $Q = (P - la)^2 / (P - la) + S = 7.76$

Total Volume of Runoff = $7.76 / 12 \times 1200.00$ s.f. = 776.02 c.f.
 Volume of Stone Req'd: 776.02×2.50 (voids)= 1940.05 c.f.
 For One Drywell $21.00 \times 21.50 \times 2.7500 = 1241.63$ c.f.
 Infiltration Volume: Bed Area 451.50 Infiltr. Rate 0.90 Infiltr. Per. 24.00 hr storm event
 Infiltration Volume = Bed Area (sf) x Infiltration Design Rate (in/hr) x Infiltration Period (hr) / 12 = 812.70 c.f.
 Total Volume Provided = 2054.33 c.f.
 Use (4) Drywells; Each @ 112.88 s.f. or 10.62 x 10.62 x 2.75
 Total Volume Provided: 1241.6250 + 812.70 = 2054.33 c.f.

BRINKASH

ASSOCIATES, INC.

1713 Centre Street ♦ Ashland Pa 17921 ♦ Phone: (570)-875-1018 ♦ Fax: (570)-875-1670

Date: 1/5/2010

Lost Lake Drywells- 1.8 in/hr Infiltration Rates

Pre-Development

Description	Soils Type	CN	Area (Ac.)
Woods - Fair	B	98.00	0.0275

Total		98.00		0.0275
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Runoff Volume

CN= 98.00
P= 8.00 :100yr/24hr rainfall (inches)
 $S = 1000 / CN - 10 = 0.20$
 $I_a = 0.20S = 0.04$
 $Q = (P - I_a)^2 / (P - I_a) + S = 7.76$

Total Volume of Runoff = $7.76 / 12 \times 1200.00$ s.f. = 776.02 c.f.
Volume of Stone Req'd: 776.02×2.50 (voids)= 1940.05 c.f.
For One Drywell $18.00 \times 17.00 \times 2.7500 = 841.50$ c.f.
Infiltration Volume: Bed Area 306.00 Infiltr. Rate 1.80 Infiltr. Per. 24.00 hr storm event
Infiltration Volume = Bed Area (sf) x Infiltration Design Rate (in/hr) x Infiltration Period (hr) / 12= 1101.60 c.f.
Total Volume Provided = 1943.10 c.f.
Use (4) Drywells; Each @ 76.50 s.f. or 8.75 x 8.75 x 2.75
Total Volume Provided: 841.5000 + 1101.60 = 1943.10 c.f.

BRINKASH

ASSOCIATES, INC.

1713 Centre Street ♦ Ashland Pa 17921 ♦ Phone: (570)-875-1018 ♦ Fax: (570)-875-1670

Date: 1/5/2010

Lost Lake Drywells- 3.2 in/hr Infiltration Rates

Pre-Development

Description	Soils Type	CN	Area (Ac.)
Woods - Fair	B	98.00	0.0275

Total		98.00		0.0275
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Runoff Volume

CN= 98.00
P= 8.00 :100yr/24hr rainfall (inches)
 $S = 1000 / CN - 10 = 0.20$
 $I_a = 0.20S = 0.04$
 $Q = (P - I_a)^2 / (P - I_a) + S = 7.76$

Total Volume of Runoff =	7.76 /12 x	1200.00 s.f. =	776.02 c.f.
Volume of Stone Req'd:	776.02 x	2.50 (voids)=	1940.05 c.f.
For One Drywell	14.75 x	14.50 x	2.7500 = 588.16 c.f.
Infiltration Volume:	Bed Area 213.88	Infiltr. Rate 3.20	Infiltr. Per. 24.00 hr storm event
Infiltration Volume = Bed Area (sf) x Infiltration Design Rate (in/hr) x Infiltration Period (hr) / 12=			1368.80 c.f.
Total Volume Provided =			1956.96 c.f.
Use (4) Drywells; Each @	53.47 s.f. or	7,31 x	7.31 x 2.75
Total Volume Provided:	588.1563 +	1368.80	1956.96 c.f.

BRINKASH

ASSOCIATES, INC.

1713 Centre Street ♦ Ashland Pa 17921 ♦ Phone: (570)-875-1018 ♦ Fax: (570)-875-1670

Date: 1/5/2010

Lost Lake Drywells- 8.0 in/hr Infiltration Rates

Pre-Development

Description	Soils Type	CN	Area (Ac.)
Woods - Fair	B	98.00	0.0275

Total 98.00 0.0275

Runoff Volume

CN= 98.00
 P= 8.00 :100yr/24hr rainfall (inches)
 S= 1000 / CN - 10 = 0.20
 Ia= 0.20S = 0.04
 Q = (P - Ia)^2 / (P - Ia) + S= 7.76

Total Volume of Runoff = 7.76 /12 x 1200.00 s.f. = 776.02 c.f.
 Volume of Stone Req'd: 776.02 x 2.50 (voids)= 1940.05 c.f.
 For One Drywell 10.50 x 10.00 x 2.7500 = 288.75 c.f.
 Infiltration Volume: Bed Area 105.00 Infiltr. Rate 8.00 Infiltr. Per. 24.00 hr storm event
 Infiltration Volume = Bed Area (sf) x Infiltration Design Rate (in/hr) x Infiltration Period (hr) / 12= 1680.00 c.f.
 Total Volume Provided = 1968.75 c.f.
 Use (4) Drywells; Each @ 26.25 s.f. or 5.12 x 5.12 x 2.75
 Total Volume Provided: 288.7500 + 1680.00 = 1968.75 c.f.

Section 8.7
Water Quality Calculations

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area A

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05 + .009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	15.21	Roads Area (Acres)	=	1.35
P	=	1.15	House Area (Acres)	=	1.39
A	=	20.32	Driveways (Acres)	=	0.35
Rv	=	0.20 Minimum	Total Imp. Area (ac)	=	3.09

WQv = 0.39 Acre Feet Required

WQV Provided

Drywells = 0.11 Ac-ft

Extended Detention =

Permanent Pools = 0.28 Ac-ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenion =

Total WQv Provided = 0.39 Acre Feet Provided

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area B

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05+.009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	14.07	Roads Area (Acres)	=	3.89
P	=	1.15	House Area (Acres)	=	5.08
A	=	72.77	Driveways (Acres)	=	1.27
Rv	=	0.20	Total Imp. Area (ac)	=	10.24

WQv = 1.39 Acre Feet Required

WQV Provided

Drywells	=	0.40	Ac-Ft	
Extended Detention	=			
Permanent Pools	=	0.32	Ac-Ft	Basin Bottom Area x 0.5' Depth
Forebays/Bioretenion	=	0.68	Ac-Ft	Sediment Forebay
Total WQv Provided	=	1.40	Acre Feet Provided	

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area C

$$WQv = [(P)(Rv)(A)]/12$$

$$Rv = 0.05 + .009(I)$$

I = Impervious Cover (Percent)

Minimum Rv = 0.2

P = 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A = site area in acres

I	=	7.51	Roads Area (Acres)	=	38.79
P	=	1.15	House Area (Acres)	=	43.96
A	=	1246.99	Driveways (Acres)	=	10.86
Rv	=	0.20 Minimum	Total Imp. Area (ac)	=	93.61

WQv = **23.90** Acre Feet Required

WQV Provided

Drywells = 3.43 Ac-Ft

Extended Detention =

Permanent Pools = 1.60 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenention = 25.01 Ac-Ft Sediment Forebay

Total WQv Provided = 30.04 **Acre Feet Provided**

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area D

$$WQv = [(P)(Rv)(A)]/12$$

$$Rv = 0.05 + .009(I)$$

I = Impervious Cover (Percent)

Minimum Rv = 0.2

P = 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A = site area in acres

I	=	2.01	Roads Area (Acres)	=	0.00
P	=	1.15	House Area (Acres)	=	0.91
A	=	56.66	Driveways (Acres)	=	0.23
Rv	=	0.20	Total Imp. Area (ac)	=	1.14

Minimum

WQv = 1.09 Acre Feet Required

WQV Provided

Drywells = 0.71 Ac-Ft

Extended Detention =

Permanent Pools = 0.39 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenion =

Total WQv Provided = 1.10 Acre Feet Provided

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area E

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05+.009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	8.87	Other Impervious Area (Acres)	=	9.23
P	=	1.15	Roads Area (Acres)	=	10.07
A	=	369.39	House Area (Acres)	=	10.76
Rv	=	0.20 Minimum	Driveways (Acres)	=	2.69
			Total Imp. Area (ac)	=	32.75

WQv = 7.08 Acre Feet Required

WQV Provided

Drywells = 0.84 Ac-Ft

Extended Detention =

Permanent Pools = 2.21 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenion = 4.03 Ac-Ft Sediment Forebay

Total WQv Provided = 7.08 Acre Feet Provided

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area F

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05+.009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	10.61	Roads Area (Acres)	=	1.93
P	=	1.15	House Area (Acres)	=	2.87
A	=	52.01	Driveways (Acres)	=	0.72
Rv	=	0.20 Minimum	Total Imp. Area (ac)	=	5.52

WQv = 1.00 Acre Feet Required

WQV Provided

Drywells = 0.22 Ac-Ft

Extended Detention =

Permanent Pools = 0.39 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenention = 0.40 Ac-Ft Sediment Forebay

Total WQv Provided = 1.01 Acre Feet Provided

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area G

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05+.009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	4.22	Roads Area (Acres)	=	0.00
P	=	1.15	House Area (Acres)	=	0.50
A	=	14.70	Driveways (Acres)	=	0.12
Rv	=	0.20 Minimum	Total Imp. Area (ac)	=	0.62

WQv = 0.28 Acre Feet Required

WQV Provided

Drywells = 0.04 Ac-Ft

Extended Detention =

Permanent Pools = 0.24 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretention =

Total WQv Provided = 0.28 Acre Feet Provided

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Water Quality Design (WQv) - Drainage Area H

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05+.009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	5.45	Roads Area (Acres)	=	0.00
P	=	1.15	House Area (Acres)	=	0.33
A	=	7.52	Driveways (Acres)	=	0.08
Rv	=	0.20 Minimum	Total Imp. Area (ac)	=	0.41

WQv = 0.14 Acre Feet Required

WQV Provided

Drywells = 0.03 Ac-Ft

Extended Detention =

Permanent Pools =

Forebays/Bioretenction = 0.12 Ac-Ft Sediment Forebay

Total WQv Provided = 0.15 Acre Feet Provided

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Water Quality Design (WQv) - Drainage Area I

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05 + .009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	5.01	Other Impervious Area (Acres)	=	2.50
P	=	1.15	Roads Area (Acres)	=	1.15
A	=	112.88	House Area (Acres)	=	1.61
Rv	=	0.20 Minimum	Driveways (Acres)	=	0.40
			Total Imp. Area (ac)	=	5.66

WQv = **2.16 Acre Feet Required**

WQV Provided

Drywells = 0.13 Ac-Ft

Extended Detention =

Permanent Pools = 0.70 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenention = 1.35 Ac-Ft Sediment Forebay

Total WQv Provided = **2.18 Acre Feet Provided**

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Water Quality Design (WQv) - Drainage Area J

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05+.009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	10.96	Other Impervious Area (Acres)	=	0.15
P	=	1.15	Roads Area (Acres)	=	3.07
A	=	112.33	House Area (Acres)	=	6.28
Rv	=	0.20 Minimum	Driveways (Acres)	=	2.81
			Total Imp. Area (ac)	=	12.31

WQv = 2.15 Acre Feet Required

WQV Provided

Drywells = 0.36 Ac-Ft

Extended Detention =

Permanent Pools =

Forebays/Bioretenention = 1.79 Ac-Ft Sediment Forebay

Total WQv Provided = 2.15 Acre Feet Provided

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Water Quality Design (WQv) - Drainage Area K

WQv= $[(P)(Rv)(A)]/12$

Rv= $0.05+.009(I)$

I= Impervious Cover (Percent)

Minimum Rv = 0.2

P= 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A= site area in acres

I	=	10.35	Other Impervious Area (Acres)	=	1.05
P	=	1.15	Roads Area (Acres)	=	1.89
A	=	52.08	House Area (Acres)	=	1.96
Rv	=	0.20 Minimum	Driveways (Acres)	=	0.49
			Total Imp. Area (ac)	=	5.39

WQv = 1.00 Acre Feet Required

WQV Provided

Drywells = 0.15 Ac-Ft

Extended Detention =

Permanent Pools = 0.61 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenion = 0.24 Ac-Ft Sediment Forebay

Total WQv Provided = 1.00 Acre Feet Provided

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Date: 1/5/2010

Water Quality Design (WQv) - Drainage Area L

$$WQv = [(P)(Rv)(A)]/12$$

$$Rv = 0.05 + .009(I)$$

I = Impervious Cover (Percent)

Minimum Rv = 0.2

P = 90% Rainfall Event Number (See Figure 4.1 NYS SWM Manual)

A = site area in acres

I	=	5.54	Roads Area (Acres)	=	0.74
P	=	1.15	House Area (Acres)	=	1.51
A	=	47.51	Driveways (Acres)	=	0.38
Rv	=	0.20	Total Imp. Area (ac)	=	2.63

Minimum

WQv = 0.91 Acre Feet Required

WQV Provided

Drywells = 0.12 Ac-Ft

Extended Detention =

Permanent Pools = 0.83 Ac-Ft (Basin Bottom Area x 0.75' Perm. Pool)

Forebays/Bioretenction =

Total WQv Provided = 0.95 Acre Feet Provided

Section 8.8
Channel Protection Volume Requirements

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Date: 1/7/2010

Drainage Area A Channel Protection Volume (CPv)

Drainage Area **30.32** Acres
CN **80.60**
Tc **33.61** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= 1000 / CN - 10 = 2.41
Ia= 0.20S = 0.48
Q = (P - Ia)² / (P - Ia) + S= 1.29
Ia/P= 0.16
qu= **625.00** From TR-55 Fig. 4-II
qo/qi= **0.03** From NY SWMDM Figure B.1

$V_s/V_r = 0.6282 - 1.43(q_o/q_i) + 1.64(q_o/q_i)^2 - 0.804(q_o/q_i)^3$
Vs/Vr = 0.59

$V_s = (V_s/V_r)(Q_d)(A) / 12$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A= Drainage Area (Acres)

Vs= 1.91 Ac-ft or 83170 c.f.

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Date: 1/7/2010

Drainage Area B Channel Protection Volume (CPv)

Drainage Area **72.77** Acres
CN **78.99**
Tc **37.76** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= 1000 / CN - 10 = 2.66
Ia= 0.20S = 0.53
Q = (P - Ia)² / (P - Ia) + S= 1.19
Ia/P= 0.18
qu= **600.00** From TR-55 Fig. 4-II
qo/qi= **0.03** From NY SWMDM Figure B.1

$V_s/V_r = 0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$
Vs/Vr = 0.58

$V_s = (V_s/V_r)(Q_d)(A) / 12$

Where: Vs = required storage volume (ac-ft)
 Vr = runoff volume (ac-ft)
 qo = peak outflow discharge (cfs)
 qi = peak inflow discharge (cfs)
 Qd = post developed runoff (inches)
 A = Drainage Area (Acres)

Vs= 4.21 Ac-ft or 183279 c.f.

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Date: 1/7/2010

Drainage Area D Channel Protection Volume (CPv)

Drainage Area **56.66** Acres
CN **80.64**
Tc **19.47** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= 1000 / CN - 10 = 2.40
Ia= 0.20S = 0.48
Q = (P - Ia)² / (P - Ia) + S= 1.29
Ia/P= 0.16
qu= **550.00** From TR-55 Fig. 4-II
qo/qi= **0.04** From NY SWMDM Figure B.1

$V_s/V_r = 0.6282 - 1.43(q_o/q_i) + 1.64(q_o/q_i)^2 - 0.804(q_o/q_i)^3$
Vs/Vr = 0.58

$V_s = (V_s/V_r)(Q_d)(A) / 12$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A = Drainage Area (Acres)

Vs= 3.53 Ac-ft or 153971 c.f.

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Drainage Area E Channel Protection Volume (CPv)

Drainage Area **369.39** Acres
CN **82.23**
Tc **79.16** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= $1000 / CN - 10 =$ 2.16
Ia= $0.20S =$ 0.43
Q = $(P - Ia)^2 / (P - Ia) + S =$ 1.39
Ia/P= 0.14
qu= **240.00** From TR-55 Fig. 4-II
qo/qi= **0.07** From NY SWMDM Figure B.1

$Vs/Vr = 0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$
Vs/Vr = 0.54

$Vs = (Vs/Vr)(Qd)(A) / 12$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A= Drainage Area (Acres)

Vs= 23.00 Ac-ft or 1002056 c.f.

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Drainage Area F Channel Protection Volume (CPv)

Drainage Area	52.01	Acres
CN	79.15	
Tc	33.80	Min
P=	3.00	:1yr/24hr rainfall (inches)
S= 1000 / CN - 10 =	2.63	
la= 0.20S =	0.53	
Q = (P - la)^2 / (P - la) + S=	1.20	
la/P=	0.18	
qu=	550.00	From TR-55 Fig. 4-II
qo/qi=	0.04	From NY SWMDM Figure B.1

$$Vs/Vr = 0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$$

$$Vs/Vr = 0.58$$

$$Vs = (Vs/Vr)(Qd)(A) / 12$$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qt = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A= Drainage Area (Acres)

$$Vs = 3.01 \text{ Ac-ft} \quad \text{or} \quad 131168 \text{ c.f.}$$

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Drainage Area G Channel Protection Volume (CPv)

Drainage Area **14.70** Acres
CN **77.18**
Tc **27.83** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= $1000 / CN - 10 =$ 2.96
Ia= $0.20S =$ 0.59
Q = $(P - Ia)^2 / (P - Ia) + S =$ 1.08
Ia/P= 0.20
qu= **500.00** From TR-55 Fig. 4-II
qo/qi= **0.04** From NY SWMDM Figure B.1

Vs/Vr = $0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$
Vs/Vr = 0.57

Vs = $(Vs/Vr)(Qd)(A) / 12$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A = Drainage Area (Acres)

Vs = 0.76 Ac-ft or 33096 c.f.

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Date: 1/7/2010

Drainage Area H Channel Protection Volume (CPv)

Drainage Area **7.52** Acres
CN **77.23**
Tc **21.01** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= $1000 / CN - 10 =$ 2.95
Ia= $0.20S =$ 0.59
Q = $(P - Ia)^2 / (P - Ia) + S =$ 1.08
Ia/P= 0.20
qu= **550.00** From TR-55 Fig. 4-II
qo/qi= **0.04** From NY SWMDM Figure B.1

$$Vs/Vr = 0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$$
$$Vs/Vr = 0.58$$

$$Vs = (Vs/Vr)(Qd)(A) / 12$$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A = Drainage Area (Acres)

$$Vs = 0.39 \text{ Ac-ft} \quad \text{or} \quad 17169 \text{ c.f.}$$

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Date: 1/7/2010

Drainage Area I Channel Protection Volume (CPv)

Drainage Area **112.88** Acres
CN **78.65**
Tc **54.01** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= $1000 / CN - 10 =$ 2.71
Ia= $0.20S =$ 0.54
Q = $(P - Ia)^2 / (P - Ia) + S =$ 1.17
Ia/P= 0.18
qu= **325.00** From TR-55 Fig. 4-II
qo/qi= **0.06** From NY SWMDM Figure B.1

$Vs/Vr = 0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$
Vs/Vr = 0.55

$Vs = (Vs/Vr)(Qd)(A) / 12$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A = Drainage Area (Acres)

Vs= 6.02 Ac-ft or 262222 c.f.

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Date: 1/7/2010

Drainage Area J Channel Protection Volume (CPv)

Drainage Area **112.33** Acres
CN **79.51**
Tc **44.39** Min
P= 3.00 :1yr/24hr rainfall (inches)
S= 1000 / CN - 10 = 2.58
Ia= 0.20S = 0.52
Q = (P - Ia)^2 / (P - Ia) + S= 1.22
Ia/P= 0.17
qu= **350.00** From TR-55 Fig. 4-II
qo/qi= **0.05** From NY SWMDM Figure B.1

$V_s/V_r = 0.6282 - 1.43(q_o/q_i) + 1.64(q_o/q_i)^2 - 0.804(q_o/q_i)^3$
Vs/Vr = 0.56

$V_s = (V_s/V_r)(Q_d)(A) / 12$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A= Drainage Area (Acres)

Vs= 6.40 Ac-ft or 278856 c.f.

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Drainage Area K Channel Protection Volume (CPv)

Drainage Area	52.08	Acres
CN	80.62	
Tc	37.02	Min
P=	3.00	:1yr/24hr rainfall (inches)
S= 1000 / CN - 10 =	2.40	
la= 0.20S =	0.48	
Q = (P - la)^2 / (P - la) + S=	1.29	
la/P=	0.16	
qu=	375.00	From TR-55 Fig. 4-II
qo/qi=	0.05	From NY SWMDM Figure B.1

$$Vs/Vr = 0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$$

$$Vs/Vr = 0.57$$

$$Vs = (Vs/Vr)(Qd)(A) / 12$$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qt = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A= Drainage Area (Acres)

$$Vs = 3.17 \text{ Ac-ft} \quad \text{or} \quad 138214 \text{ c.f.}$$

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Drainage Area L

Channel Protection Volume (CPv)

Drainage Area	47.51	Acres
CN	82.31	
Tc	27.64	Min
P=	3.00	:1yr/24hr rainfall (inches)
S= 1000 / CN - 10 =	2.15	
la= 0.20S =	0.43	
Q = (P - la)^2 / (P - la) + S=	1.40	
la/P=	0.14	
qu=	650.00	From TR-55 Fig. 4-II
qo/qi=	0.03	From NY SWMDM Figure B.1

$$Vs/Vr = 0.6282 - 1.43(qo/qi) + 1.64(qo/qi)^2 - 0.804(qo/qi)^3$$

$$Vs/Vr = 0.59$$

$$Vs = (Vs/Vr)(Qd)(A) / 12$$

Where: Vs = required storage volume (ac-ft)
Vr = runoff volume (ac-ft)
qo = peak outflow discharge (cfs)
qi = peak inflow discharge (cfs)
Qd = post developed runoff (inches)
A = Drainage Area (Acres)

$$Vs = 3.29 \text{ Ac-ft} \quad \text{or} \quad 143261 \text{ c.f.}$$

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UNIT PEAK DISCHARGES (q_u)

AREA	I_a/P	T_c	q_u	q_o/q_u
A	0.16	33.61	625	0.030
B	0.18	37.76	600	0.037
C	0.18	116.27	210	0.08
D	0.16	19.47	550	0.035
E	0.14	79.16	240	0.07
F	0.18	33.80	550	0.035
G	0.20	27.83	500	0.04
H	0.20	21.01	550	0.035
I	0.18	59.01	325	0.06
J	0.17	44.39	350	0.05
K	0.16	37.02	375	0.045
L	0.14	27.64	650	0.025

This Appendix presents two hydrologic and hydraulic analysis tools that can be used to size stormwater management practices (SMPs). The first is the TR-55 (NRCS, 1986) “short-cut” sizing technique, used to size practices designed for extended detention, slightly modified to incorporate the small flows necessary to provide channel protection. The second is a method used to determine the peak flow from water quality storm events. (This is often important when the water quality storm is diverted to a water quality practice, with other larger events bypassed).

B.1 Storage Volume Estimation

This section presents a modified version of the TR-55 short cut sizing approach. The method was modified by Harrington (1987), for applications where the peak discharge is very small compared with the uncontrolled discharge. This often occurs in the 1-year, 24-hour detention sizing.

Using TR-55 guidance (NRCS, 1986), the unit peak discharge (q_u) can be determined based on the the Curve Number and Time of Concentration. Knowing q_U and T (extended detention time), q_o/q_i (peak outflow discharge/peak inflow discharge) can be estimated from Figure B.1.

Figure B.2 can also be used to estimate V_s/V_r . For a Type II or Type III rainfall distribution, V_s/V_r can also be calculated using the following equation:

$$V_s/V_r = 0.682 - 1.43 (q_o/q_i) + 1.64 (q_o/q_i)^2 - 0.804 (q_o/q_i)^3 \quad (2.1.16)$$

Where:

- V_s = required storage volume (acre-feet)
- V_r = runoff volume (acre-feet)
- q_o = peak outflow discharge (cfs)
- q_i = peak inflow discharge (cfs)

The required storage volume can then be calculated by:

$$V_s = \frac{(V_s/V_r)(Q_d)(A)}{12} \quad (2.1.17)$$

Where: V_s and V_r are defined above

- Q_d = the post-developed runoff for the design storm (inches)
- A = total drainage area (acres)

While the TR-55 short-cut method reports to incorporate multiple stage structures, experience has shown that an additional 10-15% storage is required when multiple levels of extended detention are provided.

Figure B.1 Detention Time vs. Discharge Ratios (Source: MDE, 2000)

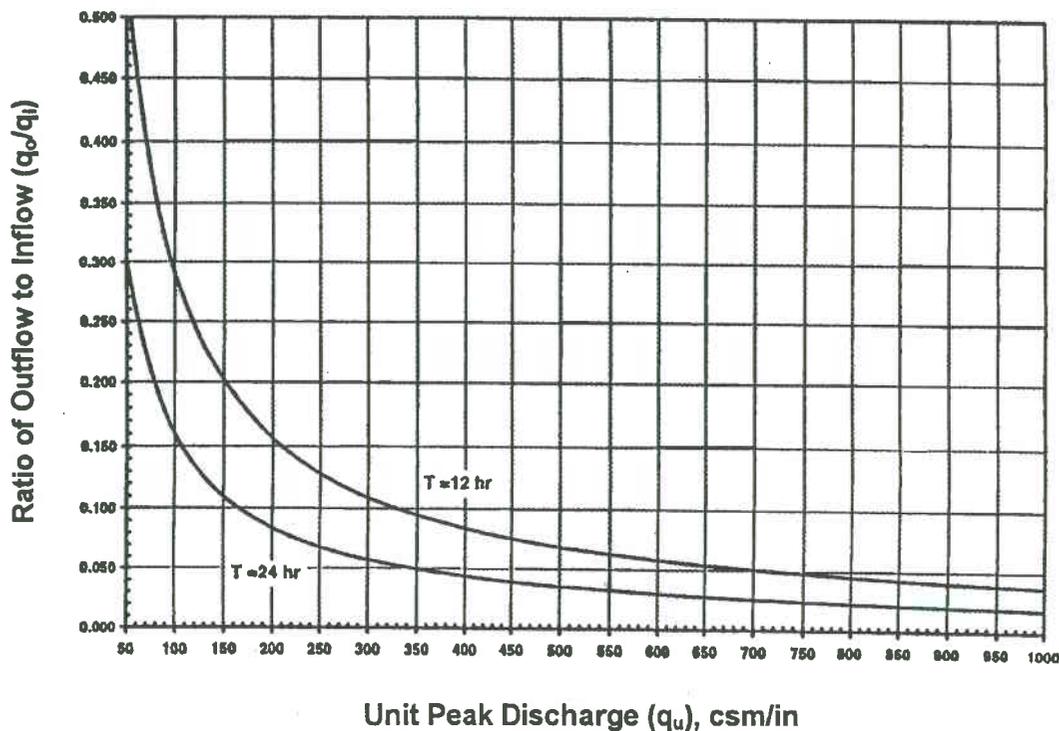


Figure B.2 Approximate Detention Basin Routing For Rainfall Types I, IA, II, and III (Source: NRCS, 1986)

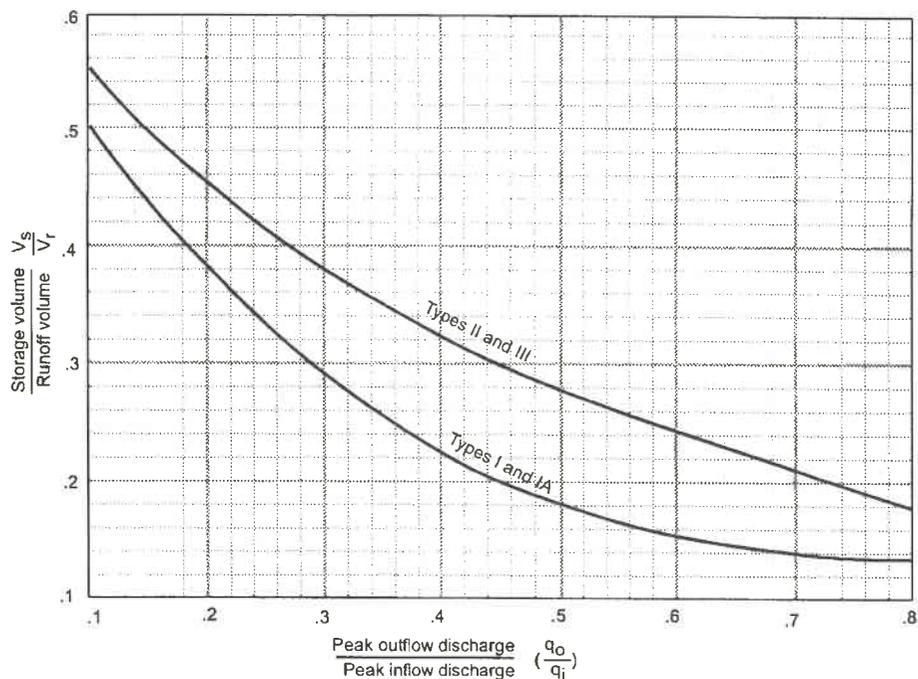
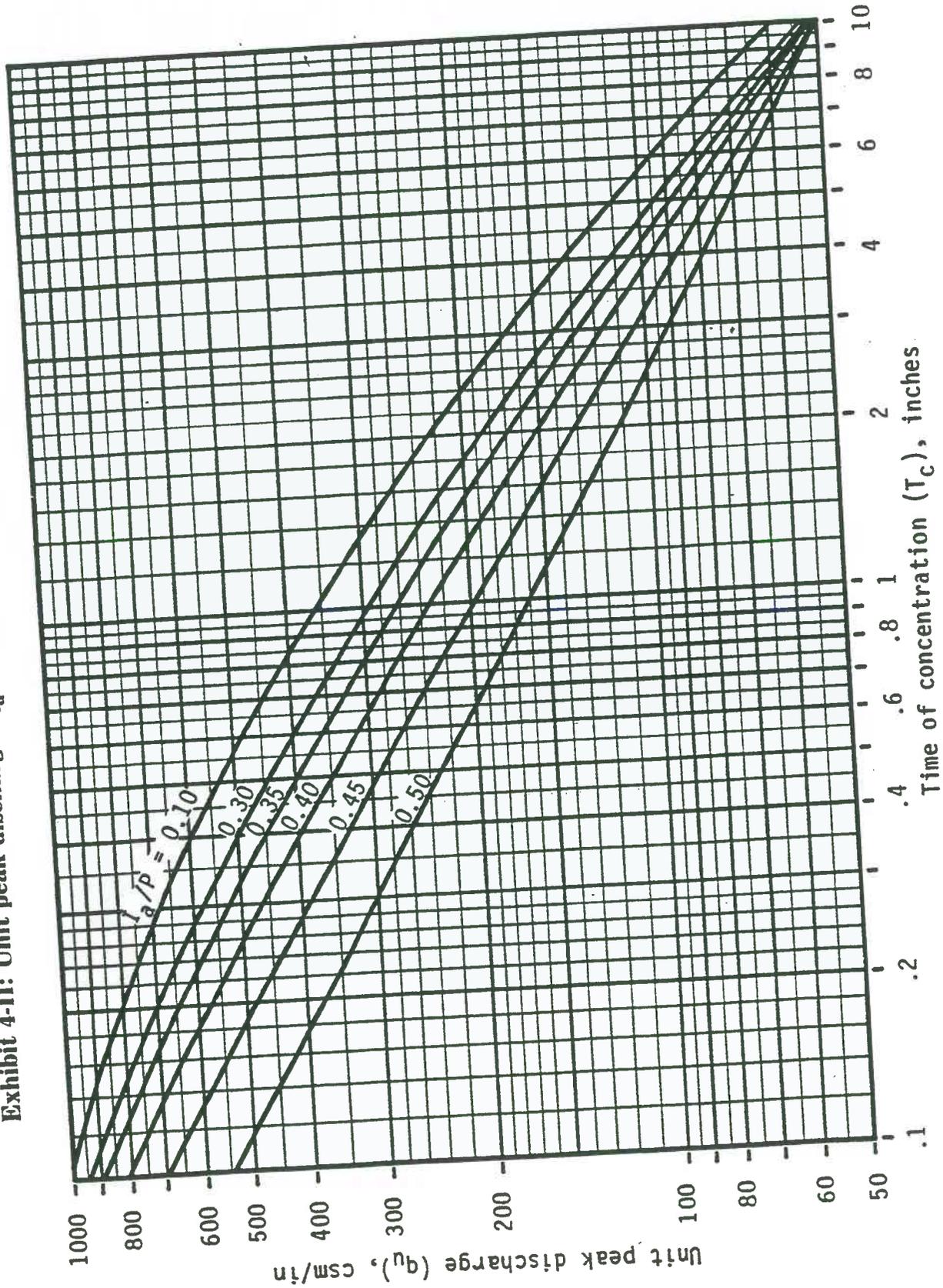


Exhibit 4-II: Unit peak discharge (q_u) for SCS type II rainfall distribution



Section 8.9
Pollutant Loading Calculations

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Drainage Area A

Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	17.65	C	6.00	0.10	2.40	105.90	1.77	42.36
TOTALS							105.90	1.77	42.36

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	20.32	C	14.00	0.60	5.70	284.48	12.19	115.82
TOTALS							284.48	12.19	115.82
Increase from Pre to Post Development Conditions							178.58	10.43	73.46

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Drainage Area B

Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	122.12	C	6.00	0.10	2.40	732.72	12.21	293.09
				TOTALS			732.72	12.21	293.09

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	115.33	C	14.00	0.60	5.70	1614.62	69.20	657.38
				TOTALS			1614.62	69.20	657.38
				Increase from Pre to Post Development Conditions			881.90	56.99	364.29

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Drainage Area C

Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	1512.67	C	6.00	0.10	2.40	9076.02	151.27	3630.41
				TOTALS			9076.02	151.27	3630.41

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	1246.99	C	14.00	0.60	5.70	17457.86	748.19	7107.84
2	Forest (off-site)	265.68	C	6.00	0.10	2.40	1594.08	26.57	637.63
				TOTALS			19051.94	774.76	7745.48
				Increase from Pre to Post Development Conditions			9975.92	623.50	4115.07

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Drainage Area D Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	64.12	C	6.00	0.10	2.40	384.72	6.41	153.89
TOTALS							384.72	6.41	153.89

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	56.66	C	14.00	0.60	5.70	793.24	34.00	322.96
TOTALS							793.24	34.00	322.96
Increase from Pre to Post Development Conditions							408.52	27.58	169.07

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Drainage Area E Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	393.00	C	6.00	0.10	2.40	2358.00	39.30	943.20
TOTALS							2358.00	39.30	943.20

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	369.39	C	14.00	0.60	5.70	5171.46	221.63	2105.52
TOTALS							5171.46	221.63	2105.52
Increase from Pre to Post Development Conditions							2813.46	182.33	1162.32

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Drainage Area F Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	41.82	C	6.00	0.10	2.40	250.92	4.18	100.37
TOTALS							250.92	4.18	100.37

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	49.14	C	14.00	0.60	5.70	687.96	29.48	280.10
TOTALS							687.96	29.48	280.10
Increase from Pre to Post Development Conditions							437.04	25.30	179.73

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Drainage Area G Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac / yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	20.60	C	6.00	0.10	2.40	123.60	2.06	49.44
TOTALS							123.60	2.06	49.44

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac / yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	14.70	C	14.00	0.60	5.70	205.80	8.82	83.79
TOTALS							205.80	8.82	83.79
Increase from Pre to Post Development Conditions							82.20	6.76	34.35

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Drainage Area H Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	15.63	C	6.00	0.10	2.40	93.78	1.56	37.51
TOTALS							93.78	1.56	37.51

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	7.52	C	14.00	0.60	5.70	105.28	4.51	42.86
TOTALS							105.28	4.51	42.86
Increase from Pre to Post Development Conditions							11.50	2.95	5.35

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Drainage Area I Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	71.20	C	6.00	0.10	2.40	427.20	7.12	170.88
TOTALS							427.20	7.12	170.88

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	112.88	C	14.00	0.60	5.70	1580.32	67.73	643.42
TOTALS							1580.32	67.73	643.42
Increase from Pre to Post Development Conditions							1153.12	60.61	472.54

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Drainage Area J Pollutant Loading Calculations

Pre-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Forest	119.66	C	6.00	0.10	2.40	717.96	11.97	287.18
				TOTALS			717.96	11.97	287.18

Post-Development Conditions and Quality Impacts

Sub-Area	Land Use	Area Acres	Soil Group	Annual Loading Rates (lb / ac /yr)			Annual Loads (lb/yr)		
				BOD	TP	TN	BOD	TP	TN
1	Single Family 1 DU/Ac.	112.33	C	14.00	0.60	5.70	1572.62	67.40	640.28
				TOTALS			1572.62	67.40	640.28
				Increase from Pre to Post Development Conditions			854.66	55.43	353.10

