

APPENDIX G1

Preliminary Stormwater Pollution
Prevention Plan and
Erosion and Sediment Control Report

**PRELIMINARY STORMWATER POLLUTION
PREVENTION PLAN AND EROSION AND SEDIMENT
CONTROL REPORT
FOR
LOST LAKE RESORT
TOWN OF FORESTBURGH, SULLIVAN COUNTY, NY**
Submitted in Conjunction with the Draft Environmental Impact Statement for the same



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1.0. SUMMARY OF PROJECT:

Lost Lake Resort is a proposed planned community consisting to be contained on 2,079.51 Acres in the Town of Forestburgh, Sullivan County, NY. Proposed for this gated upscale development are 2,557 Single Family Residential Lots, 70 single family cottages and multi-family units and on-site recreation and amenities, including and 18 hole championship golf course, driving range, inn, clubhouse and restaurant, swimming pool, tennis courts, spa, amenity village, conference center and wilderness walking trails.

The existing property is mainly wooded with slopes ranging from gradual to somewhat steep. The property is split by St. Joseph's Road, a public road that runs east and west through the property. Approximately 1/3 of the property is located to the north of this road with the other 2/3rds being located to the south. A large lake known as Lost Lake is approximately 50 acres and is located on the northern portion of the property. A large tributary stream dissects the southern portion of the property and meets with the Bushkill River which begins on the property. Various wetlands existing on site and have been field delineated by others and mapped by Brinkash. Soil types vary throughout the site, however the predominant soil type is hydrological group 'C'. Section A.2 of this report specifically addresses soils characteristics known at this time.

Stormwater Management and Pollution Prevention along with Erosion and Sediment Control will be an integral part of this development. For conceptual and preliminary design purposes, the project has been broken into twelve drainage areas identified as Point of Interest (POI) A thru L. On-lot drywells will be utilized to collect the run-off from the proposed roof-tops of the residential units and infiltrate the 100 year and smaller storm events, while detention basins will be provided to attenuate the flows from the pavement and driveways. All Stormwater Management Design and construction will be consistent with the New York State Stormwater Design Manual, April, 2008. Erosion and Sediment Control will be accomplished through an integrated network of sediment traps, silt fencing, rock and vegetative linings among other BMPs. All Erosion and Sediment Control Design and Construction will be consistent with the DEC Division of Water – 'New York Standards and Specifications for Erosion and Sediment Control'. April 2005.

Stormwater conveyance will be achieved via roadside swales and culverts that will be designed in accordance with the previously noted manuals. Typically, these swales and culverts will be designed to carry the 10 year storm with provisions to safely pass the 100 storm event without damage. As design calculations dictate, swales will either be grass lined with temporary matting to be in place until stabilization or the swales will be rip-rap lined. Higher velocities and shear stress will necessitate the rock lining. Generally speaking, this will occur in areas of excessive flow and or steep sloped swales.

In order to achieve a conservative design, all basins, swales, and pipes are designed for full build out even though historically, a small percentage of homes (about 1% of the total lot count) get developed each year. In addition, swales are designed assuming that the on-lot drywells are completely filled and will utilize the overflows:

2.0 METHODOLOGY

2.1 Governing Regulations

Projects with point source discharges of stormwater run-off that disturb greater than 1 acre of land are subject to the requirements of the NPDES (National Pollution Discharge Elimination Systems) permitting requirements under federal law. New York state administers this Federal EPA permitting criteria through the SPDES process. The SPDES permit includes development of a plan that addresses erosion and sediment control, stormwater peak flow rates, stormwater quantity and stormwater quality. In addition, a notice of intent is required to be filed with the New York State Department of Environmental Conservation (DEC). The project will be subject to inspections, contractor certifications and compliance measures.

The SPDES process requires design in accordance with the New York State Stormwater Design Manual which requires consideration of Water Quality, Channel Protection, Overbank Flooding and Extreme storm events. In addition to these requirements, the scoping document for Lost Lake Resort has set forth requirements to analyze the peak flows for the 1, 2, 10, 25, 50 and 100 year storm events. A description of this design criteria is set forth in section 2.2 below.

Detention basins are an integral part of the Stormwater Management Design to meet the SPDES permit requirements. Article 15 of the New York State Environmental Conservation Law requires that a Dam Permit be obtained from the NYDEC if any of the following apply:

- If the height of the embankment is 10 feet or greater in height
- If the basin stores at least 1 million gallons per day (3.07 Ac-Ft)
- If the basin has a drainage area of at least one square mile.

The project has been designed such that no Dam Permits will be required. It is important to note that due to the size of the and dynamics of the project, conditions in the future could warrant such a permit. Detailed calculations have been performed for phase 1 of the development and a comprehensive overview of the remainder of the site indicates that the project can be constructed without the need for such permits.

2.2 Peak Rate and Water Quantity Control Criteria

As previously stated, the site is generally dividing into twelve (12) distinct drainage areas. For purposes of this study, the points of interest of these drainage areas are labeled POI A thru L. In accordance with the Unified Stormwater sizing criteria set forth in Chapter 4 of the New York State Stormwater Design Manual April, 2008, the following design storms were analyzed for Peak Rate and Water Quantity:

- Overbank Flood (Q_p): Control peak discharges from the 10 year storm to 10 year predevelopment rates.
 $Q_p : P = 5.7''$ (Figure 4.5)
- Extreme Storm (Q_f): Control peak discharges from the 100 year storm to 100 year pre-development rates and safely pass the 100 year storm event
 $Q_f : P = 8.0''$ (Figure 4.6)

- Scoping Document: Provide Volume and Peak Flow calculations for the following storm events: 1, 2, 10, 25, 50 and 100 year events. The following 24 hour rainfall depths have been used:
P1 = 3.0” P2 = 3.6” P10 = 5.7” P25 = 6.5” P50 = 7.1” P100 = 8.0”

Lost Lake Resort will be unique from a stormwater management standpoint due to the project low build out rates of the site. Typically, when designing for a project of this size, it is important to look at a full-build out scenario to address ‘worse case’ scenarios. Brinkash & Associates, Inc. have been involved for several years at this developer’s Pennsylvania resort, Eagle Rock, which is similar in nature to this proposed development. Because of historic low build out rates, it isn’t necessarily practical to design large detention basins with the anticipation of future homes that may not exist for several years.

When basins are oversized for actual conditions, they lend themselves to long-term maintenance issues and may not function properly as water levels never reach designed levels. An approach that addresses this potential concern, as well as meeting certain criteria for water quality and volume control, is the implementation of individual on-lot controls. These controls are either a drywell or rain garden and are installed by the lot owners at the time that the home is constructed. Subsequently, these systems are maintained by the lot owners. The installation and maintenance of these facilities is enforceable by the developer through their comprehensive covenants and restrictions.

Pre-Development flow rates were calculated for sub-drainage areas at the specified points of interest. These same points of interest were used in the post development condition and new drainage areas were delineated (please note that drainage areas were delineated to the edge of the Bush Kill River for both pre and post development. The offsite flows from the Bush Kill have been considered as a consistent base flow for pre to post development comparison and any stream stability or capacity calculations should include the full drainage areas.); Two scenarios were computed:

1. Post Condition ‘A’: Post Development with full build out and on-lot controls in place.
2. Post Condition ‘B’: Post Development with no homes constructed, but all infrastructure in place.

The reason for the analysis of the two scenarios is that there are instances where calculations for scenario #2 indicate that no detention basins are required for water quality or peak flow, however, from the time that roads are built up until such time that homes are in, these areas would see an increase in peak flow. The worse case scenario of #1 and #2 was used to size the detention basins and other BMPs.

For purposes of these design calculations, published soils infiltration rates and characteristics have been used. Prior to final design of any stormwater facilities, detailed soils evaluations will be required. These include soils profiles and infiltration testing. A more detailed explanation of soils testing and on-lot controls is provided in Section 5.0 of this document. The SCS TR-55 Method was used for all calculations. Since the pre-dominant soils type is hydrological group C, all cover numbers assume a C soils type for this report. Final submissions will utilize weighted breakdown of each soils class from A through D, however, the results will not vary significantly since the same soils type was used in pre and post development. Also, for purposes of this report, all wetlands and surface waters including the lake and streams is considered to be impervious in both the pre and post developed condition. All calculations were performed utilizing the Penn State Virginia Tech Urban Hydrology Model (VTPSUHM) computer software.

2.3 Water Quality:

Utilizing the same drainage areas discussed in 2.2 and in accordance with the Unified Stormwater sizing criteria set forth in Chapter 4 of the New York State Stormwater Design Manual April, 2008, the following design storms were for water quality:

- Water Quality (WQ_v) : Capture and treat 90% of the average annual rainfall

$$WQ_v = [(P)(R_v)(A)] / 12$$

$$R_v = 0.05 + 0.009(I)$$

I = Impervious Cover (Percent)

Minimum R_v = 0.2

P = 90% Rainfall Event Number (See Figure 4.1)

A = site area in acres

- Channel Protection (CP_v): 24 hour extended detention of the 1 year / 24 hour storm event.
Cp_v : P = 3.0" (Figure 4.4)

Drywells and raingardens will be used to provide water quality in runoff associated with the individual home construction while community BMPs such as detention basins and infiltration trenches will account for the roadway construction and contributing driveways. Swales with slopes less than 4% will provide some extended detention as well.

2.4 Storm Water Conveyance:

Roadside swales will be designed for the ten (10) year frequency storm and in accordance with the appropriate guidelines for erosion and sediment control. In addition, all cross pipes and culverts have also been analyzed for the 10 year storm. Typically, roadside swales will be dry swales and will be two (2) feet deep, three (3) feet bottom width and contain 3:1 side slopes. Linings for the swales will be either grass with temporary matting or rock lined depending on the velocity. The Supporting calculations will be provided within the erosion and sediment control report.

2.5 Permanent Vegetative Stabilization:

Natural vegetation will be maintained where possible on all lots and across the site. Trees will absorb up to 14 times more rainwater than a grass lawn and do not require fertilizer. In addition, the tree canopies will provide a rainfall interceptor that will lessen surface run-off. In addition, permanent seeding shall be provided to ensure stabilization after construction and recommended maintenance procedures are provided in the erosion and sediment control report. Finally, swales between the lots and street right-of-ways are proposed to act as filter strips in areas where slopes do not exceed 4%. These will reduce concentration of suspended soils in run-off before it is discharged to the detention areas.

2.6 Pollutant Loading:

In addition to the analyzing the affects of peak rate, volume, and water quality in the post development condition, it is also important to consider the affects of Biochemical Oxygen Demand (BOD), nitrogen (TN), and phosphorus (TP). In accordance with the requirements set forth Chapter Three of '*Reducing the Impacts of Stormwater Runoff From New Development*', pollutant loadings for BOD, TN and TP were analyzed for pre and post development conditions. The summary of results is included in Section

3.0 and calculations are provided in Section 8.8 of this report. Pollutants will be controlled in the post development condition through the post construction BMPs.

2.7 Erosion Control and Stormwater Management/ Treatment Practices

A variety of Erosion Control and Stormwater Management / Treatment practices are described here within. The following is a breakdown of the various practices and their uses:

Erosion and Sediment Control

- Rock Construction Entrance
- Temporary Sediment Traps
- Temporary Sediment Basins
- Seeding and Mulching
- Erosion and Sediment Control Blanket
- Rip Rap Aprons

Stormwater Management / Treatment Practices

- Raingardens
- Drywells
- Detention Basins
- Detention Basin Forebays
- Permanent Lined Channels
- Infiltration Trenches

3.0 SUMMARY OF RESULTS

3.1 SUMMARY OF PEAK FLOW RESULTS 2 YEAR THROUGH 100 YEAR STORMS

Drainage Area	Condition	Q1 CPv (cfs)	Q2 (cfs)	Q10 Qp (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 Qf (cfs)
P.O.I. A	Pre	15.6	22.5	51.5	63.0	71.6	84.8
	Post-Cond. 'A'	17.4	24.5	52.3	63.0	71.2	83.7
	Post-Cond. 'B'	18.2	25.8	55.5	67.0	75.8	89.1
P.O.I. B	Pre	98.4	141.6	322.0	391.7	444.7	525.6
	Post-Cond. 'A'	79.0	113.4	249.2	301.5	341.5	402.2
	Post-Cond. 'B'	83.7	119.9	262.1	317.0	358.8	422.4
P.O.I. C	Pre	568.5	820.4	1818.4	2200.6	2492.4	2936.5
	Post-Cond. 'A'	549.4	795.1	1775.1	2150.1	2436.5	2872.5
	Post-Cond. 'B'	570.9	825.0	1835.0	2221.6	2516.9	2966.2
P.O.I. D	Pre	78.6	111.0	235.6	284.1	321.0	377.1
	Post-Cond. 'A'	70.6	99.1	207.9	250.3	282.5	331.5
	Post-Cond. 'B'	71.1	100.0	210.5	253.5	286.2	335.9
P.O.I. E	Pre	205.7	288.5	598.2	718.3	809.7	948.3
	Post-Cond. 'A'	218.3	298.9	591.3	706.2	793.3	925.3
	Post-Cond. 'B'	220.1	302.4	602.9	720.8	810.3	945.9
P.O.I. F	Pre	38.5	55.2	125.0	152.1	172.7	204.1
	Post-Cond. 'A'	42.5	60.7	132.1	159.8	180.9	213.0
	Post-Cond. 'B'	41.7	59.7	130.9	158.5	179.5	211.6
P.O.I. G	Pre	21.6	31.1	69.8	85.3	97.0	114.8
	Post-Cond. 'A'	11.6	16.8	37.9	46.2	52.5	62.2

	Post-Cond. 'B'	11.8	17.2	38.9	47.6	54.1	64.1
P.O.I. H	Pre	25.5	36.2	79.2	96.7	109.9	130.1
	Post-Cond. 'A'	6.6	9.5	21.5	26.2	29.8	35.3
	Post-Cond. 'B'	6.8	9.8	22.3	27.3	31.0	36.7
P.O.I. I	Pre	61.1	87.9	195.1	236.8	268.7	317.3
	Post-Cond. 'A'	65.4	94.4	209.7	254.0	287.8	339.3
	Post-Cond. 'B'	65.9	95.2	212.1	257.0	291.3	343.5
P.O.I. J	Pre	92.5	134.7	306.2	372.7	423.2	500.3
	Post-Cond. 'A'	78.6	112.2	243.3	293.9	332.5	391.2
	Post-Cond. 'B'	79.8	114.7	252.9	306.1	346.7	408.6
P.O.I. K	Pre	27.7	40.1	91.5	111.5	126.6	149.7
	Post-Cond. 'A'	45.4	64.4	136.5	164.4	185.6	217.7
	Post-Cond. 'B'	40.5	58.8	132.7	160.9	182.5	215.4
P.O.I. L	Pre	32.6	47.2	125.3	131.2	149.0	176.1
	Post-Cond. 'A'	51.1	70.6	142.3	170.4	191.8	224.2
	Post-Cond. 'B'	46.8	65.8	138.8	167.3	189.0	222.0

3.2 SUMMARY OF WATER QUALITY WQv REQUIREMENTS

AREA	WQv Req'd (Ac-Ft)	WQv Provided (Ac-Ft)	AREA	WQv Req'd (Ac-Ft)	WQv Provided (Ac-Ft)
A	0.39	0.39	G	0.28	0.28
B	1.39	1.40	H	0.14	0.15
C	23.90	30.04	I	2.16	2.18
D	1.09	1.10	J	2.15	2.15
E	7.08	7.08	K	1.00	1.00
F	1.00	1.01	L	0.91	0.95
			TOTAL	41.49	47.73

3.3 SUMMARY OF CHANNEL PROTECTION VOLUME REQUIREMENTS (CPv)

AREA	WQv Req'd (Ac-Ft)	AREA	WQv Req'd (Ac-Ft)
A	1.91	G	0.76
B	4.21	H	0.39
C	63.54	I	6.02
D	3.53	J	6.40
E	23.00	K	3.17
F	3.01	L	3.29

3.4 SUMMARY OF CONCEPTUAL BASIN DESIGN RESULTS – OVERALL PROJECT

AREA	Target Flow Q100 (Pre)	Storage Volume Req'd	AREA	Target Flow Q100 (Pre)	Storage Volume Req'd
A	84.80	1.04 Ac-Ft	G	No Increase in Peak Flow	
B	No Increase in Peak Flow		H	No Increase in Peak Flow	
C	2936.50	63.92 Ac-Ft	I	Controlled in Phase 1	
D	No Increase in Peak Flow		J	Controlled in Phase 1	
E	809.70	13.5 Ac-Ft	K	Controlled in Phase 1	
F	204.10	2.41 Ac-Ft	L	Controlled in Phase 1	

* This represents volumes to control peak flowrates. See WQv and CPv calculations for other requirements.

3.5 SUMMARY OF DETAILED PHASE 1 RESULTS

Drainage Area	Condition	Q1 CPv (cfs)	Q2 (cfs)	Q10 Qp (cfs)	Q25 (cfs)	Q50 (cfs)	Q100 Qf (cfs)
P.O.I. C	Pre	568.5	820.4	1818.4	2200.6	2492.4	2936.5
	Post-Cond. 'A'	549.4	795.1	1775.1	2150.1	2436.5	2872.5
	Post-Cond. 'B'	570.9	825.0	1835.0	2221.6	2516.9	2966.2
	Post - Routed	554.1	799.50	1772.37	2145.43	3420.33	2863.96
P.O.I. E	Pre	205.7	288.5	598.2	718.3	809.7	948.3
	Post-Cond. 'A'	218.3	298.9	591.3	706.2	793.3	925.3
	Post-Cond. 'B'	220.1	302.4	602.9	720.8	810.3	945.9
	Post - Routed	205	284.8	583.3	700.0	788.7	923.4
P.O.I. H	Pre	25.5	36.2	79.2	96.7	109.9	130.1
	Post-Cond. 'A'	6.6	9.5	21.5	26.2	29.8	35.3
	Post-Cond. 'B'	6.8	9.8	22.3	27.3	31.0	36.7
	Post - Routed	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase
P.O.I. I	Pre	61.1	87.9	195.1	236.8	268.7	317.3
	Post-Cond. 'A'	65.4	94.4	209.7	254.0	287.8	339.3
	Post-Cond. 'B'	65.9	95.2	212.1	257.0	291.3	343.5
	Post - Routed	36.74	55.90	136.16	172.4	192.74	240.4
P.O.I. K	Pre	27.7	40.1	91.5	111.5	126.6	149.7
	Post-Cond. 'A'	45.4	64.4	136.5	164.4	185.6	217.7
	Post-Cond. 'B'	40.5	58.8	132.7	160.9	182.5	215.4
	Post - Routed	23.0	34.99	84.95	102.91	117.77	137.98

P.O.I. L	Pre	32.6	47.2	125.3	131.2	149.0	176.1
	Post-Cond. 'A'	51.1	70.6	142.3	170.4	191.8	224.2
	Post-Cond. 'B'	46.8	65.8	138.8	167.3	189.0	222.0
	Post - Routed	11.46	19.24	50.78	63.24	72.25	89.0

3.4 SUMMARY OF POLLUTANT LOADING

AREA	Existing			Proposed Prior to BMPs		
	BOD Soils (lb/yr)	TP Soils (lb/yr)	TN Soils (lb/yr)	BOD Soils (lb/yr)	TP Soils (lb/yr)	TN Soils (lb/yr)
A	105.90	1.77	42.36	284.48	12.19	115.82
B	732.72	12.21	293.09	1614.82	69.20	657.38
C	9076.02	151.72	3630.41	19051.94	774.76	7745.48
D	384.72	6.41	153.89	793.24	34.00	322.96
E	2358.00	39.30	943.20	5171.46	221.63	2105.52
F	250.92	4.18	100.37	687.96	29.48	280.10
G	123.60	2.06	49.44	205.80	8.82	83.79
H	93.78	1.56	37.51	105.28	4.51	42.86
I	427.20	7.12	170.88	1580.32	67.73	643.42
J	717.96	11.97	287.18	1572.62	67.40	640.28
K	254.52	4.24	101.81	729.12	31.25	296.86
L	299.34	4.99	119.74	665.14	28.51	270.81

4.0. SUMMARY OF BMP's AND OPERATION AND MAINTENANCE

4.1 DETENTION BASINS

Detention basins are proposed to attenuate post development flowrates. Analyzed in both pre and post developed conditions and unique outlet structures will be designed to control flows from all storm events required. Emergency spillways have been designed for each basin to allow flows from the post developed 100 year storm event to safely pass without damaging the integrity of the basin, in the event that the primary outlet becomes blocked in severe events. Finally, each basin will be sumped at least six inches below the primary outlet to allow for infiltration and water quality controls. The basins shall be considered 'wet' basins and will be planted with wetland type plantings.

OPERATION AND MAINTENANCE OF DETENTION BASINS

General objectives of maintenance are to prevent clogging of the outlets, prevent standing water, and prevent the growth of weeds and noxious plants. The following items should be part of preventative maintenance procedures:

- Grass maintenance (See Erosion and Sediment Control Plan and Report)
- Control of noxious weeds and invasive plants

Maintaining turf grass on the tops of the berms and on the exterior slopes of embankment is advisable. This will enhance access to the facility and make maintenance and inspection of the embankment condition much easier. The stability of dams, embankments, and side sloped can be impaired by trees and brush with extensive woody root systems. Any seedlings or plantings should be removed at the earliest opportunity and the disturbed areas properly stabilized. Control of woody vegetation will require periodic mowing and a policy of not allowing plantings on these facilities. The frequency of mowing may need to be greater if the facility is in an area of high visibility. Keeping grass much shorter than this can cause areas of the turf to die off or require a much higher level of maintenance. Trees and brush with extensive woody root systems shall be completely removed from embankments to prevent the embankments from destabilizing and seepage routes from being created. Roots also should be completely removed to prevent them from decomposing in the embankment. Root voids and burrows should be plugged by filling them with material similar to the surrounding materials, and capped just below grade with stone, concrete, or other material. If plugging the burrows does not discourage the animals from returning, further measures should be taken to either remove the animal population or to make critical areas of the facility unattractive to them.

- Removal and disposal of trash and debris
- Removal and disposal of sediment

Extended detention dry ponds should have enough volume to account for sediment accumulation over time. Cleaning out sediment will be necessary, on average, every 2 to 10 years. Cleaning involves digging out the accumulated sediment, mud, sand, and debris with earth-moving equipment and disposing appropriately. Once the sediment is removed, the disturbed areas need to be immediately stabilized and re-vegetated, or the facility will mobilize sediment to downstream areas. Freshly seeded areas should be

protected with erosion mat that has been securely staked in place to prevent flotation. In many cases, sodding offers the best approach to stabilization after sediment removal.

- **Inspection of pond and reporting of results**
The facility should be inspected quarterly and after major storms. Detailed inspections by a qualified inspector should occur at least annually to ensure that the facility is operating as designed and to schedule maintenance that the facility may require. If possible, inspections should be made during wet weather to ensure that the facility is maintaining desirable retention times. In addition to regularly scheduled inspections, deficiencies should be noted during any visits by maintenance personnel. An important purpose of inspections is to ascertain the operational condition and safety of the facility, particularly the condition of embankments, outlet structures, and other safety-related aspect. (REFER TO MAINTENANCE CHECKLIST SECTION D)

4.2. DRYWELLS

Drywells will be provided as an effective means of ground water infiltration in areas where soils are suitable for infiltration. Dry wells reduce peak run-off volume and recharge groundwater to increase water quality. In addition, the dry wells will reduce peak run-off from the individual lots minimizing the effects on adjoining properties and communities BMP's and stormwater conveyance systems.

OPERATION AND MAINTENANCE OF DRYWELLS

Infiltration devices include infiltration trenches, dry wells, and seepage beds beneath permeable pavements. Infiltration facilities are prone to losing function from clogging by sediment. Therefore, these facilities should be inspected two to four times a year. One purpose of regular inspection is to determine if the sediment-trapping measures, such as filter fabric or graded sand filter, require routine maintenance. Keeping the sediment filter clean is vital to ensuring the long-term performance of the infiltration trench. Although maintenance must be undertaken more often than with surface facilities, the costs are significantly less.

For trenches or dry wells, periodic maintenance requirements usually include removing the top 6 to 12 inches of filter gravel and replacing the filter fabric sediment filter covering the aggregate reservoir. A layer of clean filter gravel replaces the gravel removed. The maintenance of permeable pavement systems requires the routine sweeping of surfaces. Specific maintenance requirements for infiltration BMPs are discussed further in Section 8.

A clogged sediment filter is indicated when water cannot flow into the device and instead surcharges. However, sometimes suspended sediment will clog the interface of the seepage reservoir and the native soil to which the stored water must eventually exfiltrate. All infiltration devices should be provided with standpipes to observe water levels. If an overflow condition exists, the observation standpipe should be checked to determine the cause. If the device continues to overflow after the sediment filter is repaired and stays filled with water after a rain, then the aggregate stone must be excavated and the facility rebuilt.

4.3. RAINGARDENS

Rain gardens will be provided on the lots where infiltration may not be practical. Rain gardens will provide water quality from contributing roof tops and will be an effective means of reducing peak run-off rates and recharging run-off through plants and some infiltration.

OPERATION AND MAINTENANCE OF RAINGARDENS

Monthly inspections are recommended until the plants are established. Annual inspections should then be adequate. Accumulated sediment behind check dams should be removed when it reaches one-half the sump depth. Collector pipe systems, if used, in rain gardens can become clogged by underlying clay soil. Pipe cleanouts are recommended to facilitate unclogging of the pipes without disturbing the bioretention areas.

4.4 LINED SWALES

Lined swales will convey stormwater to the basins and streams. Overland flow will provide some water quality in these areas, however no credit is taken in the calculations for water quality. The channel linings protect the channel banks and bottoms from erosion and scour.

OPERATION AND MAINTENANCE OF LINED SWALES

Swale areas are to be mowed on a regular basis (where applicable). The frequency of mowing may need to be greater if the facility is in an area of high visibility. However, if possible, the facility should be managed as an upland meadow with grass no shorter than 4 to 6 inches. Keeping grass much shorter than this can cause areas of the turf to die off or require a much higher level of maintenance. All swale areas should be inspected monthly or after each rainfall event. Debris shall be cleared from the drainage ways including culvert crossings for roadways and driveways.

4.5 SEDIMENT FOREBAYS

Sediment forebays will be provided at each of the basins to allow incoming run-off to settle prior to entering the basin. The forebays are essential in that their locations will limit sediment and other pollutants from entering the basins enhancing the pollutant removal capabilities of the basin. The location of the fore-bays allows easier inspection and maintenance than the basin itself.

OPERATION AND MAINTENANCE OF SEDIMENT FOREBAYS

General objectives of maintenance are to prevent clogging of the outlets, prevent standing water, and prevent the growth of weeds and noxious plants. The following items should be part of preventative maintenance procedures:

- Grass maintenance (See Erosion and Sediment Control Plan and Report)
- Control of noxious weeds and invasive plants
- Removal and disposal of trash and debris
- Removal and disposal of sediment

The sediment forebays shall be utilized to limit the trash and sediment that reaches the basin bottom. Forebays should be inspected bi-weekly or after each rainfall event

initially until the plantings in the forebay and in the basin are established. After that, quarterly inspections should be adequate except in the case of extreme rain fall events. Accumulated sediment behind check dams of the forebays and within the basin bottoms shall be removed when it reaches one-half the sump depth. (Ref: PA BMP Manual: Vegetative BMP's)

5.0 Soils Characteristics and Infiltration

As previously stated in this report, it is important to note that detailed soils data through field testing and scientific evaluation will be provided to support the final design for all phases of this development. It is not practical to perform these tests at this stage of the project as there are many other factors that will dictate the final design of the project. For purposes of this evaluation, the National Conservation Resource Soils (NCRS) Website was used to obtain basic information with regard to soils permeability, site limitations and engineering properties. In addition, a series of field tests were performed in 2007 by CMX Engineering (Formerly Advantage Engineering). This information is all contained in A.2 of this report.

The predominate hydrological soils type on the site is Type 'C' which generally represents soils that do not have high permeability rates (K). Through the NCRS, a graphical representation of various published soils infiltration rates is provided. For purposes of this study, soils with permeability rates of less than 0.5 inch/hr are considered not suitable for on-lot infiltration. The designers understand that this information will all be subject to final infiltration tests that may reveal that more or less areas that would be conducive to on-lot infiltration. Most of the areas delineated as having less than 0.5 inch/hr lie outside of the proposed lot areas, therefore, according to the best available information, almost the entire site will be conducive to some type of infiltration. In order to further characterize these systems, designs are provided for five different scenarios, depending on the permeability rates of the underlying soils. Larger storage volumes will be required for lower K values and less storage is required for higher values.

It is important to note that if actual soils evaluations indicate that lots are not conducive to infiltration or if it is determined that the sizes of the systems are not practical due to other site constraints, there are several other options for on-lot stormwater management that can be implemented. These other options are proven at the developer's similar project, Eagle Rock Resort in Hazleton Pa, which has nearly identical soils characteristics as the Lost Lake Resort Project. The other options include:

- Rain gardens – raingardens will store specified volumes for and allow a portion of the volume of evaporate and be absorbed by plant life. The remaining volume is filtered and released over an extended period of time.
- Infiltrator Chambers – these chambers act similar to drywells, however, the volumes are achieved in open areas as opposed to stone. The result is that smaller surface areas are required for the these systems.
- Modified Drywell – in discussions with the CMX soils scientist, it was suggested that detailed soils evaluation may reveal higher infiltration rates several feet into the ground. A modified drywell which utilizes a sand filter pre-treatment combined with shallow puncture shafts would allow infiltration in otherwise low permeability areas and could also lessen potential surface area impacts.

To conclude, the information provided with the DEIS is to demonstrate that on-lot controls would be feasible. It is not a comprehensive evaluation as only detailed soils analysis could conclude suitability,

types, and sizes of on-lot BMPs. The mapped soils information, preliminary investigations and alternate designs available for this site demonstrate that the stormwater management theory of controlling individual lots to avoid oversized basins can be accomplished on the Lost Lake Resort Site.

- **Other Soils Limitation Remedies**

To alleviate the problem of excessive wetness all roads will have pavement base drains at select locations, and storm sewer systems throughout. All buildings will be provided with footer drains. Lots are to be graded to drain water away from buildings. An additional system of drainage swales surrounds the site.

Walkout basements will be provided in steeper areas. The site is to be graded to alleviate long steep areas in a system of terraces.

Clay discovered during basement excavation must be removed and replaced with suitable materials compacted in place. Foundations may require reinforcement in these areas. Footers will be located below the frost line and designed for the loading of the soil.

6.0 EROSION AND SEDIMENT CONTROL

6.1 Project Timing

It is anticipated that construction will start sometime in late 2010. The infrastructure for the project is estimated to be completed within 10 years.

6.2 Erosion Control Description

Erosion control will be accomplished with the prompt temporary and permanent seeding of all exposed areas. Perimeter controls such as a diversion berm, swales and silt fence will be installed at the boundaries of all storm sewer end sections. See Sequence of Construction notes.

6.3 Sediment Control Description

The sediment resulting from development of the site will be captured through the use of a sediment basin, sediment trap, perimeter Filter Fabric Fence and individual lot controls. See Detail Sheet. Sedimentation will be frequently removed from all sedimentation control structures to areas away from further accelerated erosion. See "maintenance" Schedule.

6.4 Temporary Controls

Temporary erosion and sedimentation controls are intended to help eliminate erosion and control sedimentation during and immediately following construction. The proposed temporary controls are as follows:

- Filter Fabric Fence
- Temporary Seeding and Mulching
- Stabilized Construction Entrance
- Sedimentation Basin
- Sediment Traps
- Diversion Berm / Swales
- Skimmer

6.5 Permanent Controls

Permanent erosion and sedimentation controls are as follows:

- Seeding and Mulching
- Rock Apron
- Storm Sewer Piping and Swales
- Dry Wells
- Infiltration Trenches

Section 7.0
S.P.D.E.S. PERMIT REQUIREMENTS

10. Is this a phased project?

Yes No

11. Enter the planned start and end dates of the disturbance activities.

Start Date

07 / 01 / 2010

End Date

07 / 01 / 2020

12. Identify the nearest, natural, surface waterbody(ies) to which construction site runoff will discharge.

Name

T R O U T / L O S T L A K E , B U S H K I L L R I V E R A N D T R I B
S E V E R A L S T A T E A N D F E D E R A L W E T L A N D S

12a. Type of waterbody identified in Question 12?

- Wetland / State Jurisdiction On Site (Answer 12b)
- Wetland / State Jurisdiction Off Site
- Wetland / Federal Jurisdiction On Site (Answer 12b)
- Wetland / Federal Jurisdiction Off Site
- Stream / Creek On Site
- Stream / Creek Off Site
- River On Site
- River Off Site
- Lake On Site
- Lake Off Site
- Other Type On Site
- Other Type Off Site

[Empty grid for additional information]

12b. How was the wetland identified?

- Regulatory Map
- Delineated by Consultant
- Delineated by Army Corps of Engineers
- Other (identify)

[Empty grid for additional information]

13. Has the surface waterbody(ies) in question 12 been identified as a 303(d) segment in Appendix E of GP-0-10-001?

Yes No

14. Is this project located in one of the Watersheds identified in Appendix C of GP-0-10-001?

Yes No

15. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? **If no, skip question 16.**

Yes No

16. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey?

Yes No

If Yes, what is the acreage to be disturbed?

□ □ □ □ . □

17. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area?

Yes No

18. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? (If No, skip question 19)

Yes No Unknown

19. What is the name of the municipality/entity that owns the separate storm sewer system?

T O W N O F F O R E S T B U R G H

20. Does any runoff from the site enter a sewer classified as a Combined Sewer?

Yes No Unknown

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book) ?

Yes No

22. Does this construction activity require the development of a SWPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices) (If No, skip questions 23 and 27-35)

Yes No

23. Have the Water Quality and Quantity Control components of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual ?

Yes No

30. Provide the total water quality volume required and the total provided for the site.

WQv Required

4	1	.	4	9		
---	---	---	---	---	--	--

 acre-feet

WQv Provided

4	7	.	7	3		
---	---	---	---	---	--	--

 acre-feet

31. Provide the following Unified Stormwater Sizing Criteria for the site.

Total Channel Protection Storage Volume (CPv) - Extended detention of post-developed 1 year, 24 hour storm event

CPv Required

1	1	9	.	2	3		
---	---	---	---	---	---	--	--

 acre-feet

CPv Provided

1	3	0	.	0	0		
---	---	---	---	---	---	--	--

 acre-feet

31a. The need to provide for channel protection has been waived because:

Site discharges directly to fourth order stream or larger

Total Overbank Flood Control Criteria (Qp) - Peak discharge rate for the 10 year storm

Pre-Development

5	9	8	.	2		
---	---	---	---	---	--	--

 CFS

Post-development

5	8	3	.	3		
---	---	---	---	---	--	--

 CFS

Total Extreme Flood Control Criteria (Qf) - Peak discharge rate for the 100 year storm

Pre-Development

9	4	8	.	3		
---	---	---	---	---	--	--

 CFS

Post-development

9	2	3	.	4		
---	---	---	---	---	--	--

 CFS

31b. The need to provide for flood control has been waived because:

- Site discharges directly to fourth order stream or larger**
- Downstream analysis reveals that flood control is not required**

IMPORTANT: For questions 31 and 32, impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s). (Total Drainage Area = Project Site + Offsite areas)

32. Pre-Construction Impervious Area - As a percent of the Total Drainage Area enter the percentage of the existing impervious areas before construction begins.

		0
--	--	---

 %

33. Post-Construction Impervious Area - As a percent of the Total Drainage Area, enter the percentage of the future impervious areas that will be created/remain on the site after completion of construction.

		9
--	--	---

 %

34. Indicate the total number of post-construction stormwater management practices to be installed/constructed.

9	9
---	---

35. Provide the total number of stormwater discharge points from the site. (include discharges to either surface waters or to separate storm sewer systems)

1	2
---	---



NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

from

CONSTRUCTION ACTIVITY

Permit No. GP-0-10-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2010

Expiration Date: January 28, 2015

William R. Adriance
Chief Permit Administrator

William R. Adriance

Authorized Signature

January 28, 2010

Date

Address: NYS DEC
Div. Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act (“CWA”), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System (“NPDES”)* permit or by a state permit program. New York’s *State Pollutant Discharge Elimination System (“SPDES”)* is a NPDES-approved program with permits issued in accordance with the *Environmental Conservation Law (“ECL”)*.

This general permit (“permit”) is issued pursuant to Article 17, Titles 7, 8 and Article 70 of the ECL. An *owner or operator* may obtain coverage under this permit by submitting a Notice of Intent (“NOI”) to the Department. Copies of this permit and the NOI for New York are available by calling (518) 402-8109 or at any New York State Department of Environmental Conservation (“the Department”) regional office (see Appendix G). They are also available on the Department’s website at:

<http://www.dec.ny.gov/>

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of “*construction activity*”, as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a point source and therefore, pursuant to Article 17-0505 of the ECL, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. They cannot wait until there is an actual *discharge* from the construction site to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES**

FROM CONSTRUCTION ACTIVITIES

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Part I. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application - This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;
2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State*.
3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

B. Maintaining Water Quality - It shall be a violation of this permit and the *ECL* for any *discharge* to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;
2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and
3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

C. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph D. of this Part.
2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater discharges from *construction activities*.

(Part I. C)

3. Notwithstanding paragraphs C.1 and C.2 above, the following non-stormwater *discharges* may be authorized by this permit: discharges from fire fighting activities; fire hydrant flushings; waters to which cleansers or other components have not been added that are used to wash vehicles or control dust in accordance with the SWPPP, routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; uncontaminated groundwater or spring water; uncontaminated discharges from construction site de-watering operations; and foundation or footing drains where flows are not contaminated with process materials such as solvents. For those entities required to obtain coverage under this permit, and who discharge as noted in this paragraph, and with the exception of flows from fire fighting activities, these discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with water quality standards in Part I.B.

D. Activities Which Are Ineligible for Coverage Under This General Permit - All of the following are **not** authorized by this permit:

1. *Discharges* after *construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* that are mixed with sources of non-stormwater other than those expressly authorized under subsection C.3. of this Part and identified in the SWPPP required by this permit;
3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII, subparagraph K of this permit;
4. *Discharges* from *construction activities* that adversely affect a listed, or proposed to be listed, endangered or threatened species, or its critical habitat;
5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;
6. *Construction activities* for residential, commercial and institutional projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and

(Part I. D. 6)

- b. disturb one or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
7. *Construction activities* for linear transportation projects and linear utility projects that:
 - a. are tributary to waters of the state classified as AA or AA-s; and
 - b. disturb two or more acres of land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey for the County in which the disturbance will occur.
8. *Construction activities* that adversely affect a property that is listed or is eligible for listing on the State or National Register of Historic Places (Note: includes Archeological sites), unless there are written agreements in place with the NYS Office of Parks, Recreation and Historic Preservation (OPRHP) or other governmental agencies to mitigate the effects, or there are local land use approvals evidencing the same.

Part II. OBTAINING PERMIT COVERAGE

A. Notice of Intent (NOI) Submittal

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then submit a completed NOI form to the address below in order to be authorized to *discharge* under this permit. The NOI form shall be one which is associated with this permit, signed in accordance with Part VII.H. of this permit.

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505**

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first develop a SWPPP in accordance with all applicable requirements of this permit and then have its SWPPP reviewed and accepted by the *MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person, and then submit that form along with the NOI to the address referenced under “Notice of Intent (NOI) Submittal”.

(Part II. A.2)

This requirement does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.E. (Change of Owner or Operator).

3. The *owner or operator* shall have the SWPPP preparer sign the “SWPPP Preparer Certification” statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

B. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act (SEQRA) have been satisfied, when SEQRA is applicable,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act (UPA)* (see 6 NYCRR Part 621) have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain *UPA* permits must submit a preliminary SWPPP to the appropriate DEC Regional Office in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,
 - c. the final SWPPP has been prepared, and
 - d. an NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.B.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

(Part II. B. 3)

- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
 - i. Five (5) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 and/or 3, or
 - ii. Sixty (60) business days from the date the Department receives a complete NOI for *construction activities* with a SWPPP that has not been prepared in conformance with the technical standards referenced in Parts III.B.1, 2 or 3.
- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
 - i. Five (5) business days from the date the Department receives a complete NOI and signed “MS4 SWPPP Acceptance” form,
4. The Department may suspend or deny an *owner’s or operator’s* coverage under this permit if the Department determines that the SWPPP does not meet the permit requirements.
5. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department.

C. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (NOT) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4.
2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-10-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form and inspection reports at the construction site until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department.

(Part II. C. 2)

The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:
 - a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has been temporarily or permanently ceased, temporary and/or permanent soil stabilization measures shall be installed and/or implemented within seven (7) days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. The Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements.

(Part II. C)

5. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the *MS4* in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *MS4* prior to commencing construction of the post-construction stormwater management practice.

D. Permit Coverage for Discharges Authorized Under GP-0-08-001

1. Upon renewal of SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-08-001), an *owner or operator* of *construction activity* with coverage under GP-0-08-001, as of the effective date of GP-0-10-001, shall be authorized to *discharge* in accordance with GP-0-10-001 unless otherwise notified by the Department.

E. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.A.1.. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or operator* was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*.

(Part III. A)

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the pollutants in stormwater discharges and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP:
 - a. whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater *discharges* from the site;
 - b. whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP.

(Part III. A. 6)

The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater discharges from construction activities and that it is unlawful for any person to cause or contribute to a violation of water quality standards. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. "

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the construction site. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.
8. The SWPPP must include documentation supporting the determination of permit eligibility with regard to Part I.D.8. (Historic Places or Archeological Resource). At a minimum, the supporting documentation shall include the following:

(Part III. A. 8)

- a. Information on whether the stormwater discharge or *construction activities* would have an effect on a property (historic or archeological resource) that is listed or eligible for listing on the State or National Register of Historic Places;
- b. Results of historic resources screening determinations conducted. Information regarding the location of historic places listed, or eligible for listing, on the State or National Registers of Historic Places and and areas of archeological sensitivity that may indicate the need for a survey can be obtained online by viewing the New York State Office of Parks, Recreation and Historic Places (OPRHP) online resources located on their web site at: <http://nysparks.state.ny.us/shpo/online-tools/> (using The Geographic Information System for Archeology and National Register). OPRHP can also be contacted at: NYS OPRHP, State Historic Preservation Office, Peebles Island Resources Center, P.O. Box 189, Waterford, NY 12188-0189, phone: 518-237-8643;
- c. A description of measures necessary to avoid or minimize adverse impacts on places listed, or eligible for listing, on the State or National Register of Historic Places. If the *owner or operator* fails to describe and implement such measures, the stormwater *discharge* is ineligible for coverage under this permit; and
- d. Where adverse effects may occur, any written agreements in place with OPRHP or other governmental agency to mitigate those effects, or local land use approvals evidencing the same.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. Where erosion and sediment control practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:
 - a. Background information about the scope of the project, including the location, type and size of project;

(Part III. B. 1)

- b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s), wetlands and drainage patterns that could be affected by the construction activity; existing and final slopes; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater discharge(s);
- c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);
- d. A construction phasing plan and sequence of operations describing the intended order of construction activities, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;
- e. A description of the minimum erosion and sediment control practices to be installed or implemented for each construction activity that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;
- f. A temporary and permanent soil stabilization plan that meets the requirements of the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of final stabilization;
- g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;
- h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

(Part III. B. 1)

- i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6., to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule shall be in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control;
 - j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a pollutant source in the stormwater *discharges*;
 - k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the construction site; and
 - l. Identification of any elements of the design that are not in conformance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards.
2. Post-construction stormwater management practice component - All construction projects identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual (“Design Manual”). If the Design Manual is revised during the term of this permit, an *owner or operator* must begin using the revised version of the Design Manual to prepare their SWPPP six (6) months from the final revision date of the Design Manual.

Where post-construction stormwater management practices are not designed in conformance with this technical standard, the *owner or operator* must demonstrate equivalence to the technical standard.

At a minimum, the post-construction stormwater management practice component of the SWPPP shall include the following:

- a. Identification of all post-construction stormwater management practices to be constructed as part of the project;

(Part III. B. 2)

- b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;
 - c. The dimensions, material specifications and installation details for each post-construction stormwater management practice;
 - d. Identification of any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards;
 - e. A hydrologic and hydraulic analysis for all structural components of the stormwater management control system;
 - f. A detailed summary (including calculations) of the sizing criteria that was used to design all post-construction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the design criteria or waiver criteria included in the Design Manual; and
 - g. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.
3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.g. above.

(Part III. C)

C. Required SWPPP Components by Project Type - Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices and all post-construction stormwater management practices identified in the SWPPP are maintained in effective operating condition at all times.
2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York, or protect the public health and safety and/or the environment.

B. Owner or Operator Maintenance Inspection Requirements

1. The *owner or operator* shall inspect, in accordance with the requirements in the most current version of the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, the erosion and sediment controls identified in the SWPPP to ensure that they are being maintained in effective operating condition at all times.
2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *owner or operator* can stop conducting the maintenance inspections. The *owner or operator* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. as soon as soil disturbance activities resume.
3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *owner or operator* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

(Part IV. C)

C. Qualified Inspector Inspection Requirements - The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- Licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- Registered Landscape Architect, or
- Someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

- a. the construction of a single family residential subdivision with 25% or less impervious cover at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
- b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;
- c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and
- d. construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

- a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

(Part IV. C. 2)

- b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
- c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.
- d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the Regional Office stormwater contact person (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity). in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the “Final Stabilization” and “Post-Construction Stormwater Management Practice” certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.A.1..

(Part IV. C. 3)

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of discharge to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.
4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:
 - a. Date and time of inspection;
 - b. Name and title of person(s) performing inspection;
 - c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;
 - d. A description of the condition of the runoff at all points of discharge from the construction site. This shall include identification of any *discharges* of sediment from the construction site. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;
 - e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the construction site which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;
 - f. Identification of all erosion and sediment control practices that need repair or maintenance;
 - g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;
 - h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

(Part IV. C 4)

- i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;
 - j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and
 - k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
 6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.C.2., the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.A.1. The NOT form shall be one which is associated with this general permit, signed in accordance with Part VII.H.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

(Part V. A. 2)

- a. Total project completion - All construction activity identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;
 - b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
 - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.E.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “Final Stabilization” and “Post-Construction Stormwater Management Practice” certification statements on the NOT, certify that all disturbed areas have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP.
 4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall also have the MS4 sign the “MS4 Acceptance” statement on the NOT. The *owner or operator* shall have the principal executive officer, ranking elected official, or duly authorized representative from the *regulated, traditional land use control MS4*, sign the “MS4 Acceptance” statement. The MS4 official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The MS4 can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.3.
 5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

(Part V. A. 5)

- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,
- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has modified their deed of record to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION OF RECORDS

A. Record Retention - The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the site achieves *final stabilization*. This period may be extended by the Department, in its sole discretion, at any time upon written notification.

B. Addresses - With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.A.1), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate Department Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply - The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied.

(Part VII. A)

The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

B. Continuation of the Expired General Permit - This permit expires five (5) years from the effective date. However, coverage may be obtained under the expired general permit, which will continue in force and effect, until a new general permit is issued. Unless otherwise notified by the Department in writing, an *owner or operator* seeking authorization under the new general permit must submit a new NOI in accordance with the terms of such new general permit.

C. Enforcement - Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense - It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate - The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to minimize or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information - The *owner or operator* shall make available to the Department for review and copying or furnish to the Department within five (5) business days of receipt of a Department request for such information, any information requested for the purpose of determining compliance with this permit. This can include, but is not limited to, the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form, executed maintenance agreement, and inspection reports. Failure to provide information requested by the Department within the request timeframe shall be a violation of this permit.

The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review the NOI, SWPPP or inspection reports. Copying of documents will be done at the requester's expense.

G. Other Information - When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any other report, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s))

(Part VII. G)

changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or impervious area), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

- a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - i. a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - ii. the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
- b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
- c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - i. the chief executive officer of the agency, or

(Part VII. H. 1. c)

- ii. a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part VII.H.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,
 - c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights - The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability - The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

(Part VII. K)

K. Denial of Coverage Under This Permit

1. At its sole discretion, the Department may require any *owner or operator* authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from *owner or operator* receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Regional Water Engineer, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.
2. Any *owner or operator* authorized by this permit may request to be excluded from the coverage under this permit by applying for an individual permit or another general permit. In such cases, the *owner or operator* shall submit an individual application or an alternative general permit application in accordance with the requirements of this general permit, 40 CFR 122.26(c)(1)(ii) and 6 NYCRR Part 621, with reasons supporting the request, to the Department at the address for the appropriate Department Office (see addresses in Appendix F). The request may be granted by issuance of an individual permit or another general permit at the discretion of the Department.
3. When an individual SPDES permit is issued to a discharger authorized to discharge under a general SPDES permit for the same discharge(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance - The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry - The *owner or operator* shall allow the Department or an authorized representative of EPA, the State, or, in the case of a construction site which discharges through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

(Part VII. M)

1. Enter upon the *owner's or operator's* premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and
3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment).

N. Permit Actions - At the Department's sole discretion, this permit may, at any time, be modified, suspended, revoked, or renewed. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions - Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with *construction activity* covered by this permit, the *owner or operator* of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports – Article 17 of the ECL provides for a civil penalty of \$37,500 per day per violation of this permit. Articles 175 and 210 of the New York State Penal Law provide for a criminal penalty of a fine and/or imprisonment for falsifying forms and reports required by this permit.

R. Other Permits – Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A

Definitions

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “Construction Activity(ies)” also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a construction site by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a construction site to a separate storm sewer system and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or point source.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.

Groundwater - means waters in the saturated zone. The saturated zone is a subsurface zone in

which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct construction activities are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that construction activities may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- i. Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- ii. Designed or used for collecting or conveying stormwater;
- iii. Which is not a *combined sewer*; and
- iv. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department’s receipt and acceptance of a complete Notice of Intent. This letter documents the owner’s or operator’s authorization to discharge in accordance with the general permit for stormwater discharges from construction activity.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the construction activity is occurring; and/or an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in Parts 700 et seq of this Title.

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics in order to prepare a SWPPP that conforms to the Department's technical standard. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is required to gain coverage under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s).

Routine Maintenance Activity - means construction activity that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Stream bank restoration projects (does not include the placement of spoil material),
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that makes the transition between the road shoulder and the ditch or embankment,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or embankment,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for point source discharges, load allocations (LAs) for nonpoint sources, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* will be responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B

Required SWPPP Components by Project Type

Table 1
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

<p>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</p> <ul style="list-style-type: none">• Single family home <u>not</u> located in one of the watersheds listed in Appendix C and <u>not directly discharging</u> to one of the 303(d) segments listed in Appendix E• Single family residential subdivisions with 25% or less impervious cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E• Construction of a barn or other agricultural building, silo, stock yard or pen.
<p>The following construction activities that involve soil disturbances of one (1) or more acres of land:</p> <ul style="list-style-type: none">• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects• Bike paths and trails• Sidewalk construction projects that are not part of a road/ highway construction or reconstruction project• Slope stabilization projects• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics• Spoil areas that will be covered with vegetation• Land clearing and grading for the purposes of creating vegetated open space (i.e. recreational parks, lawns, meadows, fields), excluding projects that <i>alter hydrology from pre to post development</i> conditions• Athletic fields (natural grass) that do not include the construction or reconstruction of <i>impervious area</i> <u>and</u> do not <i>alter hydrology from pre to post development</i> conditions• Demolition project where vegetation will be established and no redevelopment is planned• Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with <i>impervious cover</i>• Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of less than five acres and construction activities that include the construction or reconstruction of impervious area
<p>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</p> <ul style="list-style-type: none">• All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land.

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other agricultural building(e.g. silo) and structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional, includes hospitals, prisons, schools and colleges
- Industrial facilities, includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW’s and water treatment plants
- Office complexes
- Sports complexes
- Racetracks, includes racetracks with earthen (dirt) surface
- Road construction or reconstruction
- Parking lot construction or reconstruction
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project or other linear utility project
- All other construction activities that include the construction or reconstruction of *impervious area* and alter the hydrology from pre to post development conditions, and are not listed in Table 1

APPENDIX C

Watersheds Where Enhanced Phosphorus Removal Standards Are Required

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4

Figure 1 - New York City Watershed East of the Hudson

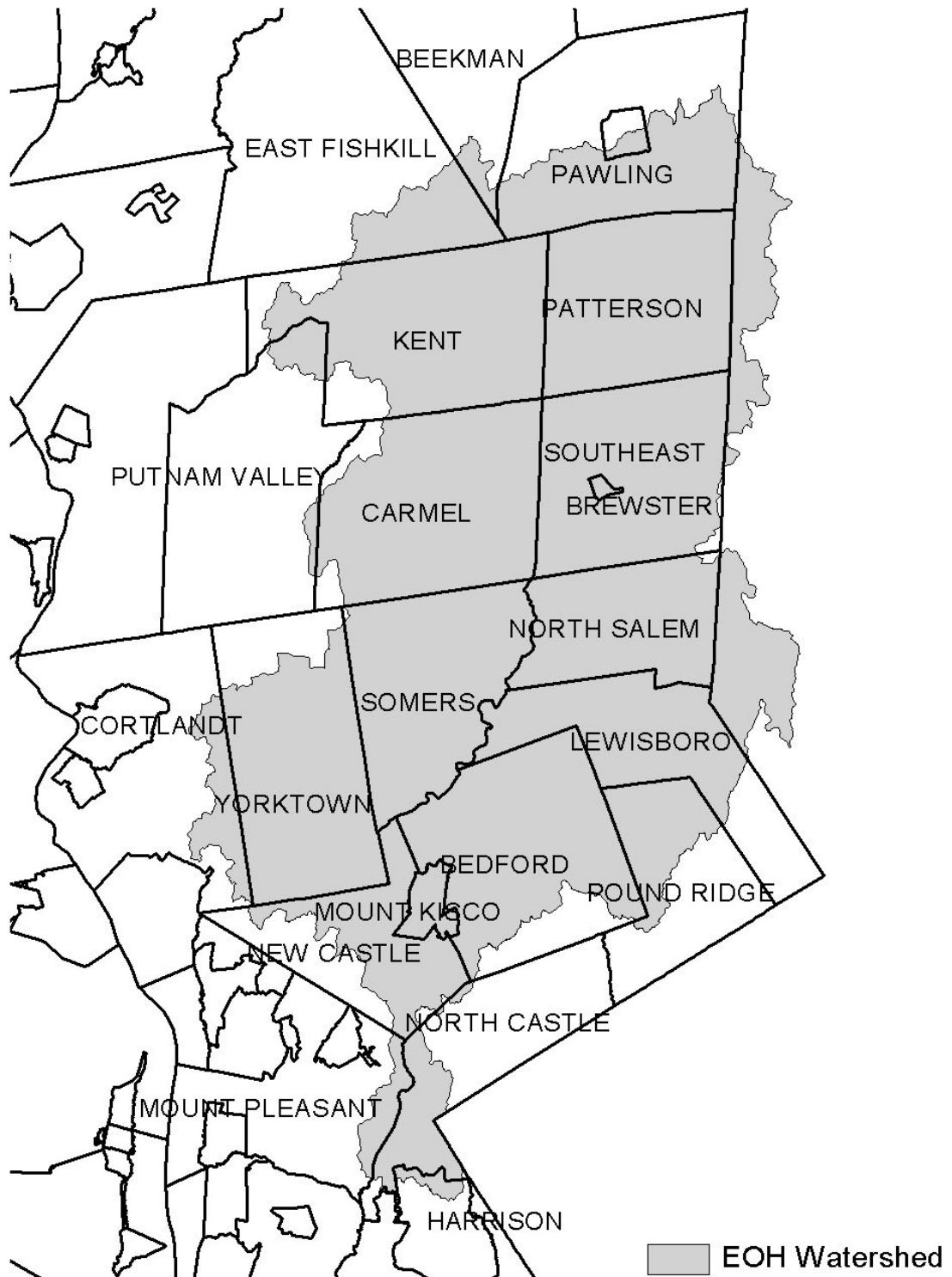


Figure 2 - Onondaga Lake Watershed



Figure 3 - Greenwood Lake Watershed

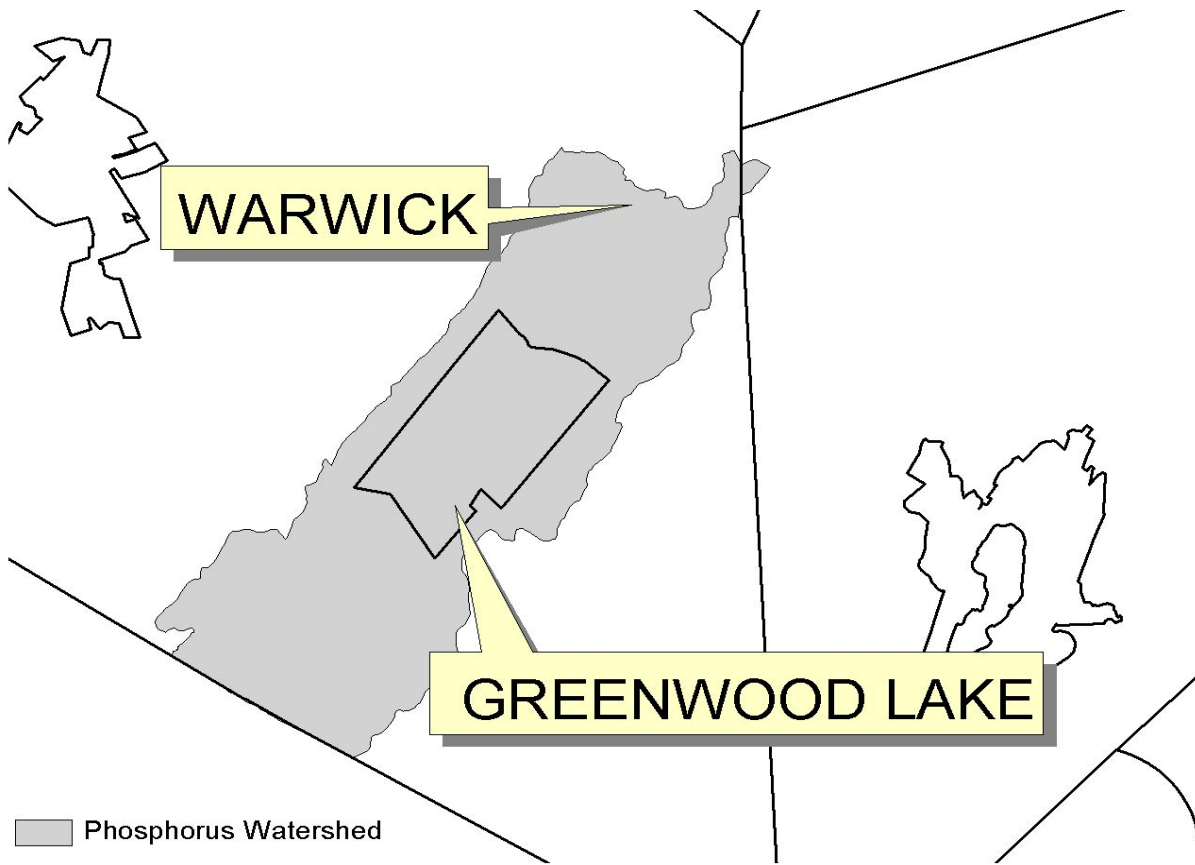
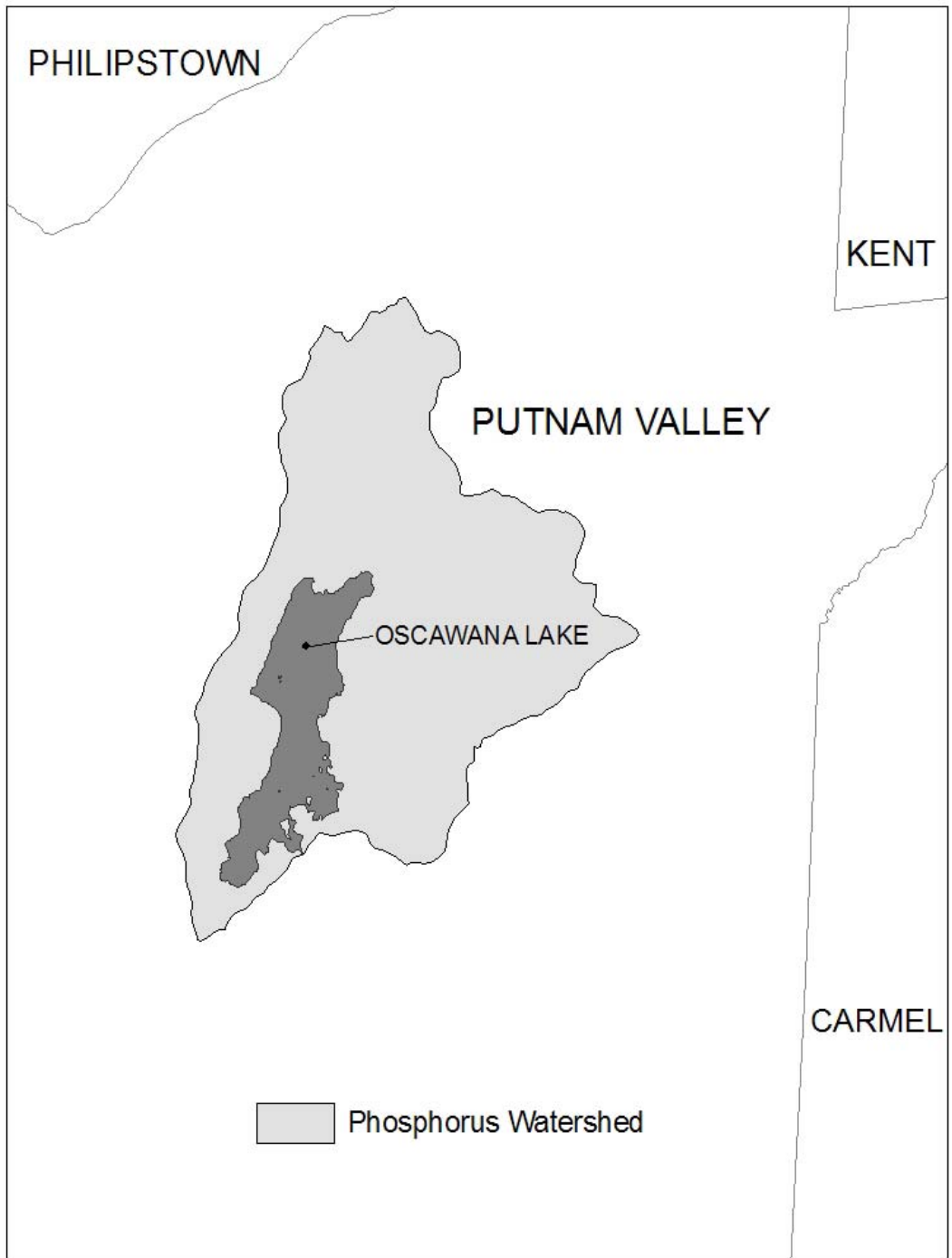


Figure 4 - Oscawana Lake Watershed



APPENDIX D

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity (e.g. silt, sediment or nutrients). *Owners or operators* of single family home and single family residential subdivision construction activities that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

COUNTY	WATERBODY	COUNTY	WATERBODY
Albany	Ann Lee (Shakers) Pond, Stump Pond	Monroe	Genesee River, Lower, Main Stem
Albany	Basic Creek Reservoir	Monroe	Genesee River, Middle, Main Stem
Bronx	Van Cortlandt Lake	Monroe	Black Creek, Lower, and minor tribs
Broome	Whitney Point Lake/Reservoir	Monroe	Buck Pond
Broome	Beaver Lake	Monroe	Long Pond
Broome	White Birch Lake	Monroe	Cranberry Pond
Chautauqua	Chautauqua Lake, North	Monroe	Mill Creek and tribs
Chautauqua	Chautauqua Lake, South	Monroe	Shipbuilders Creek and tribs
Chautauqua	Bear Lake	Monroe	Minor tribs to Irondequoit Bay
Chautauqua	Chadakoin River and tribs	Monroe	Thomas Creek/White Brook and tribs
Chautauqua	Lower Cassadaga Lake	Nassau	Glen Cove Creek, Lower, and tribs
Chautauqua	Middle Cassadaga Lake	Nassau	LI Tribs (fresh) to East Bay
Chautauqua	Findley Lake	Nassau	East Meadow Brook, Upper, and tribs
Clinton	Great Chazy River, Lower, Main Stem	Nassau	Hempstead Bay
Columbia	Kinderhook Lake	Nassau	Hempstead Lake
Columbia	Robinson Pond	Nassau	Grant Park Pond
Dutchess	Hillside Lake	Niagara	Bergholtz Creek and tribs
Dutchess	Wappinger Lakes	Oneida	Ballou, Nail Creeks
Dutchess	Fall Kill and tribs	Onondaga	Ley Creek and tribs
Dutchess	Rudd Pond	Onondaga	Onondaga Creek, Lower and tribs
Erie	Rush Creek and tribs	Onondaga	Onondaga creek, Middle and tribs
Erie	Ellicott Creek, Lower, and tribs	Onondaga	Onondaga Creek, Upper, and minor tribs
Erie	Beeman Creek and tribs	Onondaga	Harbor Brook, Lower, and tribs
Erie	Murder Creek, Lower, and tribs	Onondaga	Ninemile Creek, Lower, and tribs
Erie	South Branch Smoke Cr, Lower, and tribs	Onondaga	Minor tribs to Onondaga Lake
Erie	Little Sister Creek, Lower, and tribs	Ontario	Honeoye Lake
Essex	Lake George (primary county listed as Warren)	Ontario	Hemlock Lake Outlet and minor tribs
Genesee	Black Creek, Upper, and minor tribs	Ontario	Great Brook and minor tribs
Genesee	Tonawanda Creek, Middle, Main Stem	Oswego	Lake Neatahwanta
Genesee	Tonawanda Creek, Upper, and minor tribs	Putnam	Oscawana Lake
Genesee	Little Tonawanda Creek, Lower, and tribs	Putnam	Lake Carmel
Genesee	Oak Orchard Creek, Upper, and tribs	Queens	Jamaica Bay, Eastern, and tribs (Queens)
Genesee	Bowen Brook and tribs	Queens	Bergen Basin
Genesee	Bigelow Creek and tribs	Queens	Shellbank Basin
Greene	Schoharie Reservoir	Rensselaer	Snyders Lake
Greene	Sleepy Hollow Lake	Richmond	Grasmere, Arbutus and Wolfes Lakes
Herkimer	Steele Creek tribs	Saratoga	Dwaas Kill and tribs
Kings	Hendrix Creek	Saratoga	Tribs to Lake Lonely
Lewis	Mill Creek/South Branch and tribs	Saratoga	Lake Lonely
Livingston	Conesus Lake	Saratoga	Schuyler Creek and tribs
Livingston	Jaycox Creek and tribs	Schenectady	Collins Lake
Livingston	Mill Creek and minor tribs		

APPENDIX E

List of 303(d) segments impaired by pollutants related to construction activity, cont'd.

COUNTY	WATERBODY	COUNTY	WATERBODY
Schoharie	Engleville Pond		
Schoharie	Summit Lake		
St. Lawrence	Black Lake Outlet/Black Lake		
Steuben	Lake Salubria		
Steuben	Smith Pond		
Suffolk	Millers Pond		
Suffolk	Mattituck (Marratooka) Pond		
Suffolk	Tidal tribs to West Moriches Bay		
Suffolk	Canaan Lake		
Suffolk	Lake Ronkonkoma		
Tompkins	Cayuga Lake, Southern End		
Tompkins	Owasco Inlet, Upper, and tribs		
Ulster	Ashokan Reservoir		
Ulster	Esopus Creek, Upper, and minor tribs		
Warren	Lake George		
Warren	Tribs to L.George, Village of L George		
Warren	Huddle/Finkle Brooks and tribs		
Warren	Indian Brook and tribs		
Warren	Hague Brook and tribs		
Washington	Tribs to L.George, East Shore of Lake George		
Washington	Cossayuna Lake		
Wayne	Port Bay		
Wayne	Marbletown Creek and tribs		
Westchester	Peach Lake		
Westchester	Mamaroneck River, Lower		
Westchester	Mamaroneck River, Upper, and minor tribs		
Westchester	Sheldrake River and tribs		
Westchester	Blind Brook, Lower		
Westchester	Blind Brook, Upper, and tribs		
Westchester	Lake Lincolndale		
Westchester	Lake Meahaugh		
Wyoming	Java Lake		
Wyoming	Silver Lake		

Note: The list above identifies those waters from the final New York State “2008 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy”, dated May 26, 2008, that are impaired by silt, sediment or nutrients.

APPENDIX F

LIST OF NYS DEC REGIONAL OFFICES

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL. (631) 444-0365	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL. (631) 444-0405
2	BRONX, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4997	1 HUNTERS POINT PLAZA, 47-40 21ST ST. LONG ISLAND CITY, NY 11101-5407 TEL. (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PUTT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL. (845) 256-3059	100 HILLSIDE AVENUE, SUITE 1W WHITE PLAINS, NY 10603 TEL. (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1150 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL. (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, FULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, PO BOX 296 RAY BROOK, NY 12977-0296 TEL. (518) 897-1234	232 GOLF COURSE ROAD, PO BOX 220 WARRENSBURG, NY 12885-0220 TEL. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROAD AVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVE. BUFFALO, NY 14203-2999 TEL. (716) 851-7070

Section 8.0
SUPPORTING CALCULATIONS

(provided on CD)