

## **Appendix 5-A: Preliminary Stormwater Pollution Prevention Plan**

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Issued for SEQRA DEIS Review

## Cricket Valley Energy

Town of Dover  
Dutchess County, New York

July 16, 2010



Engineers / Surveyors  
Planners  
Environmental Scientists  
Landscape Architects

Prepared for:  
Cricket Valley Energy Center, LLC  
31 Milk Street  
Boston, Massachusetts

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June 21, 2010



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## **1.0 INTRODUCTION**

This Preliminary Stormwater Pollution Prevention Plan (SWPPP) has been prepared for major activities associated with construction of Cricket Valley Energy (CVE), located in the Town of Dover, Dutchess County, NY. This Preliminary SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements.

The preliminary analysis and design completed and documented in this report is intended to support the State Environmental Quality Review (SEQR) of the application made for a power plant project completed on behalf of the Cricket Valley Energy Center, LLC. It has been developed in accordance with the "New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity" General Permit Number GP-0-10-001, effective January 29, 2010 through January 28, 2015," included in Appendix A. Preliminary hydrologic analysis for pre-development and post-development conditions was performed using computer modeling. As such, design concepts are provided for water quality, runoff reduction volume, and quantity control facilities, and sediment control facilities. Although preliminary sizing has been provided for the stormwater management and sediment control facilities, this report is not an engineering design report to accompany design of facilities.

The intent of this Preliminary SWPPP is to provide sufficient documentation for an overall SEQR determination, and to serve as a baseline for the Final SWPPP to follow during the site plan review, approval and permitting processes. The methodology used to develop this Preliminary SWPPP shall be adhered to for the preparation the subsequent Final SWPPP. Stormwater quality, runoff reduction volume, and quantity controls recommended for this SWPPP are preliminary in nature and are intended to demonstrate their location, approximate size, and design concept. Detailed analysis and design of these practices will be advanced after SEQR is completed.

### **1.1 Project Description**

Cricket Valley Energy Center, LLC is proposing to construct a natural gas-fired, combined-cycle electric generating facility in the Town of Dover, New York (the Project). This Project is not located within a regulated, traditional land use control Municipal Separate Stormwater Sewer System (MS4).

The proposed Project would occupy approximately 30 acres (the Site) of a combined 131-acre property (the Property) which consists of four industrially zoned parcels off NY Route 22. The proposed Site has an address of 2241 NY Route 22, Dover, New York. A location map of the site has been provided in Appendix B, as Figure 1.

The Property is located within the Town of Dover's Industrial/Manufacturing District (M), which permits industrial and related uses, and is currently occupied by a collection of vacant, dilapidated, industrial buildings. This existing industrial site sits in relative isolation, with vegetation and topography providing a natural buffer for visual and aesthetic impacts.

The Property (and in particular the Project Development Area) has a long history of industrial use. It was used as a magnesium production facility during World War II and the Korean conflict (1941-1953). Subsequent to that service, a Formica production facility operated at the site. During the early 1990's until the January 1, 1996 fire, the site was operated by the Poly Tech Recycling Corporation as part of its tire recycling operation. There is still debris evidence on the site of its varied history.

The proposed development footprint is located entirely to the east of this railroad line. No work is proposed on the property between the railroad and the river (approximately 70 acres).

The Project would generate a nominal 1,000 megawatts (MW) of electricity for the local/regional electric transmission grid through an interconnection with the ConEd 345-kilovolt (kV) transmission lines, which abut the north property line of the Property. Natural gas would be supplied as the sole fuel to the facility via a short lateral pipeline (less than 500ft) from the Iroquois Gas Transmission Company (IGT) interstate pipeline, which also passes just north of the Property.

The facility would comprise three separate combined-cycle units. Each unit would be a 1x1x1 configuration consisting of one combustion turbine generator (CTG), one Heat Recovery Steam Generator (HRSG) with supplemental duct firing, and one steam turbine generator (STG). Associated Air Cooled Condensers (ACCs) and additional Balance of Plant (BOP) equipment and systems would also be used to support operation.

The Project plans incorporate technologies to minimize water use to the greatest extent possible, including advanced dry cooling ACCs, which utilize air instead of water for cooling, and a Water Treatment facility with a Zero Liquid Discharge (ZLD) system to recycle process water. These advanced technologies reduce water use by approximately 99 percent when compared to an equivalent water-cooled facility.

The Project proposes to use on-site, bedrock water wells (approximately 600-800 feet in depth) to meet water needs and CVE will conduct long-term pump tests to ensure that neither neighboring wells nor the Swamp River are adversely affected.

Only small quantities of fuel and lubricating oil will be stored and used on-site, since the project's combustion turbines and majority of other ancillary equipment will consume only natural gas. Permanent diesel fuel storage on-site will be limited to: the fire pump's integrated 650-gallon diesel fuel tank and the three emergency black-start generators with integrated 1,000-gallon diesel fuel storage containers. Other lubricating and cooling oils will be associated with the CTG and STG equipment lubricating system and the transformers. All tanks, equipment, and vessels containing fuel (diesel) and lubricating oils will be inside an environmental concrete containment, sump or curb dike area as required for spill control and management.

Construction of the facility would require approximately 30-36 months. CVE proposes to limit construction to an approximately 30-acre footprint located within the 131-acre Property. The Project would utilize the existing footprint established by the previous users of the Property, which currently includes several unusable, vacant and partially collapsed industrial buildings in varying stages of disrepair. Building demolition, clearing, and grading would occur during the

early-stages of project construction. The proposed commercial operation date for the facility is late of 2014 with construction proposed to start in late 2011.

## **1.2 Relevant Standards and Guidelines**

The recommended stormwater measures outlined herein have been designed to provide both quality and quantity controls by treating and detaining runoff prior to its discharge off site. Pre- and post-development surface runoff rates have been evaluated for the 1-, 10-, and 100-year 24-hour storm events. The design intent is to attenuate runoff generated during the 1-,10-year, and 100-year 24 hour rainfall events such that the peak rates realized at the designated design points will not exceed the rates that existed prior to development of the project.

These measures have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Stormwater Management Design Manual (April 2008)
- Draft New York State Stormwater Management Design Manual (November 2009).

Erosion control measures, designed to minimize soil loss, and sediment control measures, intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties, have been recommended in accordance with the following documents:

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-0-010-001 (effective January 29, 2010 through January 28, 2015)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (August 2005)
- Town of Dover Erosion and Sediment Control Ordinance

## **1.3 Stormwater Discharges Associated With Industrial Activity**

At a meeting on February 3, 2010, the New York State Department of Environmental Conservation (NYSDEC) determined that the proposed electric power generating facility will not be subject to an Individual SPDES Permit or SPDES Multi-Sector General Permit since the project will not discharge stormwater to the waters of the United States from a point source that conducts industrial activities identified within 49 CFR Part 122.26(b)(14)(i) through (ix) and (x).

On-site runoff directed toward the recommended storm water management practices will consist of roof, access drive, and parking lot runoff.

Cricket Valley Energy will implement measures to prevent contamination of surface runoff from the following industrial activities listed below through containment and reuse or sheltering practices:

- Three black start diesel electrical generators will have integral fuel tanks with steel bases located within a building. A concrete containment curb will be placed around the outer foundation of the generator and fuel tank to hold the maximum amount of fuel and any oil/contaminant leaks.
- The diesel fire pump engine and associated fuel tank will be located within a building. A concrete containment curb will be placed around the outer foundation of the fire pump and fuel tank to hold the maximum amount of fuel and any oil/contaminant leaks.
- Natural gas will be filtered prior to being directed to combined turbine generators, duct burners, and auxiliary burners. Filtered hydrocarbons will be directed to a sump tank that will be enclosed by a concrete containment curb. The tank will be emptied into a mobile tanker monthly or annually (depending on the interstate pipeline quality) and hauled to a suitable disposal facility.
- The air cooled condensers will be a sealed/closed loop steam and water system and no exterior chemicals will be used during operations. The exterior radiator fins will be cleaned once a year with raw well water to remove dust collected from the air movement.
- The switchyard consists of a gravel surface, but the equipment will be located within a building placed in the center of the gravel area. The building will be equipped with floor drain that will be piped to an oil/water separator. The oil/water separator will be housed and curbed. The process water from the separator will be recycled to the plants raw water system and will not be sent to the stormwater system. Captured oil from the separator will be removed from the site and hauled to a suitable disposal facility.
- The step-up transformers, located within the power blocks, will be contained in concrete curbs to hold the maximum volume of oil leak and rainfall. Collected liquid will be piped to an oil/water separator. The oil/water separator will be housed and curbed. The process water from the separator will be recycled to the plants raw water system and will not be sent to the stormwater system. Captured oil from the separator will be removed from the site and hauled to a suitable disposal facility.
- Aqueous ammonia storage tanks, forwarding pumps, and associated loading area will be contained in concrete curbs. Collected liquid from the loading area will be piped to the oil water separator. The process water will be recycled to the plants raw water system and will not be sent to the stormwater system. If an ammonia leak occurs, this liquid would be pumped to a specialized environmental tanker for off-site remediation and disposal.
- Temporary covers and containment will be placed during the use of the lay down areas. Temporary covers consisting of plywood or tarps will cover the lay down areas prior to placement of non-oily equipment/parts or parts that do not have liquid associated in its process. Equipment/parts that have oil or liquid associated with its process will be placed within temporary spill containment berms or environmental sorbent material pads. The lay down areas are used for temporary storage of new or old equipment or parts removed or replaced from the turbine buildings as part of the general maintenance program. It is anticipated that the lay down areas will be in use four weeks over the course of each year,

Non-stormwater discharge will consist of fire hydrant flushing, discharge from fire fighting activities, and potable water source.

## **1.4 Stormwater Management Concept Summary**

The primary goals of this preliminary SWPPP are to analyze the peak rate of runoff under pre- and post-development conditions, to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, apply runoff reduction methods, and to minimize the impact to the quality of runoff exiting the site. The preliminary SWPPP and accompanying plans identify and detail stormwater management (SWM), pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This report considers the impacts associated with the intended development with the purpose of:

1. Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;
2. Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and
3. Implementing volume reduction techniques to manage, reduce, and treat storm water and maintain and restore natural hydrology by infiltration, evapo-transpiration, and capture and reuse of stormwater.
4. Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

## 2.0 SITE CHARACTERISTICS

### 2.1 Existing Land Use and Topography

The Project Development Area is located near the bottom of a western facing slope, along a small north-south trending ridge that separates the Swamp River and the Ten Mile River. Although the Project Development Area is relatively flat, there is a westerly trending slope toward the active commuter rail line and the Swamp River. Several wetland areas are located outside of the developed portions of the Project Development Area. The eastern side of the Project Development Area rises steeply (~30-40 feet) to the elevation of New York State Route 22, and consists of rock outcropping, vegetation, and sparsely to thickly populated trees. Site elevations range from approximately 418 feet above mean sea level (MSL) to 490 feet MSL. The vegetation and trees provide a natural buffer, and currently limit views of existing on-site structures.

### 2.2 Soils and Groundwater

The United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey for Dutchess County was reviewed and provided surficial soil conditions for the study area. The SCS identified the presence of CuA, FcB, FcC, FcD, GfB, SmB, Su, Ud, and Wy series soil types. Soil data as provided by the SCS is presented in Table 1.

**Table 1: USDA Soil Data**

Map Symbol & Description	Hydrologic Soil Group	Permeability (inches/hour)	Erosion Factor K	Depth to Water Table (feet)	Depth to Bedrock (inches)
CuA - Copake gravely silt loam, nearly level, 0 to 2 percent slopes	B	0.6 – 6.0	0.24	> 6.0	> 60
FcB - Farmington-Galway complex, undulating, very rocky, 1 to 6 percent slopes	C	0.6 – 2.0	0.32	> 6.0	10 - 20
FcC - Farmington-Galway complex, rolling, very rocky, 5 to 16 percent slopes	C	0.6 – 2.0	0.32	> 6.0	10 - 20
FcD – Farmington-Galway complex, hilly, very rocky, 15 to 30 percent slopes	C	0.6 – 2.0	0.32	> 6.0	10 - 20
GfB - Galway-Farmington-Urban land complex, undulating, rocky, 1 to 6 percent slopes	B	0.6 – 2.0	0.24	1.5 – 3.0	20 - 40
SmB – Stockbridge-Farmington complex, undulating, rocky, 1 to 6 percent slopes	C	0.6 – 2.0	0.28	> 6.0	> 60

Map Symbol & Description	Hydrologic Soil Group	Permeability (inches/hour)	Erosion Factor K	Depth to Water Table (feet)	Depth to Bedrock (inches)
Su - Sun silt loam, 0 to 3 percent slopes	D	0.6 – 2.0	0.28	+1 – 0.5	> 60
Ud - Udorthents, smoothed, predominantly 0 to 8 percent slopes	A/D	0.06 – 20	0.37	> 3.0	> 60
Wy - Wayland silt loam, 0 to 3 percent slopes	C/D	0.2 – 2.0	0.43	+0.5 – 1.0	> 60

Upon review of the soil data presented in Table 1, the project site does not contain soils with a soil slope phase of E or F.

The Soil Conservation Service defines the hydrologic soil groups as follows:

- **Type A Soils:** Soils having a high infiltration rate and low runoff potential when thoroughly wet. These soils consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a moderate rate of water transmission.
- **Type B Soils:** Soils having a moderate infiltration rate when thoroughly wet and consisting mainly of moderately deep to deep, moderately well to well drained soils with moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.
- **Type C Soils:** Soils having a low infiltration rate when thoroughly wet and consisting chiefly of soils with a layer that impedes downward movement of water and soils with moderately fine-to-fine texture. These soils have a low rate of water transmission.
- **Type D Soils:** Soils having a very low infiltration rate and high runoff potential when thoroughly wet. These soils consist chiefly of clays that have high shrink-swell potential, soils that have a permanent high water table, soils that have a clay pan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very low rate of water transmission.

A soils map for the study area and the watershed area is presented in Appendix B, as Figure 2A and Figure 2B, respectively.

### 2.3 Watershed Designation

Because the project site is not located in a restricted watershed identified in Appendix C of GP-0-10-001, enhanced phosphorous removal standards not are required.

Because this type of project is included in Table 2 of Appendix B of GP-0-10-001; and not located within an enhanced phosphorous removal watershed, this SWPPP includes only post-construction stormwater management practices as well as erosion and sediment controls.

## 2.4 Receiving Water Bodies

Runoff from the project site will be discharged to Wetland 2 and Intermittent Stream, described in Section 2.6, and eventually conveyed to the Swamp River.

The Swamp River is classified by NYSDEC as a Class C (T) water course, and is not included in the Section 303(d) list of impaired waters found in Appendix E of GP-0-10-001. Impaired waters are identified as by the NYSDEC as waters that do not support appropriate uses and require the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) that restrict water uses; in order to restore and protect such uses.

## 2.5 Aquifer Designation

The project site is located over the Carbonate Rock aquifer, which is not listed as a sole source aquifer. Thus, additional separation requirements to groundwater are not required for proposed stormwater measures. This aquifer is identified as a principle aquifer in the Global Information Systems (GIS) data set obtained from the U.S. Geological Survey, entitled "Principal Aquifers of New York State States, Polygon (Shapefile: 1998).

## 2.6 Wetlands

Wetlands depicted on the accompanying plan set were delineated by ARCADIS on April 22-24, 2009. The wetland identification and boundary delineations were performed in accordance with the Routine Determination Method presented in the 1987 United States Army Corps of Engineers (USACE) *Wetlands Delineation Manual* (the Manual) (Environmental Laboratory 1987) and the draft regional supplement to the Manual (USACE 2008). Five areas were identified as wetlands and one area was identified as an intermittent stream.

- Wetland 1 consists of 1.73 acres and is neither USACE nor NYSDEC jurisdictional.
- Wetland 2 consists of 8.69 acres and is both USACE and NYSDEC jurisdictional.
- Wetland 3 consists of 3A (0.13 acres) and 3B (0.41 acres). Neither is NYSDEC jurisdictional, but 3A is USACE jurisdictional.
- Wetland 4 consists of 15.11 acres and is NYSDEC jurisdictional. It is located on the property, but outside of the Project Development Area. However, the 100-foot Adjacent Area extends into the Project Development Area.
- Wetland 5 consists of 30.05 acres and is NYSDEC jurisdictional. It is located on the property, but outside of the Project Development Area. However, the 100-foot Adjacent Area extends into the Project Development Area
- Intermittent stream located on southwest corner of the project site determined to be under ACOE jurisdictional determination.

## 2.7 Flood Plains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), Town of Dover, New York, Community Panel Numbers 361335 0020 A and 0025 A, this lies outside of

the 100-year flood zone. A printout of the flood plain map is presented in Appendix B, as Figure 6.

## **2.8 Listed, Endangered, or Threatened Species**

According to a July 20, 2009 letter from the United States Department of Interior Fish and Wildlife Service, the following threatened, or endangered species, or critical habitats, are known to exist within the limits and/or around the vicinity of the project site:

- 1) Federally listed threatened and State listed endangered bog turtle.
- 2) Federally and State listed endangered Indiana bat. Two males were captured approximately 2 miles from the project area and there is the potential for a maternity colony approximately 5 miles from the site.
- 3) New England cottontail is known to occur within 4 miles of the project site. The New England cotton tail is a candidate species which is being considered by the Service for addition to the Federal List of Endangered and Threatened Wildlife and Plants.

An ecological assessment report dated August 17, 2009 by ARCADIS, indicates that the suitable bog turtle habitat does not exist on the project site; concludes mist netting survey for Indiana bats is not warranted due to specific location of the project and existing buildings; and the selection of a previously developed industrial property and selection of technologies that minimize footprint limit potential concerns about encroachment on New England cottontail habitat.

A September 21, 2009 letter from the United States Department of Interior Fish and Wildlife Service acknowledged the following:

- 1) Although Bog turtle habitat was not found on-site, there have been occurrences off-site within NYSDEC Wetland DP-22 (part of which is located on-site). Further assessment of potential indirect effects to wetland DP-22 should be determined.
- 2) Mist netting is not warranted. However, tree removal should occur between October 1 and March 31; bright orange construction fencing/flagging should clearly demarcate trees to be protected; limiting the amount of lights, including motion sensors or timers, directing the lights toward the ground and buildings, and in/around the detention basin; and a recommendation for placement of a conservation easement on the property west of the railroad tracks.
- 3) No further comments on New England cottontail.

The stormwater that discharges from the project site will not adversely impact listed, endangered or threatened species listed herein so long as the stormwater management practices have been constructed in accordance with this SWPPP.

Copies of correspondence between ARCADIS and United States Department of Interior Fish and Wildlife Service have been placed within Appendix F.

## 2.9 Historic Places

A State Preservation Historical Information Network Exchange search on the New York State Historic Preservation Office website, performed on January 14, 2010, revealed that the property is located within an archeologically sensitive area. A printout of the historic places screening map is presented in Appendix B, as Figure 3.

An information request was submitted to the State Historic Preservation Office (SHPO) on September 15, 2009 by Arcadis. Based upon review of the project in accordance with Section 106 of the National Historic Preservation Act of 1966, SHPO concluded in a letter dated September 25, 2009, that the “project will have No Effect upon cultural resources in or eligible for inclusion in the National Registers of Historic Places. Copies of this letter has been included within Appendix G.

## 2.10 Rainfall Data

Rainfall data utilized in the modeling and analysis were interpolated from maps presented in Chapter 4 of the NYSDEC Stormwater Management Design Manual, and in the National Weather Service (NWS) Technical Paper 40 (TP-40), *Rainfall Frequency Atlas of the United States for Durations from 30 minutes to 24 Hours and Return Periods from 1 to 100 Years* (1961). Rainfall data specific to the portion of Dutchess County under consideration, for various 24-hour storm events, is presented in Table 2:

**Table 2: Rainfall Data**

<b>Storm Event Return Period</b>	<b>24-Hour Rainfall (inches)</b>
1-year	2.8
10-year	5.0
100-year	8.0

These values were used to evaluate the pre- and post-development stormwater runoff characteristics.

### 3.0 CONSTRUCTION SEQUENCE

Project construction activities will consist primarily of site grading, paving, and the installation of storm drainage, water supply and sewage collection infrastructure to support the power plant facilities. Construction phase pollutant sources anticipated at the site are disturbed (exposed) soil, vehicle fuels and lubricants, chemicals associated with building construction, and building materials. Without adequate control there is the potential for each type of pollutant to be transported by stormwater.

The Project's construction will be approximately 36 months in duration. The construction phases will include overlapping activities for initial site clearing/preparation, major foundations, steel and building erections, equipment delivery and sitting, piping and electrical installation, and commissioning and startup. The following is a high level sequence of these activities:

- Installation of construction stormwater and erosion control measures, demolition, clearing, potential minimal blasting, and rough grading, and construction office trailers, utilities, and parking.
- Installation of major foundations and underground utilities (including yard piping and electrical duct banks)
- Erection of structural steel and buildings and the delivery and setting major equipment
- Installation of interconnection piping and wiring, balance of plant equipment, controls and instrumentation, and final grading.
- Testing, commissioning, and startup of the systems, final road tops, landscaping, and complete facility.

In order for construction to progress in a practical and efficient manner, soil disturbance in excess of five acres at any given time will be required. The General Permit allows for soil disturbance of greater than five acres upon written authorization from the NYSDEC. Site construction will need to proceed with greater than 5-acres of soil disturbed at a given time. As the development plan is refined during the site plan review and permitting process, a waiver to disturb greater than 5-acres of soil will be requested from the NYSDEC. The waiver request will include a phasing plan that defines the maximum disturbed area per phase and shows the required cuts and fills. When received, a copy of the approval will be included in the Site Log Book. This approval will be subject to the limitations outlined in the approval letter and documented within the construction sequencing plans included with the waiver request.

Should the waiver request be denied by NYSDEC, the Contractor, as described in Section 6.0, will have to develop a plan for limiting the area of disturbance to less than five acres of disturbance at any given time. The Contractor shall prepare and submit to the Operator's Engineer, as described in Section 6.0, a sequencing plan that identifies the progression of construction through the site. This sequencing plan must be retained as part of the Site Log Book.

The “Pre-Construction Erosion & Sediment Control Plan” (Sheet SP1) and “Preliminary Construction Phasing Plan” (Sheet SP3) in the accompanying drawings identifies the major construction activities that are the subject of this preliminary SWPPP. The order (or sequence) in which the major activities are expected to begin is presented on the accompanying drawings, though each activity will not necessarily be completed before the next begins. In addition, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control. If this is the case, the Contractor shall notify the Operator’s Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the Final SWPPP.

## **4.0 CONSTRUCTION-PHASE POLLUTION CONTROL**

The preliminary SWPPP and accompanying plans identify the temporary and permanent erosion and sediment control measures that will be incorporated into the final design of this project. These measures will be implemented during construction, to minimize soil erosion and control sediment transport off-site, and after construction, to control the quality and quantity of stormwater runoff from the developed site.

The preliminary SWPPP and accompanying plans identify and detail the temporary and permanent erosion and sediment control structures that will be installed prior to construction. The Final SWPPP will outline the construction scheduling for implementing the erosion and sediment control measures; and will include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

Temporary and permanent erosion and sediment control measures that shall be applied during construction generally include:

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction-site discharges.
2. Following the completion of construction activities in any portion of the site permanent vegetation shall be established on all exposed soils.
3. Site preparation activities shall be planned to minimize the area and duration of soil disruption.
4. Permanent traffic corridors shall be established and “routes of convenience” shall be avoided.

### **4.1 Temporary Erosion and Sediment Control Measures**

The temporary erosion and sediment control measures recommended and described in the following sections are to be installed and/or implemented prior to the initiation of construction and during construction.

#### *4.1.1 Stabilized Construction Entrance*

Prior to construction, stabilized construction entrances will be installed at points of entry and egress from the site to reduce the tracking of sediment onto public roadways.

Construction traffic must enter and exit the site at the stabilized construction entrance. The intent is to trap dust and mud that would otherwise be carried off-site by construction traffic.

The entrance shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, the placement of additional aggregate atop the filter fabric will be done to assure the minimum thickness is maintained. All sediments and soils

spilled, dropped, or washed onto the public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

#### *4.1.2 Dust Control*

Water trucks will be used as needed during construction to reduce dust generated on the site. Dust control must be provided by the general Contractor to a degree that is acceptable to the Owner, and in compliance with the applicable local and state dust control requirements.

#### *4.1.3 Temporary Soil Stockpile*

Materials, such as topsoil, will be temporarily stockpiled (if necessary) on the site during the construction process. Stockpiles will be located in an area away from storm drainage, water bodies and/or courses, and will be properly protected from erosion by a surrounding silt fence barrier.

#### *4.1.4 Silt Fencing*

Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established along the down slope perimeter of areas to be disturbed as a result of the construction which lie up gradient of watercourses or adjacent properties. These barriers may extend into non-impact areas to provide adequate protection of adjacent lands.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control barrier. To facilitate effectiveness of the silt fencing, daily inspections and inspections immediately after significant storm events will be performed by site personnel. Maintenance of the fence will be performed as needed.

#### *4.1.5 Temporary Seeding*

Areas undergoing clearing or grading and any areas disturbed by construction activities where work has temporarily or permanently ceased will be stabilized with temporary vegetative cover within seven days from the date the soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the New York State Standards and Specifications For Erosion and Sediment Control.

#### *4.1.6 Stone Inlet Protection Barrier*

Concrete blocks surrounded by wire mesh and crushed stone will be placed around both existing catch basins, and proposed catch basins within areas of pavement once they have been installed, to keep sediment from entering the catch basins and storm sewer system. During construction, crushed stone shall be replaced as necessary to ensure proper function of the structure.

#### *4.1.7 Erosion Control Blanket*

Erosion control blankets (jute mesh) shall be installed on top of topsoil and seed within slopes between 15% and 30% slopes to provide temporary erosion protection while the vegetation is establishing on the adjacent slopes. Erosion control blankets provide temporary erosion

protection, rapid vegetative establishment, and long-term erosion resistance to shear stresses associated with high runoff flow velocities associated with steep slopes. The blankets shall then be unrolled to maintain direct contact with the soil and anchored to the slope in accordance with the manufacturer’s instructions.

**4.1.8 Stone Check Dams**

Stone check dams will be installed within temporary diversion swales to reduce the velocity of stormwater runoff, to promote settling of sediment, and to reduce sediment transport offsite.

Sediment accumulated behind the stone check dam will be removed as needed to allow the channel to drain through the stone check dam and prevent large flows from carrying sediment over or around the dam. Stones will be replaced as needed to maintain the design cross section of the structures.

**4.1.9 Temporary Sediment Trap**

Rip-rap outlet traps have been proposed at part of the conceptual erosion and sediment control plan to intercept sediment-laden runoff and allow it to settle out of the surface runoff prior to being discharged from the site. Temporary sediment traps shall be constructed to intercept sediment-laden runoff and reduce the amount of sediment leaving the disturbed areas and to protect drainage ways, properties, and rights-of-way.

Accumulated sediment shall be removed from the trap when it reaches 50 percent of the design capacity and shall not exceed 50 percent. Sediment shall not be placed downstream from the embankment, adjacent to a stream, or floodplain.

Temporary sediment traps have been designed to provide 3,600 cf. of storage per acre of tributary watershed. Calculations have been indentified on the project plans and provided in Appendix E. The following table has been provided summarizing the sediment traps proposed for this project:

**Table 5: Summary of Sediment Trap Sizing**

<b>Sediment Trap</b>	<b>Type of Facility</b>	<b>Watershed Area (ac)</b>	<b>Volume Required (cf)</b>	<b>Volume Provided (cf)</b>
1	Rip-Rap Outlet Trap	14.65	52,740	63,915
2	Rip-Rap Outlet Trap	2.82	10,152	15,665
3	Rip-Rap Outlet Trap	4.8	17,280	18,037
4	Rip-Rap Outlet Trap	1.01	3,636	4,228
5	Rip-Rap Outlet Trap	0.95	3,420	3,696

Note:  
 1. Storage is measured to one foot below overflow weir elevation.

#### *4.1.10 Temporary Diversion Swales*

Temporary diversion swales will be used to divert off-site runoff around the construction site, divert runoff from stabilized areas around disturbed areas, and direct runoff from disturbed areas into sediment traps.

#### *4.1.11 Dewatering Operations*

Dewatering will be used to intercept sediment-laden stormwater or pumped groundwater and allow it to settle out of the pumped discharge prior to being discharged from the site. Water from dewatering operations shall be treated to eliminate the discharge of sediment and other pollutants. Water resulting from dewatering operations shall be directed to the temporary sediment traps, or dewatering devices, such as the Dandy Dewatering Bag, manufactured by Mirafic Geosynthetics. Temporary sediment traps and dewatering bags will be provided, installed and maintained at down-gradient locations to control sediment deposits to the wetlands.

## **4.2 Permanent Erosion and Sediment Control Measures**

The permanent erosion and sediment control measures described in the following sections are included as part of the construction documents.

#### *4.2.1 Establishment of Permanent Vegetation*

Disturbed areas that will be vegetated must be seeded in accordance with the contract documents. The type of seed, mulch, and maintenance measures as described in the contract documents shall also be followed.

All areas at final grade must be seeded and mulched within 14 days after completion of the major construction activity. All seeded areas should be protected with mulch.

Final site stabilization is achieved when all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80 percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

#### *4.2.2 Rock Outlet Protection*

Rock outlet protection shall be installed at the locations as indicated and detailed on the accompanying plans. The installation of rock outlet protection will reduce the depth, velocity, and energy of water, such that the flow will not erode the receiving watercourse or water body.

#### *4.2.3 Permanent Turf Reinforcement*

Permanent turf reinforcement mats (TRMs) provide long-term erosion protection and vegetation establishment assistance while permanently reinforcing vegetation. TRMs shall be installed on all slopes exceeding 30%. TRM's provide two key advantages. First, their unique fiber shape and 3-D pattern create a thick matrix of voids that trap seed, soil and water in place for quicker, thicker vegetation growth. Secondly, they provide additional reinforcement that doubles your

vegetation's natural erosion protection abilities by remaining a permanent part of the application, anchoring mature plants to the soil for superior, long-term erosion resistance.

### **4.3 Other Pollutant Controls**

Control of sediments has been described previously. Other aspects of this SWPPP are listed below:

#### *4.3.1 Solid and Liquid Waste Disposal*

No solid or liquid waste materials, including building materials, shall be discharged from the site with stormwater. All solid waste, including disposable materials incidental to any construction activities, must be collected and placed in containers. The containers shall be emptied periodically by a licensed trash disposal service and hauled away from the site.

Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site. As an example, special care must be exercised during equipment fueling and servicing operations. If a spill occurs, it must be contained and disposed of so that it will not flow from the site or enter groundwater, even if this requires removal, treatment, and disposal of soil. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

#### *4.3.2 Sanitary Facilities*

Temporary sanitary facilities will be provided by the Contractor throughout the construction phase. They must be utilized by all construction personnel and will be serviced by a licensed commercial Contractor. These facilities must comply with state and local sanitary or septic system regulations.

#### *4.3.3 Water Source*

Non-stormwater components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site; such water can be retained in the ponds until it infiltrates and/or evaporates.

### **4.4 Construction Housekeeping Practices**

During the construction phase, the general Contractor will implement the following measures:

#### *4.4.1 Material Stockpiles*

Material resulting from the clearing and grubbing operation will be stockpiled up slope from adequate sedimentation controls.

#### 4.4.2 *Equipment Cleaning and Maintenance*

The general Contractor will designate areas for equipment cleaning, maintenance, and repair. The general Contractor and subcontractors will utilize those areas. The areas will be protected by a temporary perimeter berm.

#### 4.4.3 *Detergents*

The use of detergents for large-scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)

#### 4.4.4 *Spill Prevention and Response*

A Spill Prevention and Response Plan shall be developed for the site by the Contractor. The plan shall detail the steps needed to be followed in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

The plan shall include Material Safety Data Sheets (MSDS) for all materials to be stored on-site. All workers on-site will be required to be trained on safe handling and spill prevention procedures for all materials used during construction. Regular tailgate safety meetings shall be held and all workers that are expected on the site during the week shall be required to attend.

#### 4.4.5 *Concrete Wash Areas*

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in specifically designated diked and impervious washout areas which have been prepared to prevent contact between the concrete wash and storm water. Waste generated from concrete wash water shall not be allowed to flow into drainage ways, inlets, receiving waters or highway right of ways, or any location other than the designated Concrete Wash Areas. Proper signage designating the "Concrete Wash Areas" shall be placed near the facility. Concrete Wash Areas shall be located at minimum 100 linear feet from drainage ways, inlets and surface waters.

The hardened residue from the Concrete Wash Areas shall be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the wash area is to include removal of hardened concrete. Facility shall have sufficient volume to contain all the concrete waste resulting from washout and a minimum freeboard of 12 inches. Facility shall not be filled beyond 95% capacity and shall be cleaned out once 75% full unless a new facility is constructed. The Contractor will be responsible for seeing that these procedures are followed.

Saw-cut Portland Cement Concrete (PCC) slurry shall not be allowed to enter storm drains or watercourses. Saw-cut residue should not be left on the surface of pavement or be allowed to flow over and off pavement.

The Project may require the use of multiple concrete wash areas. All concrete wash areas shall be located in an area where the likelihood of the area contributing to storm water discharges is negligible. If required, additional BMPs must be implemented to prevent concrete wastes from contributing to stormwater discharges.

#### 4.4.6 *Material Storage*

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that minimizes the impacts of the construction materials effecting stormwater quality.

Chemicals, paints, solvents, fertilizers, and other toxic material must be stored in waterproof containers. Except during application, the contents must be kept in trucks or within storage facilities. Runoff containing such material must be collected, removed from the site, treated, and disposed of at an approved solid waste or chemical disposal facility.

## **5.0 POST-CONSTRUCTION STORMWATER CONTROL**

The goals of this Preliminary SWPPP are to analyze the peak rate of runoff under pre- and post-development conditions, to maintain the pre-development rate of runoff in order to minimize impacts to adjacent or downstream properties, apply runoff reduction methods, and to minimize the impact to the quality of runoff exiting the site.

As discussed in this SWPPP, the April 2008 NYS Stormwater Management Design Manual describes provisions for both water quality, and quantity methods. However, in November 2009, the NYS issued a draft addendum to the subject Stormwater Design Manual which describes methods to reduce the total water quality volume to the maximum extent practicable through the incorporation of green infrastructure techniques thereby reducing overall site runoff volume. These objectives will be met by applying stormwater control practices which will limit peak runoff rates and improve the quality of runoff leaving the developed site as described below.

### **5.1 Stormwater Control Practices**

Stormwater quality treatment and quantity rate controls recommended to attain the goals of this SWPPP in the subsequent sections are preliminary in nature and subject to change. They are intended to demonstrate their preliminary location and design concept. A detailed analysis of these practices must be performed, and the design of each practice must be refined as part of the final SWPPP preparation to occur during the site plan review, approval and permitting processes.

Preliminary design calculations for each measure have been included in Appendix E.

The layout of the recommended practices has been depicted on Sheet SP2 titled “Conceptual Subsurface Sewage Disposal System and Stormwater Management Plan.”

Based upon a review of the NYS Division of Water Regulations Part 673.4, none of the stormwater management facilities to be constructed as part of this project require a dam permit for construction, reconstruction, repair, breach, or removal.

Chapter 6 of the NYS Stormwater Management Design Manual defines all acceptable stormwater management practices (SMP) for stormwater quantity and quality control. The Design manual then assigns a variant for each general method. These variants include ponds which use the variant “P”, filters “F”, open channel systems “O”, infiltration “I”, and stormwater wetlands “W”. In order to reference the manual and a particular type of practice, a number was assigned to each type of practice.

#### *5.1.1 Wet Extended Detention Pond (Design Variant P-3)*

Wet extended detention ponds are very similar to wet ponds with the exception that their design is more focused on attenuating peak runoff flows. As a result, more storage volume is committed to managing peak flows as opposed to maximizing the wet pool depth. The configuration of the outfall structure may also differ from typical wet pond designs to provide additional storage volume above the level of the permanent pool.

Wet extended detention ponds can be used to attenuate the peak flow and provide quality treatment by sedimentation, chemical flocculation, and biological removal. Wet extended detention ponds are designed for a contributing drainage area of 25 acres or more. Sediment forebays will capture sediment and floatable trash/debris prior to entering the pond. The pond is landscaped with a variety of plantings including emergents and woody shrubs, with each type of planting corresponding to the water depth. An extended aquatic bench will maximize the biological uptake of pollutants.

The Wet Extended Detention Pond (P-3) was designed according to the criteria set forth in Section 6.1 “Stormwater Ponds” of the draft NYS Stormwater Management Design Manual.

#### *5.1.2 Bioretention Areas (Design Variant F-5)*

Bioretention systems are shallow landscaped depressions adapted to treat stormwater runoff on the developed site. These depressions are design to incorporate many of the pollutant removal mechanisms that operate in forested ecosystems. Stormwater flows into the bioretention area, ponds above the mulch and soil, and gradually infiltrated into the soil bed. Pollutants are removed by a number of processes, such as adsorption, filtration, volatilization, ion exchange, and decomposition. Filtered runoff will infiltrate into the surrounding soil, functioning as an infiltration basin or rainwater garden.

The Bioretention Areas (F-5) were preliminary designed according to the criteria set forth in Section 6.4 “Stormwater Filtering Systems” of the November 2009 draft NYS Stormwater Management Design Manual.

#### *5.1.3 Pre-treatment Areas*

The NYS Design Manual requires that stormwater enter a pre-treatment device/area to provide filtering/sedimentation of coarse materials before entering a SMP.

Plunge pools have been provided to assist in the trapping of incoming sediment and taking up of nutrients prior to reaching the Bioretention Areas. They have been preliminary sized to capture 40% of the water quality volume. Each plunge pool will consist of a separate cell of a minimum of four feet in depth, formed by an earth barrier and will be equipped with a trapezoidal weir to convey storm water to the treatment practice. The trapezoidal weirs will be stabilized with rip rap to prevent erosion to the earthen berm.

Similarly to the plunge pool, forebays are provided at inlets of stormwater ponds to pre-treat stormwater. Forebays are hydraulically connected to stormwater basins within the permanent pool elevation but utilize earthen berms to trap sediment to facilitate maintenance/cleaning activities. Forebays have been preliminary sized to capture 10% of the water quality volume, and also may used for quantity calculations.

#### *5.1.4 Soil Restoration*

The structure of healthy soil is permeable, with spaces between solid particles where water, air, and soil organisms can move. Soil compaction occurs when weight on the soil surface collapses these spaces, creating a hard solid mass. Water, air, and roots may be completely unable to

penetrate compacted soil, reducing or destroying its capacity to sustain life. Soil restoration promotes greater stormwater infiltration in areas with pervious cover, and therefore helps to reduce runoff volume.

Soil restoration is achieved by aeration through mechanical loosening, and addition of organic matter and soil amendments. In areas where soil disturbance has occurred outside of buildings and pavement areas, the disturbed sub-soils shall be returned to rough grade and the following soils restoration steps applied:

- 1) Apply three inches of compost over soil. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.
- 2) Till compost into the subsoil to a depth of at least 12-inches using a cat-mounted ripper, tractor mounted disc, or tiller, mixing and circulating air and compost into sub-soils.
- 3) Rock-pick until uplifted stone/rock materials of four inches and larger size are cleaned off the site.
- 4) Apply topsoil to a depth of six inches.

## 5.2 Stormwater Quality Analysis

Stormwater runoff from impervious surfaces is recognized as a significant contributor of pollution that can adversely affect the quality of receiving water bodies. Therefore, treatment of stormwater runoff is important since most runoff related water quality contaminants are transported from land, particularly the impervious surfaces, during the initial stages of storm events.

### 5.2.1 NYSDEC Requirements

The draft NYS Stormwater Management Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the “Water Quality Volume” (WQ<sub>v</sub>). Section 4.2 of the November 2009 Draft Manual defines the Water Quality Volume as follows:

$$WQ_v = \frac{[(P)(R_v)(A)]}{12}$$

Where: P = 90% Rainfall Event Number  
R<sub>v</sub> = 0.05 + 0.009 (I), minimum R<sub>v</sub> = 0.2  
I = Impervious Cover (Percent)  
A = Contributing Area in Acres

This definition ensures that, all other things being equal, the Water Quality Volume will increase along with the impervious cover percentage.

### 5.2.2 Methodology

The Water Quality Volume equation has been applied to the drainage area tributary to each of the stormwater quality practices proposed for this project, as shown on Figure 5B in Appendix B. The practices have been sized to accommodate the Water Quality Volume, as per the performance criteria presented in Chapter 6 of the draft NYS Stormwater Management Design Manual.

Design computations for the proposed stormwater quality practices are presented in Appendix E.

### 5.2.3 Performance Summary

For the proposed stormwater quality practices, Table 3 summarizes both the Water Quality Volume requirements and the treatment volumes provided.

**Table 3: Summary of Pond WQ Practices**

SWM Practice ID	NYSDEC Design Variant	Tributary Drainage Area (acres)	Calculated WQv Required (cubic feet)	Required WQv Distribution		Provided WQv Distribution			
				Permanent Pool	Extended Detention	Permanent Pool		Extended Detention	
				(min %)	(max %)	cubic feet	%	cubic feet	%
P-1	P-3	15.01	52,662	50	50	48,229	91.6	4,433	8.4

**Table 4: Summary of Filtration WQ Practices**

SWM Practice ID	NYSDEC Design Variant	Tributary Drainage Area (acres)	WQv Required (cubic feet)	Pretreatment Volume Required (% of WQv)	WQv Provided (cubic feet)	Pretreatment Volume Provided (cubic feet)
F-1	F-5	0.71	1,989	40	3,341	904
F-2	F-5	2.11	7,609	40	11,067	3,229
F-3	F-5	5.86	4,155	40	5,770	1,720

**Table 5: Summary of Stormwater Reuse Practices**

Reuse Area	Tributary Drainage Area (square feet)	Calculated WQv (cubic feet)
Site Buildings	136,448	11,848
Site Containment Areas	12,064	871

For the proposed water quality control practices, the above tables indicate that the NYS water quality requirements have been met. Therefore, the project should not have a significant adverse impact on the quality of the receiving waters.

## 5.3 Runoff Reduction Volume

Land use change and development in the watershed increases the volume of runoff. Reductions in the amount of runoff from new development accomplished through the implementation of a storm water management plan for the site will play an important role in the success or failure of the watershed wide stormwater management plan. Runoff reduction techniques such as: preservation of natural resources; reduction of impervious cover; conservation; and incorporation of green infrastructure such as bioretention, trees, green roofs, planters, porous pavers, cisterns, etc can be a valuable part of any stormwater management plan. Volume reduction techniques manage, reduce, and treat stormwater and maintain and restore natural hydrology by infiltration, evapo-transpiration, and capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they do decrease the size of the peak runoff rate reduction facilities.

### 5.3.1 NYSDEC Requirements

The draft NYS Stormwater Management Design Manual states that runoff reduction shall be achieved by infiltration, groundwater recharge, reuse, recycle, evaporation/evapo-transpiration of 100-percent of the post-development water quality volumes to the maximum extent practical. If the runoff reduction volume (RRv) is greater than the WQv, then the designer has already met the requirement for WQv by applying runoff reduction techniques. Projects that cannot meet 100-percent of the runoff reduction requirement due to physical or hydraulic conditions of the site, must provide a justification that evaluates each of the green infrastructure planning and reduction techniques, presented in Chapter 5 of the Draft Manual, and identify the limitations of the site according to which application of the criterion is not feasible. Projects that do not achieve runoff reduction requirements must, at a minimum, reduce a percentage of the runoff from impervious areas to be constructed on the site. The percent reduction is based upon the Hydrologic Soil Group (HSG) of the site and is defined as Specific Reduction Factor (S). Section 4.3 of the Draft Manual defines the Runoff Reduction Volume as:

$$RRv = \frac{[(P)(Rv^*)(Ai)]}{12}$$

Where: RRv = Runoff Reduction Volume (in acre-feet)  
P = 90% Rainfall Event Number  
Ai = Measured impervious cover targeted for infiltration. Ai = (S)(A)  
Rv\* = 0.05+0.009(I)  
I = Impervious Cover (Percent) = 100%  
S = Hydrologic Soil Group (HSG) Specific Reduction Factor where:

HSG A = 0.55	HSG C = 0.30
HSG B = 0.40	HSG D = 0.20

Those projects not meeting 100-percent runoff reduction and are subject to the minimum RRV, and must incorporate stormwater management practices to address water quality treatment. This

project, however, has been designed such that at least 100-percent of the runoff reduction has been met for all areas of future impervious surface. Given that this site is classified as a redevelopment site, runoff reduction of the WQv coming from all future impervious areas must be realized. This has been accomplished, at this site, through the use of three bioretention facilities as well as by employing stormwater reuse techniques, where roof areas and “containment” areas will be built such that the runoff in those areas will be captured and used in plant operations. All building roof areas, as well as containment areas are identified on the “Conceptual Subsurface Sewage Disposal System and Stormwater Management Plan” which has been included in the accompanying drawings. The total areas and associated WQv of each area is depicted on the “Runoff Reduction Volume” worksheet presented in Appendix E.

## 5.4 Stormwater Quantity Analysis

This report presents the pre-development and post-development features and conditions associated with the rate of surface water runoff within the study area. For both cases, the drainage patterns, drainage structures, soil types, and ground cover types are considered in this study.

### 5.4.1 NYSDEC Requirements

The draft NYS Stormwater Management Design Manual requires that projects meet three separate stormwater quantity criteria:

1. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The Design Manual defines the CPv detention time as the center of mass detention time through each stormwater management practice. For trout streams, the extended detention requirement is relaxed to 12 hours. Although runoff from the site is eventually conveyed to the Swamp River, classified by NYSDEC as a Class C(T) water course, the NYSDEC has informed the Applicant during a meeting on February 3, 2010 that they are not subjected to 12-hours of extended detention since the project discharges to a vast wetland prior to eventually being conveyed to the Swamp River.
2. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.
3. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each design point, the post-development 100-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

### 5.4.2 Methodology

In order to demonstrate that detention storage requirements are being met, the draft NYS Stormwater Management Design Manual requires that a hydrologic and hydraulic analysis of the pre- and post-development conditions be performed using the Natural Resources Conservation Service Technical Release 20 (TR-20) and Technical Release 55 (TR-55) methodologies. HydroCAD, developed by HydroCAD Software Solutions LLC of Tamworth, New Hampshire, is a Computer-Aided-Design (CAD) program for analyzing the hydrologic and hydraulic characteristics of a given watershed and associated stormwater management facilities. HydroCAD uses the TR-20 algorithms and TR-55 methods to create and route runoff hydrographs.

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows through pipes, streams and ponds. HydroCAD can also calculate the center of mass detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: <http://www.hydrocad.net/>.

For this analysis, the watershed and drainage system was broken down into a network consisting of three types of components as described below:

1. Subcatchment: A relatively homogeneous area of land, which produces a volume and rate of runoff unique to that area.
2. Reach: Uniform streams, channels, or pipes that convey stormwater from one point to another.
3. Pond: Natural or man-made impoundment, which temporarily stores stormwater runoff and empties in a manner determined by its geometry and the hydraulic structure located at its outlets.

Subcatchments, reaches, and ponds are represented by hexagons, squares, and triangles, respectively, on the watershed routing diagrams provided with the computations included in Appendix C and Appendix D.

The analysis of hydrologic and hydraulic conditions and proposed stormwater management facilities, servicing the study area, was performed by dividing the tributary watershed into relatively homogeneous subcatchments. The separation of the watershed into subcatchments was dictated by watershed conditions, methods of collection, conveyance, and points of discharge. Watershed characteristics for each subcatchment were then assessed from United States Geological Service (USGS) 7.5-minute topographic maps, aerial photographs, a topographical survey, soil surveys, site investigations, and land use maps.

Preliminary stormwater management facilities, with the exception of the storm sewer system, were designed and evaluated in accordance with the draft NYS Stormwater Management Design Manual and local regulatory requirements. The detailed design of the storm sewer system will be presented during the site plan review, approval and permitting processes. The hydrologic and hydraulic analysis considered the SCS, Type III 24-hour storm events identified in Table 6.

**Table 6: Design Events**

Facility	24-hour Storm Event
Storm Sewer	25-year (During Site Plan Approval Phase)
Detention Basin	1-year
	10-year
	100-year
Flood Conditions	100-year

#### 5.4.3 Description of Design Points

The study area consists of an overall watershed that encompasses approximately 130.2 acres and contains the 30 acre project site. The overall watershed was broken down into smaller watersheds, or subcatchments, to allow for analysis of runoff conditions at several locations throughout the study area. Each of these locations was defined as a Design Point (DP) in order to compare the effects resulting from stormwater management facilities proposed as part of the project. Descriptions of each of the selected design points are provided below.

- Design Point 1: Low point in Existing NYSDEC wetland 2.
- Design Point 2: Entrance point to an existing 36” RCP culvert, located to the southwest corner of the project site. The culvert flows from east to west under the railroad tracks.

#### 5.4.4 Pre-development Watershed Conditions

A site visit was conducted by Chazen personnel on January 15, 2010, to verify predevelopment watershed conditions at and around the project site. As part of the site visit, the predevelopment watershed boundaries were identified, as were ground cover conditions, and design points. Overall, it was found that the contributing pre-development watershed area was comprised of two large subcatchments, labeled in the Pre-Development Stormwater Modeling Calculations as ES1 and ES2.

Subcatchment ES1 is largely comprised of wooded areas with scattered brush areas in its north, east and western sections. Also found in the north and west sections of the Subcatchment are NYS Route 22 and supporting secondary roads as well as a few residential homes. The west side of the subcatchment is bordered by a rail road. The south section of ES1 contains approximately half of the existing site, which consists of several large older manufacturing/industrial buildings, as well as associated roadways which have been overgrown with scattered vegetation. A NYSDEC Jurisdictional wetland is found at the lowest end of ES1. This wetland serves as the design point (Design Point #1) for this subcatchment as all areas within the Subcatchment drain to this wetland.

ES2 is also largely comprised of wooded areas in its east, south and western sections, with the central portion of the site containing a gravel pit. The north end of ES2 contains half of the existing site, with all areas draining to Design Point #2, a 36” RCP culvert located in the western edge of the Subcatchment, under the rail road.

A Pre-Development Watershed Delineation Map has been provided in Appendix B as Figure 4. The analysis of pre-development conditions considered existing drainage patterns, soil types, ground cover, and topography.

The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix C. A summary of the pre-development watershed runoff rates at each Design Point is presented in Table 7.

#### *5.4.5 Post-development Watershed Conditions*

The post-development project site is covered predominantly by pavement, gravel, buildings, woods, and wetlands. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading and, stormwater management facilities proposed as part of site improvements.

The contributing post-development watershed areas were divided into 8 subcatchments, labeled PS-1.1 through PS2.4. The following subcatchments are tributary to these stormwater management devices:

- Bioretention area F-1: PS-1.3
- Bioretention area F-2: PS-1.4
- Bioretention area F-3: PS-2.3
- Stormwater Management Pond P-1: PS-2.2 and PS-2.4

It should be noted that not all areas in subcatchments PS1.4 and PS2.2 are tributary to a proposed stormwater management facility or design point. This is because runoff produced on the roofs and other containment areas found in these subcatchments is proposed to be captured, stored and ultimately utilized as process water in the electric power generation operation of the plant. This “reuse” of stormwater is a benefit to the watershed, because it both decreases the peak rate of runoff as well as the total volume of runoff discharging from the site. Additionally, the reuse of this stormwater runoff will also reduce the amount of makeup water the plant would otherwise withdraw from the proposed wells on site. The roof and containment areas that are proposed to capture stormwater runoff are identified on the “Conceptual Subsurface Sewage Disposal System and Stormwater Management Plan” Sheet SP2, as provided in the accompanying drawings. The Overall Post-Development Watershed Delineation Map which depicts the subcatchments, has been provided in Appendix B as Figure 5A.

The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix D. A summary of the post-development watershed runoff rates at each design point is presented in Table 7.

Stormwater discharge from the project site is controlled by three bioretention facilities and one stormwater management basin. They have been designed to provide the above quantity controls by attenuating stormwater runoff and releasing runoff to off-site locations at a rate equal to or

less than that which existed prior to development of the site. The design is detailed on the accompanying plans.

#### 5.4.6 Performance Summary

A comparison of the pre- and post-development watershed conditions was performed for all design points and storm events evaluated herein. For all design points and design storms, this comparison demonstrates that the peak rate of runoff will not be increased. Therefore, the project will not have a significant adverse impact on the adjacent or downstream properties or receiving water courses.

The results of the computer modeling used to analyze the pre- and post-development watersheds are presented in Appendix C and Appendix D, respectively. Table 7 summarizes the results of this analysis.

**Table 7: Summary of Pre- and Post-Development Peak Discharge Rates**

Pre- vs. Post-Development Discharge Rate (cfs)				
Design Point (DP)	10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post
1	38.81	26.64	195.42	159.10
2	67.13	51.88	136.44	111.11

For each of the stormwater management facilities that provide detention, Table 8 presents the center of mass detention time for the 1-year 24-hour storm event.

**Table 8: Center of Mass Detention Time for the 1-year, 24-hour Storm**

SWM Practice ID	NYSDEC Design Variant	Center of Mass Detention Time for the 1-year Storm (hours)		Diameter of the Extended Detention Orifice (inches)	
		Required	Provided	Required to achieve the required center of mass detention time	Provided
P-1	P-3	24	24.5	4.4	4.4

## 6.0 SWPPP IMPLEMENTATION RESPONSIBILITIES

A summary of the responsibilities and obligations of all parties involved with compliance with the NYSDEC SPDES General Permit GP-0-10-001 conditions is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES General Permit GP-0-10-001 presented in Appendix A.

### 6.1 Definitions

1. “General SPDES Permit” means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 authorizing a category of discharges.
2. “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. There may be occasions during the course of a project in which there are multiple Operators, all of which will need to file and maintain the appropriate SWPPP documents and plans, including without limitation, the Notice of Intent (NOI) and Notice of Termination (NOT).
3. “Operator’s Engineer” shall be that person or entity retained by an Operator to design and oversee the implementation of the SWPPP.
4. “Contractor” shall be that person or entity identified as such in the construction contract with the Operator. The term “Contractor” shall also include the Contractor’s authorized representative, as well as any and all subcontractors retained by the Contractor.
5. “Qualified Inspector” means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), licensed Landscape Architect, or other Department endorsed individual(s). It also means someone working under the direct supervision of the licensed Professional Engineer or licensed Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control (herein referred to as “Trained Inspector.”) Training in the principles and practices of erosion and sediment control means that an individual performing a site inspection has received four (4) hours of training, endorsed by the Department, from a Soil and Water Conservation District, or other Department endorsed entity in proper erosion and sediment control principles. After receiving the initial training, an individual working under the direct supervision of the licensed Professional Engineer or licensed Landscape Architect shall receive four (4) hours of training every three (3) years. 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.
6. “Qualified Professional” means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, licensed 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 standards. 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.

7. "Trained Contractor" means an employee from a contracting (construction) firm that has received four (4) hours of training, which has been endorsed by the Department, from a Soil and Water Conservation District, or other Department endorsed entity, in proper erosion and sediment control principles. After receiving the initial training, the Trained Contractor shall receive four (4) hours of training every three (3) years. The Trained Contractor will be responsible for the day to day implementation of the SWPPP.

## 6.2 Operator's Responsibilities

1. Retain the services of a "Qualified Professional", as defined under Section 6.1, to provide the services outlined in Section 6.3 "Operator's Engineer's Responsibilities".
2. Have an authorized corporate officer sign the completed NOI. A copy of the completed NOI is included in Appendix H.
3. Submit the signed NOI to the following:

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

Town of Dover  
126 East Duncan Hill Road  
Dover Plains, NY 12522

4. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as \$100.00 per acre disturbed plus \$600.00 per acre of net increase in impervious cover, and the annual fee is \$100.00.
5. Retain the services of an independent certified materials testing and inspection firm operating under the direction of a licensed Professional Engineer to perform regular tests, inspections, and certifications of the construction materials used in the construction of all post-construction stormwater management practices.
6. Retain the services of a NYS licensed land surveyor to perform an as-built topographic survey of the completed post-construction stormwater management facilities.

7. Prior to the commencement of construction activity, identify the contractor(s) and subcontractor(s) that will be responsible for implementing the erosion and sediment control measures and stormwater management practices described in this SWPPP. Have each of these contractors and subcontractors identify at least one “Trained Contractor”, as defined under Section 2.1, that will be responsible for the implementation of the SWPPP. Ensure that the Contractor has at least one “Trained Contractor” on site on a daily basis when soil disturbance activities are being performed.
8. Schedule a pre-construction meeting which shall include the Town of Dover representative, Operator’s Engineer, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.
9. Require the Contractor to fully implement the SWPPP prepared for the site by the Operator’s Engineer to 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.
10. Forward a copy of the NOI Acknowledgement Letter received from the regulatory agency to the Operator’s Engineer for project records, and to the Contractor for display at the job site.
11. Maintain a copy of the General Permit (GP-0-10-001), NOI, NOI Acknowledgement Letter, SWPPP, inspection reports, Spill Prevention, Countermeasures, and Cleanup (“SPCC”) Plan, inspection records, and other required records on the job site so that they may be made available to the regulatory agencies.
12. Post at the site, in a publicly accessible location, a copy of the General Permit (GP-0-10-001), a signed copy of the NOI, the NOI Acknowledgement Letter, and on a monthly basis a summary of the site inspection activities.
13. Prepare a written summary of projects status with respect to compliance with the general permit at a minimum frequency of every three months during which coverage under the permit exists. The summary should address the status of achieving the overall goal of the SWPPP. The summary shall be maintained at the site in a publicly accessible location.
14. Prior to submitting a Notice of Termination, ensure that a deed restriction is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.
15. Submit a Notice of Termination (NOT) form (see Appendix H) within 48 hours of receipt of the Operator’s Engineer’s certification of final site stabilization to the following:

NOTICE OF TERMINATION  
NYS DEC, Bureau of Water Permits  
625 Broadway, 4<sup>th</sup> Floor  
Albany, New York 12233-3505

Town of Dover

126 East Duncan Hill Road  
Dover Plains, NY 12522

16. Request and receive all SWPPP records from the Operator's Engineer and archive those records for a minimum of five years after the NOT is filed.
17. Require the implementation of the Post-Construction Inspections and Maintenance procedures outlined in Appendix I.

### **6.3 Operator's Engineer's Responsibilities**

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.
2. Prepare the Notice of Intent (NOI) form (see Appendix H), sign the "SWPPP Preparer Certification" section of the NOI, and forward to Operator for signature.
3. Provide copies of the SWPPP to the Town of Dover once all signatures and attachments are complete.
4. Prepare a construction Site Log Book to be used in maintaining a record of all inspection reports generated throughout the duration of construction.
5. Participate in a pre-construction meeting with the Town of Dover representative, Operator, Contractor, and their sub-contractors to discuss responsibilities as they relate to the implementation of this SWPPP.
6. Enter Contractor's information in Section 6.5 "SWPPP Participants" once a Contractor is selected by the Operator.
7. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.
8. Provide on-site inspections to determine compliance with the SWPPP. Because this project involves the disturbance of greater than five acres of soil at any one time, site inspections shall occur at an interval of at least twice every seven calendar days, with the inspections separated by a minimum of at least two full calendar days. A written inspection report shall be provided to the Operator and general contractor within one business day of the completion of the inspection, with any deficiencies identified. Include color photographs, with date stamp, taken with a digital camera that clearly shows the condition of all practices that have been identified as needing corrective actions. Paper copies of photographs shall be attached to the inspection report within seven calendar days of inspection. Color photographs, with date stamp, must also be taken with a digital camera that clearly shows the condition of practice(s) after the corrective action has been completed. Paper copies of the digital photographs, that document completion of the corrective action work within 7 calendar days of inspection,

shall be attached to inspection report. A sample inspection form is provided in Appendix J.

9. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports and inspections and maintenance logs.
10. Maintain the construction Site Log Book throughout the duration of construction.
11. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.
12. Based on the as-built survey and material testing certifications performed by others, perform evaluations of the completed stormwater management facilities to determine whether they were constructed in accordance with this SWPPP.
13. Conduct a final site assessment and prepare a certification letter to the Operator indicating that, upon review of the material testing and inspection reports prepared by the firm retained by the Operator, review of the completed topographic survey, and evaluation of the completed stormwater management facilities, the stormwater management facilities have been constructed substantially in accordance with the contract documents and should function as designed.
14. Prepare the Notice of Termination (NOT). Sign the NOT Certifications VI (Final Stabilization) and VII (Post-construction Stormwater Management Practices), and forward the NOT to the Owner/Operator for his signature on Certification VIII (Owner or Operator Certification).
15. Transfer the SWPPP documents, along with all NOI's, permit certificates, NOT's, construction Site Log Book, and written records required by the General Permit to the Operator for archiving.

#### **6.4 Contractor's Responsibilities**

1. Sign the SWPPP Contractor's Certification Form contained within Appendix K and forward to the Operator's Engineer for inclusion in the Site Log Book.
2. Identify at least one Trained Contractor that will be responsible for implementation of the SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed.
3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Contractor that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Contractor's Certification Form and forward to the Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.

4. Maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 4.4 of this Preliminary SWPPP. This plan shall be provided to the Operator's Engineer for inclusion in the Site Log Book.
5. Participate in a pre-construction meeting which shall include the Town of Dover representative, Operator, Operator's Engineer, and all sub-contractors to discuss responsibilities as they relate to the implementation of this Preliminary SWPPP.
6. If Contractor plans on utilizing adjacent properties for material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, Contractor shall submit appropriate documentation to the Operator's Engineer so that the SWPPP can be modified accordingly.
7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.
8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition at all times. Prepare and retain written documentation of inspections as well as of all repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.
9. Maintain a record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated, until such time as the NOT is filed. A log for keeping such records is provided in Appendix L.
10. Begin implementing corrective actions within one day of receipt of notification by the Qualified Inspector that deficiencies exist with the erosion and sedimentation control measures employed at the site. Corrective actions shall be completed within a reasonable time frame.

## 6.5 SWPPP Participants

1. Operator's Engineer: The Chazen Companies  
21 Fox Street  
Poughkeepsie, New York  
Phone: (845) 454-3980  
Fax: (845) 454-4026  
Attention: Christopher Lapine, P.E.
  
2. Operator: Cricket Valley Energy Center, LLC  
31 Milk Street  
Suite 1001  
Boston, MA 02109  
Phone: (617) 456-2200  
Fax: (617) 456-2201  
Attention: Jeff Ahrens
  
3. Contractor<sup>1</sup>:  
Name and Title: \_\_\_\_\_  
Company Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
\_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

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<sup>1</sup> Contractor's information to be entered once the Contractor has been selected.

## **7.0 INSPECTIONS, MAINTENANCE, AND REPORTING**

### **7.1 Inspection and Maintenance Requirements**

#### *7.1.1 Pre-Construction Inspection and Certification*

Prior to the commencement of construction, the Operator's Engineer shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Operator's Engineer once the erosion and sediment control measures have been installed.

#### *7.1.2 Construction Phase Inspections and Maintenance*

A Qualified Inspector, as defined in Appendix A of the General Permit GP-0-010-001, shall conduct regular site inspections between the time the Final SWPPP is implemented and final site stabilization. Because this project involves the disturbance of greater than five acres of soil at any one time, site inspections shall occur at an interval of at least twice every seven calendar days, with the inspections separated by a minimum of at least two full calendar days.

The purpose of site inspections is to assess performance of pollutant controls. Based on these inspections, the Qualified Inspector will decide whether it is necessary to modify this SWPPP, add or relocate sediment barriers, or whatever else may be needed in order to prevent pollutants from leaving the site via stormwater runoff. The general contractor has the duty to cause pollutant control measures to be repaired, modified, maintained, supplemented, or whatever else is necessary in order to achieve effective pollutant control.

Examples of particular items to evaluate during site inspections are listed below. This list is not intended to be comprehensive. During each inspection the inspector must evaluate overall pollutant control system performance as well as particular details of individual system components. Additional factors should be considered as appropriate to the circumstances.

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building

foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.

5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

The inspection reports must be completed entirely and additional remarks should be included if needed to fully describe a situation. An important aspect of the inspection report is the description of additional measures that need to be taken to enhance plan effectiveness. The inspection report must identify whether the site was in compliance with the Final SWPPP at the time of inspection and specifically identify all incidents of non-compliance.

Within one business day of the completion of an inspection, the Qualified Inspector shall notify the Owner or Operator and appropriate contractor (or subcontractor) of any corrective actions that need to be taken. The Contractor (or subcontractor) shall begin implementing corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

In addition to the inspections performed by the Operator's Engineer, the Contractor shall perform routine inspections that include a visual check of all erosion and sediment control measures. All inspections and maintenance shall be performed in accordance with the inspection and maintenance schedule provided on the accompanying plans. Sediment removed from erosion and sediment control measures will be exported from the site, stockpiled for later use, or used immediately for general non-structural fill.

It is the responsibility of the general contractor to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than what will be shown on the Final Site Plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of the Final SWPPP until the site achieves final stabilization.

### *7.1.3 Temporary Suspension of Construction Activities*

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 frequency of Qualified Inspector inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 3 stormwater contact person in writing.

### *7.1.4 Partial Project Completion*

For construction sites where soil disturbance activities have been shut down with partial project completion, 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

Qualified Inspector inspections can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 3 stormwater contact person in writing.

If soil disturbance activities have not resumed within two years from the date of shutdown, a Notice of Termination (NOT) shall be properly completed and submitted to the NYSDEC.

#### *7.1.5 Post-Construction Inspections and Maintenance*

Inspections and maintenance of post-construction stormwater management practices shall be performed in accordance with Appendix I, when all disturbed areas are stabilized and all stormwater management systems are in place and operable.

## **7.2 Reporting Requirements**

### *7.2.1 Inspection and Maintenance Reports*

Inspection/maintenance reports shall be prepared prior to and during construction in accordance with the schedule outlined herein and in the SPDES General Permit GP-0-010-001 Part IV.C.2. The reports shall be prepared to identify and document the maintenance of the erosion and sediment control measures. A sample inspection form is provided in Appendix J.

Specifically, each inspection shall record the following information:

1. Date and time of inspection.
2. Name and title of person(s) performing inspection.
3. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection.
4. A description of the condition of the runoff at all points of discharge (including conveyance systems and overland flow) from the construction site. This shall include identification of any discharges of sediment from the construction site.
5. Identification of all erosion and sediment control practices that need repair or maintenance.
6. 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 repaired.
7. 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.
8. 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.

9. 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).
10. Include color photographs with date stamp, taken with a digital camera that clearly shows the condition of all practices that have been identified as needing corrective actions. Color copies of photographs shall be attached to the inspection report within 7 calendar days of inspection. Color photographs with date stamp, taken with a digital camera must clearly show the condition of practice(s) after the corrective action has been completed. Color copies of the photographs, that document completion of the corrective action work within 7 calendar days of inspection, shall be attached to inspection report.

### *7.2.2 Site Log Book*

The Operator shall retain a copy of the Final SWPPP required by NYSDEC SPDES General Permit GP-0-10-001 at the construction-site from the date of initiation of construction activities to the date of final stabilization.

During construction, the Operator's Engineer shall maintain a record of all SWPPP inspection reports at the site in the Site Log Book. The Site Log Book shall be maintained on-site and made available to the permitting authority.

### *7.2.3 Post Construction Records and Archiving*

Following construction, the Operator shall retain copies of the Final SWPPP, the complete construction Site Log Book, and records of all data used to complete the NOI to be covered by this permit, for a period of at least five years from the date that the site is finally stabilized. This period may be extended by the NYSDEC, at its sole discretion, at any time upon written notification.

Records shall be maintained of all post construction inspections and maintenance work performed in accordance with the requirements outlined in Appendix I.

## **8.0 CONCLUSION**

### **8.1 Conclusion**

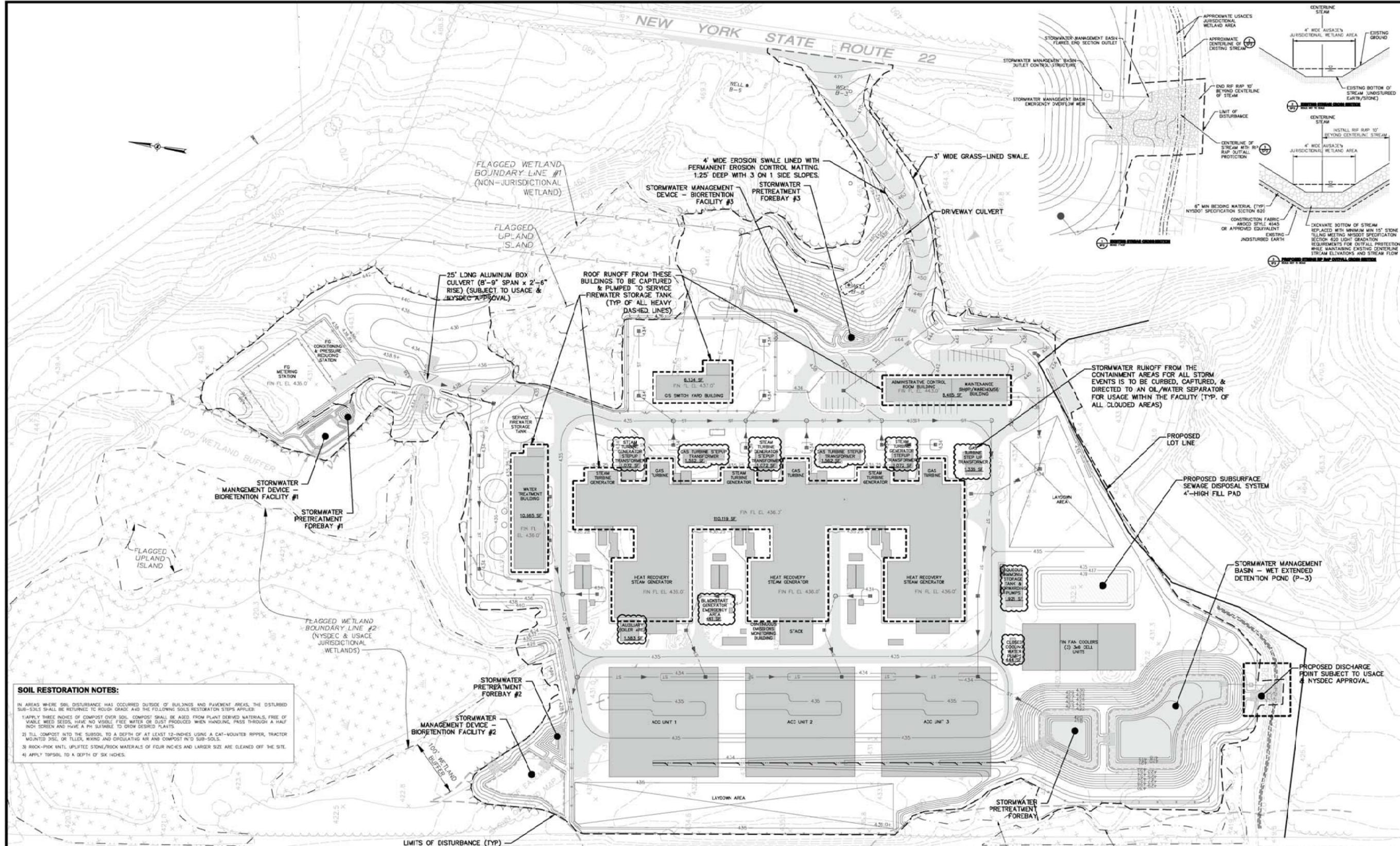
This project is not subject to the requirements of a regulated MS4, and this preliminary SWPPP has been prepared in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control and draft NYS Stormwater Management Design Manual. As such, it is anticipated that GP-0-10-001 coverage will be effective five (5) business days from the date the NYSDEC receives the complete NOI, unless notified otherwise by the NYSDEC.

The proposed stormwater collection system consisting of pipes, open drainage ways and on-site stormwater management facilities will adequately collect, treat, and convey the stormwater. A wet extended detention basin and bio-retention areas will be used to treat the water quality volume produced from the proposed development. Runoff from containment areas; and from the roofs of the administrative/control room building, maintenance shop/warehouse building, Gas Insulated Substation(GIS) switchyard building, water treatment building, and Units 1-3 (i.e. step up transformer) for all storms will be captured, routed to the on-site storage tank via a pump, for reuse within the plant. These areas have been identified on Sheet SP2 “Conceptual Subsurface Sewage Disposal System and Stormwater Management Plan.”

The post-construction stormwater management practice(s) will be owned by Cricket Valley Energy Center, LLC. Policy and procedures will be put in place, which ensure operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

It is our opinion that the proposed development will not adversely impact adjacent or downstream properties if the stormwater management facilities are properly constructed and maintained in accordance with the requirements outlined herein.





**SOIL RESTORATION NOTES:**

IN AREAS WHERE SOIL DISTURBANCE HAS OCCURRED OUTSIDE OF BUILDINGS AND PAVEMENT AREAS, THE DISTURBED SUB-SOILS SHALL BE RESTORED TO ROUGH GRADE AND THE FOLLOWING SOILS RESTORATION STEPS APPLIED:

- 1) APPLY THREE INCHES OF COMPOST OVER SOIL. COMPOST SHALL BE MADE FROM PLANT DERIVED MATERIALS, FREE OF WEED SEEDS, HAVE NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A PH SUITABLE TO GROW DESIRED PLANTS.
- 2) TILL COMPOST INTO THE SUBSOIL TO A DEPTH OF AT LEAST 12-INCHES USING A CAT-MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, MIXING AND CIRCULATING AIR AND COMPOST INTO SUB-SOILS.
- 3) ROCK-PICK UNTIL UNLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
- 4) APPLY TOPSOIL TO A DEPTH OF SIX INCHES.

**NOTE:**

CONCEPTUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM AND STORMWATER MANAGEMENT FACILITIES LAYOUT AND GRADING BY THE CHAZEN COMPANIES. ALL OTHER PROPOSED LAYOUT, GRADING AND STRUCTURES BY OTHERS.

**ISSUED FOR SEQRA APPROVAL**



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**THE Chazen COMPANIES**  
 Engineers/Surveyors  
 Planners  
 Environmental Scientists  
 Landscape Architects

**CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., P.C.**

Office Locations:

Albany County Office 2 Elm Street, New York, NY 12242 Phone: (518) 454-3388	Capital District Office 400 Sun Street, New York, NY 12242 Phone: (518) 272-0055	South Country Office 400 Sun Street, New York, NY 12020 Phone: (518) 912-0015
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rev.	date	description

**CRICKET VALLEY ENERGY**

**CONCEPTUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM AND STORMWATER MANAGEMENT PLAN**

TOWN OF DOVER, DUTCHESS COUNTY, NEW YORK

Drawn	Checked
MMF	CL
Date	Scale
7/16/10	1"=50'
Project No.	Sheet No.
51001.00	SP2



- GENERAL NOTES:**
- THE PROJECT'S CONSTRUCTION PERIOD IS EXPECTED TO BE APPROXIMATELY 36 MONTHS. DURING THE CONSTRUCTION PERIOD, NUMEROUS TYPES OF CONSTRUCTION ACTIVITY WILL OCCUR AT THE PROJECT SITE. THE FOLLOWING GENERAL SEQUENCE WILL PROCEED AS FOLLOWS:
  - SITE CONSTRUCTION WILL NEED TO PROCEED WITH GREATER THAN 5-ACRES OF SOIL DISTURBED AT A GIVEN TIME. AS THE DEVELOPMENT PLAN IS REFINED DURING THE SITE PLAN REVIEW AND PERMITTING PROCESS, A WAIVER TO DISTURB GREATER THAN 5-ACRES OF SOIL WILL BE REQUESTED FROM THE NYSDEC.
  - THE PROJECT SHALL NOT DISTURB 20 OR MORE ACRES OF LAND AT ONE TIME FOLLOWING AUGUST 1, 2011, AND SHALL NOT DISTURB MORE THAN 10 OR MORE ACRES OF LAND AT ONE TIME FOLLOWING FEBRUARY 1, 2014. SHOULD THE PROJECT DISTURB MORE THAN THE SPECIFIED AREAS DURING THE TIME PERIODS LISTED HEREIN, PROJECT SPONSOR SHALL SAMPLE STORM WATER DISCHARGES AND REPORT LEVELS OF TURBIDITY IN THE DISCHARGE IN ACCORDANCE WITH REQUIREMENTS AND METHODS TO BE ESTABLISHED BY THE ENVIRONMENTAL PROTECTION AGENCY.
  - BECAUSE THIS PROJECT WILL INVOLVE THE DISTURBANCE OF GREATER THAN FIVE ACRES OF SOIL AT ANY ONE TIME, SITE INSPECTIONS SHALL OCCUR AT AN INTERVAL OF AT LEAST TWICE EVERY SEVEN CALENDAR DAYS, WITH THE INSPECTIONS SEPARATED BY A MINIMUM OF AT LEAST TWO FULL CALENDAR DAYS.
  - EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING OTHER LAND DISTURBANCES AND WOULD NOT BE REMOVED UNTIL DISTURBED LAND AREAS ARE STABILIZED. PLEASE REFER TO EROSION AND SEDIMENT CONTROL PLANS FOR MORE INFORMATION.
- BELOW ARE DESCRIPTIONS OF ADDITIONAL MEASURES NOT OUTLINED ON SHEET SP1 THAT WOULD OR MAY BE USED DURING THE CONSTRUCTION PERIOD OF THE PROJECT:
- **PROTECTION OF TREES/MATURE VEGETATION** - NATURAL VEGETATION WOULD BE PRESERVED WHENEVER POSSIBLE IN ACCORDANCE WITH THE SITE CLEARING AND DRUBBING PLAN. PRESERVING NATURAL AND MATURE VEGETATION WOULD PROVIDE AESTHETIC BUFFER, PRESERVE HABITAT, AND REDUCE SOIL EROSION. WHEN PRESERVING VEGETATION, TRUCKS WOULD BE INSTALLED TO PREVENT EQUIPMENT FROM DAMAGING AREAS DESIGNATED FOR PRESERVATION INCLUDING THE ESTABLISHED WETLANDS.
  - **VEGETATED SWALES** - DURING THE EARLY PHASES OF CONSTRUCTION, SURFACE RUNOFF THAT IS RELATIVELY CLEAN AND FREE OF SEDIMENT WOULD BE DIVERTED OR CONFINED PREVENTED FROM FLOWING THROUGH AREAS OF CONSTRUCTION ACTIVITY ON THE PROJECT PARCEL VIA A SYSTEM OF TEMPORARY SWALES. THE SWALES WOULD ROUTE FLOW TO TEMPORARY RETENTION BASINS OR SEDIMENT TRAPS. DURING THE REMAINDER OF THE CONSTRUCTION PERIOD, AS WELL AS DURING THE OPERATIONS PHASE, AREAS OUTSIDE THE BUILDINGS AND PAVEMENT WOULD CONTINUE TO UTILIZE VEGETATED SWALES IN PREFERENCE TO A PIPED COLLECTION SYSTEM.
  - **SOIL PROTECTION** - STONE OR SILT FENCE WOULD BE USED TO PREVENT SEDIMENT INFLOW INTO CATCH BASINS DURING THE CONSTRUCTION PROCESS.
  - **MULCHING** - MULCHING IS THE PLACEMENT OF MATERIAL, INCLUDING BUT NOT LIMITED TO HAY, GRASS, WOODCHIPS, STRAW, AND GRAVEL, ON THE SOIL SURFACE TO COVER AND HOLD IN PLACE DISTURBED SOILS. THIS IS COMPLEMENTARY TO SEDIMENT PRACTICES.
  - **GEOTEXTILES** - GEOTEXTILES ARE PERFORATED FABRICS, CONSTRUCTION FABRICS, OR SIMPLY FABRICS. THEY ARE USED FOR FILTRATION, REINFORCEMENT, MATERIAL SEPARATION, MATINGS, DRAINAGE APPLICATIONS AND EROSION CONTROL. FOR SEDIMENT AND EROSION CONTROL APPLICATIONS, THEY ARE MOST USED AS MATINGS TO STABILIZE FLOW IN CHANNELS AND SWALES.
  - **TEMPORARY SEEDING** - PLANTING OF FAST GROWING GRASSES PROVIDES RAPID STABILIZATION OF DISTURBED SURFACES THAT WOULD EXPERIENCE FURTHER DISTURBANCE OR CONSTRUCTION ACTIVITY AT A LATER TIME. TEMPORARY SEEDING SURFACES WOULD HAVE GREATER RESISTANCE TO STORMWATER RUNOFF AND/OR WIND EROSION. MAINTENANCE SHOULD BE PERFORMED TO ASSURE CONTINUED STABILIZATION.
- ALL EROSION AND SEDIMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES USED DURING CONSTRUCTION SHOULD COMPLY WITH SPECIFICATIONS CONTAINED IN THE NEW YORK STATE EROSION & SEDIMENT CONTROL MANUAL.
- DESCRIPTIONS OF PRELIMINARY CONSTRUCTION PHASING:**
- DEMOLITION OF EXISTING STRUCTURES AND FOUNDATIONS ON THE SITE. INSTALLATION OF ACCESS DRIVE TO PARCEL TO NORTH. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO DEMOLITION AS IDENTIFIED ON SHEET SP1.
  - CLEARING AND GRUBBING OF THE SITE IN PREPARATION FOR THE CONSTRUCTION EFFORT TO FOLLOW. INSTALLATION OF CONSTRUCTION OFFICES AND TEMPORARY FACILITIES. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CLEARING AND GRUBBING ACTIVITIES AS IDENTIFIED ON SHEET SP2.
  - ROUGH GRADING AND ROCK REMOVAL FOR POWER BLOCK FOUNDATIONS.
  - INSTALLATION OF ALL UNDERGROUND UTILITIES THROUGHOUT THE ENTIRE SITE AREA, I.E. PIPING, ELECTRICAL CABLES AND CABLEWAYS, ETC. PROVIDE INLET PROTECTION FOR ALL CATCH BASINS.
  - ROUGH GRADE ACCESS DRIVES. SURFACE TO CONSIST OF CRUSHED STONE.
  - INSTALLATION OF HEAVY HALL ROAD THROUGH THE CENTERLINE OF UNIT 3. SURFACE TO CONSIST OF CRUSHED STONE.
  - EXCAVATE AND INSTALL MUD MATS FOR ALL STEAM/GAS TURBINE AND STEP-UP TRANSFORMERS.
  - INSTALL FOUNDATIONS FOR STEAM TURBINE, GAS TURBINE AND STEP-UP TRANSFORMER FOR UNIT 1.
  - SET STEAM TURBINE, GAS TURBINE AND STEP-UP TRANSFORMER FOR UNIT 1.
  - INSTALL FOUNDATIONS FOR STEAM TURBINE, GAS TURBINE AND STEP-UP TRANSFORMER FOR UNIT 2. INSTALL FOUNDATION FOR HEAT RECOVERY STEAM GENERATOR (HRSG) UNIT 1.
  - SET STEAM TURBINE, GAS TURBINE AND STEP-UP TRANSFORMER FOR UNIT 2.
  - ENCLOSURES OF THE GENERATOR SETS MAY PROCEED AS EACH IS SET INTO PLACE.
  - INSTALLATION OF HRSG FOR UNIT 1, UTILIZING THE UNIT 1 AIR COOLED CONDENSER (ACC) AREA FOR LAYDOWN OF COMPONENTS. INSTALL FOUNDATION FOR HRSG UNIT 2.
  - INSTALLATION OF HRSG FOR UNIT 2, UTILIZING THE UNIT 2 ACC AREA FOR LAYDOWN OF COMPONENTS, FOLLOWED BY INSTALLATION OF HRSG ENCLOSURES FOR UNIT 1 AND 2.
  - ALL AUXILIARY AND BOP SYSTEMS, COMPONENTS, AND STRUCTURES CAN BE CONSTRUCTED AND SEQUENCED AS NEEDED TO LEVEL REQUIREMENTS AND AVOID HIGH CONGESTION AREAS WITHOUT INTERFERENCE WITH THE POWER BLOCK INSTALLATIONS. AS IT RELATES TO CONSTRUCTION OF FUEL GAS METERING STATION, REFER TO SHEET SP1 FOR INITIAL EROSION AND SEDIMENT CONTROL SEQUENCING.
  - INSTALLATION OF ACC UNIT 1.
  - INSTALLATION OF ACC UNIT 2.
  - INSTALLATION OF ACC UNIT 3.
  - INSTALLATION OF HRSG FOR UNIT 3, UTILIZING THE AREA JUST EAST OF THE FN FAN COOLER FOR LAYDOWN. INSTALLATION OF THE HRSG ENCLOSURE TO FOLLOW.
  - INSTALL FOUNDATIONS FOR STEAM TURBINE, GAS TURBINE AND STEP-UP TRANSFORMER FOR UNIT 3.
  - SET STEAM TURBINE, GAS TURBINE AND STEP-UP TRANSFORMER FOR UNIT 3, FOLLOWED BY THE INSTALLATION OF THE ENCLOSURE.
  - BRING FINAL GRADING TO ELEVATION, INSTALL FIRST ROAD BASE, AND AREA GRAVEL.
  - CONVERT SEDIMENT TRAPS TO STORMWATER MANAGEMENT FACILITIES AS DEPICTED ON SHEET SP2. PREPARE SUBSURFACE SEWAGE DISPOSAL SYSTEM PAD.
  - ONCE SITE IS STABILIZED (VEGETATION ESTABLISHED), CONTACT PROJECT ENGINEER AND TOWN AUTHORIZED REPRESENTATIVE TO CONDUCT FINAL INSPECTION OF SITE PRIOR TO REMOVING REMAINDER OF EROSION AND SEDIMENT CONTROL MEASURES.
  - FACILITY SYSTEMS TESTING AND COMMISSIONING.
  - PLANT IS OPERATIONAL.
- \*CONSTRUCTION PHASING LISTED ABOVE WILL BE REFINED WITH MORE DETAIL FOR EACH PHASE DURING THE SITE PLAN REVIEW PROCESS.

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**THE Chazen COMPANIES**  
 Engineers/Surveyors  
 Planners  
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 Landscape Architects

CHAZEN ENGINEERING, LAND SURVEYING  
 &  
 LANDSCAPE ARCHITECTURE CO., P.C.

Office Locations:

Buffalo County Office 2 Elm Street Buffalo, New York 14203 Phone: (419) 454-3388	Capital District Office 447 Four Street Albany, New York 12242 Phone: (518) 273-0035	North Country Office 300 Dan Street Plattsburgh, New York 13858 Phone: (518) 912-0315
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REV	DATE	DESCRIPTION

**CRICKET VALLEY ENERGY**

**PRELIMINARY CONSTRUCTION PHASING PLAN**

TOWN OF DOVER, DUTCHESS COUNTY, NEW YORK

Drawn	Checked
KSW	CL
Date	Scale
7/16/10	1" = 50'
Project No.	Sheet No.
SP1001.00	SP3

Appendix A:  
NYSDEC SPDES General Permit GP-0-10-001



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, 4<sup>th</sup> 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)**

3. 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).
4. 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.
5. 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><b>The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:</b></p> <ul style="list-style-type: none"><li>• 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</li><li>• 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</li><li>• Construction of a barn or other agricultural building, silo, stock yard or pen.</li></ul>
<p><b>The following construction activities that involve soil disturbances of one (1) or more acres of land:</b></p> <ul style="list-style-type: none"><li>• Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains</li><li>• Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects</li><li>• Bike paths and trails</li><li>• Sidewalk construction projects that are not part of a road/ highway construction or reconstruction project</li><li>• Slope stabilization projects</li><li>• Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics</li><li>• Spoil areas that will be covered with vegetation</li><li>• 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</li><li>• 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</li><li>• Demolition project where vegetation will be established and no redevelopment is planned</li><li>• Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with <i>impervious cover</i></li><li>• 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</li></ul>
<p><b>The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:</b></p> <ul style="list-style-type: none"><li>• 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.</li></ul>

**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

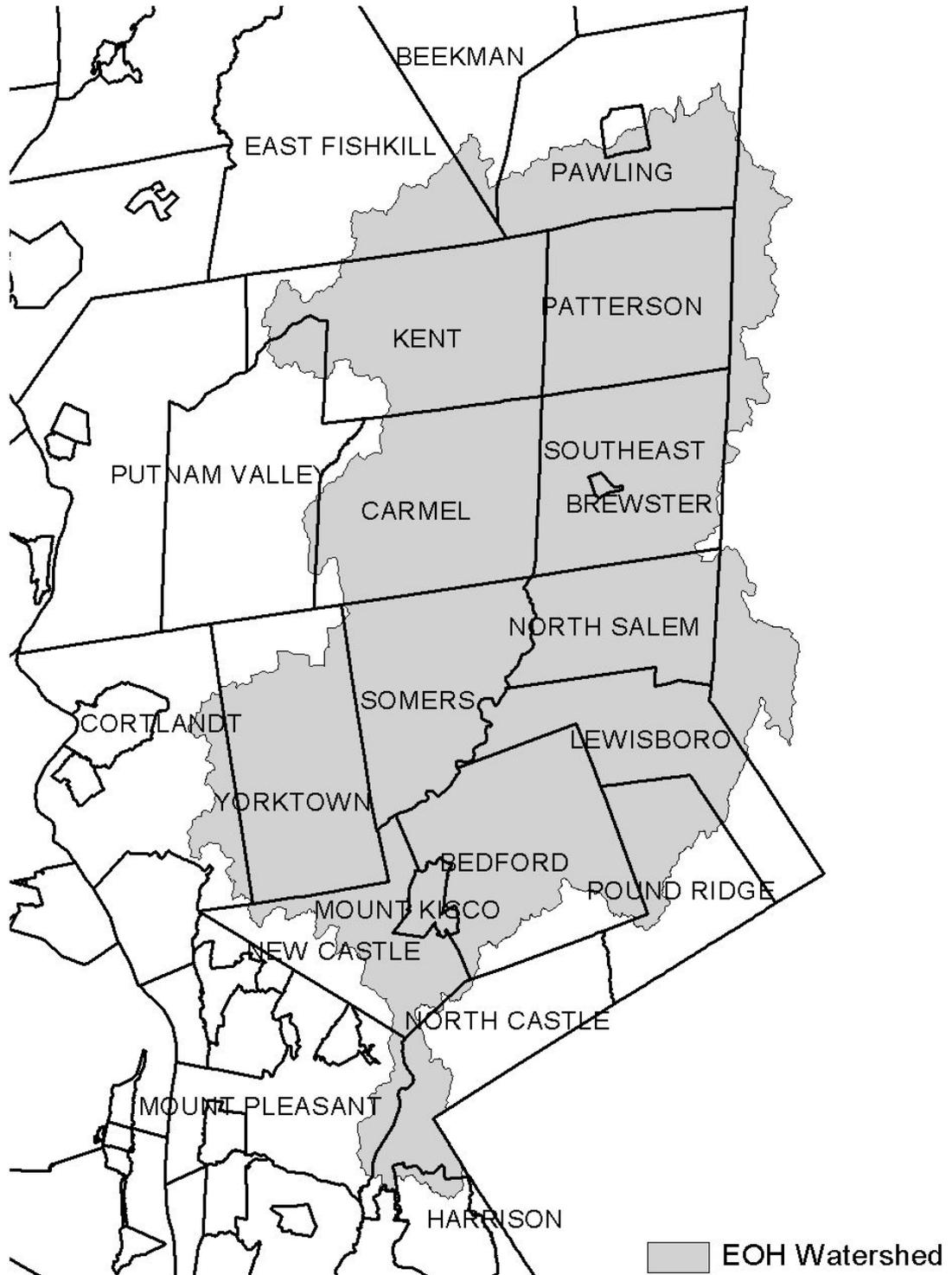
## APPENDIX C

### 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

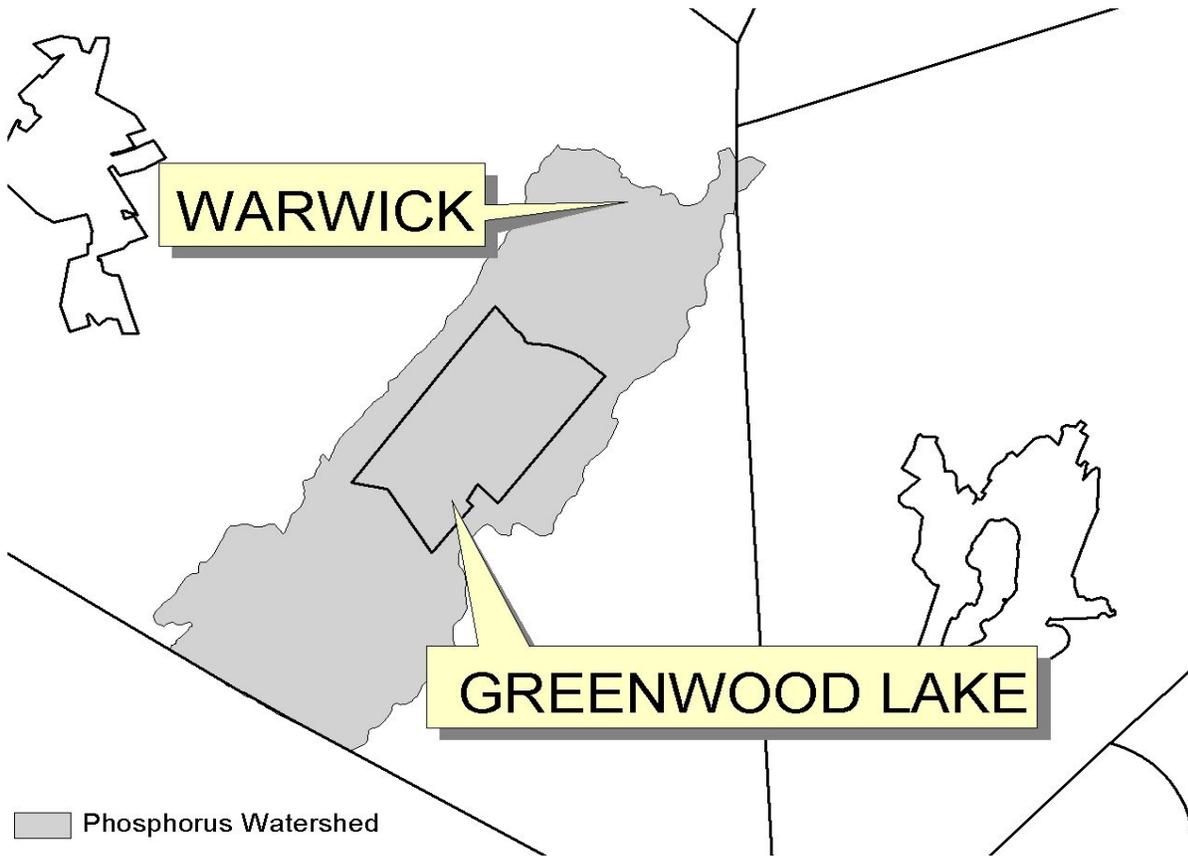
**Figure 1 - New York City Watershed East of the Hudson**



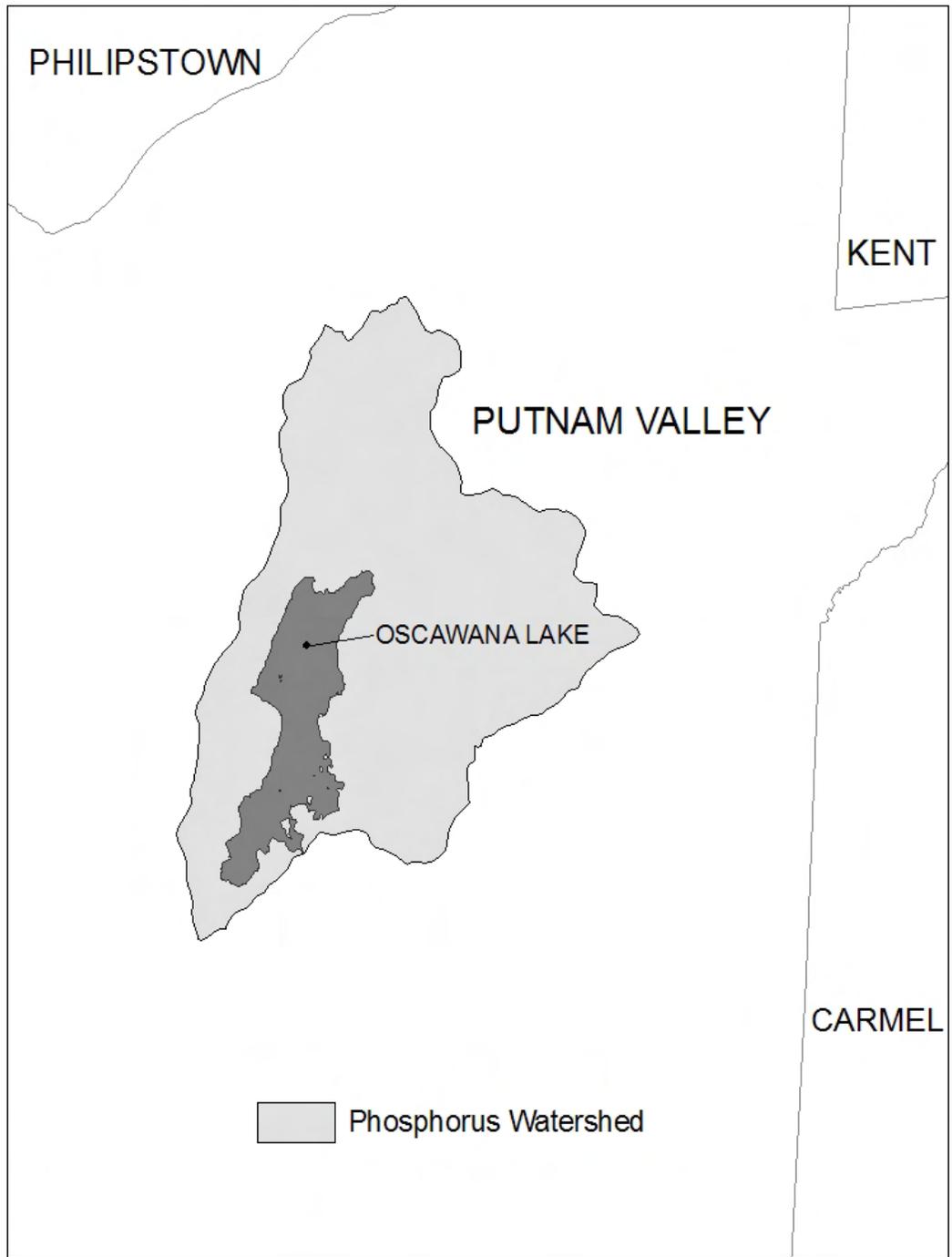
**Figure 2 - Onondaga Lake Watershed**



**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