

**TOP HAT  
ENERGY PROJECT**

**MOREAU, NY**

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**July 2026  
Revised October 2026**

**STORMWATER POLLUTION  
PREVENTION PLAN  
for  
CONSTRUCTION ACTIVITIES  
At**

**TOP HAT ENERGY PROJECT**

**TOWN OF MOREAU**

Prepared for

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Prepared by

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July 2026

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## **SECTION 1**

### **Written Stormwater Pollution Prevention Plan**

**STORMWATER POLLUTION  
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for  
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**TOP HAT ENERGY PROJECT  
TOWN OF MOREAU, NY**

**Prepared for**

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TOP HAT ENERGY PROJECT**

## **TOP HAT ENERGY PROJECT**

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### **I. SCOPE**

- A. **PURPOSE:** TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC intends to implement the appropriate Stormwater Pollution Prevention Plan measures in accordance with the SPDES general permit governing stormwater discharges during construction, and in accordance with erosion control practices. This section provides a descriptive explanation of the means by which TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC will comply with the National Stormwater Pollution Prevention Program.
- B. **NPDES GENERAL PERMITS FOR STORMWATER DISCHARGE FROM CONSTRUCTION SITES:** Regulations promulgated by the New York State Department of Environmental Conservation (NYSDEC) regulate the discharge of storm water from construction activities on sites where one (1) or more acres of soil is disturbed. One of the ways to comply with these regulations for affected sites is to request coverage under the General Permit for Construction Activities. (Copy enclosed herewith) In order to be authorized to discharge under the General Permit, a Stormwater Pollution Prevention Plan (SWPPP) for the site must be prepared in accordance with all applicable requirements of this permit and followed during the construction activities. If the construction activity is **not** subject to the requirements of a regulated, traditional land use control MS4 a Notice of Intent (NOI) form must be completed and received by the New York State Department of Environmental Conservation at least 5-days prior to any earth-disturbing activities. If the construction activity is subject to the requirements of a regulated, traditional land use control MS4, then the owner/operator must have its SWPPP reviewed and accepted by the MS4 prior to submitting the NOI to the Department. The owner/operator shall have the "MS4 SWPPP Acceptance" form signed and then submit that form along with the NOI to the Department.
- C. **RESPONSIBILITIES OF CONTRACTOR REGARDING THE GENERAL PERMIT:** The CONTRACTOR shall manage the discharge of stormwater from the site in accordance with the SPDES General Permit for Construction Activities conditions and the following provisions of this section of the specifications. The CONTRACTOR shall be responsible for conducting the stormwater management practices in accordance with the permit. The CONTRACTOR shall be responsible for providing qualified inspectors to conduct the inspections required by the SWPPP. The CONTRACTOR shall be responsible for any enforcement action taken or imposed by federal, state, or local agencies, including the cost of fines, construction delays, and remedial actions resulting from the CONTRACTOR'S failure to comply with the permit provisions. It shall be the responsibility of the CONTRACTOR to make any changes to the SWPPP necessary when the CONTRACTOR or any of his subcontractors elects to use borrow or fill or material storage sites, either contiguous to or remote from the construction site, when such sites are used solely for this construction site. Such sites are considered to be part of the construction site covered by the permit and this SWPPP. Off-site borrow, fill, or material storage sites which are used for multiple construction projects are not subject to this requirement, unless specifically required by state or local jurisdictional entity regulations. The CONTRACTOR should consider this requirement in negotiating with earthwork subcontractors, since the choice of an off-site borrow, fill, or material storage site may impact their duty to implement, make changes to, and perform inspections required by the SWPPP for the site.
- D. **NOTICE OF INTENT:** The NOI Permittee petitions the New York State Department of Environmental Conservation for the stormwater discharges during construction at this site to be covered by the SPDES General Permit for Construction Activity for the State of New York. A Notice of Intent (NOI) (using the form required by the NYSDEC) to be covered under this permit is hereby filed. An Erosion and Sediment Control Plan has been prepared and is attached herewith.
- E. **CONTRACTOR RESPONSIBILITIES:** The SWPPP and associated Erosion and Sediment Control Plans represent the **MINIMUM** erosion and sediment control measures that will be required to protect the site during construction. TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC and the CONTRACTOR understand that additional erosion and sediment control measures will be necessary during construction. It will be the responsibility of the CONTRACTOR to implement additional erosion and sediment control measures as necessary to protect the site during construction. TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC and

the CONTRACTOR shall designate a Project Manager prior to commencing construction. The Project Manager will ensure that all construction managers and sub-contractors are appropriately assigned and understand the importance of the following topics:

- Erosion and Sedimentation Control for Water Quality Protection
- Implementation of the Erosion and Sedimentation Control Plan
- The Importance of Proper Installation of Erosion and Sedimentation Control Measures
- Regular Inspection by qualified personnel of Erosion and Sedimentation Control Measures
- Diligent Maintenance of Erosion and Sedimentation Control Measures
- Contemporaneous preparation of accurate and complete records regarding inspection and maintenance of Erosion and Sedimentation Control Measures
- Record Keeping for Inspections and Maintenance activities

- F. **REQUIREMENTS FOR THE CONTRACTOR AND SUBCONTRACTOR(S):** The *SWPPP Ledger* shall provide a “Contractor’s Certification Log” (**Form 2**), identifying the Company Name, Business Address and Telephone Number along with the Responsible Person for the CONTRACTOR and all subcontractors’ who will implement the measures identified in the SWPPP. Each of the entities identified on **Form 2** shall sign a “Contractor’s Certification” (**Form 3**), verifying they have been instructed and fully understand the requirements of the New York State Department of Environmental Conservation and SWPPP. **This certification must be signed, by a fully qualified individual on behalf of each entity, prior to the beginning of any construction activities and shall be filed in the project’s SWPPP Ledger.**

Additionally, the “Trained Contractor” must be identified on Form 3 and his/her credentials should be kept on-site in the SWPPP ledger.

- G. **STORMWATER POLLUTION PREVENTION PROGRAM LOCATION REQUIREMENTS:** The *SWPPP Ledger* is meant to be a working document that shall be maintained at the site of the Construction Activities at all times throughout the project, shall be readily available upon request by the NOI Permittee’s personnel or New York State Department of Environmental Conservation or any other agency with regulatory authority over stormwater issues, and shall be kept on-site until the site complies with the Final Stabilization section of this document. Refer to Part VII., F., Duty to Provide Information, of the General Permit for additional public viewing requirements.

- H. **SWPPP LEDGER:** The SWPPP Ledger shall be a 3-ring Binder, tabbed and indexed for the following sections:

**SECTION 1:**

- **Written SWPPP**

**SECTION 2:**

- **Site Map and General Location Map**
- **Erosion and Sediment Control Plan(s)**

**SECTION 3:**

- **New York State Notice of Intent**
- **New York State NOI Acknowledgement Letter**

#### SECTION 4:

- New York State SPDES General Permit

#### SECTION 5:

- NOI Permittee's Certification (Form 1)
- Contractor's/Subcontractor's Certification Log (Form 2)
- Contractor's Certification for each contractor listed on Form 2 (Form 3)
- Inspection Report (Form 4)
- Modification Report (Form 5)
- Record of Stabilization and Construction Activities Report (Form 6)
- Record of Temporary Erosion and Sediment Control Practices (Form 6A)
- Project Rainfall Log (Form 7)
- Final Stabilization/Termination Checklist (Form 8)

#### SECTION 6:

- Supplemental Information
  - Stormwater Management Narrative
  - NYSDEC Natural Heritage Program Letter
  - USFWS IPAC Species List
  - FEMA Map
  - NRCS Soil Survey
  - NYSDEC Letter of Jurisdiction and No Jurisdiction
  - NYSOPRHP No Effect Letter
  - Site Soil Data

#### SECTION 7:

- Completed Inspection Forms

The Project Manager must review and evaluate for compliance the *SWPPP Ledger* at each Project Review meeting. All Inspection and Maintenance Forms (*Forms 4 - 7*) will be initialed by the Project Manager at each reporting interval.

- I. **INSPECTIONS AND RECORD KEEPING:** Inspections are required at least weekly by a "Qualified Inspector". Sites that have a waiver to disturb greater than five (5) acres require two (2) inspections every seven (7) days with at least two (2) days between inspections. Inspections shall continue until the site complies with the "Final Stabilization" section of this document and a Notice of Termination (NOT) has been filed with the NYSDEC. Each inspection must be followed up by a report documenting the inspector's findings and request the required maintenance and/or repair for the erosion and sedimentation control measures. The inspector shall notify the Project Manager within one day of the inspection of any deficiencies. Within one day of this notification the Project Manager must commence with corrective measures. It is imperative that the Project Manager documents the Inspection and Maintenance of all erosion and sedimentation control measures as soon as possible after the inspection and/or maintenance is completed. These records are used to prove that the required inspection and maintenance were performed and shall be placed in the *SWPPP Ledger*. In addition to inspection and maintenance reports, records should be kept of the Construction Activities that occur on the site. The Project Sponsor shall retain copies of the SWPPP, all reports and data for a minimum of five (5) years after the project is complete. The following list identifies the required Inspection and Maintenance documentation that must be maintained by the Project Manager under this SWPPP.

- **Form 4**            **Inspection Report for SWPPP**
- **Form 5**            **Requested Changes to the SWPPP (Modification Report)**
- **Form 6**            **Record of Stabilization and Construction Activities**
- **Form 6A**          **Record of Temporary Erosion and Sediment Control Practices**
- **Form 7**            **Project Rainfall Log**

- J. **SWPPP MODIFICATIONS:** The inspection report should also identify if any revisions to the SWPPP are warranted due to unexpected conditions. The SWPPP is meant to be a dynamic working guide that is to be kept current and amended whenever the design, construction, operation, or maintenance of the site changes in a way which significantly affects the potential for the discharge of pollutants or when the plan proves to be ineffective in eliminating or significantly minimizing pollutant discharges. Any such changes to the SWPPP must be made in writing on the Modification Report Form (**Form 5**) within 7 days of the date such modification or amendment is made. The CONTRACTOR'S failure to monitor or report deficiencies to the NOI Permittee will result in the CONTRACTOR being liable for fines and construction delays resulting from any federal, state, or local agency enforcement action.
- K. **FINAL STABILIZATION AND TERMINATION OF PERMIT COVERAGE:** The site will be considered finally stabilized when all soil disturbing activities have been completed and a uniform perennial vegetative cover for the unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been established and the development area no longer discharges stormwater associated with construction activities and a Notice of Termination (NOT) form filed by the NOI Permittee with the New York State Department of Environmental Conservation. This filing terminates coverage under the General Permit and terminates the CONTRACTOR'S responsibility to implement the SWPPP. Requirements of the SWPPP, including periodic inspections, must be continued until the NOT is filed.

## **II. SITE DESCRIPTION**

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A. PROJECT NAME AND LOCATION

The TOP HAT ENERGY PROJECT site is located at Latitude 43°16'59.28" N and Longitude 73°36'17.22"W in the Town of MOREAU, SARATOGA COUNTY, NEW YORK. The site is situated on the south side of ELECTRIC DRIVE and the west side of FARNAN ROAD, southeast of its intersection with BLUEBIRD ROAD. The project site comprises approximately 54.66± acres, with an overall disturbance area of 13.90± acres. The site is bounded to the south by PRIVATE PROPERTY, to the east by FARNAN ROAD, to the north by ELECTRIC DRIVE, and to the west by a NATIONAL GRID CORRIDOR. Primary access to the project site will be provided from ELECTRIC DRIVE, while access to the interconnection will be from FARNAN ROAD. The parcel will remain privately owned and maintained. Approximately 0.50± acres of impervious surface, including access drives and electrical equipment pads, will be constructed as part of the project. On-going reclamation during construction will consist of all activities listed in Section 1.III.A.1 for temporary actions. Permanent reclamation activities for the laydown area outside of the solar array shall follow the NYSDEC Deep-Ripping and Decompaction April 2008 guidance. Final stabilization is defined as the completion of all soil disturbance activities with the phase area having perennial vegetative cover with a density of eighty (80) percent, or other equivalent stabilization measures such as permanent landscape mulches, rock rip-rap or washed/crushed stone.

B. NOI PERMITTEE'S NAME AND ADDRESS

**TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC  
101 SUMMER STREET, 2ND FLOOR  
BOSTON, MA 02110**

C. PROJECT DESCRIPTION

The project will involve the installation of a 2.5 MW (ac) Solar array on an approximately 54.66-acre site. The design will include a fenced solar development footprint of approximately 11.00 acres. The installation will also include associated infrastructure such as a concrete equipment pad, a wooden chain link fence and gravel access road. Soil disturbing activities will include:

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TOP HAT ENERGY PROJECT**

1. Construction of stabilized construction access points
2. Clearing and grubbing
3. Construction of roadways
4. Installation of solar modules
5. Construction of stormwater areas
6. Construction of utilities on site
7. Final grading

**D. RUNOFF COEFFICIENT, SOILS, AND RAINFALL INFORMATION**

Soil within the project area consists of excessively drained sandy soil that fall in the hydrologic group A, as described by the Soil Conservation Service.

Two infiltration testing were performed by Environmental Design Partnership on September 28, 2026. The two infiltration tests, IT#1 and IT#2, were performed, with the stabilized infiltration rate determine to be 286 and 171 inches per hour respectively within the proposed stormwater management area. To be conservative, an infiltration rate of 10 inches per hour has been used for the pond design calculations. The Site Soil Data information is included in Section 6.

The site is in Saratoga County, which receives an average of 44 inches of rainfall annually with the highest amounts of rainfall received in the months of June and July.

**E. NAME OF RECEIVING WATERS**

Drainage will be directed via an on-site infiltration basin with overflow directed to a minor tributary to Hudson River.

**F. INDIAN COUNTRY LANDS**

The site is not located on any known current or previously designated Indian Country lands.

**G. ENDANGERED OR THREATENED SPECIES**

A review of the New York State Department of Environmental Conservation's (NYSDEC) Environmental Resource Mapper (<http://www.dec.ny.gov/imsmaps/ERM/viewer.htm>) indicated no known State regulated rare plants, rare animals or significant natural communities on, or within the immediate vicinity of, the site. A copy of the information obtained from the ERM is attached within Section 6 of the SWPPP. Based on direct communication with NYSDEC Staff, and as acknowledged on the ERM Assessment document, if the project site is not located within the buffered radius of any documented occurrence of a state listed rare plant or animal, then the Natural Heritage Database does not possess any records of species presence and no further consultation with the New York Natural Heritage Office is required.

Consultation with the U.S. Fish and Wildlife Service relative to federally listed endangered and threatened species also occurred. In a response letter (dated June 11, 2026) the USFWS reveals the potential for three referenced species to be located at, or in the vicinity of, the subject property. These species include the Indiana Bat (endangered), Tricolored Bat (proposed endangered) and the Monarch Butterfly (Proposed Threatened).

The project was evaluated using the USFWS Northeast Determination Key. Based on the information provided for the proposed action, the Indiana bat received a "May Affect" determination. The Technical Assistance Letter notes that further coordination with the USFWS is voluntary and may help identify measures to avoid incidental take if necessary. The Tricolored bat and Monarch butterfly were identified as species that may be present within the action area but are not covered by the determination. Copies of the USFWS Official Species List and Technical Assistance Letter are provided in Section 6.

A review of the New York Natural Heritage Program (NYSNHP) database found no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity. The NYSNHP notes that the absence of records does not constitute confirmation that such resources are absent and that additional field investigations may be warranted depending on site conditions. A copy of the NYSNHP correspondence is included in Section 6. \

**All tree clearing activities shall be performed only between November 1<sup>st</sup> to March 31<sup>st</sup>, to avoid impacts to federally listed bat species.**

#### H. HISTORIC PLACES

A review of the project was conducted by the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). In correspondence dated August 31, 2026, OPRHP determined that no archaeological or historic resources listed in or eligible for the New York State or National Registers of Historic Places will be impacted by the project. A copy of the OPRHP No Effect Letter is included in Section 6.

#### I. CLIMATE CHANGE RESILIENCY PLANNING

With the Community Risk and Resiliency Act (CRRRA) being adopted in New York State, TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC has demonstrated consideration of several future risks due to the effects of climate change.

Increasing Temperature: During development of the solar layout, approximately 40.75 acres were designated as undisturbed land, with portions remaining forested to help moderate local temperatures and reduce heat absorption. The proposed access roadway includes only 0.50± acres of impervious surfaces, minimizing the Urban Heat Island effect to the maximum extent practicable.

Stormwater management features, including infiltration basin and grass filter strip, are designed to infiltrate and treat stormwater on-site. These green infrastructure systems reduce runoff and help prevent thermal impacts to nearby heat sensitive aquatic environments

Increasing Precipitation: The use of infiltration basin and grass filter strip will allow to attenuate the amount of runoff and water quality pollution from leaving the site. TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC will provide the proper long-term operation/maintenance procedures to ensure conveyance systems will not be overwhelmed during large and more frequent storm events.

Rising Sea Level: According to the FEMA Flood Insurance Rate Map (Map No. 36091C0215 E) the project area is located within Zone X (unshaded), which is considered to be outside of the 500-year floodplain, see Section 6. As such, there will also be no increase in storm surge within the project limits.

Shifting Ecology: The proposed project will convert portions of the existing forested habitat to a solar energy facility, resulting in localized changes to habitat composition and vegetation. However, development will remain confined to the approved limits of disturbance, while undeveloped areas and perimeter vegetative buffers will continue to provide habitat and connectivity for local wildlife. Temporary construction-related impacts will be minimized through implementation of erosion and sediment controls, restoration of disturbed areas, and revegetation with appropriate seed mixes. Based on the NYSNHP review and USFWS coordination discussed above, the project is not anticipated to result in significant long-term adverse impacts to the ecological function of the site.

### III. CONTROLS

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#### A. EROSION AND SEDIMENT CONTROLS

The following section describes the anticipated Erosion and Sediment Controls required for use during construction of the proposed site. These controls represent the **MINIMUM** erosion and sediment control measures that will be required to protect the site during construction. **Additional erosion and sediment control measures will be necessary during construction.** It will be the responsibility of the NOI permittee to authorize the CONTRACTOR to implement all additional erosion and sediment control measures necessary to protect the site during construction.

1. Stabilization practices include (but not limited to):
  - a) Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed
  - b) Frequent watering of excavation and fill areas to minimize wind erosion during construction.
  - c) Use of stabilization fabric for all slopes having a slope of 1V:3H or greater.
  - d) Seeding and planting of all unpaved areas
    - Temporary seedings should be made within 24 hours of construction or disturbance. If not, the soil must be scarified prior to seeding.
    - Broadcasting or hydroseeding may be used as seeding methods.
    - Seeding mixtures should be as follows
      - a) Ryegrass (annual or perennial) applied at 30 lbs. per acre (0.7 lbs./1000 sq. ft.)
      - b) Certified "Aroostook" winter rye (cereal rye) applied at 100 lbs. per acre (2.5 lbs./1000 sq. ft.) \*Winter rye shall be used if seeding in November/November.
  - e) Topsoiling
    - Scarify all compact, slowly permeable, medium and fine textured subsoil areas. Scarify at approximately right angles to the slope direction in soil areas that are steeper than 5 percent.
    - Remove refuse, woody plant parts, stones over 3 inches in diameter, and other litter.
    - Topsoil material shall have at least 2 percent by weight of fine textured stable organic material, and no greater than 6 percent.
    - Topsoil shall have no less than 20 percent fine textured material (passing the No. 200 sieve) and not more than 15 percent clay.
    - Topsoil shall not be placed when it is partly frozen, muddy, or on frozen slopes or over ice, snow, or standing water.
  - f) Mulching
    - For grass / legume establishment apply straw mulch applied at 2 ton/acre (90 lbs./1000 sq. ft.) and anchor with wood fiber mulch (hydromulch) at 500-750 lbs./acre (11 – 17 lbs./1000 sq. ft.)
  - g) Protecting Vegetation During Construction
    - Limit soil placement over existing tree and shrub roots to a maximum of 3 inches.
    - Use retaining walls and terraces to protect roots of trees and shrubs when grades are lowered. Lowered grades should start no closer than the dripline of the tree.
    - Avoid trenching within the dripline of the tree.
    - Construction limits should be identified and clearly marked to exclude equipment.
2. Structural practices include (but not limited to):
  - a) Perimeter protection using silt fences
    - See detail on Erosion and Sediment Control Plans
  - b) Stabilized construction exit points
    - Aggregate size shall be 2 inch stone or reclaimed / recycled concrete equivalent
    - Thickness shall be not less than 6 inches
    - Width to be the full width of the access point, but not less than 12 ft



- Length shall be as required, but not less than 50 ft.
  - Filter cloth shall be applied over the entire area to be covered with aggregate
  - The entrance shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. When necessary, wheels must be cleaned to remove sediment prior to entrance onto public rights-of-way.
- c) Infiltration basin
  - d) Grass filter strip
  - e) Overland flow dispersion devices
  - f) Stone Check Dam
    - Use graded stone 2 to 15 inches in size
    - Sediment accumulated behind the check dam shall be removed as needed to allow drainage through the check dam and prevent large flows from carrying sediment over the dam.

### 3. Sequence of Major Activities

The CONTRACTOR will be responsible for implementing erosion and sediment control measures outlined in the SWPPP and any additional erosion and sediment control measures required to stabilize the site. The CONTRACTOR may designate these tasks to certain subcontractors as appropriate, but the ultimate responsibility for implementing these controls and ensuring their proper functioning remains with the CONTRACTOR. The order of activities will be as follows (refer to Stormwater Pollution Prevention Plan Sheet contained in this SWPPP for additional details):

- a) Construct temporary construction exits at locations shown on the SWPPP plan sheet.
- b) Install perimeter silt fences.
- c) Begin clearing and grubbing operations. Clearing and grubbing shall be done only in areas where earthwork will be performed and only in areas where building is planned to commence within 7 days after clearing and grubbing. Clearing and grubbing operations shall be limited so that no more than 5 acres of disturbed soil exists at any one time without prior written approval from the NYSDEC.
- d) Frequent watering of the excavation and fill areas shall be done to minimize wind erosion.
- e) Commence site grading and solar panel construction.
- f) Disturbed areas of the site where construction activity has ceased for more than 7 days should be temporarily seeded and watered.
- g) Finalize access road subgrade preparation.
- h) Install base material as required for pavement.
- i) Carry out final grading and seeding and planting, including stormwater management areas.
- j) Remove silt fencing only after all paving is complete and exposed surfaces are stabilized.
- k) Remove temporary construction exits only prior to pavement construction in these areas (These areas are to be paved last).

### 4. Stormwater Management

The proposed stormwater management system was designed by The Environmental Design Partnership, Clifton Park, NY. The following paragraphs summarize the stormwater management measures to be incorporated on the site to control pollutants in stormwater discharges after

construction is completed. A copy of the Stormwater Management Report is enclosed under Section 6 – Supplemental Information.

Two (2) stormwater management areas, constructed as one (1) infiltration basin and one (1) grass filter strip, will be constructed. The stormwater management areas have designed to capture and treat the water quality storm event runoff from the project site as per NYSDEC guidance.

5. Post-Construction Maintenance of the Stormwater Management System

Post construction maintenance and protection of the Stormwater Management System shall be performed in accordance with Section VI. LONG TERM OPERATION AND MAINTENANCE PROCEDURES of the SWPPP.

B. OTHER CONTROLS

1. Waste Disposal

All waste materials will be collected and stored in a securely lidded metal dumpster rented from a local waste management company which must be a solid waste management company licensed to do business in New York State. The dumpster will comply with all local and state solid waste management regulations.

All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as often as necessary, and the trash will be hauled to a landfill approved by New York State and the local government authority. No construction waste materials will be buried on site. All personnel will be instructed regarding the correct procedures for waste disposal. Notices stating these practices will be posted in the job site construction office trailer, and the job site superintendent will be responsible for seeing that these procedures are followed.

2. Sanitary Waste

All sanitary waste will be collected from the portable units a minimum of two times per week by a licensed portable facility provider in complete compliance with local and state regulations.

3. Off-Site Vehicle Tracking

A stabilized construction exit will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the site entrance will be inspected daily and swept as necessary to remove any excess mud, dirt, or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin. The job site superintendent will be responsible for seeing that these procedures are followed.

4. Concrete Waste From Concrete Trucks

a) Emptying of excess concrete and/or washout from concrete delivery trucks will be allowed on the job site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or washout and stormwater which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

b) The hardened residue from the concrete washout diked areas will be disposed of in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations. The job site superintendent will be responsible for seeing that these procedures are followed.

5. Hazardous Substances and Hazardous Waste

- a) All hazardous waste materials will be disposed of by the CONTRACTOR in the manner specified by local, state, and/or federal regulations and by the manufacturer of such products. Site personnel will be instructed in these practices by the job site superintendent, who will also be responsible for seeing that these practices are followed. Material Safety Data Sheets (MSDS's) for each substance with hazardous properties that is used on the job site will be obtained and used for the proper management of potential wastes that may result from these products. An MSDS will be posted in the immediate area where such product is stored and/or used and another copy of each MSDS will be maintained in the SWPPP file at the job site construction trailer office. Each employee who must handle a substance with hazardous properties will be instructed on the use of MSDS sheets and the specific information in the applicable MSDS for the product he/she is using, particularly regarding spill control techniques.
- b) The CONTRACTOR will implement the Spill Prevention Control and Countermeasures (SPCC) Plan found within this SWPPP and will train all personnel in the proper cleanup and handling of spilled materials. No spilled hazardous materials or hazardous wastes will be allowed to come in contact with stormwater discharges. If such contact occurs, the stormwater discharge will be contained on site until appropriate measures in compliance with state and federal regulations are taken to dispose of such contaminated stormwater. It shall be the responsibility of the job site superintendent to properly train all personnel in the use of the SPCC plan.
- c) Any spills of hazardous materials which are in quantities in excess of Reportable Quantities as defined by EPA regulations shall be immediately reported to the EPA National Response Center 1-800-424-8802.
- d) In order to minimize the potential for a spill of hazardous materials to come into contact with stormwater, the following steps will be implemented:
  - All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, cleaning solvents, additives for soil stabilization, concrete curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use. All such materials shall have secondary containment to prevent contamination of soil and runoff.
  - The minimum practical quantity of all such materials will be kept on the job site.
  - A spill control and containment kit (containing, for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.
  - All of the product in a container will be used before the container is disposed of. All such containers will be triple-rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with stormwater discharges.
  - All products will be stored in and used from the original container with the original product label.
  - All products will be used in strict compliance with instructions on the product label.
  - The disposal of excess or used products will be in strict compliance with instructions on the product label.

6. Contaminated Soils

- a) Any contaminated soils (resulting from spills of materials with hazardous properties) which may result from construction activities will be contained and cleaned up immediately in accordance with the procedures given in the Spill Prevention Control and Countermeasures (SPCC) Plan and in accordance with applicable state and federal regulations.
- b) The job site superintendent will be responsible for seeing that these procedures are followed.

**IV. COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS**

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- A. The CONTRACTOR will obtain copies of any and all local and state regulations that are applicable to stormwater management, erosion control, and pollution minimization at this job site and will comply fully with such regulations. The CONTRACTOR will submit written evidence of such compliance if requested by any agent of a regulatory body. The CONTRACTOR will comply with all conditions of the New York State Department of Environmental Conservation SPDES General Permit for Construction Activities, including the conditions related to maintaining the SWPPP and evidence of compliance with the SWPPP at the job site and allowing regulatory personnel access to the job site and to records in order to determine compliance.

**V. MAINTENANCE/INSPECTION PROCEDURES DURING CONSTRUCTION**

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- A. Erosion and Sediment Control and Stabilization Measures Maintenance and Inspection Practices
- 1. The following is a list of erosion and sediment controls to be used on this site during construction practice.
    - a) Stabilization practices for this site include:
      - o Land clearing activities shall be done only in areas where earthwork will be performed and shall progress as earthwork is needed
      - o Frequent watering of excavation and fill areas to minimize wind erosion during construction.
      - o Use of stabilization fabric for all slopes having a slope of 1V:3H or greater.
      - o Permanent seeding and planting of all unpaved areas using the hydromulching grass seeding technique.
    - b) Structural practices for this site include:
      - o Perimeter protection using silt fences
      - o Inlet protection and outlet protection using silt fences
      - o Overland flow dispersion devices
      - o Stabilized construction exit points
      - o Stormwater detention ponds (which may also serve as a temporary sediment basin)
  - 2. The following inspection and maintenance practices will be used to maintain erosion and sediment controls and stabilization measures.
    - a) All control measures will be inspected once every seven (7) days at a minimum. Sites that have a waiver to disturb greater than five (5) acres require two (2) inspections every seven (7) days with at least two (2) days between inspections.
    - b) All measures will be maintained in good working order; if repairs are found to be necessary, they will be initiated within 24 hours of report.
    - c) Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
    - d) Silt fences will be inspected for depth of sediment, tears, etc., to see if the fabric is securely attached to the fence posts, and to see that the fence posts are securely in the ground.
    - e) The sediment basins will be inspected for depth of sediment, and built up sediment will be removed when it reaches 50 percent of the capacity.
    - f) Temporary and permanent seeding and all other stabilization measures will be inspected for bare spots, washouts, and healthy growth.

- g) A maintenance inspection report will be made after each inspection. Copies of the report forms to be completed by the inspector are included in this SWPPP.
- h) The job site superintendent will be responsible for selecting and training the individuals who will be responsible for these inspections, maintenance and repair activities, and filling out inspection and maintenance reports.
- i) Personnel selected for the inspection and maintenance responsibilities will receive appropriate instruction from the job site superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls that are used onsite in good working order. They will also be trained in the completion of, initiation of actions required by, and the filing of the inspection forms. Documentation of this personnel training will be kept on site with the SWPPP.
- j) Disturbed areas and material storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.
- k) Report to the NYS Department of Environmental Conservation within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event.

#### B. Inspection and Maintenance Report Forms

Once installation of any required or optional erosion control device or measure has been implemented, weekly inspections of each measure shall be performed by the CONTRACTOR'S inspection personnel. The Inspection and Maintenance Reports found in this SWPPP shall be used by the inspectors to inventory and report the condition of each measure to assist in maintaining the erosion and sediment control measures in good working order.

These report forms shall become an integral part of the SWPPP and shall be made readily accessible to governmental inspection officials, the NOI Permittee's Engineer, and the NOI Permittee for review upon request during visits to the project site. In addition, copies of the reports shall be provided to any of these persons, upon request, via mail or facsimile transmission. Inspection and maintenance report forms are to be maintained by the NOI Permittee for five years following the final stabilization of the site.

#### C. Other Record-Keeping Requirements

The CONTRACTOR shall keep the following records related to construction activities at the site:

- Dates when major grading activities occur and the areas that were graded
- Dates and details concerning the installation of structural controls
- Dates when construction activities cease in an area
- Dates when areas are stabilized, either temporarily or permanently
- Dates of rainfall and the amount of rainfall
- Dates and descriptions of the character and amount of any spills of hazardous materials
- Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled

#### D. Winter Operations

The following is a list of erosion and sediment controls and inspection and maintenance practices for winter operations for this site.

- a) **Prior to November 1<sup>st</sup> of any given year all exposed soil areas must be covered with:**
  - o Mulch
  - o Seed and mulch
  - o Geotextile
  - o Erosion control matting
  - o Rock or
  - o Other approved mulch to prevent soil from eroding

- b) Mulch shall be installed at twice the typical rate (4 tons/acre for straw mulch, double the manufacturer's recommended rate for other mulches).
- c) Install sediment barriers (silt fence or drop inlet protection) at ALL necessary perimeter and sensitive locations BEFORE SOIL FREEZES.
- d) Slopes and Stockpiles:
  - o Protect slopes and stockpiles with anchored straw or mulch, rolled erosion control product or other durable covering.
  - o Sediment barrier must be installed around piles and at slope toes to prevent soil transport from the pile or slope.
  - o Stabilize exposed areas BEFORE snow covers them.
- e) All entrance/exit locations must be properly stabilized and maintained to accommodate snow management.
- f) In areas where soil work has stopped temporarily or permanently, soil stabilization should begin by the end of the next business day and be finished within three days.
- g) Inspections:
  - o If soil disturbance is COMPLETELY suspended AND site is PROPERLY STABILIZED, qualified inspection frequency may be reduced with written notification to NYSDEC or MS4.
  - o Confirmation must be received from NYSDEC prior to reducing inspection frequency.
  - o Monthly inspections must be performed at a minimum.
  - o Sediment control measures should be checked after rain or snowmelt events.
  - o Regular inspections must resume by March 15<sup>th</sup>.

## **VI. LONG TERM OPERATION AND MAINTENANCE PROCEDURES**

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The proposed TOP HAT ENERGY will be PRIVATELY OWNED, and the operation and maintenance requirements will be the responsibility of the private owner.

The entire Stormwater Management System shall be inspected on a yearly basis to ensure that the system operates in the manner originally intended. Specific components of the system shall require additional attention as described below.

1. Vegetated Filter Strip
  - a. Vegetated Filter Strips shall be inspected annually and following major storm events to ensure the system operates in the manner originally intended.
  - b. Debris and litter shall be removed from the filter strip and gravel diaphragm as necessary.
  - c. Accumulated sand, grit and/or debris shall be removed from the filter strip and gravel diaphragm if present.
  - d. If rill erosion is present, fill in areas with native soil and reseed as required. Gravel diaphragm shall be increased in width above rill erosion locations to ensure sheet flow onto the vegetated filter strip.
2. Infiltration basins
  - e. Basins shall be inspected annually and following major storm events to ensure the system operates in the manner originally intended. The inspection should include, but not be limited to, the following components; all outlet orifices, embankment, emergency spillway, drain, accumulation of sediment, and general erosion control measures.
  - f. Re-grading and re-vegetation shall be performed as necessary and rip-rap shall be replaced as necessary.

- g. Embankments shall be mowed a minimum of twice per year to discourage woody growth and control weeds.
- h. Debris and litter shall be removed from basins during regular mowing operations or more frequently as necessary.
- i. Accumulated sediment shall be removed from the wet pond area when 10 percent of the basin capacity has been lost due to sedimentation or at a minimum of every 10 to 20 years.

3. Soil Restoration

- a. Soil restoration has been called for throughout the site in accordance with Chapter 5 of the NYS Stormwater Management Design Manual. The soils on the site are classified as HSG D, therefore aeration and topsoil are needed in areas of topsoil stripping where grades are not altered. In areas of cut/fill and high traffic areas that are to remain pervious especially around the proposed houses and equipment storage areas, the soils shall be fully restored by tilling compost into the sub-soils prior to applying topsoil and vegetating. By applying these methods to the soils on the site the original properties and porosity of the soils will be recovered, which will allow for an improvement in the soil infiltration as well as lawn and landscaping sustainability.

**STORMWATER POLLUTION PREVENTION PLAN  
SUMMARY OF EROSION AND SEDIMENT CONTROL AND STABILIZATION MEASURES  
MAINTENANCE/INSPECTION PROCEDURES**

- ☐ All control measures will be inspected at least once every seven (7) days. Sites that have a waiver to disturb greater than five (5) acres require two (2) inspections every seven (7) days with at least two (2) days between inspections.
- ☐ All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- ☐ Built-up sediment will be removed from silt fences when it has reached one-third the height of the fence.
- ☐ Silt fences will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- ☐ Sediment basins, if present, will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 50% of the design capacity or at the end of the job.
- ☐ Diversion dikes, if present, will be inspected and any breaches promptly repaired.
- ☐ Temporary and permanent seeding and planting and other stabilization measures will be inspected for bare spots, washouts, and healthy growth.
- ☐ A maintenance inspection report will be made after each inspection. Copies of the report forms to be used are included in this SWPPP.
- ☐ The site job superintendent will select the individuals who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance reports.
- ☐ Personnel selected for inspection and maintenance responsibilities will receive training from the site job superintendent. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
- ☐ Disturbed areas and materials storage areas will be inspected for evidence of or potential for pollutants entering stormwater systems.
- ☐ Report to The Department of Environmental Conservation within 24 hours any noncompliance with the SWPPP that will endanger public health or the environment. Follow up with a written report within 5 days of the noncompliance event.



**STORMWATER POLLUTION PREVENTION PLAN**  
**CONSTRUCTION/IMPLEMENTATION CHECKLIST**

1. Maintain Records (Project Manager) of Construction Activities, including:
  - ☐ Dates when major grading activities occur
  - ☐ Dates when construction activities temporarily cease on a portion of the site
  - ☐ Dates when construction activities permanently cease on a portion of the site
  - ☐ Dates when stabilization measures are initiated on the site
  - ☐ Dates of rainfall and the amount of rainfall
  - ☐ Dates and descriptions of the character and amount of any spills of hazardous materials
  - ☐ Records of reports filed with regulatory agencies if reportable quantities of hazardous materials spilled
2. Prepare Inspection Reports (Qualified Inspector) summarizing:
  - ☐ Name of inspector
  - ☐ Qualifications of inspector
  - ☐ Measures/areas inspected
  - ☐ Observed conditions
  - ☐ Changes necessary to the SWPPP
3. Report Releases of Reportable Quantities of Oil or Hazardous Materials (Project Manager, if they occur):
  - ☐ Notify National Response Center (1-800-424-8802) immediately
  - ☐ Notify permitting authority in writing within 14 days
  - ☐ Modify the pollution prevention plan to include:
    - the date of release
    - circumstances leading to the release
    - steps taken to prevent reoccurrence of the release
4. Modify Pollution Prevention Plan (per Qualified Inspector) as necessary to:
  - ☐ Comply with the minimum permit requirements when notified by The Department of Environmental Conservation that the plan does not comply
  - ☐ Address a change in design, construction operation, or maintenance that has an effect on the potential for discharge of pollutants
  - ☐ Prevent reoccurrence of reportable quantity releases of a hazardous material or oil

## **VII. SPILL PREVENTION CONTROL AND COUNTERMEASURES (SPCC) PLAN**

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### **A. MATERIALS COVERED**

The following materials or substances with known hazardous properties are expected to be present onsite during construction:

|                              |                          |
|------------------------------|--------------------------|
| Concrete                     | Cleaning solvents        |
| Detergents                   | Petroleum based products |
| Paints                       | Pesticides               |
| Paint solvents               | Acids                    |
| Fertilizers                  | Concrete additives       |
| Soil stabilization additives |                          |

### **B. MATERIAL MANAGEMENT PRACTICES**

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff.

#### **1. Good Housekeeping**

The following good housekeeping practices will be followed onsite during the construction project.

- a) An effort will be made to store only enough product required to do the job.
- b) All materials stored onsite will be stored in a neat, orderly manner and, if possible, under a roof or other enclosure.
- c) Products will be kept in their original containers with the original manufacturer's label in legible condition.
- d) Substances will not be mixed with one another unless recommended by the manufacturer.
- e) Whenever possible, all of a product will be used up before disposing of the container.
- f) Manufacturer's recommendations for proper use and disposal will be followed.
- g) The job site superintendent will be responsible for daily inspections to ensure proper use and disposal of materials.

#### **2. Hazardous Products**

These practices will be used to reduce the risks associated with hazardous materials.

- a) Products will be kept in original containers with the original labels in legible condition.
- b) Original labels and material safety data sheets (MSDS's) will be procured and used for each material.
- c) If surplus product must be disposed of, manufacturer's or local/state/federal recommended methods for proper disposal will be followed.
- d) A spill control and containment kit (containing, for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided at the storage site.

- e) All of the product in a container will be used before the container is disposed of. All such containers will be triple-rinsed with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with stormwater discharges.

### 3. Product Specific Practices

The following product specific practices will be followed on the job site.

#### a) Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any petroleum storage tanks used onsite will have a dike or berm containment structure constructed around it to contain any spills that may occur. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

#### b) Fertilizers

Fertilizers will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked in the soil to limit exposure to stormwater. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

#### c) Paints, Paint Solvents, and Cleaning Solvents

All containers will be tightly sealed and stored when not in use. Excess paint and solvents will not be discharged to the storm sewer system but will be properly disposed of according to manufacturer's instructions or state and federal regulations.

#### d) Concrete Trucks

Concrete trucks will be allowed to wash out or discharge surplus concrete or drum wash water on the site, but only in either (1) specifically designated diked areas which have been prepared to prevent contact between the concrete and/or washout and stormwater which will be discharged from the site or (2) in locations where waste concrete can be poured into forms to make riprap or other useful concrete products.

The hardened residue from the concrete washout diked areas will be disposed of in the same manner as other non-hazardous construction waste materials or may be broken up and used on site as deemed appropriate by the CONTRACTOR. The job site superintendent will be responsible for seeing that these procedures are followed.

### 4. Spill Prevention Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup.

- a) Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be trained regarding these procedures and the location of the information and cleanup supplies.
- b) Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite in spill control and containment kit (containing, for example, absorbent such as kitty litter or sawdust, acid neutralizing powder, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.).

- c) All spills will be cleaned up immediately after discovery.
- d) The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with the hazardous substances.
- e) Spills of toxic or hazardous materials will be reported to the appropriate federal, state, and/or local government agency, regardless of the size of the spill. Spills of amounts that exceed Reportable Quantities of certain substances specifically mentioned in federal regulations (40 CFR 302 list and oil) will be immediately reported to the EPA National Response Center, telephone 1-800-424-8802. Reportable Quantities of some substances which may be used at the job site are as follows:
  - oil - appearance of a film or sheen on water
  - pesticides - usually 1 lb.
  - acids - 5000 lb.
  - solvents, flammable - 100 lb.
- f) The SPCC plan will be adjusted to include measures to prevent this type of spill from recurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included. If the spill exceeds a Reportable Quantity, all federal regulations regarding reports of the incident will be complied with.
- g) The job site superintendent will be the spill prevention and cleanup coordinator. He will designate the individuals who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of these personnel will be posted in the material storage area and in the office trailer onsite.

#### **VIII. CONTROL OF ALLOWABLE NON-STORMWATER DISCHARGES**

- A. Certain types of discharges are allowable under the NYS Department of Environmental Conservation SPDES General Permit for Construction Activity, and it is the intent of this SWPPP to allow such discharges. These types of discharges will be allowed under the conditions that no pollutants will be allowed to come in contact with the water prior to or after its discharge. The control measures, which have been outlined previously in this SWPPP, will be strictly followed to ensure that no contamination of these non-stormwater discharges takes place. The following allowable non-stormwater discharges that may occur from the job site include:
  - a) Discharges from fire fighting activities
  - b) Fire hydrant flushings (see note below)
  - c) Waters used to wash vehicles or control dust in order to minimize offsite sediment tracking
  - d) Potable water sources such as waterline flushings (see note below), irrigation drainage from watering vegetation, routine exterior building washdown (without detergents present) (See Note below)
  - e) Pavement washwaters where spills or leaks of hazardous materials have not occurred or detergents have not been used
  - f) Springs and other uncontaminated groundwater, including dewatering ground water infiltration
  - g) Foundation or footing drains where no contamination with process materials such as solvents is present

NOTE: CONTRACTOR shall neutralize any super-chlorinated water from water distribution pipes before releasing it into the environment. Neutralization techniques are available from the Operator's Engineer.

## **IX. CERTIFICATION AND NOTIFICATION**

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- A. The NYS Department of Environmental Conservation requires that certifications of knowledge of the contents of this SWPPP and agreement to follow the SWPPP be made by the NOI Permittee and the CONTRACTOR. The terms of the General Permit also require that each CONTRACTOR sign the SWPPP plan, (Form 3) thereby making them co-permittees and acknowledging their responsibility for certain operational aspects of the plan. These certifications should be signed before the CONTRACTOR begins activities and should be filed with the site's SWPPP at the jobsite. These certifications are provided within this document, see Table of Contents for location.

## **SECTION 2**

### **Erosion and Sedimentation Control Plan Site Map and General Location Map**

## Site Location Map

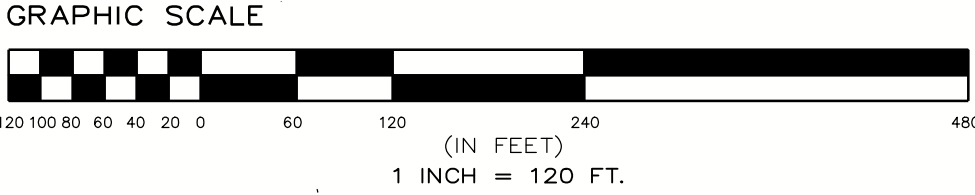






EROSION AND SEDIMENT CONTROL PLAN LEGEND

- EXISTING GRADE (2-FOOT CONTOUR)
- GRAVEL ACCESS ROAD
- USACE WETLAND AREAS
- DENOTES 100 FT WETLAND BUFFER AREA
- SOLAR PANEL TRACKER (BY OTHERS)
- MV MEDIUM VOLTAGE TRENCH (BY OTHERS)
- LV LOW VOLTAGE TRENCH (BY OTHERS)
- DENOTES STORMWATER MANAGEMENT FACILITY NOTIFICATION SIGN AND EMERGENCY CONTACT SIGN
- FIXED KNOT FARM FENCE
- LIMITS OF DISTURBANCE
- PERMANENT OVERLAND FLOW DISPERSION DEVICE
- PROPOSED CONTOUR
- SILT FENCE
- CONCRETE WASHOUT FACILITY



C-501 - EROSION AND SEDIMENT CONTROL PLAN

C-502 - EROSION AND SEDIMENT CONTROL PLAN

C-503 - EROSION AND SEDIMENT CONTROL PLAN

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| B   | REVISIONS PER PB COMMENTS | 8/27/2026 |
| C   | REVISIONS PER PB COMMENTS | 9/29/2026 |
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TOP HAT ENERGY

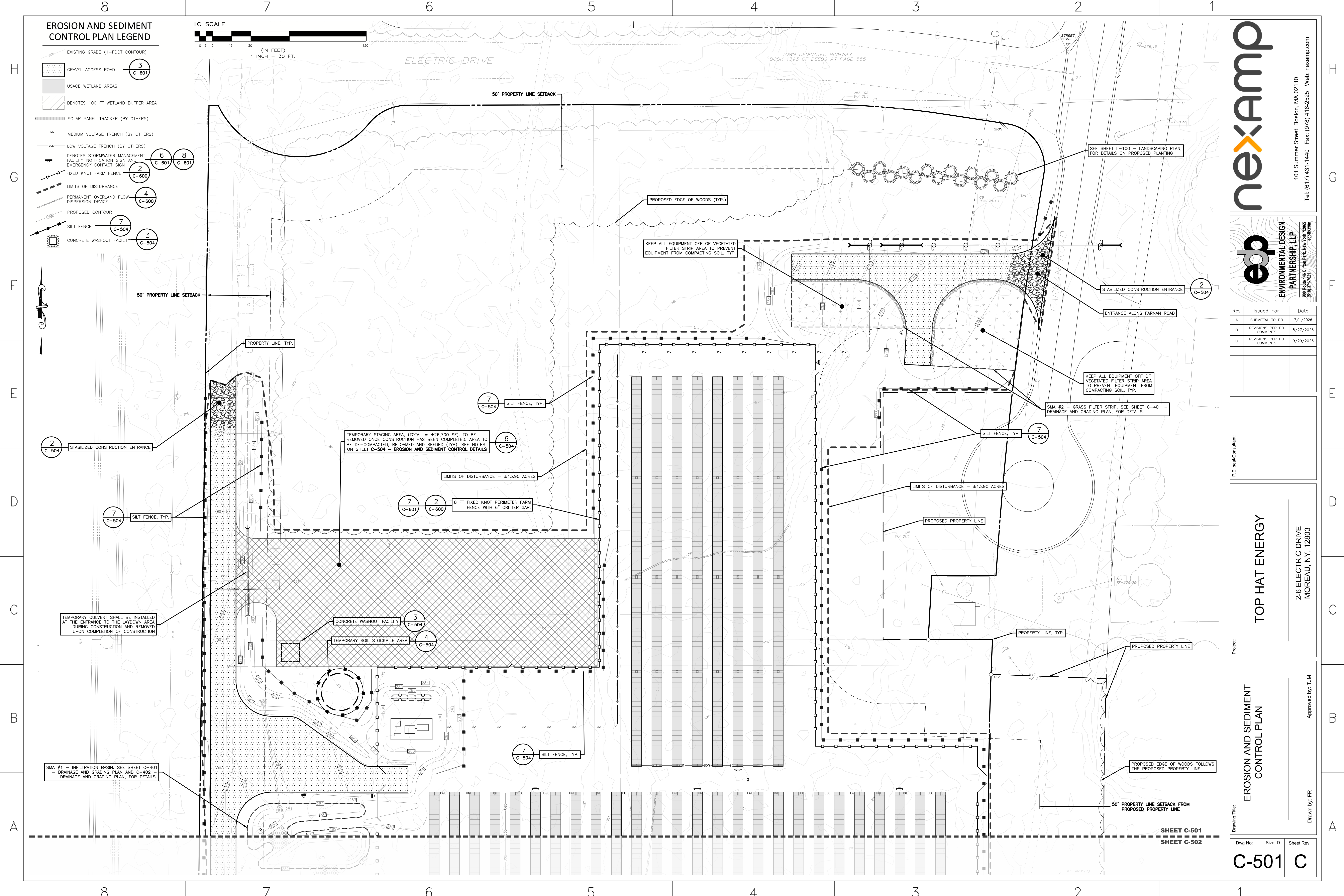
2-6 ELECTRIC DRIVE  
MOREAU, NY, 12803

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OVERALL EROSION AND  
SEDIMENT CONTROL PLAN

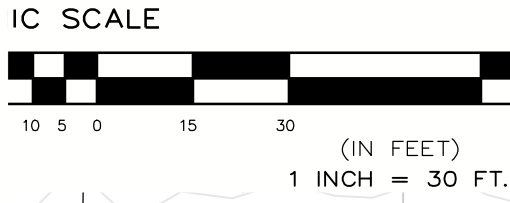
Approved by: TJM  
Drawn by: FR

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Size: D  
Sheet Rev: C





EROSION AND SEDIMENT CONTROL PLAN LEGEND



- EXISTING GRADE (1-FOOT CONTOUR)
- GRAVEL ACCESS ROAD (3) C-601
- USACE WETLAND AREAS (6) C-601, (8) C-601
- DENOTES 100 FT WETLAND BUFFER AREA
- SOLAR PANEL TRACKER (BY OTHERS)
- MV MEDIUM VOLTAGE TRENCH (BY OTHERS)
- LV LOW VOLTAGE TRENCH (BY OTHERS)
- DENOTES STORMWATER MANAGEMENT FACILITY NOTIFICATION SIGN AND EMERGENCY CONTACT SIGN (2) C-600, (6) C-601, (8) C-601
- FIXED KNOT FARM FENCE (2) C-600
- LIMITS OF DISTURBANCE (4) C-600
- PERMANENT OVERLAND FLOW DISPERSION DEVICE
- PROPOSED CONTOUR
- SILT FENCE (7) C-504
- CONCRETE WASHOUT FACILITY (3) C-504

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**TOP HAT ENERGY**

26 ELECTRIC DRIVE  
MOREAU, NY, 12803

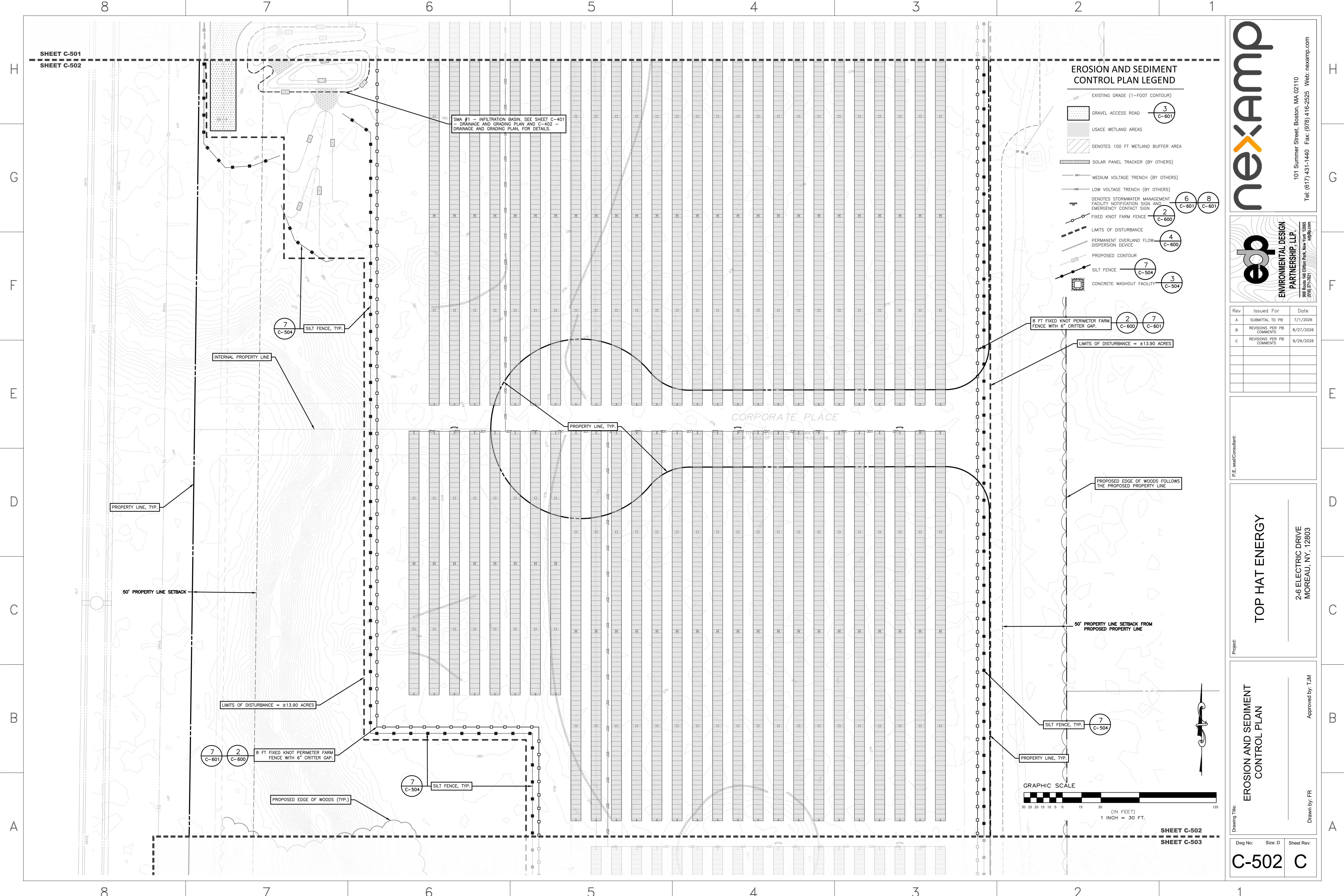
EROSION AND SEDIMENT CONTROL PLAN

Approved by: TJM

Drawn by: FR

Dwg No: C-501 Size: D Sheet Rev: C





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Project:  
**TOP HAT ENERGY**  
26 ELECTRIC DRIVE  
MOREAU, NY, 12803

Drawing Title:  
**EROSION AND SEDIMENT CONTROL PLAN**  
Approved by: TJM  
Drawn by: FR

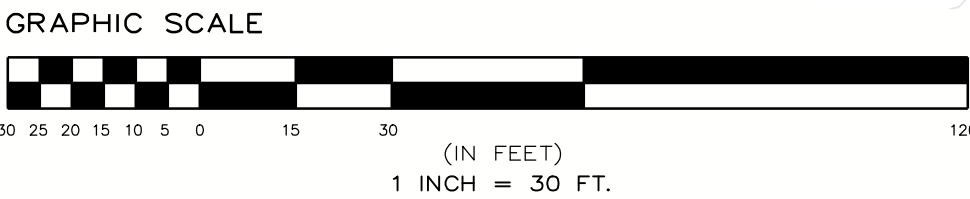
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EROSION AND SEDIMENT CONTROL PLAN LEGEND

- EXISTING GRADE (1-FOOT CONTOUR)
- GRAVEL ACCESS ROAD (3 C-601)
- USACE WETLAND AREAS
- DENOTES 100 FT WETLAND BUFFER AREA
- SOLAR PANEL TRACKER (BY OTHERS)
- MEDIUM VOLTAGE TRENCH (BY OTHERS)
- LOW VOLTAGE TRENCH (BY OTHERS)
- DENOTES STORMWATER MANAGEMENT FACILITY NOTIFICATION SIGN AND EMERGENCY CONTACT SIGN (6 C-601, 8 C-601)
- FIXED KNOT FARM FENCE (2 C-600)
- LIMITS OF DISTURBANCE (4 C-600)
- PERMANENT OVERLAND FLOW DISPERSION DEVICE
- PROPOSED CONTOUR
- SILT FENCE (7 C-504)
- CONCRETE WASHOUT FACILITY (3 C-504)



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P.E. seal/Consultant:

TOP HAT ENERGY

26 ELECTRIC DRIVE  
MOREAU, NY, 12803

EROSION AND SEDIMENT CONTROL PLAN

Approved by: TJM

Dwg No: C-503

Size: D

Sheet Rev: C



EROSION AND SEDIMENT CONTROL AND STABILIZATION MEASURES, MAINTENANCE AND INSPECTION PRACTICES:

1. THE FOLLOWING IS A LIST OF EROSION AND SEDIMENT CONTROLS TO BE USED ON THIS SITE DURING CONSTRUCTION:
- A) STABILIZATION PRACTICES FOR THIS SITE INCLUDE:

- LAND CLEARING ACTIVITIES SHALL BE DONE ONLY IN AREAS WHERE EARTHWORK WILL BE PERFORMED AND SHALL PROGRESS AS EARTHWORK IS NEEDED
  - FREQUENT WATERING OF EXCAVATION AND FILL AREAS TO MINIMIZE WIND EROSION DURING CONSTRUCTION
  - USE OF STABILIZATION FABRIC FOR ALL SLOPES HAVING A SLOPE OF 1V:2H OR GREATER AND FILL SLOPES 1V:3H OR GREATER
  - PERMANENT SEEDING AND PLANTING OF ALL UNPAVED AREAS USING THE HYDROMULCHING GRASS SEEDING TECHNIQUE.
- B) STRUCTURAL PRACTICES FOR THIS SITE INCLUDE:

- PERIMETER PROTECTION USING SILT FENCES
  - INLET PROTECTION AND OUTLET PROTECTION USING SILT FENCES
  - STABILIZED CONSTRUCTION EXIT POINTS
  - STORMWATER MANAGEMENT POND (WHICH MAY ALSO SERVE AS A TEMPORARY SEDIMENT BASIN)
2. THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS AND STABILIZATION MEASURES:
- A) ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST WEEKLY.

B) ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF REPAIRS ARE FOUND TO BE NECESSARY, THEY WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

C) BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCES / STRAW BARRIERS WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

D) SILT FENCES / STRAW BARRIERS WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, ETC., TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE SECURELY IN THE GROUND.

E) THE SEDIMENT BASIN, IF PRESENT, WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 90 PERCENT OF THE DESIGN CAPACITY.

F) TEMPORARY AND PERMANENT SEEDING AND ALL OTHER STABILIZATION MEASURES WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

G) A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. COPIES OF THE REPORT FORMS TO BE COMPLETED BY THE INSPECTOR ARE INCLUDED IN THIS SWPPP.

H) THE JOB SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR SELECTING AND HIRING THE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR THESE INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT INSPECTION AND MAINTENANCE REPORTS.

I) PERSONNEL SELECTED FOR THE INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE APPROPRIATE INSTRUCTION FROM THE JOB SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS THAT ARE USED ONSITE IN GOOD WORKING ORDER. THEY WILL ALSO BE TRAINED IN THE COMPLETION OF INITIATION OF ACTIONS REQUIRED BY, AND THE FILING OF THE INSPECTION FORMS. DOCUMENTATION OF THIS PERSONNEL TRAINING WILL BE KEPT ON SITE WITH THE SWPPP.

J) DISTURBED AREAS AND MATERIALS STORAGE AREAS WILL BE INSPECTED FOR EVIDENCE OF OR POTENTIAL FOR POLLUTANTS ENTERING STORMWATER SYSTEMS.

K) REPORT TO THE NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION WITHIN 24 HOURS ANY NONCOMPLIANCE WITH THE SWPPP THAT WILL ENDANGER PUBLIC HEALTH OR THE ENVIRONMENT. FOLLOW UP WITH A WRITTEN REPORT WITHIN 5 DAYS OF THE NONCOMPLIANCE EVENT.

ADDITIONAL EROSION CONTROL AND GRADING NOTES:

1. MINIMAL EROSION CONTROL DEVICES ARE ILLUSTRATED ON SITE PLAN IN A SCHEMATIC MANNER BASED ON NY STATE GUIDELINES FOR EROSION AND SEDIMENT CONTROL. IT WILL BE NECESSARY TO ADJUST THE ACTUAL LOCATION AND QUANTITY OF EROSION CONTROL DEVICES DEPENDING UPON FIELD CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THESE MEASURES AS REQUIRED TO PROTECT THE SITE.
2. SLOPES SHALL TYPICALLY BE GRADED AT A MAXIMUM OF 3:1 (3 HORIZ. 1 VERT.) WITHIN ALL CUT OR FILL AREAS, UNLESS OTHERWISE DESIGNATED ON PLANS.
3. SEEDING SHALL BE AS SPECIFIED ON SHEET L-100 LANDSCAPING PLAN OR APPROVED EQUAL.
4. SEEDED AREAS SHALL BE FULLY COVERED WITH A LEAN STRAW OR MULCH MATERIAL. IF ORDERED BY THE ENGINEER OR MUNICIPALITY, A BIODEGRADABLE NETTING (E.G., EXCELSIOR BLANKET, COIR GEOTEXTILE) SHALL BE ANCHORED OVER SEEDED AREAS WHICH DEMONSTRATE "RILLING" OR OTHER EROSION PROCESSES.
5. TOPSOIL AND SEED SHALL BE REAPPLIED TO ANY AREAS WHICH FAIL TO ESTABLISH AS A RESULT OF INITIAL APPLICATION.
6. SILT FENCE BARRIERS SHALL BE PLACED WITHIN ALL AREAS OF EXPOSED SLOPES TO CONTROL SOIL EROSION DURING AND AFTER CONSTRUCTION.
7. ALL STORM OUTFALLS SHALL RECEIVE RIP RAP IMMEDIATELY UPON INSTALLATION (AS PER PLAN).
8. EROSION CONTROL (ERO-MAT) OR APPROVED EQUAL, SHALL BE INSTALLED ON ALL 2:1 SLOPES: AN ORGANIC FIBER PROTECTIVE MAT, HALF INCH LAYER OF CHOPPED STRAW, KNITTED INTO A RUGGED MAT WITH A THIN NETTING OF PHOTODEGRADABLE POLYPROPYLENE. SECURE MAT TO SLOPE WITH 6" STEEL U-SHAPED STAPLES, 2 STAPLES PER SQUARE YARD, OR AS PER MANUFACTURER'S INSTRUCTIONS.
9. STREAM REACHES ON-SITE AND DOWNSTREAM OF CONSTRUCTION SHALL NOT HAVE SUBSTANTIAL VISIBLE CONTRAST RELATIVE TO COLOR, TASTE, ODOR, TURBIDITY AND SEDIMENT DEPOSITION FROM THE REACHES UPSTREAM OF THE CONSTRUCTION ACTIVITY.
10. VEHICULAR ACCESS POINTS SHALL BE MONITORED AND INSPECTED AT THE SAME FREQUENCY AS EROSION CONTROL FEATURES TO INSURE THAT DEPOSITS OF SAND, SILT OR OTHER MATERIAL IS NOT BEING DEPOSITED ON PUBLIC ROADWAYS. IN THE EVENT ANY SIGNIFICANT DEPOSITS OCCUR THEY SHALL BE CLEANED UP IMMEDIATELY.

SEQUENCE OF CONSTRUCTION ACTIVITIES:

- PRIOR TO BEGINNING CONSTRUCTION, THE OWNER WILL SUBMIT THE NOTICE OF INTENT FOR COVERAGE UNDER THE NYSDEC CONSTRUCTION GENERAL PERMIT.
1. SITE TO BE MOBILIZED.
2. EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED IN CONJUNCTION WITH ANY BRUSH OR TREE CLEARING REQUIRED. NOTE: EROSION AND SEDIMENT CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH SHEETS C-500 TO C-504 ASSOCIATED DETAILS AS WELL AS NYS DEC CONSTRUCTION GENERAL PERMIT #GP-0-25-001. IN ANY INSTANCE THAT A CONFLICT BETWEEN THESE TWO GUIDELINES IS PRESENT, THE MORE CONSERVATIVE GUIDELINE TAKES PRECEDENT.
3. CLEARING AND GRUBBING OPERATIONS CREW SHALL CHIP AND MULCH DIRECTLY BEHIND OPERATION TO MAKE SURE NO AREAS ABOVE FIVE ACRES SHALL BE DISTURBED AT ANY TIME. NO MORE THAN FIVE ACRES SHALL BE DISTURBED AT ANY ONE TIME WITHOUT PRIOR APPROVAL FROM NYSDEC.
4. INSTALLATION OF TEMPORARY LAYDOWN AREA AND ACCESS ROAD TO COMMENCE. NOTE: ANY AREAS OF DISTURBANCE SHALL BE STABILIZED WITH TEMPORARY SEEDING PER THE REQUIRED TIMELINES AS PER NYS DEC CONSTRUCTION GENERAL PERMIT #GP-0-25-001.
5. OVERLAND FLOW DISPERSION DEVICES, MU AND LV TRENCHES AND FOUNDATIONS INSTALLATION IN CONJUNCTION WITH THE PLACEMENT OF CONCRETE FOUNDATIONS FOR THE ELECTRICAL EQUIPMENT PADS TO COMMENCE.
6. WATERING OF THE EXCAVATION AND FILL AREAS SHALL BE DONE TO MINIMIZE WIND EROSION AS NEEDED THROUGHOUT CONSTRUCTION.
7. RACKING, TABLES, MODULES, INVERTERS AND ELECTRICAL EQUIPMENT INSTALLATION TO COMMENCE.
8. INSTALLATION OF FENCE, GATE, SIGNAGE, ETC. REMOVE LAYDOWN AREA, SPREAD GRAVEL ON ROADWAY, AND SEED AREAS.
9. FINAL SITE STABILIZATION TO COMMENCE.
10. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE REMOVED ONCE 80% VEGETATIVE COVER HAS BEEN ACHIEVED. REMOVE FILTER SOCKS, STABILIZED CONSTRUCTION ENTRANCES, AND OTHER TEMPORARY EROSION AND SEDIMENT CONTROLS. ANY RESULTING AREAS OF DISTURBANCE FROM SAID REMOVAL TO BE SEEDED PRIOR TO DEMOBILIZATION.
11. SITE TO BE DEMOBILIZED.

SOIL RESTORATION:

AS PER CHAPTER 5 OF THE NEW YORK STATE STORMWATER MANAGEMENT DESIGN MANUAL, SOIL RESTORATION IS REQUIRED ON THIS SITE IN ALL NON-IMPERVIOUS AREAS ONCE FINAL SUBGRADE ELEVATION IS ACHIEVED. IN AREAS OF CUT OR FILL, THE SOILS SHALL BE AERATED AND 6 INCHES OF TOPSOIL SHALL BE APPLIED. IN AREAS OF HEAVY CONSTRUCTION TRAFFIC (ESPECIALLY IN AREAS 5 TO 25 FEET FROM BUILDING, BUT NOT WITHIN 5 FEET OF FOUNDATION WALLS) THE FOLLOWING RESTORATION MUST BE APPLIED:

1. APPLY 3 INCHES OF COMPOST OVER SUBSOIL.
2. TILL COMPOST INTO 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 SOIL.
3. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF 4 INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
4. APPLY TOPSOIL TO A DEPTH OF 6 INCHES
5. VEGETATE AS REQUIRED BY APPROVED PLAN.

WINTER OPERATION/STABILIZATION:

- WINTER STABILIZATION PRACTICE APPLIES TO ALL CONSTRUCTION ACTIVITIES INVOLVED WITH ONGOING LAND DISTURBANCE AND EXPOSURE BETWEEN NOVEMBER 15th TO THE FOLLOWING APRIL 1st.
1. ENLARGE AND STABILIZE ACCESS POINTS TO PROVIDE FOR SNOW MANAGEMENT AND STOCKPILING. SNOW MANAGEMENT ACTIVITIES MUST NOT DESTROY OR DEGRADE INSTALLED EROSION AND SEDIMENT CONTROL PRACTICES.
2. A MINIMUM 25 FOOT BUFFER SHALL BE MAINTAINED FROM ALL PERIMETER CONTROLS SUCH AS SILT FENCE. MARK SILT FENCE WITH TALL STAKES THAT ARE VISIBLE ABOVE THE SNOW PACK.
3. EDGES OF DISTURBED AREAS THAT DRAIN TO A WATERBODY WITHIN 100 FEET WILL HAVE 2 ROWS OF SILT FENCE, 5 FEET APART, INSTALLED ON THE CONTOUR.
4. DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS. ALL DEBRIS, ICE DAMS, OR DEBRIS FROM PLOWING OPERATIONS, THAT RESTRICT THE FLOW OF RUNOFF AND MELTWATER, SHALL BE REMOVED.
5. SEDIMENT BARRIERS MUST BE INSTALLED AT ALL APPROPRIATE PERIMETER AND SENSITIVE LOCATIONS. SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED BEFORE THE GROUND FREEZES
6. SOIL STOCKPILES MUST BE PROTECTED BY THE USE OF ESTABLISHED VEGETATION, ANCHORED STRAW MULCH, ROLLED STABILIZATION MATTING, OR OTHER DURABLE COVERING. A BARRIER MUST BE INSTALLED AT LEAST 15 FEET FROM THE TOE OF THE STOCKPILE TO PREVENT SOIL MIGRATION AND TO CAPTURE LOOSE SOIL.
7. IN AREAS WHERE SOIL DISTURBANCE ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED, THE APPLICATION OF SOIL STABILIZATION MEASURES SHOULD BE INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN THREE (3) DAYS. ROLLED EROSION CONTROL BLANKETS MUST BE USED ON ALL SLOPES 3 HORIZONTAL TO 1 VERTICAL OR STEEPER.
8. IF STRAW MULCH ALONE IS USED FOR TEMPORARY STABILIZATION, IT SHALL BE APPLIED AT DOUBLE THE STANDARD RATE OF 2 TONS PER ACRE, MAKING THE APPLICATION RATE 4 TONS PER ACRE. OTHER MANUFACTURED MULCHES SHOULD BE APPLIED AT DOUBLE THE MANUFACTURER'S RECOMMENDED RATE.
9. TO ENSURE ADEQUATE STABILIZATION OF DISTURBED SOIL IN ADVANCE OF A MELT EVENT, AREAS OF DISTURBED SOIL SHOULD BE STABILIZED AT THE END OF EACH WORK DAY UNLESS:

A. WORK WILL RESUME WITHIN 24 HOURS IN THE SAME AREA AND NO PRECIPITATION IS FORECAST

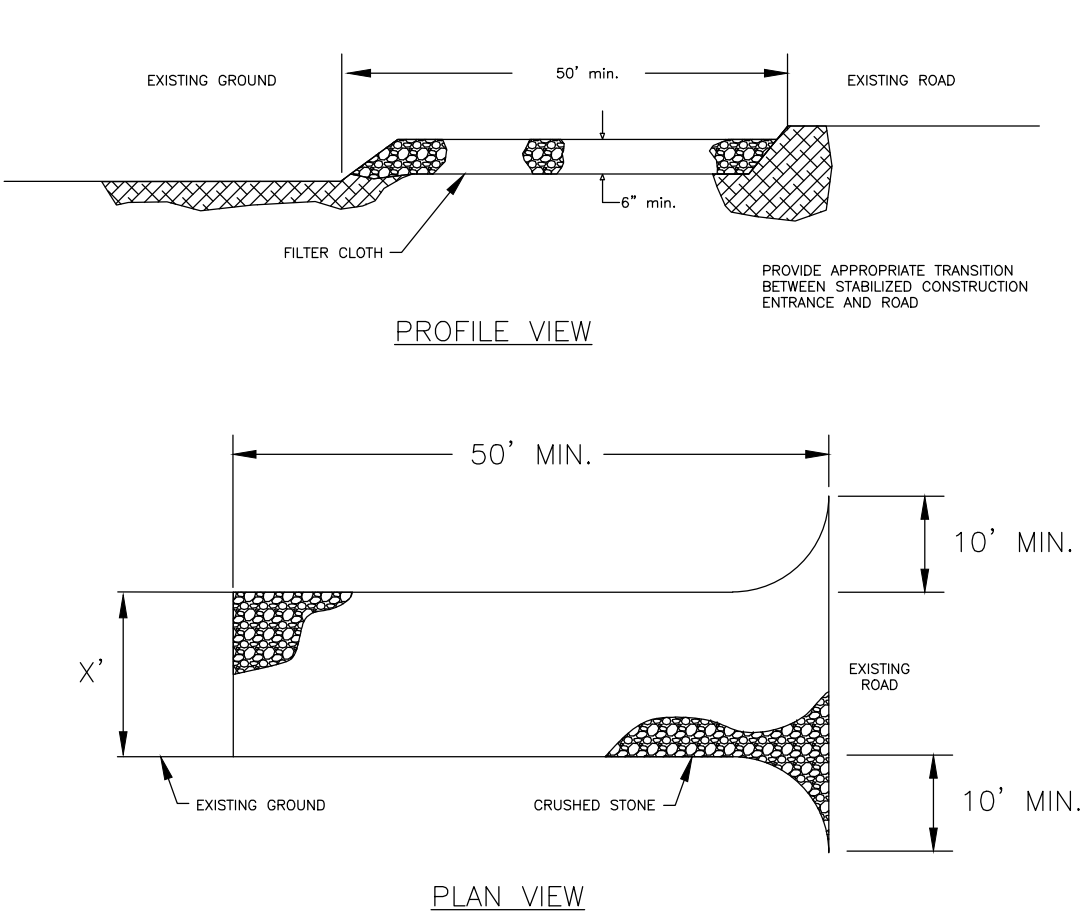
B. THE WORK IS IN DISTURBED AREAS THAT COLLECT AND RETAIN RUNOFF, SUCH AS OPEN UTILITY TRENCHES, FOUNDATION EXCAVATIONS, OR WATER MANAGEMENT AREAS.

MAINTENANCE:

THE SITE SHALL BE INSPECTED FREQUENTLY TO ENSURE THAT THE EROSION AND SEDIMENT CONTROL PLAN IS PERFORMING ITS WINTER STABILIZATION FUNCTION. IF THE SITE WILL NOT HAVE EARTH DISTURBING ACTIVITIES ONGOING DURING THE WINTER SEASON, ALL BARE EXPOSED SOIL MUST BE STABILIZED BY ESTABLISHED VEGETATION, STRAW OR OTHER ACCEPTABLE MULCH, MATTING, ROCK, OR OTHER APPROVED MATERIAL SUCH AS ROLLED EROSION CONTROL PRODUCTS. SEEDING OF AREAS WITH MULCH COVER IS PREFERRED BUT SEEDING ALONE IS NOT ACCEPTABLE FOR PROPER STABILIZATION

IF SOIL DISTURBANCE IS COMPLETELY SUSPENDED AND SITE IS PROPERLY STABILIZED, QUALIFIED INSPECTION FREQUENCY MAY BE REDUCED WITH WRITTEN NOTIFICATION TO NYSDEC OR MS4. ADDITIONALLY, THE OPERATOR MUST PROVIDE THE MUNICIPALITY WITH A WRITTEN REQUEST FOR TEMPORARY WINTER SHUTDOWN INSPECTIONS.

CONFIRMATION MUST BE RECEIVED FROM NYSDEC AND THE MUNICIPALITY PRIOR TO REDUCING INSPECTION FREQUENCY. MONTHLY INSPECTIONS MUST BE PERFORMED AT A MINIMUM.



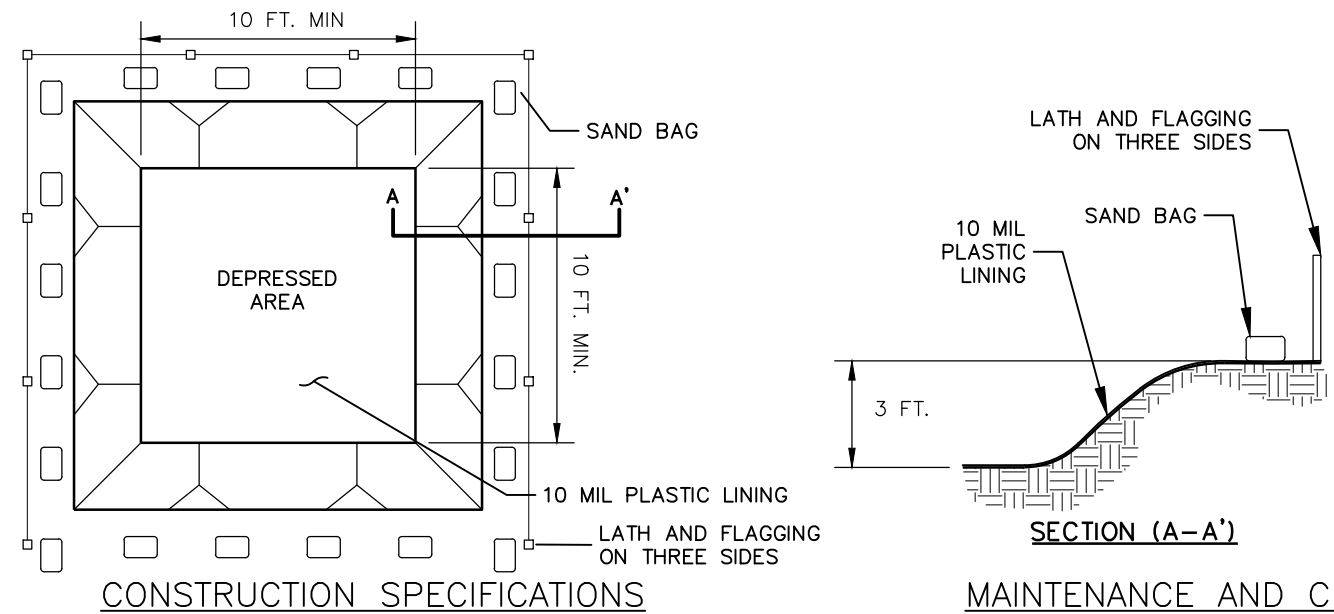
1. STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 1 TO 2 INI STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50
3. THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NO LESS THAN 6 INCHES.
4. THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH THE PROPOSED ENTRANCE.
5. GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIC PLACING THE STONE.
6. ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE SURFACE.
7. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVEI TRACKING OR FLOWING OF SEDIMENT ONTO EXISTING ROAD. THIS MANY RE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH / CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES I TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACI ONTO EXISTING ROAD SHALL BE REMOVED IMMEDIATELY.

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EROSION NOTES

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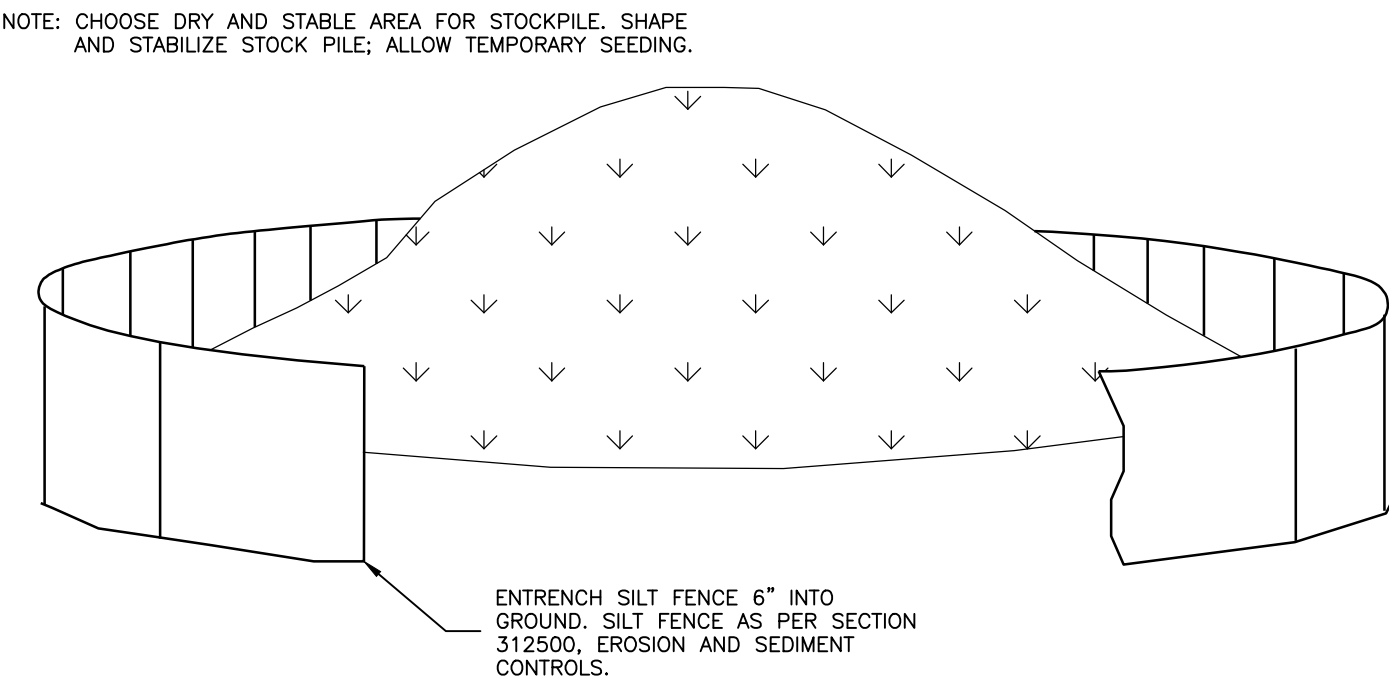
1. CONCRETE WASHOUT FACILITY SHALL BE LOCATED A MINIMUM OF FIFTY 1. FEET (50') FROM SENSITIVE AREAS.
2. THE BASIN DIMENSIONS DEPICTED ABOVE ARE REQUIRED MINIMUMS.
3. CONCRETE WASHOUT FACILITY SHALL BE CONSTRUCTED AND 2. MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. (APPROXIMATELY 60 GALLONS OF WASTE AND WATER PER TRUCK).
4. PLASTIC LINING MATERIAL SHALL BE A MINIMUM 10 MIN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS 5. THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
5. WASHOUT FACILITY MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE, ONCE THE WASHOUT IS 75% FULL.
- DO NOT DISCHARGE LIQUID OR SLURRY TO WATERWAYS, STORM DRAINS OR DIRECTLY ONTO GROUND
- DO NOT USE SANITARY SEWER WITHOUT LOCAL APPROVAL.
- PLACE A SECURE NON COLLAPSING, NON-WATER COLLECTING COVER OVER THE FACILITY PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW.
- REMOVE AND DISPOSE OF HARDEN CONCRETE AND RETURN THE STRUCTURE TO A FUNCTIONAL STATE.
- INSPECT THE WASHOUT FACILITY FOR SIGNS OF WEAKENING OR DAMAGE AND REPAIR AS NESSESARY(RELINE THE STRUCTURE WITH NEW POLY SHEETING AFTER EACH CLEANING).

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CONCRETE WASHOUT FACILITY

NOT TO SCALE



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TEMPORARY SOIL STOCKPILE AREA

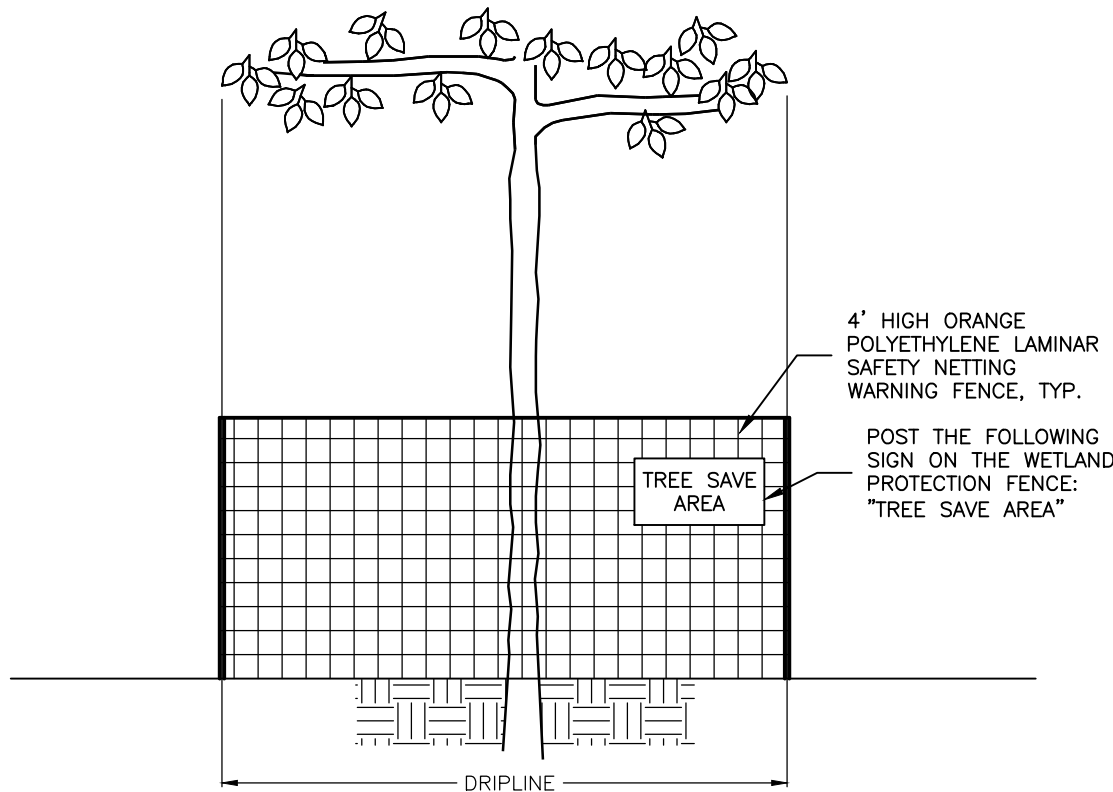
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TREE PROTECTION DURING CONSTRUCTION

NOT TO SCALE



- NOTES:
1. CONSTRUCTION STAGING ARE TO BE 9\" GRAVEL COURSE, WELL GRADED, WELL COMPACTED, TO CONFORM TO NYS DOT ITEM NO. 304.05 TYPE MIN. COMPACTION 95% MODIFIED PROCTOR OR 9\" CRUSHED STONE COURSE, WELL GRADED WELL COMPACTED, TO CONFORM TO NYS DOT ITEM NO. 304.03 TYPE 2 MIN. COMPACTION 95% MODIFIED PROCTOR
2. SUBGRADE MUST BE PROOF-ROLLED PRIOR TO PLACEMENT OF CRUSHED STONE.
3. WELL COMPACTED SUBGRADE MIN. COMPACTION 90% MODIFIED PROCTOR
4. WOVEN CONSTRUCTION FABRIC TO BE A.O.B.E. PROPEX GEOTEXT 3155ST OR EQUAL
5. TEMPORARY STAGING AREA TO BE INSTALLED WITHOUT DISTURBANCE TO EXISTING GROUND

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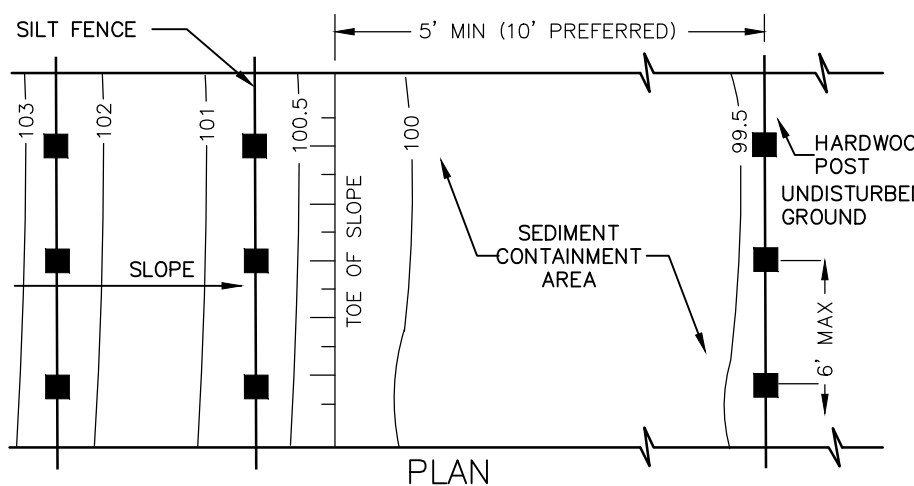
TEMPORARY STAGING AREA

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SILT FENCE GENERAL NOTES:

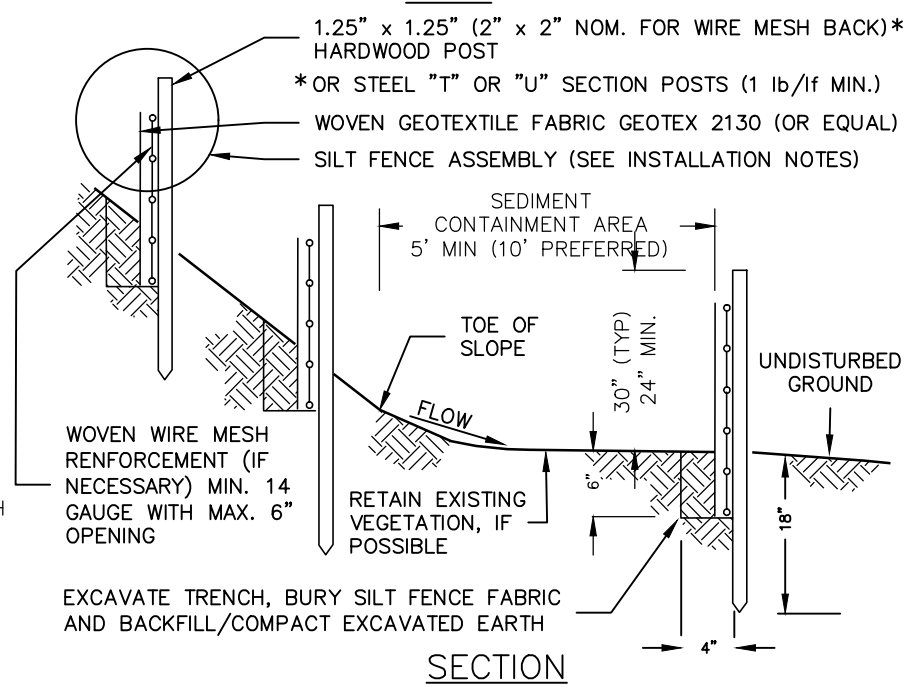
1. SILT FENCE SHALL BE PLACED A MINIMUM OF 5 FT. FROM TOE OF SLOPE, 10 FT. PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
2. POSTS MAY BE 1.25 X 1.25\" (MINIMUM) HARDWOOD, TYPICALLY. FOR WIRE MESH BACK USE 2 X 2\" NOM. HARDWOOD, OR STEEL \"1\" OR \"1 1/2\" POSTS (1 lb. ppr. ft.). SILT FENCE SHALL BE WOVEN GEOTEXTILE FABRIC(GEOTEX 2130 OR EQUAL).
3. SILT FENCE ASSEMBLIES MAY HAVE 4 FT. OR 6 FT. POST SPACING, AND MAY OR MAY NOT HAVE MESH REINFORCEMENT. SENSITIVE AREAS TO BE PROTECTED MAY NEED TO BE REINFORCED BY USING HEAVY WIRE FENCING FOR ADDED SUPPORT TO PREVENT COLLAPSE.
4. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 6\" BELOW GROUND, THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
5. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUNOFF TO A SILT FENCE PLACED ON A SLOPE ARE:
6. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE, WITH MAXIMUM PONDING DEPTH OF 1.5 FEET BEHIND THE FENCE; AND EROSION WOULD OCCUR IN THE FORM OF SHEET EROSION; AND THERE IS NO CONCENTRATION OF WATER FLOWING TO THE BARRIER.
7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AFTER EACH RAINFALL OF .5\" OR MORE WITHIN A 12 HOUR PERIOD, OR DAILY DURING PROLONGED RAINFALL. MEASURES SHALL BE CLEANED AND REPAIRED AS REQUIRED.
8. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-THIRD OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.

| SLOPE STEEPNESS | MAXIMUM LENGTH (FT.) |
|-----------------|----------------------|
| 2:1             | 25                   |
| 3:1             | 50                   |
| 4:1             | 75                   |
| 5:1 OR FLATTER  | 100                  |



SILT FENCE INSTALLATION NOTES:

1. GEOTEXTILE FABRIC AND WOVEN WIREMESH TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACES EVERY 24\" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES, FOLDED AND STAPLED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN \"BULGES\" DEVELOP IN THE SILT FENCE.

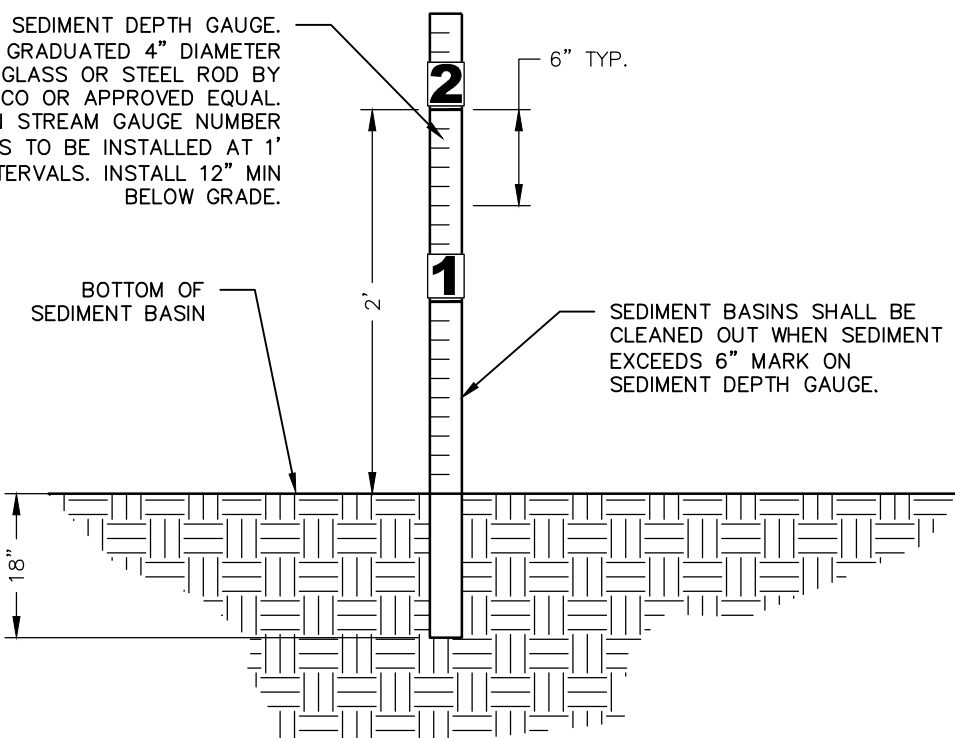


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SEDIMENT DEPTH GAUGE

NOT TO SCALE



nexamp

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Tel: (617) 431-1440 Fax: (978) 416-2525 Web: nexamp.com

ead

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918.971.2621

| Rev | Issued For                | Date      |
|-----|---------------------------|-----------|
| A   | SUBMITTAL TO PB           | 7/1/2026  |
| B   | REVISIONS PER PB COMMENTS | 8/27/2026 |
| C   | REVISIONS PER PB COMMENTS | 9/29/2026 |
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P.E. seal/Consultant:

Project:

TOP HAT ENERGY

26 ELECTRIC DRIVE  
MOREAU, NY, 12803

EROSION AND SEDIMENT CONTROL DETAILS

Approved by: TJM  
Drawn by: FR

Dwg No: Size: D Sheet Rev:

C-504 C



## **SECTION 3**

### **NYSDEC Notice of Intent (NOI)**

### **NYSDEC NOI Acknowledgement Letter (Pending)**

# Construction General Permit (CGP) Electronic Notice of Intent (eNOI) GP-0-25-001

version 1.19

(Submission #: HQP-JR7B-K45Q0, version 1)

## Details

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**Originally Started By** Brandon Ferguson

**Alternate Identifier** Top Hat Energy—Region 5

**Submission ID** HQP-JR7B-K45Q0

**Status** Draft

## Form Input

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### Eligibility

#### Disturbance Threshold

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**1. Will the construction activity involve soil disturbances listed in Part I.A.1 of GP-0-25-001?**

Yes

**1.a. Will any runoff from the site enter a sewer system classified as a combined sewer?**

No

**1.b. Is this a remediation project being done under a Department approved work plan (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) with a SWPPP which meets the substantive requirements of GP-0-25-001?**

No

**1.c. Is the construction activity related to a stormwater discharge that does not require a permit as described in 40 CFR 122.3(e), e.g. non-point source agriculture or silviculture activities?**

No

**Other SPDES Permits**

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**2. Will the discharge from the construction activity meet all conditions listed in Part I.A.2 of GP-0-25-001?**

Yes

**Threatened and Endangered Species**

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**3. Will the construction activity potentially adversely affect a species that is endangered or threatened per Part I.A.3.?**

No

**State Historic Preservation Act (SHPA)**

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**4. Is the construction activity designated by the Commissioner of the Office of Parks, Recreation and Historic Preservation (OPRHP), pursuant to 9 NYCRR §§428.12 or 428.13 as exempt from the SHPA review (see Attachment 2 of the Letter of Resolution between NYSDEC and OPRHP, dated January 9, 2015)?**

No

**4.a. Will the construction activity:**

- a) occur within an archeologically sensitive area indicated on the sensitivity map, or
- b) have the potential to affect a property that is listed or determined to be eligible for listing on the National or State Registers of Historic Places, or
- c) include a new permanent building on the construction site within the following distances from a building, structure, or object that is more than 50 years old and OPRHP, a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined is a historically/archeologically significant building, structure, or object:

- 1-5 acres of disturbance—20 feet
- 5-20 acres of disturbance—50 feet
- 20+ acres of disturbance—100 feet?

Yes

**4.a.i. Have the impacts to historic properties been resolved?**

NONE PROVIDED

**State Environmental Quality Review (SEQR)**

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**5. Is the construction activity subject to SEQR (Part I.A.5.), or the equivalent environmental review from another NYS or federal agency (Part I.A.6.)?**

Yes

**5.a. Has the owner/operator obtained documentation that the project review pursuant to SEQR, or the equivalent, has been satisfied per Part I.A.5. or I.A.6. of GP-0-25-001?**

Yes

#### **Uniform Procedures Act (UPA) Permits**

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**6. Has the owner/operator obtained all necessary UPA permits from NYSDEC, or the equivalent from another NYS or federal agency per Part I.A.7.a. of GP-0-25-001? Select "Yes" if no UPA permits, or the equivalent, are required for this construction activity.**

Yes

#### **Steep Slope**

---

**7. Is the construction activity within the watershed of surface waters of the State classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website?**

No

### **Owner/Operator Information**

---

**8. Owner/Operator Name**

Top Hat Energy, LLC c/o Nexamp Solar, LLC

**9. Owner/Operator Contact Person Information**

| <b>First and Last Name</b> | <b>Phone</b> | <b>E-mail</b>    |
|----------------------------|--------------|------------------|
| Fred Ball                  | 716-512-8121 | FBall@nexamp.com |

**10. Owner/Operator Mailing Address**

101 SUMMER ST FL 2  
BOSTON, MA 02110-1287  
USA

**11. Is the billing contact different from the Owner/Operator Contact?**

No

**12. What type of organization is the owner/operator?**

Corporation



**12.b. Is the owner/operator registered with the Department of State to do business in New York State?**

Yes

**12.b.i. Department of State ID #**

5254919

The Department of State ID can be found using the following link:

[Department of State | Division of Corporations](#)

**Site Information****13. Project/Site Name**

Top Hat Energy

**14. Site Address**

2-6 ELECTRIC DR  
MOREAU, NY 12803  
Saratoga

**DEC Region**

5

**15. Site Latitude & Longitude**

43.283133,-73.604782

**Project Details****16. This eNOI submission is for:**

A construction activity not part of a common plan of development or sale in accordance with Part I.D.1.a.

**17. Does the project type fall under Table 1 or Table 2 of Appendix B of GP-0-25-001? If any portion of the construction activity falls under Table 2, regardless of the size of the disturbance, select "Table 2".**

Table 2

**18. Consistent with Part III.B.1.c.i. of GP-0-25-001, provide a concise overview of the project. Describe existing and proposed conditions, and include any other relevant information.**

Top Hat Solar, LLC c/o Nexamp Energy, LLC proposes the development of a ground-mounted solar photovoltaic (PV) facility on eight parcels and portion of the Town's ROW totaling approximately 54.66± acres, located west of Fernan Road and south of Electric Drive in the Town of Moreau, Saratoga County, New York. The proposed site layout includes approximately 3.50± acres of panel arrays, with rows spaced at approximately 16± feet on center. Ancillary improvements include the construction of approximately 800± linear feet of access roadway, stormwater management practices, and installation of a eight-foot-high perimeter security fence. The total limit of disturbance (LOD) is estimated at approximately 13.90± acres. The project will introduce approximately 0.50± acres of impervious surface associated with access drives and equipment pads.

---

Enter the total project site acreage, the acreage to be disturbed, and the future impervious area (acreage) within the disturbed area, rounded to the nearest tenth of an acre.

**19. Total Site Area (acres)**

54.6

**20. Total Area to be Disturbed (acres)**

13.9

**21. Existing Impervious Area to be Disturbed (acres)**

0.2

**22. Future Impervious Area Within Disturbed Area (acres)**

0.5

**Nature of the project:**

Redevelopment with increase in impervious area

**23. Do you plan to disturb more than 5 acres of soil at any one time?**

No

---

24. Indicate the percentage (%) of each Hydrologic Soil Group(HSG) at the site.

**A (%)**

100

**B (%)**

0

**C (%)**

0

D (%)

0

**25. Enter the planned start and end dates of the disturbance activities.**

**Start Date**

01/04/2027

**End Date**

11/30/2027

**26. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.**

Minor Tribs to Upper Hudson - 1101-0085

**27. Type of waterbody identified in question 26?**

Stream/Creek On Site

Wetland/State Jurisdiction On Site

Wetland/Federal Jurisdiction On Site

**28. Has the surface waterbody in question 26 been identified as a 303(d) segment in Appendix D of GP-0-25-001?**

No

**29. Is this project located in one of the Watersheds identified in Appendix C of GP-0-25-001?**

No

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

No

**31. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)?**

No

**32. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law?**

No

**33. Is this property owned by a state authority, state agency, federal government or local government?**

No

## **Required SWPPP Components**

### **General SWPPP Requirements**

---

**34. Has a SWPPP been developed in conformance with the requirements in Part III. of GP-0-25-001?**

Yes

**35. Does the SWPPP demonstrate consideration of the future physical risks due to climate change pursuant to the CRRA, 6 NYCRR Part 490, and associated guidance per Part III.A.2. of GP-0-25-001?**

Yes

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

Yes

**37. Which version of the NYS Stormwater Management Design Manual was used to develop the SWPPP?**

2024

**37.a. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the NYS Stormwater Management Design Manual?**

Yes

#### **SWPPP Preparer**

---

**39. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:**  
Professional Engineer (P.E.)

**40. Name of the person who prepared the SWPPP**  
Travis Mitchell

**41. SWPPP Preparer Organization Name**  
Environmental Design Partnership LLP

#### **42. SWPPP Preparer Contact Information**

| <b>First and Last Name</b> | <b>Phone</b> | <b>E-mail</b>        |
|----------------------------|--------------|----------------------|
| Travis Mitchell            | 518-371-7621 | tmitchell@edpllp.com |

#### **43. SWPPP Preparer Address**

900 NY-146  
Clifton Park, NY 12065

#### **Download SWPPP Preparer Certification Form**

Please take the following steps to prepare and upload your preparer certification form:

- 1) Click on the link below to download a blank certification form



2) The certified SWPPP preparer should sign this form

3) Upload the completed form

[Download SWPPP Preparer Certification Form](#)

#### 44. Please upload the SWPPP Preparer Certification

NONE PROVIDED

**Comment**

NONE PROVIDED

**44.a. Has the SWPPP Preparer Certification Form been signed by the SWPPP preparer in accordance with Part VII.J of GP-0-25-001?**

NONE PROVIDED

### Erosion & Sediment Control Criteria

**45. Has a construction sequence schedule for the planned management practices been prepared?**

Yes

### Post-Construction Criteria

#### Site Planning and Soil Restoration

**46. Identify all site planning practices that were used to prepare the final site plan/layout for the project.**

Preservation of Undisturbed Area

Preservation of Buffers

Reduction of Clearing and Grading

**47. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6 ("Soil Restoration") of the Design Manual.**

All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).

#### Water Quality Criteria

##### **49. Water Quality Sizing Criteria**

| Total WQv required (acre-feet) | Total RRv provided (acre-feet) | Minimum RRv (acre-feet) | Total WQv provided (acre-feet) | Sum of RRv and WQv provided |
|--------------------------------|--------------------------------|-------------------------|--------------------------------|-----------------------------|
| 0.056                          | 0.056                          |                         |                                | 0.056                       |

#### Water Quantity Criteria

**50. Per Section 9.2.1.C.VI and VII of the 2024 Design Manual, is there 0% change to hydrology that increases the discharge rate and volume from the project site?**

Yes

#### **Operation and Maintenance**

---

**53. Has a long-term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed?**

Yes

**53.a. Identify the entity responsible for the long-term Operation and Maintenance.**

Top Hat Energy, LLC c/o Nexamp Solar, LLC

#### **Post-Construction SMP Identification**

---

##### **54. Post-Construction RR Techniques and Standard SMPs**

| <b>RR Techniques and SMPs</b>                          | <b>Contributing Impervious Area (acres)</b> | <b>Total Contributing Area (acres)</b> |
|--------------------------------------------------------|---------------------------------------------|----------------------------------------|
| Infiltration Basin (I-2)                               | 0.35                                        |                                        |
| Sheet Flow to Riparian Buffers or Filter Strips (RR-2) | 0.15                                        | 0.37                                   |

##### **55. Alternative SMPs**

| <b>Type of Alternative SMP</b> | <b>Manufacturer of the Alternative SMP</b> | <b>Name of the Alternative SMP</b> | <b>Contributing Impervious Area (acres)</b> |
|--------------------------------|--------------------------------------------|------------------------------------|---------------------------------------------|
| NONE PROVIDED                  | NONE PROVIDED                              | NONE PROVIDED                      | NONE PROVIDED                               |

#### **Other Permits**

---

**56. Identify other permits, existing and new, that are required for this project/facility.**

None

**57. Is this NOI for a change in owner/operator per Part I.G.?**

No

#### **MS4 SWPPP Acceptance**

---

**59. Will the construction activities be within the municipal boundary(ies) of Traditional Land Use Control MS4 Operator(s) and discharge to the MS4(s)?**

Yes

**59.a. Which form is required per Part I.D.2.b.ii.?**

MS4 SWPPP Acceptance Form

**MS4 SWPPP Acceptance Form Download**

Download the MS4 SWPPP Acceptance Form from the link below.

[MS4 SWPPP Acceptance Form](#)

**60. MS4 Acceptance or No Jurisdiction Form Upload**

NONE PROVIDED

**Comment**

NONE PROVIDED

**60.a. Has the form been signed by the principal executive officer or ranking elected official—or duly authorized representative of that person—in accordance with Part VII.J. and submitted along with this NOI?**

NONE PROVIDED

**Owner/Operator Certification****Owner/Operator Certification Form Download**

Download the Owner/Operator Certification Form by clicking the link below.

[Owner/Operator Certification Form](#)

**61. Upload Owner/Operator Certification Form**

NONE PROVIDED

**Comment**

NONE PROVIDED

**61.a. Has the Owner/Operator Certification Form from Appendix J been signed by the owner/operator, or a representative of the owner/operator in accordance with Part VII.J of GP-0-25-001 and uploaded to the eNOI?**

NONE PROVIDED

**Additional Project Information****62. Enter any additional pertinent project information in the text box below.**

NONE PROVIDED

## **SECTION 4**

### **NYSDEC SPDES General Permit (GP-0-25-001)**





Department of  
Environmental  
Conservation

NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION (NYSDEC)

SPDES GENERAL PERMIT  
FOR STORMWATER DISCHARGES

From

**CONSTRUCTION ACTIVITY**

Permit No. GP-0-25-001

Construction General Permit (CGP)

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

Effective Date: January 29, 2025

Expiration Date: January 28, 2030

Scott E. Sheeley

Chief Permit Administrator

A handwritten signature in blue ink, reading "Scott E. Sheeley". The signature is written in a cursive style with a long, sweeping underline.

Authorized Signature

JAN. 29, 2025

Date

Address: NYSDEC  
Division of Environmental Permits  
625 Broadway, 4th Floor  
Albany, N.Y. 12233-1750

## PREFACE

Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), *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 State administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7 and 8, and Article 70, as well as 6 NYCRR Parts 621 and 750.

*Construction activities* constitute construction of a *point source* and, therefore, pursuant to ECL sections 17-0505, 17-0701, and 17-0803, the *owner or operator* must have coverage under a SPDES permit prior to *commencement of construction activities*. The *owner or operator* 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 CONSTRUCTION GENERAL PERMIT (CGP) GP-0-25-001  
FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES**

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## Part I. How to Obtain Coverage and General Requirements

To be covered under this permit, the *owner or operator* must meet all eligibility requirements in Part I.A. and follow the requirements for obtaining permit coverage in Part I.D., F., or G.

### A. Eligibility Requirements

For a *common plan of development or sale*, the *phase(s)* that meet the eligibility requirements in Part I.A. may obtain coverage under this permit even if other *phase(s)* of the same *common plan of development or sale* do not meet the eligibility requirements and require an individual SPDES permit.

1. The *owner's or operator's construction activities* involve soil disturbances of:
  - a. one or more acres; or
  - b. less than one acre which are part of a *common plan of development or sale* that will ultimately disturb one or more acres; or
  - c. less than one acre where NYSDEC 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*.
    - i. 5,000 square feet or more, but less than one acre, and are in the New York City Watershed located east of the Hudson River, Appendix C Figure 1; or
    - ii. 20,000 square feet or more, but less than one acre, within the municipal boundaries of the City of New York (NYC); or
    - iii. less than 20,000 square feet which are part of a *common plan of development or sale* that will ultimately disturb 20,000 square feet or more, but less than one acre, within the municipal boundaries of NYC; or
    - iv. that creates 5,000 square feet or more of *impervious area* within the municipal boundaries of NYC.



2. *Discharges from the owner's or operator's construction activities* are/were not:

- a. already covered by a different SPDES permit; or
- b. covered under a different SPDES permit that was denied, terminated, or revoked; or
- c. identified in an expired individual SPDES permit that was not renewed; or
- d. required to obtain an individual SPDES permit or another general SPDES permit in accordance with Part VII.K.

3. If *construction activities* may adversely affect a species that is endangered or threatened, the *owner or operator* must obtain a:

- a. permit issued pursuant to 6 NYCRR Part 182 for the project; or
- b. letter issued by NYSDEC of non-jurisdiction pursuant to 6 NYCRR Part 182 for the project.

4. If *construction activities* have the potential to affect an *historic property*, the *owner or operator* must obtain one of the following:

- a. documentation that the *construction activity* is not within an archeological buffer area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant:
  - i. 1-5 acres of disturbance - 20 feet; or
  - ii. 5-20 acres of disturbance - 50 feet; or

- iii. 20+ acres of disturbance - 100 feet.
- b. NYSDEC consultation form sent to OPRHP,<sup>1</sup> and copied to NYSDEC's Agency Historic Preservation Officer (APO), and
  - i. the State Environmental Quality Review Act (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
  - ii. documentation from OPRHP that the *construction activity* will result in No Impact; or
  - iii. documentation from OPRHP providing a determination of No Adverse Impact; or
  - iv. a Letter of Resolution signed by the *owner or operator*, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA).
- c. documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:
  - i. No Affect; or
  - ii. No Adverse Affect; or
  - iii. Executed Memorandum of Agreement.
- d. documentation that SHPA Section 14.09 has been completed by NYSDEC or another state agency.
- 5. If *construction activities* are subject to SEQR, the *owner or operator* must obtain documentation that SEQR has been satisfied.
- 6. If *construction activities* are not subject to SEQR, but subject to the equivalent environmental review from another New York State or federal agency, the

---

<sup>1</sup> The consultation form can be submitted, along with other project information, through OPRHP's Cultural Resource Information System (CRIS) portal. If submitted through CRIS, paper copies of the consultation form need not be mailed.

Part I.A.6.

*owner or operator* must obtain documentation that project review, pursuant to a process equivalent to SEQR from another New York State or federal agency, has been satisfied.

7. If *construction activities* require Uniform Procedures Act (UPA) Permits (see 6 NYCRR Part 621) from NYSDEC, or the equivalent from another New York State or federal agency, the *owner or operator* must:
  - a. obtain all such necessary permits; or
  - b. receive notification from NYSDEC pursuant to 6 NYCRR 621.3(a)(4) excepting Part I.A.7.a.
8. *Construction activities* are not eligible if they meet the following criteria in Part I.A.8.a. or b.:
  - a. For linear transportation and linear utility project types, the *construction activities*:
    - i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and
    - ii. are undertaken on land with no existing *impervious cover*; and
    - iii. disturb two or more acres of *steep slope*.
  - b. For all other project types, the *construction activities*:
    - i. are within the watershed of *surface waters of the State* classified as AA or AA-S identified utilizing the Stormwater Interactive Map on NYSDEC's website; and
    - ii. are undertaken on land with no existing *impervious cover*; and
    - iii. disturb one or more acres of *steep slope*.

**B. Types of *Discharges* Authorized**

1. The following *stormwater discharges* are authorized under this permit:
  - a. *Stormwater discharges*, including *stormwater* runoff, snowmelt runoff, and surface runoff and drainage, associated with *construction activity*, are authorized under this permit provided that appropriate *stormwater* controls are designed, installed, and maintained in accordance with Part II. and Part III.
  - b. *Stormwater discharges* from construction support activities at the *construction site* (including concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, and borrow areas) if the following requirements are met:
    - i. The support activity is directly related to the *construction site* required to have permit coverage for *stormwater discharges*; and
    - ii. The support activity is not a commercial operation, nor does it serve multiple unrelated *construction sites*; and
    - iii. The support activity does not continue to operate beyond the completion of the *construction activity* at the site it supports; and
    - iv. *Stormwater* controls are implemented in accordance with Part II. and Part III. for *discharges* from the support activity areas.
2. The following non-*stormwater discharges* associated with *construction activity* are authorized under this permit:
  - a. Non-*stormwater discharges* listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: “*Discharges* from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned”; and
  - b. Non-*stormwater discharges* of waters to which other components have not been added that are used in accordance with the *SWPPP* to control dust or irrigate vegetation in stabilized areas; and
  - c. Uncontaminated *discharges* from *dewatering* operations

3. Authorized *discharges of stormwater* or authorized *discharges* of non-*stormwater*, commingled with a *discharge* authorized by a different SPDES permit and/or a *discharge* that does not require SPDES permit authorization, are also authorized under this permit.

### C. Prohibited *Discharges*

1. Non-*stormwater discharges* prohibited under this permit include but are not limited to:
  - a. Wastewater from washout of concrete; and
  - b. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials; and
  - c. Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance; and
  - d. Soaps, solvents, or detergents used in vehicle and equipment washing or external building washdown; and
  - e. Toxic or hazardous substances from a spill or other release.

### D. Electronic Notice of Intent (eNOI) Submittal

To receive authorization in accordance with Part I.D.3.b., the *owner or operator* must submit a complete eNOI in accordance with the requirements in Part I.D. The eNOI contains questions to: ensure eligibility requirements in Part I.A. have been met; obtain *owner or operator* contact information; obtain the total area to be disturbed and the existing/future *impervious areas* (rounded to the nearest tenth of an acre); confirm *Traditional Land Use Control MS4 Operator* jurisdiction over construction projects; satisfy the EPA eRule requirements; confirm that the Water Quality-Based Effluent Limitations in Part II. have been met; demonstrate consideration of the future risks due to climate change in accordance with Part III.A.2.; and confirm that the other *Stormwater Pollution Prevention Plan (SWPPP)* requirements in Part III. have been met.

1. An eNOI may be submitted for:
  - a. *construction activities* that are not part of a *common plan of development or sale*; or



- b. an entire *common plan of development or sale*; or
  - c. separate *phase(s)* of a *common plan of development or sale* if the following requirements are met:
    - i. the *common plan of development or sale* meets the eligibility requirements of Part I.A.5. or 6.; and
    - ii. the *phase(s)* meet(s) all other eligibility requirements of Part I.A.; and
    - iii. Part III.C. Required *SWPPP* Components by Project Type is based on the *common plan of development or sale*, not the *phase(s)*; or
  - d. *tree clearing* that is associated with, or will support, a *renewable energy* generation, transmission, or storage project that meets Part I.A.5. and 6., if the *tree clearing*:
    - i. meets all other eligibility requirements of Part I.A.; and
    - ii. will occur in NYSDEC's Regions 3-9; and
    - iii. is not within ¼ mile of a bat hibernaculum protected pursuant to 6 NYCRR Part 182; and
    - iv. will occur between November 1<sup>st</sup> and March 31<sup>st</sup>.
2. As prerequisites for submitting an eNOI, the *owner or operator* must:
- a. prepare a *SWPPP* for Part I.D.1.a., b., c., or d. in accordance with Part III.; and
  - b. based on the following criteria, upload the following signature forms signed in accordance with Part VII.J. to the eNOI prior to submission:
    - i. for all eNOIs:
      - 1. the *SWPPP* Preparer Certification Form, Appendix F, signed by the *SWPPP* preparer; and

2. the Owner/Operator Certification Form, Appendix J, signed by the *owner or operator*; and
- ii. if an eNOI includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that will *discharge* to the *MS4(s)*:
  1. determine if the *Traditional Land Use Control MS4 Operator(s)* have review authority. A *Traditional Land Use Control MS4 Operator* does not have review authority where:
    - a. the *owner or operator* of the *construction activities* in Part I.D.2.b.ii. is the same entity as the *Traditional Land Use Control MS4 Operator* identified in Part I.D.2.b.ii.; or
    - b. there is a statute exempting the *owner or operator* from zoning review by the *Traditional Land Use Control MS4 Operator*; or
    - c. there is no such statute per Part I.D.2.b.ii.1.b., the *Traditional Land Use Control MS4 Operator* concludes, after public hearing, that it does not have zoning review authority in accordance with Legal Memorandum LU14 Updated January 2020 “Governmental Immunity from Zoning and Other Legislation”; and
  2. if the *Traditional Land Use Control MS4 Operator(s)* have review authority, submit the *SWPPP* to the *Traditional Land Use Control MS4 Operator(s)* for review and have:
    - a. if outside the municipal boundaries of NYC: the *MS4 SWPPP Acceptance Form*, Appendix G, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator*, or by a duly authorized representative of that person in accordance with Part VII.J.2.; or

- b. if within the municipal boundaries of NYC: The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval Form, Appendix H, signed by the principal executive officer or ranking elected official from the Traditional Land Use Control MS4 Operator, or by a duly authorized representative of that person in accordance with Part VII.J.2.; and
  - 3. if the *Traditional Land Use Control MS4 Operator* does not have review authority, have the MS4 No Jurisdiction Form, Appendix I, signed by the principal executive officer or ranking elected official from the *Traditional Land Use Control MS4 Operator*, or by a duly authorized representative of that person in accordance with Part VII.J.2.
3. Submitting an eNOI:
- a. The *owner or operator* must submit a complete Notice of Intent electronically using a NYSDEC approved form.<sup>2</sup>
  - b. The *owner or operator* is authorized to *commence construction activity* as of the authorization date indicated in the Letter of Authorization (LOA), which is sent by NYSDEC after a complete eNOI is submitted.
    - i. If an eNOI is received for a *SWPPP* that deviates from one of the technical standards but demonstrates *equivalence* in accordance with Part III.B.1.a.ii. or Part III.B.2.b.ii., if the *SWPPP* includes *construction activities* that are not within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)*, and/or if the *SWPPP* includes *construction activities* within the municipal boundary(ies) of *Traditional Land Use Control MS4 Operator(s)* that do not have review authority in accordance with Part I.D.2.b.ii.1., the authorization date indicated in the LOA will be 60 business days after the eNOI submission date.

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<sup>2</sup> Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater\_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4<sup>th</sup> Floor, Albany, New York 12233-3505.

- c. If *Traditional Land Use Control MS4 Operator(s)* have review authority in accordance with Part I.D.2.b.ii.2., the *owner or operator* must, within five business days of receipt of the LOA, send an electronic copy of the LOA to the *Traditional Land Use Control MS4 Operator(s)* with review authority.

#### **E. General Requirements for Owners or Operators with Permit Coverage**

1. As of the date the LOA is received, the *owner or operator* must make the eNOI, *SWPPP*, and LOA available for review and copying in accordance with the requirements in Part VII.H. When applicable, as of the date an updated LOA is received, the *owner or operator* must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.
2. The *owner or operator* must ensure compliance with all requirements of this permit and that the provisions of the *SWPPP*, including any changes made to the *SWPPP* in accordance with Part III.A.5., are properly implemented and maintained from the *commencement of construction activity* until:
  - a. all areas of disturbance have achieved *final stabilization*; and
  - b. the owner's or operator's coverage under this permit is terminated in accordance with Part V.A.5.a.
3. As of the date of the *commencement of construction activities* until Part I.E.2.a. and b. have been met, the *owner or operator* must maintain at the *construction site*, a copy of:
  - a. all documentation necessary to demonstrate eligibility with this permit; and
  - b. this permit; and
  - c. the *SWPPP*; and
  - d. the signed *SWPPP Preparer Certification Form*; and
  - e. the signed *MS4 SWPPP Acceptance Form* or signed *NYCDEP SWPPP Acceptance/Approval Form* or signed *MS4 No Jurisdiction Form* (when applicable); and
  - f. the signed *Owner/Operator Certification Form*; and

- g. the eNOI; and
  - h. the LOA; and
  - i. the LOA transmittal to the Traditional Land Use Control MS4 Operator in accordance with Part I.D.3.c. (when applicable).
4. The *owner or operator* must maintain at the *construction site*, until Part I.E.2.a. and b. have been met, as of the date the documents become final or are received, a copy of the:
- a. responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7.; and
  - b. inspection reports in accordance with Part IV.C.4. and 6.; and
  - c. Request to Disturb Greater Than Five Acres and the Authorization Letter to Disturb Greater Than Five Acres in accordance with Part I.E.6. (when applicable); and
  - d. Request to Continue Coverage and the Letter of Continued Coverage (LOCC) in accordance with Part I.F.2. and 4. (when applicable); and
  - e. The updated LOA(s) in accordance with Part I.E.9. (when applicable).
5. The *owner or operator* must maintain the documents in Part I.E.3. and 4. 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. The documents must be paper documents unless electronic documents are accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be. If electronic documents are kept on site, the *owner or operator* must maintain functional equipment on site available to an inspector during normal hours of operation such that an inspector may view the electronic documents in a format that can be read in a similar manner as a paper record and in a legally dependable format with no less evidentiary value than their paper equivalent.
6. The *owner or operator* must meet the following requirements prior to disturbing greater than five acres of soil at any one time:
- a. The *owner or operator* must submit a written Request to Disturb Greater Than Five Acres to:



Part I.E.6.a.i.

- i. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, if a *Traditional Land Use Control MS4 Operator* does not have review authority in accordance with Part I.D.2.b.ii.1.; or
  - ii. the *Traditional Land Use Control MS4 Operator*, if a *Traditional Land Use Control MS4 Operator* has review authority in accordance with Part I.D.2.b.ii.1.; or
  - iii. NYSDEC's Regional Office Division of Water staff based on the project location, Appendix E, and each involved *Traditional Land Use Control MS4 Operator*, if the project spans multiple municipalities with more than one *Traditional Land Use Control MS4 Operator* involved with review authority in accordance with Part I.D.2.b.ii.1.
- b. The written Request to Disturb Greater Than Five Acres must include:
- i. The SPDES permit identification number (Permit ID); and
  - ii. Full technical justification demonstrating why alternative methods of construction that would result in five acres of soil disturbance or less at any one time are not feasible; and
  - iii. The phasing plan for the project and sequencing plans for all *phases* from the *SWPPP* in accordance with Part III.B.1.d.; and
  - iv. Plans with locations and details of erosion and sediment control practices such that the heightened concern for erosion when disturbing greater than five acres at one time has been addressed; and
  - v. Acknowledgment that "the *owner or operator* will comply with the requirements in Part IV.C.2.b."; and
  - vi. Acknowledgment that "the *owner or operator* will comply with the requirements in Part II.B.1.b."
- c. The *owner or operator* must be in receipt of an Authorization Letter to Disturb Greater Than Five Acres, which will include when the

authorization begins and ends and indicate a maximum area (acres) of soil disturbance allowed at any one time, from:

- i. NYSDEC, if Part I.E.6.a.i. or iii. apply; or
  - ii. the *Traditional Land Use Control MS4 Operator*, if Part I.E.6.a.ii. applies.
7. Upon a finding of significant non-compliance with the practices described in the *SWPPP* or violation of this permit, NYSDEC may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order must be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
8. If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE).<sup>3</sup> *Construction activity* shall not resume until written permission to do so has been received from the RWE.
9. To be authorized to implement modifications to the information previously submitted in the eNOI, the *owner or operator* must:
  - a. notify NYSDEC via email at Stormwater\_info@dec.ny.gov requesting access to update the eNOI; and
  - b. update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D.; and
  - c. receive an updated LOA.
10. The eNOI, *SWPPP*, LOA, updated LOAs (when applicable), 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 business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

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<sup>3</sup> The Regional Water Manager where a DEC Region does not have a RWE.

## **F. Permit Coverage for *Discharges* Authorized Under GP-0-20-001**

When applicable:

1. Upon the effective date of this permit, an *owner or operator* of a *construction activity*, with coverage under GP-0-20-001, will have interim coverage under GP-0-25-001 for 45 calendar days starting on the effective date of GP-0-25-001 so long as the *owner or operator* maintains compliance with all applicable requirements of this permit.
2. Within 30 calendar days of the effective date of this permit, the *owner or operator*, with coverage under GP-0-20-001, must submit a complete Request to Continue Coverage electronically using a NYSDEC approved form,<sup>4</sup> which contains the information identified in Part I.F.3. below, if:
  - a. the *owner or operator* continues to implement the SMP component in conformance with the technical standards in place at the time of initial project authorization; and
  - b. the *owner or operator* will comply with all non-design requirements of GP-0-25-001.
3. The Request to Continue Coverage form contains questions to: ensure eligibility requirements in Part I.A. have been met; verify *owner or operator* contact information; verify the permit identification number; verify the original eNOI submission ID, if applicable; verify Part I.F.2.a. and b.; verify the version of the Design Manual that the technical/design components conform to; and receive an updated Owner/Operator Certification Form, Appendix I.
4. The *owner or operator* has obtained continued coverage under GP-0-25-001 as of the date indicated in the LOCC, which is sent by NYSDEC after a complete Request to Continue Coverage form is submitted.
5. If the owner or operator does not submit the Request to Continue Coverage form in accordance with Part I.F.2. and 3., coverage under this permit is automatically terminated after interim coverage expires.

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<sup>4</sup> Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater\_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4<sup>th</sup> Floor, Albany, New York 12233-3505.

## **G. Change of *Owner or Operator***

When applicable:

1. When property ownership changes, or when there is a change in operational control over the construction plans and specifications, the following process applies:
  - a. The new *owner or operator* must meet the applicable prerequisites for submitting an eNOI in accordance with Part I.D.2.; and
  - b. The new *owner or operator* must submit an eNOI in accordance with Part I.D.3.; and
  - c. Permit coverage for the new *owner or operator* will be effective upon receipt of the LOA in accordance with Part I.D.3.b.; and
  - d. The new *owner or operator*, upon receipt of their LOA, must provide their Permit ID to the original *owner or operator*; and
  - e. If the original *owner or operator* will no longer be the *owner or operator* of the *construction activity* identified in the original *owner's or operator's* eNOI, the original *owner or operator*, upon receipt of the new *owner's or operator's* Permit ID in accordance with Part I.G.1.d., must submit to NYSDEC a completed eNOT in accordance with Part V. that includes the name and Permit ID of the new *owner or operator*; or
  - f. If the original *owner or operator* maintains ownership of a portion of the *construction activity*, the original *owner or operator* must maintain their coverage under the permit by modifying their eNOI; modifications to the eNOI must include:
    - i. the revised area of disturbance and/or *impervious area(s)*; and
    - ii. the revised SMP information, if applicable; and
    - iii. a narrative description of what has changed; and
    - iv. the new *owner's or operator's* Permit ID for the portion of the project removed from the eNOI.

*Owners or operators* must follow Part I.E.9. to modify the eNOI.

## Part II. Water Quality-Based Effluent Limitations

### A. Maintaining Water Quality

NYSDEC expects that compliance with the requirements of this permit will control *discharges* necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any *discharge* to either cause or contribute to a violation of the following *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:

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

If there is evidence indicating that the *stormwater discharges* authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standard*, the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this permit and document in accordance with Part IV.C.4. of this permit. To address the *water quality standard* violation the *owner or operator* must include and implement appropriate controls in the *SWPPP* to correct the problem or obtain an individual SPDES permit.

If, despite compliance with the requirements of this permit, it is demonstrated that the *stormwater discharges* authorized by this permit are causing or contributing to a violation of *water quality standards*, or if NYSDEC determines that a modification of this permit is necessary to prevent a violation of *water quality standards*, the authorized *discharges* will no longer be eligible for coverage under this permit, and the *owner or operator* must obtain an individual SPDES permit prior to further *discharges* from the *construction site*.

### B. Effluent Limitations Applicable to *Discharges* from *Construction Activities*

*Discharges* authorized by this permit must achieve, at a minimum, the effluent limitations in Part II.B.1.a., b., c., d., and e. These limitations represent the

degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement, and maintain control measures to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part II.B.1.a., b., c., d., and e. and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (BB), dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in *SWPPP* the reason(s) for the deviation, or alternative design, and provide information in the *SWPPP* demonstrating that the deviation or alternative design is *equivalent* to the technical standard.

- a. **Erosion and Sediment Controls.** At a minimum, erosion and sediment controls must be selected, designed, installed, implemented, and maintained to:
  - i. *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharges*; and
  - ii. Control *stormwater discharges*, including both peak flow rates and total *stormwater* volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points; and
  - iii. *Minimize* the amount of soil exposed during *construction activity*; and
  - iv. *Minimize* the disturbance of *steep slope*; and
  - v. *Minimize* sediment *discharges* from the site; and
  - vi. Provide and maintain *natural buffers* around surface waters, direct *stormwater* to vegetated areas and maximize *stormwater* infiltration to reduce *pollutant discharges*, unless *infeasible*; and
  - vii. *Minimize* soil compaction. *Minimizing* soil compaction is not required



where the intended function of a specific area of the site dictates that it be compacted; and

- viii. Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and
  - ix. *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of *pollutants* that could be discharged from the site.
- b. **Soil Stabilization.** In areas where soil disturbance activity has ceased, whether permanently or *temporarily ceased*, the application of soil stabilization measures must be initiated by the end of the next business day and completed within 14 calendar days from the date the current soil disturbance activity ceased. For *construction sites* that *directly discharge* to one of the 303(d) segments listed in Appendix D, or are located in one of the watersheds listed in Appendix C, or are authorized to disturb greater than five acres in accordance with Part I.E.5.a.viii., the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven calendar days from the date the soil disturbance activity ceased.
- c. **Dewatering.** *Discharges* from *dewatering* activities, including *discharges* from *dewatering* of trenches and excavations, must be managed by appropriate control measures.
- d. **Pollution Prevention Measures.** Select, design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge of pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be selected, designed, installed, implemented, and maintained to:
- i. *Minimize* the *discharge of pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. Soaps, detergents and solvents cannot be used; and
  - ii. *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation

and to *stormwater*. *Minimization* of exposure is not required in cases where the exposure to precipitation and to *stormwater* will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of *stormwater* contamination (such as final products and materials intended for outdoor use); and

- iii. Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.
- e. **Surface Outlets.** When discharging from basins and impoundments, the surface outlets must be designed, constructed, and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

### C. Post-Construction Stormwater Management Practice (SMP) Requirements

- 1. The *owner or operator* of a *construction activity* that requires post-construction SMPs, in accordance with Part III.C., must select, design, install, implement, and maintain the SMPs to meet the *performance criteria* in the New York State Stormwater Management Design Manual, dated July 31, 2024 (DM), using sound engineering judgment. Where SMPs are not designed in conformance with the *performance criteria* in the DM, the *owner or operator* must include in the *SWPPP* the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.
- 2. The *owner or operator* of a *construction activity*, that requires SMPs in accordance with Part III.C., must design the practices to meet the applicable *sizing criteria* in Part II.C.2.a., b., c., or d.

#### a. Sizing Criteria for *New Development*

- i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):
  - 1. Reduce the total WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv must be calculated in accordance with the criteria in Section 4.2 of the DM; or

2. Minimum RRV and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the requirements in Part II.C.2.a.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRV capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRV capacity, the *SWPPP* must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

**In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRV as calculated using the criteria in Section 4.4 of the DM.** The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

- ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:
  1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or
  2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs without detention or velocity controls; or
  3. The site *directly discharges* into a fifth order or larger water body (stream, river, or lake), or tidal waters, where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.

- iii. **Overbank Flood Control Criteria (Qp):** Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - 1. the site *directly discharges* to tidal waters or fifth order or larger streams, or
  - 2. A downstream analysis reveals that *overbank* control is not required.
- iv. **Extreme Flood Control Criteria (Qf):** Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - 1. the site *directly discharges* to tidal waters or fifth order or larger streams, or
  - 2. A downstream analysis reveals that *overbank* control is not required.

**b. Sizing Criteria for New Development in Enhanced Phosphorus Removal Watersheds**

- i. Runoff Reduction Volume (RRv) and Water Quality Volume (WQv):
  - 1. Reduce the WQv by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24-hour design storm over the post-developed watershed and must be calculated in accordance with the criteria in Section 4.3 of the DM; or
  - 2. Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part II.C.2.b.i.1. due to *site limitations* must direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv must be documented in the *SWPPP*. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the *SWPPP* must include

documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible*.

**In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 4.5 of the DM.** The remaining portion of the total WQv that cannot be reduced must be treated by application of standard SMPs.

- ii. Channel Protection Volume (CPv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event, remaining after runoff reduction. Where a CPv control orifice is provided, the minimum orifice size must be 3 inches, with acceptable external trash rack or orifice protection. The CPv requirement does not apply when:
  - 1. Reduction of the entire CPv is achieved by application of runoff reduction techniques or infiltration systems; or
  - 2. The 1-year post-development peak *discharge* is less than or equal to 2.0 cfs; or
  - 3. The site *directly discharges* to tidal waters, or a fifth order or larger water body (stream, river, or lake) where the increase in smaller flows will not impact the stream bank or channel integrity. However, the point of *discharge* must be adequately protected against scour and erosion by the increased peak *discharge*.
- iii. *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
  - 1. the site *directly discharges* to tidal waters or fifth order or larger streams; or
  - 2. A downstream analysis reveals that *overbank* control is not required.

- iv. Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
  - 1. the site *directly discharges* to tidal waters or fifth order or larger streams; or
  - 2. A downstream analysis reveals that *overbank* control is not required.

**c. Sizing Criteria for Redevelopment Activity**

- i. Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* must be addressed by one of the following options, as outlined in Section 9.2.1. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C) must calculate the WQv in accordance with Section 4.3 of the DM. All other *redevelopment activities* must calculate the WQv in accordance with Section 4.2 of the DM.
  - 1. Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the DM must be applied to all newly created pervious areas; or
  - 2. Capture and treat 100% of the required WQv, for a minimum of 25% of the disturbed redevelopment *impervious area*, by implementation of standard SMPs or reduced by application of runoff reduction techniques; or
  - 3. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a volume-based alternative SMP, as defined in Section 9.4 of the DM; or
  - 4. Capture and treat 100% of the required WQv, for a minimum of 75% of the disturbed redevelopment *impervious area*, by implementation of a flow-through alternative SMP sized to treat the peak rate of runoff from the WQv design storm; or



5. Application of a combination of 1 through 4 above that provide a weighted average of at least two of the above methods. Application of this method must be in accordance with the criteria in Section 9.2.1(A)(V) of the DM; or
  6. If there is an existing SMP located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 through 5 above.
- ii. Channel Protection Volume (CPv) is not required if there is 0% change to hydrology that increases the *discharge* rate and volume from the project site.
  - iii. *Overbank* Flood Control (Qp) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.
  - iv. Extreme Flood Control (Qf) is not required if there is 0% change to hydrology that increases the *discharge* rate from the project site.

**d. *Sizing Criteria for Combination of Redevelopment Activity and New Development***

Construction projects, that include both *new development* and *redevelopment activity*, must use SMPs that meet the *sizing criteria* calculated as an aggregate of the *sizing criteria* in Part II.C.2.a. or b. for the *new development* portion of the project and Part II.C.2.c. for the *redevelopment activity* portion of the project.

### **Part III. Stormwater Pollution Prevention Plan (SWPPP)**

#### **A. General SWPPP Requirements**

1. A SWPPP must be prepared and implemented by the *owner or operator* of all *construction activity* covered by this permit. All authorized *discharges* must be identified in the SWPPP. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and

practices that will be used to meet the effluent limitations in Part II.B. and, where applicable, the SMP requirements in Part II.C.

2. The *SWPPP* must demonstrate consideration in narrative format of the future physical risks due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR Part 490, and associated guidance.

- a. The owner or operator must consider:

- i. the following physical risks due to climate change:

- (i) increasing temperature; and
    - (ii) increasing precipitation; and
    - (iii) increasing variability in precipitation, including chance of drought; and
    - (iv) increasing frequency and severity of flooding; and
    - (v) rising sea level; and
    - (vi) increasing storm surge; and
    - (vii) shifting ecology.

- ii. for each of the following:

- (i) overall site planning; and
    - (ii) location, elevation, and sizing of:
      - a. control measures and practices; and
      - b. conveyance system(s); and
      - c. detention system(s).

3. The *SWPPP* must describe the erosion and sediment control practices and where required, SMPs that will be used and/or constructed to reduce the *pollutants* in *stormwater discharges* and to assure compliance with the

requirements of this permit. In addition, the *SWPPP* must identify potential sources of pollution which may reasonably be expected to affect the quality of *stormwater discharges*.

4. All *SWPPPs*, that require the SMP component in accordance with Part III.B.2., must be prepared by a *qualified professional*.
5. The *owner or operator* must keep the *SWPPP* current so that, at all times, it accurately documents the erosion and sediment control practices that are being used or will be used during construction, and all SMPs that will be constructed on the site. At a minimum, the *owner or operator* must modify the *SWPPP*, including construction drawings:
  - a. whenever the current provisions prove to be ineffective in *minimizing pollutants* in *stormwater discharges* from the site; and
  - 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*, NYSDEC, or other regulatory authority; and
  - d. to document the final construction conditions in an as-built drawing.
6. NYSDEC 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 must 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 NYSDEC, the *owner or operator* must make the required changes to the *SWPPP* and submit written notification to NYSDEC that the changes have been made. If the *owner or operator* does not respond to NYSDEC's comments in the specified time frame, NYSDEC may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4.
7. 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 SMPs included in the *SWPPP*. The *owner or operator* must have each of the contractors and subcontractors identify at least one person from their company to be *trained contractor* that will be responsible for implementation of the *SWPPP*. The *owner or operator* must ensure that at least one *trained contractor* is on site daily when soil disturbance activities are being performed.

The *owner or operator* must have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before the *commencement of construction activities*:

"I hereby certify under penalty of law that I understand and agree to comply with the requirements 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 requirements of the most current version of the New York State Pollutant Discharge Elimination System (SPDES) Construction General Permit (CGP) 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 am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

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* must 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 the *commencement of construction activities*, they must also sign the certification statement and provide the information listed above prior to performing *construction activities*.

## B. Required *SWPPP* Contents

1. Erosion and sediment control component - The *owner or operator* must prepare a *SWPPP* that includes erosion and sediment control practices.
  - a. Erosion and sediment control practices must be designed:
    - i. in conformance with the BB; or
    - ii. *equivalent* to the BB if deviating from Part III.B.1.a.i.
  - b. If the erosion and sediment control practices are designed in conformance with Part III.B.1.a.ii., the *SWPPP* must include a demonstration of *equivalence* to the BB.
  - c. At a minimum, the erosion and sediment control component of the *SWPPP* must include the following:
    - i. Background information about the scope of the project, including the location, type and size of project; and
    - ii. A site map/construction drawing(s) with north arrows for the project, including a general location map. At a minimum, the site map must 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); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours; 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)* and receiving surface water(s); and
    - iii. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG); and
    - iv. A phasing plan for the project and sequencing plans for all *phases*, both of which must address clearing and grubbing, excavation and grading, utility and infrastructure installation, *final stabilization*,

and any other *construction activity* at the site that will result in soil disturbance.

1. The phasing plan must include:
  - a. a map delineating and labeling the limits of soil disturbance for all *phases* of a project; and
  - b. a table identifying the order and intended schedule of when each *phase* will begin and end its sequencing plan. The table must identify the total disturbed area for each *phase* at any one time and the total disturbed area for the overall project at any one time all on one timeline showing all overlapping quantities of disturbed area at any one time; and
2. A sequencing plan for a specific *phase* must include:
  - a. a table indicating the order and intended schedule of *construction activities* within a *phase*, and corresponding construction drawings with a description of the work to be performed; and
  - b. all permanent and *temporary stabilization* measures; and
- v. 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; and
- vi. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice; and
- vii. 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; and

- viii. A maintenance inspection schedule for the contractor(s) and subcontractor(s) identified in Part III.A.7. to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection schedule must be in accordance with the requirements in the BB technical standard; and
- ix. 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*; and
- x. 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
- xi. Identification of any elements of the design that are not in conformance with the design criteria in the BB technical standard. 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 standard.

2. SMP component – The *owner or operator* of *construction activity* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs.

- a. SMPs must be designed in conformance with the applicable *sizing criteria* in Part II.C.2.a., c., or d.; and
- b. SMPs must be designed in conformance with the *performance criteria*:
  - i. in the DM; or
  - ii. *equivalent* to the DM if deviating from Part III.B.2.b.i.; or
  - iii. in the New York State Stormwater Management Design Manual, dated January 2015 (2015 Design Manual), or *equivalent* to it, if the following criteria are met:

1. The eNOI is submitted in accordance with Part I.D. before January 29, 2027 for *construction activities* that are either:
  - a. subject to governmental review and approval:
    - i. where the *owner or operator* made any application to that governmental entity prior to the effective date of this permit; and
    - ii. such application included a *SWPPP* developed using the 2015 Design Manual or *equivalent* to it; or
  - b. not subject to governmental review and approval:
    - i. where a fiscal allocation for the *construction activities* has been developed and approved by a governmental entity; and
    - ii. the *SWPPP* was developed using the 2015 Design Manual or *equivalent* to it; and
  - c. If SMPs are designed in conformance with Part III.B.2.b.ii., the *SWPPP* must include the reason(s) for the deviation or alternative design and a demonstration of *equivalence* to the DM; and
  - d. If SMPs are designed in conformance with Part III.B.2.b.iii., the *SWPPP* must include supporting information or documentation demonstrating that Part III.B.2.b.iii.1.a. or b. apply; and
  - e. The SMP component of the *SWPPP* must include the following:
    - i. Identification of all SMPs to be constructed as part of the project, including which option the SMP designs conform to, either Part III.B.2.b.i., ii., or iii. Include the dimensions, material specifications and installation details for each SMP; and
    - ii. A site map/construction drawing(s) showing the specific location and size of each SMP; and

- iii. A Stormwater Modeling and Analysis Report that includes:
  - (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points; and
  - (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and SMPs; and
  - (iii) Results of *stormwater* modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre- and post-development runoff rates and volumes for the different storm events; and
  - (iv) Summary table, with supporting calculations, which demonstrates that each SMP has been designed in conformance with the *sizing criteria* included in the DM; and
  - (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part II.C.; and
  - (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the DM. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the DM.
- iv. Soil testing results and locations (test pits, borings); and
- v. Infiltration test results, when required in accordance with Part III.B.2.a.; and
- vi. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each SMP. The plan must identify the entity

that will be responsible for the long-term operation and maintenance of each practice; and

3. Enhanced Phosphorus Removal Standards - The *owner or operator* of *construction activity* identified in Table 2 of Appendix B that is located in a watershed identified in Appendix C must prepare a *SWPPP* that includes SMPs designed in conformance with the applicable *sizing criteria* in Part II.C.2.b., c., or d. and the *performance criteria* Enhanced Phosphorus Removal Standards included in the DM. At a minimum, the SMP component of the *SWPPP* must meet the requirements of Part III.B.2.

### **C. Required *SWPPP* Components by Project Type**

*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 accordance with Part III.B.1. *Owners or operators* of the *construction activities*, identified in Table 2 of Appendix B, must prepare a *SWPPP* that also includes SMPs designed in accordance with Part III.B.2 or 3.

For the entire area of disturbance, including the entire *common plan of development or sale* if applicable, the owner or operator must evaluate every bullet from Appendix B Table 1 and Table 2 separately. If bullets from both Table 1 and Table 2 apply, the *SWPPP* must include erosion and sediment control practices for all *construction activities* but SMPs for only those portions of the *construction activities* that fall under Table 2 bullet(s).

## **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 (including pollution prevention measures), and all SMPs identified in the *SWPPP*, are inspected and maintained in accordance with Part IV.B. and C.

### **B. Contractor Maintenance Inspection Requirements**

1. The *owner or operator* of each *construction activity*, identified in Tables 1 and 2 of Appendix B, must have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being

implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor must:

- a. if the corrective action does not require engineering design:
    - i. begin implementing corrective actions within one business day; and
    - ii. complete the corrective actions within five business days; or
  - b. if the corrective action requires engineering design:
    - i. begin the engineering design process within five business days; and
    - ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.
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 *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. The *trained contractor* must 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 *trained contractor* can stop conducting the maintenance inspections in accordance with Part IV.B.1. if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational.

### **C. Qualified Inspector Inspection Requirements**

1. With the exception of the following *construction activities* identified in Tables 1 and 2 of Appendix B, a *qualified inspector* must conduct site inspections for all other *construction activities* identified in Tables 1 and 2 of Appendix B:
  - 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 or equal to 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 D; and

- b. the construction of a single-family home that involves soil disturbances of one (1) or more acres but less than or equal to 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 D; and
  - c. construction on *agricultural property* that involves soil disturbances of one (1) or more acres but less than five (5) acres; and
  - d. *construction activities* located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances of 5,000 square feet or more, but less than one acre.
2. The *qualified inspector* must conduct site inspections in accordance with the following timetable:
- a. For *construction sites* where soil disturbance activities are on-going, the *qualified inspector* must conduct a site inspection at least once every seven (7) calendar days; or
  - b. For *construction sites* where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part I.E.6. to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days; or
  - 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* must conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas under the jurisdiction of a *Traditional Land Use Control MS4 Operator*, the *Traditional Land Use Control MS4 Operator* (provided the *Traditional Land Use Control MS4 Operator* is not the *owner or operator* of the *construction activity*) by hard copy or email prior to reducing the inspections to this frequency and again by hard copy or email prior to re-commencing construction; or

- d. For *construction sites* where soil disturbance activities have been shut down with partial project completion, the requirement to have the *qualified inspector* conduct inspections ceases if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational. The *owner or operator* must notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix E) or, in areas subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1., the *Traditional Land Use Control MS4 Operator(s)* (provided the *Traditional Land Use Control MS4 Operator(s)* are not the *owners or operators* of the *construction activity*) in writing prior to the shutdown and again in writing prior to resuming *construction activity*. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* must terminate coverage by meeting the requirements of Part V; or
  - e. For *construction sites* involving soil disturbance of one (1) or more acres that *directly discharge* to one of the 303(d) segments listed in Appendix D or is located in one of the watersheds listed in Appendix C, the *qualified inspector* must conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections must be separated by a minimum of two (2) full calendar days.
3. At a minimum, the *qualified inspector* must inspect:
- a. all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness; and
  - b. all SMPs under construction to ensure that they are constructed in conformance with the *SWPPP*; and
  - c. all areas of disturbance that have not achieved *final stabilization*; and
  - d. all points of *discharge to surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site*; and
  - e. all points of *discharge* from the *construction site*.



4. The *qualified inspector* must prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report must include and/or address all of the following, for all *construction activities* except those listed in Part IV.C.1.:
  - a. Permit identification number; and
  - b. Date and time of inspection; and
  - c. Name and title of person(s) performing inspection; and
  - d. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection, including the temperature at the time of the inspection; and
  - e. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This must 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; and
  - f. A description of the condition of all *surface waters of the State* located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This must include identification of any *discharges* of sediment to the *surface waters of the State*; and
  - g. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and
  - h. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced; and
  - i. Description and sketch (map) of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection; and
  - j. Estimates, in square feet or acres, of the following areas:

- i. Total area with active soil disturbance (not requiring either *temporary stabilization* or *final stabilization*); and
  - ii. Total area with inactive soil disturbance (requiring either *temporary stabilization* or *final stabilization*); and
  - iii. Total area that has achieved *temporary stabilization*; and
  - iv. Total area that has achieved *final stabilization*; and
- k. Current stage of construction of all SMPs and identification of all *construction activity* on site that is not in conformance with the *SWPPP* and technical standards; and
- l. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the SMP(s); and
- m. Identification and status of all corrective actions that were required by previous inspection; and
- n. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* must attach 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* must 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* must 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* must notify the *owner or operator*, and appropriate contractor or subcontractor identified in Part III.A.7., of any corrective actions that need to be taken. The contractor or subcontractor must:
- a. if the corrective action does not require engineering design:

- i. begin implementing corrective actions within one business day; and
    - ii. complete the corrective actions within five business days; or
  - b. if the corrective action requires engineering design:
    - i. begin the engineering design process within five business days; and
    - ii. complete the corrective action in a reasonable time frame but no later than within 60 calendar days.
6. All inspection reports must be signed by the *qualified inspector*. In accordance with Part I.E.3., the inspection reports must be maintained on site with the *SWPPP*.

## **Part V. How to Terminate CGP Coverage**

### **A. Electronic Notice of Termination (eNOT) Submittal**

The eNOT contains questions to ensure requirements in Part V.A. have been met.

1. An *owner or operator* must terminate coverage when one or more of the following requirements have been met:
  - a. Total project completion:
    - i. all *construction activity* identified in the *SWPPP* has been completed; and
    - ii. all areas of disturbance have achieved *final stabilization*; and
    - iii. all temporary, structural erosion and sediment control measures have been removed; and
    - iv. all SMPs have been constructed in conformance with the *SWPPP* and are operational; and
    - v. an as-built drawing has been prepared; or

- b. Planned shutdown with partial project completion:
    - i. all soil disturbance activities have ceased; and
    - ii. all areas disturbed as of the project shutdown date have achieved *final stabilization*; and
    - iii. all temporary, structural erosion and sediment control measures have been removed; and
    - iv. all SMPs required for the completed portion of the project have been constructed in conformance with the *SWPPP* and are operational; and
    - v. an as-built drawing has been prepared; or
  - c. In accordance with Part I.G. Change of Owner or Operator; or
  - d. The *owner or operator* has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.
2. For *construction activities* that require *qualified inspector* inspections in accordance with Part IV.C.1. and have met Part V.A.1.a. or b., the *owner or operator* must have the *qualified inspector* perform a final site inspection prior to submitting the eNOT. The *qualified inspector* must, by signing the “Final Stabilization” and “Post-Construction Stormwater Management Practice(s)” certification statements on the eNOT, certify that all the requirements in Part V.A.1.a. or b. have been achieved.
3. For *construction activities* that are subject to the review authority of *Traditional Land Use Control MS4 Operator(s)* in accordance with Part I.D.2.b.ii.1. and meet Part V.A.1.a. or b., the *owner or operator* must have the *Traditional Land Use Control MS4 Operator(s)* sign the “MS4 Acceptance” statement on the eNOT in accordance with the requirements in Part VII.J. A *Traditional Land Use Control MS4 Operator* official, by signing this statement, determined that it is acceptable for the *owner or operator* to submit the eNOT in accordance with the requirements of this Part. A *Traditional Land Use Control MS4 Operator* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) when required in Part V.A.2.

Part V.A.4.

4. For *construction activities* that require SMPs and meet Part V.A.1.a. or b., the *owner or operator* must, prior to submitting the eNOT, ensure one of the following:
  - a. for SMP(s) that were constructed by a private entity, but will be owned, operated, and maintained by a public entity, the SMP(s) and any right-of-way(s) needed to operate and maintain such practice(s) have been deeded to the municipality in which the practice(s) is located; or
  - b. for SMP(s) that are privately owned, but will be operated and maintained by a public entity, an executed operation and maintenance agreement is in place with the municipality that will operate and maintain the SMP(s); or
  - c. for SMP(s) that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record; or
  - d. for SMP(s) that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility, the *owner or operator* has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.
5. An *owner or operator* that has met the requirements of Part V.A.1., 2., 3., and 4. must request termination of coverage under this permit by submitting a complete Notice of Termination form electronically using a NYSDEC approved form.<sup>5</sup>
  - a. The owner's or operator's coverage is terminated as of the termination date indicated in the Letter of Termination (LOT), which is sent by NYSDEC after a complete eNOT is submitted.

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<sup>5</sup> Unless NYSDEC grants a waiver in accordance with 40 CFR 127.15(c) or (d). All waiver requests must be submitted to Stormwater\_info@dec.ny.gov or NYSDEC, Bureau of Water Permits, 625 Broadway, 4<sup>th</sup> Floor, Albany, New York 12233-3505.

## **Part VI. Record Retention and Reporting**

### **A. Record Retention**

The *owner or operator* must retain a copy of the documents listed in Part I.E.3. and a copy of the LOT for a period of at least five years from the date that NYSDEC accepts a complete NOT submitted in accordance with Part V.

### **B. Reporting**

Except for the eNOI, the signature forms associated with the eNOI, and the eNOT, all other written correspondence requested by NYSDEC, including individual permit applications, must be sent to the address of the appropriate DOW (SPDES) Program contact at the Regional Office listed in Appendix E.

## **Part VII. Standard Permit Requirements**

For the purposes of this permit, examples of contractors and subcontractors include: third-party maintenance and construction contractors.

### **A. Duty to Comply**

The *owner or operator*, and all contractors or subcontractors, must comply with all requirements of this permit. Any non-compliance with the requirements of this permit constitutes a violation of the New York State Environmental Conservation Law (ECL), and its implementing regulations, and is grounds for enforcement action. Filing of a request for termination of coverage under this permit, or a notification of planned changes or anticipated non-compliance, does not limit, diminish or stay compliance with any requirements of this permit.

### **B. Need to Halt or Reduce Activity Not a Defense**

The necessity to halt or reduce the *construction activity* regulated by this permit, in order to maintain compliance with the requirements of this permit, must not be a defense in an enforcement action.

### **C. Penalties**

There are substantial criminal, civil, and administrative penalties associated with violating the requirements of this permit. Fines of up to \$37,500 per day for each

violation and imprisonment for up to 15 years may be assessed depending upon the nature and degree of the offense.

#### **D. False Statements**

Any person who knowingly makes any false material statement, representation, or certification in any application, record, report, or other document filed or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance must, upon conviction, be punished in accordance with ECL §71-1933 and or New York State Penal Law Articles 175 and 210.

#### **E. Re-Opener Clause**

Upon issuance of this permit, a determination has been made on the basis of a submitted Notice of Intent, plans, or other available information, that compliance with the specified permit requirements will reasonably protect classified water use and assure compliance with applicable *water quality standards*. Satisfaction of the requirements of this permit notwithstanding, if operation pursuant to this permit causes or contributes to a condition in contravention of State *water quality standards* or guidance values, or if NYSDEC determines that a modification is necessary to prevent impairment of the best use of the waters or to assure maintenance of *water quality standards* or compliance with other provisions of ECL Article 17 or the Clean Water Act (CWA), or any regulations adopted pursuant thereto, NYSDEC may require such modification and the Commissioner may require abatement action to be taken by the *owner or operator* and may also prohibit such operation until the modification has been implemented.

#### **F. Duty to Mitigate**

The *owner or operator*, and its contractors and subcontractors, must 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.

#### **G. Requiring Another General Permit or Individual SPDES Permit**

NYSDEC may require any *owner or operator* authorized to *discharge* in accordance with this permit to apply for and obtain an individual SPDES permit or apply for authorization to *discharge* in accordance with another general SPDES permit.

1. Cases where an individual SPDES permit or authorization to discharge in accordance with another general SPDES permit may be required include, but is not limited to the following:



Part VII.G.1.a.

- a. the *owner or operator* is not in compliance with the conditions of this permit or does not meet the requirements for coverage under this permit; and
  - b. a change has occurred in the availability of demonstrated technology or practices for the control or abatement of *pollutants* applicable to the *point source*; and
  - c. new effluent limitation guidelines or new source performance standards are promulgated that are applicable to *point sources* authorized to *discharge* in accordance with this permit; and
  - d. existing effluent limitation guidelines or new source performance standards that are applicable to *point sources* authorized to *discharge* in accordance with this permit are modified; and
  - e. a water quality management plan containing requirements applicable to such *point sources* is approved by NYSDEC; and
  - f. circumstances have changed since the time of the request to be covered so that the *owner or operator* is no longer appropriately controlled under this permit, or either a temporary or permanent reduction or elimination of the authorized *discharge* is necessary; and
  - g. the *discharge* is in violation of section 17-0501 of the ECL; and
  - h. the *discharge(s)* is a significant contributor of *pollutants*. In making this determination, NYSDEC may consider the following factors:
    - i. the location of the *discharge(s)* with respect to *surface waters of the State*; and
    - ii. the size of the *discharge(s)*; and
    - iii. the quantity and nature of the *pollutants discharged* to *surface waters of the State*; and
    - iv. other relevant factors including compliance with other provisions of ECL Article 17, or the CWA.
2. When NYSDEC requires any *owner or operator* authorized by this permit to apply for an individual SPDES permit as provided for in this subdivision, it must notify the *owner or operator* in writing that a permit application is required. This notice must include a brief statement of the reasons for this decision, an application

form, a statement setting a time for the *owner or operator* to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from the *owner's or operator's* receipt of the notification letter, whereby the authorization to *discharge* under this permit must be terminated. NYSDEC may grant additional time upon demonstration, to the satisfaction of the RWE,<sup>6</sup> that additional time to apply for an alternative authorization is necessary or where NYSDEC has not provided a permit determination in accordance with 6 NYCRR Part 621.

3. When an individual SPDES permit is issued to an *owner or operator* authorized to *discharge* under this permit for the same *discharge(s)*, this permit authorization for *construction activities* authorized under the individual SPDES permit is automatically terminated on the effective date of the individual SPDES permit unless termination is earlier in accordance with 6 NYCRR Part 750.

#### **H. Duty to Provide Information**

The *owner or operator* must furnish to NYSDEC, within five business days, unless otherwise set forth by NYSDEC, any information that NYSDEC may request to determine whether cause exists to determine compliance with this permit or to determine whether cause exists for requiring an individual SPDES permit in accordance with 6 NYCRR 750-1.21(e) (see Part VII.G. Requiring Another General Permit or Individual Permit).

The *owner or operator* must make available to NYSDEC, for inspection and copying, or furnish to NYSDEC within 25 business days of receipt of a NYSDEC request for such information, any information retained in accordance with this permit.

Except for Part I.D.4. and 5. and Part I.G., the following applies: where the *owner or operator* becomes aware that it failed to submit any relevant facts on the Notice of Intent, or submitted incorrect information in a Notice of Intent or in any report to NYSDEC, the *owner or operator* must submit such facts or corrected information to NYSDEC within five business days.

#### **I. Extension**

In the event a new permit is not issued and effective prior to the expiration of this permit, and this permit is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, then the *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the requirements of this permit until a new permit is issued and effective.

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<sup>6</sup> The Regional Water Manager where a DEC Region does not have a RWE.

## **J. Signatories and Certification**

The Notice of Intent, Notice of Termination, and reports required by this permit must be signed as provided in 40 CFR §122.22.

1. All Notices of Intent and Notices of Termination must be signed as follows:

a. For a corporation. 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 Notice of Intent or Notice of Termination requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: NYSDEC does not require specific assignments or delegations of authority to responsible corporate officers identified in 40 CFR §122.22(a)(1)(i). NYSDEC will presume that these responsible corporate officers have the requisite authority to sign the Notice of Intent or Notice of Termination unless the corporation has notified NYSDEC to the contrary. Corporate procedures governing authority to sign a Notice of Intent or Notice of Termination may provide for assignment or delegation to applicable corporate positions under 40 CFR §122.22(a)(1)(ii) rather than to specific individuals.

b. For a partnership or sole proprietorship. By a general partner or the proprietor, respectively.

- c. For a municipality, State, Federal, or other public agency. By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
  - 1. the chief executive officer of the agency; or
  - 2. 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. All reports required by this permit, and other information requested by NYSDEC, must be signed by a person described in Part VII.J.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.J.1. or using the Duly Authorized Form, found on the DEC website; and
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, 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 is submitted to NYSDEC.
- 3. Changes to authorization. If an authorization under Part VII.J.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the *construction activity*, a new authorization satisfying the requirements of Part VII.J.2. must be submitted to NYSDEC prior to or together with any reports, information, or applications to be signed by an authorized representative.
- 4. Certification. Any person signing a document under Part VII.J.1. or 2. must make the following certification:

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who*

*manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

5. Electronic reporting. If documents described in Part VII.J.1. or 2. are submitted electronically by or on behalf of the *construction activity* with coverage under this permit, any person providing the electronic signature for such documents must meet all relevant requirements of this section, and must ensure that all of the relevant requirements of 40 CFR Part 3 (including, in all cases, subpart D to Part 3) (Cross-Media Electronic Reporting) and 40 CFR Part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

## **K. Inspection and Entry**

The *owner or operator* must allow NYSDEC, the USEPA Regional Administrator, the applicable county health department, or any authorized representatives of those entities, 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:

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 requirements of this permit; and
2. have access to and copy at reasonable times, any records that must be kept under the requirements of this permit, including records required to be maintained for purposes of operation and maintenance; and
3. inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and
4. sample or monitor at reasonable times, for the purposes of assuring general SPDES permit compliance or as otherwise authorized by the CWA or ECL, any substances or parameters at any location; and
5. enter upon the property of any contributor to the regulated facility or activity under authority of the *owner or operator*.

**L. Confidentiality of Information**

The following must not be held confidential: this permit, the fact sheet for this permit, the name and address of any *owner or operator*, effluent data, the Notice of Intent, and information regarding the need to obtain an individual permit or an alternative general SPDES permit. This includes information submitted on forms themselves and any attachments used to supply information required by the forms (except information submitted on usage of substances). Upon the request of the *owner or operator*, NYSDEC must make determinations of confidentiality in accordance with 6 NYCRR Part 616, except as set forth in the previous sentence. Any information accorded confidential status must be disclosed to the Regional Administrator upon his or her written request. Prior to disclosing such information to the Regional Administrator, NYSDEC will notify the Regional Administrator of the confidential status of such information.

**M. Other Permits May Be Required**

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

**N. NYSDEC Orders or Civil Decrees/Judgments**

The issuance of this permit by the NYSDEC, and the coverage under this permit by the *owner or operator*, does not supersede, revoke, or rescind any existing order on consent or civil Decree/Judgment, or modification to any such documents or to any order issued by the Commissioner, or any of the terms, conditions, or requirements contained in such order or modification therefore, unless expressly noted.

**O. Property Rights**

Coverage under this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations, nor does it obviate the necessity of obtaining the assent of any other jurisdiction as required by law for the *discharge* authorized.

**P. Compliance with Interstate Standards**

If the *construction activity* covered by this permit originates within the jurisdiction of an interstate water pollution control agency, then the *construction activity* must also comply with any applicable effluent standards or *water quality standards* promulgated by that interstate agency and as set forth in this permit for such *construction activities*.

**Q. Oil and Hazardous Substance Liability**

Coverage under this permit does not affect the imposition of responsibilities upon, or the institution of any legal action against, the *owner or operator* under section 311 of the CWA, which must be in conformance with regulations promulgated pursuant to section 311 governing the applicability of section 311 of the CWA to *discharges* from facilities with *NPDES* permits, nor must such issuance preclude the institution of any legal action or relieve the *owner or operator* from any responsibilities, liabilities, or penalties to which the *owner or operator* is or may be subject pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. section 9601 et seq. (CERCLA).

**R. 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, must not be affected thereby.

**S. NYSDEC Approved Forms**

The *owner or operator* must provide all relevant information that is requested by NYSDEC, and required by this permit, on all NYSDEC approved forms.



## **APPENDIX A – Abbreviations and Definitions**

### **Abbreviations**

APO – Agency Preservation Officer  
BB – New York State Standards and Specifications for Erosion and Sediment Control (Blue Book), dated November 2016  
BMP – Best Management Practice  
CPESC – Certified Professional in Erosion and Sediment Control  
CPv – Channel Protection Volume  
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)  
DM – New York State Stormwater Management Design Manual (Design Manual), dated July 31, 2024  
DOW – Division of Water  
EAF – Environmental Assessment Form  
ECL – chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law  
EPA – U.S. Environmental Protection Agency  
HSG – Hydrologic Soil Group  
MS4 – Municipal Separate Storm Sewer System  
NOI – Notice of Intent  
NOT – Notice of Termination  
NPDES – National Pollutant Discharge Elimination System  
NYC – The City of New York  
NYCDEP – The City of New York Department of Environmental Protection  
NYSDEC – The New York State Department of Environmental Conservation  
OPRHP – Office of Parks, Recreation and Historic Places  
Qf – Extreme Flood  
Qp – Overbank Flood  
RR – Runoff Reduction  
RRv – Runoff Reduction Volume  
RWE – Regional Water Engineer  
SEQR – State Environmental Quality Review Act  
SHPA – State Historic Preservation Act  
SMP – Post-Construction Stormwater Management Practice  
SPDES – State Pollutant Discharge Elimination System  
SWPPP – Stormwater Pollution Prevention Plan  
TMDL – Total Maximum Daily Load  
UPA – Uniform Procedures Act  
USDA – United States Department of Agriculture  
WQv – Water Quality Volume

## Definitions

All definitions in this section are solely for the purposes of this permit. If a word is not italicized in the permit, use its common definition.

**Agricultural Building** – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

**Agricultural Property** – the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023).

**Alter Hydrology from Pre- to Post-Development Conditions** – 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 System** – a sewer system which conveys sewage and *stormwater* through a single pipe system to a publicly owned treatment works.

**Commence (Commencement of) Construction Activities** – 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.

**Common Plan of Development or Sale** – a contiguous area where multiple separate and distinct *construction activities* are occurring, or may occur, under one plan. The “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 (SEQR) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating *construction activities* may occur on a specific plot. A *common plan of development or sale* is comprised of two or more *phases*.

*Common plan of development or sale* does not include separate and distinct *construction activities* that are occurring, or may occur, under one plan that are at least 1/4 mile apart provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

**Construction Activity(ies)** – identified within 40 CFR 122.26(b)(14)(x), 122.26(b)(15)(i), and 122.26(b)(15)(ii), any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, mechanized 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, which is excluded from the calculation of the soil disturbance for a project. Routine maintenance includes, but is not limited to:

- Re-grading of gravel roads or parking lots; and
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of the ditch; and
- Replacement of existing culverts that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity of a ditch; and
- Replacement of existing bridges that maintains the approximate original line and grade, and maintains or improves the hydraulic capacity beneath the bridges; and
- 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); and
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*; and
- 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; and
- Long-term use of equipment storage areas at or near highway maintenance facilities; and
- 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*; and
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts; and
- Maintenance of ski trails including brush hog use and mowing; and
- Above ground snowmaking pipe replacement; and
- Replacement of existing utility poles; etc.

**Construction Site** – the land area where *construction activity(ies)* will occur. See also the definitions for “*Commence (Commencement of) Construction Activities*” and “*Common Plan of Development or Sale.*”

**Dewatering** – the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

**Directly Discharge(s)(ing) (to a specific surface waterbody)** – 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)(d)** – any addition of any *pollutant* to waters of the State through an outlet or *point source*.

**Embankment** – an earthen or rock slope that supports a road/highway.

**Equivalent (Equivalence)** – the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

**Final Stabilization** – 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.

**Historic Property** – any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

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

**Infeasible** – not technologically possible, or not economically practicable and achievable considering best industry practices.

**Minimize(ing)(ation)** – reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

**Municipal Separate Storm Sewer System (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):

1. owned or operated by a State, city, town, village, 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*; and
2. designed or used for collecting or conveying *stormwater*; and
3. which is not a *combined sewer system*; and
4. which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

**Natural Buffer(s)** – an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

**New Development** – any land disturbance that does not meet the definition of *Redevelopment Activity* included in this appendix.

**New York State Erosion and Sediment Control Certificate Program** – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

**Nonpoint Source(s)** – any source of water pollution or *pollutants* which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

**Overbank** – flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

**Owner or Operator** – the person, persons, or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit requirements.

**Performance Criteria** – the six performance criteria for each group of SMPs in Chapters 5 and 6 of the technical standard, New York State Stormwater Management Design Manual (DM), dated July 31, 2024. These include feasibility, conveyance, pretreatment, treatment, landscaping, and maintenance. It does not include the *Sizing Criteria* (i.e. WQv, RRV, CPv, Qp and Qf) in Part I.C.2. of the permit.

**Phase** – a defined area in which *construction activities* are occurring or will occur separate from other defined area(s).

**Point Source** – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be *discharged*.

**Pollutant(s)** – 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 6 NYCRR Parts 700 et seq.

**Qualified Inspector** – 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, *New York State Erosion and Sediment Control Certificate Program* holder or other NYSDEC 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 NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC 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 SMPs that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

**Qualified Professional** – 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 NYSDEC endorsed individual(s). Individuals preparing *SWPPPs* that require the SMP 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. 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.

**Redevelopment Activity(ies)** – the disturbance and reconstruction of existing *impervious area*, including *impervious areas* that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

**Renewable Energy** – electricity or thermal energy generated by renewable energy systems through use of the following technologies: solar thermal, photovoltaics, on land and offshore wind, hydroelectric, geothermal electric, geothermal ground source heat, tidal energy, wave energy, ocean thermal, and fuel cells which do not utilize a fossil fuel resource in the process of generating electricity.

**Site Limitations** – site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical *site limitations* include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of *site limitations* shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

**Sizing Criteria** – the criteria included in Part I.C.2 of the permit that are used to size SMPs. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and Extreme Flood (Qf).

**Steep Slope** – land area designated on the current United States Department of Agriculture (USDA) Soil Survey as Soil Slope Phase D, (provided the map unit name or description is inclusive of slopes greater than 25%), or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

**Stormwater** – that portion of precipitation that, once having fallen to the ground, is in excess of the evaporative or infiltrative capacity of soils, or the retentive capacity of surface features, which flows or will flow off the land by surface runoff to waters of the State.

**Streambank** – the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

**Stormwater Pollution Prevention Plan (SWPPP)** – a project specific report, including construction drawings, that among other things: describes the *construction activity(ies)*, identifies the potential sources of pollution at the *construction site*; describes and shows the *stormwater* controls that will be used to control the *pollutants* (i.e. erosion and sediment controls; for many projects, includes SMPs); and identifies procedures the *owner or operator* will implement to comply with the requirements of the permit. See Part III of the permit for a complete description of the information that must be included in the *SWPPP*.

**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 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.

**Temporarily Ceased** – an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

**Temporary Stabilization** – 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 Load (TMDL)** – 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 and still meet *water quality standards*, and an allocation of that amount to the *pollutant's* sources. A TMDL stipulates Waste Load Allocations (WLA) for *point source discharges*, Load Allocations (LA) for *nonpoint sources*, and a margin of safety (MOS).

**Traditional Land Use Control MS4 Operator** – a city, town, or village with land use control authority that is authorized to *discharge* under New York State DEC's SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

**Trained Contractor** – an employee from the contracting (construction) company, identified in Part III.A.7., that has received four (4) hours of NYSDEC endorsed training



in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC 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.7., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, *New York State Erosion and Sediment Control Certificate Program* holder, 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 NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity).

The *trained contractor* is responsible for the day-to-day implementation of the *SWPPP*.

**Tree Clearing** – *construction activities* limited to felling and removal of trees.

*Tree clearing* does not include hand felling and leaving the trees in place with no support from mechanized equipment, which is not considered *construction activity* requiring coverage under this permit.

**Water Quality Standard** – 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**

**The following *construction activities* that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:**

- Single-family home 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 D
- Single-family residential subdivisions with 25% or less *impervious cover* at total site build-out and 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 D
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.
- Structural agricultural conservation practices as identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023) that include construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.

**The following *construction activities* that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:**

- All construction activities located in the New York City Watershed located east of the Hudson River, see Appendix C Figure 1, that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

**Within the municipal boundaries of NYC:**

- Stand-alone road reconstruction, where the total soil disturbance from only that road construction, is less than one (1) acre of land.

**The following *construction activities*:**

- Installation of underground linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation, *stormwater* retrofits, stream restoration, and resiliency projects that reconstruct shoreline areas to address sea level rise
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an *impervious cover*
- Cross-country ski trails, walking/hiking trails, and mountain biking trails, including a de minimis parking lot (maximum 10 spaces total, sized for passenger cars) with 35 feet minimum preservation of undisturbed area downgradient from the parking lot
- Dam rehabilitation (the structure of the dam itself)
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are not part of residential, commercial, or institutional development;
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path, or walking path.

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

**The following *construction activities*:**

- Slope stabilization
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics
- Spoil areas that will be covered with vegetation
- Vegetated open space (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) that do not *alter hydrology from pre- to post-development* conditions
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions
- Demolition where vegetation will be established, and no *redevelopment activity* is planned<sup>1</sup>
- Installation or replacement of either an overhead electric transmission line or a ski lift tower that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*.
- Solar array field areas that have tables elevated off the ground, spaced one table width apart, do not *alter hydrology from pre- to post-development conditions*, and address water quality volume and runoff reduction volume by maintaining sheet flow on slopes less than 8%.
- Structural agricultural conservation practices as identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023) that do not include construction or reconstruction of *impervious area* and do not *alter hydrology from pre- to post-development* conditions.
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary *impervious areas* that will be restored to pre-construction conditions once the *construction activity* is complete (in this context, “temporary” means the *impervious area* will be in place for two years or less)
- Other *construction activities* that do not include the construction or reconstruction of *impervious area*, and do not *alter hydrology from pre- to post-development* conditions, and are not listed in Table 2.

1. If the site is redeveloped in the future, a new eNOI must be submitted.

**Table 2**

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPs)**

**The following *construction activities*:**

- 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 D
- Single-family home that disturbs five (5) or more acres of land
- 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 D
- 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 between 20,000 square feet and one (1) acre of land within the municipal boundaries of NYC 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 *common plan of development or sale* that will ultimately disturb five (5) or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Creation of 5,000 square feet or more of *impervious area* in the municipal boundaries of NYC
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- 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) that involves soil disturbance greater than five acres.
- Structural agricultural conservation practices as identified in Table II in the “Agricultural Best Management Practice Systems Catalogue” (dated June 2023) that involves soil disturbance greater than five acres and include the construction or reconstruction of *impervious area* or *alter hydrology from pre- to post-development* conditions.
- Facility buildings, including ski lodges, restroom buildings, pumphouses, ski lift terminals, and maintenance and groomer garages
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills; including creation of landfills or capping landfills.
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTWs, water treatment plants, and water storage tanks
- Golf courses
- Office complexes

Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A *SWPPP* THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES (SMPs)**

**The following *construction activities*:**

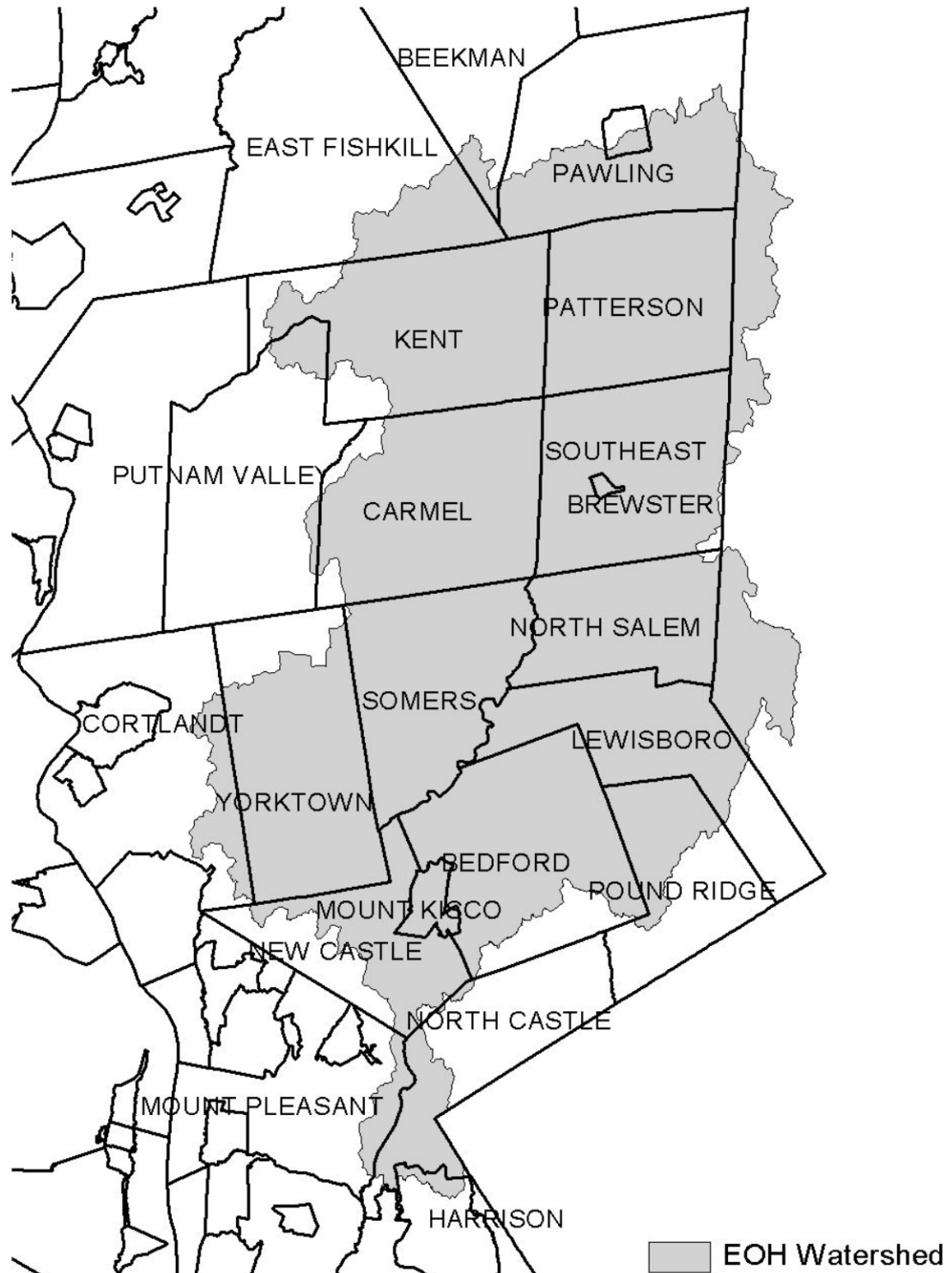
- Permanent laydown yards and equipment storage lots
- Playgrounds that include the construction or reconstruction of *impervious area*
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surfaces
- Road construction or reconstruction, outside the municipal boundaries of NYC
- Road construction within the municipal boundaries of NYC
- Stand-alone road reconstruction, within the municipal boundaries of NYC where the total soil disturbance from that road reconstruction involves soil disturbance of one (1) acre or more of land
- Parking lot construction or reconstruction (as with all Table 2 bullets, this includes parking lots constructed as part of the *construction activities* listed in Table 1, unless a Table 1 bullet specifies otherwise)
- 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 overhead electric transmission line, wind-power, cell tower, oil or gas well drilling, sewer or water main, ski lift, or other linear utility project
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of a residential, commercial or institutional development
- Sidewalks, bike paths, or walking paths, surfaced with an *impervious cover*, that are part of highway construction or reconstruction
- Solar array field areas on slopes greater than 8% that cannot maintain sheet flow using management practices identified in the BB or the DM
- Solar array field areas on slopes less than 8% that will *alter the hydrology from pre- to post-development* conditions
- Solar array field areas with tables that are not elevated high enough to achieve *final stabilization* beneath the tables
- Traditional *impervious areas* associated with solar development (e.g. roads, buildings, transformers)
- Utility pads surfaced with *impervious cover*, including electric vehicle charging stations
- All other *construction activities* that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre- to post-development* conditions, and are not listed in Table 1

## **APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal**

**Watersheds where *owners or operators of construction activities* identified in Table 2 of Appendix B must prepare a *SWPPP* that includes SMPs designed in conformance with the Enhanced Phosphorus Removal Standards included in the DM technical standard.**

- 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
- Kinderhook Lake Watershed – Figure 5

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

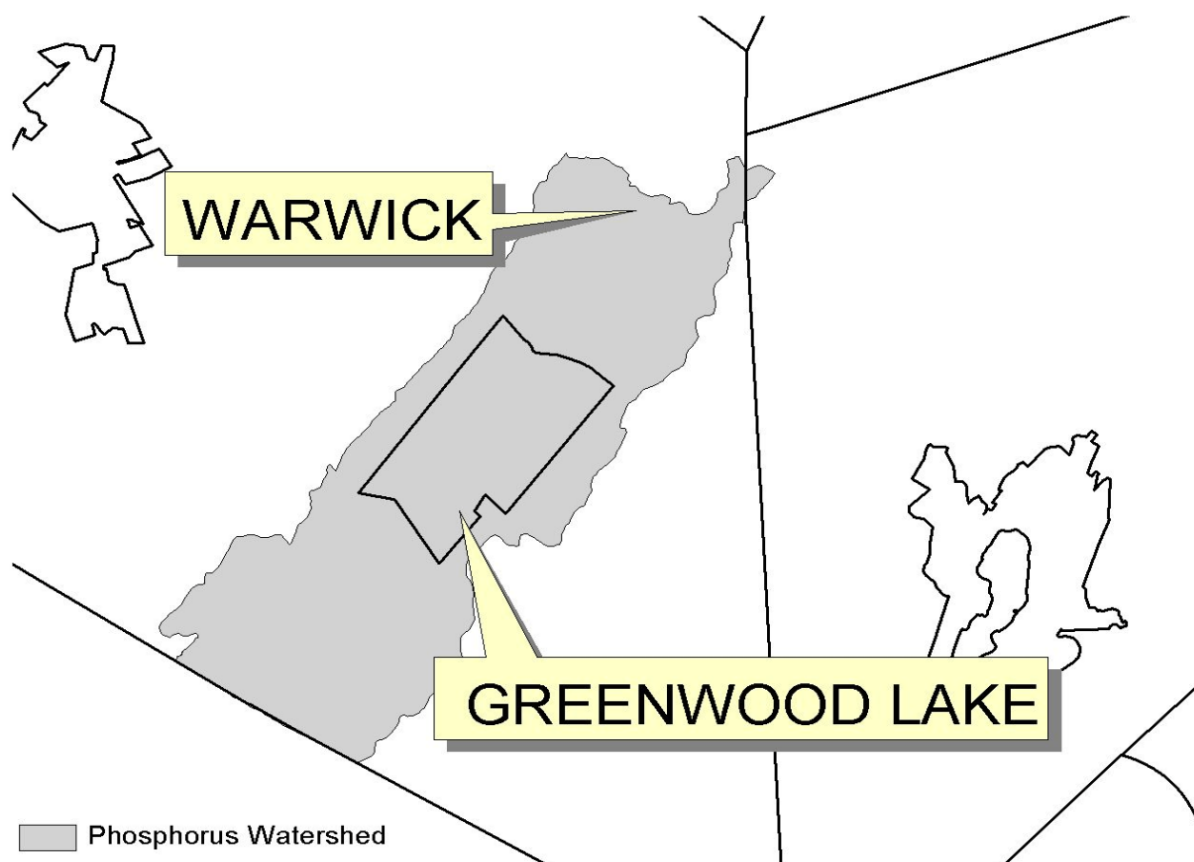


**Figure 2 - Onondaga Lake Watershed**

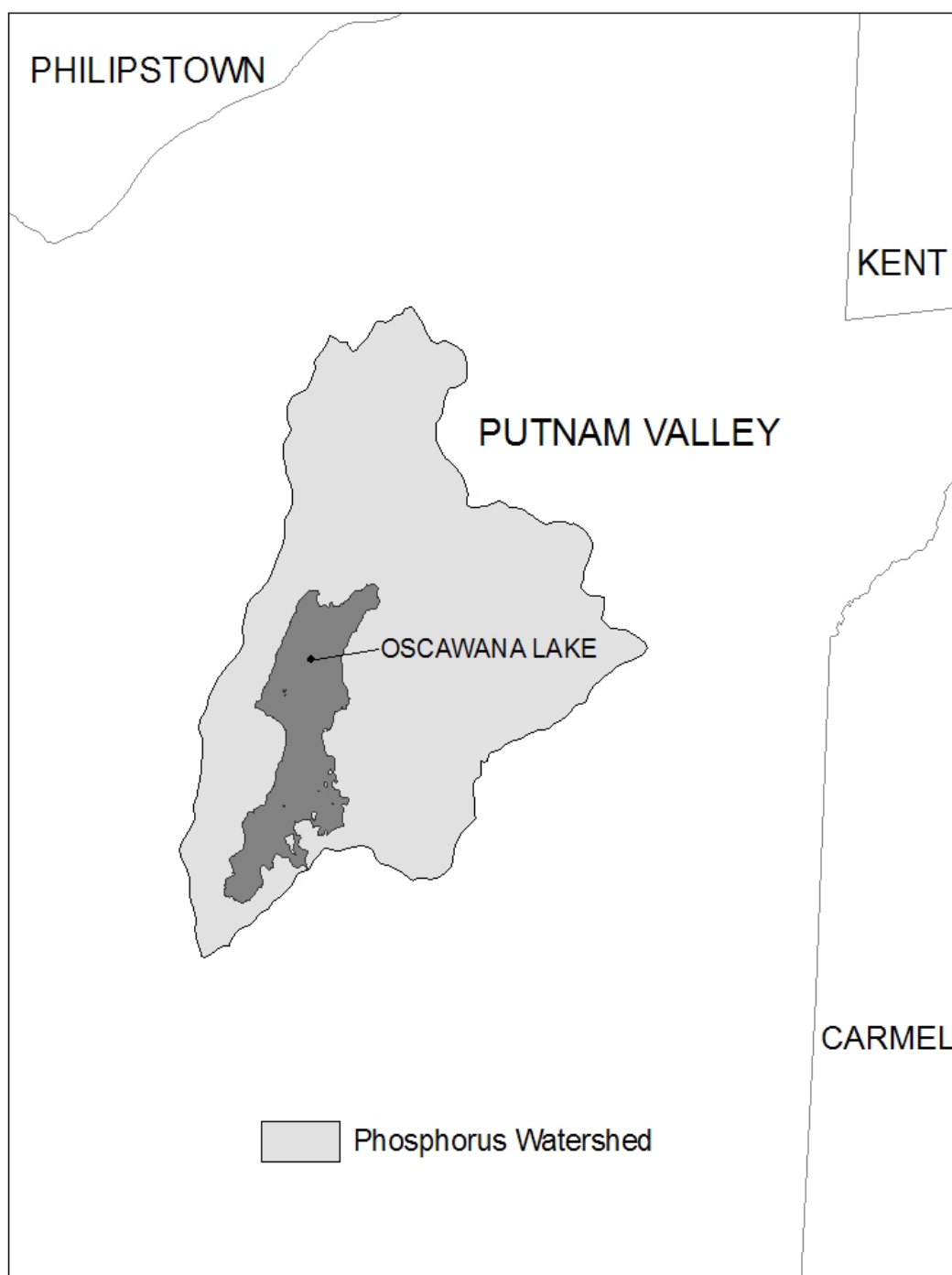




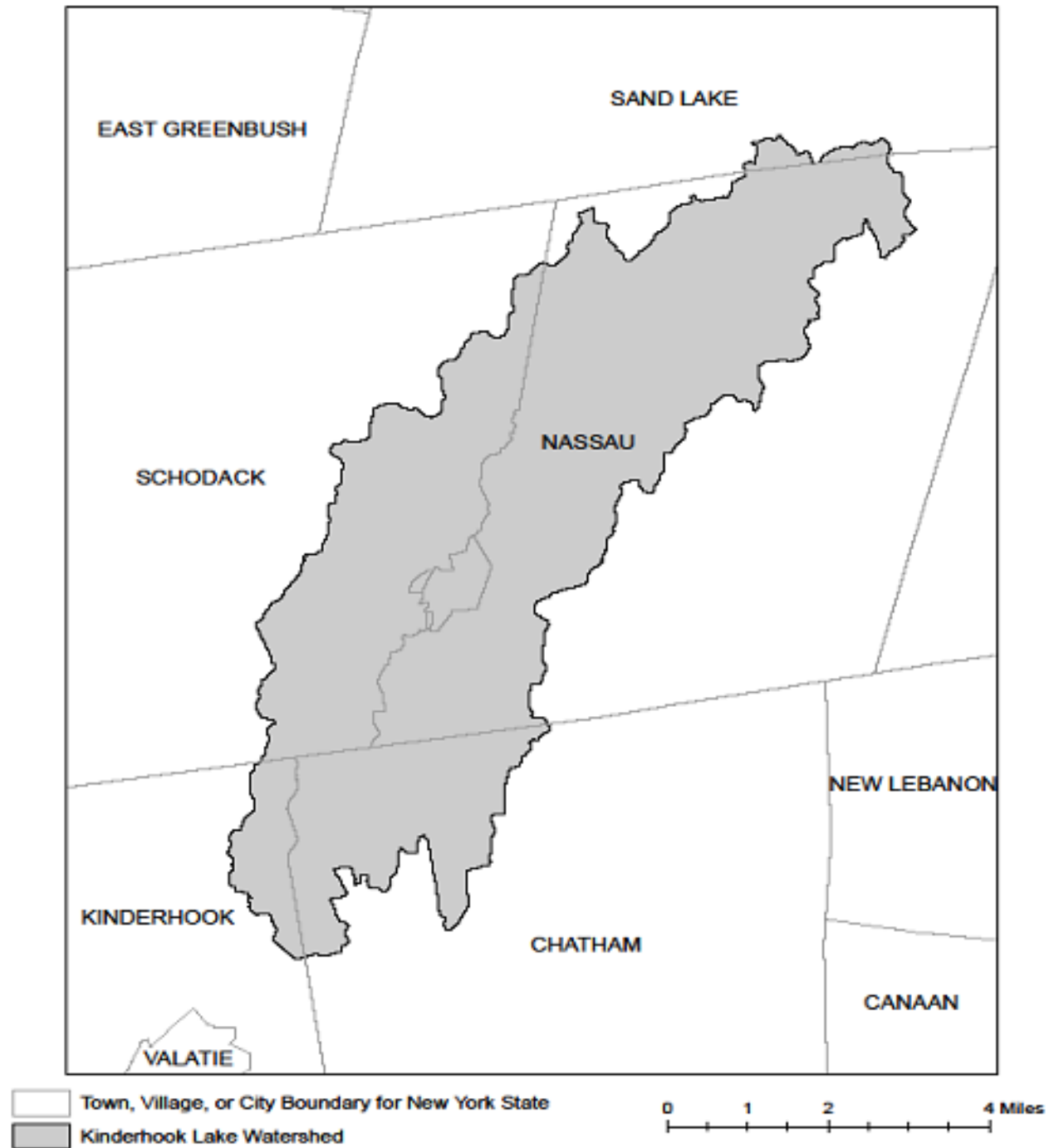
**Figure 3 - Greenwood Lake Watershed**



**Figure 4 - Oscawana Lake Watershed**



**Figure 5 - Kinderhook Lake Watershed**



## APPENDIX D – Impaired Waterbodies (by Construction Related Pollutants)

List of waterbodies impaired by *pollutants* related to *construction activity*, including turbidity, silt/sediment, and nutrients (e.g. nitrogen, phosphorus). This list is a subset of “The Final New York State 2018 Section 303(d) List of Impaired Waters Requiring a TMDL” dated June 2020.

| County      | Waterbody                                         | Pollutant     |
|-------------|---------------------------------------------------|---------------|
| Albany      | Ann Lee (Shakers) Pond, Stump Pond (1201-0096)    | Phosphorus    |
| Albany      | Lawsons Lake (1301-0235)                          | Phosphorus    |
| Allegany    | Amity Lake, Saunders Pond (0403-0054)             | Phosphorus    |
| Allegany    | Andover Pond (0403-0056)                          | Phosphorus    |
| Bronx       | Reservoir No.1/Lake Isle (1702-0075)              | Phosphorus    |
| Bronx       | Van Cortlandt Lake (1702-0008)                    | Phosphorus    |
| Broome      | Blueberry, Laurel Lakes (1404-0033)               | Phosphorus    |
| Broome      | Fly Pond, Deer Lake (1404-0038)                   | Phosphorus    |
| Broome      | Minor Tribs to Lower Susquehanna (0603-0044)      | Phosphorus    |
| Broome      | Whitney Point Lake/Reservoir (0602-0004)          | Phosphorus    |
| Cattaraugus | Allegheny River/Reservoir (0201-0023)             | Phosphorus    |
| Cattaraugus | Beaver Lake/Alma Pond (0201-0073)                 | Phosphorus    |
| Cattaraugus | Case Lake (0201-0020)                             | Phosphorus    |
| Cattaraugus | Linlyco/Club Pond (0201-0035)                     | Phosphorus    |
| Cayuga      | Duck Lake (0704-0025)                             | Phosphorus    |
| Cayuga      | Owasco Inlet, Upper, and tribs (0706-0014)        | Nutrients     |
| Chautauqua  | Chadakoin River and tribs (0202-0018)             | Phosphorus    |
| Chautauqua  | Hulburt/Clymer Pond (0202-0079)                   | Phosphorus    |
| Chautauqua  | Middle Cassadaga Lake (0202-0002)                 | Phosphorus    |
| Clinton     | Great Chazy River, Lower, Main Stem (1002-0001)   | Silt/Sediment |
| Columbia    | Robinson Pond (1308-0003)                         | Phosphorus    |
| Cortland    | Dean Pond (0602-0077)                             | Phosphorus    |
| Dutchess    | Fallkill Creek (1301-0087)                        | Phosphorus    |
| Dutchess    | Hillside Lake (1304-0001)                         | Phosphorus    |
| Dutchess    | Wappingers Lake (1305-0001)                       | Phosphorus    |
| Dutchess    | Wappingers Lake (1305-0001)                       | Silt/Sediment |
| Erie        | Beeman Creek and tribs (0102-0030)                | Phosphorus    |
| Erie        | Delaware Park Pond (0101-0026)                    | Phosphorus    |
| Erie        | Ellicott Creek, Lower, and tribs (0102-0018)      | Phosphorus    |
| Erie        | Ellicott Creek, Lower, and tribs (0102-0018)      | Silt/Sediment |
| Erie        | Green Lake (0101-0038)                            | Phosphorus    |
| Erie        | Little Sister Creek, Lower, and tribs (0104-0045) | Phosphorus    |
| Erie        | Murder Creek, Lower, and tribs (0102-0031)        | Phosphorus    |

|            |                                                     |               |
|------------|-----------------------------------------------------|---------------|
| Erie       | Rush Creek and tribs (0104-0018)                    | Phosphorus    |
| Erie       | Scajaquada Creek, Lower, and tribs (0101-0023)      | Phosphorus    |
| Erie       | Scajaquada Creek, Middle, and tribs (0101-0033)     | Phosphorus    |
| Erie       | Scajaquada Creek, Upper, and tribs (0101-0034)      | Phosphorus    |
| Erie       | South Branch Smoke Cr, Lower, and tribs (0101-0036) | Phosphorus    |
| Erie       | South Branch Smoke Cr, Lower, and tribs (0101-0036) | Silt/Sediment |
| Genesee    | Bigelow Creek and tribs (0402-0016)                 | Phosphorus    |
| Genesee    | Black Creek, Middle, and minor tribs (0402-0028)    | Phosphorus    |
| Genesee    | Black Creek, Upper, and minor tribs (0402-0048)     | Phosphorus    |
| Genesee    | Bowen Brook and tribs (0102-0036)                   | Phosphorus    |
| Genesee    | LeRoy Reservoir (0402-0003)                         | Phosphorus    |
| Genesee    | Mill Pond (0402-0050)                               | Phosphorus    |
| Genesee    | Oak Orchard Cr, Upper, and tribs (0301-0014)        | Phosphorus    |
| Genesee    | Oatka Creek, Middle, and minor tribs (0402-0031)    | Phosphorus    |
| Genesee    | Tonawanda Cr, Middle, Main Stem (0102-0002)         | Phosphorus    |
| Greene     | Schoharie Reservoir (1202-0012)                     | Silt/Sediment |
| Greene     | Sleepy Hollow Lake (1301-0059)                      | Silt/Sediment |
| Herkimer   | Steele Creek tribs (1201-0197)                      | Phosphorus    |
| Herkimer   | Steele Creek tribs (1201-0197)                      | Silt/Sediment |
| Kings      | Hendrix Creek (1701-0006) 18                        | Nitrogen      |
| Kings      | Prospect Park Lake (1701-0196)                      | Phosphorus    |
| Lewis      | Mill Creek/South Branch, and tribs (0801-0200)      | Nutrients     |
| Livingston | Christie Creek and tribs (0402-0060)                | Phosphorus    |
| Livingston | Conesus Lake (0402-0004)                            | Phosphorus    |
| Livingston | Mill Creek and minor tribs (0404-0011)              | Silt/Sediment |
| Monroe     | Black Creek, Lower, and minor tribs (0402-0033)     | Phosphorus    |
| Monroe     | Buck Pond (0301-0017)                               | Phosphorus    |
| Monroe     | Cranberry Pond (0301-0016)                          | Phosphorus    |
| Monroe     | Durand, Eastman Lakes (0302-0037)                   | Phosphorus    |
| Monroe     | Lake Ontario Shoreline, Western (0301-0069) 9       | Phosphorus    |
| Monroe     | Long Pond (0301-0015)                               | Phosphorus    |
| Monroe     | Mill Creek and tribs (0302-0025)                    | Phosphorus 2  |
| Monroe     | Mill Creek/Blue Pond Outlet and tribs (0402-0049)   | Phosphorus    |
| Monroe     | Minor Tribs to Irondequoit Bay (0302-0038)          | Phosphorus    |
| Monroe     | Rochester Embayment - East (0302-0002) [9]          | Phosphorus    |
| Monroe     | Rochester Embayment - West (0301-0068) 9            | Phosphorus    |
| Monroe     | Shipbuilders Creek and tribs (0302-0026)            | Phosphorus 2  |
| Monroe     | Thomas Creek/White Brook and tribs (0302-0023)      | Phosphorus    |

|          |                                                      |                        |
|----------|------------------------------------------------------|------------------------|
| Nassau   | Bannister Creek/Bay (1701-0380)                      | Nitrogen               |
| Nassau   | Beaver Lake (1702-0152)                              | Phosphorus             |
| Nassau   | Browswere Bay (1701-0383)                            | Nitrogen               |
| Nassau   | Camaans Pond (1701-0052)                             | Phosphorus             |
| Nassau   | East Meadow Brook, Upper, and tribs (1701-0211)      | Silt/Sediment          |
| Nassau   | East Rockaway Channel (1701-0381)                    | Nitrogen               |
| Nassau   | Glen Cove Creek, Lower, and tribs (1702-0146)        | Silt/Sediment          |
| Nassau   | Grant Park Pond (1701-0054)                          | Phosphorus             |
| Nassau   | Hempstead Bay, Broad Channel (1701-0032)             | Nitrogen               |
| Nassau   | Hempstead Lake (1701-0015)                           | Phosphorus             |
| Nassau   | Hewlett Bay (1701-0382)                              | Nitrogen               |
| Nassau   | Hog Island Channel (1701-0220)                       | Nitrogen               |
| Nassau   | Massapequa Creek, Upper, and tribs (1701-0174)       | Phosphorus             |
| Nassau   | Milburn/Parsonage Creeks, Upp, and tribs (1701-0212) | Phosphorus             |
| Nassau   | Reynolds Channel, East (1701-0215) [12]              | Nitrogen               |
| Nassau   | Reynolds Channel, West (1701-0216) 12                | Nitrogen               |
| Nassau   | Tidal Tribs to Hempstead Bay (1701-0218)             | Nitrogen               |
| Nassau   | Tribs (fresh) to East Bay (1701-0204)                | Silt/Sediment          |
| Nassau   | Tribs (fresh) to East Bay (1701-0204)                | Phosphorus             |
| Nassau   | Tribs to Smith Pond/Halls Pond (1701-0221)           | Phosphorus             |
| Nassau   | Woodmere Channel (1701-0219)                         | Nitrogen               |
| New York | Harlem Meer (1702-0103)                              | Phosphorus             |
| New York | The Lake in Central Park (1702-0105)                 | Phosphorus             |
| Niagara  | Bergholtz Creek and tribs (0101-0004)                | Phosphorus             |
| Niagara  | Hyde Park Lake (0101-0030)                           | Phosphorus             |
| Niagara  | Lake Ontario Shoreline, Western (0301-0053) 9        | Phosphorus             |
| Niagara  | Lake Ontario Shoreline, Western (0301-0072) 9        | Phosphorus             |
| Oneida   | Ballou, Nail Creeks (1201-0203)                      | Phosphorus             |
| Onondaga | Ley Creek and tribs (0702-0001) 10                   | Nutrients (phosphorus) |
| Onondaga | Minor Tribs to Onondaga Lake (0702-0022) 10          | Nutrients (phosphorus) |
| Onondaga | Minor Tribs to Onondaga Lake (0702-0022) 10          | Nitrogen (NH3, NO2)    |
| Onondaga | Onondaga Creek, Lower (0702-0023) 10                 | Nutrients (phosphorus) |
| Onondaga | Onondaga Creek, Lower, and tribs (0702-0023)         | Turbidity              |
| Onondaga | Onondaga Creek, Middle, and tribs (0702-0004)        | Turbidity              |
| Onondaga | Onondaga Creek, Upper, and tribs (0702-0024)         | Turbidity              |
| Ontario  | Great Brook and minor tribs (0704-0034)              | Phosphorus 2           |
| Ontario  | Great Brook and minor tribs (0704-0034)              | Silt/Sediment          |

|                  |                                                        |                           |
|------------------|--------------------------------------------------------|---------------------------|
| Ontario          | Hemlock Lake Outlet and minor tribs (0402-0013)        | Phosphorus                |
| Ontario          | Honeoye Lake (0402-0032)                               | Phosphorus                |
| Orange           | Brown Pond Reservoir (1303-0013)                       | Phosphorus                |
| Orange           | Lake Washington (1303-0012)                            | Phosphorus                |
| Orange           | Minor Tribs to Middle Wallkill (1306-0061)             | Phosphorus                |
| Orange           | Monhagen Brook and tribs (1306-0074)                   | Phosphorus                |
| Orange           | Orange Lake (1301-0008) [16]                           | Phosphorus                |
| Orange           | Quaker Creek and tribs (1306-0025)                     | Phosphorus                |
| Orange           | Wallkill River, Middle, Main Stem (1306-0038)          | Phosphorus                |
| Orange           | Wallkill River, Upper, and Minor tribs (1306-0017)     | Phosphorus                |
| Orleans          | Glenvwood Lake (0301-0041)                             | Phosphorus                |
| Orleans          | Lake Ontario Shoreline, Western (0301-0070) 9          | Phosphorus                |
| Orleans          | Lake Ontario Shoreline, Western (0301-0071) 9          | Phosphorus                |
| Oswego           | Lake Neatahwanta (0701-0018)                           | Nutrients<br>(phosphorus) |
| Oswego           | Pleasant Lake (0703-0047)                              | Phosphorus                |
| Putnam           | Lost Lake, Putnam Lake (1302-0053)                     | Phosphorus                |
| Putnam           | Minor Tribs to Croton Falls Reservoir (1302-0001)      | Phosphorus                |
| Queens           | Bergen Basin (1701-0009) 18                            | Nitrogen                  |
| Queens           | Jamaica Bay, Eastern, and tribs, Queens (1701-0005) 18 | Nitrogen                  |
| Queens           | Kissena Lake (1702-0258)                               | Phosphorus                |
| Queens           | Meadow Lake (1702-0030)                                | Phosphorus                |
| Queens           | Shellbank Basin (1701-0001) 18                         | Nitrogen                  |
| Queens           | Willow Lake (1702-0031)                                | Phosphorus                |
| Rensselaer       | Nassau Lake (1310-0001)                                | Phosphorus                |
| Rensselaer       | Snyders Lake (1301-0043)                               | Phosphorus                |
| Richmond         | Grassmere Lake/Bradys Pond (1701-0357)                 | Phosphorus                |
| Rockland         | Congers Lake, Swartout Lake (1501-0019)                | Phosphorus                |
| Rockland         | Rockland Lake (1501-0021)                              | Phosphorus                |
| Saratoga         | Ballston Lake (1101-0036)                              | Phosphorus                |
| Saratoga         | Dwaas Kill and tribs (1101-0007)                       | Phosphorus                |
| Saratoga         | Dwaas Kill and tribs (1101-0007)                       | Silt/Sediment             |
| Saratoga         | Lake Lonely (1101-0034)                                | Phosphorus                |
| Saratoga         | Round Lake (1101-0060)                                 | Phosphorus                |
| Saratoga         | Tribs to Lake Lonely (1101-0001)                       | Phosphorus                |
| Schenectady      | Collins Lake (1201-0077)                               | Phosphorus                |
| Schenectady      | Duane Lake (1311-0006)                                 | Phosphorus                |
| Schenectady Lake | Mariaville Lake (1201-0113)                            | Phosphorus                |
| Schuyler         | Cayuta Lake (0603-0005)                                | Phosphorus                |

|             |                                                     |               |
|-------------|-----------------------------------------------------|---------------|
| Seneca      | Reeder Creek and tribs (0705-0074)                  | Phosphorus    |
| St.Lawrence | Black Lake Outlet, Black Lake (0906-0001)           | Phosphorus    |
| St.Lawrence | Fish Creek and minor tribs (0906-0026)              | Phosphorus    |
| Steuben     | Smith Pond (0502-0012)                              | Phosphorus    |
| Suffolk     | Agawam Lake (1701-0117)                             | Phosphorus    |
| Suffolk     | Big/Little Fresh Ponds (1701-0125)                  | Phosphorus    |
| Suffolk     | Canaan Lake (1701-0018)                             | Phosphorus    |
| Suffolk     | Canaan Lake (1701-0018)                             | Silt/Sediment |
| Suffolk     | Fresh Pond (1701-0241)                              | Phosphorus    |
| Suffolk     | Great South Bay, East (1701-0039)                   | Nitrogen      |
| Suffolk     | Great South Bay, Middle (1701-0040)                 | Nitrogen      |
| Suffolk     | Great South Bay, West (1701-0173)                   | Nitrogen      |
| Suffolk     | Lake Ronkonkoma (1701-0020)                         | Phosphorus    |
| Suffolk     | Mattituck/Marratooka Pond (1701-0129)               | Phosphorus    |
| Suffolk     | Mill and Seven Ponds (1701-0113)                    | Phosphorus    |
| Suffolk     | Millers Pond (1702-0013)                            | Phosphorus    |
| Suffolk     | Moriches Bay, East (1701-0305)                      | Nitrogen      |
| Suffolk     | Moriches Bay, West (1701-0038)                      | Nitrogen      |
| Suffolk     | Quantuck Bay (1701-0042)                            | Nitrogen      |
| Suffolk     | Shinnecock Bay and Inlet (1701-0033)                | Nitrogen      |
| Suffolk     | Tidal Tribs to West Moriches Bay (1701-0312)        | Nitrogen      |
| Sullivan    | Bodine, Montgomery Lakes (1401-0091)                | Phosphorus    |
| Sullivan    | Davies Lake (1402-0047)                             | Phosphorus    |
| Sullivan    | Evens Lake (1402-0004)                              | Phosphorus    |
| Sullivan    | Pleasure Lake (1402-0055)                           | Phosphorus    |
| Sullivan    | Swan Lake (1401-0063)                               | Phosphorus    |
| Tompkins    | Cayuga Lake, Southern End (0705-0040)               | Phosphorus    |
| Tompkins    | Cayuga Lake, Southern End (0705-0040)               | Silt/Sediment |
| Ulster      | Ashokan Reservoir (1307-0004)                       | Silt/Sediment |
| Ulster      | Esopus Creek, Lower, Main Stem (1307-0010) [17]     | Turbidity     |
| Ulster      | Esopus Creek, Middle, Main Stem (1307-0003) 17      | Turbidity     |
| Ulster      | Esopus Creek, Upper, and minor tribs (1307-0007)[3] | Silt/Sediment |
| Ulster      | Wallkill River, Lower, Main Stem (1306-0027)        | Phosphorus    |
| Warren      | Hague Brook and tribs (1006-0006)                   | Silt/Sediment |
| Warren      | Huddle/Finkle Brooks and tribs (1006-0003)          | Silt/Sediment |
| Warren      | Indian Brook and tribs (1006-0002)                  | Silt/Sediment |
| Warren      | Lake George (1006-0016) and tribs                   | Silt/Sediment |
| Warren      | Tribs to Lake George, East Shore (1006-0020)        | Silt/Sediment |
| Warren      | Tribs to Lake George, Lk.George Village (1006-0008) | Silt/Sediment |



|             |                                                  |               |
|-------------|--------------------------------------------------|---------------|
| Washington  | Wood Cr/Champlain Canal and tribs (1005-0036)    | Phosphorus    |
| Westchester | Lake Katonah (1302-0136)                         | Phosphorus    |
| Westchester | Lake Lincolndale (1302-0089)                     | Phosphorus    |
| Westchester | Lake Meahagh (1301-0053)                         | Phosphorus    |
| Westchester | Lake Mohegan (1301-0149)                         | Phosphorus    |
| Westchester | Lake Shenorock (1302-0083)                       | Phosphorus    |
| Westchester | Mamaroneck River, Lower (1702-0071)              | Silt/Sediment |
| Westchester | Mamaroneck River, Upp, & minor tribs (1702-0123) | Silt/Sediment |
| Westchester | Saw Mill River (1301-0007)                       | Phosphorus    |
| Westchester | Saw Mill River, Middle, and tribs (1301-0100)    | Phosphorus    |
| Westchester | Sheldrake River (1702-0069)                      | Phosphorus    |
| Westchester | Sheldrake River (1702-0069)                      | Silt/Sediment |
| Westchester | Silver Lake (1702-0040)                          | Phosphorus    |
| Westchester | Teatown Lake (1302-0150)                         | Phosphorus    |
| Westchester | Truesdale Lake (1302-0054)                       | Phosphorus    |
| Westchester | Wallace Pond (1301-0140)                         | Phosphorus    |

## APPENDIX E – List of NYSDEC Regional Offices

| <u>Region</u> | <u>COVERING THE<br/>FOLLOWING COUNTIES:</u>                                                                       | <u>DIVISION OF<br/>ENVIRONMENTAL<br/>PERMITS (DEP)<br/>PERMIT ADMINISTRATORS</u>                   | <u>DIVISION OF WATER<br/>(DOW)<br/>WATER (SPDES) PROGRAM</u>                                       |
|---------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1             | NASSAU AND SUFFOLK                                                                                                | 50 CIRCLE ROAD<br>STONY BROOK, NY 11790<br>TEL. (631) 444-0365                                     | 50 CIRCLE ROAD<br>STONY BROOK, NY 11790-3409<br>TEL. (631) 444-0405                                |
| 2             | BRONX, KINGS, NEW YORK,<br>QUEENS AND RICHMOND                                                                    | 1 HUNTERS POINT PLAZA,<br>47-40 21ST ST.<br>LONG ISLAND CITY, NY 11101-5407<br>TEL. (718) 482-4997 | 1 HUNTERS POINT PLAZA,<br>47-40 21ST ST.<br>LONG ISLAND CITY, NY 11101-5407<br>TEL. (718) 482-4933 |
| 3             | DUTCHESS, ORANGE, PUTNAM,<br>ROCKLAND, SULLIVAN, ULSTER<br>AND WESTCHESTER                                        | 21 SOUTH PUTT CORNERS ROAD<br>NEW PALTZ, NY 12561-1696<br>TEL. (845) 256-3059                      | 220 WHITE PLAINS ROAD, SUITE 110<br>TEL. (914) 428 - 2505                                          |
| 4             | ALBANY, COLUMBIA,<br>DELAWARE, GREENE,<br>MONTGOMERY, OTSEGO,<br>RENSSELAER, SCHENECTADY<br>AND SCHOHARIE         | 1130 NORTH WESTCOTT ROAD<br>SCHENECTADY, NY 12306-2014<br>TEL. (518) 357-2069                      | 1130 NORTH WESTCOTT ROAD<br>SCHENECTADY, NY 12306-2014<br>TEL. (518) 357-2045                      |
| 5             | CLINTON, ESSEX, FRANKLIN,<br>FULTON, HAMILTON,<br>SARATOGA, WARREN AND<br>WASHINGTON                              | 1115 STATE ROUTE 86, Po Box 296<br>RAY BROOK, NY 12977-0296<br>TEL. (518) 897-1234                 | 232 GOLF COURSE ROAD<br>WARRENSBURG, NY 12885-1172<br>TEL. (518) 623-1200                          |
| 6             | HERKIMER, JEFFERSON,<br>LEWIS, ONEIDA AND<br>ST. LAWRENCE                                                         | STATE OFFICE BUILDING<br>317 WASHINGTON STREET<br>WATERTOWN, NY 13601-3787<br>TEL. (315) 785-2245  | STATE OFFICE BUILDING<br>207 GENESEE STREET<br>UTICA, NY 13501-2885<br>TEL. (315) 793-2554         |
| 7             | BROOME, CAYUGA,<br>CHENANGO, CORTLAND,<br>MADISON, ONONDAGA,<br>OSWEGO, TIOGA AND<br>TOMPKINS                     | 5786 WIDEWATERS PARKWAY<br>SYRACUSE, NY 13214-1867<br>TEL. (315) 426-7438                          | 5786 WIDEWATERS PARKWAY<br>SYRACUSE, NY 13214-1867<br>TEL. (315) 426-7500                          |
| 8             | CHEMUNG, GENESEE,<br>LIVINGSTON, MONROE,<br>ONTARIO, ORLEANS,<br>SCHUYLER, SENECA,<br>STEUBEN, WAYNE AND<br>YATES | 6274 EAST AVON-LIMA<br>ROADAVON, NY 14414-9519<br>TEL. (585) 226-2466                              | 6274 EAST AVON-LIMA RD.<br>AVON, NY 14414-9519<br>TEL. (585) 226-2466                              |
| 9             | ALLEGANY,<br>CATTARAUGUS,<br>CHAUTAUQUA, ERIE,<br>NIAGARA AND WYOMING                                             | 700 DELAWARE AVENUE<br>BUFFALO, NY 14209-2999<br>TEL. (716) 851-7165                               | 700 DELAWARE AVENUE<br>BUFFALO, NY 14209-2999<br>TEL. (716) 851-7070                               |

## **APPENDIX F – SWPPP Preparer Certification Form**

The SWPPP Preparer Certification Form required by this permit begins on the following page.



# SWPPP Preparer Certification Form

## SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

**Project/Site Name:**

**eNOI Submission ID:**

**Owner/Operator Name:**

### Certification Statement – SWPPP Preparer

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) has been prepared in accordance with the requirements of GP-0-25-001. I certify under penalty of law that the SWPPP and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SWPPP Preparer First Name

MI

SWPPP Preparer Last Name

Signature

Date

## **APPENDIX G – MS4 SWPPP Acceptance Form**

The MS4 SWPPP Acceptance Form required by this permit begins on the following page.



Department of  
Environmental  
Conservation

## MS4 SWPPP Acceptance Form

for construction activities seeking authorization under the

### SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)

(In accordance with CGP Part I.D.2.b., the completed form must be attached to the eNOI and submitted to NYSDEC electronically.)

#### I. Project Owner/Operator Information

1. Owner/Operator Name:

2. Contact Person:

3. Street Address:

4. City/State/Zip:

#### II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/State/Zip:

#### III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information

8. SWPPP Reviewed by:

9. Title/Position:

10. Date Final SWPPP Reviewed and Accepted:

#### IV. Regulated MS4 Information

11. Name of MS4 Operator:

12. MS4 SPDES Permit Identification Number: NYR20A

13. Street Address:

14. City/State/Zip:

15. Telephone Number:

## MS4 SWPPP Acceptance Form - continued

### V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in section II. of this form has been reviewed and meets the substantive requirements in the SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP). Note: The MS4 Operator, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 Operator does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name<sup>1</sup>:

Title/Position:

Signature:

Date:

### VI. Additional Information

<sup>1</sup> Printed name of the principal executive officer or ranking elected official for the MS4 Operator or their duly authorized representative in accordance with CGP Part VII.J.2.

## **APPENDIX J – Owner/Operator Certification Form**

The Owner/Operator Certification Form required by this permit begins on the following page.





Department of  
Environmental  
Conservation

# Owner/Operator Certification Form

## ***SPDES General Permit for Stormwater Discharges from Construction Activity, GP-0-25-001 (CGP)***

(In accordance with CGP Part I.D.2.b. or Part I.F.2. and 3., the completed form must be attached to the eNOI or the Request to Continue Coverage, and submitted to NYSDEC electronically.)

**Project/Site Name:** \_\_\_\_\_

**eNOI Submission ID:** \_\_\_\_\_

**eNOI Submitted by:** ☐ Owner/Operator ☐ SWPPP Preparer ☐ Other

### **Certification Statement - Owner/Operator**

I hereby certify that I read, and will comply with, the GP-0-25-001 permit requirements. I understand that authorization to discharge under the permit for the project/site named above is dependent on receipt of a Letter of Authorization (LOA) or a Letter of Continued Coverage (LOCC) from the New York State Department of Environmental Conservation (NYSDEC) in accordance with CGP Part I.D.3.b. or Part I.F.4. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Owner/Operator First Name

MI

Owner/Operator Last Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## **SECTION 5**

### **Certifications, Forms, Reports, and Daily Logs**

STORMWATER POLLUTION PREVENTION PLAN  
NOI PERMITTEE'S CERTIFICATION

FORM 1

**Construction Site**  
**TOP HAT ENERGY PROJECT**  
**TOWN OF MOREAU, SARATOGA County, New York**

STORMWATER POLLUTION PREVENTION PLAN DATED JULY 2026, REVISED OCTOBER 2026

**NOI PERMITTEE'S CERTIFICATION:**

"I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

NOI Permittee's  
Designated Project Manager: \_\_\_\_\_

Signed: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Position: \_\_\_\_\_

Date: \_\_\_\_\_

NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC  
TOP HAT ENERGY PROJECT

**STORMWATER POLLUTION PREVENTION PLAN  
CONTRACTOR'S CERTIFICATION LOG**

**FORM 2**

**Construction Site  
TOP HAT ENERGY PROJECT  
TOWN OF MOREAU, Saratoga County, New York**

|                           |  |
|---------------------------|--|
| <b>Company Name</b>       |  |
|                           |  |
| <b>Address</b>            |  |
|                           |  |
| <b>Contact Name</b>       |  |
| <b>Telephone Number</b>   |  |
| <b>Cell Phone/Pager</b>   |  |
|                           |  |
| <b>Scope of Services</b>  |  |
|                           |  |
| <b>Certification Date</b> |  |

|                           |  |
|---------------------------|--|
| <b>Company Name</b>       |  |
|                           |  |
| <b>Address</b>            |  |
|                           |  |
| <b>Contact Name</b>       |  |
| <b>Telephone Number</b>   |  |
| <b>Cell Phone/Pager</b>   |  |
|                           |  |
| <b>Scope of Services</b>  |  |
|                           |  |
| <b>Certification Date</b> |  |

|                           |  |
|---------------------------|--|
| <b>Company Name</b>       |  |
|                           |  |
| <b>Address</b>            |  |
|                           |  |
| <b>Contact Name</b>       |  |
| <b>Telephone Number</b>   |  |
| <b>Cell Phone/Pager</b>   |  |
|                           |  |
| <b>Scope of Services</b>  |  |
|                           |  |
| <b>Certification Date</b> |  |

Designated Project Manager \_\_\_\_\_

NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC  
TOP HAT ENERGY PROJECT

**STORMWATER POLLUTION PREVENTION PLAN  
CONTRACTOR'S/SUBCONTRACTOR'S CERTIFICATION  
FORM 3**

*This form to be completed for each contractor listed on Form 2. Reproduce as needed*

**Construction Site  
TOP HAT ENERGY PROJECT  
TOWN OF MOREAU, Saratoga County, New York  
CONSTRUCTION POLLUTION PREVENTION PROGRAM  
DATED JULY 2026, REVISED OCTOBER 2026**

**CONTRACTOR'S CERTIFICATION:**

"I hereby certify under penalty of law 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 am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations."

The Contractor/Subcontractor further understands that the SWPPP and associated Erosion and Sediment Control Plans represent the **MINIMUM** erosion and sediment control measures that will be required to protect the site during construction. Additional erosion and sediment control measures will be necessary during construction. It will be the responsibility of Contractor/Subcontractor to implement all additional erosion and sediment control measures necessary to protect the site during construction.

**CONTRACTOR:**

Name (Print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

**SUBCONTRACTOR:**

Name (Print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Elements of SWPPP Contractor/Subcontractor responsible for: \_\_\_\_\_

Name of Trained Contractor Responsible for SWPPP Implementation: \_\_\_\_\_

Title of Trained Contractor Responsible for SWPPP Implementation: \_\_\_\_\_

**NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC  
TOP HAT ENERGY PROJECT**

**FORM 4**  
**TOP HAT ENERGY PROJECT**  
**SWPPP # \_\_\_\_\_**

This form to be completed by Contractor's designated inspector at least weekly. Reproduce as needed.

**SWPPP INSPECTION REPORTS**

Page 1 of \_\_\_\_\_

Date \_\_\_\_\_

**Weather and Soil Conditions**

Weather Conditions: \_\_\_\_\_

Soil Conditions:     Dry ☐ Wet ☐ Saturated ☐ Snow Covered ☐ Frozen ☐

**Maintaining Water Quality**

**Yes No NA**

- |                                                                            |                                                                                                 |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is there an increase in turbidity causing a substantial visible contrast to natural conditions? |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is there residue from oil and floating substances, visible oil film, or globules or grease?     |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | All disturbance is within the limits of the approved plans.                                     |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?             |

**Housekeeping**

**1. General Site Conditions**

**Yes No NA**

- |                                                                            |                                                                                                                                        |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is construction site litter and debris appropriately managed?                                                                          |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained? |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is construction impacting the adjacent property?                                                                                       |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is dust adequately controlled?                                                                                                         |

**2. Temporary Stream Crossing**

**Yes No NA**

- |                                                                            |                                                                                                                            |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Maximum diameter pipes necessary to span creek without dredging are installed.                                             |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed non-woven geotextile fabric beneath approaches.                                                                  |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is fill composed of aggregate (no earth or soil)?                                                                          |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Rock on approaches is clean enough to remove mud from vehicles and prevent sediment from entering stream during high flow. |

**Runoff Control Practices**

**1. Excavation Dewatering**

**Yes No NA**

- |                                                                            |                                                                                         |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Clean water from upstream pool is being pumped to the downstream pool.                  |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Sediment-laden water from work area is being discharged to a silt-trapping device.      |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Constructed upstream berm with one-foot minimum freeboard.                              |

**2. Water Bar**

**Yes No NA**

- |                                                                            |                                                                                         |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed per plan with vehicle crossings stabilized with gravel.                       |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Outlet located on undisturbed soil or lined with riprap.                                |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Bar height is 12-inch minimum from bottom of channel with minimum base width of 6-foot. |

**3. Interceptor Dikes and Swales**

**Yes No NA**

- |                                                                            |                                                                            |
|----------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed per plan with minimum side slopes 1V:3H or flatter.              |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Stabilized by geotextile fabric, seed, or mulch with no erosion occurring. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Sediment-laden runoff directed to sediment trapping structure.             |

**NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC**  
**TOP HAT ENERGY PROJECT**

**FORM 4**  
**TOP HAT ENERGY PROJECT**  
**SWPPP # \_\_\_\_\_**

This form to be completed by Contractor's designated inspector at least weekly. Reproduce as needed.

**SWPPP INSPECTION REPORT**

Page 2 of \_\_\_\_\_

Date \_\_\_\_\_

**4. Stone Check Dam**

**Yes No NA**

- |                                                                                                     |                                                                                          |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is channel stable? (flow is not eroding soil underneath or around the structure).        |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Check is in good condition (rocks in place and no permanent pools behind the structure). |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Has accumulated sediment been removed?                                                   |

**5. Rock Outlet Protection**

**Yes No NA**

- |                                                                                                     |                                                |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed per plan.                            |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed concurrently with pipe installation. |

**Soil Stabilization**

**1. Topsoil and Spoil Stockpiles**

**Yes No NA**

- |                                                                                                     |                                                         |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Stockpiles are stabilized with vegetation and/or mulch. |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Sediment control is installed at the toe of the slope.  |

**2. Revegetation**

**Yes No NA**

- |                                                                                                     |                                                                           |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Temporary seedings and mulch have been applied to idle areas.             |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Four inches minimum of topsoil has been applied under permanent seedings. |

**Sediment Control Practices**

**1. Stabilized Construction Entrance**

**Yes No NA**

- |                                                                                                     |                                                                       |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Stone is clean enough to effectively remove mud from vehicles.        |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed per standards and specifications?                           |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Does all traffic use the stabilized entrance to enter and leave site? |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Is adequate drainage provided to prevent ponding at entrance?         |

**2. Silt Fence**

**Yes No NA**

- |                                                                                                     |                                                                                    |
|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed on Contour, ten feet from toe of slope (not across conveyance channels). |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Joints constructed by wrapping the two ends together for continuous support.       |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Fabric buried six inches minimum.                                                  |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Posts are stable, fabric is tight and without rips or frayed areas.                |

Sediment accumulation is \_\_\_\_\_ % of design capacity.

**3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)**

**Yes No NA**

- |                                                                                                     |                                                                                                                      |
|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Installed concrete blocks lengthwise so open ends face outward, not upward.                                          |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Placed wire screen between No. 3 crushed stone and concrete blocks.                                                  |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Drainage area is one acre or less.                                                                                   |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Excavated area is 900 cubic feet.                                                                                    |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Excavated side slopes should be 2:1.                                                                                 |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | 2" x 4" frame is constructed and structurally sound.                                                                 |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Posts three-foot maximum spacing between posts.                                                                      |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at maximum eight inch spacing. |

☐ ☐ ☐ ☐ Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation \_\_\_\_\_ % of design capacity.

**NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC**  
**TOP HAT ENERGY PROJECT**

**FORM 4**  
**TOP HAT ENERGY PROJECT**  
**SWPPP # \_\_\_\_\_**

This form to be completed by Contractor's designated inspector at least weekly. Reproduce as needed.

**SWPPP INSPECTION REPORT**

Page 3 of \_\_\_\_\_

Date \_\_\_\_\_

**4. Temporary Sediment Trap**

**Yes No NA**

☐ ☐ ☐ ☐ Outlet structure is constructed per the approved plan or drawing.

☐ ☐ ☐ ☐ Geotextile fabric has been placed beneath rock fill.

Sediment accumulation is \_\_\_\_\_% of design capacity.

**5. Temporary Sediment Basin**

**Yes No NA**

☐ ☐ ☐ ☐ Basin and outlet structure constructed per the approved plan.

☐ ☐ ☐ ☐ Basin side slopes are stabilized with seed/mulch.

☐ ☐ ☐ ☐ Drainage structure flushed and basin surface restored upon removal of sediment basin facility.

Sediment accumulation is \_\_\_\_\_% of design capacity.

**Dust Control Practices**

**1. Haul Road and Current Work Areas**

**Yes No NA**

☐ ☐ ☐ ☐ Are all traffic surface areas sufficiently treated to prevent fugitive dust?

☐ ☐ ☐ ☐ Are any areas of site's non-traffic and work area experiencing wind erosion?

☐ ☐ ☐ ☐ Are there any disturbed areas in need of temporary seed and mulch to protect surface from wind erosion?

☐ ☐ ☐ ☐ Is watering truck on-site?

☐ ☐ ☐ ☐ Is dust visible in air at any location of the site?

**Note:** Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site-specific design.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

Description of condition of runoff at all points of discharge from the construction site. (This shall include identification of discharges of sediment from the construction site. Include discharges from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow.) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Description 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 (see Page 5 for Sketch). \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



This form to be completed by Contractor's designated inspector at least weekly. Reproduce as needed.

Page 4 of \_\_\_\_\_  
Date \_\_\_\_\_

## This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

Date and Time of Inspection

Qualified Professional Signature

**\*Attach photographs of practices identified as needing corrective actions.**

**NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC**  
**TOP HAT ENERGY PROJECT**

*This form to be used only when Contractor's designated inspector believes changes to the SWPPP and/or Erosion and Sediment control plans is warranted. For example, additional erosion control measures needed or removal of specific control measures can be done without adverse impact. This form must be approved by Designated Project Manager prior to implementation.*

## CHANGES REQUIRED FOR STORMWATER POLLUTION PREVENTION PLAN

|                   |                                           |                                                                                |
|-------------------|-------------------------------------------|--------------------------------------------------------------------------------|
| <b>To:</b>        | <b>Designated Project Manager</b>         | <b>Date:</b>                                                                   |
| <b>Address:</b>   |                                           |                                                                                |
| <b>Telephone:</b> |                                           |                                                                                |
| <b>Facsimile:</b> |                                           |                                                                                |
| <b>Sent Via:</b>  | <input type="checkbox"/> <b>Facsimile</b> | <input type="checkbox"/> <b>E-mail</b> <input type="checkbox"/> <b>US Mail</b> |

QUALIFICATIONS OF INSPECTOR:

CHANGES REQUIRED TO THE STORMWATER POLLUTION PREVENTION PLAN: \_\_\_\_\_

REASONS FOR CHANGES: \_\_\_\_\_

TO BE PERFORMED BY: \_\_\_\_\_ ON OR BEFORE: \_\_\_\_\_

APPROVED BY DESIGNATED PROJECT MANAGER \_\_\_\_\_ DATE: \_\_\_\_\_

1

**STORMWATER POLLUTION PREVENTION PLAN  
RECORD OF STABILIZATION AND CONSTRUCTION ACTIVITIES  
FORM 6**

**Construction Site  
TOP HAT ENERGY PROJECT  
TOWN OF MOREAU, Saratoga County, New York**

A record of 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 shall be maintained until final site stabilization is achieved and the Notice of Termination is filed. *Reproduce copies of this form as needed.*

**MAJOR GRADING, CONSTRUCTION, OR STABILIZATION ACTIVITIES**

Description of Activity: \_\_\_\_\_

Begin Date: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

End Date: \_\_\_\_\_

Description of Activity: \_\_\_\_\_

Begin Date: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

End Date: \_\_\_\_\_

Description of Activity: \_\_\_\_\_

Begin Date: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

End Date: \_\_\_\_\_

Description of Activity: \_\_\_\_\_

Begin Date: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

End Date: \_\_\_\_\_

Description of Activity: \_\_\_\_\_

Begin Date: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

End Date: \_\_\_\_\_

**Designated Project Manager** \_\_\_\_\_

**NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC  
TOP HAT ENERGY PROJECT**

**STORMWATER POLLUTION PREVENTION PLAN  
RECORD OF TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES  
FORM 6A**

**Construction Site  
TOP HAT ENERGY PROJECT  
TOWN OF MOREAU, Saratoga County, New York**

A record of the timing of temporary erosion and sediment control practices to be implemented, including the timing of initial placement and the duration that each practice should remain in place. The record may reflect the actual date of planned installation or the specific construction activity with which it will be associated. The timing of removal may reflect an actual date or the length of time over which the practice will be implemented.

**TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES**

Description of Practice: \_\_\_\_\_

Date/Timing of Initial Placement: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

Projected Date/Timing of Removal: \_\_\_\_\_

Description of Practice: \_\_\_\_\_

Date/Timing of Initial Placement: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

Projected Date/Timing of Removal: \_\_\_\_\_

Description of Practice: \_\_\_\_\_

Date/Timing of Initial Placement: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

Projected Date/Timing of Removal: \_\_\_\_\_

Description of Practice: \_\_\_\_\_

Date/Timing of Initial Placement: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

Projected Date/Timing of Removal: \_\_\_\_\_

Description of Practice: \_\_\_\_\_

Date/Timing of Initial Placement: \_\_\_\_\_ Site Contractor: \_\_\_\_\_

Location: \_\_\_\_\_

Projected Date/Timing of Removal: \_\_\_\_\_

**Designated Project Manager** \_\_\_\_\_

**NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC  
TOP HAT ENERGY PROJECT**

YEAR 20\_\_

**STORMWATER POLLUTION PREVENTION PLAN  
PROJECT RAINFALL LOG (to be completed by Contractor)**

**FORM 7**

| Month       | Jan | Feb | Mar | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec |
|-------------|-----|-----|-----|-----|-----|------|------|-----|-----|-----|-----|-----|
| Day         |     |     |     |     |     |      |      |     |     |     |     |     |
| 1           |     |     |     |     |     |      |      |     |     |     |     |     |
| 2           |     |     |     |     |     |      |      |     |     |     |     |     |
| 3           |     |     |     |     |     |      |      |     |     |     |     |     |
| 4           |     |     |     |     |     |      |      |     |     |     |     |     |
| 5           |     |     |     |     |     |      |      |     |     |     |     |     |
| 6           |     |     |     |     |     |      |      |     |     |     |     |     |
| 7           |     |     |     |     |     |      |      |     |     |     |     |     |
| 8           |     |     |     |     |     |      |      |     |     |     |     |     |
| 9           |     |     |     |     |     |      |      |     |     |     |     |     |
| 10          |     |     |     |     |     |      |      |     |     |     |     |     |
| 11          |     |     |     |     |     |      |      |     |     |     |     |     |
| 12          |     |     |     |     |     |      |      |     |     |     |     |     |
| 13          |     |     |     |     |     |      |      |     |     |     |     |     |
| 14          |     |     |     |     |     |      |      |     |     |     |     |     |
| 15          |     |     |     |     |     |      |      |     |     |     |     |     |
| 16          |     |     |     |     |     |      |      |     |     |     |     |     |
| 17          |     |     |     |     |     |      |      |     |     |     |     |     |
| 18          |     |     |     |     |     |      |      |     |     |     |     |     |
| 19          |     |     |     |     |     |      |      |     |     |     |     |     |
| 20          |     |     |     |     |     |      |      |     |     |     |     |     |
| 21          |     |     |     |     |     |      |      |     |     |     |     |     |
| 22          |     |     |     |     |     |      |      |     |     |     |     |     |
| 23          |     |     |     |     |     |      |      |     |     |     |     |     |
| 24          |     |     |     |     |     |      |      |     |     |     |     |     |
| 25          |     |     |     |     |     |      |      |     |     |     |     |     |
| 26          |     |     |     |     |     |      |      |     |     |     |     |     |
| 27          |     |     |     |     |     |      |      |     |     |     |     |     |
| 28          |     |     |     |     |     |      |      |     |     |     |     |     |
| 29          |     |     |     |     |     |      |      |     |     |     |     |     |
| 30          |     |     |     |     |     |      |      |     |     |     |     |     |
| 31          |     |     |     |     |     |      |      |     |     |     |     |     |
| PM Initials |     |     |     |     |     |      |      |     |     |     |     |     |

NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC  
TOP HAT ENERGY PROJECT

**STORMWATER POLLUTION PREVENTION PLAN**

**FINAL STABILIZATION CERTIFICATION /NOTICE OF TERMINATION CHECKLIST**

**FORM 8**

*This form is to be completed by Contractor and submitted to Designated Project Manager for approval only after Contractor believes all work regulated by SWPPP is complete.*

**Construction Site**  
**TOP HAT ENERGY PROJECT**  
**TOWN OF MOREAU, Saratoga County, New York**

1. ☐ All soil disturbing activities are complete.
2. ☐ Temporary Erosion and Sediment Control Measures have been removed or will be removed at the appropriate time.
3. ☐ All areas of the Construction Site not otherwise covered by a permanent pavement or structure have been stabilized with a uniform perennial vegetative cover with a density of 85% or equivalent measures have been employed.

**CONTRACTOR'S CERTIFICATION:**

*"I certify under penalty of law that all storm water discharges associated with industrial activity from the identified project that are authorized by NPDES general permit have been eliminated and that all disturbed areas and soils at the construction site have achieved Final Stabilization and all temporary erosion and sediment control measures have been removed or will be removed at the appropriate time."*

Company Name \_\_\_\_\_

Name (Print) \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

APPROVED BY DESIGNATED PROJECT MANAGER \_\_\_\_\_ DATE: \_\_\_\_\_

**NOI Permittee: TOP HAT ENERGY, LLC C/O NEXAMP SOLAR, LLC**  
**TOP HAT ENERGY PROJECT**

## **SECTION 6**

### **Supplemental Information**

- **Stormwater Management Narrative**
- **NYSDEC Natural Heritage Program Letter**
- **USFWS IPAC Species List**
- **FEMA Map**
- **NRCS Soil Survey**
- **NYSDEC Letter of Jurisdiction and No Jurisdiction**
- **NYSOPRHP No Effect Letter**
- **Site Soil Data**

# **Stormwater Management Narrative**

## **Top Hat Energy Project**

**2-6 Electric Drive**

**Town of Moreau**

**Saratoga County, New York 12803**

**Applicant:**

**Top Hat Energy, LLC c/o Nexamp Solar, LLC**

**101 Summer Street, 2<sup>nd</sup> Floor**

**Boston, MA 02110**

***July 2026***

***Revised October 2026***

**Prepared By:**

**The Environmental Design Partnership, LLP**

**900 Route 146**

**Clifton Park, NY 12065**



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Figure 2 – Pre-development Drainage Map

Figure 3 – Post-development Drainage Map

### Attachments

Attachment A – WQv Calculations

Attachment B – Stormwater Modeling Calculations

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## 1.0 Introduction

Top Hat Energy, LLC c/o Nexamp Solar, LLC proposes the development of a ground-mounted solar photovoltaic (PV) facility on eight parcels and portion of the Town's ROW totaling approximately 54.66± acres, located west of Fernan Road and south of Electric Drive in the Town of Moreau, Saratoga County, New York. The proposed site layout includes approximately 3.50± acres of panel arrays, with rows spaced at approximately 16± feet on center. Ancillary improvements include the construction of approximately 800± linear feet of access roadway, stormwater management practices, and installation of a eight-foot-high perimeter security fence. The total limit of disturbance (LOD) is estimated at approximately 13.90± acres. The project will introduce approximately 0.50± acres of impervious surface associated with access drives and equipment pads.

A stormwater management system has been designed to provide pollutant removal, reduce channel erosion, prevent overbank flooding, and safely control extreme flood events in accordance with the NYS Stormwater Management Design Manual (Design Manual). The NYS Department of Environmental Conservation (NYSDEC) issued specific guidance in April 2018 relative to stormwater management design considerations for solar panel installations. The temporary erosion control measures and post-construction stormwater management systems for this project have been designed in accordance with those guidelines and subsequent discussions with the NYSDEC relative to their guidelines. Section 7.0 of this report addresses specific solar panel application guidance.

The proposed stormwater management system for the project will include infiltration basin (I-2) and grass filter strip (RR-2) area designed to attenuate and treat runoff from the proposed impervious access roads and solar equipment pad. The roadside swales will discharge to stormwater management practices depending on the longitudinal slope and cross slope of the road in respective areas of the site.

This narrative presents a review of the design concepts and parameters of the stormwater management system for the proposed increased impervious areas, in accordance with NYSDEC solar application guidance, including the access roads and the equipment pads. The purpose of the stormwater management narrative is to ensure that changes in the surface runoff characteristics, as a result of the proposed construction, will not adversely impact adjacent or downstream properties. On-site stormwater management will be implemented in accordance with the Design Manual and NYSDEC solar application guidance to accommodate both additional stormwater runoff and to provide water quality treatment according to the green infrastructure standards.

---

### **3.0 Existing Conditions**

The site is predominantly wooded, with scattered pockets of grassed areas. Topographically, the land generally drains from north to south and toward the east. Slopes within the proposed development area typically range from 5% to 10%, with isolated areas exceeding 20%. Site elevations vary from approximately 130 feet to 288 feet above mean sea level.

#### **3.1 Soil and Groundwater Conditions**

The USDA Natural Resources Conservation Service Web Soil Survey identifies the soils on the site, in the area of proposed development, to consist of excessively drained sandy which are predominantly classified as Hydrologic Soil Group (HSG) A. The results from the USDA Natural Resources Conservation Soil Survey (Soil Survey) are included in Section 6 of the SWPPP.

Two infiltration testing were performed by Environmental Design Partnership on September 28, 2026. The two infiltration tests, IT#1 and IT#2, were performed, with the stabilized infiltration rate determine to be 286 and 171 inches per hour respectively within the proposed stormwater management area. To be conservative, an infiltration rate of 10 inches per hour has been used for the pond design calculations. The Site Soil Data information is included in Section 6 of the SWPPP

### **4.0 Predevelopment Stormwater Analysis**

The existing hydrologic conditions, in the area to be disturbed as a result of the proposed construction, were analyzed using Applied Microcomputer Systems' "HydroCAD" computer modeling program. The HydroCAD stormwater modeling program employs the United States Department of Agriculture's Soil Conservation Service (SCS) Technical Release 20 (TR-20) method for stormwater analysis. Using this modeling technique, the site is divided into "subcatchments" that represent specific areas contributing stormwater runoff to an existing, or proposed drainage feature. The subcatchments typically flow through "reaches" (i.e., swales, channels, or pipes) that convey the stormwater to storm basins or discharge areas.

A hydrologic model of the existing site was prepared using the Hydrocad program. Three (3) subcatchments were used to represent the existing drainage condition, see Figure 2.

The existing parameters of topography, vegetation, slope, and soil type are all incorporated into the predevelopment model.

Table 1 presents a summary of the pre-development stormwater peak discharge for the 1-year, 10-year and 100-year design storm events at the respective Design Points. As will be discussed in subsequent sections, the post development stormwater discharge rate has been limited to the predevelopment discharge rate for the 1-year, 10-year and 100-year storm events.

**Table 1: Pre-Development Runoff Rates**

| Storm Event      | Design Point Discharge (cfs) |      |      | Total Discharge (cfs) |
|------------------|------------------------------|------|------|-----------------------|
|                  | DP-1                         | DP-2 | DP-3 |                       |
| 1-Year (2.22")   | 0                            | 0    | 0    | 0                     |
| 10-Year (3.69")  | 0                            | 0    | 0    | 0                     |
| 100-Year (6.20") | 0.21                         | 0.21 | 0.21 | 0.63                  |

The pre-development Curve Numbers (CN) for the existing ground covers are listed in Table 2.

**Table 2: Pre-Development Ground Cover**

| Pre-Development Ground Cover Description | Curve Number |
|------------------------------------------|--------------|
| Meadow, non-grazed, HSG A                | 30           |
| Woods, Good, HSG A                       | 30           |
| Dirt roads, HSG A                        | 72           |
| Existing Gravel surface, HSG A           | 96           |

The weighted CN for the pre-development conditions for the site is approximately 31. The HydroCAD model results for the pre-development conditions are included within Attachment B.

Design Points DP-1, DP-2 and DP-3 convey stormwater flow to the southeast and south of project site, discharging toward an offsite wetland/stream area located on the adjacent property.

## **5.0 Stormwater Management Planning and Practice Selection**

The site layout and stormwater design for this project was completed while taking into consideration the potential impacts on the existing site and downstream hydrology. Stormwater runoff from the existing site predominately sheet flows to the existing wetland or low-lying areas to the east and south of the site. The stormwater management system will replicate similar drainage patterns.

Stormwater management on the site is designed to provide treatment with a combination of infiltration basin, vegetated filter strip and vegetated swales. These design methods were considered ideal on this site given the long, linear nature of the access road, the excessive drainage property of the soil, and the variable site topography. The infiltration basin and vegetated filter strip are considered a standard stormwater management practice with runoff reduction capacity by the Design Manual.

---

The total disturbance area for the project will be on the order of 13.90± acres. The proposed development will result in an increase of impervious cover by 0.50± acres.

## **6.0 Post-Development Stormwater Analysis**

The post-development conditions were analyzed using the HydroCAD computer modeling program. A description of the HydroCAD computer modeling program was provided earlier in this report.

Four (4) subcatchments were used to represent the post development drainage conditions of the site in the areas of the proposed development. Site improvements to the property will consist of a solar farm which will include 3.50± acres of solar panels, approximately 800± LF of access road, one solar electrical equipment pad, and eight-foot-high perimeter fencing. Also included, as permanent elements of the development, are the on-site stormwater management areas. Stormwater management practices have been designed to provide storage, treatment, and attenuation of stormwater runoff from the proposed impervious surfaces on the site.

Stormwater runoff generated from the proposed western impervious access road and equipment pad will be directed into the roadside vegetated swale, which will convey flows to the infiltration basin for treatment and aid in attenuation to maintain post-development flows at pre-development levels. In addition, the runoff from the eastern proposed access road will sheet flow toward the adjacent grassed filter strip, where it will undergo supplemental treatment prior to dispersal.

Runoff from the undeveloped site perimeter and solar array areas, outside of the stormwater management areas, will sheet flow off site, which is similar to predevelopment drainage patterns. In areas where solar panels are proposed on slopes greater than 8 percent, overland flow dispersion devices will be installed to maintain sheet flow and minimize runoff concentration. Spacing of the dispersion devices will be based on slope category as follows:

- 8%–10% slopes: devices installed at 100-foot intervals
- 10%–20% slopes: devices installed at 75-foot intervals
- 20%–35% slopes: devices installed at 50-foot intervals

The overland flow dispersion devices will maintain sheet flow patterns similar to predevelopment conditions.

Table 3 presents a summary of the post-development stormwater peak discharge for the 1-year, 10-year, 25-year and 100-year design storm events at the respective Design Points.

**Table 3: Post-Development Runoff Rates**

| Storm Event      | Design Point Discharge (cfs) |      |      | Total Discharge (cfs) |
|------------------|------------------------------|------|------|-----------------------|
|                  | DP-1                         | DP-2 | DP-3 |                       |
| 1-Year (2.22")   | 0                            | 0    | 0    | 0                     |
| 10-Year (3.69")  | 0                            | 0    | 0    | 0                     |
| 100-Year (6.20") | 0.21                         | 0.14 | 0.21 | 0.56                  |

The post-development ground cover Curve Numbers (CN) are listed in Table 4.

**Table 4: Post-Development Ground Cover**

| Post-Development Ground Cover Description | Curve Number |
|-------------------------------------------|--------------|
| Meadow, non-grazed, HSG A                 | 30           |
| Woods, Good, HSG A                        | 30           |
| Dirt roads, HSG A                         | 72           |
| Existing Gravel surface, HSG A            | 96           |
| Gravel surface, HSG A                     | 96           |

The weighted CN for the post-development conditions for the site is approximately 31. The HydroCAD model results for the post-development conditions are included within Attachment B. The contributing area to each stormwater management area is identified on Figure 3.

### **6.1 Stormwater Management Areas #1 – Infiltration Basin**

Stormwater Management Area (SMA) #1 has been designed as an infiltration basin to provide treatment and attenuation of stormwater runoff from proposed impervious access road and equipment pad located on western portion of the site. Stormwater runoff will be collected in vegetated swales adjacent to the proposed access road and equipment pad, and flow to receive pretreatment through the forebay within the infiltration basin.

Chapter 3 of the Design Manual recognizes infiltration basins as a standard treatment practice with RRv capacity when all the required elements, design guidance, soil testing and maintenance requirements are followed.

SMA #1 has been designed with sediment forebay to provide pretreatment and storage for 50 percent of the contributing water quality volume, as required by the Design Manual for infiltration rates >10 inches per hour.

The proposed basin will be located in the western portion of the site. A gravel overflow will be provided within the forebay to direct stormwater to the infiltration basin. The main infiltration basin will include an emergency overflow that discharges in accordance with the pre-development drainage pattern, ultimately leading to the stream.

The Infiltration Basin has a contributing area of approximately  $\pm 1.74$  acres, with  $\pm 0.35$  acres of impervious area. The WQv contributing to this SMA is on the order of 1,751 CF.

The infiltration basin has been designed to provide a storage volume of 2,046 CF (taken from HydroCAD storage table), which exceeds the required WQv and is sufficient to contain the 100-year storm without overflow. Stormwater modeling indicates that water surface elevations within SMA #1 will not reach or exceed the elevation of the emergency overflow for storm events up to and including the 100-year event.

The sediment forebay has been designed to provide a storage volume of 891 CF (taken from HydroCAD storage table), which exceeds 50% of the required pretreatment volume.

SMA #1 has been designed to fully attenuate and infiltrate runoff for storm events up to and including the 100-year design storm. It is anticipated that SMA #1 will fully drain within 1.06 hours of the end of storm event.

**100 Year Storm Runoff Volume contributing to SMA #1: 523 ft<sup>3</sup>**

**Infiltration Rate:** 10 in/hr.

**SMA #1 Bottom Surface Area (Taken from CAD): 593 ft<sup>2</sup>**

**Drainage Time:**

$$523 \text{ ft}^3 / 593 \text{ ft}^2 = 0.88 \text{ ft}$$

$$(0.88 \text{ ft} * 12 \text{ in}) / 1 \text{ ft} = 10.56 \text{ in.}$$

$$10.56 \text{ in} / 10 \text{ in/hr.} = \sim 1.06 \text{ Hours to drain}$$

## **6.2 Stormwater Management Areas #2 – Grass Filter Strip**

Stormwater Management Area (SMA) #2 has been designed as a grass filter strip to provide treatment of stormwater runoff from the proposed impervious access road located on the eastern portion of the site.

Stormwater runoff contributing to SMA #2 will sheet flow from the access road to a gravel diaphragm for pretreatment, and then to the grass filter strip for treatment. This practice is considered green infrastructure and provides an RRv reduction equivalent to the contributing impervious area. Supporting calculations for the filter strip are included in the Appendix of this report.

The total contributing area to SMA #2 is approximately 0.37 acres, including approximately 0.15 acres of impervious area. The corresponding WQv is approximately 669 CF. The grass filter strip will provide an RRv reduction equivalent to this contributing impervious area (669 CF).

#### **6.4 NYS Unified Stormwater Sizing Criteria**

The post-development stormwater management system has been designed based on the Unified Stormwater Sizing Criteria as described in the following sections.

##### **6.4.1 Water Quantity (WQv)**

In general, small storm events and the initial runoff from larger storm events are an environmental concern as this stormwater runoff typically contains roadway pollutants and thermal energy stored by the asphalt. In accordance with the Design Manual, this initial runoff is designated as the Water Quality Volume (WQ<sub>v</sub>) and special attention is given to this volume of runoff to meet water quality objectives.

The Design Manual identifies several standard practices, such as the proposed infiltration basins which are acceptable for water quality treatment. These acceptable Stormwater Management Practices (SMPs) can capture and treat the full water quality volume (WQ<sub>v</sub>), are capable of 80% TSS removal and 40% TP removal, have acceptable longevity in the field, and have pretreatment mechanism.

The water quality storage volume, WQ<sub>v</sub>, is calculated as follows:

$$WQ_v = \frac{P \cdot R_v \cdot A}{12}$$

Where: WQ<sub>v</sub> = water quality volume (acre-feet)

P = 90% rainfall event number

R<sub>v</sub> = 0.05+0.009(I), where I is percent impervious cover

A = site area (acres), impervious area used with I = 100%

**Refer to the Green Infrastructure worksheets for a summary of the WQv volumes and contributing areas.**

##### **6.4.2 Runoff Reduction Volume (RRv)**

The Design Manual specifies that runoff shall be reduced by 100% of the site WQv using standard SMPs with RRv capacity and green infrastructure techniques. The proposed fenced project area on the site is approximately 11.00 acres. The total watershed area contributing to the SMA #1 and #2 for analysis is approximately 2.11 acres, with a total post-development impervious area on the order of 0.50 acres. The resulting WQv for the site coverage is computed as 2,420± CF.



The minimum RRv for the site has been calculated as 1,133 CF. See Attachment A for the minimum RRv calculations.

#### 6.4.2.1 Green Infrastructure Practices

The proposed access road and equipment pads will drain to the infiltration basin and grass filter strip, which are the primary stormwater management practices for the project. The infiltration basin includes a sediment forebay, and the grass filter strip includes a gravel diaphragm, both providing pretreatment before runoff enters each practice for further treatment.

In accordance with the Design Manual, a Runoff Reduction Volume (RRv) credit of 100% of the contributing water quality volume will be applied for Hydrologic Soil Group (HSG) A when using either an infiltration basin or a grass filter strip.

**Table 5: Runoff Reduction Volume Summary**

| Runoff Reduction Technique  | RRv (cf)     |
|-----------------------------|--------------|
| SMA #1 (Infiltration Basin) | 1,751        |
| SMA #2 (Grass Filter Strip) | 669          |
| <b>Total Site Reduction</b> | <b>2,420</b> |
| <b>Minimum RRv</b>          | <b>1,133</b> |
| <b>% of Min. RRv</b>        | <b>214%</b>  |

Many of the green infrastructure practices recommended in the Design Manual were not applied to the stormwater management design on this site due to either site restrictions or the use of more feasible green infrastructure or standard SMP techniques in place of more restrictive and/or maintenance intensive practices. The following table discusses why the unused green infrastructure practices were not feasible.

**Table 6: Non-Feasible Green Infrastructure Practices**

| Green Infrastructure Practice | Reason use is not feasible                                                                                                                                                                                                                                         |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conservation of Natural Areas | Existing natural areas on site will be conserved to the greatest extent possible, solar facilities are considered temporary in nature, however the added reduction is minimal.                                                                                     |
| Porous Pavement               | Porous Pavement is not economically feasible on this site.                                                                                                                                                                                                         |
| Tree Planting/Tree box        | Trees will be saved on the site as possible to conserve the natural areas. Trees will also be planted to maintain a buffer from the roadway and viewshed to the proposed site, though the resulting runoff reduction value for adding additional trees is minimal. |

|                                 |                                                                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disconnection of Rooftop Runoff | There is no building construction proposed as part of the project                                                                                           |
| Stream Daylighting              | No existing piped streams are located on the site.                                                                                                          |
| Rain Gardens                    | Rain gardens are not recommended for commercial applications as well as not economically feasible.                                                          |
| Green Roofs                     | There is no building construction proposed as part of the project                                                                                           |
| Stormwater Planters             | The proposed practices were deemed more economically feasible and effective as opposed to stormwater planters. Additionally, they require less maintenance. |
| Rain Barrels/Cisterns           | Rain Barrels/Cisterns would require the ability to use the water between storm events which is not feasible for this project type.                          |

### 6.4.3 Channel Protection

In accordance with the Design Manual, stream channel protection, designed to protect stream channels from erosion, is accomplished by providing 24-hour extended detention of the one-year, 24-hour storm event. The  $C_{pv}$  requirement is typically satisfied by providing additional storage above the water quality ( $WQ_v$ ) volume.

According to Chapter 4 of the Design Manual, the stream channel protection requirement does not apply when the entire channel protection volume is reduced through green infrastructure or infiltration systems. All stormwater management practices on this site are designed as infiltration practices; additionally, stormwater modelling indicates the proposed stormwater management areas designed to fully attenuate and infiltrate the contributing stormwater runoff for stormwater events up to the 100-Year design storm without any overflows.

### 6.4.4 Overbank Flood ( $Q_p$ )

Overbank Flood Control Criteria has been established to limit the frequency and magnitude of out-of-bank flooding generated through changes in runoff characteristics as a result of increased impervious surface area. In accordance with the Design Manual, providing sufficient storage volume to attenuate the post development 10-year, 24-hour peak discharge rate to the equivalent pre-development discharge rate controls overbank flooding.

The 10-year design storm event was analyzed using the HydroCAD stormwater modeling program (TR-20) under the post-development drainage conditions shown on Figure 3. Using a 10-year, 24-hour design storm of 3.69 inches, the stormwater management areas were designed with sufficient storage volume to limit the post-development 10-year, 24-hour peak discharge rate to the pre-development discharge rate. The following table presents the pre- and post-development discharge rates for the offsite discharge. According to the general permit, a change in pre- to post-development hydrology is considered to be an increase in discharge rates above five (5) percent. As indicated below, the post-development discharge rate is less than the pre-development rate as required.

**Table 8: Overbank Flow Runoff Summary**

| Design Point | 10-year (3.96") runoff rate (cfs) |                  |
|--------------|-----------------------------------|------------------|
|              | Predevelopment                    | Post-Development |
| DP-1         | 0                                 | 0                |
| DP-2         | 0                                 | 0                |
| DP-3         | 0                                 | 0                |
| T (TOTAL)    | 0                                 | 0                |

#### 6.4.5 Extreme Storm ( $Q_f$ )

In accordance with the Design Manual, the stormwater management system must attenuate the post development 100-year, 24-hour peak discharge rate to the predevelopment rate while providing safe passage of this storm event.

The 100-year storm event was analyzed using the HydroCAD stormwater modeling program (TR-20) under the post-development drainage conditions shown in Figure 3. Using a 100-year, 24-hour design storm of 6.20 inches, the stormwater management areas were designed with sufficient storage volume to limit the post-development 100-year, 24-hour peak discharge rate to the predevelopment discharge rate. The following table presents the pre- and post-development discharge rates for the offsite discharge. According to the general permit, a change in pre- to post-development hydrology is considered to be an increase in discharge rates above five (5) percent. As indicated, the post-development discharge rate is less than the predevelopment rate as required.

**Table 9: Extreme Storm Runoff Summary**

| Design Point | 100-year (6.20") runoff rate (cfs) |                  |
|--------------|------------------------------------|------------------|
|              | Predevelopment                     | Post-Development |
| DP-1         | 0.21                               | 0.21             |
| DP-2         | 0.21                               | 0.14             |
| DP-3         | 0.21                               | 0.21             |
| T (TOTAL)    | 0.63                               | 0.56             |

## 7.0 Summary

Development of the proposed project site will slightly alter the stormwater drainage characteristics of the site; impervious area will be added in the form of new gravel road and a solar equipment pad. Changes to the stormwater drainage characteristics of the site have been evaluated in accordance with the Design Manual. The proposed stormwater management system has been designed to comply with the recommendations in the Design Manual and the NYSDEC SPCG as it relates to maintaining sheet flow, providing water quality/runoff reduction/channel protection volume, overbank flood control and extreme flood control for new development projects.

The proposed stormwater management system has been designed to attenuate and treat the stormwater runoff generated from the contributing areas for storm events to the pre-development rates, up to and including the 100-Year design storm event. The proposed stormwater management design includes the use of infiltration basin and grass filter strip. Stormwater modeling results indicate the ability to reduce the overall post-development discharge rate from the site as summarized in Table 10.

**Table 10:** Post Development Stormwater Peak Discharge Rates

| Peak Discharge Rates in cfs | 1-Year Storm | 10-Year Storm | 100-Year Storm |
|-----------------------------|--------------|---------------|----------------|
| Pre-Development             | 0            | 0             | 0.63           |
| Post-Development            | 0            | 0             | 0.56           |
| Overall Reduction (cfs)     | 0            | 0             | 0.07           |

Through the implementation of acceptable stormwater management practices, recommended by the NYS Stormwater Management Design Manual, the proposed project will not adversely affect adjacent or downstream properties.

Prepared by:

The Environmental Design Partnership, LLP



Faraad Rasul, Project Engineer

Reviewed by:

The Environmental Design Partnership, LLP

Travis J. Mitchell, P.E.

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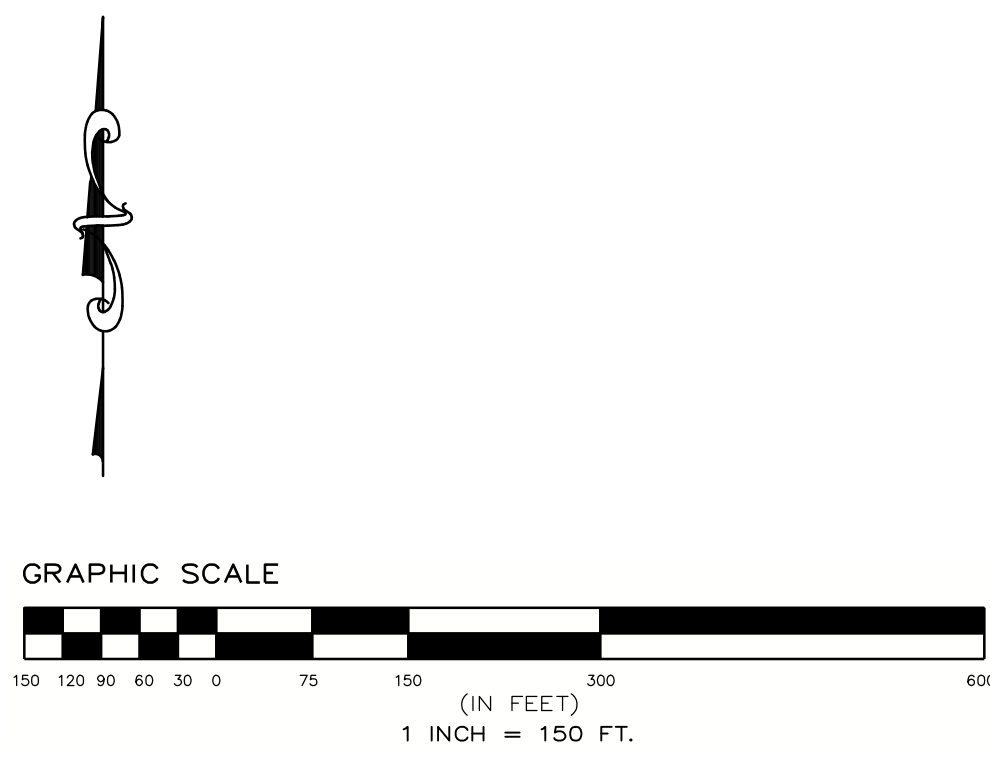
## Figures

1. Site Location map
2. Pre-Development Drainage Map
3. Post Development Drainage Map

Figure 1: Site Location Map







|         |         |            |
|---------|---------|------------|
| Dwg No: | Size: D | Sheet Rev: |
| 1       |         |            |



**ENVIRONMENTAL DESIGN  
PARTNERSHIP, LLP.**

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STORMWATER LEGEND:

- EXISTING IMPERVIOUS AREA
- PROPOSED IMPERVIOUS AREA
- GRASS/MEADOW AREA
- WOODED AREA
- DIRT ROAD
- SUBCATCHMENT AREA
- TIME OF CONCENTRATION
- SUBCATCHMENT NUMBER
- STORMWATER DEVICE
- DESIGN POINT

GRAPHIC SCALE

150 120 90 60 30 0 75 150 300 600

(IN FEET)

1 INCH = 150 FT.



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| Rev | Issued For                | Date      |
|-----|---------------------------|-----------|
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| C   | REVISIONS PER PB COMMENTS | 9/29/2026 |
|     |                           |           |
|     |                           |           |
|     |                           |           |
|     |                           |           |

P.E. seal/Consultant:

**TOP HAT ENERGY**

2-6 ELECTRIC DRIVE  
MOREAU, NY, 12803

Drawing Title:

**POST - DEVELOPMENT  
STORMWATER MAP**

Approved by: TJM

Drawn by: FR

Dwg No: 2

Size: D

Sheet Rev:

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Attachment A  
Water Quality Calculation  
Runoff Reduction Calculation

# NOI QUESTIONS

| #   | NOI Question                                              | Reported Value |       |
|-----|-----------------------------------------------------------|----------------|-------|
|     |                                                           | cf             | af    |
| 28  | Total Water Quality Volume (WQv) Required                 | 2420           | 0.056 |
| 30  | Total RRV Provided                                        | 2420           | 0.056 |
| 31  | Is RRV Provided $\geq$ WQv Required?                      | Yes            |       |
| 32  | Minimum RRV                                               | 1133           | 0.026 |
| 32a | Is RRV Provided $\geq$ Minimum RRV Required?              | Yes            |       |
|     |                                                           |                |       |
| 33a | Total WQv Treated                                         | 0              | 0.000 |
| 34  | Sum of Volume Reduced & Treated                           | 2420           | 0.056 |
| 35  | Is Sum RRV Provided and WQv Provided $\geq$ WQv Required? | Yes            |       |

100.00%

## Step 2 - Calculate Water Quality Volume

|                                                                                                  |  |    |
|--------------------------------------------------------------------------------------------------|--|----|
| Is this project subject to Section 4.3 of the NYS Design Manual for Enhanced Phosphorus Removal? |  | No |
| What is the nature of this construction project?                                                 |  |    |

|               |      |        |                                      |
|---------------|------|--------|--------------------------------------|
| Design Point: |      |        | <i>Enter 90% Rainfall Event as P</i> |
| P=            | 1.20 | inches |                                      |

| Calculate Required WQv |                           |                         |                      |      |             |                                  |
|------------------------|---------------------------|-------------------------|----------------------|------|-------------|----------------------------------|
| Drainage Area Number   | Contributing Area (Acres) | Impervious Area (Acres) | Percent Impervious % | Rv   | WQv (cf)    | SMP Description                  |
| 1                      | 1.74                      | 0.35                    | 20                   | 0.23 | 1,751       | Infiltration Basin               |
| 2                      | 0.37                      | 0.15                    | 41                   | 0.41 | 669         | Sheet Flow to Grass Filter Strip |
| 3                      |                           |                         |                      |      |             |                                  |
| 4                      |                           |                         |                      |      |             |                                  |
| 5                      |                           |                         |                      |      |             |                                  |
| 6                      |                           |                         |                      |      |             |                                  |
| 7                      |                           |                         |                      |      |             |                                  |
| 8                      |                           |                         |                      |      |             |                                  |
| 9                      |                           |                         |                      |      |             |                                  |
| 10                     |                           |                         |                      |      |             |                                  |
| 11                     |                           |                         |                      |      |             |                                  |
| 12                     |                           |                         |                      |      |             |                                  |
| 13                     |                           |                         |                      |      |             |                                  |
| 14                     |                           |                         |                      |      |             |                                  |
| 15                     |                           |                         |                      |      |             |                                  |
| 16                     |                           |                         |                      |      |             |                                  |
| 17                     |                           |                         |                      |      |             |                                  |
| 18                     |                           |                         |                      |      |             |                                  |
| 19                     |                           |                         |                      |      |             |                                  |
| 20                     |                           |                         |                      |      |             |                                  |
| 21                     |                           |                         |                      |      |             |                                  |
| 22                     |                           |                         |                      |      |             |                                  |
| 23                     |                           |                         |                      |      |             |                                  |
| 24                     |                           |                         |                      |      |             |                                  |
| 25                     |                           |                         |                      |      |             |                                  |
| 26                     |                           |                         |                      |      |             |                                  |
| 27                     |                           |                         |                      |      |             |                                  |
| 28                     |                           |                         |                      |      |             |                                  |
| 29                     |                           |                         |                      |      |             |                                  |
| 30                     |                           |                         |                      |      |             |                                  |
| <b>Total</b>           | 2.11                      | 0.50                    | 24                   | 0.26 | <b>2420</b> | <b>Required WQv</b>              |

|      |    |
|------|----|
| 0.06 | af |
|------|----|

## Steps 3 and 5 - Apply RR Techniques and Standard SMPs

| Runoff Reduction Volume and Treated Volumes |                                            |       |                         |                                    |                   |             |
|---------------------------------------------|--------------------------------------------|-------|-------------------------|------------------------------------|-------------------|-------------|
|                                             | Runoff Reduction Techniques/Standard SMPs  |       | Total Contributing Area | Total Contributing Impervious Area | WQv Reduced (RRv) | WQv Treated |
|                                             |                                            |       | (acres)                 | (acres)                            | (cf)              | (cf)        |
| RR Techniques                               | Conservation of Natural Areas              | RR-1  | 0.00                    |                                    | 0                 |             |
|                                             | Sheet Flow to Riparian Buffer/Filter Strip | RR-2  | 0.37                    | 0.15                               | 669               |             |
|                                             | Tree Planting/Tree Pit/Tree Trench         | RR-3  | 0.00                    | 0.00                               | 0                 |             |
|                                             | Disconnection of Rooftop Runoff            | RR-4  |                         | 0.00                               | 0                 |             |
|                                             | Vegetated Swale                            | RR-5  | 0.00                    | 0.00                               | 0                 |             |
|                                             | Rain Garden                                | RR-6  | 0.00                    | 0.00                               | 0                 |             |
|                                             | Stormwater Planter                         | RR-7  | 0.00                    | 0.00                               | 0                 |             |
|                                             | Rainwater Harvesting Systems               | RR-8  | 0.00                    | 0.00                               | 0                 |             |
|                                             | Porous Pavement                            | RR-9  | 0.00                    | 0.00                               | 0                 |             |
|                                             | Green Roof (Extensive & Intensive)         | RR-10 | 0.00                    | 0.00                               | 0                 |             |
|                                             | Stream Daylighting                         | RR-11 |                         |                                    |                   |             |
| Standard SMPs w/ RRv Capacity               | Infiltration Trench                        | I-1   | 0.00                    | 0.00                               | 0                 | 0           |
|                                             | Infiltration Basin                         | I-2   | 1.74                    | 0.35                               | 1,751             | 0           |
|                                             | Dry Well                                   | I-3   | 0.00                    | 0.00                               | 0                 | 0           |
|                                             | Underground Infiltration System            | I-4   | 0.00                    | 0.00                               | 0                 | 0           |
|                                             | Infiltration Bioretention                  | F-4   | 0.00                    | 0.00                               | 0                 | 0           |
|                                             | Filtration Bioretention                    | F-5   | 0.00                    | 0.00                               | 0                 | 0           |
|                                             | Bioslope                                   | F-6   | 0.00                    | 0.00                               | 0                 | 0           |
|                                             | Dry swale                                  | O-1   | 0.00                    | 0.00                               | 0                 | 0           |
| Standard SMPs                               | Micropool Extended Detention               | P-1   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Wet Pond                                   | P-2   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Wet Extended Detention                     | P-3   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Multiple Pond System                       | P-4   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Shallow Wetland                            | W-1   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Extended Detention Shallow Wetland         | W-2   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Pond/Wetland System                        | W-3   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Pocket Wetland                             | W-4   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Gravel Wetland                             | W-5   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Surface Sand Filter                        | F-1   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Underground Sand Filter                    | F-2   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Perimeter Sand Filter                      | F-3   | 0.00                    | 0.00                               |                   | 0           |
|                                             | Wet Swale                                  | O-2   | 0.00                    | 0.00                               |                   | 0           |
| Alt. SMPs                                   | Flow Based Alternative Practice            | -     | 0.00                    | 0.00                               |                   | 0           |
|                                             | Volume Based Alternative Practice          | -     |                         |                                    |                   |             |
| Totals by RR Technique →                    |                                            |       | 0.37                    | 0.15                               | 669               |             |
| Totals by Standard SMP w/RRV →              |                                            |       | 1.74                    | 0.35                               | 1,751             | 0           |
| Totals by Standard SMP →                    |                                            |       | 0.00                    | 0.00                               |                   | 0           |
| Totals by Alternative SMP →                 |                                            |       | 0.00                    | 0.00                               |                   | 0           |
| Totals ( RR Techniques + all SMPs) →        |                                            |       | 2.11                    | 0.50                               | 2,420             | 0           |

## Step 4 - Calculate Minimum RRv Required

### Enter the Soils Data for the site

| Hydrologic Soil Group | Acres | S   |
|-----------------------|-------|-----|
| A                     | 0.50  | 55% |
| B                     | 0.00  | 40% |
| C                     | 0.00  | 30% |
| D                     | 0.00  | 20% |
| Total Area            | 0.5   |     |

### Calculate the Minimum RRv

|                    |              |                  |
|--------------------|--------------|------------------|
| S =                | <b>0.55</b>  |                  |
| Impervious =       | 0.50         | <i>acres</i>     |
| Precipitation      | 1.20         | <i>inches</i>    |
| Rv                 | 0.95         |                  |
| <b>Minimum RRv</b> | <b>0.026</b> | <b><i>af</i></b> |
|                    | 1133         | cf               |

## Sheet Flow to Grass Filter Strip (RR-3)

| <b>Design Point:</b>                                                                                                |                           |                         |                      |          |          |                    |                                  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------|----------------------|----------|----------|--------------------|----------------------------------|--|--|--|
| Enter Site Data For Drainage Area to be Reduced                                                                     |                           |                         |                      |          |          |                    |                                  |  |  |  |
| Drainage Area Number                                                                                                | Contributing Area (Acres) | Impervious Area (Acres) | Percent Impervious % | Rv       | WQv (cf) | Precipitation (in) | Description                      |  |  |  |
| 2                                                                                                                   | 0.37                      | 0.15                    | 41                   | 0.41     | 669      | 1.20               | Sheet Flow to Grass Filter Strip |  |  |  |
| Design Criteria                                                                                                     |                           |                         |                      |          |          |                    |                                  |  |  |  |
| Is the riparian buffer delineated and permanently protected through establishment of a legal conservation easement? |                           |                         |                      |          |          | Yes                |                                  |  |  |  |
| Is the contributing area a designated hotspot?                                                                      |                           |                         |                      |          |          | No                 |                                  |  |  |  |
| Is a pretreatment pea gravel diaphragm proposed along the upgradient edge of the buffer?                            |                           |                         |                      |          |          | Yes                |                                  |  |  |  |
| Is runoff entering the buffer as overland sheet flow or a flow spreader proposed upgradient of the buffer?          |                           |                         |                      |          |          | Yes                |                                  |  |  |  |
| Enter the total length of contributing flow path (ft)                                                               |                           |                         |                      |          |          | 30                 |                                  |  |  |  |
| Enter the length of contributing flow path from impervious surfaces (ft)                                            |                           |                         |                      |          |          | 20                 |                                  |  |  |  |
| Enter the slope of contributing flow path (%)                                                                       |                           |                         |                      |          |          | 5                  |                                  |  |  |  |
| Minimum buffer length based on contributing flow path slope (ft)                                                    |                           |                         |                      |          |          | 35                 |                                  |  |  |  |
| Enter the slope for the first 10 ft of the buffer (%)                                                               |                           |                         |                      |          |          | 2                  |                                  |  |  |  |
| Sizing Criteria                                                                                                     |                           |                         |                      |          |          |                    |                                  |  |  |  |
|                                                                                                                     |                           |                         |                      | Value    | Units    | Notes              |                                  |  |  |  |
| Enter Travel Time through Buffer                                                                                    |                           |                         |                      | <i>T</i> | 6        | min                |                                  |  |  |  |
| Enter 2-yr 24-hr Rainfall Depth                                                                                     |                           |                         |                      | <i>P</i> | 2.58     | inch               |                                  |  |  |  |
| Enter Overall Buffer Slope                                                                                          |                           |                         |                      | <i>S</i> | 0.05     | ft/ft              |                                  |  |  |  |
| Enter Manning's Coefficient for Buffer                                                                              |                           |                         |                      | <i>n</i> | 0.24     |                    |                                  |  |  |  |
| Calculated Minimum Length of Buffer                                                                                 |                           |                         |                      | <i>L</i> | 47       | ft                 |                                  |  |  |  |
| Minimum Length of Buffer                                                                                            |                           |                         |                      | <i>L</i> | 47       | ft                 |                                  |  |  |  |
| Is the buffer within HSG C or D soils?                                                                              |                           |                         |                      |          | No       |                    |                                  |  |  |  |
| Required Length of Buffer                                                                                           |                           |                         |                      | <i>L</i> | 47       | ft                 |                                  |  |  |  |
| Enter Provided Length of Buffer                                                                                     |                           |                         |                      | <i>L</i> | 60       | ft                 |                                  |  |  |  |
| Calculate Runoff Reduction                                                                                          |                           |                         |                      |          |          |                    |                                  |  |  |  |
| <b>RRv Provided</b>                                                                                                 |                           | <b>669</b>              | <b>cf</b>            |          |          |                    |                                  |  |  |  |

|                           |      |       |  |  |  |  |  |
|---------------------------|------|-------|--|--|--|--|--|
| <b>Total Area</b>         | 0.37 | acres |  |  |  |  |  |
| <b>Total Impervious</b>   | 0    | acres |  |  |  |  |  |
| <b>Total RRv Provided</b> | 669  | cf    |  |  |  |  |  |

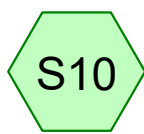
## Infiltration Basin (I-2)

| <b>Design Point:</b>                                                                         |                                 |                               |                            |       |             |                       |                    |                           |       |       |  |
|----------------------------------------------------------------------------------------------|---------------------------------|-------------------------------|----------------------------|-------|-------------|-----------------------|--------------------|---------------------------|-------|-------|--|
| Enter Site Data For Drainage Area to be Treated by Practice                                  |                                 |                               |                            |       |             |                       |                    | <b>Total Area</b>         | 1.74  | acres |  |
| Drainage<br>Area Number                                                                      | Contributing<br>Area<br>(Acres) | Impervious<br>Area<br>(Acres) | Percent<br>Impervious<br>% | Rv    | WQv<br>(cf) | Precipitation<br>(in) | Description        | <b>Total Impervious</b>   | 0     | acres |  |
| 1                                                                                            | 1.74                            | 0.35                          | 20                         | 0.23  | 1,751       | 1.20                  | Infiltration Basin | <b>Total RRv Provided</b> | 1,751 | cf    |  |
| Design Criteria                                                                              |                                 |                               |                            |       |             |                       |                    | <b>Total WQv Provided</b> | 0     | cf    |  |
| Enter underlying soil infiltration rate (based on geotechnical testing, refer to Appendix D) |                                 |                               | 10                         |       |             |                       |                    |                           |       |       |  |
| Is the contributing area to the practice an "Infiltration Restricted" stormwater hotspot?    |                                 |                               | No                         |       |             |                       |                    |                           |       |       |  |
| Is the contributing area to the practice an "Infiltration Prohibited" stormwater hotspot?    |                                 |                               | No                         |       |             |                       |                    |                           |       |       |  |
| Maximum contributing area (acres)                                                            |                                 |                               | 25                         |       |             |                       |                    |                           |       |       |  |
| Is the contributing area greater than the maximum allowed contributing area?                 |                                 |                               | No                         |       |             |                       |                    |                           |       |       |  |
| Enter depth to seasonal high water table (ft)                                                |                                 |                               | 4                          |       |             |                       |                    |                           |       |       |  |
| Enter depth to bedrock (ft)                                                                  |                                 |                               | 4                          |       |             |                       |                    |                           |       |       |  |
| Enter pretreatment volume provided (cf)                                                      |                                 |                               | 891                        |       |             |                       |                    |                           |       |       |  |
| Enter depth of freeboard (ft)                                                                |                                 |                               | 1.73                       |       |             |                       |                    |                           |       |       |  |
| Enter depth of basin (ft)                                                                    |                                 |                               | 3                          |       |             |                       |                    |                           |       |       |  |
| Enter slope of maintenance access (%)                                                        |                                 |                               | 2                          |       |             |                       |                    |                           |       |       |  |
| Enter width of maintenance access (ft)                                                       |                                 |                               | 12                         |       |             |                       |                    |                           |       |       |  |
| Sizing Criteria                                                                              |                                 |                               |                            |       |             |                       |                    |                           |       |       |  |
|                                                                                              |                                 |                               | Value                      | Units | Notes       |                       |                    |                           |       |       |  |
| Water Quality Volume                                                                         |                                 | WQv                           | 1751                       | cf    |             |                       |                    |                           |       |       |  |
| Basin depth                                                                                  |                                 | db                            | 3.0                        | ft    |             |                       |                    |                           |       |       |  |
| Required Surface Area                                                                        |                                 | Ab                            | 584                        | sf    |             |                       |                    |                           |       |       |  |
| Enter Surface Area Provided                                                                  |                                 | Ab                            | 593                        | sf    |             |                       |                    |                           |       |       |  |
| Determine Runoff Reduction                                                                   |                                 |                               |                            |       |             |                       |                    |                           |       |       |  |
| <b>RRv Provided</b>                                                                          |                                 | <b>1,751</b>                  | <b>cf</b>                  |       |             |                       |                    |                           |       |       |  |



## Attachment B

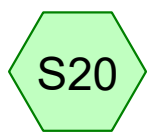
### Stormwater Modeling Calculations



S10



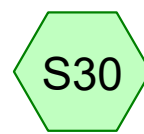
Design Point 1



S20



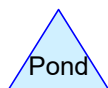
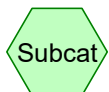
Design Point 2



S30



Design Point 3



**Routing Diagram for Pre-Development**

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## Pre-Development

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### Rainfall Events Listing (selected events)

| Event# | Event Name | Storm Type                  | Curve  | Mode    | Duration (hours) | B/B | Depth (inches) | AMC |
|--------|------------|-----------------------------|--------|---------|------------------|-----|----------------|-----|
| 1      | 1-yr       | NY-Saratoga-Moreau 24-hr S1 | 1-yr   | Default | 24.00            | 1   | 2.22           | 2   |
| 2      | 10-yr      | NY-Saratoga-Moreau 24-hr S1 | 10-yr  | Default | 24.00            | 1   | 3.69           | 2   |
| 3      | 100-yr     | NY-Saratoga-Moreau 24-hr S1 | 100-yr | Default | 24.00            | 1   | 6.20           | 2   |

## Pre-Development

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### Area Listing (all nodes)

| Area<br>(acres) | CN        | Description<br>(subcatchment-numbers)     |
|-----------------|-----------|-------------------------------------------|
| 0.578           | 72        | Dirt roads, HSG A (S10, S20, S30)         |
| 0.147           | 96        | Existing Gravel surface, HSG A (S10, S20) |
| 3.021           | 30        | Meadow, non-grazed, HSG A (S10, S20, S30) |
| 50.589          | 30        | Woods, Good, HSG A (S10, S20, S30)        |
| <b>54.335</b>   | <b>31</b> | <b>TOTAL AREA</b>                         |

**Pre-Development**

NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

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**Summary for Subcatchment S10: S10**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Link DP 1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 77,915    | 30 | Meadow, non-grazed, HSG A      |
| 623,257   | 30 | Woods, Good, HSG A             |
| 18,559    | 72 | Dirt roads, HSG A              |
| 2,225     | 96 | Existing Gravel surface, HSG A |
| 721,956   | 31 | Weighted Average               |
| 721,956   | 31 | 100.00% Pervious Area          |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                       |
|----------|---------------|---------------|-------------------|----------------|---------------------------------------------------|
| 15.4     | 100           | 0.0600        | 0.11              |                | <b>Sheet Flow, Woods - SF</b>                     |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 2.58"        |
| 1.9      | 170           | 0.0880        | 1.48              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 0.1      | 14            | 0.0680        | 4.20              |                | <b>Shallow Concentrated Flow, Dirt Road - SCF</b> |
|          |               |               |                   |                | Unpaved Kv= 16.1 fps                              |
| 14.7     | 881           | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 32.1     | 1,165         | Total         |                   |                |                                                   |

**Summary for Subcatchment S20: S20**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Link DP 2 : Design Point 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 49,640    | 30 | Meadow, non-grazed, HSG A      |
| 643,085   | 30 | Woods, Good, HSG A             |
| 3,372     | 72 | Dirt roads, HSG A              |
| * 4,180   | 96 | Existing Gravel surface, HSG A |
| 700,277   | 31 | Weighted Average               |
| 700,277   | 31 | 100.00% Pervious Area          |

**Pre-Development**

NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                                                                            |
|-------------|------------------|------------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 18.5        | 100              | 0.0380           | 0.09                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58"                                                            |
| 14.8        | 642              | 0.0210           | 0.72                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps                                                                  |
| 1.0         | 1,672            | 0.0300           | 27.52                | 3,096.16          | <b>Trap/Vee/Rect Channel Flow, Existing Stream</b><br>Bot.W=20.00' D=5.00' Z= 0.5 '/' Top.W=25.00'<br>n= 0.022 Earth, clean & straight |
| 34.3        | 2,414            | Total            |                      |                   |                                                                                                                                        |

**Summary for Subcatchment S30: S30**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"  
 Routed to Link DP3 : Design Point 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 4,029     | 30 | Meadow, non-grazed, HSG A |
| 937,313   | 30 | Woods, Good, HSG A        |
| 3,253     | 72 | Dirt roads, HSG A         |
| 944,595   | 30 | Weighted Average          |
| 944,595   | 30 | 100.00% Pervious Area     |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                 |
|-------------|------------------|------------------|----------------------|-------------------|-----------------------------------------------------------------------------|
| 23.9        | 100              | 0.0200           | 0.07                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 10.7        | 1,113            | 0.1200           | 1.73                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 34.6        | 1,213            | Total            |                      |                   |                                                                             |

**Summary for Link DP 1: Design Point 1**

Inflow Area = 16.574 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Summary for Link DP 2: Design Point 2**

Inflow Area = 16.076 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Pre-Development***NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"*

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**Summary for Link DP3: Design Point 3**

Inflow Area = 21.685 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Pre-Development**

NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

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**Summary for Subcatchment S10: S10**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Link DP 1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 77,915    | 30 | Meadow, non-grazed, HSG A      |
| 623,257   | 30 | Woods, Good, HSG A             |
| 18,559    | 72 | Dirt roads, HSG A              |
| 2,225     | 96 | Existing Gravel surface, HSG A |
| 721,956   | 31 | Weighted Average               |
| 721,956   | 31 | 100.00% Pervious Area          |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                       |
|----------|---------------|---------------|-------------------|----------------|---------------------------------------------------|
| 15.4     | 100           | 0.0600        | 0.11              |                | <b>Sheet Flow, Woods - SF</b>                     |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 2.58"        |
| 1.9      | 170           | 0.0880        | 1.48              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 0.1      | 14            | 0.0680        | 4.20              |                | <b>Shallow Concentrated Flow, Dirt Road - SCF</b> |
|          |               |               |                   |                | Unpaved Kv= 16.1 fps                              |
| 14.7     | 881           | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 32.1     | 1,165         | Total         |                   |                |                                                   |

**Summary for Subcatchment S20: S20**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Link DP 2 : Design Point 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 49,640    | 30 | Meadow, non-grazed, HSG A      |
| 643,085   | 30 | Woods, Good, HSG A             |
| 3,372     | 72 | Dirt roads, HSG A              |
| * 4,180   | 96 | Existing Gravel surface, HSG A |
| 700,277   | 31 | Weighted Average               |
| 700,277   | 31 | 100.00% Pervious Area          |



**Pre-Development**

NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                                                                            |
|-------------|------------------|------------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 18.5        | 100              | 0.0380           | 0.09                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58"                                                            |
| 14.8        | 642              | 0.0210           | 0.72                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps                                                                  |
| 1.0         | 1,672            | 0.0300           | 27.52                | 3,096.16          | <b>Trap/Vee/Rect Channel Flow, Existing Stream</b><br>Bot.W=20.00' D=5.00' Z= 0.5 '/' Top.W=25.00'<br>n= 0.022 Earth, clean & straight |
| 34.3        | 2,414            | Total            |                      |                   |                                                                                                                                        |

**Summary for Subcatchment S30: S30**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"  
 Routed to Link DP3 : Design Point 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 4,029     | 30 | Meadow, non-grazed, HSG A |
| 937,313   | 30 | Woods, Good, HSG A        |
| 3,253     | 72 | Dirt roads, HSG A         |
| 944,595   | 30 | Weighted Average          |
| 944,595   | 30 | 100.00% Pervious Area     |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                 |
|-------------|------------------|------------------|----------------------|-------------------|-----------------------------------------------------------------------------|
| 23.9        | 100              | 0.0200           | 0.07                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 10.7        | 1,113            | 0.1200           | 1.73                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 34.6        | 1,213            | Total            |                      |                   |                                                                             |

**Summary for Link DP 1: Design Point 1**

Inflow Area = 16.574 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Summary for Link DP 2: Design Point 2**

Inflow Area = 16.076 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Pre-Development***NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"*

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**Summary for Link DP3: Design Point 3**

Inflow Area = 21.685 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Pre-Development**

NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

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**Summary for Subcatchment S10: S10**

Runoff = 0.21 cfs @ 15.14 hrs, Volume= 0.176 af, Depth= 0.13"  
 Routed to Link DP 1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 77,915    | 30 | Meadow, non-grazed, HSG A      |
| 623,257   | 30 | Woods, Good, HSG A             |
| 18,559    | 72 | Dirt roads, HSG A              |
| 2,225     | 96 | Existing Gravel surface, HSG A |
| 721,956   | 31 | Weighted Average               |
| 721,956   | 31 | 100.00% Pervious Area          |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                       |
|----------|---------------|---------------|-------------------|----------------|---------------------------------------------------|
| 15.4     | 100           | 0.0600        | 0.11              |                | <b>Sheet Flow, Woods - SF</b>                     |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 2.58"        |
| 1.9      | 170           | 0.0880        | 1.48              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 0.1      | 14            | 0.0680        | 4.20              |                | <b>Shallow Concentrated Flow, Dirt Road - SCF</b> |
|          |               |               |                   |                | Unpaved Kv= 16.1 fps                              |
| 14.7     | 881           | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 32.1     | 1,165         | Total         |                   |                |                                                   |

**Summary for Subcatchment S20: S20**

Runoff = 0.21 cfs @ 15.20 hrs, Volume= 0.171 af, Depth= 0.13"  
 Routed to Link DP 2 : Design Point 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 49,640    | 30 | Meadow, non-grazed, HSG A      |
| 643,085   | 30 | Woods, Good, HSG A             |
| 3,372     | 72 | Dirt roads, HSG A              |
| * 4,180   | 96 | Existing Gravel surface, HSG A |
| 700,277   | 31 | Weighted Average               |
| 700,277   | 31 | 100.00% Pervious Area          |

**Pre-Development**

NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                                                                            |
|-------------|------------------|------------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 18.5        | 100              | 0.0380           | 0.09                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58"                                                            |
| 14.8        | 642              | 0.0210           | 0.72                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps                                                                  |
| 1.0         | 1,672            | 0.0300           | 27.52                | 3,096.16          | <b>Trap/Vee/Rect Channel Flow, Existing Stream</b><br>Bot.W=20.00' D=5.00' Z= 0.5 '/' Top.W=25.00'<br>n= 0.022 Earth, clean & straight |
| 34.3        | 2,414            | Total            |                      |                   |                                                                                                                                        |

**Summary for Subcatchment S30: S30**

Runoff = 0.21 cfs @ 17.09 hrs, Volume= 0.171 af, Depth= 0.09"  
Routed to Link DP3 : Design Point 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 4,029     | 30 | Meadow, non-grazed, HSG A |
| 937,313   | 30 | Woods, Good, HSG A        |
| 3,253     | 72 | Dirt roads, HSG A         |
| 944,595   | 30 | Weighted Average          |
| 944,595   | 30 | 100.00% Pervious Area     |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                 |
|-------------|------------------|------------------|----------------------|-------------------|-----------------------------------------------------------------------------|
| 23.9        | 100              | 0.0200           | 0.07                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 10.7        | 1,113            | 0.1200           | 1.73                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 34.6        | 1,213            | Total            |                      |                   |                                                                             |

**Summary for Link DP 1: Design Point 1**

Inflow Area = 16.574 ac, 0.00% Impervious, Inflow Depth = 0.13" for 100-yr event  
Inflow = 0.21 cfs @ 15.14 hrs, Volume= 0.176 af  
Primary = 0.21 cfs @ 15.14 hrs, Volume= 0.176 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Summary for Link DP 2: Design Point 2**

Inflow Area = 16.076 ac, 0.00% Impervious, Inflow Depth = 0.13" for 100-yr event  
Inflow = 0.21 cfs @ 15.20 hrs, Volume= 0.171 af  
Primary = 0.21 cfs @ 15.20 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Pre-Development***NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"*

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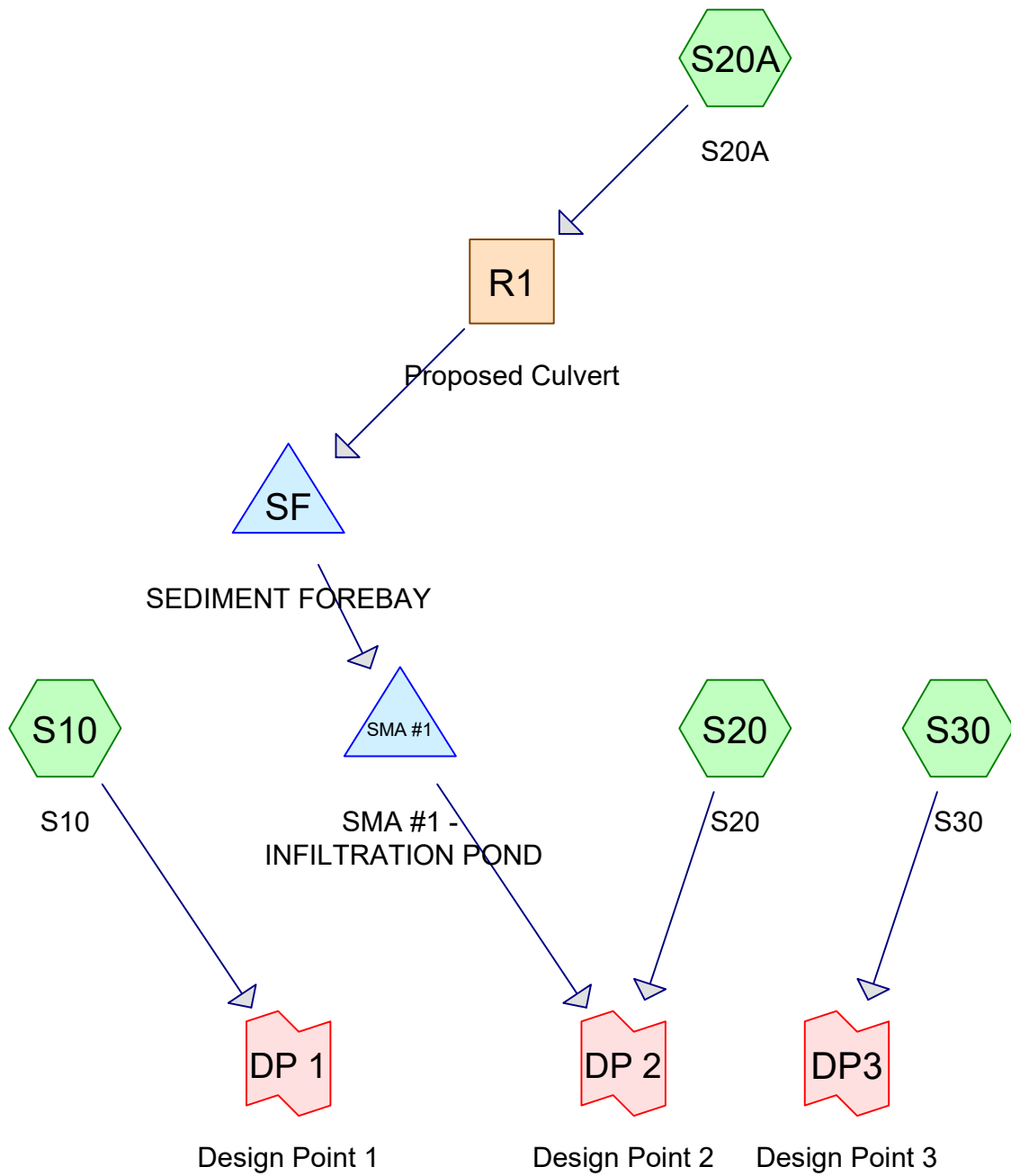
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**Summary for Link DP3: Design Point 3**

Inflow Area = 21.685 ac, 0.00% Impervious, Inflow Depth = 0.09" for 100-yr event  
Inflow = 0.21 cfs @ 17.09 hrs, Volume= 0.171 af  
Primary = 0.21 cfs @ 17.09 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs



**Routing Diagram for Post-Development**

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## Post-Development

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### Rainfall Events Listing (selected events)

| Event# | Event Name | Storm Type                  | Curve  | Mode    | Duration (hours) | B/B | Depth (inches) | AMC |
|--------|------------|-----------------------------|--------|---------|------------------|-----|----------------|-----|
| 1      | 1-yr       | NY-Saratoga-Moreau 24-hr S1 | 1-yr   | Default | 24.00            | 1   | 2.22           | 2   |
| 2      | 10-yr      | NY-Saratoga-Moreau 24-hr S1 | 10-yr  | Default | 24.00            | 1   | 3.69           | 2   |
| 3      | 100-yr     | NY-Saratoga-Moreau 24-hr S1 | 100-yr | Default | 24.00            | 1   | 6.20           | 2   |

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### Area Listing (all nodes)

| Area<br>(acres) | CN        | Description<br>(subcatchment-numbers)           |
|-----------------|-----------|-------------------------------------------------|
| 0.390           | 72        | Dirt roads, HSG A (S10, S20, S30)               |
| 0.147           | 96        | Existing Gravel surface, HSG A (S10, S20A)      |
| 0.486           | 96        | Gravel surface, HSG A (S10, S20A)               |
| 20.655          | 30        | Meadow, non-grazed, HSG A (S10, S20, S20A, S30) |
| 32.664          | 30        | Woods, Good, HSG A (S10, S20, S20A, S30)        |
| <b>54.342</b>   | <b>31</b> | <b>TOTAL AREA</b>                               |



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### Pipe Listing (all nodes)

| Line# | Node<br>Number | In-Invert<br>(feet) | Out-Invert<br>(feet) | Length<br>(feet) | Slope<br>(ft/ft) | n     | Width<br>(inches) | Diam/Height<br>(inches) | Inside-Fill<br>(inches) | Node<br>Name |
|-------|----------------|---------------------|----------------------|------------------|------------------|-------|-------------------|-------------------------|-------------------------|--------------|
| 1     | R1             | 281.90              | 281.50               | 79.0             | 0.0051           | 0.013 | 0.0               | 12.0                    | 0.0                     |              |

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

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**Summary for Subcatchment S10: S10**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"  
 Routed to Link DP 1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 599,612   | 30 | Meadow, non-grazed, HSG A      |
| 93,390    | 30 | Woods, Good, HSG A             |
| 10,936    | 72 | Dirt roads, HSG A              |
| 2,225     | 96 | Existing Gravel surface, HSG A |
| 6,554     | 96 | Gravel surface, HSG A          |
| 712,717   | 31 | Weighted Average               |
| 712,717   | 31 | 100.00% Pervious Area          |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                       |
|----------|---------------|---------------|-------------------|----------------|---------------------------------------------------|
| 15.4     | 100           | 0.0600        | 0.11              |                | <b>Sheet Flow, Woods - SF</b>                     |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 2.58"        |
| 1.9      | 170           | 0.0880        | 1.48              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 0.1      | 14            | 0.0680        | 4.20              |                | <b>Shallow Concentrated Flow, Dirt Road - SCF</b> |
|          |               |               |                   |                | Unpaved Kv= 16.1 fps                              |
| 0.5      | 29            | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 15.7     | 943           | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 33.6     | 1,256         | Total         |                   |                |                                                   |

**Summary for Subcatchment S20: S20**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"  
 Routed to Link DP 2 : Design Point 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 383,600   | 30 | Woods, Good, HSG A        |
| 3,447     | 72 | Dirt roads, HSG A         |
| 243,770   | 30 | Meadow, non-grazed, HSG A |
| 630,817   | 30 | Weighted Average          |
| 630,817   | 30 | 100.00% Pervious Area     |

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                                                                            |
|-------------|------------------|------------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 14.4        | 100              | 0.0100           | 0.12                 |                   | <b>Sheet Flow, Grass - SF</b><br>Grass: Short n= 0.150 P2= 2.58"                                                                       |
| 1.5         | 90               | 0.0200           | 0.99                 |                   | <b>Shallow Concentrated Flow, Grass - SCF</b><br>Short Grass Pasture Kv= 7.0 fps                                                       |
| 1.0         | 1,672            | 0.0300           | 27.52                | 3,096.16          | <b>Trap/Vee/Rect Channel Flow, Existing Stream</b><br>Bot.W=20.00' D=5.00' Z= 0.5 '/' Top.W=25.00'<br>n= 0.022 Earth, clean & straight |
| 16.9        | 1,862            | Total            |                      |                   |                                                                                                                                        |

**Summary for Subcatchment S20A: S20A**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"  
Routed to Reach R1 : Proposed Culvert

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 14,862    | 30 | Woods, Good, HSG A             |
| 45,050    | 30 | Meadow, non-grazed, HSG A      |
| * 4,180   | 96 | Existing Gravel surface, HSG A |
| 14,611    | 96 | Gravel surface, HSG A          |
| 78,703    | 46 | Weighted Average               |
| 78,703    | 46 | 100.00% Pervious Area          |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                 |
|-------------|------------------|------------------|----------------------|-------------------|-----------------------------------------------------------------------------|
| 18.5        | 100              | 0.0380           | 0.09                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 4.5         | 194              | 0.0210           | 0.72                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 19.4        | 145              | 0.0100           | 0.12                 |                   | <b>Sheet Flow, Meadow</b><br>Grass: Short n= 0.150 P2= 2.58"                |
| 42.4        | 439              | Total            |                      |                   |                                                                             |

**Summary for Subcatchment S30: S30**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"  
Routed to Link DP3 : Design Point 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

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| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 11,300    | 30 | Meadow, non-grazed, HSG A |
| 931,004   | 30 | Woods, Good, HSG A        |
| 2,591     | 72 | Dirt roads, HSG A         |
| 944,895   | 30 | Weighted Average          |
| 944,895   | 30 | 100.00% Pervious Area     |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                                                 |
|----------|---------------|---------------|-------------------|----------------|-----------------------------------------------------------------------------|
| 23.9     | 100           | 0.0200        | 0.07              |                | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 10.7     | 1,113         | 0.1200        | 1.73              |                | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 34.6     | 1,213         | Total         |                   |                |                                                                             |

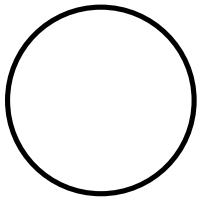
**Summary for Reach R1: Proposed Culvert**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
 Routed to Pond SF : SEDIMENT FOREBAY

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min  
 Avg. Velocity= 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 0.00 hrs  
 Average Depth at Peak Storage= 0.00'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.54 cfs

12.0" Round Pipe  
 n= 0.013 Corrugated PE, smooth interior  
 Length= 79.0' Slope= 0.0051 '/  
 Inlet Invert= 281.90', Outlet Invert= 281.50'

**Summary for Pond SF: SEDIMENT FOREBAY**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
 Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Routed to Pond SMA #1 : SMA #1 - INFILTRATION POND

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

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Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Peak Elev= 280.00' @ 0.00 hrs Surf.Area= 173 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

| Volume              | Invert               | Avail.Storage    | Storage Description                                        |                           |                     |  |
|---------------------|----------------------|------------------|------------------------------------------------------------|---------------------------|---------------------|--|
| #1                  | 280.00'              | 1,566 cf         | <b>Custom Stage Data (Irregular)</b> Listed below (Recalc) |                           |                     |  |
| Elevation<br>(feet) | Surf.Area<br>(sq-ft) | Perim.<br>(feet) | Inc.Store<br>(cubic-feet)                                  | Cum.Store<br>(cubic-feet) | Wet.Area<br>(sq-ft) |  |
| 280.00              | 173                  | 56.0             | 0                                                          | 0                         | 173                 |  |
| 281.00              | 746                  | 197.0            | 426                                                        | 426                       | 3,015               |  |
| 282.00              | 1,585                | 222.0            | 1,139                                                      | 1,566                     | 3,874               |  |

| Device | Routing   | Invert  | Outlet Devices                                                   |  |  |  |  |  |  |  |  |  |
|--------|-----------|---------|------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| #1     | Primary   | 281.50' | <b>15.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> |  |  |  |  |  |  |  |  |  |
|        |           |         | Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60              |  |  |  |  |  |  |  |  |  |
|        |           |         | Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64          |  |  |  |  |  |  |  |  |  |
| #2     | Discarded | 280.00' | <b>10.000 in/hr Exfiltration over Surface area</b>               |  |  |  |  |  |  |  |  |  |

**Discarded OutFlow** Max=0.00 cfs @ 0.00 hrs HW=280.00' (Free Discharge)↑**2=Exfiltration** (Passes 0.00 cfs of 0.04 cfs potential flow)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=280.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)**Summary for Pond SMA #1: SMA #1 - INFILTRATION POND**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
 Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Routed to Link DP 2 : Design Point 2

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Peak Elev= 279.00' @ 0.00 hrs Surf.Area= 593 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

| Volume              | Invert               | Avail.Storage    | Storage Description                                        |                           |                     |  |
|---------------------|----------------------|------------------|------------------------------------------------------------|---------------------------|---------------------|--|
| #1                  | 279.00'              | 3,809 cf         | <b>Custom Stage Data (Irregular)</b> Listed below (Recalc) |                           |                     |  |
| Elevation<br>(feet) | Surf.Area<br>(sq-ft) | Perim.<br>(feet) | Inc.Store<br>(cubic-feet)                                  | Cum.Store<br>(cubic-feet) | Wet.Area<br>(sq-ft) |  |
| 279.00              | 593                  | 129.0            | 0                                                          | 0                         | 593                 |  |
| 280.00              | 1,017                | 151.0            | 796                                                        | 796                       | 1,103               |  |
| 281.00              | 1,500                | 170.0            | 1,251                                                      | 2,046                     | 1,614               |  |
| 282.00              | 2,039                | 189.0            | 1,763                                                      | 3,809                     | 2,186               |  |

## Post-Development

NY-Saratoga-Moreau 24-hr S1 1-yr Rainfall=2.22"

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| Device | Routing   | Invert  | Outlet Devices                                                                                                                                                                     |
|--------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #1     | Primary   | 281.00' | <b>15.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b><br>Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60<br>Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64 |
| #2     | Discarded | 279.00' | <b>10.000 in/hr Exfiltration over Surface area</b>                                                                                                                                 |

**Discarded OutFlow** Max=0.00 cfs @ 0.00 hrs HW=279.00' (Free Discharge)

↑**2=Exfiltration** (Passes 0.00 cfs of 0.14 cfs potential flow)

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=279.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)

### Summary for Link DP 1: Design Point 1

Inflow Area = 16.362 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

### Summary for Link DP 2: Design Point 2

Inflow Area = 16.288 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

### Summary for Link DP3: Design Point 3

Inflow Area = 21.692 ac, 0.00% Impervious, Inflow Depth = 0.00" for 1-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

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**Summary for Subcatchment S10: S10**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Link DP 1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 599,612   | 30 | Meadow, non-grazed, HSG A      |
| 93,390    | 30 | Woods, Good, HSG A             |
| 10,936    | 72 | Dirt roads, HSG A              |
| 2,225     | 96 | Existing Gravel surface, HSG A |
| 6,554     | 96 | Gravel surface, HSG A          |
| 712,717   | 31 | Weighted Average               |
| 712,717   | 31 | 100.00% Pervious Area          |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                       |
|----------|---------------|---------------|-------------------|----------------|---------------------------------------------------|
| 15.4     | 100           | 0.0600        | 0.11              |                | <b>Sheet Flow, Woods - SF</b>                     |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 2.58"        |
| 1.9      | 170           | 0.0880        | 1.48              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 0.1      | 14            | 0.0680        | 4.20              |                | <b>Shallow Concentrated Flow, Dirt Road - SCF</b> |
|          |               |               |                   |                | Unpaved Kv= 16.1 fps                              |
| 0.5      | 29            | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 15.7     | 943           | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 33.6     | 1,256         | Total         |                   |                |                                                   |

**Summary for Subcatchment S20: S20**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"

Routed to Link DP 2 : Design Point 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 383,600   | 30 | Woods, Good, HSG A        |
| 3,447     | 72 | Dirt roads, HSG A         |
| 243,770   | 30 | Meadow, non-grazed, HSG A |
| 630,817   | 30 | Weighted Average          |
| 630,817   | 30 | 100.00% Pervious Area     |

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                                                                            |
|-------------|------------------|------------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 14.4        | 100              | 0.0100           | 0.12                 |                   | <b>Sheet Flow, Grass - SF</b><br>Grass: Short n= 0.150 P2= 2.58"                                                                       |
| 1.5         | 90               | 0.0200           | 0.99                 |                   | <b>Shallow Concentrated Flow, Grass - SCF</b><br>Short Grass Pasture Kv= 7.0 fps                                                       |
| 1.0         | 1,672            | 0.0300           | 27.52                | 3,096.16          | <b>Trap/Vee/Rect Channel Flow, Existing Stream</b><br>Bot.W=20.00' D=5.00' Z= 0.5 '/' Top.W=25.00'<br>n= 0.022 Earth, clean & straight |
| 16.9        | 1,862            | Total            |                      |                   |                                                                                                                                        |

**Summary for Subcatchment S20A: S20A**

Runoff = 0.03 cfs @ 13.44 hrs, Volume= 0.021 af, Depth= 0.14"  
Routed to Reach R1 : Proposed Culvert

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 14,862    | 30 | Woods, Good, HSG A             |
| 45,050    | 30 | Meadow, non-grazed, HSG A      |
| * 4,180   | 96 | Existing Gravel surface, HSG A |
| 14,611    | 96 | Gravel surface, HSG A          |
| 78,703    | 46 | Weighted Average               |
| 78,703    | 46 | 100.00% Pervious Area          |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                 |
|-------------|------------------|------------------|----------------------|-------------------|-----------------------------------------------------------------------------|
| 18.5        | 100              | 0.0380           | 0.09                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 4.5         | 194              | 0.0210           | 0.72                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 19.4        | 145              | 0.0100           | 0.12                 |                   | <b>Sheet Flow, Meadow</b><br>Grass: Short n= 0.150 P2= 2.58"                |
| 42.4        | 439              | Total            |                      |                   |                                                                             |

**Summary for Subcatchment S30: S30**

Runoff = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Depth= 0.00"  
Routed to Link DP3 : Design Point 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"



**Post-Development**

NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

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| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 11,300    | 30 | Meadow, non-grazed, HSG A |
| 931,004   | 30 | Woods, Good, HSG A        |
| 2,591     | 72 | Dirt roads, HSG A         |
| 944,895   | 30 | Weighted Average          |
| 944,895   | 30 | 100.00% Pervious Area     |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                                                 |
|----------|---------------|---------------|-------------------|----------------|-----------------------------------------------------------------------------|
| 23.9     | 100           | 0.0200        | 0.07              |                | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 10.7     | 1,113         | 0.1200        | 1.73              |                | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 34.6     | 1,213         | Total         |                   |                |                                                                             |

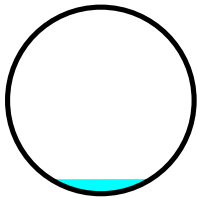
**Summary for Reach R1: Proposed Culvert**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.14" for 10-yr event  
 Inflow = 0.03 cfs @ 13.44 hrs, Volume= 0.021 af  
 Outflow = 0.03 cfs @ 13.48 hrs, Volume= 0.021 af, Atten= 0%, Lag= 2.0 min  
 Routed to Pond SF : SEDIMENT FOREBAY

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 1.11 fps, Min. Travel Time= 1.2 min  
 Avg. Velocity= 0.89 fps, Avg. Travel Time= 1.5 min

Peak Storage= 2 cf @ 13.46 hrs  
 Average Depth at Peak Storage= 0.08' , Surface Width= 0.54'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.54 cfs

12.0" Round Pipe  
 n= 0.013 Corrugated PE, smooth interior  
 Length= 79.0' Slope= 0.0051 '/'  
 Inlet Invert= 281.90', Outlet Invert= 281.50'

**Summary for Pond SF: SEDIMENT FOREBAY**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.14" for 10-yr event  
 Inflow = 0.03 cfs @ 13.48 hrs, Volume= 0.021 af  
 Outflow = 0.03 cfs @ 13.50 hrs, Volume= 0.021 af, Atten= 0%, Lag= 1.4 min  
 Discarded = 0.03 cfs @ 13.50 hrs, Volume= 0.021 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Routed to Pond SMA #1 : SMA #1 - INFILTRATION POND

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

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Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Peak Elev= 280.02' @ 13.50 hrs Surf.Area= 179 sf Storage= 3 cf

Plug-Flow detention time= 1.4 min calculated for 0.021 af (100% of inflow)

Center-of-Mass det. time= 1.4 min ( 1,079.6 - 1,078.2 )

| Volume | Invert  | Avail.Storage | Storage Description                                        |
|--------|---------|---------------|------------------------------------------------------------|
| #1     | 280.00' | 1,566 cf      | <b>Custom Stage Data (Irregular)</b> Listed below (Recalc) |

| Elevation<br>(feet) | Surf.Area<br>(sq-ft) | Perim.<br>(feet) | Inc.Store<br>(cubic-feet) | Cum.Store<br>(cubic-feet) | Wet.Area<br>(sq-ft) |
|---------------------|----------------------|------------------|---------------------------|---------------------------|---------------------|
| 280.00              | 173                  | 56.0             | 0                         | 0                         | 173                 |
| 281.00              | 746                  | 197.0            | 426                       | 426                       | 3,015               |
| 282.00              | 1,585                | 222.0            | 1,139                     | 1,566                     | 3,874               |

| Device | Routing   | Invert  | Outlet Devices                                                                                                                                                                     |
|--------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #1     | Primary   | 281.50' | <b>15.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b><br>Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60<br>Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64 |
| #2     | Discarded | 280.00' | <b>10.000 in/hr Exfiltration over Surface area</b>                                                                                                                                 |

**Discarded OutFlow** Max=0.04 cfs @ 13.50 hrs HW=280.02' (Free Discharge)↑**2=Exfiltration** (Exfiltration Controls 0.04 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=280.00' (Free Discharge)↑**1=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)**Summary for Pond SMA #1: SMA #1 - INFILTRATION POND**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event  
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min  
 Discarded = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Routed to Link DP 2 : Design Point 2

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

Peak Elev= 279.00' @ 0.00 hrs Surf.Area= 593 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)

Center-of-Mass det. time= (not calculated: no inflow)

| Volume | Invert  | Avail.Storage | Storage Description                                        |
|--------|---------|---------------|------------------------------------------------------------|
| #1     | 279.00' | 3,809 cf      | <b>Custom Stage Data (Irregular)</b> Listed below (Recalc) |

| Elevation<br>(feet) | Surf.Area<br>(sq-ft) | Perim.<br>(feet) | Inc.Store<br>(cubic-feet) | Cum.Store<br>(cubic-feet) | Wet.Area<br>(sq-ft) |
|---------------------|----------------------|------------------|---------------------------|---------------------------|---------------------|
| 279.00              | 593                  | 129.0            | 0                         | 0                         | 593                 |
| 280.00              | 1,017                | 151.0            | 796                       | 796                       | 1,103               |
| 281.00              | 1,500                | 170.0            | 1,251                     | 2,046                     | 1,614               |
| 282.00              | 2,039                | 189.0            | 1,763                     | 3,809                     | 2,186               |

## Post-Development

NY-Saratoga-Moreau 24-hr S1 10-yr Rainfall=3.69"

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| Device | Routing   | Invert  | Outlet Devices                                                                                                                                                                     |
|--------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #1     | Primary   | 281.00' | <b>15.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b><br>Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60<br>Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64 |
| #2     | Discarded | 279.00' | <b>10.000 in/hr Exfiltration over Surface area</b>                                                                                                                                 |

**Discarded OutFlow** Max=0.00 cfs @ 0.00 hrs HW=279.00' (Free Discharge)

↑**2=Exfiltration** (Passes 0.00 cfs of 0.14 cfs potential flow)

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=279.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)

### Summary for Link DP 1: Design Point 1

Inflow Area = 16.362 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

### Summary for Link DP 2: Design Point 2

Inflow Area = 16.288 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

### Summary for Link DP3: Design Point 3

Inflow Area = 21.692 ac, 0.00% Impervious, Inflow Depth = 0.00" for 10-yr event  
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

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**Summary for Subcatchment S10: S10**

Runoff = 0.21 cfs @ 15.21 hrs, Volume= 0.174 af, Depth= 0.13"  
 Routed to Link DP 1 : Design Point 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 599,612   | 30 | Meadow, non-grazed, HSG A      |
| 93,390    | 30 | Woods, Good, HSG A             |
| 10,936    | 72 | Dirt roads, HSG A              |
| 2,225     | 96 | Existing Gravel surface, HSG A |
| 6,554     | 96 | Gravel surface, HSG A          |
| 712,717   | 31 | Weighted Average               |
| 712,717   | 31 | 100.00% Pervious Area          |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                       |
|----------|---------------|---------------|-------------------|----------------|---------------------------------------------------|
| 15.4     | 100           | 0.0600        | 0.11              |                | <b>Sheet Flow, Woods - SF</b>                     |
|          |               |               |                   |                | Woods: Light underbrush n= 0.400 P2= 2.58"        |
| 1.9      | 170           | 0.0880        | 1.48              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 0.1      | 14            | 0.0680        | 4.20              |                | <b>Shallow Concentrated Flow, Dirt Road - SCF</b> |
|          |               |               |                   |                | Unpaved Kv= 16.1 fps                              |
| 0.5      | 29            | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 15.7     | 943           | 0.0400        | 1.00              |                | <b>Shallow Concentrated Flow, Woods - SCF</b>     |
|          |               |               |                   |                | Woodland Kv= 5.0 fps                              |
| 33.6     | 1,256         | Total         |                   |                |                                                   |

**Summary for Subcatchment S20: S20**

Runoff = 0.14 cfs @ 16.75 hrs, Volume= 0.114 af, Depth= 0.09"  
 Routed to Link DP 2 : Design Point 2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 383,600   | 30 | Woods, Good, HSG A        |
| 3,447     | 72 | Dirt roads, HSG A         |
| 243,770   | 30 | Meadow, non-grazed, HSG A |
| 630,817   | 30 | Weighted Average          |
| 630,817   | 30 | 100.00% Pervious Area     |

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

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| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                                                                            |
|-------------|------------------|------------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 14.4        | 100              | 0.0100           | 0.12                 |                   | <b>Sheet Flow, Grass - SF</b><br>Grass: Short n= 0.150 P2= 2.58"                                                                       |
| 1.5         | 90               | 0.0200           | 0.99                 |                   | <b>Shallow Concentrated Flow, Grass - SCF</b><br>Short Grass Pasture Kv= 7.0 fps                                                       |
| 1.0         | 1,672            | 0.0300           | 27.52                | 3,096.16          | <b>Trap/Vee/Rect Channel Flow, Existing Stream</b><br>Bot.W=20.00' D=5.00' Z= 0.5 '/' Top.W=25.00'<br>n= 0.022 Earth, clean & straight |
| 16.9        | 1,862            | Total            |                      |                   |                                                                                                                                        |

**Summary for Subcatchment S20A: S20A**

Runoff = 0.72 cfs @ 12.74 hrs, Volume= 0.143 af, Depth= 0.95"  
 Routed to Reach R1 : Proposed Culvert

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

| Area (sf) | CN | Description                    |
|-----------|----|--------------------------------|
| 14,862    | 30 | Woods, Good, HSG A             |
| 45,050    | 30 | Meadow, non-grazed, HSG A      |
| * 4,180   | 96 | Existing Gravel surface, HSG A |
| 14,611    | 96 | Gravel surface, HSG A          |
| 78,703    | 46 | Weighted Average               |
| 78,703    | 46 | 100.00% Pervious Area          |

| Tc<br>(min) | Length<br>(feet) | Slope<br>(ft/ft) | Velocity<br>(ft/sec) | Capacity<br>(cfs) | Description                                                                 |
|-------------|------------------|------------------|----------------------|-------------------|-----------------------------------------------------------------------------|
| 18.5        | 100              | 0.0380           | 0.09                 |                   | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 4.5         | 194              | 0.0210           | 0.72                 |                   | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 19.4        | 145              | 0.0100           | 0.12                 |                   | <b>Sheet Flow, Meadow</b><br>Grass: Short n= 0.150 P2= 2.58"                |
| 42.4        | 439              | Total            |                      |                   |                                                                             |

**Summary for Subcatchment S30: S30**

Runoff = 0.21 cfs @ 17.09 hrs, Volume= 0.171 af, Depth= 0.09"  
 Routed to Link DP3 : Design Point 3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

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| Area (sf) | CN | Description               |
|-----------|----|---------------------------|
| 11,300    | 30 | Meadow, non-grazed, HSG A |
| 931,004   | 30 | Woods, Good, HSG A        |
| 2,591     | 72 | Dirt roads, HSG A         |
| 944,895   | 30 | Weighted Average          |
| 944,895   | 30 | 100.00% Pervious Area     |

| Tc (min) | Length (feet) | Slope (ft/ft) | Velocity (ft/sec) | Capacity (cfs) | Description                                                                 |
|----------|---------------|---------------|-------------------|----------------|-----------------------------------------------------------------------------|
| 23.9     | 100           | 0.0200        | 0.07              |                | <b>Sheet Flow, Woods - SF</b><br>Woods: Light underbrush n= 0.400 P2= 2.58" |
| 10.7     | 1,113         | 0.1200        | 1.73              |                | <b>Shallow Concentrated Flow, Woods - SCF</b><br>Woodland Kv= 5.0 fps       |
| 34.6     | 1,213         | Total         |                   |                |                                                                             |

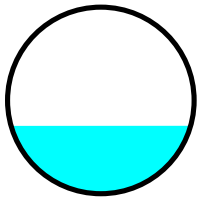
**Summary for Reach R1: Proposed Culvert**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.95" for 100-yr event  
 Inflow = 0.72 cfs @ 12.74 hrs, Volume= 0.143 af  
 Outflow = 0.72 cfs @ 12.75 hrs, Volume= 0.143 af, Atten= 0%, Lag= 0.8 min  
 Routed to Pond SF : SEDIMENT FOREBAY

Routing by Stor-Ind+Trans method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 Max. Velocity= 2.78 fps, Min. Travel Time= 0.5 min  
 Avg. Velocity= 1.47 fps, Avg. Travel Time= 0.9 min

Peak Storage= 20 cf @ 12.74 hrs  
 Average Depth at Peak Storage= 0.36' , Surface Width= 0.96'  
 Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.54 cfs

12.0" Round Pipe  
 n= 0.013 Corrugated PE, smooth interior  
 Length= 79.0' Slope= 0.0051 '/'  
 Inlet Invert= 281.90', Outlet Invert= 281.50'

**Summary for Pond SF: SEDIMENT FOREBAY**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.95" for 100-yr event  
 Inflow = 0.72 cfs @ 12.75 hrs, Volume= 0.143 af  
 Outflow = 0.65 cfs @ 12.97 hrs, Volume= 0.143 af, Atten= 9%, Lag= 13.4 min  
 Discarded = 0.27 cfs @ 12.97 hrs, Volume= 0.132 af  
 Primary = 0.38 cfs @ 12.97 hrs, Volume= 0.012 af  
 Routed to Pond SMA #1 : SMA #1 - INFILTRATION POND

**Post-Development**

NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

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Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 Peak Elev= 281.55' @ 12.95 hrs Surf.Area= 1,165 sf Storage= 943 cf

Plug-Flow detention time= 34.9 min calculated for 0.143 af (100% of inflow)  
 Center-of-Mass det. time= 34.8 min ( 988.0 - 953.2 )

| Volume              | Invert               | Avail.Storage    | Storage Description                                        |                           |                     |  |
|---------------------|----------------------|------------------|------------------------------------------------------------|---------------------------|---------------------|--|
| #1                  | 280.00'              | 1,566 cf         | <b>Custom Stage Data (Irregular)</b> Listed below (Recalc) |                           |                     |  |
| Elevation<br>(feet) | Surf.Area<br>(sq-ft) | Perim.<br>(feet) | Inc.Store<br>(cubic-feet)                                  | Cum.Store<br>(cubic-feet) | Wet.Area<br>(sq-ft) |  |
| 280.00              | 173                  | 56.0             | 0                                                          | 0                         | 173                 |  |
| 281.00              | 746                  | 197.0            | 426                                                        | 426                       | 3,015               |  |
| 282.00              | 1,585                | 222.0            | 1,139                                                      | 1,566                     | 3,874               |  |

| Device | Routing   | Invert  | Outlet Devices                                                   |  |  |  |  |  |  |  |  |  |
|--------|-----------|---------|------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| #1     | Primary   | 281.50' | <b>15.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b> |  |  |  |  |  |  |  |  |  |
|        |           |         | Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60              |  |  |  |  |  |  |  |  |  |
|        |           |         | Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64          |  |  |  |  |  |  |  |  |  |
| #2     | Discarded | 280.00' | <b>10.000 in/hr Exfiltration over Surface area</b>               |  |  |  |  |  |  |  |  |  |

**Discarded OutFlow** Max=0.27 cfs @ 12.97 hrs HW=281.54' (Free Discharge)  
 ↑ **2=Exfiltration** (Exfiltration Controls 0.27 cfs)

**Primary OutFlow** Max=0.35 cfs @ 12.97 hrs HW=281.54' (Free Discharge)  
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.35 cfs @ 0.53 fps)

**Summary for Pond SMA #1: SMA #1 - INFILTRATION POND**

Inflow Area = 1.807 ac, 0.00% Impervious, Inflow Depth = 0.08" for 100-yr event  
 Inflow = 0.38 cfs @ 12.97 hrs, Volume= 0.012 af  
 Outflow = 0.16 cfs @ 13.29 hrs, Volume= 0.012 af, Atten= 58%, Lag= 19.0 min  
 Discarded = 0.16 cfs @ 13.29 hrs, Volume= 0.012 af  
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af  
 Routed to Link DP 2 : Design Point 2

Routing by Stor-Ind method, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs  
 Peak Elev= 279.27' @ 13.29 hrs Surf.Area= 697 sf Storage= 176 cf

Plug-Flow detention time= 12.4 min calculated for 0.012 af (100% of inflow)  
 Center-of-Mass det. time= 12.3 min ( 801.6 - 789.3 )

| Volume              | Invert               | Avail.Storage    | Storage Description                                        |                           |                     |  |
|---------------------|----------------------|------------------|------------------------------------------------------------|---------------------------|---------------------|--|
| #1                  | 279.00'              | 3,809 cf         | <b>Custom Stage Data (Irregular)</b> Listed below (Recalc) |                           |                     |  |
| Elevation<br>(feet) | Surf.Area<br>(sq-ft) | Perim.<br>(feet) | Inc.Store<br>(cubic-feet)                                  | Cum.Store<br>(cubic-feet) | Wet.Area<br>(sq-ft) |  |
| 279.00              | 593                  | 129.0            | 0                                                          | 0                         | 593                 |  |
| 280.00              | 1,017                | 151.0            | 796                                                        | 796                       | 1,103               |  |
| 281.00              | 1,500                | 170.0            | 1,251                                                      | 2,046                     | 1,614               |  |
| 282.00              | 2,039                | 189.0            | 1,763                                                      | 3,809                     | 2,186               |  |

## Post-Development

NY-Saratoga-Moreau 24-hr S1 100-yr Rainfall=6.20"

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| Device | Routing   | Invert  | Outlet Devices                                                                                                                                                                     |
|--------|-----------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| #1     | Primary   | 281.00' | <b>15.0' long x 10.0' breadth Broad-Crested Rectangular Weir</b><br>Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60<br>Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64 |
| #2     | Discarded | 279.00' | <b>10.000 in/hr Exfiltration over Surface area</b>                                                                                                                                 |

**Discarded OutFlow** Max=0.16 cfs @ 13.29 hrs HW=279.27' (Free Discharge)

↑**2=Exfiltration** (Exfiltration Controls 0.16 cfs)

**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=279.00' (Free Discharge)

↑**1=Broad-Crested Rectangular Weir** ( Controls 0.00 cfs)

### Summary for Link DP 1: Design Point 1

Inflow Area = 16.362 ac, 0.00% Impervious, Inflow Depth = 0.13" for 100-yr event  
Inflow = 0.21 cfs @ 15.21 hrs, Volume= 0.174 af  
Primary = 0.21 cfs @ 15.21 hrs, Volume= 0.174 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

### Summary for Link DP 2: Design Point 2

Inflow Area = 16.288 ac, 0.00% Impervious, Inflow Depth = 0.08" for 100-yr event  
Inflow = 0.14 cfs @ 16.75 hrs, Volume= 0.114 af  
Primary = 0.14 cfs @ 16.75 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs

### Summary for Link DP3: Design Point 3

Inflow Area = 21.692 ac, 0.00% Impervious, Inflow Depth = 0.09" for 100-yr event  
Inflow = 0.21 cfs @ 17.09 hrs, Volume= 0.171 af  
Primary = 0.21 cfs @ 17.09 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-80.00 hrs, dt= 0.05 hrs



# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Fish and Wildlife, New York Natural Heritage Program

625 Broadway, Fifth Floor, Albany, NY 12233-4757

P: (518) 402-8935 | F: (518) 402-8925

[www.dec.ny.gov](http://www.dec.ny.gov)

April 21, 2026

Bailey Godson  
Environmental Design Partnership, LLP (EDP)  
900 Route 146  
Clifton Park, NY 12065

Dear Bailey:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the following project:

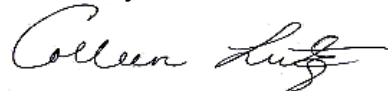
**Moreau 2 Solar**  
**Saratoga County:** Town of Moreau

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 5 Office, Division of Environmental Permits, at [dep.r5@dec.ny.gov](mailto:dep.r5@dec.ny.gov) or [\(518\) 623-1286](tel:5186231286).

Sincerely,



New York Natural Heritage Program

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Fish and Wildlife, New York Heritage Program

625 Broadway, Fifth Floor, Albany, NY 12233-4757

Phone: (518) 402-8935 | Fax: (518) 402-8925

[www.dec.ny.gov](http://www.dec.ny.gov)

**04/28/2025**

The attached report from the Environmental Resource Mapper includes information from the New York Natural Heritage Program database with respect to the location indicated on the map below. This letter, together with the attached report from the Environmental Resource Mapper, is equivalent to, and carries the same validity, as a letter from the New York Natural Heritage Program, including for projects where a Natural Heritage letter is required.

If your location of interest does not fall within an area covered by the Rare Plants and Rare Animals layer or in the Significant Natural Communities layer, then New York Natural Heritage has no records to report in the vicinity of your project site. Submitting a project screening request to NY Natural Heritage is not necessary.

If the attached report lists that your location of interest is in the vicinity of state-listed animals, including state-listed bats, please consult the [EAF Mapper](#) to obtain a list of the species involved. (You do not have to be filling out an Environmental Assessment Form in order to use the EAF Mapper). Then consult the appropriate [NYSDEC Regional Office](#) for information on any project requirements or permit conditions.

If the attached report lists unlisted animals, rare plants, or significant natural communities, and if you would like more information on these, please submit a project screening request to [New York Natural Heritage](#). For more information, please see the DEC webpage [Request Natural Heritage Information for Project Screening](#).

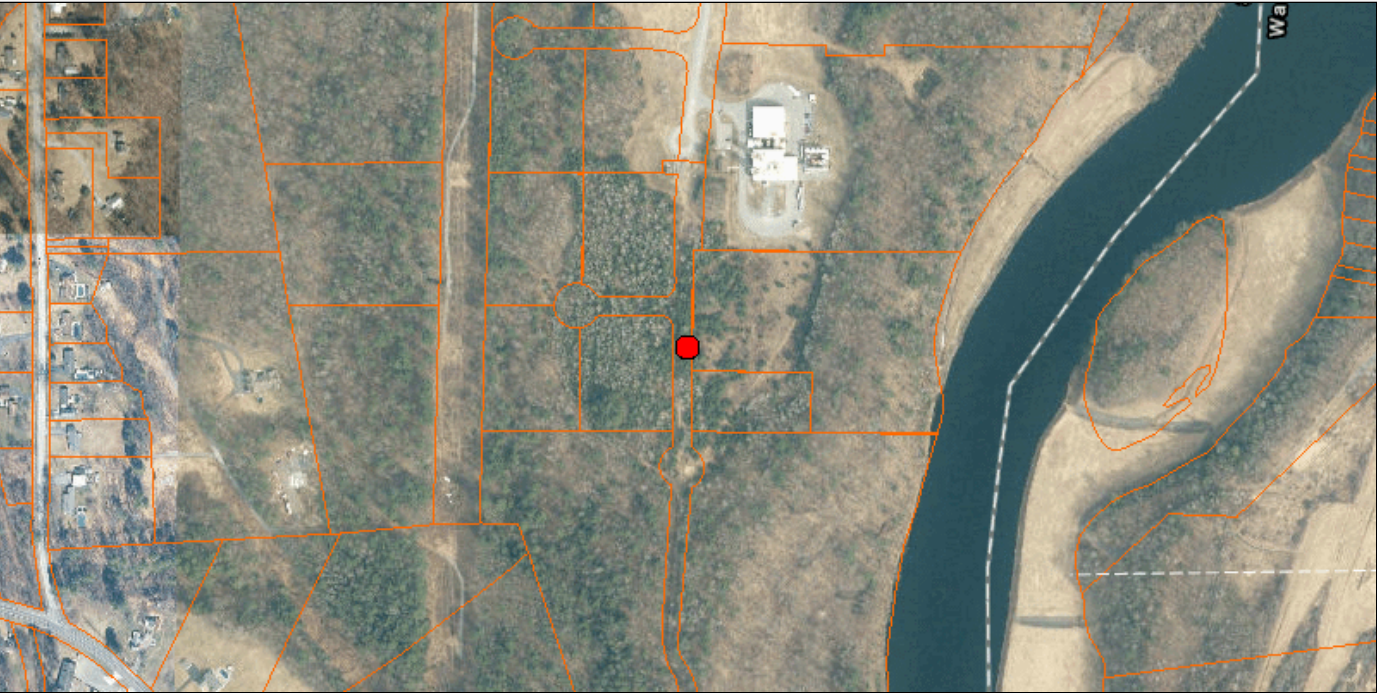
The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, NYNHP files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. NYNHP cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources from a proposed project.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the NYNHP database.

## New York Natural Heritage Program

<https://www.nynhp.org/>.

# Environmental Resource Mapper



The coordinates of the point you clicked on are:

|                    |            |                    |           |                    |
|--------------------|------------|--------------------|-----------|--------------------|
| UTM 18             | Easting:   | 613262.136981713   | Northing: | 4792969.693279045  |
| Longitude/Latitude | Longitude: | -73.60405401162964 | Latitude: | 43.281040562801394 |

The approximate address of the point you clicked on is:  
36-82 Fernan Rd, South Glens Falls, New York, 12803

County: Saratoga  
Town: Moreau  
USGS Quad: HUDSON FALLS

If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

**Disclaimer:** If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.

Print Preview



## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
New York Ecological Services Field Office  
3817 Luker Road  
Cortland, NY 13045-9385  
Phone: (607) 753-9334 Fax: (607) 753-9699  
Email Address: [fw5es\\_nyfo@fws.gov](mailto:fw5es_nyfo@fws.gov)

In Reply Refer To:  
Project Code: 2025-0088902  
Project Name: Top Hat Solar

06/11/2026 12:27:22 UTC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

### To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)).

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**New York Ecological Services Field Office**  
3817 Luker Road  
Cortland, NY 13045-9385  
(607) 753-9334

## PROJECT SUMMARY

Project Code: 2025-0088902

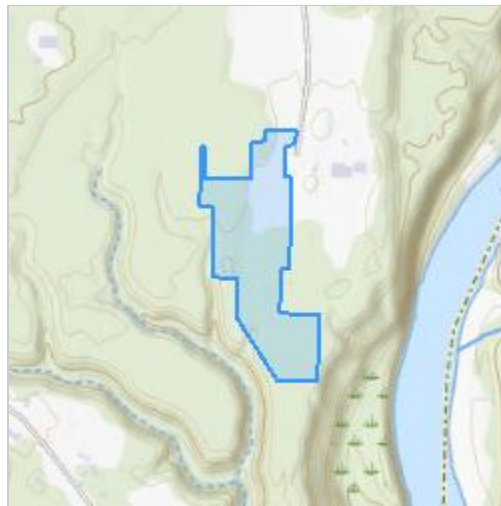
Project Name: Top Hat Solar

Project Type: Power Gen - Solar

Project Description: Nexamp, Inc. is proposing to construct a photovoltaic system on a site containing eight parcels of primarily forested land. The properties abut Farnan Rd off of Bluebird Rd in the Town of Moreau, Saratoga County, NY. The project area is confined to 16.3±acres.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.2810914,-73.6052105262224,14z>



Counties: Saratoga County, New York



## ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.



## MAMMALS

| NAME                                                                                                                                                                                                                                                             | STATUS                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Indiana bat <i>Myotis sodalis</i><br>There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a> | Endangered             |
| Tricolored bat <i>Perimyotis subflavus</i><br>No critical habitat has been designated for this species.<br>Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>                                          | Proposed<br>Endangered |

## INSECTS

| NAME                                                                                                                                                                                                                                                                        | STATUS                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Monarch butterfly <i>Danaus plexippus</i><br>There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat.<br>Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a> | Proposed<br>Threatened |

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## **IPAC USER CONTACT INFORMATION**

Agency: Environmental Design Partnership, LLP (EDP)

Name: Bailey Godson

Address: 900 Route 146

City: Clifton Park

State: NY

Zip: 12065

Email: bgodson@edpllp.com

Phone: 8382514798



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
New York Ecological Services Field Office  
3817 Luker Road  
Cortland, NY 13045-9385  
Phone: (607) 753-9334 Fax: (607) 753-9699  
Email Address: [fw5es\\_nyfo@fws.gov](mailto:fw5es_nyfo@fws.gov)



In Reply Refer To:  
Project code: 2025-0088902  
Project Name: Top Hat Solar

06/11/2026 12:49:38 UTC

Federal Nexus: no  
Federal Action Agency (if applicable):

Subject: Technical assistance for 'Top Hat Solar'

Dear Bailey Godson:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on June 11, 2026, for “Top Hat Solar” (here forward, Project). This project has been assigned Project Code 2025-0088902 and all future correspondence should clearly reference this number.

The Service developed the IPaC system and associated species’ determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northeast Determination Key (Dkey), invalidates this letter. **Answers to certain questions in the DKey commit the project proponent to implementation of conservation measures that must be followed for the ESA determination to remain valid.**

The IPaC results indicated the following species is (are) potentially present in your project area and, based on your responses to the Service’s Northeast DKey, you determined the proposed Project will have the following effect determinations:

| Species                               | Listing Status | Determination |
|---------------------------------------|----------------|---------------|
| Indiana bat ( <i>Myotis sodalis</i> ) | Endangered     | May affect    |

Further coordination with the Service is voluntary for those species with a determination of “May Affect.” A “May Affect” determination in this key indicates that the project, as entered, is not consistent with the questions in the key. Not all projects that reach a “May Affect” determination are anticipated to result in adverse impacts to listed species. Through the technical assistance process, the Service might be able to provide information that either indicates incidental take is not reasonably certain to occur, or the Service might be able to provide recommendations that enable the project to be conducted in a way that avoids the likelihood of incidentally taking listed species. Please contact our New York Ecological Services Field Office for more information.

### **Other Species and Critical Habitat that May be Present in the Action Area**

In addition to the species listed above, the following species and/or critical habitats may also occur in your project area and are not covered by this conclusion:

- Monarch butterfly *Danaus plexippus* Proposed Threatened
- Tricolored bat *Perimyotis subflavus* Proposed Endangered

Please Note: If the Action may impact bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) by the prospective permittee may be required. Please contact the Migratory Birds Permit Office, (413) 253-8643, or [PermitsR5MB@fws.gov](mailto:PermitsR5MB@fws.gov), with any questions regarding potential impacts to Eagles.

If you have any questions regarding this letter or need further assistance, please contact the New York Ecological Services Field Office and reference the Project Code associated with this Project.

**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

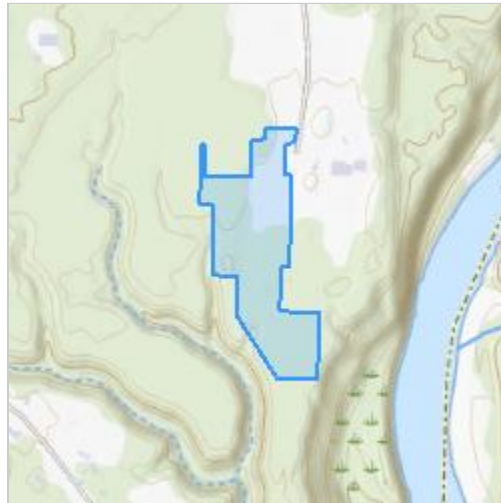
Top Hat Solar

**2. Description**

The following description was provided for the project 'Top Hat Solar':

Nexamp, Inc. is proposing to construct a photovoltaic system on a site containing eight parcels of primarily forested land. The properties abut Farnan Rd off of Bluebird Rd in the Town of Moreau, Saratoga County, NY. The project area is confined to 16.3±acres.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@43.2810914,-73.6052105262224,14z>



## QUALIFICATION INTERVIEW

1. As a representative of this project, do you agree that all items submitted represent the complete scope of the project details and you will answer questions truthfully?

*Yes*

2. Does the proposed project include, or is it reasonably certain to cause, intentional take of listed species?

**Note:** This question could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered, or proposed species.

*No*

3. Is the action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

**Note:** for projects in Pennsylvania: Projects requiring authorization under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act would be considered as having a federal nexus. Since the U.S. Army Corps of Engineers (Corps) has issued the Pennsylvania State Programmatic General Permit (PASPGP), which may be verified by the PA Department of Environmental Protection or certain Conservation Districts, the need to receive a Corps authorization to perform the work under the PASPGP serves as a federal nexus. As such, if proposing to use the PASPGP, you would answer 'yes' to this question.

*No*

4. Will the proposed project involve the use or storage of herbicide?

*No*

5. Will the proposed project involve herbaceous native vegetation removal (including prescribed fire that would result in burning of plants) or mowing?

*Yes*

6. Will the proposed project result in **permanent** changes to surface water or groundwater quantity, retention, quality or timing? For example, will the proposed project include any activities that would alter stream flow, surface water or groundwater such as water withdrawal, water recharge, wells, infiltration effects, stormwater outlets, hydropower energy production, impoundments, intake structures, water or stream diversion structures, mining, impoundments, dams, surface water drainage, and/or turbines? Projects that include temporary and limited water reductions that will not displace listed species or appreciably change water availability for listed species (e.g. listed species will experience no changes to feeding, breeding or sheltering) can answer "No". Note: This question refers only to the amount of water present in a stream, other water quality factors, including sedimentation and turbidity, will be addressed in following questions.

*No*

7. Does the project include activity in or within 300 feet of a freshwater wetland?

This includes, for example, project activities within wetlands, project activities within 300 feet of wetlands that may have impacts on wetlands, water withdrawals and/or discharge of contaminants (even with a NPDES). Activities include, but are not limited to wetland draining, ditching, tilling, filling, excavation, stream diversion, impoundments, mowing, grazing of vegetation, access roads, detention basins, water or sewer lines, irrigation, increase in impervious surfaces, and application of pesticides, deicing agents, or fertilizers.

Yes

8. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **birds** (e.g., plane-based surveys, land-based or offshore wind turbines, new or enlarged communication towers or broadcast towers, high voltage transmission lines, any type of towers with or without guy wires)?

No

9. Will the proposed project involve demolition, rehabilitation, property elevation, renovation, and/or rebuilding of one or more existing buildings (e.g., residential, commercial and industrial buildings, or utilities)? Note: if project activities include modification of bridges and/or culverts, answer this question "No".

No

10. Does the project area intersect the boundary of VAFO?

**Automatically answered**

No

11. Does the project area intersect the boundary of CBFO?

**Automatically answered**

No

12. [Hidden Semantic] Does the project intersect WV?

**Automatically answered**

No

13. Does any component of the project associated with this action include activities or structures that may pose a collision risk to **bats** (e.g., plane-based surveys, land-based or offshore wind turbines)?

No

14. Is the project an aquatic restoration project being funded, lead, or managed in whole or in part by U.S. Fish and Wildlife Restoration and Recovery Program (e.g., Partners, Coastal, Fisheries, Wildlife and Sport Fish Restoration, Refuges)?

No

15. Will the proposed project result in permanent changes to water availability or water quality where **bats** may be present?

No

16. Will the proposed project involve blasting where bats may be present?

No

17. Will the proposed project involve earth moving or ground disturbance that could cause erosion, sedimentation, and/or contamination within waterbodies potentially used by bats?

Note: Answer yes if erosion and sediment control measures will be used.

Yes

18. Will erosion and sedimentation control Best Management Practices (BMPs) associated with applicable state and/or federal permits be applied to the project? If BMPs have been provided by and/or coordinated with and approved by the appropriate Ecological Services Field Office, answer "Yes" to this question.

Yes

19. Does the project intersect the Indiana bat species list area?

**Automatically answered**

Yes

20. [Hidden Semantic] Is the project wholly within MD?

**Automatically answered**

No

21. Is the action area within 0.5 mile radius of any known hibernacula (caves or mines) openings or underground features?

**Note:** If you are unsure, contact the appropriate Ecological Services Field Office before continuing through the key.

No

22. Are there any caves, mines, or mine features that are suitable for hibernating Indiana bats within the area expected to be impacted by the project?

No

23. Is the action area within known occupied Indiana bat habitat? Known occupied Indiana bat habitat includes established conservation buffers (10-mile buffer around Phase 1 or Phase 2 hibernacula, 5-mile buffer around Phase 3 or Phase 4 hibernacula; 5-mile buffer around Indiana bat captures or detections; 2.5-mile buffer around known roosts).

No

24. Has a presence/probable absence bat survey (acoustic or mist-net summer active season survey) following the [USFWS's Range-wide Indiana Bat and Northern long-eared Bat Survey Guidelines](#) been conducted within the action area?

No

25. Does the project involve removal or modification of a human-made structure (barn, house, or other building) known or suspected to contain roosting bats? **Note:** Most maintenance and general human disturbance in and around structures will not affect Indiana bats as bats roosting in human structures are adjusted to a certain level of routine noise and are generally expected to roost away from areas with excessive disturbance. Answer 'no' if the proposed action will not include disturbance to human structures known or suspected to contain roosting bats or if the structure does not offer suitable roosting habitat for northern long-eared bats. If unsure, answer 'yes.'

No



26. Does the project include removal/modification of an existing culvert?

No

27. Does the project include removal/modification of an existing bridge?

No

28. Are trees present within 1000 feet of the action area?

Note: If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags  $\geq 5$  inches dbh (12.7 centimeter), answer "Yes". If unsure, answer "Yes." Or refer to the USFWS' [Range-wide Indiana Bat and Northern Long-Eared Bat Survey Guidelines](#) for definitions and an assessment form that will assist you in determining if suitable habitat is present within your project's action area. Suitable summer habitat for Indiana bat consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 5$  inches dbh (12.7 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat.

Yes

29. Will the project include tree cutting, other means of knocking down or bringing down trees, or tree trimming?

Yes

30. Is the project related to the production of coal, including projects that support the mining of coal, as well as the production and/or distribution of energy produced from coal?

No

31. Does the project include emergency cutting or trimming of hazard trees in order to remove an imminent threat to human safety or property?

No

32. Do you have any other documents that you want to include with this submission?

No

## PROJECT QUESTIONNAIRE

1. Approximately how many acres of trees would the proposed project remove?  
26.9
2. Approximately how many total acres of disturbance are within the disturbance/  
construction limits of the proposed project?  
16
3. Briefly describe the habitat within the construction/disturbance limits of the project site.  
*Habitat within the limits of disturbance consists of early successional woodlands.*

## **IPAC USER CONTACT INFORMATION**

Agency: Environmental Design Partnership, LLP (EDP)

Name: Bailey Godson

Address: 900 Route 146

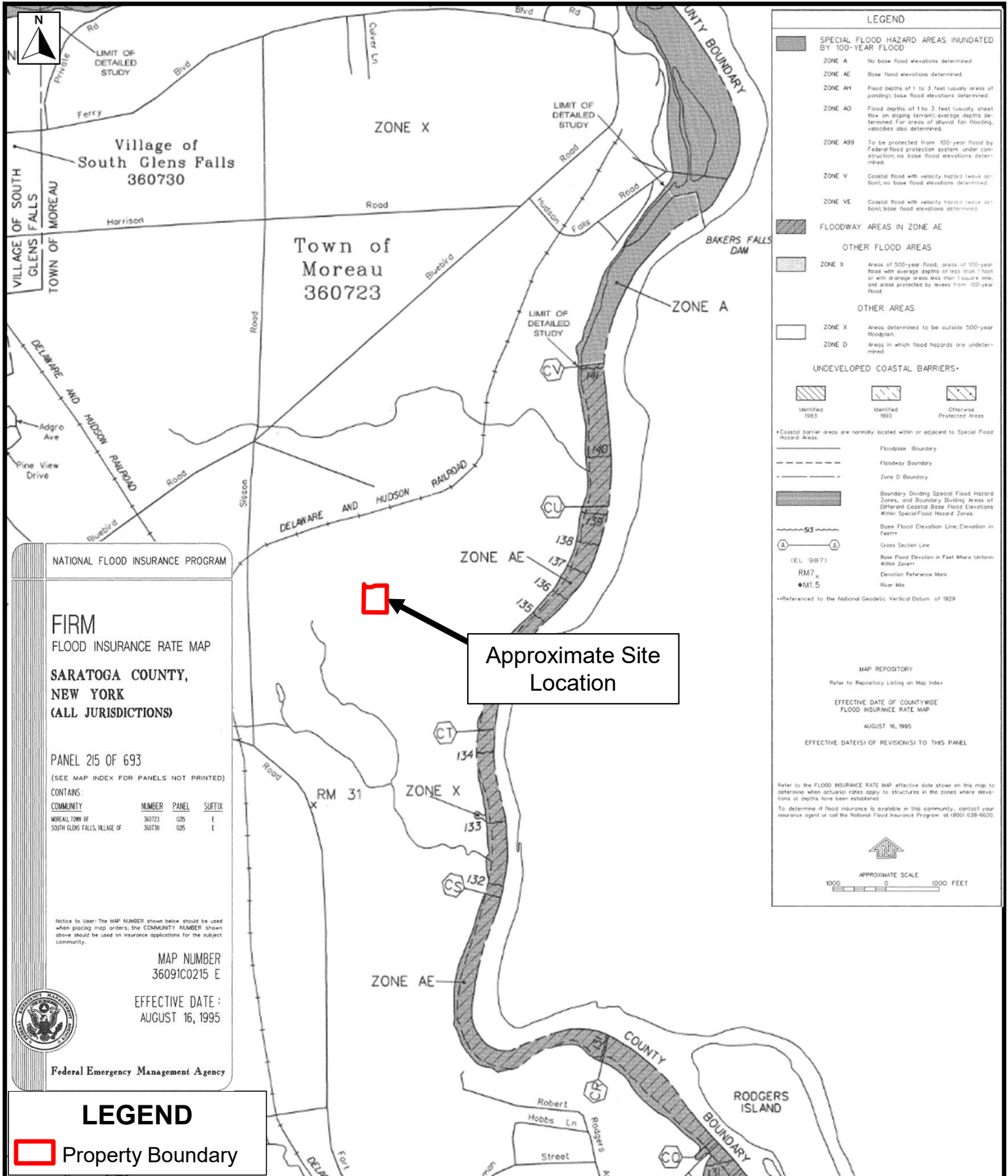
City: Clifton Park

State: NY

Zip: 12065

Email: bgodson@edpllp.com

Phone: 8382514798



**NATIONAL FLOOD INSURANCE PROGRAM**

**FIRM**  
FLOOD INSURANCE RATE MAP

**SARATOGA COUNTY,  
NEW YORK  
(ALL JURISDICTIONS)**

**PANEL 215 OF 693**  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

**CONTAINS:**

| COMMUNITY                     | NUMBER | PANEL | SUFFIX |
|-------------------------------|--------|-------|--------|
| MOREAU TOWN OF                | 360723 | 026   | E      |
| SOUTH GLENS FALLS, VILLAGE OF | 360730 | 026   | E      |

**MAP NUMBER**  
36091C0215 E

**EFFECTIVE DATE:**  
AUGUST 16, 1995

**Federal Emergency Management Agency**

**LEGEND**

**Property Boundary**



## FEMA Flood Map

Town of Moreau

Source: FEMA Flood Map Service Center

Saratoga County

The Environmental  
Design Partnership, LLP  
© 2025



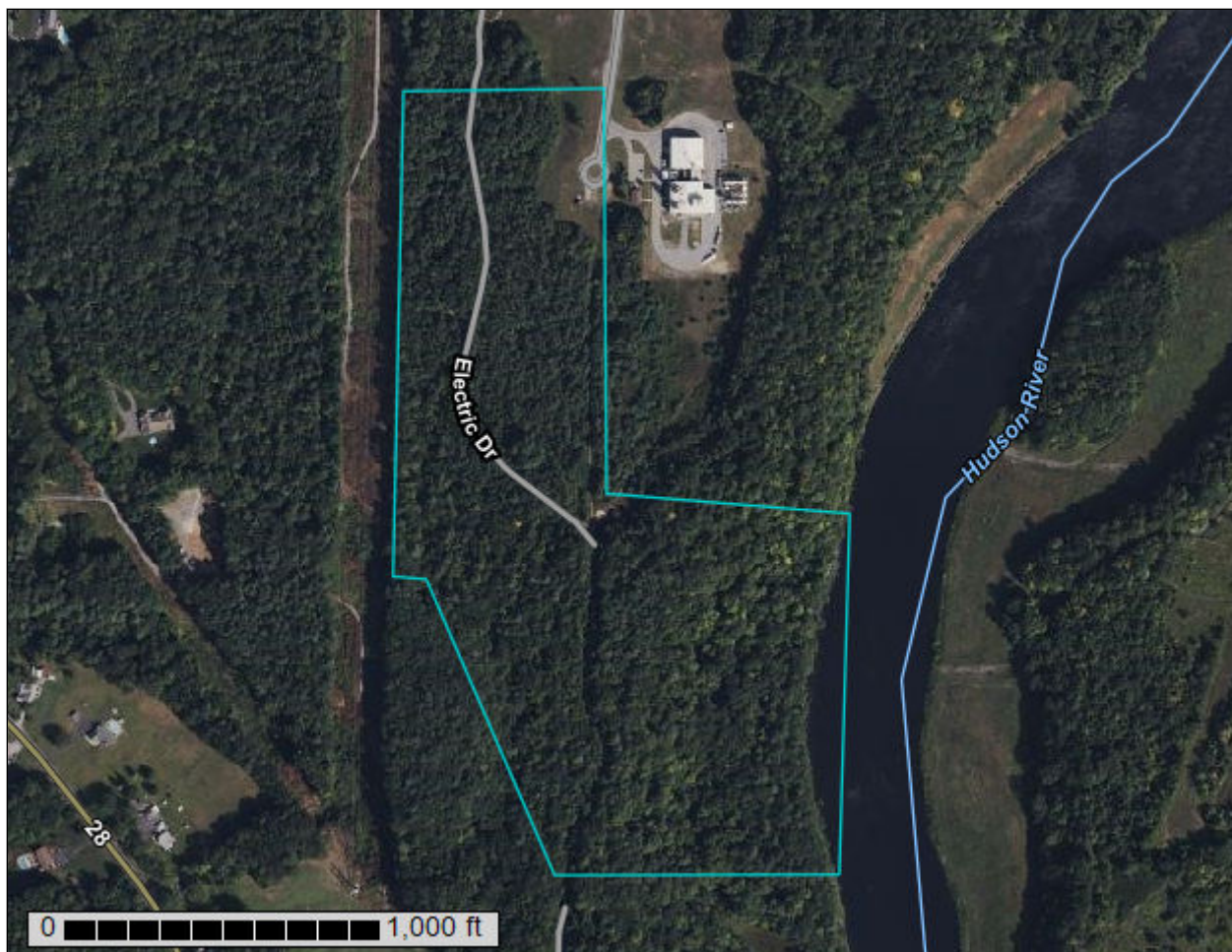
United States  
Department of  
Agriculture

NRCS

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A product of the National  
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a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for Saratoga County, New York



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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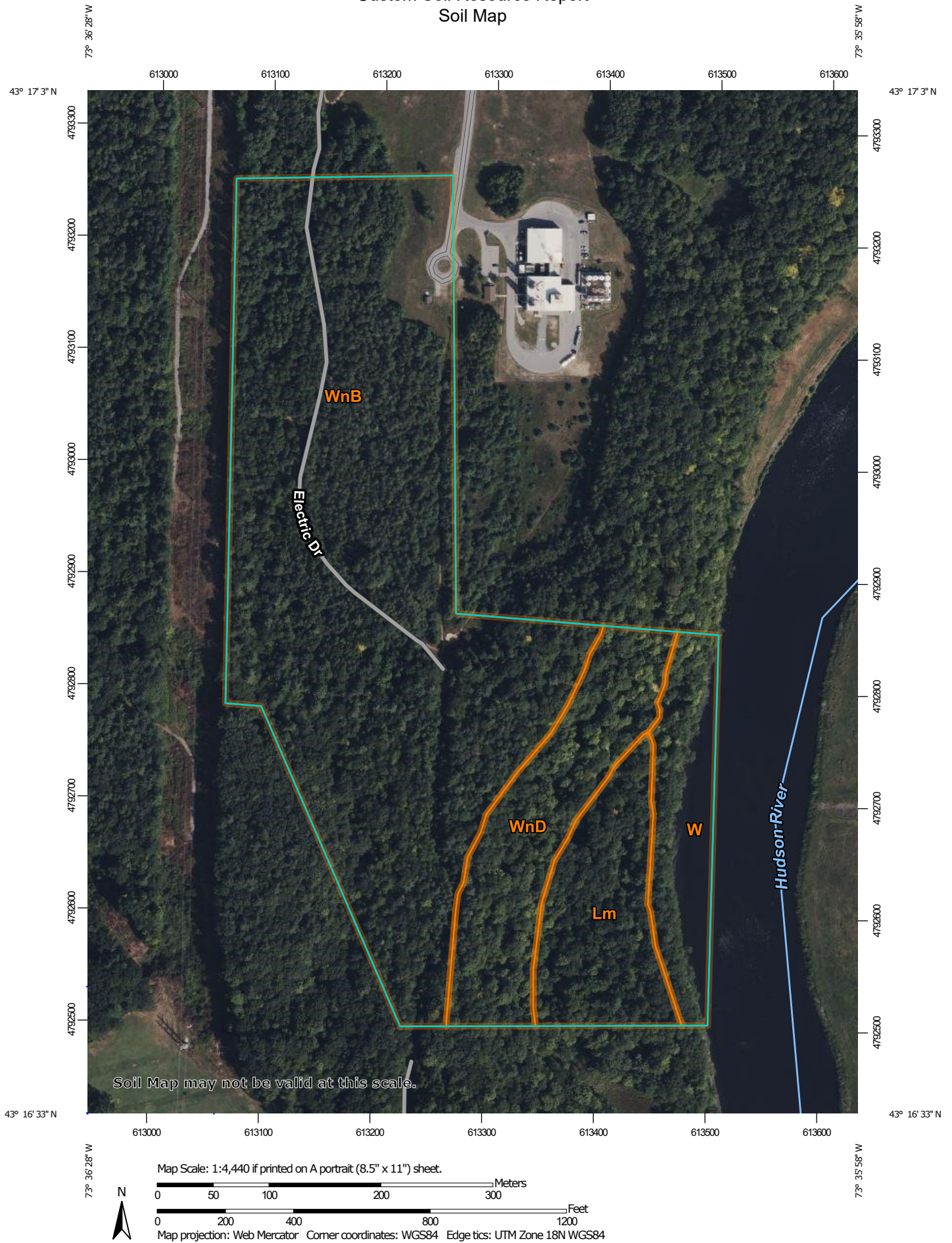
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Saratoga County, New York  
Survey Area Data: Version 24, Aug 29, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 9, 2022—Oct 22, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

| Map Unit Symbol                    | Map Unit Name                               | Acres in AOI | Percent of AOI |
|------------------------------------|---------------------------------------------|--------------|----------------|
| Lm                                 | Limerick-Saco complex                       | 5.4          | 10.4%          |
| W                                  | Water                                       | 4.3          | 8.2%           |
| WnB                                | Windsor loamy sand, 3 to 8 percent slopes   | 35.3         | 68.1%          |
| WnD                                | Windsor loamy sand, 15 to 25 percent slopes | 6.9          | 13.3%          |
| <b>Totals for Area of Interest</b> |                                             | <b>51.9</b>  | <b>100.0%</b>  |

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.



## Saratoga County, New York

### Lm—Limerick-Saco complex

#### Map Unit Setting

*National map unit symbol:* 9wbj  
*Elevation:* 50 to 500 feet  
*Mean annual precipitation:* 36 to 48 inches  
*Mean annual air temperature:* 45 to 48 degrees F  
*Frost-free period:* 125 to 160 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Limerick and similar soils:* 50 percent  
*Saco and similar soils:* 40 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Limerick

##### Setting

*Landform:* Flood plains  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave  
*Across-slope shape:* Concave  
*Parent material:* Alluvium that is dominantly silt and very fine sand

##### Typical profile

*H1 - 0 to 5 inches:* silt loam  
*H2 - 5 to 44 inches:* very fine sandy loam  
*2C - 44 to 72 inches:* loamy fine sand

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Poorly drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 1.98 in/hr)  
*Depth to water table:* About 0 to 18 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Available water supply, 0 to 60 inches:* Very high (about 13.3 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 5w  
*Hydrologic Soil Group:* B/D  
*Ecological site:* F144AY015NY - Wet Silty Low Floodplain  
*Hydric soil rating:* Yes

#### Description of Saco

##### Setting

*Landform:* Depressions  
*Landform position (two-dimensional):* Toeslope

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*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Parent material:* Silty alluvium derived mainly from crystalline rock, shale, and sandstone

### Typical profile

*H1 - 0 to 13 inches:* silt loam

*H2 - 13 to 23 inches:* silt loam

*Cg2 - 23 to 72 inches:* silt loam

### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Very poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.57 to 1.98 in/hr)

*Depth to water table:* About 0 to 6 inches

*Frequency of flooding:* Frequent

*Frequency of ponding:* None

*Available water supply, 0 to 60 inches:* Very high (about 13.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 5w

*Hydrologic Soil Group:* B/D

*Ecological site:* F144AY015NY - Wet Silty Low Floodplain

*Hydric soil rating:* Yes

### Minor Components

#### Teel

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

#### Fluvaquents

*Percent of map unit:* 5 percent

*Landform:* Flood plains

*Hydric soil rating:* Yes

## W—Water

### Map Unit Setting

*National map unit symbol:* 9wd3

*Mean annual precipitation:* 36 to 48 inches

*Mean annual air temperature:* 45 to 48 degrees F

*Frost-free period:* 125 to 160 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Water:* 100 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

## **WnB—Windsor loamy sand, 3 to 8 percent slopes**

### **Map Unit Setting**

*National map unit symbol:* 2svkf

*Elevation:* 0 to 1,210 feet

*Mean annual precipitation:* 36 to 71 inches

*Mean annual air temperature:* 39 to 55 degrees F

*Frost-free period:* 140 to 250 days

*Farmland classification:* Farmland of statewide importance

### **Map Unit Composition**

*Windsor and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### **Description of Windsor**

#### **Setting**

*Landform:* Outwash terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Loose sandy glaciofluvial deposits derived from granite and/or schist and/or gneiss

#### **Typical profile**

*Oe - 0 to 1 inches:* moderately decomposed plant material

*A - 1 to 3 inches:* loamy sand

*Bw - 3 to 25 inches:* loamy sand

*C - 25 to 65 inches:* sand

#### **Properties and qualities**

*Slope:* 3 to 8 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Excessively drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to very high (1.42 to 99.90 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Maximum salinity:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Available water supply, 0 to 60 inches:* Low (about 4.5 inches)

#### **Interpretive groups**

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2s

*Hydrologic Soil Group:* A

*Ecological site:* F145XY008MA - Dry Outwash

*Hydric soil rating:* No

## Minor Components

### Hinckley

*Percent of map unit:* 10 percent  
*Landform:* Eskers  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Ecological site:* F145XY008MA - Dry Outwash  
*Hydric soil rating:* No

### Deerfield, loamy sand

*Percent of map unit:* 5 percent  
*Landform:* Terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Ecological site:* F144AY027MA - Moist Sandy Outwash  
*Hydric soil rating:* No

## WnD—Windsor loamy sand, 15 to 25 percent slopes

### Map Unit Setting

*National map unit symbol:* 2svlb  
*Elevation:* 0 to 1,290 feet  
*Mean annual precipitation:* 36 to 71 inches  
*Mean annual air temperature:* 39 to 55 degrees F  
*Frost-free period:* 140 to 240 days  
*Farmland classification:* Not prime farmland

### Map Unit Composition

*Windsor and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Windsor

#### Setting

*Landform:* Dunes, deltas, outwash terraces, outwash plains  
*Landform position (three-dimensional):* Tread, riser  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Convex, linear  
*Parent material:* Loose sandy glaciofluvial deposits derived from granite and/or loose sandy glaciofluvial deposits derived from schist and/or loose sandy glaciofluvial deposits derived from gneiss

#### Typical profile

*Oe - 0 to 1 inches:* moderately decomposed plant material  
*A - 1 to 3 inches:* loamy sand  
*Bw - 3 to 25 inches:* loamy sand

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*C - 25 to 65 inches: sand*

### Properties and qualities

*Slope: 15 to 25 percent*

*Depth to restrictive feature: More than 80 inches*

*Drainage class: Excessively drained*

*Runoff class: Low*

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)*

*Depth to water table: More than 80 inches*

*Frequency of flooding: None*

*Frequency of ponding: None*

*Maximum salinity: Nonsaline (0.0 to 1.9 mmhos/cm)*

*Available water supply, 0 to 60 inches: Low (about 4.5 inches)*

### Interpretive groups

*Land capability classification (irrigated): None specified*

*Land capability classification (nonirrigated): 4e*

*Hydrologic Soil Group: A*

*Ecological site: F144AY022MA - Dry Outwash*

*Hydric soil rating: No*

### Minor Components

#### Hinckley

*Percent of map unit: 5 percent*

*Landform: Deltas, kames, eskers, outwash plains*

*Landform position (two-dimensional): Summit, shoulder, backslope*

*Landform position (three-dimensional): Nose slope, side slope, crest, head slope, rise*

*Down-slope shape: Convex*

*Across-slope shape: Convex, linear*

*Hydric soil rating: No*

#### Merrimac

*Percent of map unit: 5 percent*

*Landform: Outwash plains, outwash terraces, moraines, stream terraces, eskers, kames*

*Landform position (three-dimensional): Rise*

*Down-slope shape: Convex*

*Across-slope shape: Convex*

*Hydric soil rating: No*

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## Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2\\_054242](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242)

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2\\_053624](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624)

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_052290.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf)



## LETTER OF POSITIVE JURISDICTION – FRESHWATER WETLANDS

08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 11, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that the parcel contains freshwater wetlands and/or freshwater wetlands adjacent areas (AA) regulated by DEC pursuant to Article 24 of the Environmental Conservation Law (ECL). The parcel contains freshwater wetlands and/or regulated adjacent area(s) that meet or exceed the 12.4-acre jurisdictional threshold.

The table below identifies the highest class jurisdictional wetland and/or regulated adjacent area within the parcel boundaries. In addition to the wetland identified, other jurisdictional wetlands or AAs may be present.

| Tax ID #:      | Highest Wetland Class:                                                          |
|----------------|---------------------------------------------------------------------------------|
| 50.00 - 4 - 11 | Class III: it contains shrub-swamp and forested cover type(s) (§ 664.5 (c)(4)). |

This determination shall remain valid for five years from the date of this letter (through 08/18/2030).

An Article 24 permit from DEC is required for any regulated activity undertaken within regulated wetlands or their adjacent areas. Prior to engaging in any regulated activity, a freshwater wetland delineation is necessary to determine the precise boundary of jurisdictional wetlands and regulated adjacent areas so they are avoided or necessary DEC permitting is obtained.



If you have a project planned on the referenced parcel that may impact jurisdictional wetlands or adjacent areas, please use this [Map of All DEC Offices](#) to identify the appropriate DEC Regional Office, and this [Contact the Regional DEC Office](#) link to request and schedule a freshwater wetlands delineation. In addition, the following link provides more information about DEC jurisdictional determinations: <https://dec.ny.gov/nature/waterbodies/wetlands/freshwater-wetlands-program/freshwater-wetland-jurisdictional-determination>

Pursuant to ECL section 24-0301(4), there is a rebuttable presumption that areas meeting the definition of Freshwater Wetland or regulated adjacent area are regulated and subject to permit requirements. If you believe this jurisdictional determination has been made in error, you may request an initial consultation with DEC by scheduling a meeting on the parcel or property with the appropriate regional office to review the jurisdictional determination, pursuant to 6 NYCRR 664.9.

Please note that this determination pertains only to state-regulated, freshwater wetlands and regulated adjacent areas. DEC also regulates protected streams, tidal wetlands, coastal erosion hazard areas, and other important environmental resources. Work affecting those areas may also require DEC permits. More information on other DEC permit programs is available online at <https://dec.ny.gov/regulatory/permits-licenses/environmental-permits>.

In addition, please note that this letter does not relieve you of the responsibility of obtaining any other necessary permits or approvals from other local, state, or federal agencies.



## LETTER OF NO JURISDICTION – FRESHWATER WETLANDS

08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 23, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

Please note that this determination pertains only to state-regulated, freshwater wetlands and regulated adjacent areas. DEC also regulates protected streams, tidal wetlands, coastal erosion hazard areas, and other important environmental resources. Work affecting those areas may also require DEC permits. More information on other DEC permit programs is available online at <https://dec.ny.gov/regulatory/permits-licenses/environmental-permits>.

In addition, please note that this letter does not relieve you of the responsibility of obtaining any other necessary permits or approvals from other local, state, or federal agencies.

If you have questions regarding this determination, please email [FWWjurisdiction@dec.ny.gov](mailto:FWWjurisdiction@dec.ny.gov).



## LETTER OF NO JURISDICTION – FRESHWATER WETLANDS

08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 6, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

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08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 12, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

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08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 13, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

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08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 14, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

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## LETTER OF NO JURISDICTION – FRESHWATER WETLANDS

08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 16, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

Please note that this determination pertains only to state-regulated, freshwater wetlands and regulated adjacent areas. DEC also regulates protected streams, tidal wetlands, coastal erosion hazard areas, and other important environmental resources. Work affecting those areas may also require DEC permits. More information on other DEC permit programs is available online at <https://dec.ny.gov/regulatory/permits-licenses/environmental-permits>.

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## LETTER OF NO JURISDICTION – FRESHWATER WETLANDS

08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 22, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

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If you have questions regarding this determination, please email [FWWjurisdiction@dec.ny.gov](mailto:FWWjurisdiction@dec.ny.gov).





## LETTER OF NO JURISDICTION – FRESHWATER WETLANDS

08/20/2025

Thomas Ward, CWB, PWS

900 Route 146, Clifton Park, NY, 12065, USA

Sent via email to: [tward@edpllp.com](mailto:tward@edpllp.com)

Re: DEC Freshwater Wetlands Parcel Jurisdictional Determination for Parcel  
50.00 - 4 - 25, Saratoga County.

Dear Thomas Ward, CWB, PWS,

Based on the parcel(s) identified in your request, the New York State Department of Environmental Conservation (DEC) has determined that there are no DEC regulated freshwater wetlands and/or adjacent areas identified on the parcel(s) referenced above. Therefore, in accordance with Article 24 of the Environmental Conservation Law (ECL) and 6 NYCRR Part 663, no freshwater wetlands permit is required. Pursuant to ECL section 24-0703, this letter shall remain valid for a period of five years from the date it is issued (through 08/18/2030).

Please note that this determination pertains only to state-regulated, freshwater wetlands and regulated adjacent areas. DEC also regulates protected streams, tidal wetlands, coastal erosion hazard areas, and other important environmental resources. Work affecting those areas may also require DEC permits. More information on other DEC permit programs is available online at <https://dec.ny.gov/regulatory/permits-licenses/environmental-permits>.

In addition, please note that this letter does not relieve you of the responsibility of obtaining any other necessary permits or approvals from other local, state, or federal agencies.

If you have questions regarding this determination, please email [FWWjurisdiction@dec.ny.gov](mailto:FWWjurisdiction@dec.ny.gov).



**New York State  
Parks, Recreation and  
Historic Preservation**

**KATHY HOCHUL**  
Governor

**KATHY MOSER**  
Commissioner

August 31, 2026

Bailey Godson  
Environmental Design Partnership, LLP (EDP)  
900 Route 146  
Clifton Park, NY 12065

Re: DEC  
Moreau Top Hat Solar/14.75±acres of 50.50±acres/2.5±MW  
26PR06384

Dear Bailey Godson:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project.

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above. If you have any questions, please contact Jessica Schreyer at the following email address:

[Jessica.Schreyer@parks.ny.gov](mailto:Jessica.Schreyer@parks.ny.gov)

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation  
Division for Historic Preservation

# SOIL DATA

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**THE FOLLOWING TEST PITS WERE PERFORMED BY ENVIRONMENTAL DESIGN PARTNERSHIP, LLP ON SEPTEMBER 28, 2026**

**TP#1**

0" – 11" DARK BROWN TOPSOIL WITH ROOTS

11" – 36" LIGHT BROWN SANDY SOIL

36" – 72" LIGHT GREYISH BROWN SANDY SOIL

NO GROUNDWATER OR SEEPAGE ENCOUNTER DURING EXCAVATION

**TP#2**

0" – 11" DARK BROWN TOPSOIL WITH ROOTS

11" – 36" LIGHT BROWN SANDY SOIL

36" – 72" LIGHT GREYISH BROWN SANDY SOIL

NO GROUNDWATER OR SEEPAGE ENCOUNTER DURING EXCAVATION

**THE FOLLOWING INFILTRATION TESTS WERE PERFORMED BY ENVIRONMENTAL DESIGN PARTNERSHIP, LLP SEPTEMBER 28, 2026**

**IT#1**

STABILIZED AT 286 INCHES PER HOUR

**IT#2**

STABILIZED AT 171 INCHES PER HOUR

## **SECTION 7**

### **Completed Inspection Reports**