

Prepared for:
Village of Saranac Lake
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Saranac Lake, NY 12983

Stormwater Pollution Prevention Plan



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Baldwin Park

Village of Saranac Lake, Essex-Franklin County, New York

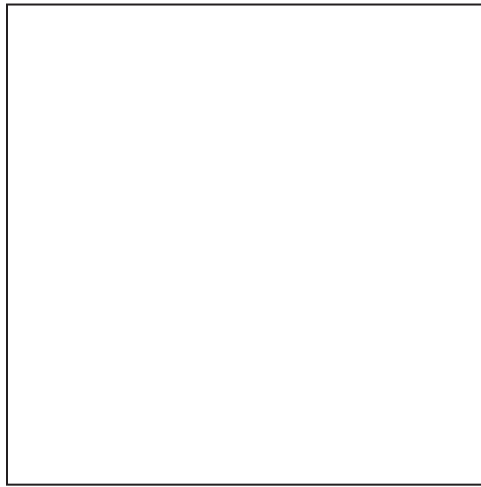
Date: March, 2026
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Project No. CZ 321BD.00

PREPARER OF THE SWPPP

"I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-25-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings."

Name and Title¹: Walter Kubow, PE

Date: March, 2026



¹ This is a signature of a New York State licensed Professional Engineer employed by LaBella Associates that is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), NOIs, and NOTs prepared under their direct supervision. Refer to Appendix B for the SWPPP Preparer Certification Form, and Appendix I for the LaBella Certifying Professionals Letter.

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1.0 EXECUTIVE SUMMARY

This Stormwater Pollution Prevention Plan (SWPPP) has been prepared for major activities associated with construction of an open air pavilion, concrete sidewalks, and the installation of a boardwalk as part of the Baldwin Park site improvements in the Village of Saranac Lake. This SWPPP includes the elements necessary to comply with the national baseline general permit for construction activities enacted by the U.S. Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) program and all local governing agency requirements. This SWPPP must be executed and permit coverage must be obtained prior to the commencement of construction activity.

This SWPPP has been developed in accordance with the “New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity,” Permit No. GP-0-25-001, effective January 29, 2025 through January 28, 2030. The SWPPP and accompanying plans identify and detail stormwater management, pollution prevention, and erosion and sediment control measures necessary during and following completion of construction.

This SWPPP and the accompanying plans entitled “Baldwin Park Improvements have been submitted as a set. These engineering drawings are considered an integral part of this SWPPP. Therefore, this SWPPP is not considered complete without them. References made herein to “the plans” or to a specific “sheet” refer to these drawings.

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

1. Maintaining existing drainage patterns as much as possible while continuing the conveyance of upland watershed runoff;
2. Controlling increases in the rate of stormwater runoff resulting from the proposed development so as not to adversely alter downstream conditions; and
3. Mitigating potential stormwater quality impacts and preventing soil erosion and sedimentation resulting from stormwater runoff generated both during and after construction.

The analysis and design completed and documented in this report is intended to be part of the application made for a municipal improvement project completed on behalf of the Owner/Operator.

1.1 Project Description

The Village of Saranac Lake is proposing an improvement project to Baldwin Park, to include: demolition of existing athletic courts, construction of an open air pavilion, concrete sidewalks, and the installation of a boardwalk. The project will disturb greater than 1-acre of land. A Site Location Map has been provided in Appendix A, as Figure A-1.

This type of project is included in Table 2 of Appendix B of GP-0-25-001; and the project site is not located in one of the watersheds listed in Appendix C of GP-0-25-001. Therefore, this SWPPP includes post-construction stormwater management practices, as well as erosion and sediment controls.

This project is not located within a regulated, traditional land use control Municipal Separate Stormwater Sewer System (MS4).

Runoff from the project site will discharge to Lake Flower, which is not included in the list of Section 303(d) water bodies included in Appendix D of GP-0-25-001.

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

1.2 Stormwater Pollution Controls

The stormwater pollution controls outlined herein have been designed and evaluated in accordance with the following standards and guidelines:

- New York State Stormwater Management Design Manual, dated July 31, 2024 (Design Manual).
- New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016 (SSESC).
- Village of Saranac Lake Development Code, Chapter 106, Part 4, Article XVIII: Stormwater Control

Stormwater quality will be enhanced through the implementation of temporary and permanent erosion and sediment control measures, the proposed stormwater management practice(s), and other construction-phase pollution controls outlined herein.

The proposed stormwater management approach consisting of pipes, open drainage ways, and on-site stormwater management practices will adequately collect, treat, and convey the stormwater runoff.

Porous asphalt with underdrains will be used to manage and treat stormwater runoff generated by the proposed improvement project.

Pre- and post-development surface runoff rates have been evaluated for the 1-, 10-, and 100-year 24-hour storm events. Comparison of pre- and post-development watershed conditions demonstrates that the peak rate of runoff from the project site will not be increased.

The post-construction stormwater management practice(s) will be owned by Village of Saranac Lake. Policy and procedures will be in place, which ensure operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

2.0 SITE CHARACTERISTICS

2.1 State Environmental Quality Review

The construction activity is subject to State Environmental Quality Review (SEQR). The project is considered a Unlisted action. As such, SEQR coordination has been initiated. A copy of the SEQR documentation, in accordance with Part I.A.5. of GP-0-25-001, will be provided in Appendix A, as Figure A-8 upon receipt.

2.2 Land Use and Topography

The project site is located within the B-4 zoning district. A municipal park is a permitted use within this district.

The overall site is moderately sloping, with slopes ranging from 0 to 33 percent. Site elevations range from approximately 1529 feet above mean sea level (MSL) to 1535 feet MSL. Site topography is

generally flat along the southern portion of the site as the site was originally graded to incorporate the two existing tennis courts. Topography varies along the northern portion of the site with slopes ranging from 2 to 30 percent over small areas.

2.3 Soils and Groundwater

The US Department of Agriculture (USDA) Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/>) was used to obtain surficial soil conditions for the study area, as follows:

Table 1: USDA Soil Data

Map Symbol & Description	Hydrologic Soil Group	Permeability (inches/hour)	Erosion Factor K	Depth to Water Table (feet)	Depth to Bedrock (feet)
CwA—Croghan fine sand, 0 to 3 percent slopes	A/D	1.98-19.98	---	1.5 – 2.5	>6.67
UIC—Udorthents, nearly level through strongly sloping	C	0.06-19.98	0.20	>6.67	>6.67
W-Water	--	--	--	--	--

Upon review of the soil data presented in Table 1, the project site does not contain soils with a soil slope phase of D with a map unit name that inclusive of slopes greater than 25%, and does not contain soils with a soil slope phase of E or F.

The project site is composed of HSG C soils, HSG A/D soils, and water, as shown in the table below. For the purposes of this report, to conservatively model pre and post development infiltration, HSG A/D soils were modeled as HSG A soils. In addition, the water surface has been modeled with a curve number of 98 to reflect no storage within it and therefore has been included as HSG D below.

Table 2: Project Site HSG Data

HSG A/D	HSG C	Water
92.7%	2.8%	0%

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

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

The soils map for the study area is presented in Appendix A, as Figure A-2.

A geotechnical investigation was conducted by The Chazen Companies from November 18 through November 19, 2021 for the purpose of subsurface investigation and analyses. As such, falling head tests were performed in two (2) locations on the project site. Falling Head 1 (FH-1) was performed to the

west of the existing tennis courts, roughly 5 feet from that of the proposed outdoor exercise station. Falling Head 2 (FH-2) was performed along the southwestern edge of the existing tennis courts. An average infiltration rate of 0.5 in./hr. was applied to this project in order to provide conservative and/or adequate sizing for each of the proposed stormwater management practices.

2.4 Watershed Designation

The project site is not located in a restricted watershed identified in Appendix C of GP-0-25-001.

2.5 Receiving Water Bodies

The nearest natural classified water body into which runoff from the project site will discharge is Lake Flower. Lake Flower is classified by NYSDEC as a Class AA water body, and is not included in the Section 303(d) list of impaired waters found in Appendix D of GP-0-25-001.

2.6 Aquifer Designation

The project site is not located over a US EPA designated Sole Source aquifer; nor is it located over a Primary or Principal aquifer listed in the NYSDEC Technical and Operational Guidance Series (TOGS) 2.1.3 (1980).

2.7 Wetlands

Wetlands depicted on the accompanying plan set were delineated by LaBella's environmental scientist David MacDougall, PWS, CWB on November 17, 2021. This delineation was revisited on April 1, 2025 by Mr. MacDougall and found to be unchanged. The wetland boundary was surveyed by Leifheit Land Surveying on January 24th, 2022 and presented on a map entitled "Showing Boundary and Topographic Survey of Property for Village of Saranac Lake" and dated February 16th, 2022. These wetlands are Federally regulated wetlands that encompass approximately 0.55 acres of the 1.65 acre property. No wetland disturbance is proposed as part of this project.

2.8 Flood Plains

According to the National Flood Insurance Program Flood Insurance Rate Map (FIRM), The Village of Saranac Lake, New York, Community Panel Number 360273 0001 C, the project site lies within Flood Zone AE, areas inundated by 100-year flood with no base flood elevations determined. The FEMA Flood Map has been provided in Appendix A, as Figure 5.

2.9 Listed, Endangered, or Threatened Species

A search was performed on the NYSDEC Environmental Resource Mapper on June 4th, 2025, and determined that the project site has no known occurrences of threatened or endangered species, or critical habitat. An Environmental Resource Map has been provided in Appendix A, as Figure A-4. A subsequent search was performed on June 25th, 2025 with USFWS, and it was determined that there is a proposed critical habitat for the Monarch Butterfly, *Danaus Plexippus*. It is to be noted that this is a proposed critical habitat, not a critical habitat. See the USFWS report in Appendix A, as Figure A-4a.

2.10 Historic Places

A search on the New York State Cultural Resource Information System (CRIS) database, performed on June 4, 2025, revealed that the construction activity is not within an archaeological 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 20 feet from a building, structure, or object that is more than 50 years, in accordance with Part I.A.4 of GP-0-25-001. A printout of the historic places screening map is presented in Appendix A, as Figure A-3. Additionally, NYSOPRHP coordination has been completed and the project has received a letter from NYSOPRHP stating that the project will have no Adverse Impact on historic or cultural resources. The Letter is presented in Appendix A, as Figure A-3a.

2.11 Rainfall Data

Rainfall data utilized in the modeling and analysis was obtained from the Cornell University online Extreme Precipitation in New York & New England website (<http://precip.eas.cornell.edu/>). A local IDF file was imported, and specific mass curves were generated, in HydroCAD to evaluate the pre- and post-development stormwater runoff characteristics. Rainfall data specific to the portion of Essex/Franklin County under consideration, for various 24-hour storm events, is presented in the following Table:

Table 3: Rainfall Data

Storm Event Return Period	24-Hour Rainfall (inches)
1-year	1.92
10-year	3.08
100-year	5.05

2.12 Pre-development Watershed Conditions

The pre-development project site is covered predominantly by grass, two full-size asphalt tennis courts, three half-sized basketball courts, and a wetland which encompasses the majority of the southwestern perimeter of the project site. Analysis of pre-development conditions considered existing drainage patterns, soil types, ground cover, and topography. The Pre-Development Watershed Delineation Map has been provided in Appendix A, as Figure A-6.

The results of the computer modeling used to analyze the overall watershed under pre-development conditions are presented in Appendix D. A summary of the pre-development watershed runoff rates at each Design Point is presented in Table 8.

Subcatchment ES-1 is a 1.89± acre watershed consisting of grass and pavement. Runoff flows in to the Southwest overland via sheet flow and shallow concentrated flow toward the Southwest of the property. This subcatchment is tributary to Design Point (AP) 1.

2.13 Post-development Watershed Conditions

The post-development project site is covered predominantly by concrete sidewalks, wooden boardwalks, a small pavilion, grass, and the wetland which encompasses the majority of the southwestern perimeter

of the site. The analysis of post-development conditions considered existing drainage patterns, soil types, ground cover to remain, planned site development, site grading, and stormwater management facilities proposed as part of site improvements. The Post-Development Watershed Delineation Map has been provided in Appendix A, as Figure A-7.

The results of the computer modeling used to analyze the overall watershed under post-development conditions are presented in Appendix E. A summary of the post-development watershed runoff rates at each Design Point is presented in Table 8.

There are numerous locations and methods for providing controls of off-site discharge of stormwater from the project site. Each has been designed to provide the above quantity controls by attenuating stormwater runoff and releasing runoff to off-site locations at a rate equal to or less than that which existed prior to development of the site. Each device is detailed on the accompanying plans. A Post-Development Watershed Delineation Map, with the tributary areas to each stormwater management practice proposed, has been provided in Appendix A, as Figure A-7.

2.14 Description of Design Points

The study area consists of an overall watershed that encompasses approximately 1.89 acres, including the 1.89 acre project site and 1.02 acre area of disturbance. The overall watershed was broken down into smaller watersheds, or subcatchments, to allow for analysis of runoff conditions at several locations throughout the study area. Each of these subcatchment areas outflows to a location defined as a Design Point (DP) in order to compare the effects resulting from stormwater management facilities proposed as part of the project. For this study area, each subcatchment area outflows to one Design Point. A description of the selected Design Point is provided below.

- Design Point 1: Off-site discharge to Flower Lake located along the Southwest boundary of the site. Runoff infiltrates into the ground, with flowing overland to Flower Lake.

3.0 STORMWATER MANAGEMENT PLANNING

Chapter 3 of the Design Manual outlines a six-step planning process for site planning and selection of stormwater management practices that must be implemented for both new development and redevelopment projects. This process is intended to develop a design that maintains pre-construction hydrologic conditions through the application of environmentally sound development principles, as well as treatment and control of runoff discharges from the site. The following sections outline the step-by-step process and how it has been applied to this project.

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

The Design Manual provides both water quality and water quantity objectives to be met by projects requiring a “Full SWPPP”. These objectives will be met by applying stormwater control practices to limit peak runoff rates and improve the quality of runoff leaving the developed site.

3.1 STEP 1 – Site Planning

During the Site Planning process, the project site is evaluated for implementation of the green infrastructure planning measures identified in Table 3.1 of the Design Manual, in order to preserve natural resources and reduce impervious cover. Appendix C provides a description of each green infrastructure planning measure, along with a project specific evaluation.

3.2 STEP 2 – Calculate Water Quality Treatment Volume (WQv)

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

3.2.1 *NYSDEC Requirements for Water Quality Volume*

The Design Manual requires that water quality treatment be provided for the initial flush of runoff from every storm. The NYSDEC refers to the amount of runoff to be treated as the “Water Quality Volume” (WQv). Section 4.2 of the Design Manual defines the Water Quality Volume as follows:

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

Where: P = 90% Rainfall Event Number
R_v = 0.05 + 0.009 (I)
I = Impervious Cover (Percent)
A = Contributing Area in Acres

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

3.2.2 *Methodology for Redevelopment Projects*

Chapter 9 of the Design Manual outlines alternative WQv treatment objectives for redevelopment projects.

According to Section 9.2.1.A.II, redevelopment activities can achieve the water quality treatment objective if 25% of the disturbed redevelopment impervious area is captured and treated by implementation of standard SMPs or reduced by application of RR techniques. In this case, 100% of any new increase in impervious area to a given design point must be treated. For this project, there is a 13.5% decrease in impervious area, meaning that there is no new impervious area and all of the impervious area is redevelopment impervious area. This project will implement Level 2 Porous Asphalt to meet the water quality objective.

Table 4: Required WQv Summary

100% New Development WQv Required		25% Redevelopment WQv Required	
0 cf	0 af	830.74 cf	0.0191 af
Total WQv Required 830.74 cf (0.0191 af)			

The Water Quality Volume equation has been applied to the drainage area tributary to each of the stormwater quality practices proposed for this project. The practices have been sized to accommodate the Water Quality Volume, as per the performance criteria presented in Chapter 6 and/or Chapter 9 of the Design Manual. Water quality volume calculations for each of the proposed practices are presented in Appendix C.

3.3 STEP 3 – Apply RR Techniques and Standard SMPs with RRv Capacity to Reduce Total WQv

Land use change and development in the watershed increases the volume of runoff. As such, reductions in the amount of runoff from new development, accomplished through the implementation of a stormwater management plan for the site, will play an important role in the success or failure of the watershed-wide stormwater management plan. Runoff reduction techniques can be applied to manage, reduce, and treat stormwater, while maintaining and restoring natural hydrology through infiltration, evapo-transpiration, and the capture and reuse of stormwater. Volume reduction techniques by themselves typically are not sufficient to provide adequate attenuation of stormwater runoff, but they can decrease the size of the peak runoff rate reduction facilities.

3.3.1 *NYSDEC Requirements for New Development*

The Design Manual states that runoff reduction shall be achieved through infiltration, groundwater recharge, reuse, recycle, and/or evaporation/evapotranspiration of 100-percent of the post-development water quality volume to replicate pre-development hydrology. Runoff control techniques provide treatment in a distributed manner before runoff reaches the collection system, by maintaining pre-construction infiltration, peak runoff flow, discharge volume, as well as minimizing concentrated flow. This can be accomplished by applying a combination of Runoff Reduction Techniques, standard Stormwater Management Practices (SMPs) with RRv capacity, and good operation and maintenance.

3.3.2 *NYSDEC Requirements for Redevelopment*

Section 9.2.1.B of the Design Manual indicates, “Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project.”

Although not required, Porous Pavement with underdrains is proposed for this project and will provide both WQv and RRv at the site.

3.3.3 *Methodology*

In order to reduce the required WQv and meet the RRv criteria, a site specific evaluation must be performed to determine the most practical means of reducing runoff volume by application of a combination of RR techniques and standard SMPs with RRv capacity.

3.3.4 Application of RR Techniques

The following Table demonstrates a summary of the RR technique being applied for this project, and both the water quality and runoff reduction volumes they provide. The RR Technique have been designed in accordance with Chapter 5 of the Design Manual. Refer to the contract drawings for practice dimensions, material specifications, and installation details. Practice specific calculations are presented in Appendix C.

Table 5: Summary of RR Techniques being Applied

RR Technique	NYSDE C Design	RRv Capacity	WQv Required (CF)	WQv Reduced/RRv Provided (CF)
Volume Reduction Practices				
Porous Pavement (with underdrains)	RR-9	40%	830.74	835.65

3.3.5 RRv Performance Summary

A summary of the RRv provided is presented in the following table:

Table 6: RRv Summary

WQv Required (CF)	RRv Provided WQv Reduced (CF)	% RRv Provided/ WQv Reduced
830.74	835.65	100.6

As indicated above, Section 9.2.1.B of the Design Manual indicates, “Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project.” However, as indicated in the above table, the RRv provided is greater than the RRv required for the project site. As such, the RRv criteria has been met and the designer can proceed to Step 6.

3.4 STEP 4 – Calculate the Minimum RRv Required

As indicated above, Section 9.2.1.B of the Design Manual indicates, “Although encouraged, meeting the RRv criteria is not required for the redevelopment activity portion of a project.”

As previously discussed, the RRv provided is greater than the RRv required for this project. As such, the runoff reduction volume criteria has been met, and minimum RRv is not applicable.

3.5 STEP 5 – Apply Standard SMPs to Address Remaining Water Quality Volume

As previously discussed, 100% of the required WQv is being provided and reduced through RRv practices. As such, the water quality and runoff reduction volume criteria have been met and no other standard SMPs are required.

3.6 STEP 6 - Apply Volume and Peak Rate Control

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

3.6.1 *NYSDEC Requirements for New Development*

Chapter 4 of the Design Manual requires that projects meet three separate stormwater quantity criteria:

1. The Channel Protection (CPv) requirement is designed to protect stream channels from erosion. This is accomplished by providing 24 hours of extended detention for the 1-year, 24-hour storm event. The Manual defines the CPv detention time as the center of mass detention time through each stormwater management practice.
2. The Overbank Flood Control (Qp) requirement is designed to prevent an increase in the frequency and magnitude of flow events that exceed the bank-full capacity of a channel, and therefore must spill over into the floodplain. This is accomplished by providing detention storage to ensure that, at each Design Point, the post-development 10-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.
3. The Extreme Flood Control (Qf) requirement is designed to prevent the increased risk of flood damage from large storm events, to maintain the boundaries of the pre-development 100-year floodplain, and to protect the physical integrity of stormwater management practices. This is accomplished by providing detention storage to ensure that, at each Design Point, the post-development 100-year 24-hour peak discharge rate does not exceed the corresponding pre-development rate.

3.6.2 *NYSDEC Requirements for Redevelopment*

Chapter 9 of the Design Manual provides alternatives to the above quantity criteria, which may be applied to redevelopment projects. As indicated in Section 9.2.C, if there is 0% change to hydrology that increases the discharge rate from the project site, then the 10-year and 100-year criteria for quantity control do not apply. In addition if there is 0% change to hydrology that increases the discharge rate and volume from the project site, then providing 24-hr detention of the 1-year storm to meet channel protection criteria is not required.

The project proposes an 13.5% decrease in impervious area and will not result in changes to hydrology that increase the discharge rate from the site. Additionally, based upon the hydrologic analysis performed, the discharge rate from the site has been reduced from pre- to post-development conditions for the 1-year storm event. Therefore, the stormwater quantity criteria have been met and stormwater quantity control practices have not been provided for this project. The following Section describes the methodology behind this hydrologic analysis.

3.6.3 *Methodology*

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

HydroCAD has the capability of computing hydrographs (which represent discharge rates characteristic of specified watershed conditions, precipitation, and geologic factors) combining hydrographs and routing flows through pipes, streams and ponds. HydroCAD can also calculate the center of mass

detention time for various hydraulic features. Documentation for HydroCAD can be found on their website: <http://www.hydrocad.net/>.

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

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

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

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

Proposed stormwater management practices were designed and evaluated in accordance with the Design Manual and local regulatory requirements. A local IDF file was imported, and specific mass curves were generated, in HydroCAD to evaluate the pre- and post-development stormwater runoff characteristics for various 24-hour storm events identified in the following Table.

Table 7: Design Events

Facility	24-hour Storm Event
Storm Sewer	10-year
Stormwater Management Practice(s)	1-year
	10-year
	100-year
Flood Conditions	100-year

3.6.4 Performance Summary

Per Section 4.6 of the Design Manual, the CPv requirement does not apply as the reduction of the entire CPv is achieved by application of runoff reduction techniques.

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

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

Table 8: Summary of Pre- and Post-Development Peak Discharge Rates

Pre- vs. Post-Development Discharge Rate (cfs)				
Design Point (AP)	10-year 24-hour storm event		100-year 24-hour storm event	
	Pre	Post	Pre	Post
1	0.94	0.06	3.62	1.60

3.7 Climate Change Consideration

This report presents the consideration for future physical risks due to climate change, in accordance with Part III.A.2 of the permit. Overall site planning, control measures and practices, conveyance systems and detention systems were evaluated against the seven (7) physical risks identified by NYSDEC due to climate change pursuant to the Community Risk and Resiliency Act (CRRA), 6 NYCRR 490, and associated guidance. Appendix C provides a description of each consideration, specific to the project.

4.0 CONSTRUCTION SEQUENCE

This project encompasses less than five acres of land and disturbance of additional off-site properties to facilitate construction is not anticipated. Therefore, written approval from NYSDEC OR the Village of Saranac Lake allowing the disturbance of more than five acres of land at any one time is not required. If the Contractor's construction sequence requires the disturbance of more than five acres at any one time, written approval must be obtained from NYSDEC OR the Village of Saranac Lake prior to disturbing more than five acres at once.

The "Erosion and Sediment Control Plan" in the accompanying drawings identifies the major construction activities that are the subject of this SWPPP. The order (or sequence) in which the major activities are expected to begin is presented on the accompanying drawings, though each activity will not necessarily be completed before the next begins. In addition, these activities could occur in a different order if necessary to maintain adequate erosion and sediment control. If this is the case, the contractor shall notify the Owner's/Operator's Engineer overseeing the implementation of the SWPPP.

The Contractor will be responsible for implementing the erosion and sediment control measures identified on the plans. The Contractor may designate these tasks to certain subcontractors as they see fit, but the ultimate responsibility for implementing these controls and ensuring their proper function remains with the Contractor.

In accordance with Part III.B.c.iv. a phasing plan for the project and sequencing plans for all phases have been provided. The plans 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. Refer to the plans for further information on the project phasing and sequencing.

5.0 CONSTRUCTION-PHASE POLLUTION CONTROL

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

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

- NYSDEC SPDES General Permit for Stormwater Discharges From Construction Activity, Permit No. GP-0-25-001 (effective January 29, 2025 through January 28, 2030)
- New York State Standards and Specifications for Erosion and Sediment Control, NYSDEC (November 2016)

The SWPPP and accompanying plans outline the construction scheduling for implementing the erosion and sediment control measures. These documents include limitations on the duration of soil exposure, criteria and specifications for placement and installation of the erosion and sediment control measures, a maintenance schedule, and specifications for the implementation of erosion and sediment control practices and procedures.

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

1. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction site discharges.
2. Preservation of existing vegetation to the greatest extent practical. Following the completion of construction activities in any portion of the site, permanent vegetation shall be established on all exposed soils.
3. Site preparation activities to minimize the area and duration of soil disruption.
4. Establishment of permanent traffic corridors to ensure that “routes of convenience” are avoided.

5.1 Temporary Erosion and Sediment Control Measures

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

5.1.1 *Stabilized Construction Access*

Prior to construction, stabilized construction access(es) will be installed, per accompanying plans, to reduce the tracking of sediment onto public roadways.

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

The access(es) shall be maintained in a condition, which will control tracking of sediment onto public rights-of-way or streets. When necessary, additional aggregate will be placed atop the filter fabric to assure the minimum thickness is maintained. All sediment and/or soil spilled, dropped, or washed onto public rights-of-way must be removed immediately. Periodic inspection and needed maintenance shall be provided after each substantial rainfall event.

5.1.2 *Dust Control*

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

5.1.3 *Temporary Soil Stockpile*

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

5.1.4 *Silt Fencing*

Prior to the initiation of and during construction activities, a geotextile filter fabric (or silt fence) will be established downgradient of all disturbed areas. These barriers may extend into non-impact areas to provide adequate protection of adjacent lands.

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

5.1.5 *Temporary Seeding*

For areas undergoing clearing, grading, and disturbance as part of construction activities, where work has temporarily ceased, temporary soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has temporarily ceased.

5.1.6 *Stone and Block Drop Inlet Protection*

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

5.1.1 *Manufactured Insert Inlet Protection*

Install insert inlet protection beneath the grate of all catch basins, to prevent sediment from entering the catch basins and storm sewer system. Remove sediment accumulation and repair or replace insert as necessary to ensure proper function.

5.1.2 *Filter Fabric Drop Inlet Protection*

Install filter fabric or silt fence with wooden stakes at the perimeter of existing or proposed catch basins located in lawn areas, to prevent sediment from entering the catch basins and storm sewer system. Remove sediment accumulation and repair or replace fabric as necessary to ensure proper function.

5.1.3 *Erosion Control Blanket*

Erosion control blankets shall be installed in accordance with manufacturer's requirements on all slopes exceeding 3:1. Erosion control blankets provide temporary erosion protection, rapid vegetative establishment, and long-term erosion resistance to shear stresses generated by high runoff flow velocities associated with steep slopes.

5.1.4 *Dewatering Operations*

Dewatering will be used to intercept sediment-laden stormwater or pumped groundwater and allow it to settle out of the pumped discharge prior to being discharged from the site. Water from dewatering operations shall be treated to eliminate the discharge of sediment and other pollutants. Water resulting from dewatering operations shall be directed to temporary sediment traps or dewatering devices. Temporary sediment traps and dewatering bags will be provided, installed, and maintained at downgradient locations to control sediment deposits to downstream surfaces.

5.1.5 *Fiber Roll*

Prior to the initiation of and during construction activities, fiber rolls (12" minimum diameter) will be established downgradient of all disturbed areas to reduce sheet flow on slopes. These rolls may extend into non-impact areas to provide adequate protection of adjacent lands. Spacing will conform to NYSDEC specification for straw bale dike.

Clearing and grubbing will be performed only as necessary for the installation of the fiber rolls. To facilitate effectiveness, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s) and maintenance will be performed as needed.

5.1.6 *Compost Filter Sock*

Prior to the initiation of and during construction activities, a compost filter sock (or silt sock) will be established downgradient of all disturbed areas. These filters may extend into non-impact areas to provide adequate protection of adjacent lands. The spacing of the compost filter sock, which will depend on the ground slope and diameter of the sock, shall be based upon New York State or EPA guidance.

Clearing and grubbing will be performed only as necessary for the installation of the sediment control filter; and unlike sediment control barriers, trenching is not required. The ends of the filter sock should be directed upslope, to prevent stormwater from running around the end of the sock. The preferred anchoring method is to drive stakes through the center of the sock at regular intervals; alternatively, stakes can be placed on the downstream side of the sock. To facilitate effectiveness of the compost filter sock, daily inspections and inspections immediately after significant storm events will be performed by the Contractor(s) to ensure that they are intact and the area behind the sock is not filled with sediment. Maintenance of the sock will be performed as needed.

5.2 Permanent Erosion and Sediment Control Measures

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

5.2.1 *Establishment of Permanent Vegetation*

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

Permanent soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the soil disturbance activity has permanently ceased.

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

5.2.2 *Rock Outlet Protection*

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

5.3 Other Pollutant Controls

Part I.C.1 of GP-0-25-001 prohibits discharges from construction material wastewater, pollutants used in vehicle and equipment operation and maintenance, vehicle and equipment washing and toxic or hazardous substances.

The following table identifies materials and/or chemicals commonly used and/or stored on construction sites and should be addressed in the site-specific spill prevention and response plan:

Table 9: Common Construction Pollutants

Material/Chemical	Physical Description	Stormwater Pollutants	Location*
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets and roofing
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Curing compounds	Creamy white liquid	Naphtha	Curb and gutter
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment / staging area
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment / staging area
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	Secondary containment / staging area
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging area
Construction materials			
Granular fill	Various colored solids	Sediment	Stockpile / fill areas
Subbase course	Gray/brown solid	Sediment, dust	Stockpile
Topsoil	Brown solid	Sediment	Stockpile
Mulch	Various colored solid	Sediment, debris	Staging area
Seed	Brown/yellow solid	Nutrients, debris	Staging area
HDPE Storm Pipe	Black solid		Staging area
SDR-35, SDR-21 PVC Pipe	Various colored solid		Staging area
Metals Frames and Grates	Gray solid		Staging area
Joint Sealant	Light gray viscous solid	Polyurethane	Staging area

*(Area where material/chemical is used on-site)

5.4 Construction Housekeeping Practices

During the construction phase, the Contractor(s) will implement the following measures:

5.4.1 *Sediment Sweeping/Vacuuming*

Any sediment that is tracked by construction vehicles or erosion onto adjacent public or private impervious surfaces must be swept or vacuumed, utilizing self-propelled and/or walk-behind equipment, and removed on a daily basis. Kick brooms and sweeper attachments are not an acceptable means of sweeping. Sweeping or vacuuming should not take place while tracked sediment is wet. If tracked sediment is compacted, the sediment must be scraped loose prior to sweeping or vacuuming.

5.4.2 *Material Stockpiles*

Material resulting from clearing and grubbing operations that will be stockpiled on-site, must be adequately protected with downgradient erosion and sediment controls.

5.4.3 *Equipment Cleaning and Maintenance*

The Contractor(s) will designate areas for equipment cleaning, maintenance, and repair. The Contractor(s) and subcontractor(s) will utilize those areas. The areas will be protected by a temporary perimeter berm.

5.4.4 *Detergents*

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

5.4.5 *Spill Prevention and Response*

A Spill Prevention and Response Plan shall be developed, for the pollutants identified in Section 5.3, for the site by the Contractor(s) that addresses the following:

1. Reducing chance of spills
2. Stopping the source of spills
3. Containing and cleaning up spills
4. Disposing of materials contaminated by spills
5. Training personnel responsible for spill prevention/response
6. Material handling procedures
7. Material storage requirements

The plan shall detail the steps required in the event of an accidental spill and shall identify contact names and phone numbers of people and agencies that must be notified.

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

5.4.6 *Concrete Washout Areas*

A temporary concrete washout area shall be provided for every project where concrete will be poured or otherwise formed on-site and shall consist of an excavated or above-ground lined construction pit where concrete trucks or equipment can be washed out after their loads have been discharged. Waste generated from concrete wash water that shall not be allowed to flow into drainage ways, inlets, receiving

waters, highway right-of-way, or any location other than the designated concrete washout area(s). Proper signage shall be placed adjacent to the facility to designate the "Concrete Washout Area". Locate the facility a minimum of 100-feet from drainage swales, storm drain inlets, wetlands, streams, and other surface waters. Prevent surface water from entering the washout area.

The hardened residue from the concrete wash areas will be disposed of in the same manner as other non-hazardous construction waste materials. Maintenance of the washout area shall include removal of hardened material when 75% of the storage capacity is filled, and a minimum freeboard of 12 inches shall be maintained. The Contractor will be responsible for seeing that these procedures are followed. The project may require the use of multiple concrete washout areas based on the frequency of concrete pours.

5.4.7 *Material Storage*

Construction materials shall be stored in a dedicated staging area. The staging area shall be located in an area that prevents negative impacts of construction materials on stormwater quality.

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

6.0 INSPECTIONS, MAINTENANCE, AND REPORTING

6.1 Inspection and Maintenance Requirements

6.1.1 *Pre-Construction Inspection and Certification*

Prior to the commencement of construction, the Qualified Inspector/Qualified Professional shall conduct an assessment of the site and certify that the appropriate erosion and sediment control measures have been adequately installed and implemented. The Contractor shall contact the Qualified Inspector/Qualified Professional once the erosion and sediment control measures have been installed.

6.1.2 *Construction Phase Inspections and Maintenance*

A Qualified Inspector/Qualified Professional, as defined in Appendix A of the General Permit GP-0-25-001, shall conduct regular site inspections between the time this SWPPP is implemented and final site stabilization. Site inspections shall occur at an interval of at least once every seven (7) calendar days.

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

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

1. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction access will be constructed where vehicles enter and exit. This access will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
2. Sediment barriers must be inspected and, if necessary, they must be enlarged or cleaned in order to provide additional capacity. All material from behind sediment barriers will be stockpiled on the up slope side. Additional sediment barriers must be constructed as needed.
3. Inspections will evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas.
4. Grassed areas will be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement, or have a stand of grass with at least 80 percent density. The density of 80 percent or greater must be maintained to be considered as stabilized. Areas must be watered, fertilized, and reseeded as needed to achieve this goal.
5. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

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

Within one (1) business day of the completion of an inspection, the *Qualified Inspector/Qualified Professional* shall notify the Owner/Operator and appropriate contractor or subcontractor of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one (1) business day of the notification and shall complete the corrective actions in a reasonable time frame.

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

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

6.1.3 *Winter Construction Activities*

For construction sites where soil disturbance activities are planned to occur between November 1st and April 1st, an enhanced erosion and sediment control plan prepared by the Engineer of record in

coordination with the on-site SWPPP inspector to manage runoff and sediment at the site during construction activities in the winter months to protect off-site water resources must be implemented. This shall apply to all construction activities in which there is ongoing land disturbance and exposure between November 15th and April 1st. Please see Appendix K for the Standard and Specifications for Winter Stabilization that are to be followed, from the New York State Standards and Specifications For Erosion and Sediment Control.

6.1.4 *Temporary Suspension of Construction Activities*

For construction sites where soil disturbance activities have been temporarily suspended (e.g. Winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the frequency of Qualified Inspector/Qualified Professional inspections can be reduced to once every 30 calendar days. Prior to reducing the frequency of inspections, the Owner/Operator shall notify the NYSDEC Region 5 stormwater contact person and the Village of Saranac Lake in writing.

6.1.5 *Partial Project Completion*

For construction sites where soil disturbance activities have been shut down with partial project completion, all areas disturbed as of the project shutdown date have achieved final stabilization, and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational, the inspections by the Qualified Inspector/Qualified Professional can stop. Prior to the shutdown, the Owner/Operator shall notify the NYSDEC Region 5 stormwater contact person and the Village of Saranac Lake in writing.

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

6.1.6 *Post-Construction Inspections and Maintenance*

Inspections and maintenance of final stabilization measures and post-construction stormwater management practices shall be performed in accordance with Appendix G, once all disturbed areas are stabilized and all stormwater management systems are in place and operable.

6.2 Reporting Requirements

6.2.1 *Inspection Reports*

Pursuant to Part IV.C of GP-0-25-001, inspection reports shall be prepared for the duration of construction, as outlined herein, and shall be signed by the *Qualified Inspector* or *Qualified Professional*. A sample inspection form is provided in Appendix F.

At a minimum, each inspection report shall record the following information:

1. Permit identification number; and
2. Date and time of inspection; and
3. Name and title of person(s) performing inspection; and
4. 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

5. 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
6. 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
7. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance; and
8. 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
9. 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
10. Estimates, in square feet or acres, of the following areas:
 - a. Total area with active soil disturbance (not requiring either temporary stabilization or final stabilization); and
 - b. Total area with inactive soil disturbance (requiring either temporary stabilization or final stabilization); and
 - c. Total area that has achieved temporary stabilization; and
 - d. Total area that has achieved final stabilization; and
11. 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
12. 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
13. Identification and status of all corrective actions that were required by previous inspection; and
14. 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.

6.2.2 *Site Log Book*

Pursuant to Part I.E.3 of GP-0-25-001, the Owner/Operator shall retain a copy of the General Permit, NOI, NOI Acknowledgment Letter, inspection reports, contractor and subcontractor certification forms, and all documentation necessary to demonstrate eligibility under the permit, at the construction site from commencement of construction activity until the date that all areas of disturbance have achieved final stabilization and the Notice of Termination has been submitted to the NYSDEC.

The Site Log Book shall be maintained on-site in a secure location (i.e. job trailer, on-site construction office, or mailbox with lock) and must be accessible during normal business hours to an individual performing a compliance inspection.

6.2.3 *Post Construction Records and Archiving*

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

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

7.0 SWPPP IMPLEMENTATION RESPONSIBILITIES

A summary of the responsibilities and obligations of all parties involved with compliance with the NYSDEC SPDES General Permit GP-0-25-001 conditions is outlined in the subsequent sections. For a complete listing of the definitions, responsibilities, and obligations, refer to the SPDES General Permit GP-0-25-001 presented in Appendix J.

7.1 Owner's/Operator's Responsibilities

1. Ensure that control measures are selected, designed, installed, implemented and maintained to minimize the discharge of pollutants and prevent a violation of the water quality standards, meeting the non-numeric effluent limitations in Part II.B.1.(a)-(e) of the SPDES General Permit and in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
2. Ensure that practices are selected, designed, installed, and maintained to meet the performance criteria in the Design Manual. Practices must be designed to meet the applicable sizing criteria in Part II.C.2.a., b., c. or d. of GP-0-25-001.
3. Retain the services of a "Qualified Inspector" or "Qualified Professional" as defined under Section 2.1, to provide the services outlined in Section 7.5 "Qualified Inspector's/Qualified Professional's Responsibilities."
4. Retain the services of a "Qualified Professional," as defined under Section 2.1, to provide the services outlined in Section 2.3 "Owner's/Operator's Engineers Responsibilities."
5. Have an authorized corporate officer sign the Owner/Operator Certification Form to accompany the eNOI. A copy of the completed NOI is included in Appendix B.
6. Submit the electronic version of the NOI (eNOI) using the NYSDEC's website (<http://www.dec.ny.gov/chemical/43133.html>).
7. Pay the required initial and annual fees upon receipt of invoices from NYSDEC. These invoices are generally issued in the fall of each year. The initial fee is calculated as \$110.00 per acre disturbed plus \$675.00 per acre of net increase in impervious cover, and the annual fee is \$110.00.

8. Prior to the commencement of construction activity, identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting, and maintaining the erosion 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. Each of the contractors and subcontractors must identify at least one person from their company to be the trained contractor that will be responsible for implementation of the SWPPP. Ensure that at least one trained contractor is on site daily when soil disturbance activities are being performed.
9. Schedule a pre-construction meeting which shall include the Village of Saranac Lake representative, Owner's/Operator's Engineer, Qualified Inspector, Contractor, and their subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.
10. Retain the services of an independent certified materials testing and inspection firm operating under the direction of a licensed Professional Engineer to perform regular tests, inspections, and certifications of the construction materials used in the construction of all post-construction stormwater management practices.
11. Require the Contractor to fully implement the SWPPP prepared for the site by the Owner/Operator's Engineer to ensure that the provisions of the SWPPP are implemented from the commencement of construction activity until all areas of disturbance have achieved final stabilization and the Notice of Termination (NOT) has been submitted to the NYSDEC.
12. The Owner/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.
13. Forward a copy of the LOA received from DEC to the Owner's/Operator's Engineer for project records, and to the Contractor for display at the construction site.
14. As of the date the LOA is received, the Owner/Operator must make the eNOI, SWPPP and LOA available for review and copying in accordance with the requirements in Part VII.H. of GP-0-25-001. When applicable, as of the date an updated LOA is received, the Owner/Operator must make the updated LOA available for review and copying in accordance with the requirements in Part VII.H.
15. The Owner/Operator must ensure compliance with all requirements of GP-0-25-001 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 all area of disturbance have achieved final stabilization; and the Owner/Operator's coverage under the permit is terminated in accordance with Part V.A.5.a.
16. As of the date of the commencement of construction activities until Part I.E.2.a. and b. have been met, the Owner/Operator must maintain at the construction site, a copy of all documentation necessary to demonstrate eligibility with GP-0-25-001, a copy of GP-0-25-001, the SWPPP, the signed SWPPP Preparer Certification Form, signed Owner/Operator Certification Form, eNOI, and LOA.
17. The Owner/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 responsible contractor's or subcontractor's certification statement(s) in accordance with Part III.A.7, and inspection reports in accordance with Part IV.C.4. and 6.

18. The Owner/Operator must maintain the documents 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/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.
19. Upon finding a significant non-compliance with the practices described in the SWPPP or violation of GP-0-25-001, 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/Operator. Forward a copy of any stop work order received immediately to the Owner's/Operator's Engineer and to the Contractor.
20. If any human remains or archaeological remains are encountered during excavation, the Owner/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). Construction activity shall not resume until written permission to do so has been received from the RWE.
21. To be authorized to implement modifications to the information previously submitted in the eNOI, the Owner/Operator must notify NYSDEC via email at Stormwater_info@dec.ny.gov requesting access to update the eNOI, update the eNOI to reflect the modifications and resubmit the eNOI in accordance with Part I.D., and receive an updated LOA.
22. The eNOI, SWPPP, LOA, updated LOAs, and inspection reports required by GP-0-25-001 are public documents that the Owner/Operator must make available for review and copying by any person within five (5) business days of the Owner/Operator receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.
23. The Owner/Operator must terminate coverage when the project reaches total project completion, has a planned shutdown with partial project completion, is changing Owner/Operator or has obtained coverage under an alternative general SPDES permit or an individual SPDES permit.
24. Have a qualified inspector perform a final site inspection prior to submitting the eNOT.
25. Prior to submitting a Notice of Termination, ensure 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/Operator has policies and procedures in place that ensure operation and maintenance of the practices in accordance with the operation and maintenance plan.
26. Submit a complete Notice of Termination form electronically using the NYSDEC eNOT. 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.
27. Request and receive all SWPPP records from the Owner's/Operator's Engineer and archive those records, along with the LOT, for a period of at least five (5) years from the date that NYSDEC accepts a complete NOT submitted.

28. Implement the Post-Construction Inspections and Maintenance procedures outlined in Appendix G.
29. The Owner/Operator must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the Owner/Operator shall amend the SWPPP, including construction drawings:
 - a) Whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater discharges from the project site;
 - b) Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and
 - c) To address issues or deficiencies identified during an inspection by the "Qualified Inspector," the Department, or other Regulatory Authority.
 - d) To document the final construction conditions.
30. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original owner or operator must notify the new owner or operator, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department, in conformance with Part I.G.

7.2 Owner's/Operator's Engineer's Responsibilities

1. Prepare the SWPPP using good engineering practices, best management practices, and in compliance with all federal, state, and local regulatory requirements.
2. Prepare the electronic Notice of Intent (eNOI) (see Appendix B) and sign the "SWPPP Preparer Certification Form." Forward the Owner/Operator Certification Form to the Owner/Operator for signature.
3. Provide copies of the SWPPP to the Village of Saranac Lake once all signatures and attachments are complete.
4. Enter Contractor's information in Section 7.5 "SWPPP Participants" once a Contractor is selected by the Owner/Operator.
5. Participate in a pre-construction meeting which shall include the Village of Saranac Lake representative, Owner/Operator, Qualified Inspector, Contractor, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.
6. Update the SWPPP each time there is a significant modification to the pollution prevention measures or a change of the principal Contractor working on the project who may disturb site soil.

7.3 Contractor's Responsibilities

1. Sign the SWPPP Contractor's Certification Form contained within Appendix B and forward to the Owner's/Operator's Engineer for inclusion in the Site Log Book.

2. Identify at least one Trained Contractor that will be responsible for implementation of this SWPPP. Ensure that at least one Trained Contractor is on site on a daily basis when soil disturbance activities are being performed. The Trained Contractor shall 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 conditions at all times. If deficiencies are identified, the contractor shall begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.
3. Provide the names and addresses of all subcontractors working on the project site. Require all subcontractors who will be involved with construction activities that will result in soil disturbance to identify at least one Trained Contractor that will be on site on a daily basis when soil disturbance activities are being performed; and to sign a copy of the Subcontractor's Certification Form contained within Appendix B, then forward to the Owner's/Operator's Engineer for inclusion into the Site Log Book. This information must be retained as part of the Site Log Book.
4. Maintain a Spill Prevention and Response Plan in accordance with requirements outlined in Section 5 of this SWPPP. This plan shall be provided to the Owner's/Operator's Engineer for inclusion in the Site Log Book, prior to mobilization on-site.
5. Participate in a pre-construction meeting which shall include the Village of Saranac Lake representative, Owner/Operator, Owner's/Operator's Engineer, Qualified Inspector, and all subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.
6. If Contractor plans on utilizing adjacent properties for material, waste, borrow, or equipment storage areas, or if Contractor plans to engage in industrial activity other than construction (such as operating asphalt and/or concrete plants) at the site, Contractor shall submit appropriate documentation to the Owner's/Operator's Engineer so that the SWPPP can be modified accordingly.
7. Implement site stabilization, erosion and sediment control measures, and other requirements of the SWPPP.
8. In accordance with the requirements in the most current version of the NYS Standards and Specifications for Erosion and Sediment Control, conduct inspections of erosion and sediment control measures installed at the site to ensure that they remain in effective operating condition at all times. Prepare and retain written documentation of inspections as well as of all repairs/maintenance activities performed. This information must be retained as part of the Site Log Book.
9. Begin implementing corrective actions within one (1) business day of receipt of notification by the Qualified Inspector/Qualified Professional of any corrective actions, if the corrective action does not require engineering design, that need to be taken and have completed within five (5) business days. If the corrective action requires engineering design, begin the engineering design process within five (5) business days and complete the corrective action in a reasonable time frame but no later than within 60 days.
10. Maintain a record of the date(s) and location(s) that soil restoration is performed in accordance with the accompanying plans and NYSDEC Division of Water's publication "Deep-Ripping and Decompaaction," dated April 2008. A copy of this is publication is provided in Appendix H. The

record that is to be maintained shall be a copy of the overall site grading plan delineating the area(s) and date(s) that the soil was restored.

11. Upon completion of all construction at the site, the contractor responsible for overall SWPPP Compliance shall sign the certification on their Contractor Certification Form indicating that: a.) all temporary erosion and sediment control measures have been removed from the site, b.) the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction," and c.) all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents.

7.4 Qualified Inspector's/Qualified Professional's Responsibilities

1. Participate in a pre-construction meeting with the Village of Saranac Lake representative, Owner/Operator, Owner/Operator's Engineer, Contractor, and their subcontractors to discuss responsibilities as they relate to the implementation of this SWPPP.
2. Conduct an initial assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment control measures described within this SWPPP have been adequately installed and implemented to ensure overall preparedness of the site.
3. Provide on-site inspections to determine compliance with the SWPPP. Site inspections shall occur at an interval of at least once every seven calendar days. A written inspection report shall be provided to the Owner/Operator and general contractor within one business day of the completion of the inspection, with any deficiencies identified. A sample inspection form is provided in Appendix F.
4. Prepare an inspection report subsequent to each and every inspection that shall include/address the items listed in Part IV.C.4 of GP-0-25-001. Sign all inspection reports and maintain on site with the SWPPP.
5. Notify the owner/operator and appropriate contractor or subcontractor of any corrective actions that need to be taken.
6. Prepare a construction Site Log Book to be used as a record of all inspection reports generated throughout the duration of construction. Ensure that the construction Site Log Book is maintained and kept up-to-date throughout the duration of construction.
7. Review the Contractor's SWPPP records on a periodic basis to ensure compliance with the requirements for daily reports, soil restoration, inspections, and maintenance logs.
8. Based on the as-built survey and material testing certifications performed by others, the Qualified Professional shall perform evaluations of the completed stormwater management practices to determine whether they were constructed in accordance with this SWPPP.
9. The Qualified Professional shall conduct a final site assessment and prepare a certification letter to the Owner/Operator indicating that, upon review of the material testing and inspection reports prepared by the firm retained by the Owner/Operator, review of the completed topographic survey, and evaluation of the completed stormwater management facilities, the stormwater management facilities have been constructed substantially in accordance with the contract documents and should function as designed.

10. Prepare the Notice of Termination (NOT). The Qualified Professional shall sign the NOT Certifications VI (Final Stabilization) and VII (Post-construction Stormwater Management Practices) and forward the NOT to the Owner/Operator for signature on Certification VIII (Owner/Operator Certification).
11. Transfer the SWPPP documents, along with all NOI's, permit certificates, NOT's, construction Site Log Book, and written records required by the General Permit to the Owner/Operator for archiving.

7.5 SWPPP Participants

1. Owner's/Operator's Engineer ²: Walter Kubow, PE
LaBella Associates, DPC
4 British American Boulevard
Latham, NY 12110
Phone: (518) 273-0055

2. Owner/Operator ³: Village of Saranac Lake
39 Market Street, Suite 9
Saranac Lake, NY 12983

3. Contractor^{4,6}: Name and Title: _____
Company Name: _____
Mailing Address: _____

Phone: _____
Fax: _____

² Refer to Appendix B for the SWPPP Preparer Certification Form.

³ Refer to Appendix B for the Owner/Operator Certification Form.

⁵ Refer to Appendix B for Contractor and Subcontractor Certification Form.

⁶ Contractor's information to be entered once the Contractor has been selected.

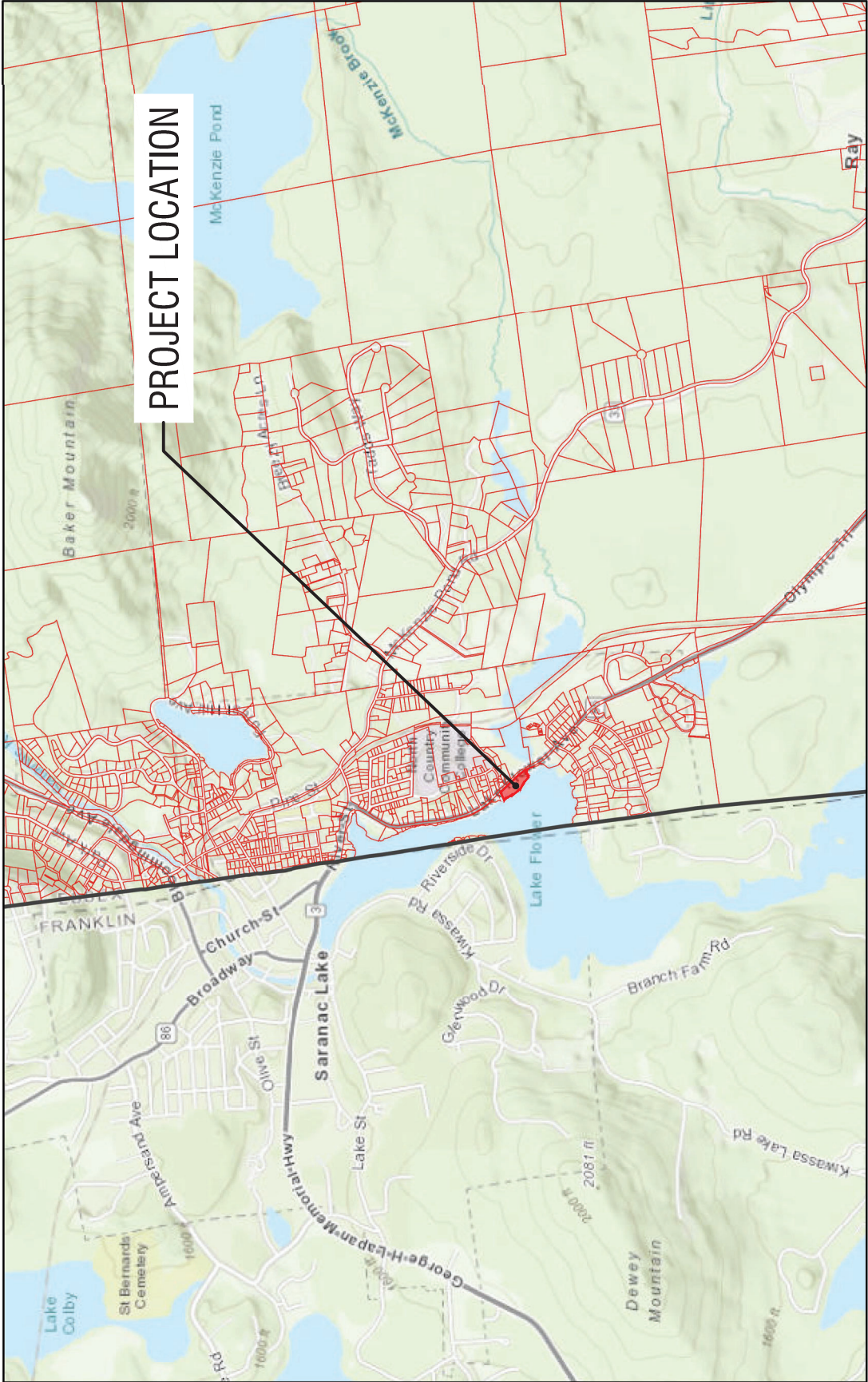


APPENDIX A: FIGURES

A-1: Site Location Map
A-2: Soils Map
A-3: Historic Places Screening Map
A-3A: OPRHP Coordination Documentation
A-4: Environmental Resource Map
A-4A: USFWS Endangered Species Report
A-5: FEMA Firm Map
A-6: Pre-Development Watershed Delineation Map
A-7: Post-Development Watershed Delineation Map

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Baldwin Park Location



4 British American Boulevard
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518-273-0055
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DRAWING NAME: **SITE LOCATION MAP**

PROJECT NAME:
BALDWIN PARK
SARANAC LAKE, ESSEX-FRANKLIN COUNTY, NEW YORK

ISSUED FOR:

ISSUED FOR REVIEW

DRAWN BY:

JRR

DATE:

06/09/25

PROJECT NO.:

CZ.321BD.00

DRAWING NUMBER:

A-1

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Custom Soil Resource Report
Soil Map



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DRAWING NAME:

HYDROLOGIC SOIL GROUP MAP

PROJECT NAME:

BALDWIN PARK

SARANAC LAKE, ESSEX-FRANKLIN COUNTY, NEW YORK

ISSUED FOR:

ISSUED FOR REVIEW

DRAWN BY:

JRR

DATE:

06/09/25

PROJECT NO.:

CZ.321BD.00

DRAWING NUMBER:

A-2

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CwA	Croghan fine sand, 0 to 3 percent slopes	1.6	80.0%
UIC	Udorthents, nearly level through strongly sloping	0.1	2.8%
W	Water	0.3	17.2%
Totals for Area of Interest		2.0	100.0%

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



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DRAWING NAME:

HYDROLOGIC SOIL GROUP TABLE

PROJECT NAME:

BALDWIN PARK

SARANAC LAKE, ESSEX-FRANKLIN COUNTY, NEW YORK

ISSUED FOR:

ISSUED FOR REVIEW

DRAWN BY:

JRR

DATE:

06/09/25

PROJECT NO.:

CZ.321BD.00

DRAWING NUMBER:

A-2

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LEGEND

- Consultation Projects (View)

Archeologically Sensitive Areas

Survey Archaeology Areas (View)

National Register Building Sites (View)
- Survey Building Areas (View)

LPC Historic Districts

USN Building Districts (View)

Cemeteries
- USN Building Points (View)

Eligible

Listed

Not Eligible

Not Eligible - Demolished

Undetermined



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DRAWING NAME: HISTORIC PLACES SCREENING MAP		ISSUED FOR: REVIEW	
PROJECT NAME: BALDWIN PARK SARANAC LAKE, ESSEX-FRANKLIN COUNTY, NEW YORK		DRAWN BY: JRR	DATE: 06/09/25
		DRAWING NUMBER: A-3	
		PROJECT NO.:	CZ.321BD.00

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**New York State
Parks, Recreation and
Historic Preservation**

KATHY HOCHUL
Governor

KATHY MOSER
Acting Commissioner

January 8, 2026

Beth Selig
HCS
PO Box 124
Lagrangeville, NY 12540

Re: APA
Baldwin Park Layout & Infrastructure Improvements, Saranac Lake
440 Lake Flower Ave, North Elba/Saranac Lake, Essex County, NY 12983
25PR11144

Dear Beth Selig:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act (NYSHPA) of 1980 (Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation 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.

We note that the project area is adjacent to the Adirondack Park National Historic Landmark. We have reviewed the project information provided to our office on December 3, 2025, and the additional drawings provided January 8, 2025. Based on this review, it is the opinion of OPRHP that the proposed work will have No Adverse Impact on historic or cultural resources.

If you have any questions, you can call or e-mail me at the contact information below.

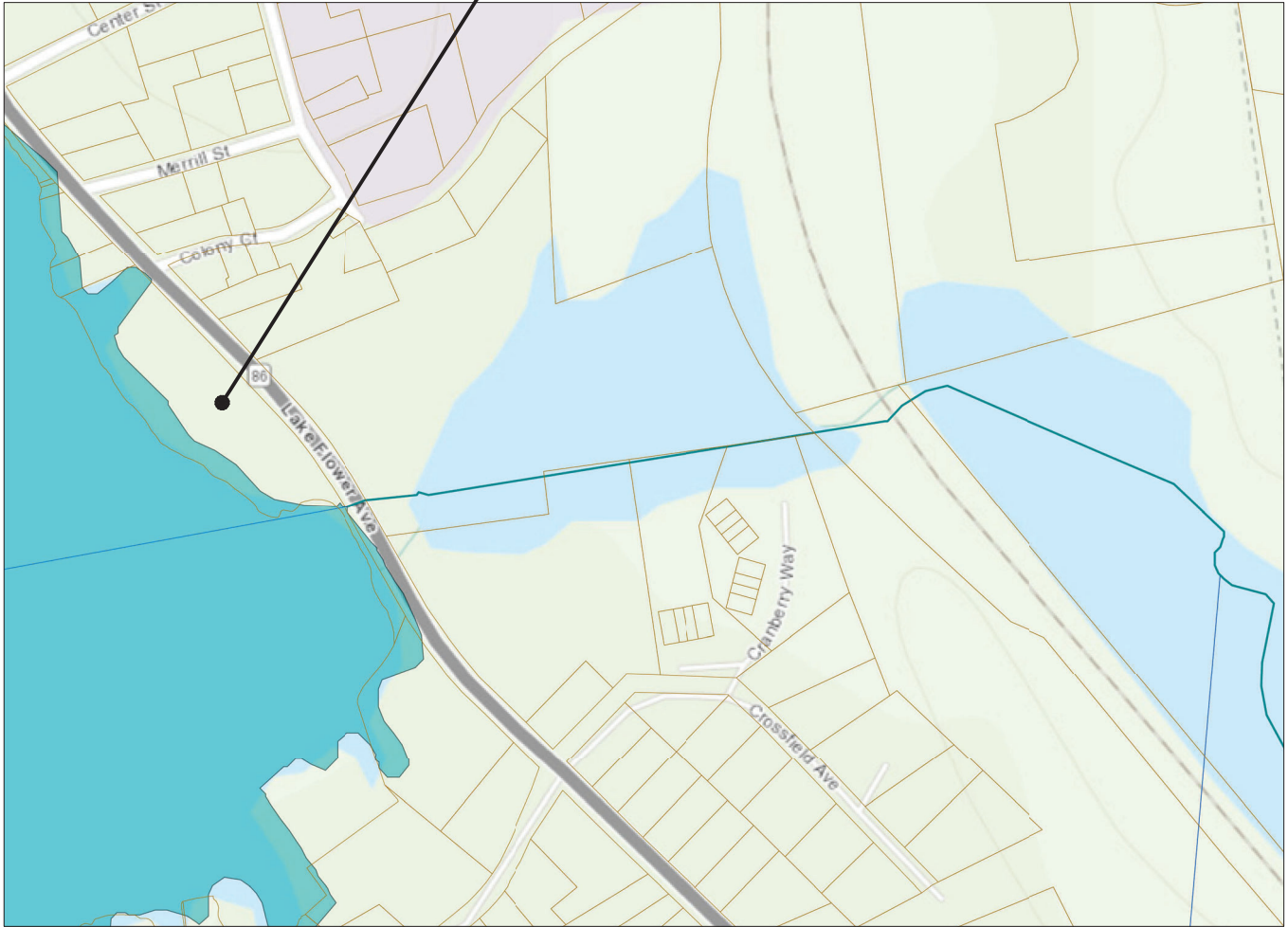
Sincerely,

Theresa Moriarty
Historic Site Restoration Coordinator
518.925.6507 | theresa.moriarty@parks.ny.gov

Cc: Brit Basinger, LaBella; Greta Alvarado, NY DOS
via email only

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PROJECT LOCATION



- ★ Unique Geological Features
- Waterbody Classifications for Rivers/Streams
- Waterbody Classifications for Lakes
- Waterbody Inventory/Priority Waterbodies List
 - Lakes and Reservoirs
 - Estuaries
 - Rivers and Streams
 - Shorelines
- State Regulated Freshwater Wetlands (Outside of the Adirondack Park)
- State Regulated Wetland Checkzone
- Significant Natural Communities
- Natural Communities Near This Location
- Rare Plants or Animals
- National Wetlands Inventory
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine



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DRAWING NAME:

ENVIRONMENTAL RESOURCE MAP

PROJECT NAME:

BALDWIN PARK

SARANAC LAKE, ESSEX-FRANKLIN COUNTY, NEW YORK

ISSUED FOR:

ISSUED FOR REVIEW

DRAWN BY:

JRR

DATE:

06/09/25

PROJECT NO.:

CZ.321BD.00

DRAWING NUMBER:

A-4

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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

In Reply Refer To:

06/25/2025 16:14:41 UTC

Project Code: 2025-0113866

Project Name: Village of Saranac Lake Baldwin Park Improvements

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: 2025-0113866
Project Name: Village of Saranac Lake Baldwin Park Improvements
Project Type: Recreation - Maintenance / Modification
Project Description: Updates to Baldwin Park, without wetland impacts, but with the installation of a floating dock in Lake Flower, which is a USACE regulated Section 10 Activity.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.3160138,-74.12111220187329,14z>



Counties: Essex County, New York

ENDANGERED SPECIES ACT SPECIES

There is a total of 1 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 Fisheries¹, 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.

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed 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.

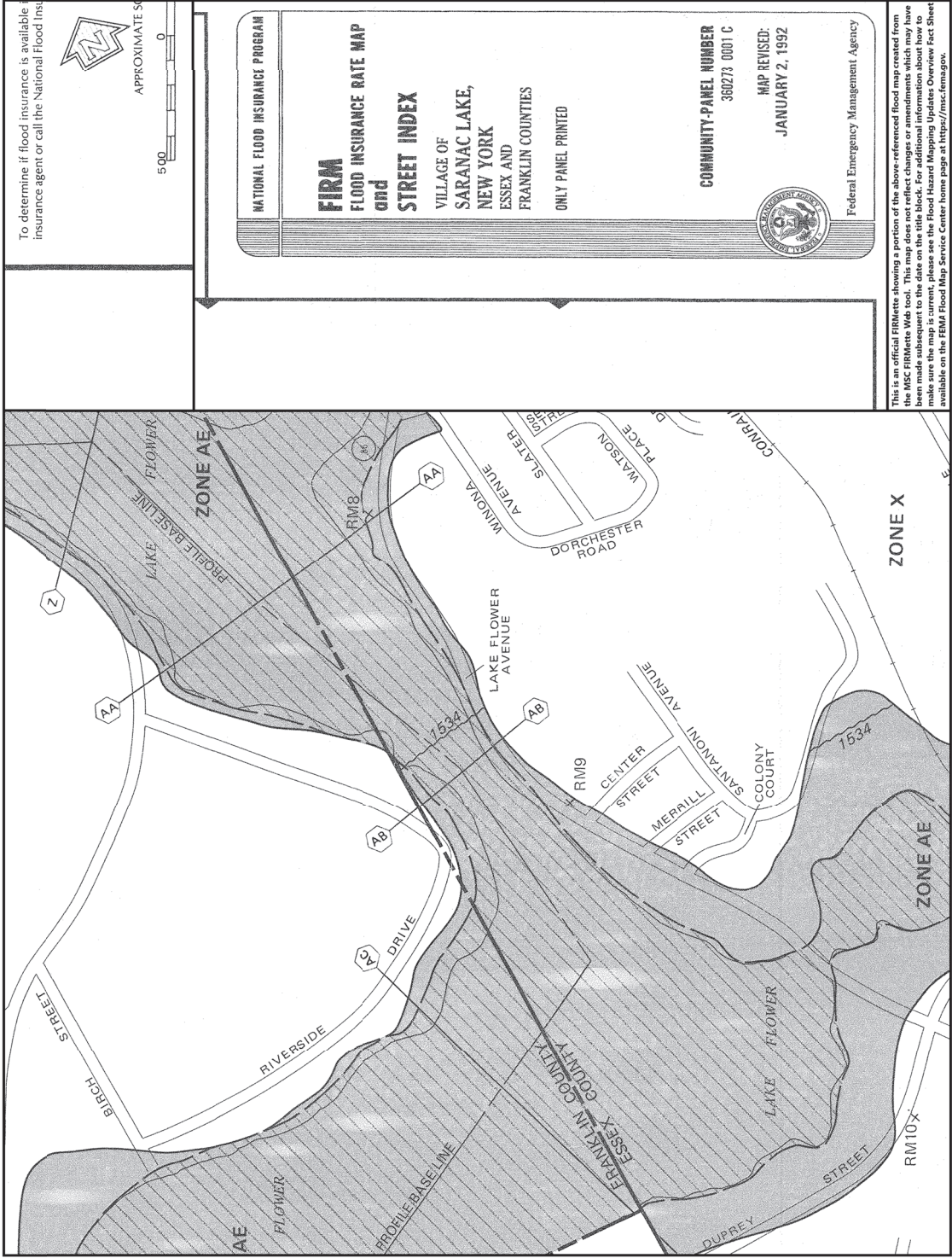
IPAC USER CONTACT INFORMATION

Agency: Saranac Lake village
Name: Barbara Beall
Address: 21 Elm Street, Suite 110
City: Glens Falls
State: NY
Zip: 12801
Email: bbeall@labellapc.com
Phone: 5184691302

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers
Name: Dustin Dorr
Email: Dustin.A.Dorr@usace.army.mil

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ISSUED FOR: REVIEW		PROJECT NO.: CZ.321BD.00	
DRAWN BY: JRR	DATE: 06/09/25		
DRAWING NAME: FEMA FIRM MAP		DRAWING NUMBER: A-5	
PROJECT NAME: BALDWIN PARK			
		SARANAC LAKE, ESSEX-FRANKLIN COUNTY, NEW YORK	

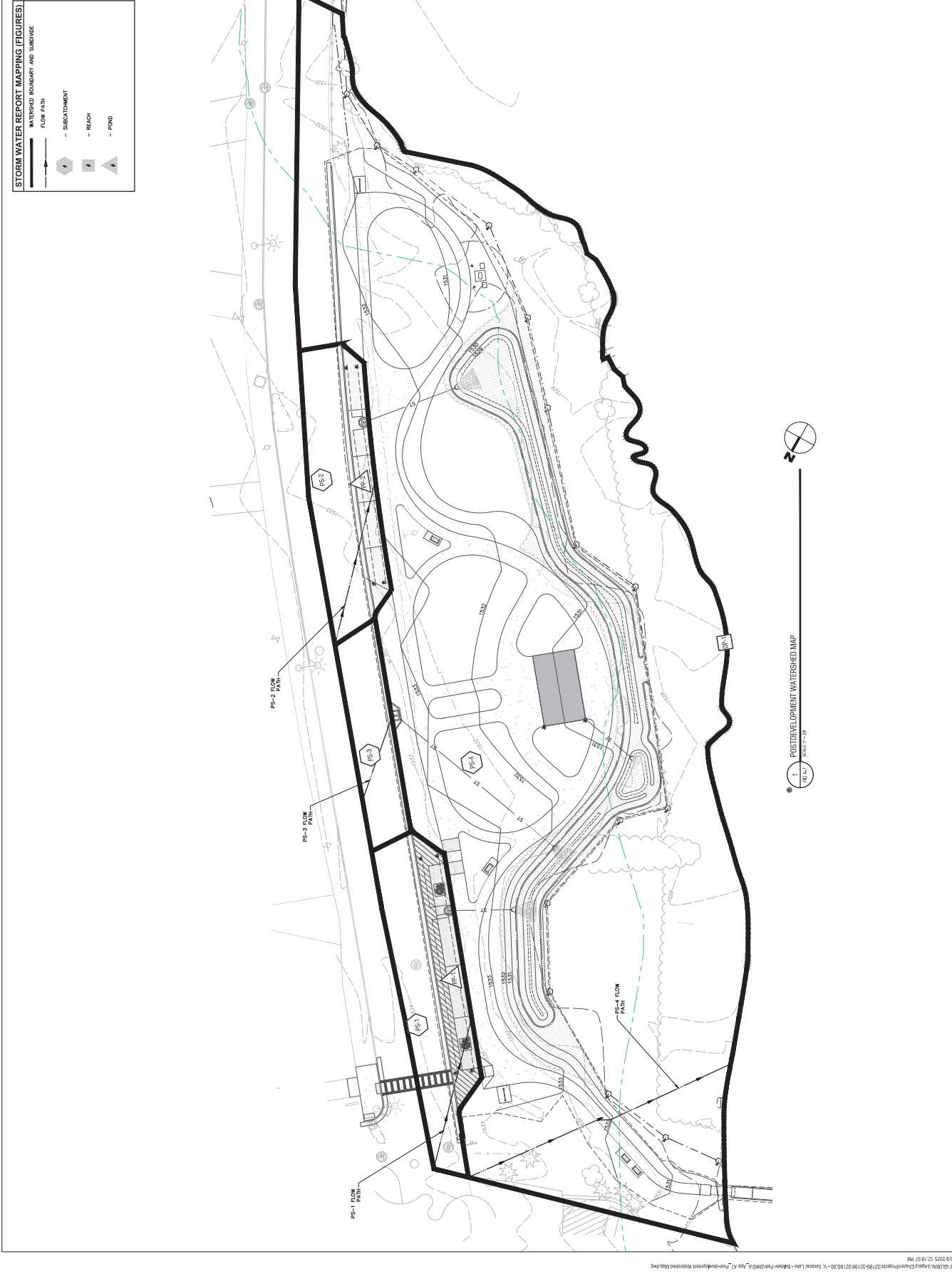
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NO.	DATE	ISSUED FOR
Reviews		

PROJECT NUMBER:		32180.00
DRAWN BY:	JD	
REVIEWED BY:	BB	
ISSUED FOR:		ISSUED FOR REVIEW
DATE	05.30.2025	
DRAWING NAME:		

POSTDEVELOPMENT WATERSHED MAP

FIG A-7





APPENDIX B: FORMS

Notice of Intent (NOI)
SWPPP Preparer Certification Form
Owner/Operator Certification Form
Contractor and Subcontractor Certification Forms
Notice of Termination (NOT)

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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

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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

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**Stormwater Pollution Prevention Plan
Contractor Certification Statement
(Responsible for overall SWPPP Compliance)**

Baldwin Park Improvements
Town of Saranac Lake, Essex County, New York

This is to certify that the following contracting firm will be responsible for installing, constructing, repairing, inspecting and/or maintaining the erosion and sediment control practices and post-construction stormwater management control practices required by the SWPPP.

Contracting Firm Information

Name: _____

Address: _____

Telephone & Fax: _____

Trained Contractor(s)¹ Responsible for SWPPP Implementation (Provide name, title, and date of last training)

Prior to commencement of construction activity, the following certification shall be issued:

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

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

Upon completion of construction activities, the following certification shall be issued, prior to issuance of the NOT:

I hereby certify that that all permanent stormwater management practices required by the SWPPP have been installed in accordance with the contract documents. I further certify that all temporary erosion and sediment control measures have been removed from the site, and that the on-site soils disturbed by construction activity have been restored in accordance with the SWPPP and the NYSDEC Division of Water's publication "Deep-Ripping and Decompaction".

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

¹ "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company 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 Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

² Signatory Requirements:

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

**Stormwater Pollution Prevention Plan
Subcontractor Certification Statement
(whose work involves soil disturbance)**

Baldwin Park Improvements
Town of Saranac Lake, Essex County, New York

Each Subcontractor whose work will involve soil disturbance of any kind is required to complete and sign this Certification Statement before commencing any construction activity at the site. This completed Certification Statement(s) shall be maintained at the construction site in the Site Log Book.

Subcontracting Firm Information

Name: _____

Address: _____

Telephone & Fax: _____

Trained Contractor(s)² Responsible for SWPPP Implementation (Provide name, title, and date of last training)

Prior to commencement of construction activities, the following certification shall be issued:

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

Printed Name: _____

Title/Position: _____

Signature: _____ Date: _____

² "Trained Contractor" means an employee from a contracting (construction) company that has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the "trained contractor" shall receive four (4) hours of training every three (3) years. It can also mean an employee from the contracting (construction) company 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 Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity). The "Trained Contractor" will be responsible for the day to day implementation of the SWPPP.

² Signatory Requirements:

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

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APPENDIX C: PROJECT EVALUATION AND DESIGN CALCULATIONS

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Appendix C - Table A
Climate Change Considerations

Physical Risk	Project Site Consideration			
	Overall Site Planning	Location, Elevation and Sizing of Control Measures and Practices	Location, Elevation and Sizing of Conveyance System(s)	Location, Elevation and Sizing of Detention System(s)
Increasing temperature	The project proposes a 13.5% decrease in impervious cover which will reduce heat island effect.	The project proposes a 13.5% impervious cover reduction.	The project proposes sheetflow, over closed conveyance systems, across pervious surfaces to promote infiltration and groundwater recharge. In addition, the conveyance systems have been sized to safely convey the 25-year 24-hour storm event.	The project proposes a 13.5% impervious cover reduction.
Increasing precipitation	The project proposes runoff reduction techniques to reduce the volume discharging from the project site and promoting groundwater recharge. In addition, the project proposes a 13.5% decrease in impervious cover.	The project proposes a 13.5% impervious cover reduction.	The project proposes sheetflow, over closed conveyance systems, across pervious surfaces to promote infiltration and groundwater recharge. In addition, the conveyance systems have been sized to safely convey the 25-year 24-hour storm event.	The project proposes a 13.5% impervious cover reduction.
Increasing precipitation variability and severity of flooding				
Rising sea level	Due to the site location, the property is not expected to be directly impacted by sea levels rising	Not applicable	Not applicable	Not applicable

Increasing storm surge	To consider the risk of increased storm surge, SMPs and conveyance systems have been located outside the 100-year flood zone.	To reduce the risk of impacts from storm surge, SMP(s) have been located outside the 100-year flood zone.	To reduce the risk of impacts from storm surge, the conveyance systems and critical infrastructure have been located outside the 100-year flood zone. In addition, conveyance systems have been sized to safely convey the 25-year 24-hour storm event.	Not applicable
Shifting ecology	The project is currently located in hardiness zone 4a. The plantings selected for the project consider hardiness zone 4b for adaptability.	The SMPs selected for the project are below grade. Therefore, this risk is not applicable to the practices selected.	The conveyance system proposed is a closed storm sewer network discharging to stone-lined aprons to reduce the risk of scour and failure compared to discharging directly to grass.	Not applicable

Step 1 - Site Planning

Practice		Description	Applicable	Project Specific Evaluation
Preservation of Natural Features and Conservation Design	Preservation of Undisturbed Areas	Delineate and protect undisturbed forests, native vegetated areas, riparian corridors, water bodies, wetlands, and natural terrain.	Yes	Approximately 1.05+/- Acres of land will remain undisturbed, in its natural state, which accounts for 65% of the total project parcel. In addition, approximately 0.089 acres of existing impervious are being converted back into natural areas.
	Preservation of Buffers	Delineate and protect naturally vegetated buffers along perennial streams, rivers, shorelines, and wetlands.	Yes	There is a federal wetland located on the project site. There is existing disturbance coming up to the boundary of the wetland. The proposed conditions will improve these conditions by removing impervious areas close to the wetland and creating grassed areas along the border of this wetland.
	Reduction of Clearing and Grading	Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	Yes	Clearing and grading will be limited to the area of disturbance and will be minimized to the greatest extent practical. The limits of all proposed clearing will be demarcated in the field with orange construction fencing, prior to construction, to prevent unnecessary removal of trees.
	Locating Development in Less Sensitive Areas	Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	Yes	The site has been designed to avoid sensitive resource areas to the greatest extent practical. No disturbance is proposed within the on-site federal wetlands. There is existing disturbance within the 100-year floodplain and it is proposed to improve these conditions while balancing the cut/fill within the floodplain.
	Open Space Design	Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	Yes	The site layout has been designed to maximize open space. Impervious surfaces have been minimized to the greatest extent practical and approximately 1.32+/- Acres will be maintained as vegetated open space.
	Soil Restoration	Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices.	Yes	All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual.
	Roadway Reduction	Minimize roadway widths and lengths, below local requirements, to reduce site impervious area	N/A	No new roadways are proposed as part of this project.

Step 1 - Site Planning

Reduction of Impervious Cover	Sidewalk Reduction	Minimize sidewalk lengths and widths, below local requirements, to reduce site impervious area	No	Reducing the sidewalk width/length is not feasible for the project's intended use.
	Driveway Reduction	Minimize driveway lengths and widths, below local requirements, to reduce site impervious area	N/A	No new driveways are proposed as part of this project.
	Cul-de-sac Reduction	Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A	No cul-de-sacs are proposed as part of this project.
	Building Footprint Reduction	Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	Yes	All new building area has been allocated to efficiently implement the intended use.
	Parking Reduction	Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, reducing stall dimensions below local requirements, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	Yes	All parking lots will be constructed of a porous asphalt surface, to reduce overall impervious surfaces.

Step 2 - Calculate Water Quality Volume

Is this project subject to Section 4.3 of the NYS Design Manual for Enhance Phosphorus Removal?							No
What is the nature of this construction project?					Redevelopment with a decrease in impervious		
Design Point:	1		P is 90% Rainfall Event				
P=	1.10	inches					
Calculate Required WQv							
Drainage Area Number	Contributing Area (Acres)	New-Development Impervious Area (Acres)	Redevelopment Impervious Area (Acres)	Percent Impervious (%)	Rv	WQv (cf)	SMP Description
1	0.106	0	0.106	100.00	0.95	402.10	Porous Pavement
2	0.113	0	0.113	100.00	0.95	428.65	Porous Pavement
3	0.009	0	0.009	100.00	0.95	34.14	N/A *
4	1.66	0	0.32	19.28	0.22	1481.40	N/A *
Total	1.89	0.00	0.55	29.03	0.31	2346.29	
Redevelopment *	0.22	-	0.219	100.00	0.95	830.74	Required WQv *
Percentage of overall impervious area:			39.96%				

* Per the NYSDEC Stormwater Design Manual, Section 9.2.1.A.II, if there is no increase in impervious area in the redeveloped condition, then 100% of the WQv from a minimum of 25% of the disturbed, redevelopment impervious area needs to be treated by implementation of standard SMP or reduced by application of runoff reduction techniques. The SWPPP must clearly document the 25% redevelopment area that is being treated.

In this case, subcatchment areas (1) and (2) account for 39.96% of the redevelopment impervious area, and therefore these are the only areas being treated. These areas have 100% of the WQv reduced through the runoff reduction technique of Porous Pavement.

Step 3 - Evaluation of RR Techniques and Standard SMPs with RRv Capacity

Practice		Description	Applicable	Project Specific Evaluation
RR Techniques	Conservation of Natural Areas (RR-1)	Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas by permanently conserving these areas on a site. Undisturbed natural areas include: forest retention areas; reforestation areas; stream and river corridors; shorelines; wetlands, vernal pools, and associated vegetated buffers; and undisturbed open space.	No	The project does not propose permanent conservation of these areas at this time.
	Sheet Flow to Riparian Buffer/Filter Strip (RR-2)	Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.	N/A	The project site does not contain any riparian buffers.
	Tree Planting/Tree Pit/Tree Trench (RR-3)	Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.	No	Tree plantings are proposed on site. However, credit for these trees will not be taken toward area reduction/volume reduction in the RRv calculations.
	Disconnection of Rooftop Runoff (RR-4)	Direct runoff from rooftop areas and upland overland runoff flow to designated pervious areas to reduce runoff volumes and rates.	No	Due to the layout of the proposed building, rooftop disconnect is not proposed at this time.
	Vegetated Swale (RR-5)	The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of concentration, reduce the peak discharge, and provide infiltration.	No	Vegetated swales are not proposed for use on the project site.
	Rain Garden (RR-6)	Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression.	No	Rain gardens are not proposed for use on the project site.

Step 3 - Evaluation of RR Techniques and Standard SMPs with RRv Capacity

RR Techniques	Stormwater Planter (RR-7)	Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve water quality.	No	Stormwater planters are not proposed for use on the project site.
	Rainwater Harvesting System (RR-8)	Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	No	Rainwater harvesting is not proposed for use on the project site.
	Porous Pavement (RR-9)	Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	Yes	Porous asphalt with underdrains will be used in the parallel parking spaces for the proposed project. Calculations have been provided in the SWPPP.
	Green Roof (RR-10)	Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	No	Green roof is not proposed for use on the project site.
	Stream Daylighting (RR-11)	Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	N/A	No stream daylighting opportunities are present on the site.
	Infiltration Trench (I-1)	An infiltration practice that stores the water quality volume in the void spaces of a gravel trench before it is infiltrated into the ground.	No	Due to limited infiltration testing, infiltration trenches are not feasible for use on the project site.
	Infiltration Basin (I-2)	An infiltration practice that stores the water quality volume in a shallow depression, before it is infiltrated it into the ground.	No	Due to limited infiltration testing, infiltration basins are not feasible for use on the project site.
	Dry Well (I-3)	An infiltration practice similar in design to the infiltration trench, and best suited for treatment of rooftop runoff.	No	Due to limited infiltration testing, dry wells are not feasible for use on the project site.

Step 3 - Evaluation of RR Techniques and Standard SMPs with RRv Capacity

Standard SMPs with RRv Capacity	Underground Infiltration System (I-4)	An infiltration practice below grade that stores the water quality volume in pre-manufactured pipes, vaults or other modular structures, before it is infiltrated into the ground.	No	Due to limited infiltration testing, underground infiltration systems are not feasible for use on the project site.
	Infiltration Bioretention (F-4)	A shallow depression that treats stormwater as it flows through a soil matrix, before it is infiltrated into the ground.	No	Due to limited infiltration testing, bioretention is not feasible for use on the project site.
	Filtration Bioretention (F-5)	A shallow depression that treats stormwater as it flows through a soil matrix and is returned to the storm drain system.	No	Bioretention is not proposed for use on the project site.
	Bioslope (F-6)	Permeable engineered soil media that is installed along embankments or other slopes, designed to capture and treat stormwater runoff from adjacent paved areas.	No	Bioslopes are not proposed for use on the project site.
	Dry Swale (O-1)	An open drainage channel or depression explicitly designed to detain and promote the filtration of stormwater runoff into the soil media.	No	Dry swales are not proposed for use on the project site.

Porous Pavement (RR-9)

Design Point:	1						
Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious (%)	Rv	WQv (cf)	Precipitation (in)	Description
1	0.1061	0.1061	100	0.95	402.10	1.10	Porous Pavement
Select porous pavement type			Level 2 Porous Asphalt				
Design Criteria							
Enter underlying soil infiltration rate (inch/hr) (based on geotechnical testing)			0.5	Underdrains required			
Is the contributing area a designated hotspot?			No				
Is runoff conveyed via sheet flow across the porous pavement surface?			Yes				
Enter the proposed slope across the finished surface			0.013				
Enter depth to seasonal high water table (ft)			5				
Enter depth to bedrock (ft)			5				
Enter depth of surface layer (inches)			3				
Enter depth of binder course (inches)			3				
Enter depth of bedding course (inches)			-				
Enter depth of chocker course (inches)			1				
Enter depth of drainage layer (inches)			10				
Sizing Criteria							
		Value	Units	Notes			
Enter Practice Surface Area		Ap	1583.00	sf			
Porosity		n	0.40				
Calculated stone reservoir depth		dp	0.70				
Required stone reservoir depth		dp	1.00	ft			
Enter stone reservoir depth provided		dp	1.60	ft			
Total required length of underdrain piping		Lt	198.00	ft			
Enter underdrain spacing (on center)		S	8.00	ft			
Enter design length of underdrain pipe		Lu	100.00	ft			
Number of underdrains required		N	2.00				
Enter number of underdrains provided		N	2.00				
Determine the Runoff Reduction							
RRv Provided			405.248	cf			

Porous Pavement (RR-9)

Design Point:	1						
Enter Site Data For Drainage Area to be Treated by Practice							
Drainage Area Number	Contributing Area (Acres)	Impervious Area (Acres)	Percent Impervious (%)	Rv	WQv (cf)	Precipitation (in)	Description
2	0.1138	0.1138	100	0.95	428.65	1.10	Porous Pavement
Select porous pavement type			Level 2 Porous Asphalt				
Design Criteria							
Enter underlying soil infiltration rate (inch/hr) (based on geotechnical testing)			0.5	Underdrains required			
Is the contributing area a designated hotspot?			No				
Is runoff conveyed via sheet flow across the porous pavement surface?			Yes				
Enter the proposed slope across the finished surface			0.013				
Enter depth to seasonal high water table (ft)			5				
Enter depth to bedrock (ft)			5				
Enter depth of surface layer (inches)			3				
Enter depth of binder course (inches)			3				
Enter depth of bedding course (inches)			-				
Enter depth of chocker course (inches)			1				
Enter depth of drainage layer (inches)			10				
Sizing Criteria							
		Value	Units	Notes			
Enter Practice Surface Area	Ap	1076.00	sf				
Porosity	n	0.40					
Calculated stone reservoir depth	dp	1.00					
Required stone reservoir depth	dp	1.00	ft				
Enter stone reservoir depth provided	dp	2.50	ft				
Total required length of underdrain piping	Lt	135.00	ft				
Enter underdrain spacing (on center)	S	8.00	ft				
Enter design length of underdrain pipe	Lu	100.00	ft				
Number of underdrains required	N	2.00					
Enter number of underdrains provided	N	2.00					
Determine the Runoff Reduction							
RRv Provided			430.4	cf			

Steps 3 and 5 - Apply RR Techniques and Standard SMPs

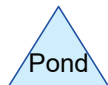
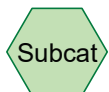
Runoff Reduction Volume and Treated Volumes						
Runoff Reduction Techniques/Standard SMP's			Total Contributing Area	Total Contributing Impervious Area	WQv Reduced (RRV)	WQv Treated
			(acres)	(acres)	(cf)	(cf)
RR Techniques	Conservation of Natural Areas	RR-1	0.00		0.00	
	Sheet Flow to Riparian Buffer/Filter Strip	RR-2	0.00	0.00	0.00	
	Tree Planting/Tree Pit/Tree Trench	RR-3	0.00	0.00	0.00	
	Disconnection of Rooftop Runoff	RR-4		0.00	0.00	
	Vegetated Swale	RR-5	0.00	0.00	0.00	
	Rain Garden	RR-6	0.00	0.00	0.00	
	Stormwater Planter	RR-7	0.00	0.00	0.00	
	Rainwater Harvesting Systems	RR-8	0.00	0.00	0.00	
	Porous Pavement	RR-9	0.22	0.22	835.65	
	Green Roof (Extensive & Intensive)	RR-10	0.00	0.00	0.00	
	Stream Daylighting	RR-11	0.00	0.00	0.00	
Standard SMPs w/ RRV Capacity	Infiltration Trench	I-1	0.00	0.00	0.00	0.00
	Infiltration Basin	I-2	0.00	0.00	0.00	0.00
	Dry Well	I-3	0.00	0.00	0.00	0.00
	Underground Infiltration System	I-4	0.00	0.00	0.00	0.00
	Infiltration Bioretention	F-4	0.00	0.00	0.00	0.00
	Filtration Bioretention	F-5	0.00	0.00	0.00	0.00
	Bioslope	F-6	0.00	0.00	0.00	0.00
	Dry swale	O-1	0.00	0.00	0.00	0.00
Standard SMPs	Micropool Extended Detention	P-1	0.00	0.00		0.00
	Wet Pond	P-2	0.00	0.00		0.00
	Wet Extended Detention	P-3	0.00	0.00		0.00
	Multiple Pond System	P-4	0.00	0.00		0.00
	Shallow Wetland	W-1	0.00	0.00		0.00
	Extended Detention Shallow Wetland	W-2	0.00	0.00		0.00
	Pond/Wetland System	W-3	0.00	0.00		0.00
	Pocket Wetland	W-4	0.00	0.00		0.00
	Gravel Wetland	W-5	0.00	0.00		0.00
	Surface Sand Filter	F-1	0.00	0.00		0.00
	Underground Sand Filter	F-2	0.00	0.00		0.00
	Perimeter Sand Filter	F-3	0.00	0.00		0.00
	Wet Swale	O-2	0.00	0.00		0.00
Alt. SMPs	Flow Based Alternative Practice	-	0.00	0.00		0.00
	Volume Based Alternative Practice	-	0.00	0.00		0.00
Totals by RR Technique →			0.22	0.22	835.65	
Totals by Standard SMP w/RRV →			0.00	0.00	0	0
Totals by Standard SMP →			0.00	0.00		0
Totals by Alternative SMP →			0.00	0.00		0
Totals (RR Techniques + all SMPs) →			0.22	0.22	835.65	0

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APPENDIX D: PRE-DEVELOPMENT STORMWATER MODELING

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Project Notes

Defined 9 rainfall events from extreme_precip_tables_output IDF

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Copied 9 events from extreme_precip_tables_output 24-hr S1 storm

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D_App D_Pre-Development Model

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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	extreme_precip_tables_output 24-hr S1	1-yr	Default	24.00	1	1.92	
2	10-yr	extreme_precip_tables_output 24-hr S1	10-yr	Default	24.00	1	3.08	
3	25-yr	extreme_precip_tables_output 24-hr S1	25-yr	Default	24.00	1	3.75	
4	100-yr	extreme_precip_tables_output 24-hr S1	100-yr	Default	24.00	1	5.05	

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.233	49	50-75% Grass cover, Fair, HSG A (ES-1)
0.660	98	Paved parking, HSG A (ES-1)
1.893	66	TOTAL AREA

D_App D_Pre-Development Model

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.893	HSG A	ES-1
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
1.893		TOTAL AREA

D_App D_Pre-Development Model

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.233	0.000	0.000	0.000	0.000	1.233	50-75% Grass cover, Fair	ES-1
0.660	0.000	0.000	0.000	0.000	0.660	Paved parking	ES-1
1.893	0.000	0.000	0.000	0.000	1.893	TOTAL AREA	

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: ES-1

Runoff Area=82,439 sf 34.86% Impervious Runoff Depth=0.13"
Flow Length=162' Tc=10.2 min CN=66 Runoff=0.09 cfs 0.021 af

Reach DP-1: Lake Flower

Inflow=0.09 cfs 0.021 af
Outflow=0.09 cfs 0.021 af

Total Runoff Area = 1.893 ac Runoff Volume = 0.021 af Average Runoff Depth = 0.13"
65.14% Pervious = 1.233 ac 34.86% Impervious = 0.660 ac

Summary for Subcatchment ES-1: ES-1

Runoff = 0.09 cfs @ 12.50 hrs, Volume= 0.021 af, Depth= 0.13"
 Routed to Reach DP-1 : Lake Flower

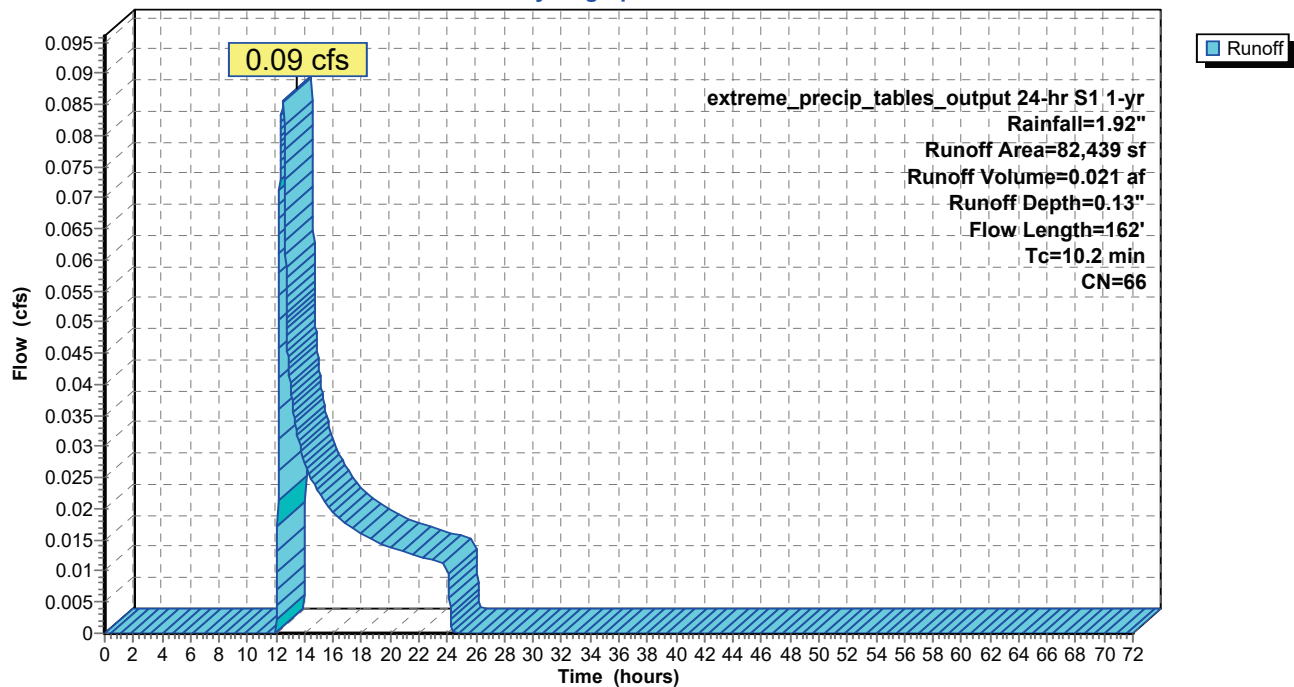
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 1-yr Rainfall=1.92"

Area (sf)	CN	Description
28,737	98	Paved parking, HSG A
53,702	49	50-75% Grass cover, Fair, HSG A
82,439	66	Weighted Average
53,702		65.14% Pervious Area
28,737		34.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0400	0.19		Sheet Flow, 100-ft sheet
					Grass: Short n= 0.150 P2= 2.19"
1.2	62	0.0160	0.89		Shallow Concentrated Flow, 62-ft scf
					Short Grass Pasture Kv= 7.0 fps
10.2	162	Total			

Subcatchment ES-1: ES-1

Hydrograph



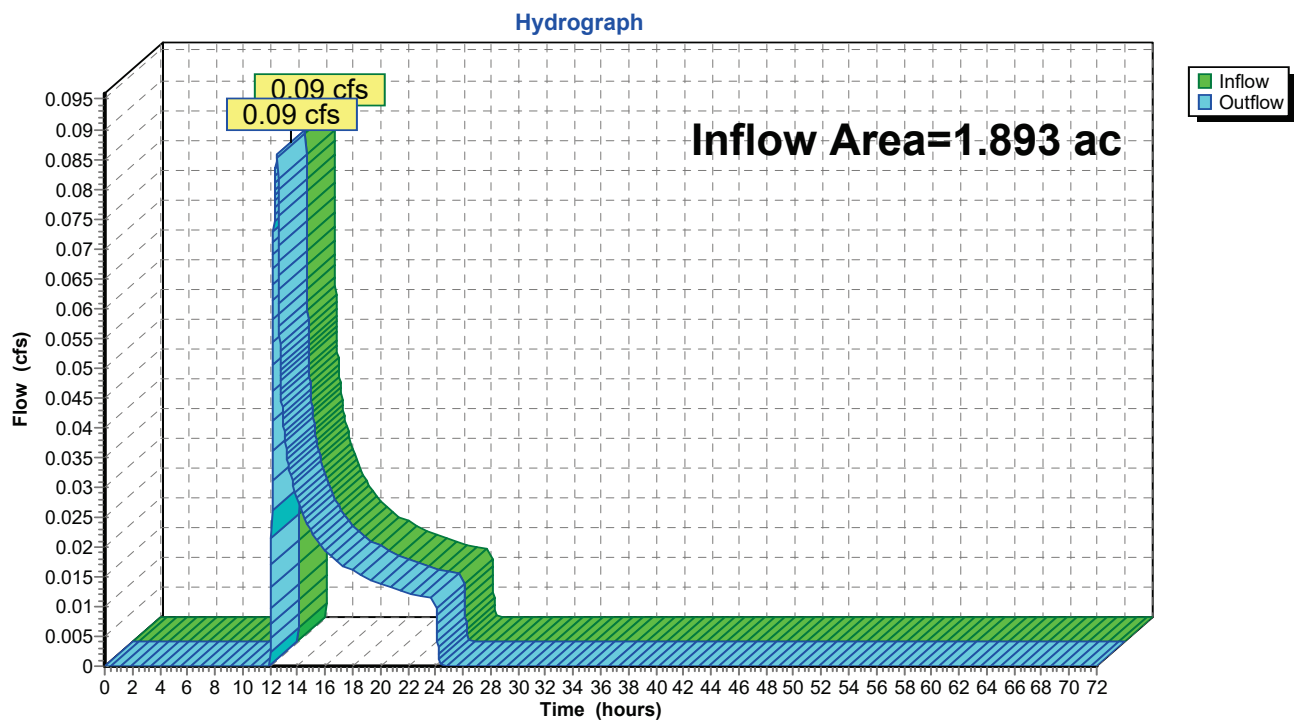
Summary for Reach DP-1: Lake Flower

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.893 ac, 34.86% Impervious, Inflow Depth = 0.13" for 1-yr event
Inflow = 0.09 cfs @ 12.50 hrs, Volume= 0.021 af
Outflow = 0.09 cfs @ 12.50 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Lake Flower



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: ES-1

Runoff Area=82,439 sf 34.86% Impervious Runoff Depth=0.58"
Flow Length=162' Tc=10.2 min CN=66 Runoff=0.94 cfs 0.092 af

Reach DP-1: Lake Flower

Inflow=0.94 cfs 0.092 af
Outflow=0.94 cfs 0.092 af

Total Runoff Area = 1.893 ac Runoff Volume = 0.092 af Average Runoff Depth = 0.58"
65.14% Pervious = 1.233 ac 34.86% Impervious = 0.660 ac

Summary for Subcatchment ES-1: ES-1

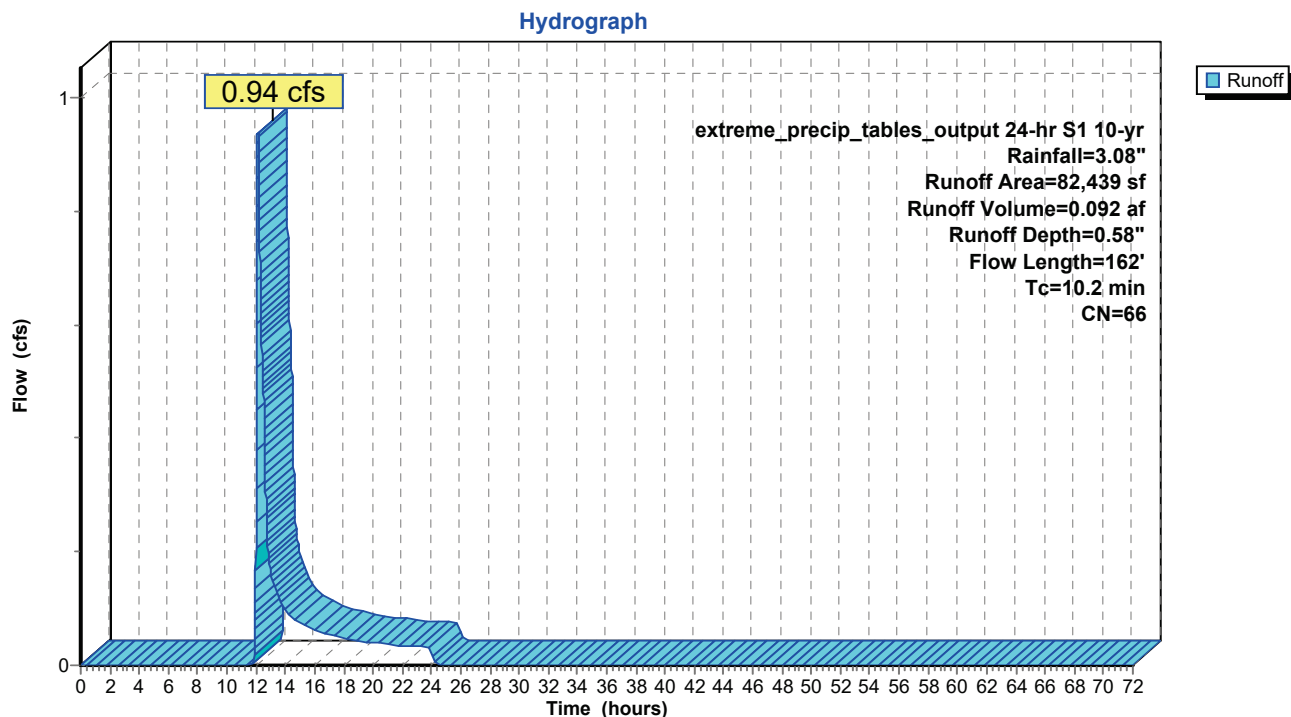
Runoff = 0.94 cfs @ 12.12 hrs, Volume= 0.092 af, Depth= 0.58"
 Routed to Reach DP-1 : Lake Flower

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 10-yr Rainfall=3.08"

Area (sf)	CN	Description
28,737	98	Paved parking, HSG A
53,702	49	50-75% Grass cover, Fair, HSG A
82,439	66	Weighted Average
53,702		65.14% Pervious Area
28,737		34.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0400	0.19		Sheet Flow, 100-ft sheet
					Grass: Short n= 0.150 P2= 2.19"
1.2	62	0.0160	0.89		Shallow Concentrated Flow, 62-ft scf
					Short Grass Pasture Kv= 7.0 fps
10.2	162	Total			

Subcatchment ES-1: ES-1



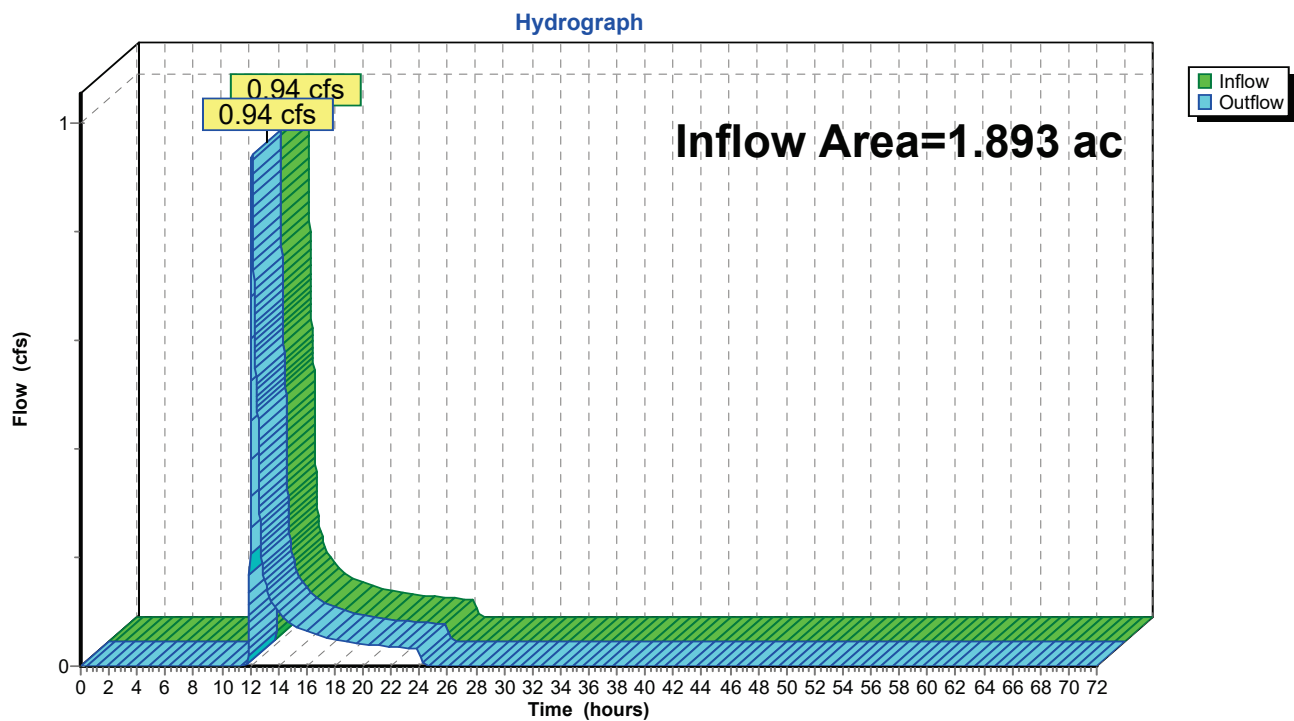
Summary for Reach DP-1: Lake Flower

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.893 ac, 34.86% Impervious, Inflow Depth = 0.58" for 10-yr event
Inflow = 0.94 cfs @ 12.12 hrs, Volume= 0.092 af
Outflow = 0.94 cfs @ 12.12 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Lake Flower



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: ES-1

Runoff Area=82,439 sf 34.86% Impervious Runoff Depth=0.94"
Flow Length=162' Tc=10.2 min CN=66 Runoff=1.75 cfs 0.148 af

Reach DP-1: Lake Flower

Inflow=1.75 cfs 0.148 af
Outflow=1.75 cfs 0.148 af

Total Runoff Area = 1.893 ac Runoff Volume = 0.148 af Average Runoff Depth = 0.94"
65.14% Pervious = 1.233 ac 34.86% Impervious = 0.660 ac

Summary for Subcatchment ES-1: ES-1

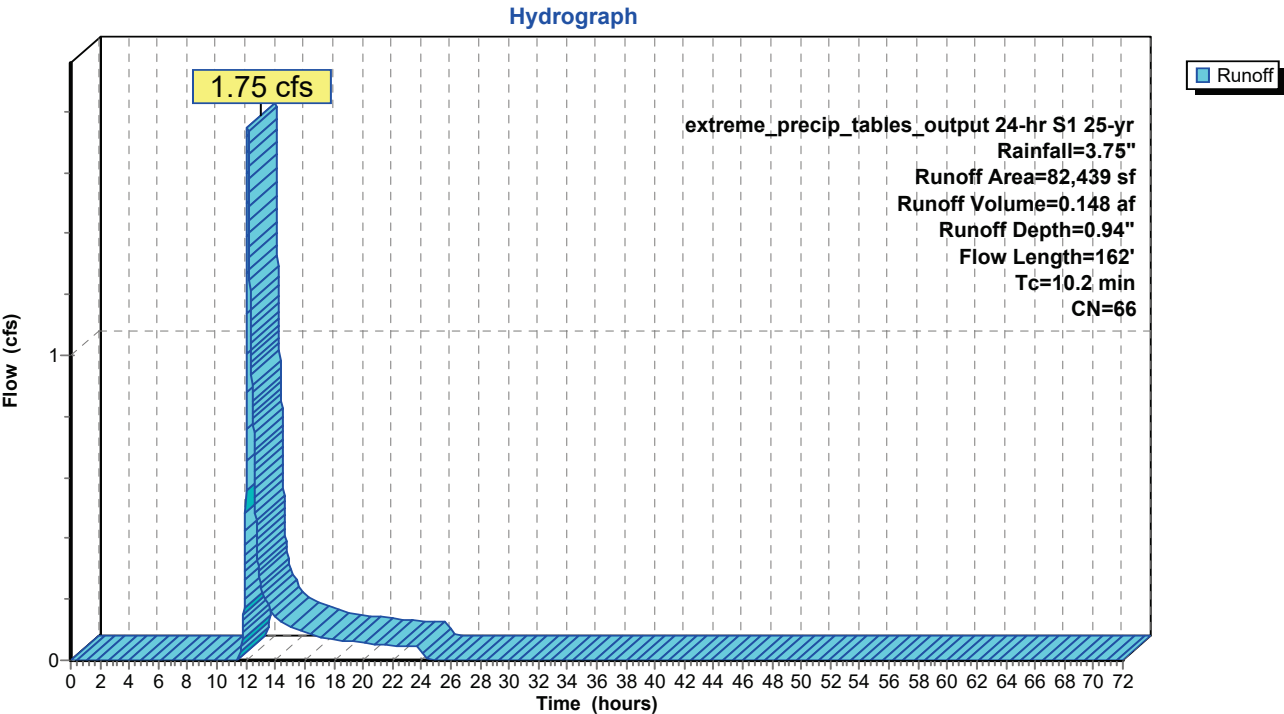
Runoff = 1.75 cfs @ 12.11 hrs, Volume= 0.148 af, Depth= 0.94"
Routed to Reach DP-1 : Lake Flower

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
extreme_precip_tables_output 24-hr S1 25-yr Rainfall=3.75"

Area (sf)	CN	Description
28,737	98	Paved parking, HSG A
53,702	49	50-75% Grass cover, Fair, HSG A
82,439	66	Weighted Average
53,702		65.14% Pervious Area
28,737		34.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0400	0.19		Sheet Flow, 100-ft sheet
1.2	62	0.0160	0.89		Grass: Short n= 0.150 P2= 2.19"
					Shallow Concentrated Flow, 62-ft scf
					Short Grass Pasture Kv= 7.0 fps
10.2	162	Total			

Subcatchment ES-1: ES-1



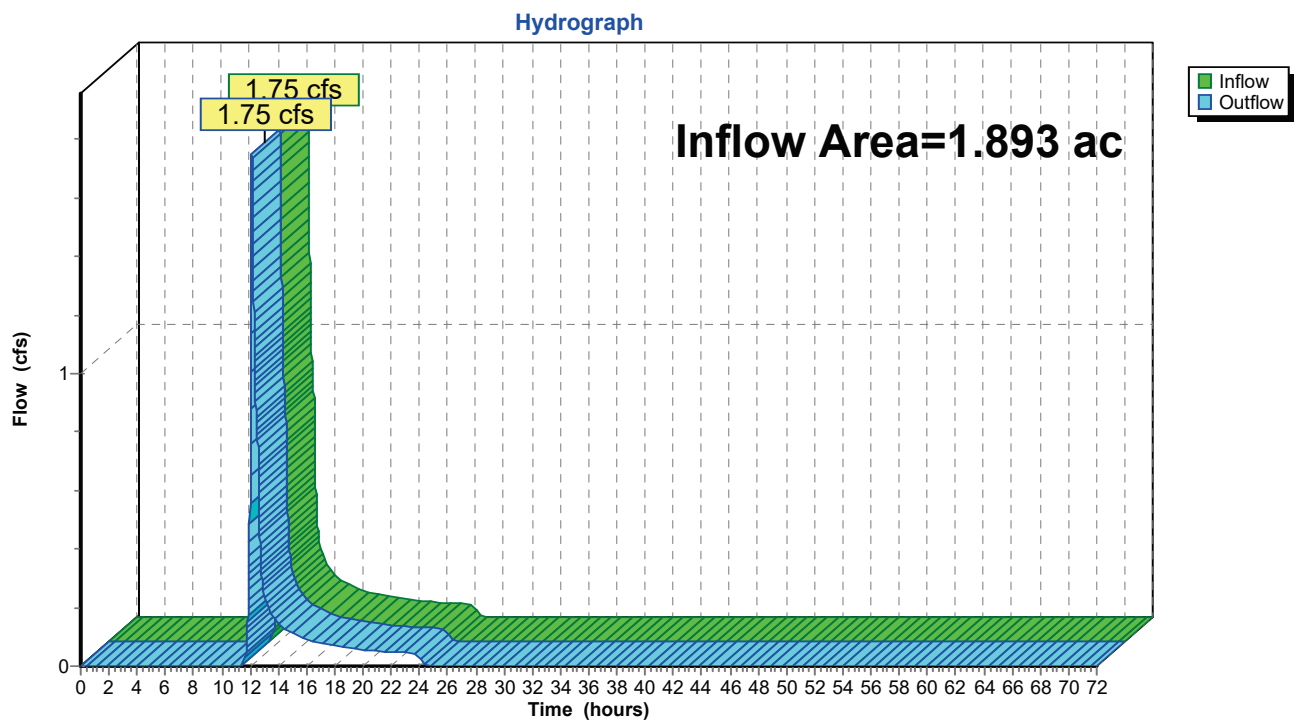
Summary for Reach DP-1: Lake Flower

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.893 ac, 34.86% Impervious, Inflow Depth = 0.94" for 25-yr event
Inflow = 1.75 cfs @ 12.11 hrs, Volume= 0.148 af
Outflow = 1.75 cfs @ 12.11 hrs, Volume= 0.148 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Lake Flower



Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment ES-1: ES-1

Runoff Area=82,439 sf 34.86% Impervious Runoff Depth=1.76"
Flow Length=162' Tc=10.2 min CN=66 Runoff=3.62 cfs 0.278 af

Reach DP-1: Lake Flower

Inflow=3.62 cfs 0.278 af
Outflow=3.62 cfs 0.278 af

Total Runoff Area = 1.893 ac Runoff Volume = 0.278 af Average Runoff Depth = 1.76"
65.14% Pervious = 1.233 ac 34.86% Impervious = 0.660 ac

Summary for Subcatchment ES-1: ES-1

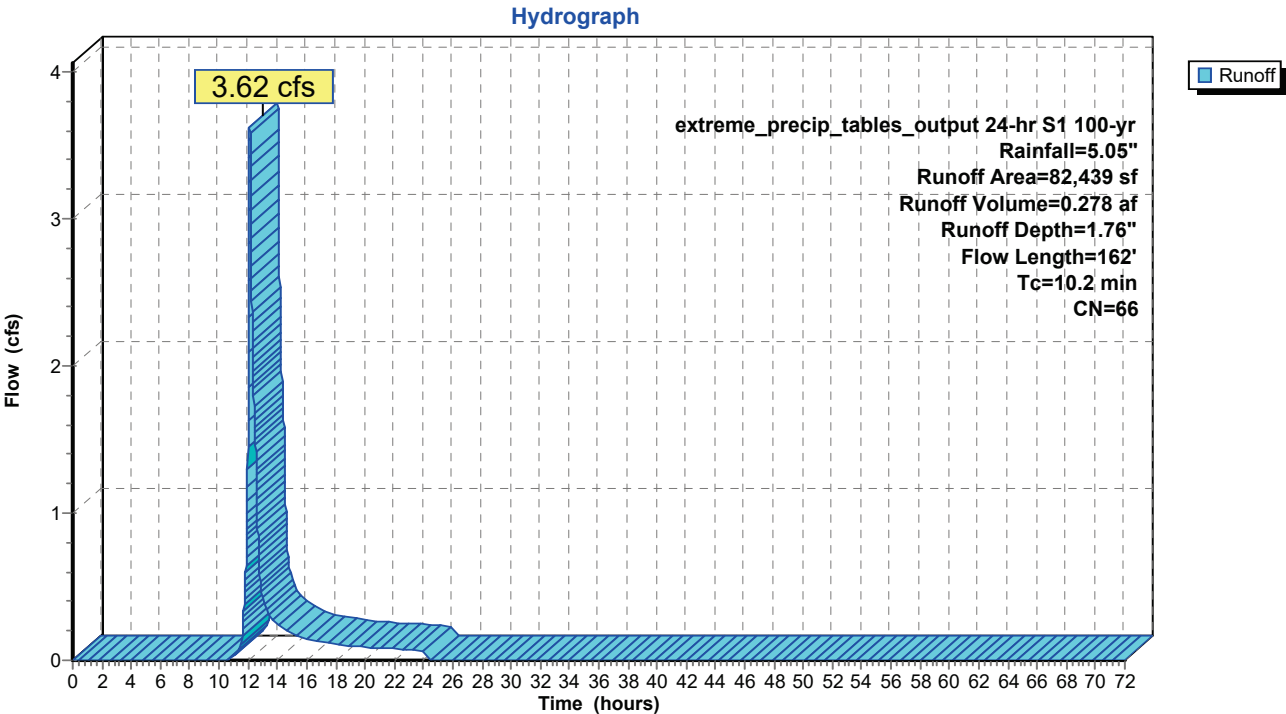
Runoff = 3.62 cfs @ 12.10 hrs, Volume= 0.278 af, Depth= 1.76"
Routed to Reach DP-1 : Lake Flower

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
extreme_precip_tables_output 24-hr S1 100-yr Rainfall=5.05"

Area (sf)	CN	Description
28,737	98	Paved parking, HSG A
53,702	49	50-75% Grass cover, Fair, HSG A
82,439	66	Weighted Average
53,702		65.14% Pervious Area
28,737		34.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.0	100	0.0400	0.19		Sheet Flow, 100-ft sheet
1.2	62	0.0160	0.89		Grass: Short n= 0.150 P2= 2.19"
					Shallow Concentrated Flow, 62-ft scf
					Short Grass Pasture Kv= 7.0 fps
10.2	162	Total			

Subcatchment ES-1: ES-1



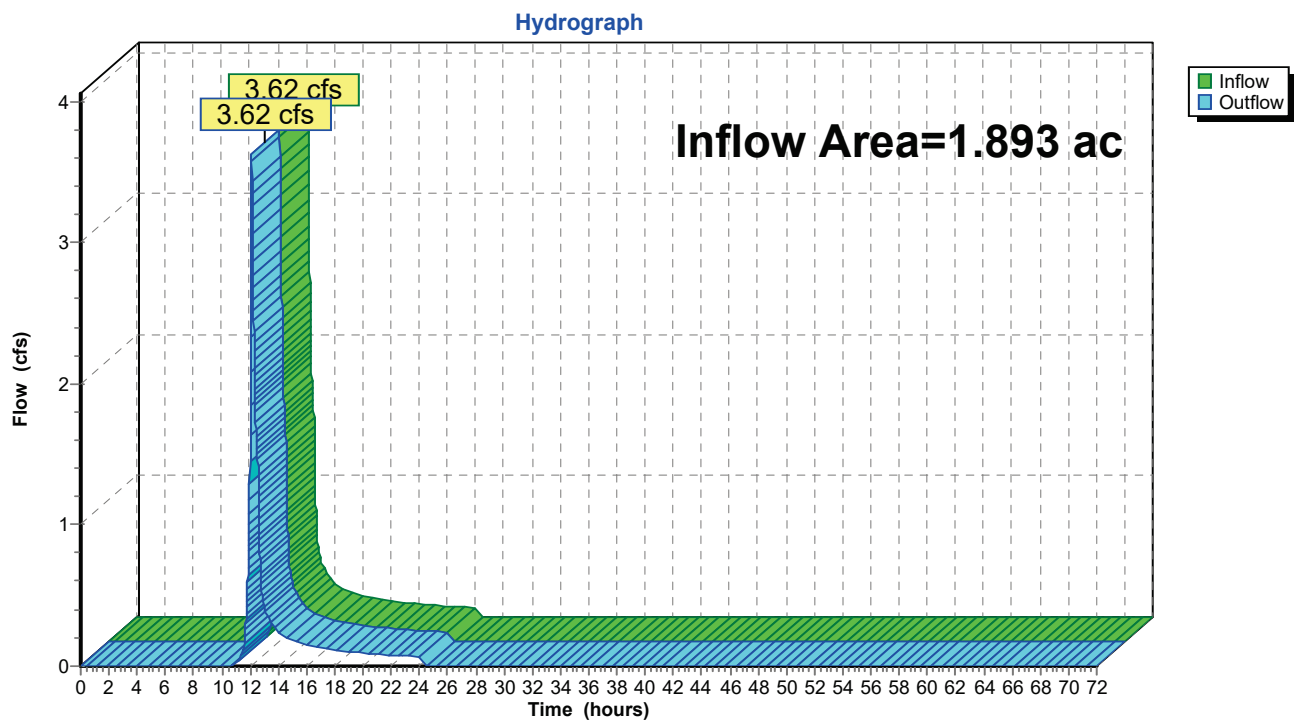
Summary for Reach DP-1: Lake Flower

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.893 ac, 34.86% Impervious, Inflow Depth = 1.76" for 100-yr event
Inflow = 3.62 cfs @ 12.10 hrs, Volume= 0.278 af
Outflow = 3.62 cfs @ 12.10 hrs, Volume= 0.278 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

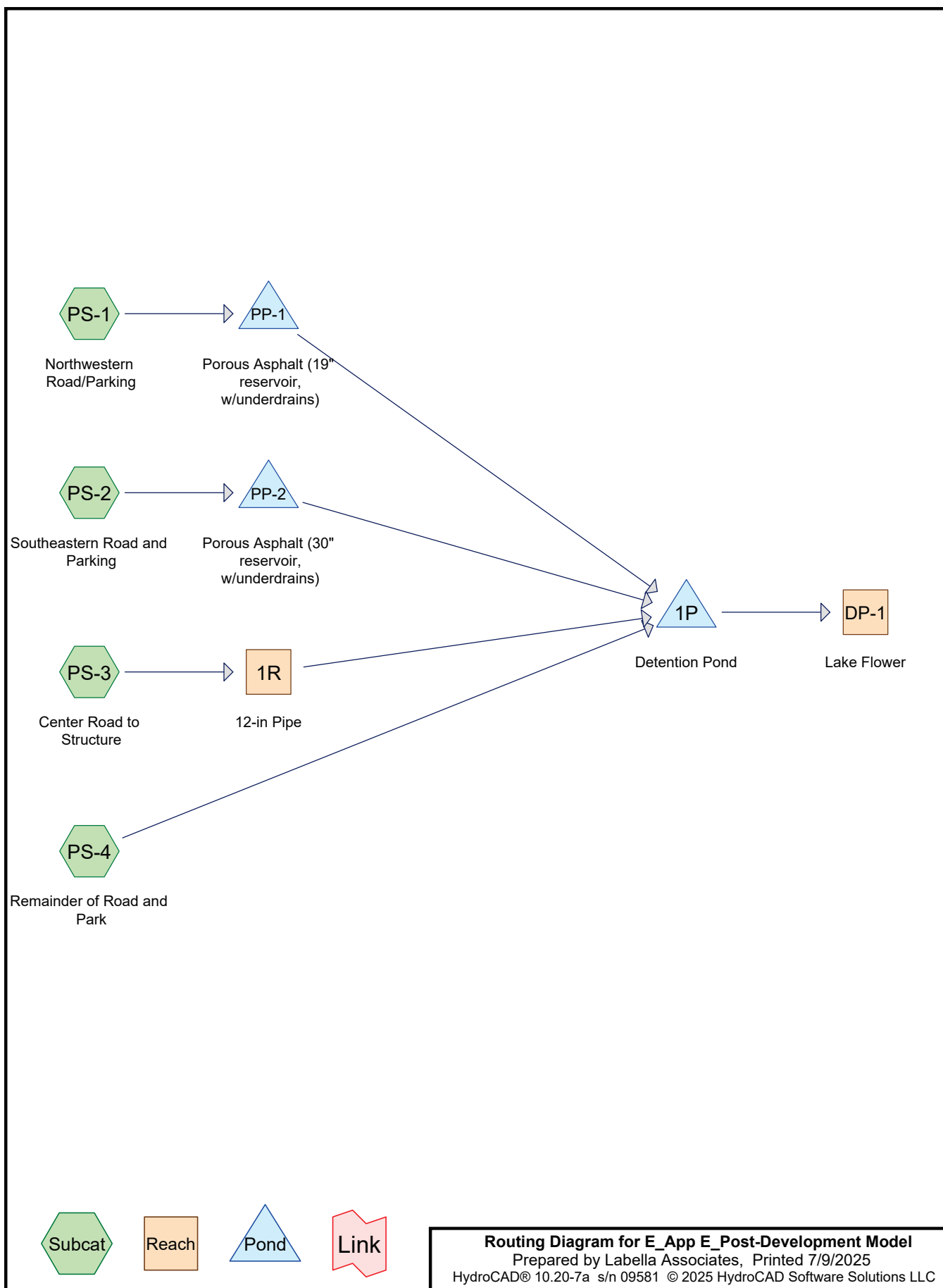
Reach DP-1: Lake Flower





APPENDIX E: POST-DEVELOPMENT STORMWATER MODELING

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E_App E_Post-Development Model

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Project Notes

Defined 9 rainfall events from extreme_precip_tables_output IDF

Copied 9 events from extreme_precip_tables_output 24-hr S1 storm

Copied 9 events from extreme_precip_tables_output 24-hr S1 storm

Copied 9 events from extreme_precip_tables_output 24-hr S1 storm

Copied 9 events from extreme_precip_tables_output 24-hr S1 storm

E_App E_Post-Development Model

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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	extreme_precip_tables_output 24-hr S1	1-yr	Default	24.00	1	1.92	
2	10-yr	extreme_precip_tables_output 24-hr S1	10-yr	Default	24.00	1	3.08	
3	100-yr	extreme_precip_tables_output 24-hr S1	100-yr	Default	24.00	1	5.05	

E_App E_Post-Development Model

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.322	49	50-75% Grass cover, Fair, HSG A (PS-4)
0.571	98	Paved parking, HSG A (PS-1, PS-2, PS-3, PS-4)
1.893	64	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.893	HSG A	PS-1, PS-2, PS-3, PS-4
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
1.893		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.322	0.000	0.000	0.000	0.000	1.322	50-75% Grass cover, Fair	PS-4
0.571	0.000	0.000	0.000	0.000	0.571	Paved parking	PS-1, PS-2, PS-3, PS-4
1.893	0.000	0.000	0.000	0.000	1.893	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	1R	1,530.50	1,530.01	98.0	0.0050	0.020	0.0	12.0	0.0	
2	PP-1	1,530.25	1,530.03	45.0	0.0049	0.020	0.0	12.0	0.0	
3	PP-2	1,529.00	1,528.77	47.0	0.0049	0.020	0.0	12.0	0.0	

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPS-1: Northwestern Runoff Area=4,620 sf 100.00% Impervious Runoff Depth=1.70"
 Flow Length=75' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.25 cfs 0.015 af

SubcatchmentPS-2: Southeastern Road Runoff Area=5,827 sf 100.00% Impervious Runoff Depth=1.70"
 Flow Length=83' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.32 cfs 0.019 af

SubcatchmentPS-3: Center Road to Runoff Area=414 sf 100.00% Impervious Runoff Depth=1.70"
 Flow Length=38' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.02 cfs 0.001 af

SubcatchmentPS-4: Remainder of Road Runoff Area=71,578 sf 19.55% Impervious Runoff Depth=0.04"
 Flow Length=137' Tc=12.6 min CN=59 Runoff=0.01 cfs 0.005 af

Reach 1R: 12-in Pipe Avg. Flow Depth=0.08' Max Vel=0.72 fps Inflow=0.02 cfs 0.001 af
 12.0" Round Pipe n=0.020 L=98.0' S=0.0050 '/' Capacity=1.64 cfs Outflow=0.02 cfs 0.001 af

Reach DP-1: Lake Flower Inflow=0.00 cfs 0.000 af
 Outflow=0.00 cfs 0.000 af

Pond 1P: Detention Pond Peak Elev=1,529.16' Storage=1,758 cf Inflow=0.22 cfs 0.040 af
 Outflow=0.00 cfs 0.000 af

Pond PP-1: Porous Asphalt(19" reservoir, Peak Elev=1,530.49' Storage=65 cf Inflow=0.25 cfs 0.015 af
 Outflow=0.14 cfs 0.015 af

Pond PP-2: Porous Asphalt(30" reservoir, Peak Elev=1,529.19' Storage=260 cf Inflow=0.32 cfs 0.019 af
 Outflow=0.09 cfs 0.019 af

Total Runoff Area = 1.893 ac Runoff Volume = 0.040 af Average Runoff Depth = 0.26"
69.85% Pervious = 1.322 ac 30.15% Impervious = 0.571 ac

Summary for Subcatchment PS-1: Northwestern Road/Parking

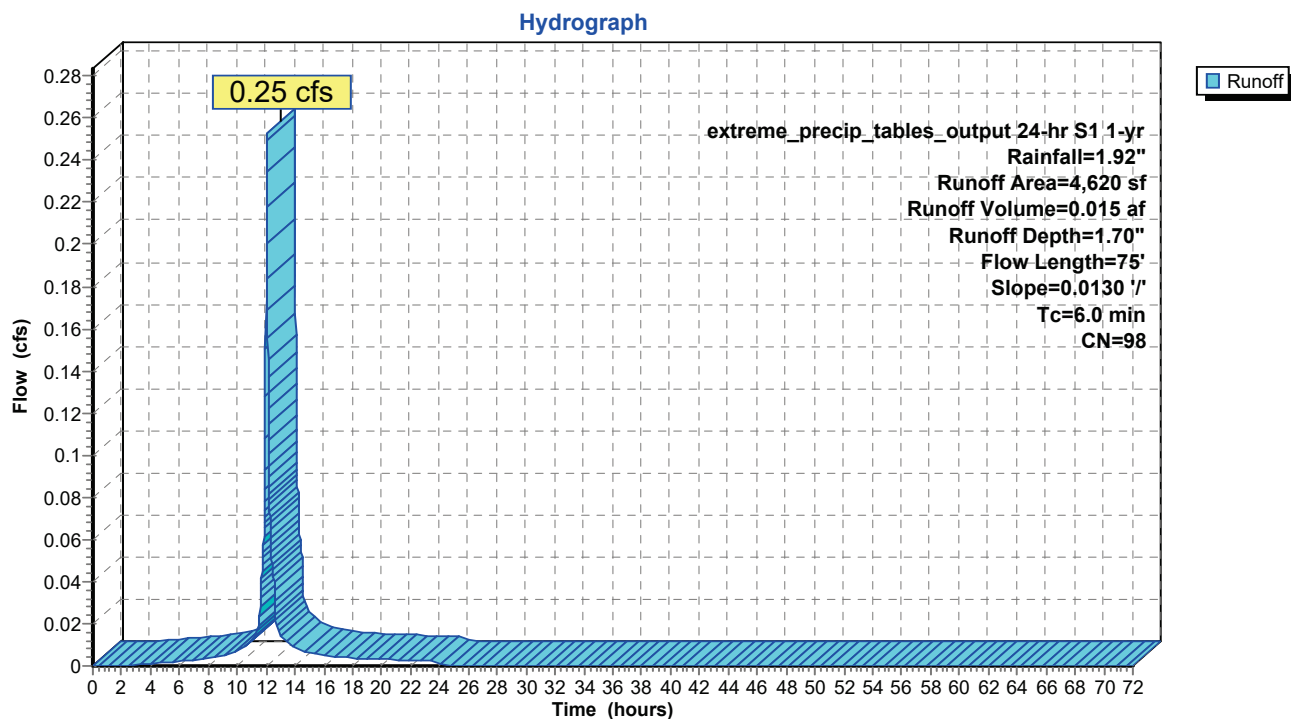
Runoff = 0.25 cfs @ 12.04 hrs, Volume= 0.015 af, Depth= 1.70"
 Routed to Pond PP-1 : Porous Asphalt (19" reservoir, w/underdrains)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 1-yr Rainfall=1.92"

Area (sf)	CN	Description
4,620	98	Paved parking, HSG A
4,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	75	0.0130	0.90		Sheet Flow, 75-ft Pavement Smooth surfaces n= 0.011 P2= 2.19"
1.4	75	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-1: Northwestern Road/Parking



Summary for Subcatchment PS-2: Southeastern Road and Parking

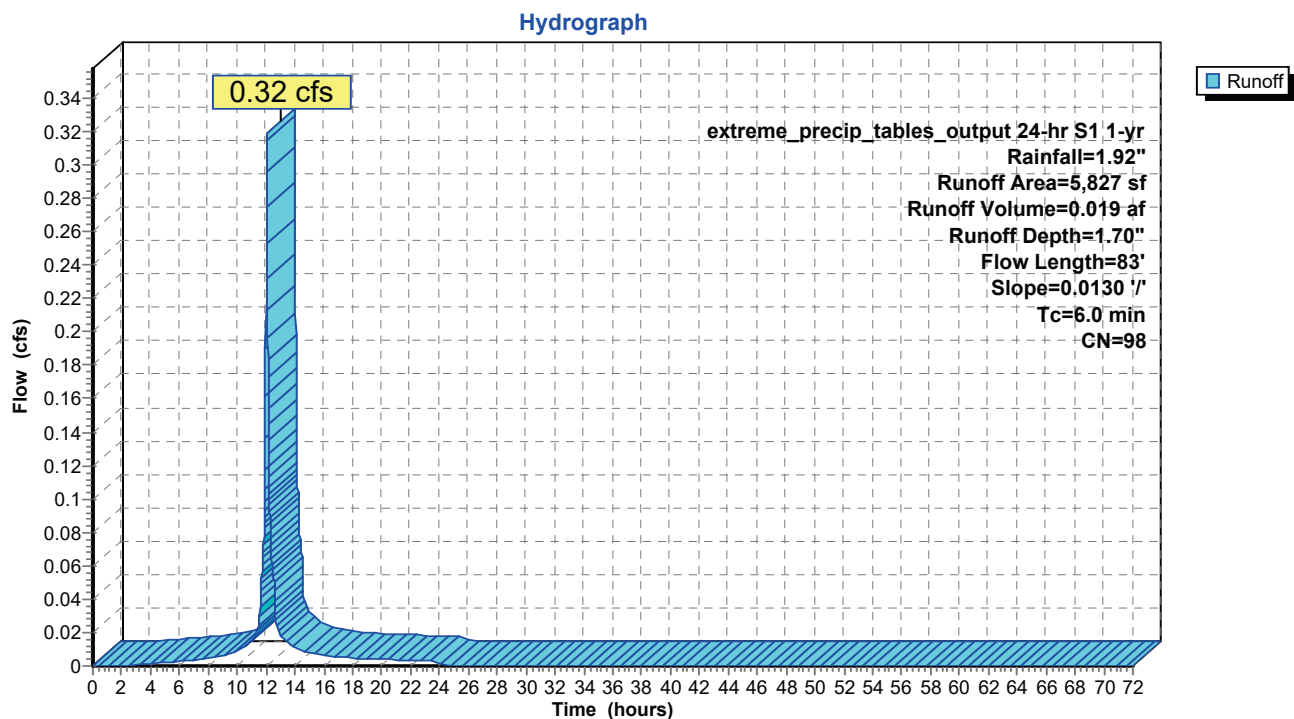
Runoff = 0.32 cfs @ 12.04 hrs, Volume= 0.019 af, Depth= 1.70"
 Routed to Pond PP-2 : Porous Asphalt (30" reservoir, w/underdrains)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 1-yr Rainfall=1.92"

Area (sf)	CN	Description
5,827	98	Paved parking, HSG A
5,827		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	83	0.0130	0.92		Sheet Flow, 83-ft Paved Smooth surfaces n= 0.011 P2= 2.19"
1.5	83	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-2: Southeastern Road and Parking



Summary for Subcatchment PS-3: Center Road to Structure

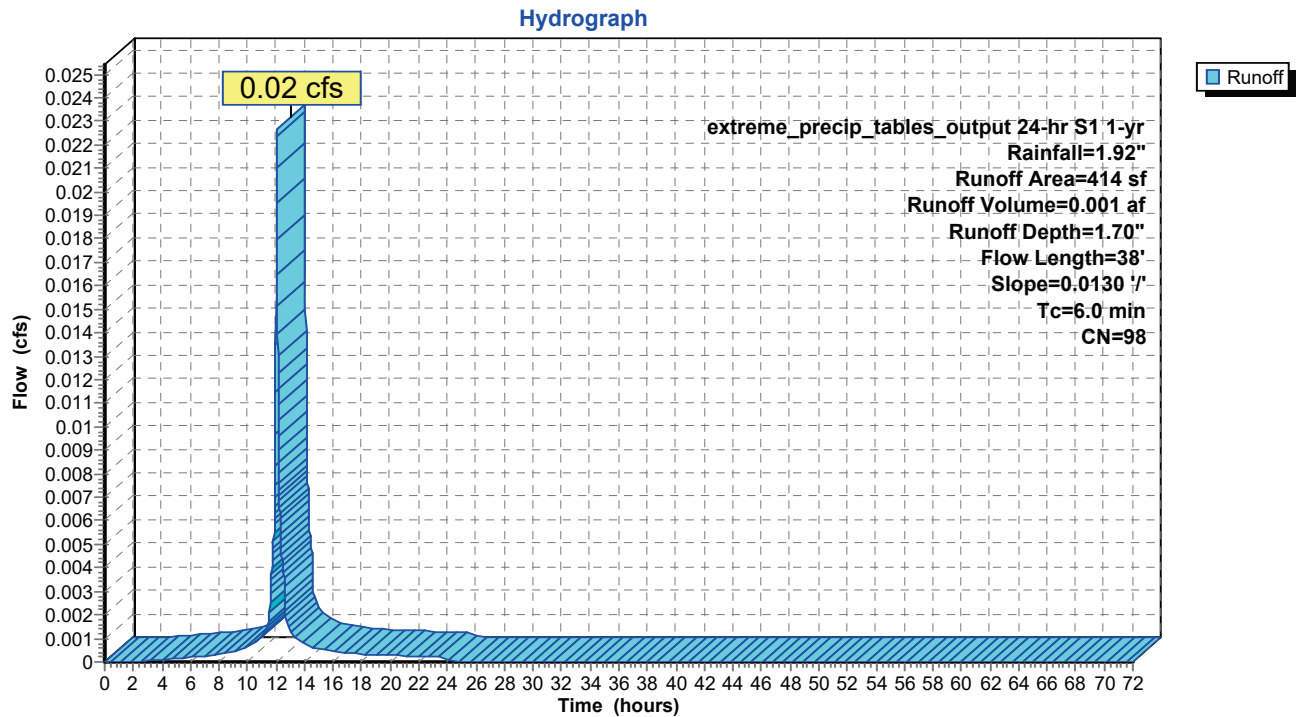
Runoff = 0.02 cfs @ 12.04 hrs, Volume= 0.001 af, Depth= 1.70"
 Routed to Reach 1R : 12-in Pipe

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 1-yr Rainfall=1.92"

Area (sf)	CN	Description
414	98	Paved parking, HSG A
414		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	38	0.0130	0.79		Sheet Flow, 38-ft Paved
					Smooth surfaces n= 0.011 P2= 2.19"
0.8	38	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-3: Center Road to Structure



Summary for Subcatchment PS-4: Remainder of Road and Park

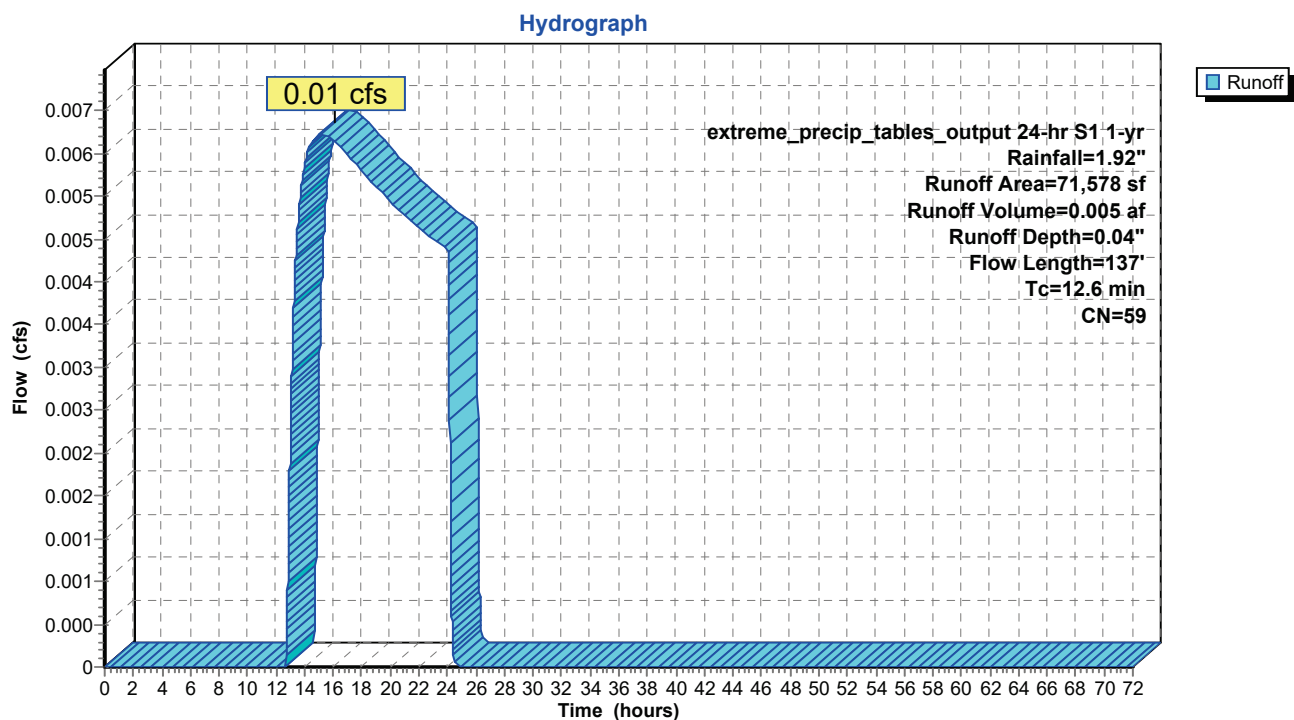
Runoff = 0.01 cfs @ 15.19 hrs, Volume= 0.005 af, Depth= 0.04"
 Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 1-yr Rainfall=1.92"

Area (sf)	CN	Description
13,992	98	Paved parking, HSG A
57,586	49	50-75% Grass cover, Fair, HSG A
71,578	59	Weighted Average
57,586		80.45% Pervious Area
13,992		19.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	67	0.0440	0.18		Sheet Flow, 67-ft Sheet
					Grass: Short n= 0.150 P2= 2.19"
0.1	7	0.0440	0.92		Sheet Flow, 6.55-ft Paved
					Smooth surfaces n= 0.011 P2= 2.19"
5.3	26	0.0100	0.08		Sheet Flow, 26-ft Sheet
					Grass: Short n= 0.150 P2= 2.19"
0.9	37	0.0100	0.70		Shallow Concentrated Flow, 37-ft SCF
					Short Grass Pasture Kv= 7.0 fps
12.6	137	Total			

Subcatchment PS-4: Remainder of Road and Park



Summary for Reach 1R: 12-in Pipe

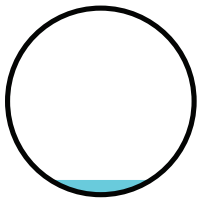
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.010 ac, 100.00% Impervious, Inflow Depth = 1.70" for 1-yr event
Inflow = 0.02 cfs @ 12.04 hrs, Volume= 0.001 af
Outflow = 0.02 cfs @ 12.06 hrs, Volume= 0.001 af, Atten= 7%, Lag= 1.4 min
Routed to Pond 1P : Detention Pond

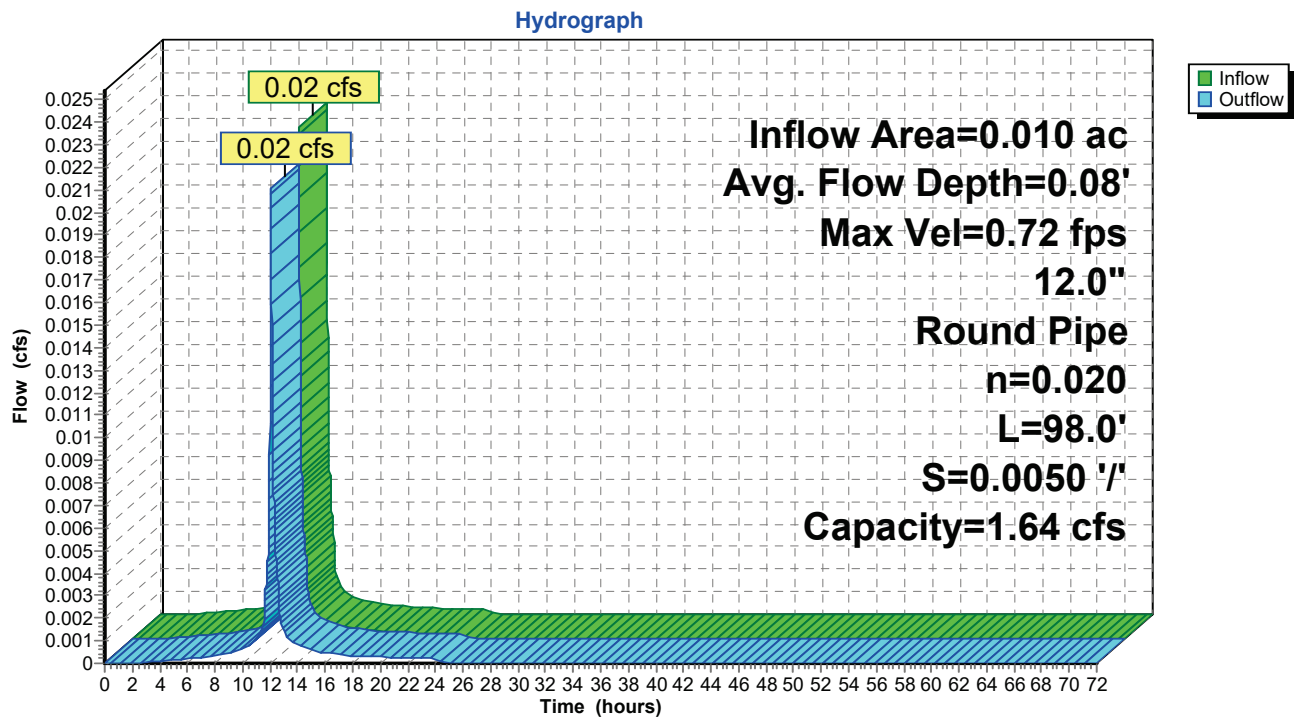
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.72 fps, Min. Travel Time= 2.3 min
Avg. Velocity= 0.23 fps, Avg. Travel Time= 7.0 min

Peak Storage= 3 cf @ 12.06 hrs
Average Depth at Peak Storage= 0.08' , Surface Width= 0.54'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 1.64 cfs

12.0" Round Pipe
n= 0.020 Corrugated PE, corrugated interior
Length= 98.0' Slope= 0.0050 '/'
Inlet Invert= 1,530.50', Outlet Invert= 1,530.01'



Reach 1R: 12-in Pipe



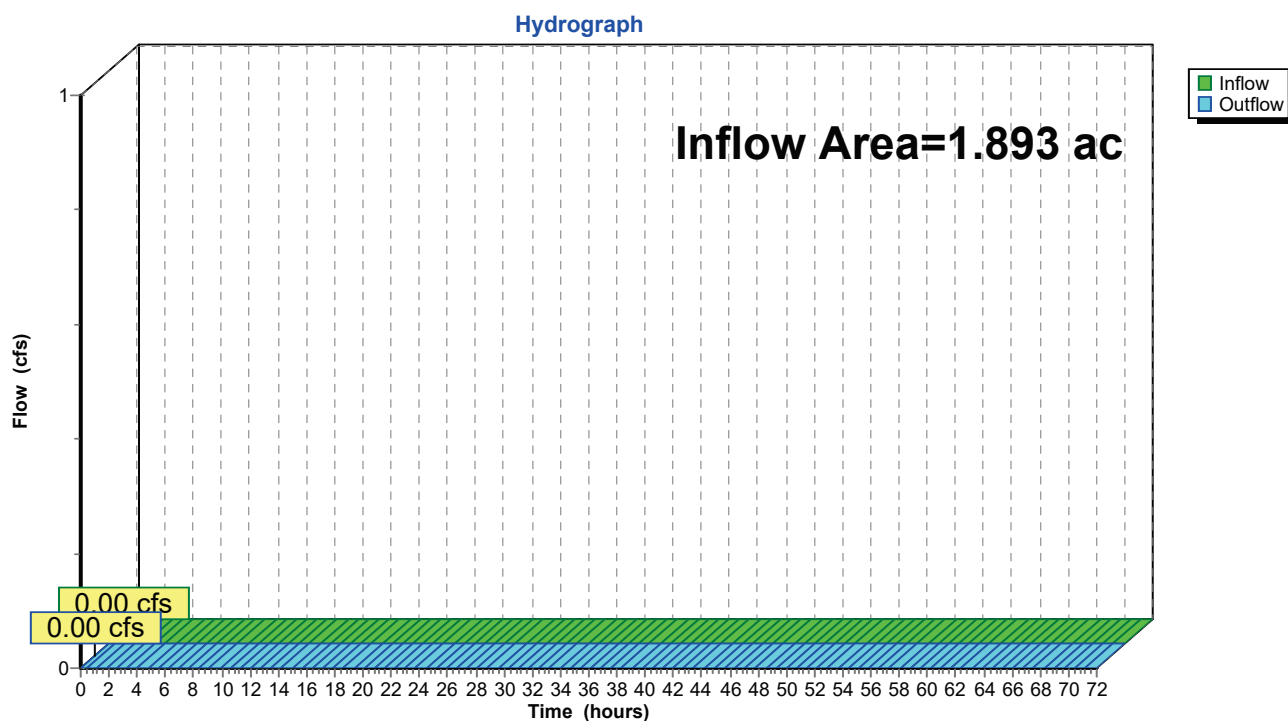
Summary for Reach DP-1: Lake Flower

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.893 ac, 30.15% 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

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Lake Flower



Summary for Pond 1P: Detention Pond

[78] Warning: Submerged Pond PP-2 Primary device # 1 by 0.57'
 [80] Warning: Exceeded Pond PP-2 by 0.57' @ 26.98 hrs (0.07 cfs 0.281 af)

Inflow Area = 1.893 ac, 30.15% Impervious, Inflow Depth = 0.26" for 1-yr event
 Inflow = 0.22 cfs @ 12.19 hrs, Volume= 0.040 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP-1 : Lake Flower

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,529.16' @ 26.98 hrs Surf.Area= 2,944 sf Storage= 1,758 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)



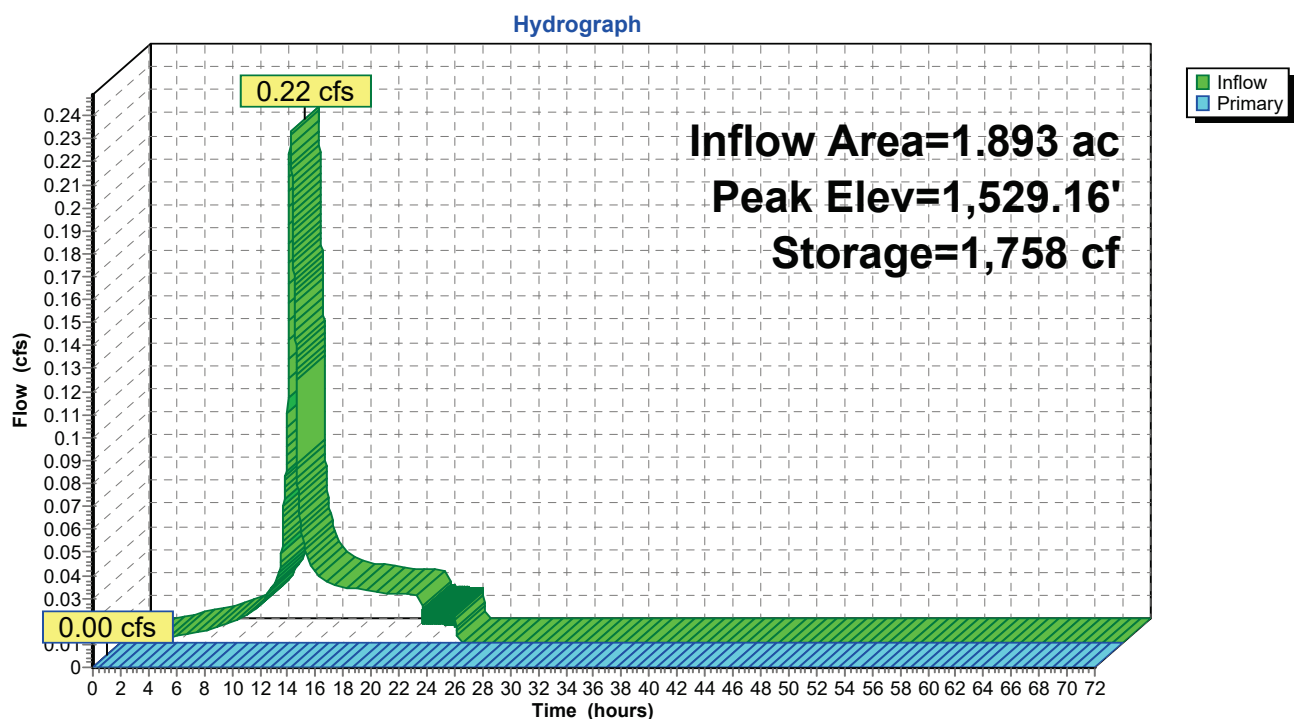
Volume	Invert	Avail.Storage	Storage Description
#1	1,528.00'	7,989 cf	Pond (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,528.00	106	0	0
1,529.00	2,518	1,312	1,312
1,530.00	5,122	3,820	5,132
1,530.50	6,306	2,857	7,989

Device	Routing	Invert	Outlet Devices
#1	Primary	1,529.50'	12.0' long x 6.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=1,528.00' TW=0.00' (Dynamic Tailwater)
 ↑1=**Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 1P: Detention Pond



Summary for Pond PP-1: Porous Asphalt (19" reservoir, w/underdrains)

[44] Hint: Outlet device #2 is below defined storage

[87] Warning: Oscillations may require smaller dt or Finer Routing (severity=565)

Inflow Area = 0.106 ac, 100.00% Impervious, Inflow Depth = 1.70" for 1-yr event
 Inflow = 0.25 cfs @ 12.04 hrs, Volume= 0.015 af
 Outflow = 0.14 cfs @ 12.13 hrs, Volume= 0.015 af, Atten= 45%, Lag= 5.5 min
 Primary = 0.14 cfs @ 12.13 hrs, Volume= 0.015 af
 Routed to Pond 1P : Detention Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,530.49' @ 12.13 hrs Surf.Area= 1,583 sf Storage= 65 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 2.2 min (772.1 - 769.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,530.39'	526 cf	10" Drainage Course (Prismatic) Listed below (Recalc) 1,314 cf Overall x 40.0% Voids
#2	1,531.22'	1,013 cf	19" Reservoir (Prismatic) Listed below (Recalc) 2,533 cf Overall x 40.0% Voids
#3	1,532.82'	367 cf	1" Choker, 3" Binder, 3" Top (Prismatic) Listed below (Recalc) 918 cf Overall x 40.0% Voids
		1,906 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,530.39	1,583	0	0
1,531.22	1,583	1,314	1,314

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,531.22	1,583	0	0
1,532.82	1,583	2,533	2,533

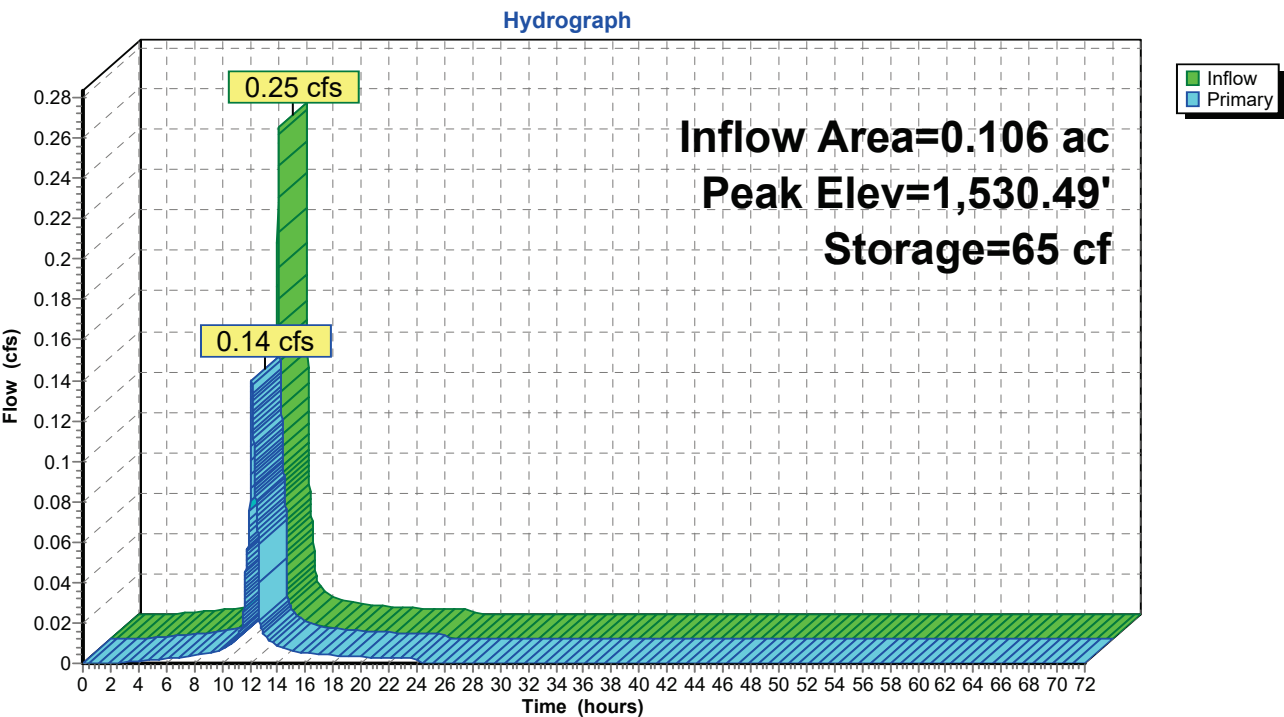
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,532.82	1,583	0	0
1,533.40	1,583	918	918

Device	Routing	Invert	Outlet Devices
#1	Primary	1,530.39'	0.500 in/hr Exfiltration over Surface area
#2	Primary	1,530.25'	12.0" Round Culvert L= 45.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,530.25' / 1,530.03' S= 0.0049 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.14 cfs @ 12.13 hrs HW=1,530.49' TW=1,528.60' (Dynamic Tailwater)

↑ **1=Exfiltration** (Exfiltration Controls 0.02 cfs)
 ↓ **2=Culvert** (Barrel Controls 0.12 cfs @ 1.24 fps)

Pond PP-1: Porous Asphalt (19" reservoir, w/underdrains)



Summary for Pond PP-2: Porous Asphalt (30" reservoir, w/underdrains)

[87] Warning: Oscillations may require smaller dt or Finer Routing (severity=123)

Inflow Area = 0.134 ac, 100.00% Impervious, Inflow Depth = 1.70" for 1-yr event
 Inflow = 0.32 cfs @ 12.04 hrs, Volume= 0.019 af
 Outflow = 0.09 cfs @ 12.26 hrs, Volume= 0.019 af, Atten= 72%, Lag= 13.7 min
 Primary = 0.09 cfs @ 12.26 hrs, Volume= 0.019 af
 Routed to Pond 1P : Detention Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,529.19' @ 12.26 hrs Surf.Area= 1,076 sf Storage= 260 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 95.4 min (865.3 - 769.9)

Volume	Invert	Avail.Storage	Storage Description
#1	1,528.59'	357 cf	10" Drainage Course (Prismatic) Listed below (Recalc) 893 cf Overall x 40.0% Voids
#2	1,529.42'	1,076 cf	30" Reservoir (Prismatic) Listed below (Recalc) 2,690 cf Overall x 40.0% Voids
#3	1,531.92'	250 cf	1" Choker, 3" Binder, 3" Top (Prismatic) Listed below (Recalc) 624 cf Overall x 40.0% Voids
		1,683 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,528.59	1,076	0	0
1,529.42	1,076	893	893

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,529.42	1,076	0	0
1,531.92	1,076	2,690	2,690

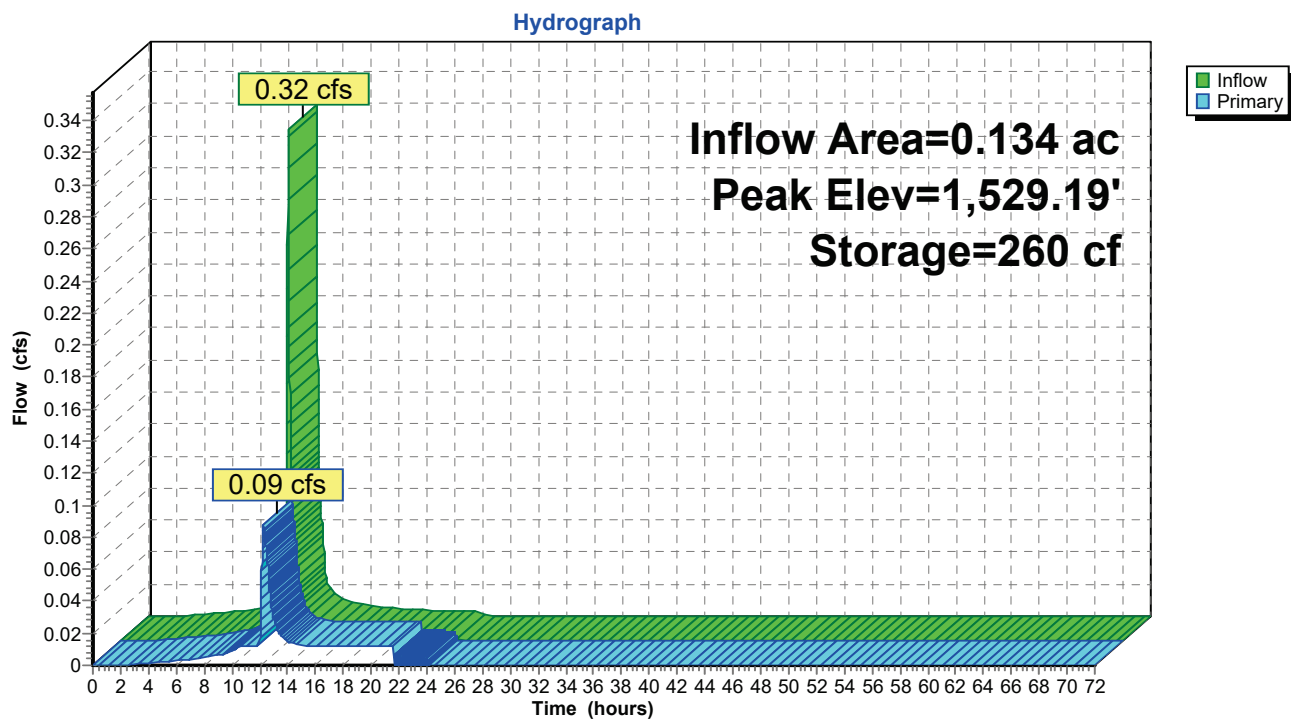
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,531.92	1,076	0	0
1,532.50	1,076	624	624

Device	Routing	Invert	Outlet Devices
#1	Primary	1,528.59'	0.500 in/hr Exfiltration over Surface area
#2	Primary	1,529.00'	12.0" Round Culvert L= 47.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,529.00' / 1,528.77' S= 0.0049 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.09 cfs @ 12.26 hrs HW=1,529.19' TW=1,528.66' (Dynamic Tailwater)

1=Exfiltration (Exfiltration Controls 0.01 cfs)
 2=Culvert (Barrel Controls 0.08 cfs @ 1.07 fps)

Pond PP-2: Porous Asphalt (30" reservoir, w/underdrains)



E_App E_Post-Development Modextreme_precip_tables_output 24-hr S1 10-yr Rainfall=3.08"

Prepared by Labella Associates

Printed 7/9/2025

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPS-1: Northwestern Runoff Area=4,620 sf 100.00% Impervious Runoff Depth=2.85"
Flow Length=75' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.39 cfs 0.025 af

SubcatchmentPS-2: Southeastern Road Runoff Area=5,827 sf 100.00% Impervious Runoff Depth=2.85"
Flow Length=83' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.50 cfs 0.032 af

SubcatchmentPS-3: Center Road to Runoff Area=414 sf 100.00% Impervious Runoff Depth=2.85"
Flow Length=38' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.04 cfs 0.002 af

SubcatchmentPS-4: Remainder of Road Runoff Area=71,578 sf 19.55% Impervious Runoff Depth=0.33"
Flow Length=137' Tc=12.6 min CN=59 Runoff=0.27 cfs 0.045 af

Reach 1R: 12-in Pipe Avg. Flow Depth=0.10' Max Vel=0.83 fps Inflow=0.04 cfs 0.002 af
12.0" Round Pipe n=0.020 L=98.0' S=0.0050 '/' Capacity=1.64 cfs Outflow=0.03 cfs 0.002 af

Reach DP-1: Lake Flower Inflow=0.06 cfs 0.038 af
Outflow=0.06 cfs 0.038 af

Pond 1P: Detention Pond Peak Elev=1,529.52' Storage=2,959 cf Inflow=0.77 cfs 0.104 af
Outflow=0.06 cfs 0.038 af

Pond PP-1: Porous Asphalt(19" reservoir, Peak Elev=1,530.58' Storage=119 cf Inflow=0.39 cfs 0.025 af
Outflow=0.24 cfs 0.025 af

Pond PP-2: Porous Asphalt(30" reservoir, Peak Elev=1,529.41' Storage=354 cf Inflow=0.50 cfs 0.032 af
Outflow=0.32 cfs 0.032 af

Total Runoff Area = 1.893 ac Runoff Volume = 0.104 af Average Runoff Depth = 0.66"
69.85% Pervious = 1.322 ac 30.15% Impervious = 0.571 ac

Summary for Subcatchment PS-1: Northwestern Road/Parking

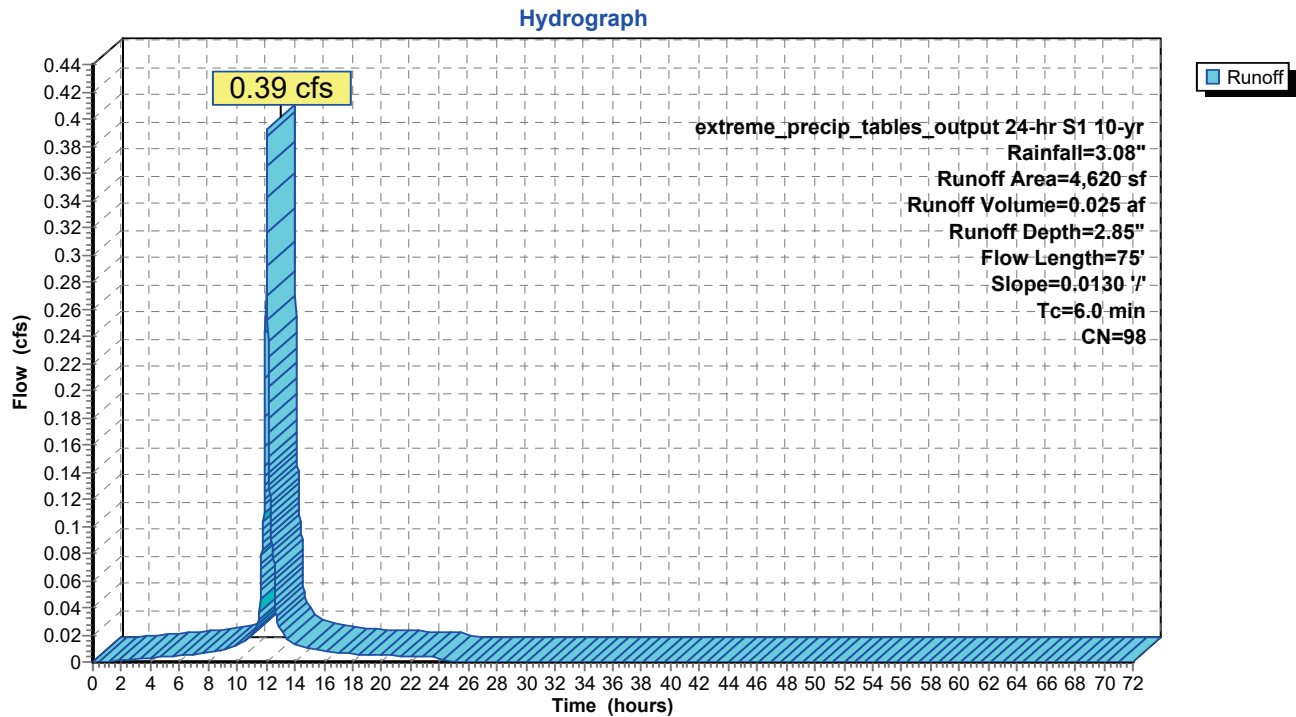
Runoff = 0.39 cfs @ 12.04 hrs, Volume= 0.025 af, Depth= 2.85"
 Routed to Pond PP-1 : Porous Asphalt (19" reservoir, w/underdrains)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 10-yr Rainfall=3.08"

Area (sf)	CN	Description
4,620	98	Paved parking, HSG A
4,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	75	0.0130	0.90		Sheet Flow, 75-ft Pavement
					Smooth surfaces n= 0.011 P2= 2.19"
1.4	75	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-1: Northwestern Road/Parking



Summary for Subcatchment PS-2: Southeastern Road and Parking

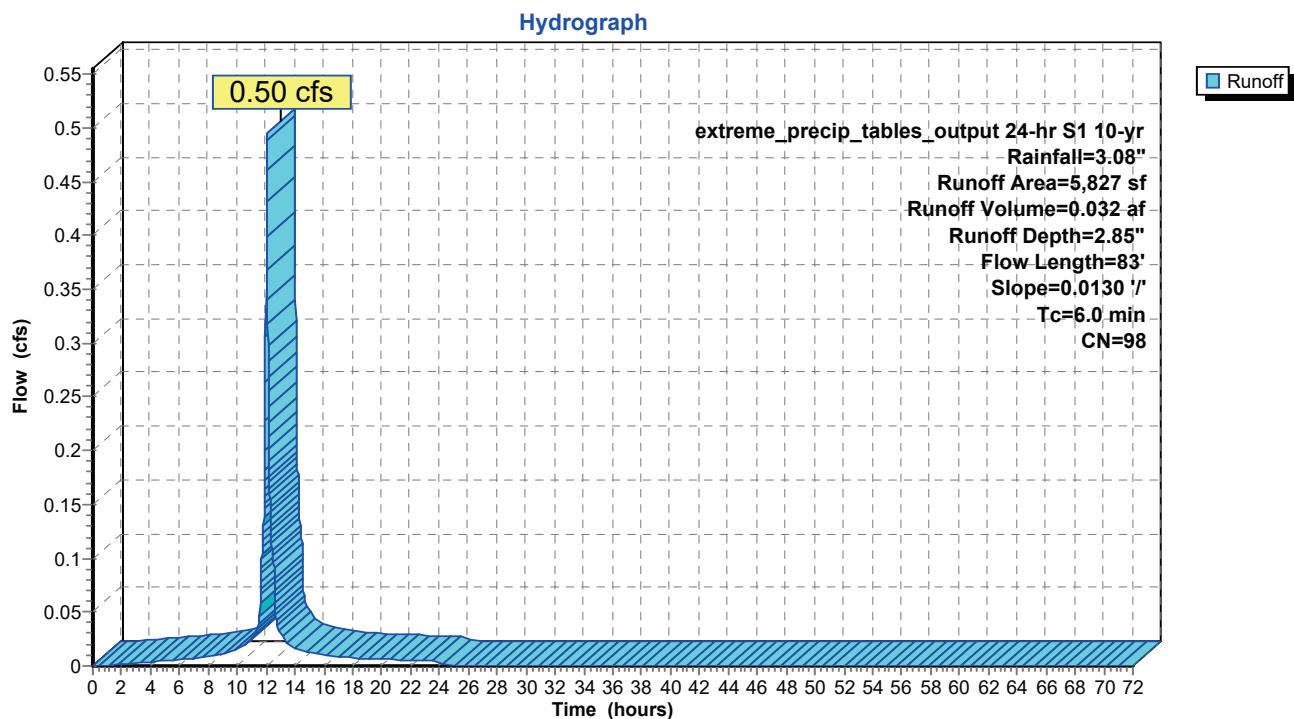
Runoff = 0.50 cfs @ 12.04 hrs, Volume= 0.032 af, Depth= 2.85"
 Routed to Pond PP-2 : Porous Asphalt (30" reservoir, w/underdrains)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 10-yr Rainfall=3.08"

Area (sf)	CN	Description
5,827	98	Paved parking, HSG A
5,827		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	83	0.0130	0.92		Sheet Flow, 83-ft Paved Smooth surfaces n= 0.011 P2= 2.19"
1.5	83	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-2: Southeastern Road and Parking



Summary for Subcatchment PS-3: Center Road to Structure

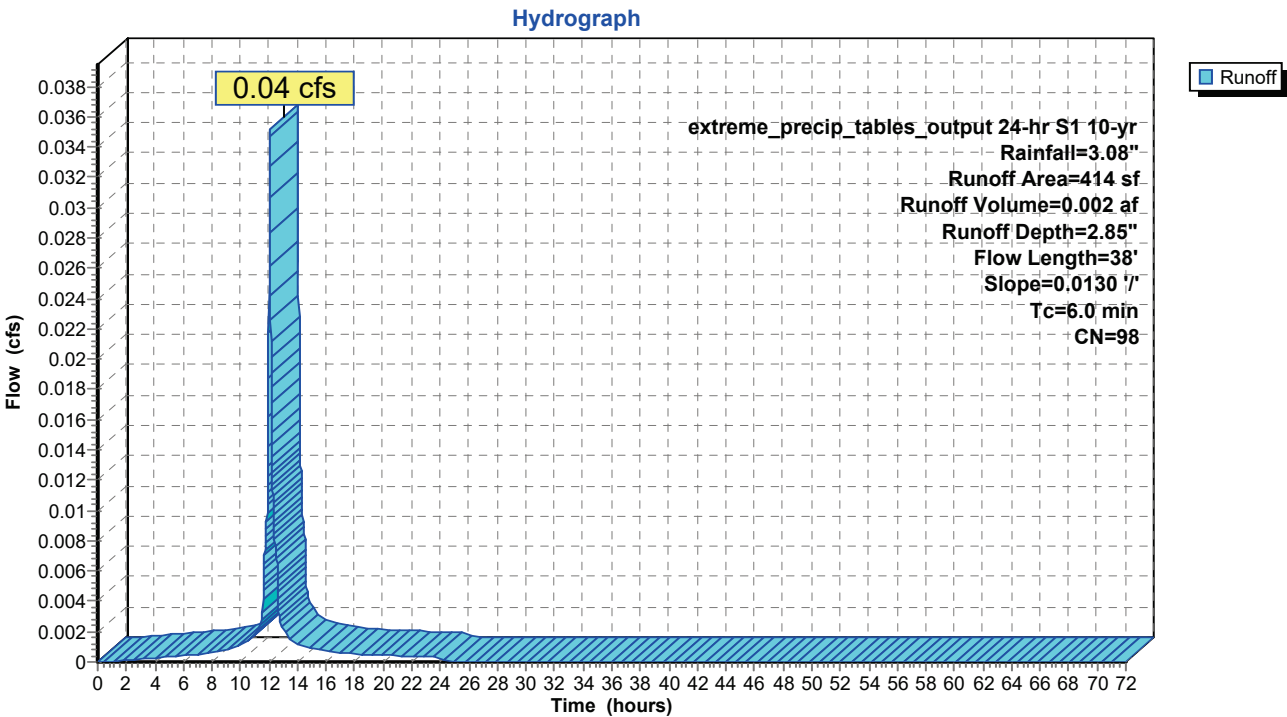
Runoff = 0.04 cfs @ 12.04 hrs, Volume= 0.002 af, Depth= 2.85"
Routed to Reach 1R : 12-in Pipe

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
extreme_precip_tables_output 24-hr S1 10-yr Rainfall=3.08"

Area (sf)	CN	Description
414	98	Paved parking, HSG A
414		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	38	0.0130	0.79		Sheet Flow, 38-ft Paved
					Smooth surfaces n= 0.011 P2= 2.19"
0.8	38	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-3: Center Road to Structure



Summary for Subcatchment PS-4: Remainder of Road and Park

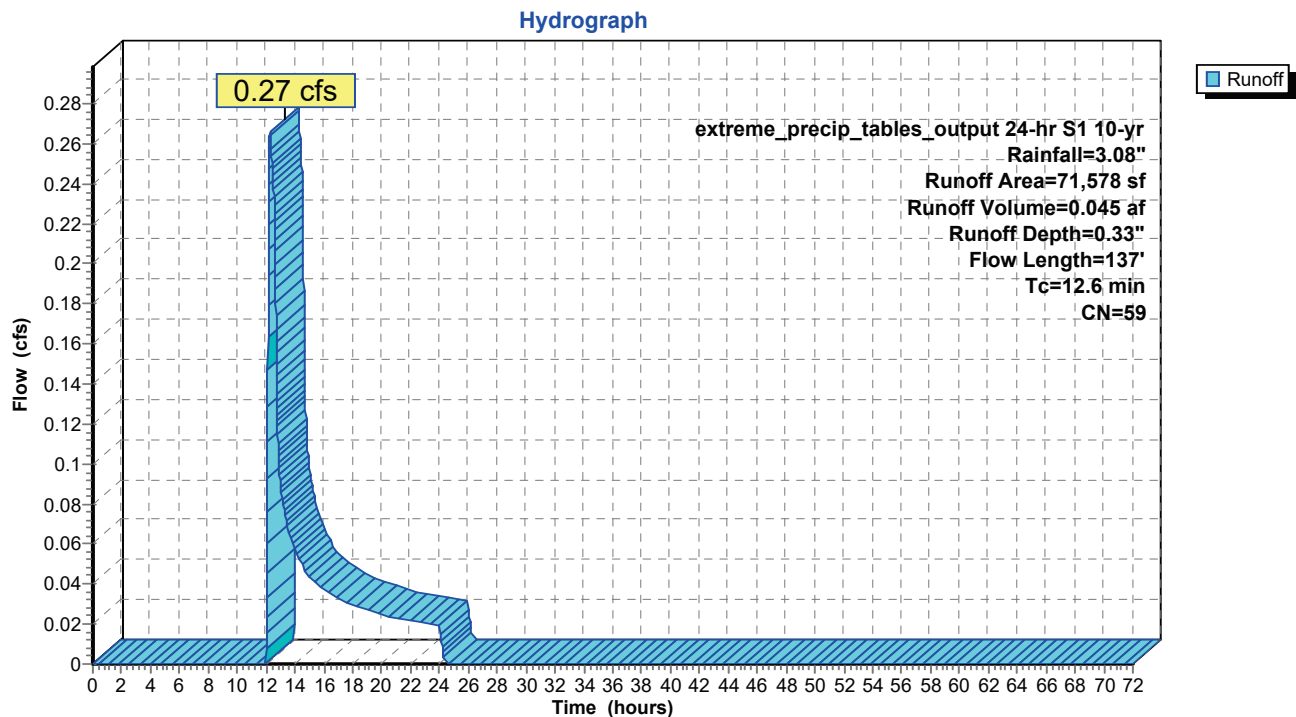
Runoff = 0.27 cfs @ 12.28 hrs, Volume= 0.045 af, Depth= 0.33"
 Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 10-yr Rainfall=3.08"

Area (sf)	CN	Description
13,992	98	Paved parking, HSG A
57,586	49	50-75% Grass cover, Fair, HSG A
71,578	59	Weighted Average
57,586		80.45% Pervious Area
13,992		19.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	67	0.0440	0.18		Sheet Flow, 67-ft Sheet
					Grass: Short n= 0.150 P2= 2.19"
0.1	7	0.0440	0.92		Sheet Flow, 6.55-ft Paved
					Smooth surfaces n= 0.011 P2= 2.19"
5.3	26	0.0100	0.08		Sheet Flow, 26-ft Sheet
					Grass: Short n= 0.150 P2= 2.19"
0.9	37	0.0100	0.70		Shallow Concentrated Flow, 37-ft SCF
					Short Grass Pasture Kv= 7.0 fps
12.6	137	Total			

Subcatchment PS-4: Remainder of Road and Park



Summary for Reach 1R: 12-in Pipe

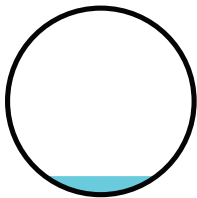
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.010 ac, 100.00% Impervious, Inflow Depth = 2.85" for 10-yr event
Inflow = 0.04 cfs @ 12.04 hrs, Volume= 0.002 af
Outflow = 0.03 cfs @ 12.06 hrs, Volume= 0.002 af, Atten= 5%, Lag= 1.3 min
Routed to Pond 1P : Detention Pond

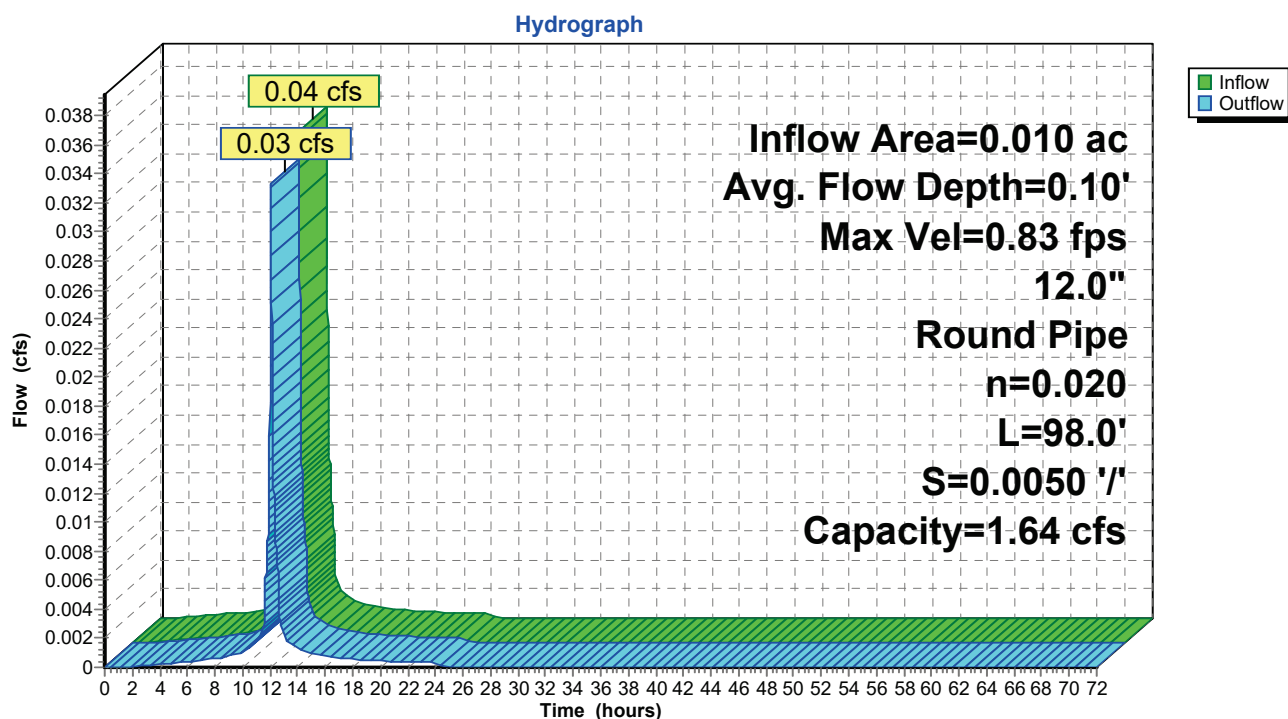
Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.83 fps, Min. Travel Time= 2.0 min
Avg. Velocity= 0.26 fps, Avg. Travel Time= 6.2 min

Peak Storage= 4 cf @ 12.06 hrs
Average Depth at Peak Storage= 0.10' , Surface Width= 0.60'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 1.64 cfs

12.0" Round Pipe
n= 0.020 Corrugated PE, corrugated interior
Length= 98.0' Slope= 0.0050 '/'
Inlet Invert= 1,530.50', Outlet Invert= 1,530.01'



Reach 1R: 12-in Pipe



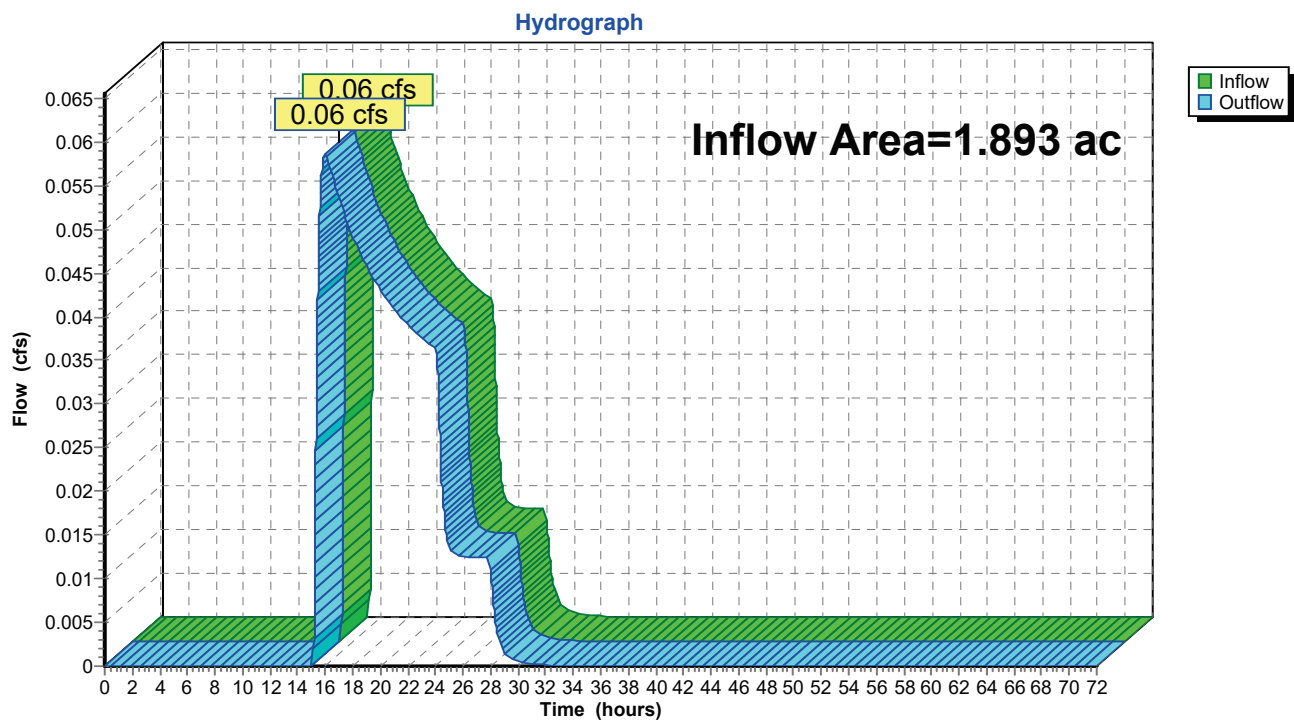
Summary for Reach DP-1: Lake Flower

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.893 ac, 30.15% Impervious, Inflow Depth = 0.24" for 10-yr event
Inflow = 0.06 cfs @ 15.99 hrs, Volume= 0.038 af
Outflow = 0.06 cfs @ 15.99 hrs, Volume= 0.038 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Lake Flower



Summary for Pond 1P: Detention Pond

[78] Warning: Submerged Pond PP-2 Primary device # 1 by 0.93'

[80] Warning: Exceeded Pond PP-2 by 0.92' @ 27.99 hrs (0.54 cfs 2.466 af)

Inflow Area = 1.893 ac, 30.15% Impervious, Inflow Depth = 0.66" for 10-yr event
 Inflow = 0.77 cfs @ 12.16 hrs, Volume= 0.104 af
 Outflow = 0.06 cfs @ 15.99 hrs, Volume= 0.038 af, Atten= 92%, Lag= 230.0 min
 Primary = 0.06 cfs @ 15.99 hrs, Volume= 0.038 af
 Routed to Reach DP-1 : Lake Flower

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,529.52' @ 15.99 hrs Surf.Area= 3,862 sf Storage= 2,959 cf

Plug-Flow detention time= 556.1 min calculated for 0.038 af (36% of inflow)
 Center-of-Mass det. time= 323.3 min (1,216.3 - 893.0)

Volume	Invert	Avail.Storage	Storage Description
#1	1,528.00'	7,989 cf	Pond (Prismatic) Listed below (Recalc)

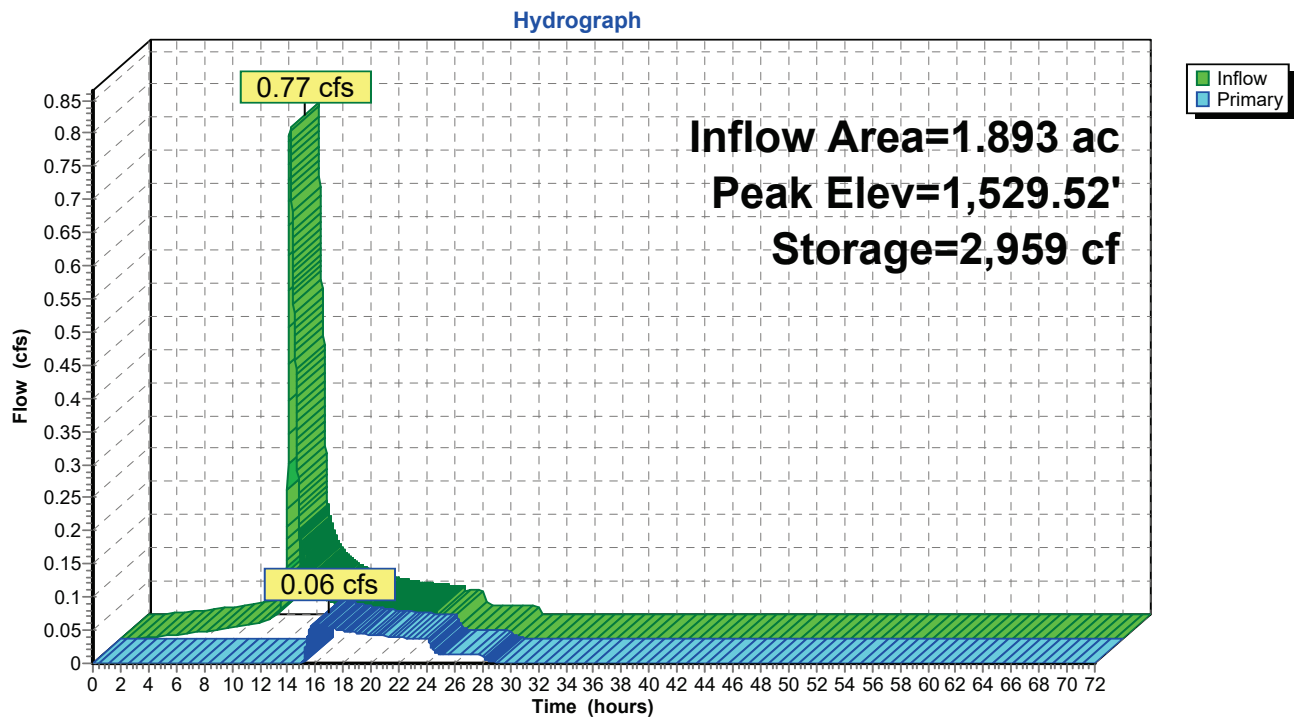
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,528.00	106	0	0
1,529.00	2,518	1,312	1,312
1,530.00	5,122	3,820	5,132
1,530.50	6,306	2,857	7,989

Device	Routing	Invert	Outlet Devices
#1	Primary	1,529.50'	12.0' long x 6.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=0.06 cfs @ 15.99 hrs HW=1,529.52' TW=0.00' (Dynamic Tailwater)

↑**1=Broad-Crested Rectangular Weir**(Weir Controls 0.06 cfs @ 0.30 fps)

Pond 1P: Detention Pond



Summary for Pond PP-1: Porous Asphalt (19" reservoir, w/underdrains)

[44] Hint: Outlet device #2 is below defined storage

[87] Warning: Oscillations may require smaller dt or Finer Routing (severity=562)

Inflow Area = 0.106 ac, 100.00% Impervious, Inflow Depth = 2.85" for 10-yr event
 Inflow = 0.39 cfs @ 12.04 hrs, Volume= 0.025 af
 Outflow = 0.24 cfs @ 12.12 hrs, Volume= 0.025 af, Atten= 38%, Lag= 4.8 min
 Primary = 0.24 cfs @ 12.12 hrs, Volume= 0.025 af
 Routed to Pond 1P : Detention Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,530.58' @ 12.12 hrs Surf.Area= 1,583 sf Storage= 119 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 3.3 min (760.7 - 757.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,530.39'	526 cf	10" Drainage Course (Prismatic) Listed below (Recalc) 1,314 cf Overall x 40.0% Voids
#2	1,531.22'	1,013 cf	19" Reservoir (Prismatic) Listed below (Recalc) 2,533 cf Overall x 40.0% Voids
#3	1,532.82'	367 cf	1" Choker, 3" Binder, 3" Top (Prismatic) Listed below (Recalc) 918 cf Overall x 40.0% Voids
		1,906 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,530.39	1,583	0	0
1,531.22	1,583	1,314	1,314

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,531.22	1,583	0	0
1,532.82	1,583	2,533	2,533

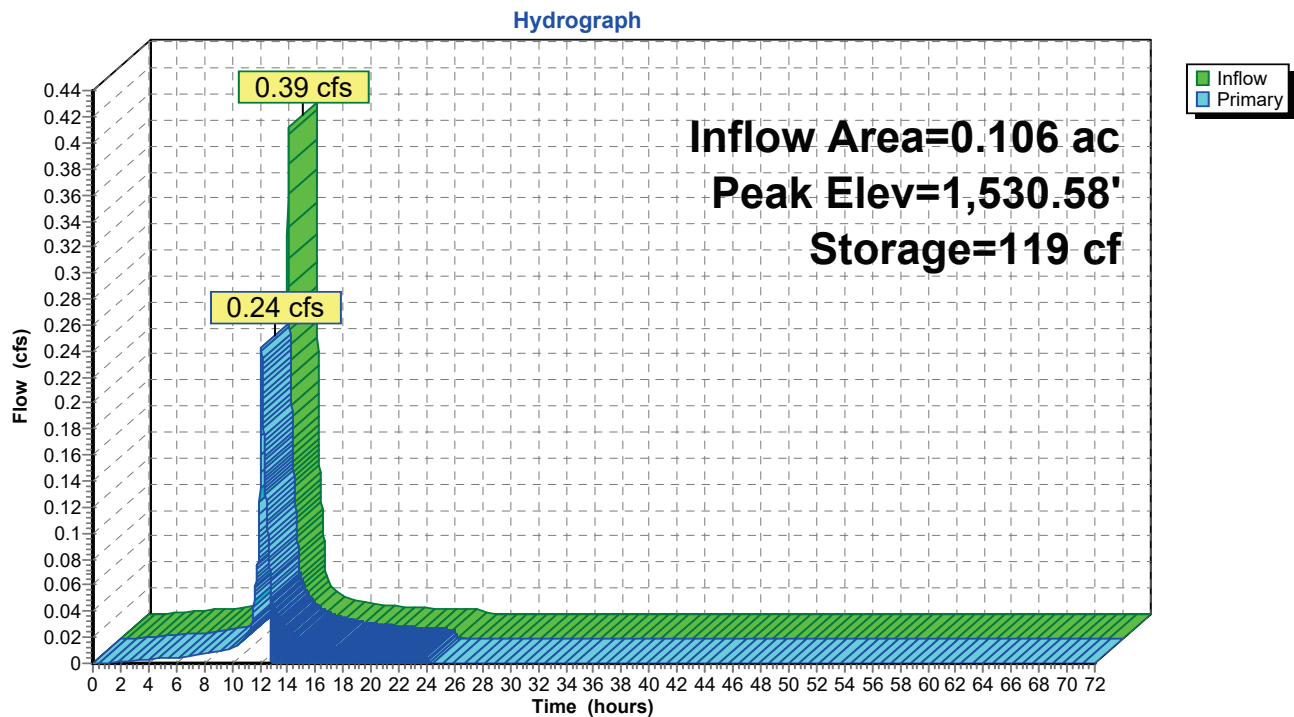
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,532.82	1,583	0	0
1,533.40	1,583	918	918

Device	Routing	Invert	Outlet Devices
#1	Primary	1,530.39'	0.500 in/hr Exfiltration over Surface area
#2	Primary	1,530.25'	12.0" Round Culvert L= 45.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,530.25' / 1,530.03' S= 0.0049 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.24 cfs @ 12.12 hrs HW=1,530.58' TW=1,528.83' (Dynamic Tailwater)

↑ **1=Exfiltration** (Exfiltration Controls 0.02 cfs)
 ↓ **2=Culvert** (Barrel Controls 0.22 cfs @ 1.49 fps)

Pond PP-1: Porous Asphalt (19" reservoir, w/underdrains)



Summary for Pond PP-2: Porous Asphalt (30" reservoir, w/underdrains)

Inflow Area = 0.134 ac, 100.00% Impervious, Inflow Depth = 2.85" for 10-yr event
 Inflow = 0.50 cfs @ 12.04 hrs, Volume= 0.032 af
 Outflow = 0.32 cfs @ 12.11 hrs, Volume= 0.032 af, Atten= 35%, Lag= 4.4 min
 Primary = 0.32 cfs @ 12.11 hrs, Volume= 0.032 af
 Routed to Pond 1P : Detention Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,529.41' @ 15.07 hrs Surf.Area= 1,076 sf Storage= 354 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 173.7 min (931.1 - 757.4)

Volume	Invert	Avail.Storage	Storage Description
#1	1,528.59'	357 cf	10" Drainage Course (Prismatic) Listed below (Recalc) 893 cf Overall x 40.0% Voids
#2	1,529.42'	1,076 cf	30" Reservoir (Prismatic) Listed below (Recalc) 2,690 cf Overall x 40.0% Voids
#3	1,531.92'	250 cf	1" Choker, 3" Binder, 3" Top (Prismatic) Listed below (Recalc) 624 cf Overall x 40.0% Voids
		1,683 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,528.59	1,076	0	0
1,529.42	1,076	893	893

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,529.42	1,076	0	0
1,531.92	1,076	2,690	2,690

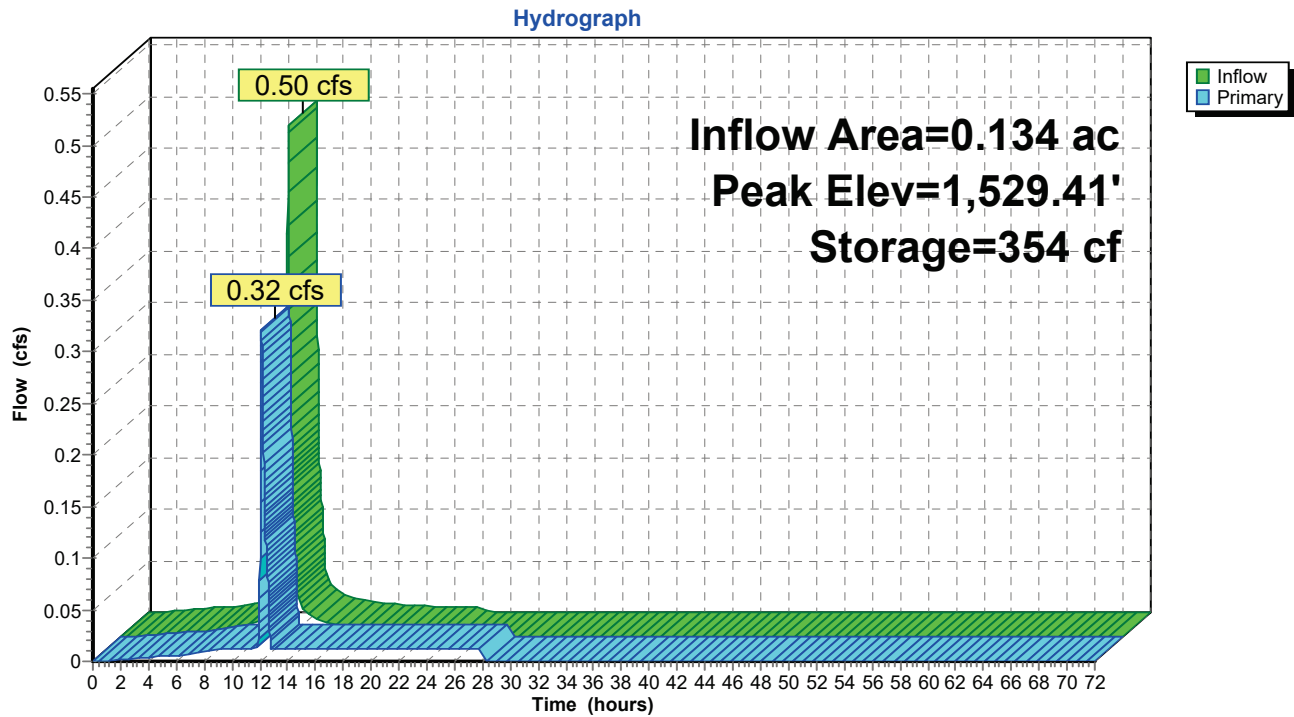
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,531.92	1,076	0	0
1,532.50	1,076	624	624

Device	Routing	Invert	Outlet Devices
#1	Primary	1,528.59'	0.500 in/hr Exfiltration over Surface area
#2	Primary	1,529.00'	12.0" Round Culvert L= 47.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,529.00' / 1,528.77' S= 0.0049 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.32 cfs @ 12.11 hrs HW=1,529.39' TW=1,528.82' (Dynamic Tailwater)

↑ **1=Exfiltration** (Exfiltration Controls 0.01 cfs)
 ↓ **2=Culvert** (Barrel Controls 0.31 cfs @ 1.63 fps)

Pond PP-2: Porous Asphalt (30" reservoir, w/underdrains)



E_App E_Post-Development Moextreme_precip_tables_output 24-hr S1 100-yr Rainfall=5.05"

Prepared by Labella Associates

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPS-1: Northwestern Runoff Area=4,620 sf 100.00% Impervious Runoff Depth=4.81"
Flow Length=75' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.64 cfs 0.043 af

SubcatchmentPS-2: Southeastern Road Runoff Area=5,827 sf 100.00% Impervious Runoff Depth=4.81"
Flow Length=83' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.80 cfs 0.054 af

SubcatchmentPS-3: Center Road to Runoff Area=414 sf 100.00% Impervious Runoff Depth=4.81"
Flow Length=38' Slope=0.0130 '/' Tc=6.0 min CN=98 Runoff=0.06 cfs 0.004 af

SubcatchmentPS-4: Remainder of Road Runoff Area=71,578 sf 19.55% Impervious Runoff Depth=1.26"
Flow Length=137' Tc=12.6 min CN=59 Runoff=1.87 cfs 0.173 af

Reach 1R: 12-in Pipe Avg. Flow Depth=0.13' Max Vel=0.96 fps Inflow=0.06 cfs 0.004 af
12.0" Round Pipe n=0.020 L=98.0' S=0.0050 '/' Capacity=1.64 cfs Outflow=0.05 cfs 0.004 af

Reach DP-1: Lake Flower Inflow=1.78 cfs 0.206 af
Outflow=1.78 cfs 0.206 af

Pond 1P: Detention Pond Peak Elev=1,529.66' Storage=3,530 cf Inflow=2.80 cfs 0.273 af
Outflow=1.78 cfs 0.206 af

Pond PP-1: Porous Asphalt(19" reservoir, Peak Elev=1,530.71' Storage=201 cf Inflow=0.64 cfs 0.043 af
Outflow=0.44 cfs 0.043 af

Pond PP-2: Porous Asphalt(30" reservoir, Peak Elev=1,529.68' Storage=468 cf Inflow=0.80 cfs 0.054 af
Outflow=0.64 cfs 0.054 af

Total Runoff Area = 1.893 ac Runoff Volume = 0.273 af Average Runoff Depth = 1.73"
69.85% Pervious = 1.322 ac 30.15% Impervious = 0.571 ac

Summary for Subcatchment PS-1: Northwestern Road/Parking

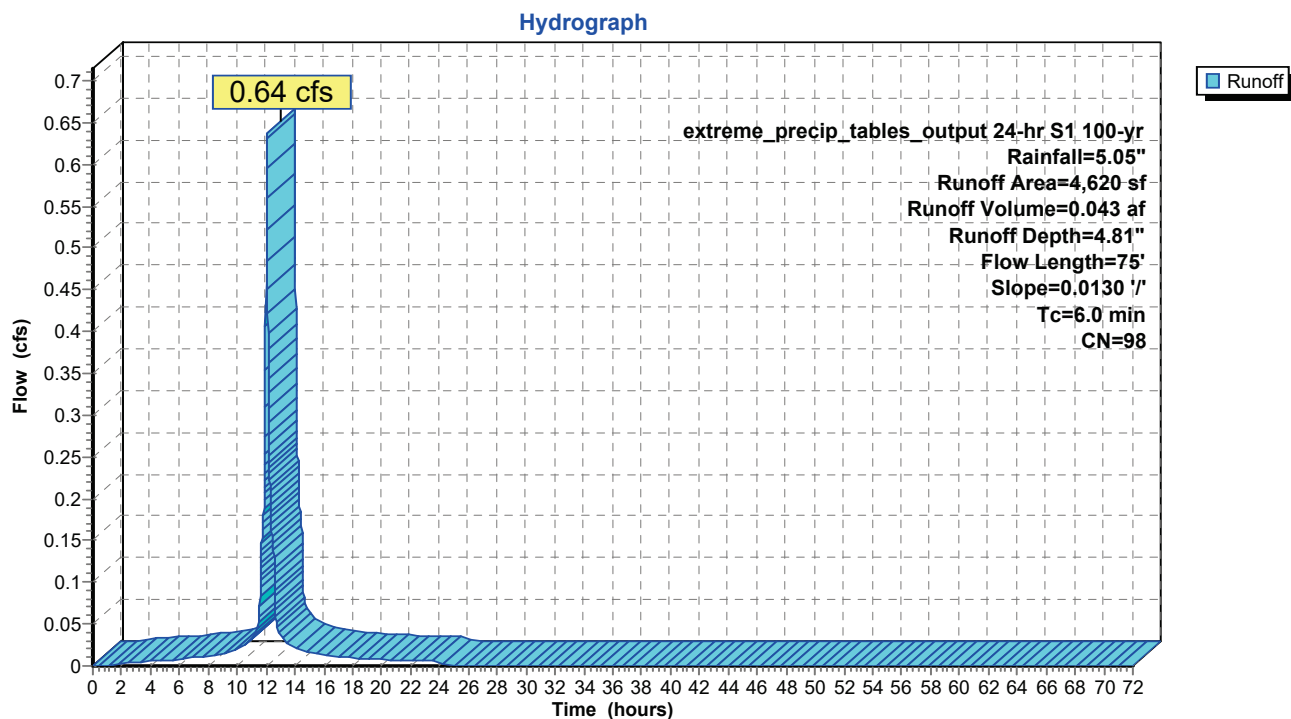
Runoff = 0.64 cfs @ 12.04 hrs, Volume= 0.043 af, Depth= 4.81"
 Routed to Pond PP-1 : Porous Asphalt (19" reservoir, w/underdrains)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 100-yr Rainfall=5.05"

Area (sf)	CN	Description
4,620	98	Paved parking, HSG A
4,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	75	0.0130	0.90		Sheet Flow, 75-ft Pavement Smooth surfaces n= 0.011 P2= 2.19"
1.4	75	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-1: Northwestern Road/Parking



Summary for Subcatchment PS-2: Southeastern Road and Parking

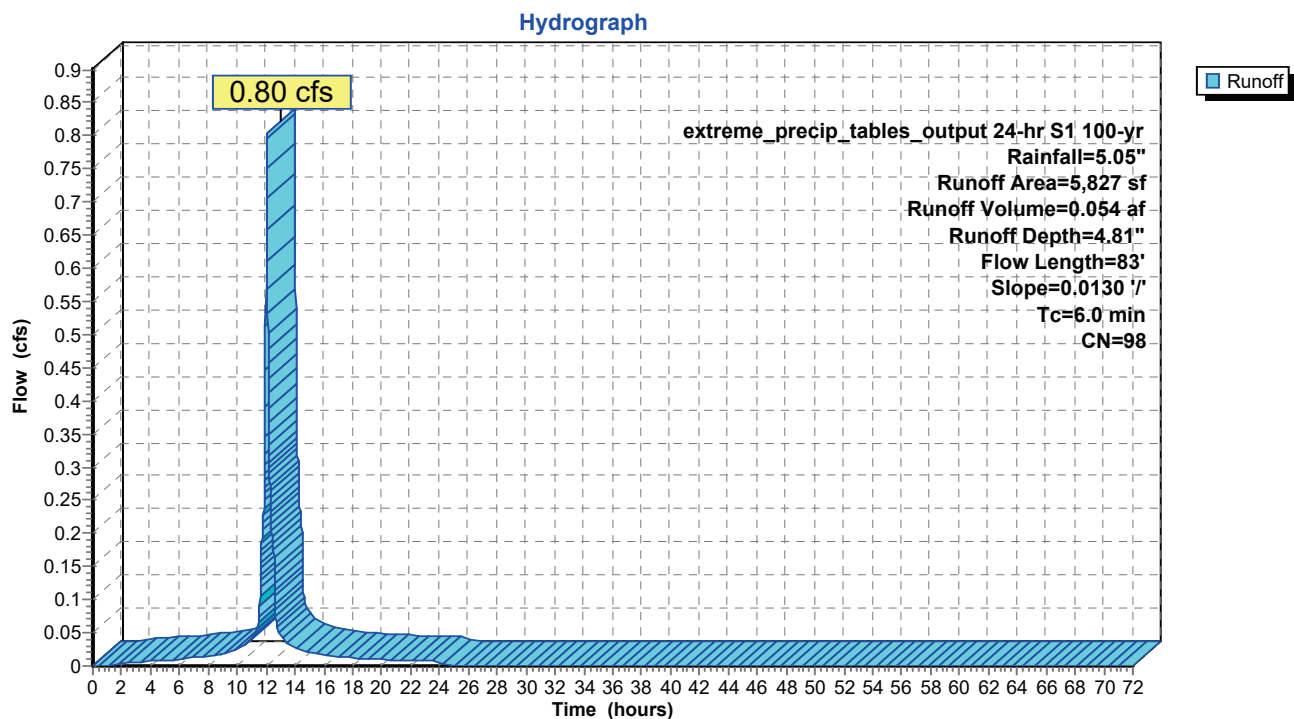
Runoff = 0.80 cfs @ 12.04 hrs, Volume= 0.054 af, Depth= 4.81"
 Routed to Pond PP-2 : Porous Asphalt (30" reservoir, w/underdrains)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 100-yr Rainfall=5.05"

Area (sf)	CN	Description
5,827	98	Paved parking, HSG A
5,827		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	83	0.0130	0.92		Sheet Flow, 83-ft Paved Smooth surfaces n= 0.011 P2= 2.19"
1.5	83	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-2: Southeastern Road and Parking



Summary for Subcatchment PS-3: Center Road to Structure

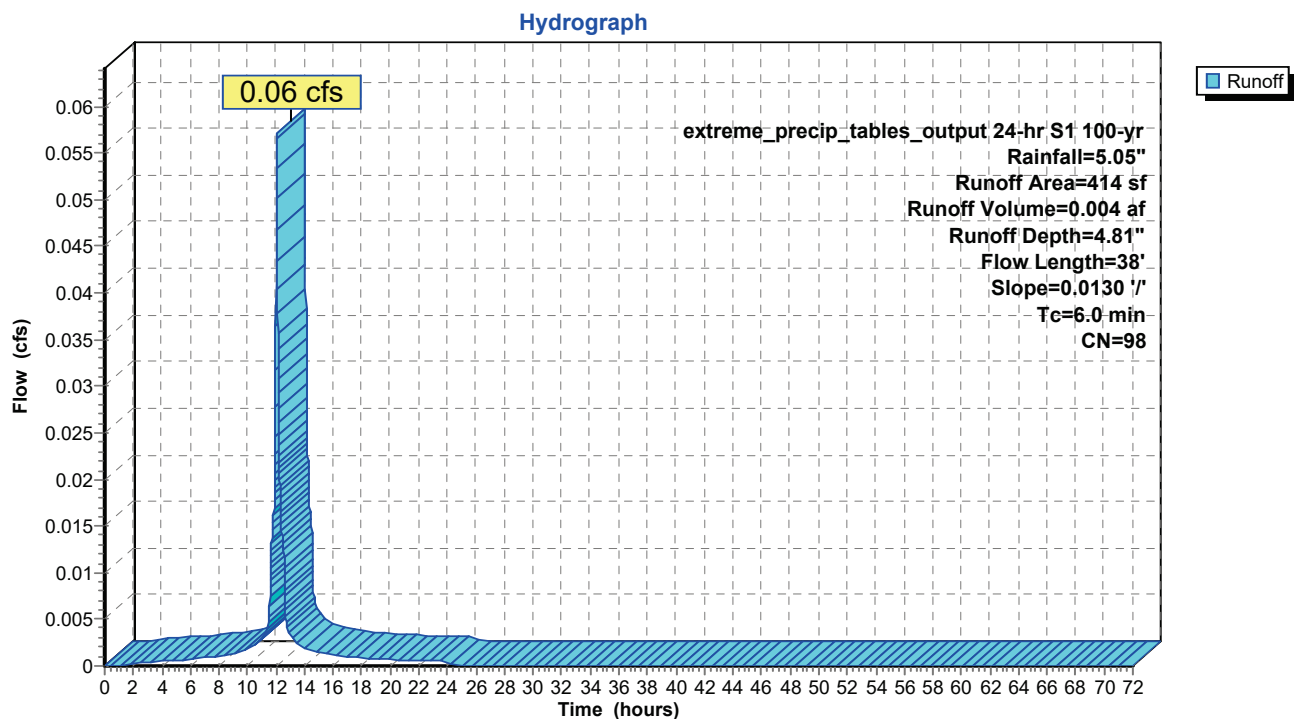
Runoff = 0.06 cfs @ 12.04 hrs, Volume= 0.004 af, Depth= 4.81"
 Routed to Reach 1R : 12-in Pipe

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 100-yr Rainfall=5.05"

Area (sf)	CN	Description
414	98	Paved parking, HSG A
414		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.8	38	0.0130	0.79		Sheet Flow, 38-ft Paved
					Smooth surfaces n= 0.011 P2= 2.19"
0.8	38	Total, Increased to minimum Tc = 6.0 min			

Subcatchment PS-3: Center Road to Structure



Summary for Subcatchment PS-4: Remainder of Road and Park

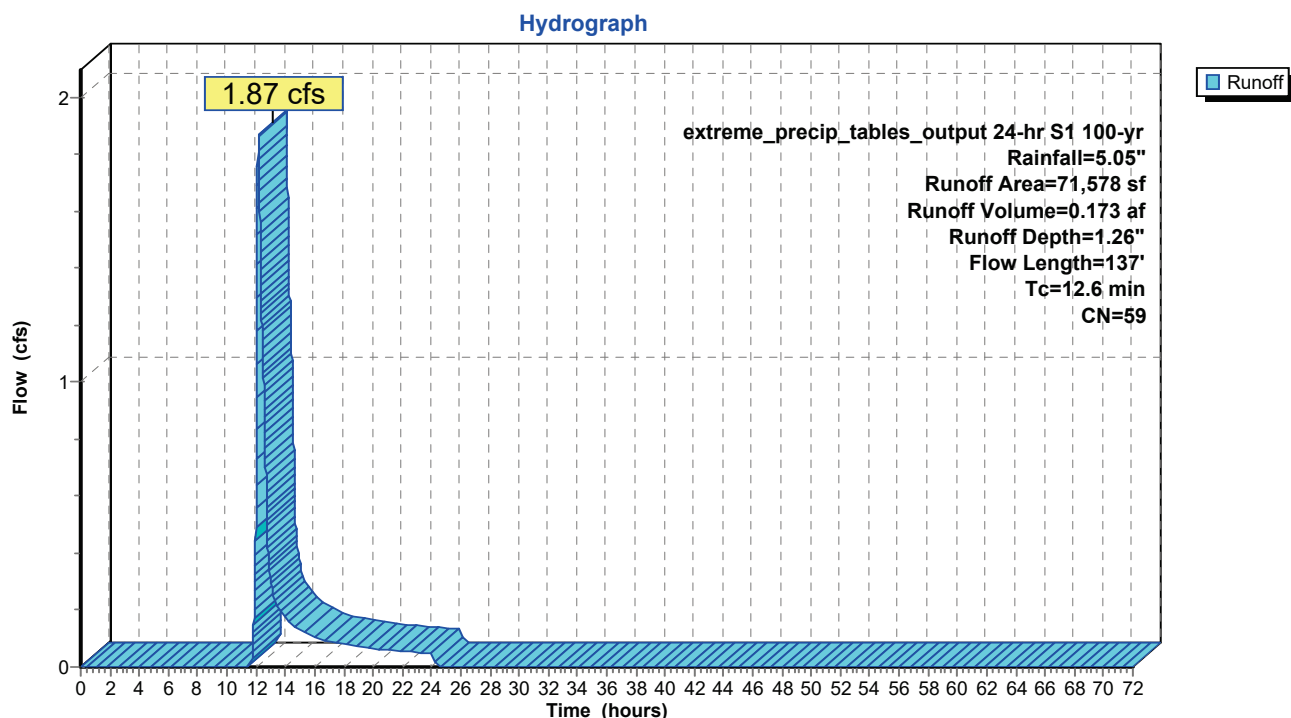
Runoff = 1.87 cfs @ 12.15 hrs, Volume= 0.173 af, Depth= 1.26"
 Routed to Pond 1P : Detention Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 extreme_precip_tables_output 24-hr S1 100-yr Rainfall=5.05"

Area (sf)	CN	Description
13,992	98	Paved parking, HSG A
57,586	49	50-75% Grass cover, Fair, HSG A
71,578	59	Weighted Average
57,586		80.45% Pervious Area
13,992		19.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	67	0.0440	0.18		Sheet Flow, 67-ft Sheet
					Grass: Short n= 0.150 P2= 2.19"
0.1	7	0.0440	0.92		Sheet Flow, 6.55-ft Paved
					Smooth surfaces n= 0.011 P2= 2.19"
5.3	26	0.0100	0.08		Sheet Flow, 26-ft Sheet
					Grass: Short n= 0.150 P2= 2.19"
0.9	37	0.0100	0.70		Shallow Concentrated Flow, 37-ft SCF
					Short Grass Pasture Kv= 7.0 fps
12.6	137	Total			

Subcatchment PS-4: Remainder of Road and Park



Summary for Reach 1R: 12-in Pipe

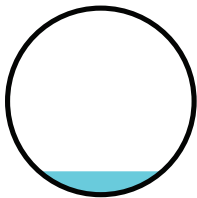
[52] Hint: Inlet/Outlet conditions not evaluated

Inflow Area = 0.010 ac, 100.00% Impervious, Inflow Depth = 4.81" for 100-yr event
Inflow = 0.06 cfs @ 12.04 hrs, Volume= 0.004 af
Outflow = 0.05 cfs @ 12.05 hrs, Volume= 0.004 af, Atten= 4%, Lag= 1.1 min
Routed to Pond 1P : Detention Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.96 fps, Min. Travel Time= 1.7 min
Avg. Velocity= 0.30 fps, Avg. Travel Time= 5.4 min

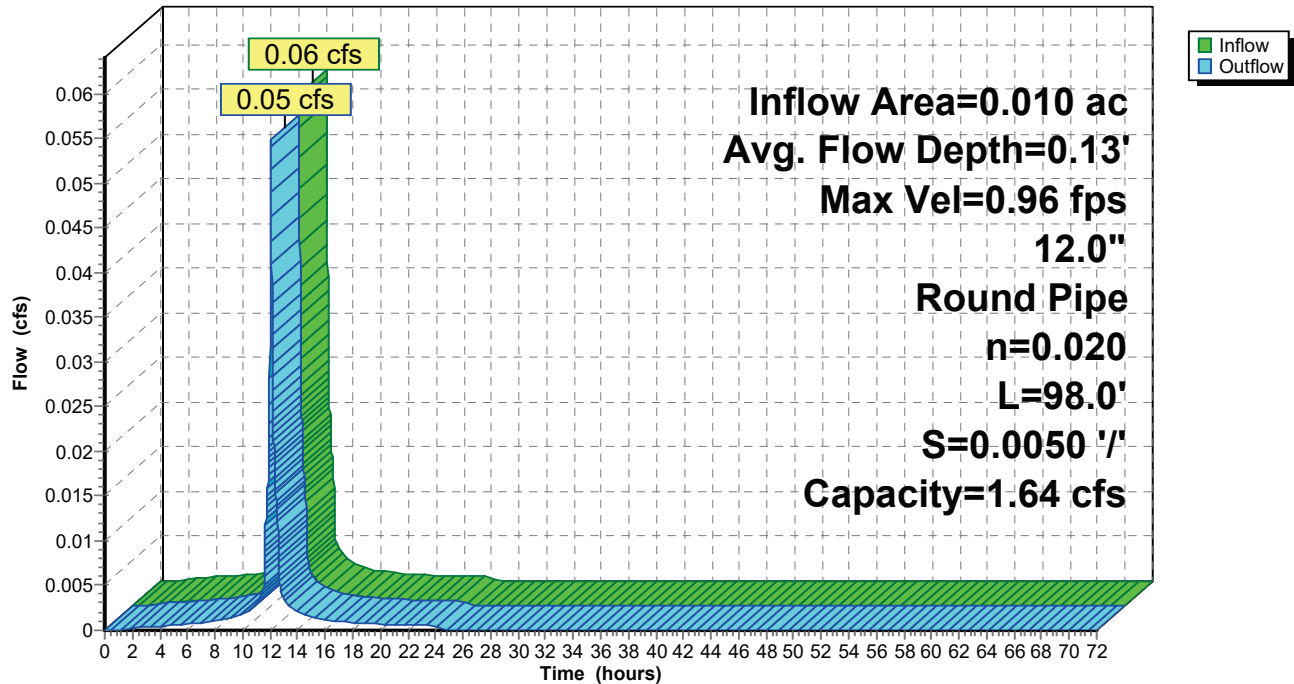
Peak Storage= 6 cf @ 12.05 hrs
Average Depth at Peak Storage= 0.13' , Surface Width= 0.66'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 1.64 cfs

12.0" Round Pipe
n= 0.020 Corrugated PE, corrugated interior
Length= 98.0' Slope= 0.0050 '/'
Inlet Invert= 1,530.50', Outlet Invert= 1,530.01'



Reach 1R: 12-in Pipe

Hydrograph



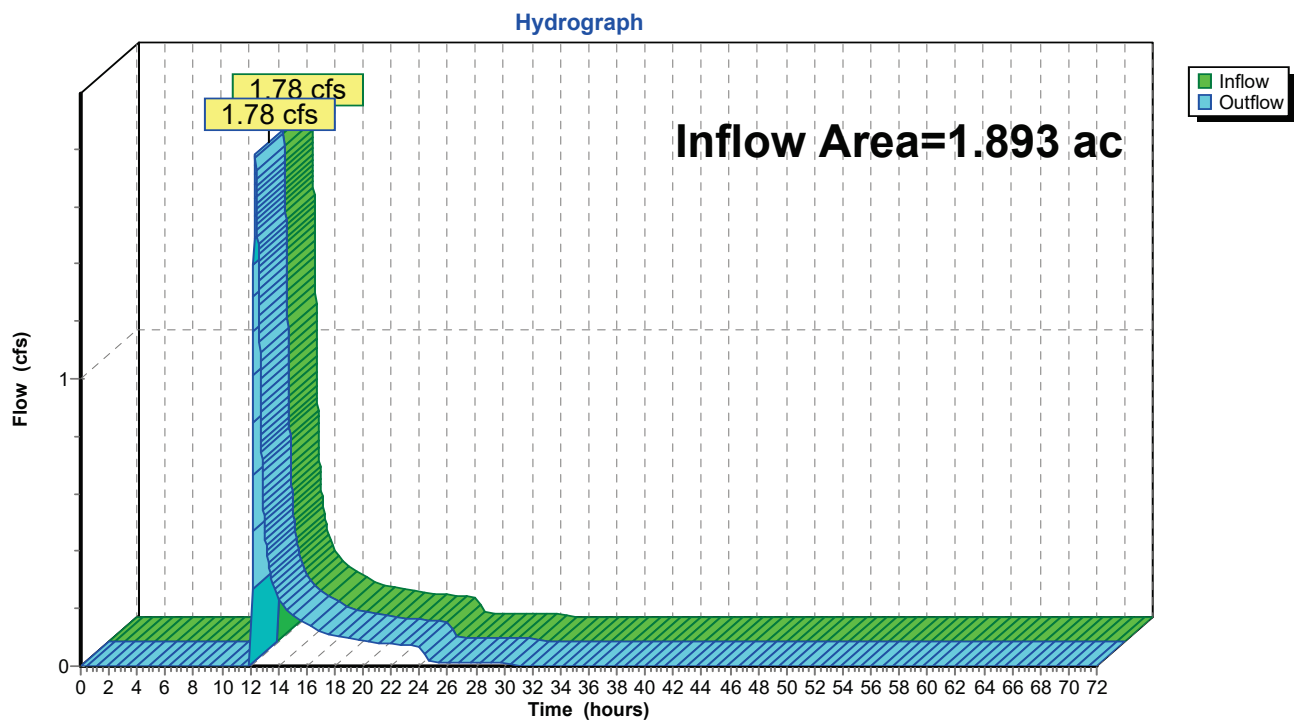
Summary for Reach DP-1: Lake Flower

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.893 ac, 30.15% Impervious, Inflow Depth = 1.31" for 100-yr event
Inflow = 1.78 cfs @ 12.35 hrs, Volume= 0.206 af
Outflow = 1.78 cfs @ 12.35 hrs, Volume= 0.206 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Reach DP-1: Lake Flower



Summary for Pond 1P: Detention Pond

[78] Warning: Submerged Pond PP-2 Primary device # 1 by 1.07'

[80] Warning: Exceeded Pond PP-2 by 0.92' @ 30.32 hrs (0.54 cfs 2.376 af)

Inflow Area = 1.893 ac, 30.15% Impervious, Inflow Depth = 1.73" for 100-yr event
 Inflow = 2.80 cfs @ 12.12 hrs, Volume= 0.273 af
 Outflow = 1.78 cfs @ 12.35 hrs, Volume= 0.206 af, Atten= 36%, Lag= 13.6 min
 Primary = 1.78 cfs @ 12.35 hrs, Volume= 0.206 af
 Routed to Reach DP-1 : Lake Flower

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,529.66' @ 12.35 hrs Surf.Area= 4,230 sf Storage= 3,530 cf

Plug-Flow detention time= 195.1 min calculated for 0.206 af (76% of inflow)
 Center-of-Mass det. time= 78.7 min (940.8 - 862.2)

Volume	Invert	Avail.Storage	Storage Description
#1	1,528.00'	7,989 cf	Pond (Prismatic) Listed below (Recalc)

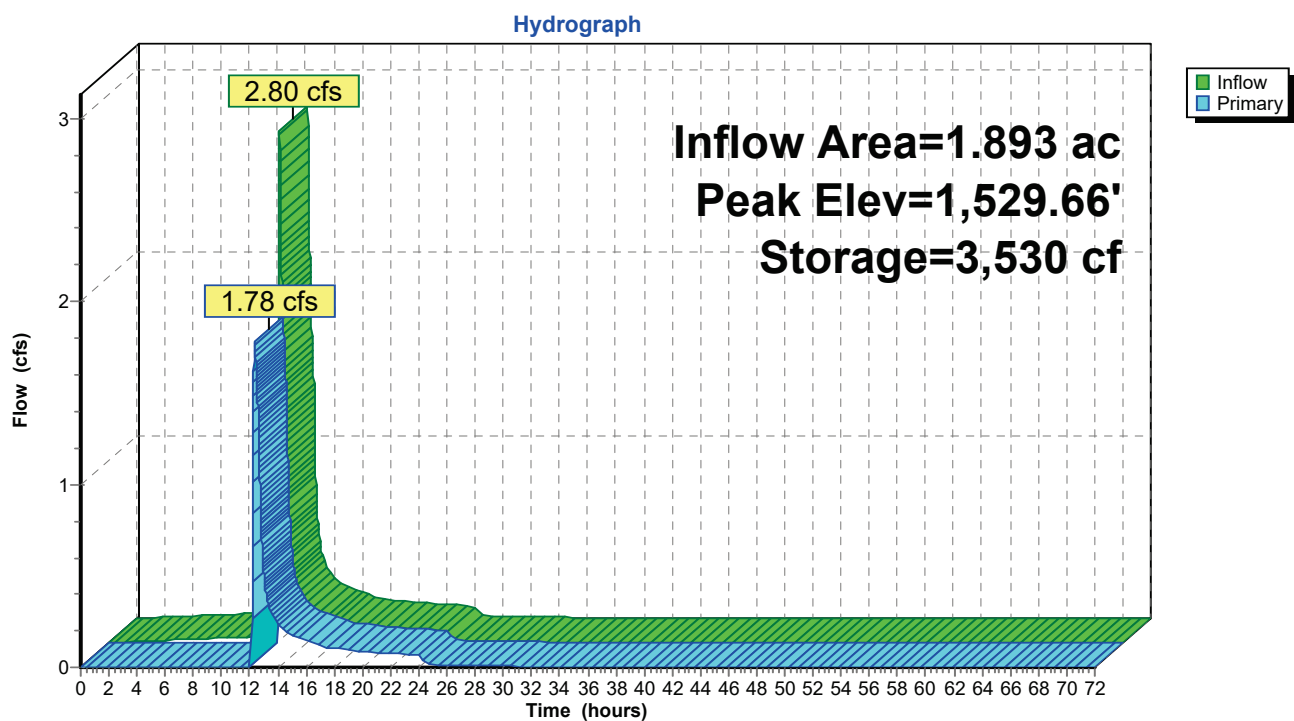
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,528.00	106	0	0
1,529.00	2,518	1,312	1,312
1,530.00	5,122	3,820	5,132
1,530.50	6,306	2,857	7,989

Device	Routing	Invert	Outlet Devices
#1	Primary	1,529.50'	12.0' long x 6.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

Primary OutFlow Max=1.78 cfs @ 12.35 hrs HW=1,529.66' TW=0.00' (Dynamic Tailwater)

↑**1=Broad-Crested Rectangular Weir**(Weir Controls 1.78 cfs @ 0.94 fps)

Pond 1P: Detention Pond



Summary for Pond PP-1: Porous Asphalt (19" reservoir, w/underdrains)

[44] Hint: Outlet device #2 is below defined storage

[87] Warning: Oscillations may require smaller dt or Finer Routing (severity=550)

Inflow Area = 0.106 ac, 100.00% Impervious, Inflow Depth = 4.81" for 100-yr event
 Inflow = 0.64 cfs @ 12.04 hrs, Volume= 0.043 af
 Outflow = 0.44 cfs @ 12.10 hrs, Volume= 0.043 af, Atten= 30%, Lag= 4.0 min
 Primary = 0.44 cfs @ 12.10 hrs, Volume= 0.043 af
 Routed to Pond 1P : Detention Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,530.71' @ 12.10 hrs Surf.Area= 1,583 sf Storage= 201 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 3.9 min (751.2 - 747.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,530.39'	526 cf	10" Drainage Course (Prismatic) Listed below (Recalc) 1,314 cf Overall x 40.0% Voids
#2	1,531.22'	1,013 cf	19" Reservoir (Prismatic) Listed below (Recalc) 2,533 cf Overall x 40.0% Voids
#3	1,532.82'	367 cf	1" Choker, 3" Binder, 3" Top (Prismatic) Listed below (Recalc) 918 cf Overall x 40.0% Voids
		1,906 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,530.39	1,583	0	0
1,531.22	1,583	1,314	1,314

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,531.22	1,583	0	0
1,532.82	1,583	2,533	2,533

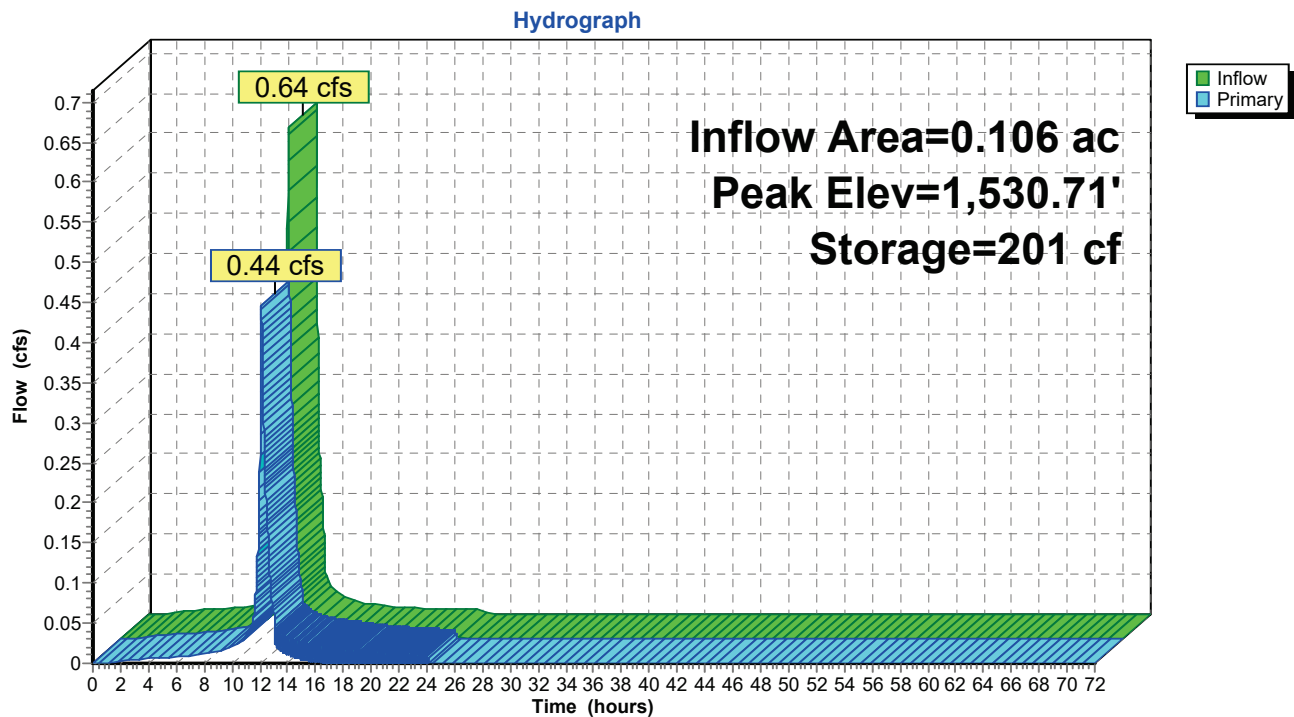
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,532.82	1,583	0	0
1,533.40	1,583	918	918

Device	Routing	Invert	Outlet Devices
#1	Primary	1,530.39'	0.500 in/hr Exfiltration over Surface area
#2	Primary	1,530.25'	12.0" Round Culvert L= 45.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,530.25' / 1,530.03' S= 0.0049 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.44 cfs @ 12.10 hrs HW=1,530.71' TW=1,529.34' (Dynamic Tailwater)

↑ **1=Exfiltration** (Exfiltration Controls 0.02 cfs)
 ↓ **2=Culvert** (Barrel Controls 0.43 cfs @ 1.79 fps)

Pond PP-1: Porous Asphalt (19" reservoir, w/underdrains)



Summary for Pond PP-2: Porous Asphalt (30" reservoir, w/underdrains)

Inflow Area = 0.134 ac, 100.00% Impervious, Inflow Depth = 4.81" for 100-yr event
 Inflow = 0.80 cfs @ 12.04 hrs, Volume= 0.054 af
 Outflow = 0.64 cfs @ 12.06 hrs, Volume= 0.054 af, Atten= 20%, Lag= 1.7 min
 Primary = 0.64 cfs @ 12.06 hrs, Volume= 0.054 af
 Routed to Pond 1P : Detention Pond

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 1,529.68' @ 12.36 hrs Surf.Area= 2,152 sf Storage= 468 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 142.9 min (890.2 - 747.3)

Volume	Invert	Avail.Storage	Storage Description
#1	1,528.59'	357 cf	10" Drainage Course (Prismatic) Listed below (Recalc) 893 cf Overall x 40.0% Voids
#2	1,529.42'	1,076 cf	30" Reservoir (Prismatic) Listed below (Recalc) 2,690 cf Overall x 40.0% Voids
#3	1,531.92'	250 cf	1" Choker, 3" Binder, 3" Top (Prismatic) Listed below (Recalc) 624 cf Overall x 40.0% Voids
		1,683 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,528.59	1,076	0	0
1,529.42	1,076	893	893

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,529.42	1,076	0	0
1,531.92	1,076	2,690	2,690

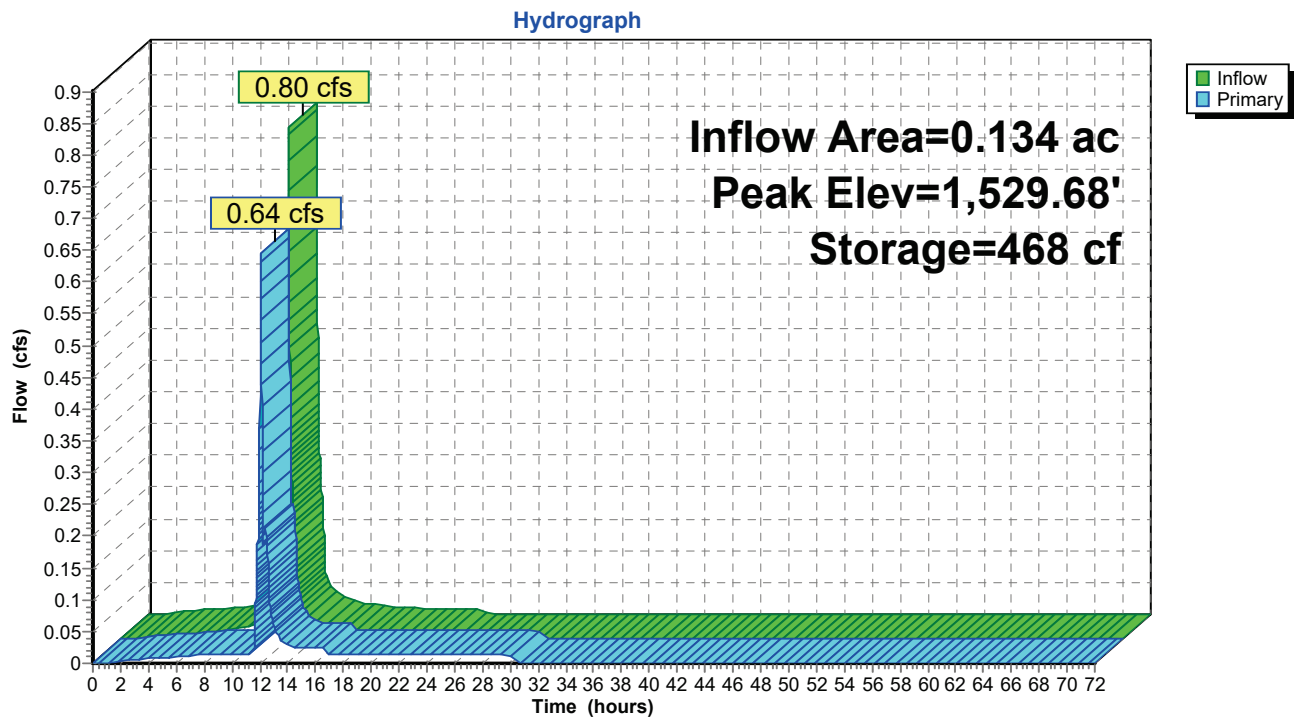
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
1,531.92	1,076	0	0
1,532.50	1,076	624	624

Device	Routing	Invert	Outlet Devices
#1	Primary	1,528.59'	0.500 in/hr Exfiltration over Surface area
#2	Primary	1,529.00'	12.0" Round Culvert L= 47.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 1,529.00' / 1,528.77' S= 0.0049 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.62 cfs @ 12.06 hrs HW=1,529.56' TW=1,529.23' (Dynamic Tailwater)

↑ **1=Exfiltration** (Exfiltration Controls 0.02 cfs)
2=Culvert (Outlet Controls 0.59 cfs @ 1.89 fps)

Pond PP-2: Porous Asphalt (30" reservoir, w/underdrains)



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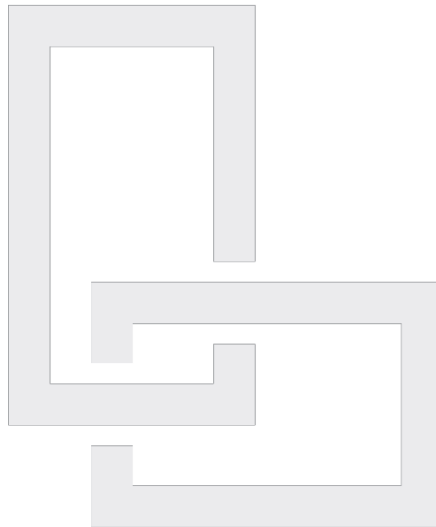
APPENDIX F: SWPPP INSPECTION REPORT (SAMPLE FORM)

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Prepared by:
LaBella Associates
4 British American Boulevard
Latham, NY 12110
(518) 273-0055



SWPPP INSPECTION REPORT NUMBER XX
VILLAGE OF SARANAC LAKE
BALDWIN PARK IMPROVEMENTS
VILLAGE OF SARANAC LAKE, ESSEX COUNTY, NY
PERMIT NUMBER



Performed: 2/1/2025 @ 12:00 AM
Report Issued: 2/1/2025

Status: SATISFACTORY (All erosion control measures are installed and in working order)

Qualified Inspector (name and title)

Qualified Professional (name and title)

Date

Date

Signature

Signature

NYSDEC Documentation and SWPPP Forms

5-Acre Waiver: 5-acre waiver approved by NYSDEC and > 5 acres disturbed

303d Status: Project does not directly discharge to a 303d impaired waterbody

Number of Inspections required: 1 / week

Location of SWPPP and Site Log Book on-site:

YES	NO	N/A	CONTAINED IN SITE LOG BOOK?
☐	☐	☐	Preconstruction Assessment
☐	☐	☐	Copy of eNOI
☐	☐	☐	Letter of Authorization
☐	☐	☐	SWPPP Preparer Certification Form
☐	☐	☐	Owner/Operator Certification Form
☐	☐	☐	MS4 SWPPP Acceptance Form
☐	☐	☐	MS4 No Jurisdiction Form
☐	☐	☐	NYCDEP SWPPP Acceptance Form
☐	☐	☐	Contractor and Subcontractor Certifications
☐	☐	☐	SPDES General Permit
☐	☐	☐	5 Acre Waiver Authorization
☐	☐	☐	NOT

Comments:

Site Conditions

Total area with active soil disturbance (not requiring either temporary or final stabilization): XX Acres			
Total area with inactive soil disturbance (requiring either temporary or final stabilization): XX Acres			
Total area that has achieved temporary stabilization: XX Acres			
Total area that has achieved final stabilization: XX Acres			
Allowable Disturbed Area Per NOI and/or 5-acre waiver: XX Acres			
Current Status of Construction: Description			
Weather Conditions: Conditions		Temperature: XX °F	Soil Conditions: Choose an item.
Description of Discharge Point/Natural Surface Waterbody	Condition of Runoff	Sediment Discharge Noted Y / N	Corrective Action

Erosion and Sediment Control Deficiencies and Corrective Actions

SWPPP Component	Functional Y / N / NA	Deficiency (See Checklist and/or note)	Deficiency Location	Initial Date	Corrective Action	Corrected Y / N
General Site Conditions						
Silt Fence						
Stabilized Construction Access						
Compost Filter Sock						
Inlet Protection						
Soil Stockpiles						
Temporary Stabilization						
Permanent Stabilization						
Dewatering Operations						
Stone Check Dams						
Rock Outlet Protection						
Sediment Traps and Basins						
Temporary Stream Crossing						
Pavement Sweeping						
Concrete Washout						
Filter Strips						
Slope Protection Measures						
Temporary Swales and Berms						
Temporary Parking Areas						
Fiber Roll						
Permanent Turf Reinforcement						
Water Bars						
Flow Diffusers						
Other:						

SWPPP Inspection Checklist and Deficiency Numbers

1	General Site Conditions
1A	Adjoining properties are not protected from erosion and sediment deposition
1B	Downstream waterways are not protected from erosion and sediment deposition
1C	All E&SC measures have not been constructed as detailed in the SWPPP
1D	Dust is not adequately controlled
1E	Storage areas contain spills, leaks, or harmful materials
1F	Garbage and waste building materials are not being managed properly
1G	Temporary control measures that are no longer needed have not been removed
1H	Permanent SWM practices not constructed per plans

2	Silt Fence
2A	Silt fence not installed on contour
2B	Silt fence not across conveyance channels
2C	Silt fence not at least 10 feet from toe of slope
2D	Silt fence not at appropriate spacing intervals based on slope
2E	Silt fence ends are not wrapped for continuous support
2F	Silt fence fabric is loose or contains rips or frayed areas
2G	Silt fence posts are unstable
2H	Silt fence is not buried 6 inches minimum
2I	Silt fence contains bulges or material buildup

3	Stabilized Construction Access
3A	Temporary construction access not installed or not per NYS standards
3B	Other access areas have not been stabilized immediately as work takes place
3C	Sediment has tracked onto public streets and is not being cleaned daily
3D	Stone is not clean enough to effectively remove mud from vehicles
3E	Adequate drainage not provided to prevent ponding

4	Compost Filter Sock
4A	Filter sock not installed on contour
4B	Filter sock terminal ends do not extended 8' upslope at 45° angle
4C	Inappropriate diameter based on slope steepness and slope length
4D	Filter sock not anchored at 10' intervals
4E	More than 50% sediment has built up

5	Inlet Protection
5A	Inlet protection not installed or installation is not per SWPPP or Blue Book specifications
5B	Incorrect type(s) of inlet control installed or is inappropriate for location
5C	Drainage area for inlet protection is greater than 1 acre
5D	Sediment has not been removed when 50% of storage volume has been achieved
5E	A 2" x 4" wood frame and wood posts has not been installed
5F	Filter fabric is not buried a minimum of 1 foot below ground or secured to frame/posts
5G	Posts are unstable, fabric is loose, and contains rips or frayed areas
5H	Post spacing exceeds maximum 3' spacing

6	Soil Stockpiles
6A	No sediment controls at downhill slope

7	Temporary Stabilization
7A	Areas inactive for 14 days or more have not been stabilized (If <5 acres disturbed)
7B	Areas inactive for 7 days or more have not been stabilized (If >5 acres disturbed or 303d)
7C	Soil preparation has not been applied as specified in the SWPPP or the Blue Book
7D	Rolled EC products specified for steep slopes or channels have not been installed

8	Permanent Stabilization
8A	Lawn in disturbed areas has not been established to 80% germination
8B	Soil preparation has not been applied as specified in the SWPPP or the Blue Book
8C	Rolled EC products specified for steep slopes or channels have not been installed

9	Dewatering Operations
9A	Upstream and downstream berms are not installed or functioning poorly
9B	Clean water from upstream pool is not being pumped to the downstream pool
9C	Sediment laden water from work area is not being discharged to a silt-trapping device
9D	Groundwater from excavations managed improperly (No sumps/sediment control)

10	Stone Check Dam
10A	Not installed per standards
10B	Channel is unstable (flow is eroding soil underneath or around the structure)
10C	Check dam in poor condition (rocks not in place or lack of geotextile fabric)
10D	Sediment needs to be removed

11	Rock Outlet Protection
11A	Rock outlet protection not installed per plan or Blue Book
11B	Rock outlet protection not installed concurrently with pipe installation

12	Sediment Traps and Basins
12A	Outlet structure constructed improperly
12B	Geotextile fabric has not been placed beneath rock fill
12C	Depth of sediment in basin has exceeded allowable threshold
12D	Basin and outlet structure not constructed per the approved plan
12E	Basin side slopes are not stabilized with seed/mulch
12F	More than 50% capacity has built up

13	Temporary Stream Crossing
13A	Construction crossings at concentrated flow areas have not been culverted

14	Pavement Sweeping
14A	Pavement has not been swept daily and sediment has traveled into road

Stormwater Management Practice Deficiencies and Corrective Actions

Practice	Sign Y / N	Current Phase of Construction	Items Not in Conformance with SWPPP	Deficiency Location	Initial Date	Corrective Action	Corrected Y / N
Practice 1:							
Practice 2:							
Practice 3:							
Practice 4:							
Practice 5:							
Practice 6:							

Photo Log

Photo 1

Date – Item in need of repair or maintenance:

Photo 1A

Date – Corrected Action:

Photo 2

Date – Item in need of repair or maintenance:

Photo 2A

Date – Corrected Action:

Photo 3

Date – Item in need of repair or maintenance:

Photo 3A

Date – Corrected Action:



APPENDIX G: POST-CONSTRUCTION INSPECTIONS AND MAINTENANCE

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Disconnection and Sheetflow (Rooftop Disconnection, Filter Strip, Riparian Buffer)

Table 2.4.1 D&S Drainage Area

Problem (Check if Present)	Follow-Up Actions
 ☐ Changes in flow; more runoff; runoff bypassing the practice	☐ For rooftop areas, make sure downspouts are still disconnected and conveying water into the treatment area. ☐ Look for and remove any "dams" of sediment and grass clippings that prevent water from entering the treatment area as sheet flow. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Changes to drainage area size or amount of runoff due to construction, tillage, etc.
 ☐ For parking lots in the drainage area—sediment, grass clippings, or other debris has accumulated at pavement edge.	☐ For small, isolated amounts of debris, sweep up by hand and dispose properly so that it will not be exposed to runoff. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Sediment is widespread and cannot be removed by manual sweeping.
 ☐ For parking lots in the drainage area—dips or damage at pavement edge caused flow to concentrate.	☐ Kick-Out to Level 2 Inspection: This will likely require special expertise to diagnose and fix pavement edge.

Table 2.4.2 D&S Level Spreader/Energy Dissipator

Problem (Check if Present)	Follow-Up Actions
 ☐ Debris and/or sediment accumulated behind or around the level spreader.	☐ Remove debris and sediment by hand and ensure that the area behind the level spreader is relatively flat. Too much debris and sediment can cause runoff to bypass the level spreader structure. ☐ Other:
 ☐ Sinking, cracking, sloughing, or other structural problem makes the energy dissipator no longer level.	☐ For stone/gravel spreaders, add new material or rake out as needed to make it even. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Structural issues that cannot be easily fixed by hand

Table 2.4.3 D&S Treatment Area

Problem (Check if Present)	Follow-Up Actions
☐ Trash and/or debris in the treatment area	☐ Collect trash/debris and dispose of properly.
 ☐ Grass filter strip has grown very tall, to the point that runoff cannot easily enter or is getting concentrated.	☐ Mow filter strip twice a year or more frequently in a residential yard.
☐ Sparse vegetation or bare spots	☐ For grassy areas, add topsoil (as needed), grass seed mulch, and water during the growing season to re-establish consistent vegetation cover. ☐ Other:
 ☐ Rills or gullies are forming in treatment area where flow has become concentrated	☐ For minor rills, fill in with soil, compact, and add seed and straw to establish vegetation. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Rills are more than 2" to 3" deep and require more than just hand raking and re-seeding.

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Swales (Vegetated Swale, Wet Swale)

Table 2.5.1 SW Drainage Area

Problem (Check if Present)	Follow-Up Actions
 ☐ Bare soil, erosion of the ground (rills washing out the dirt)	☐ Seed and mulch or sod areas of bare soil to establish vegetation. ☐ Fill in erosion areas with soil, compact, and add seed and straw to establish vegetation. ☐ If a rill or small channel is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Large areas of soil have been eroded, or larger channels are forming. May require rerouting of flow paths
 ☐ Piles of grass clippings, mulch, dirt, salt, or other materials	☐ Remove or cover piles of grass clippings, mulch, dirt, etc. ☐ Other:
☐ Open containers of oil, grease, paint, or other substances	☐ Cover or properly dispose of materials; consult your local solid waste authority for guidance on materials that may be toxic or hazardous.
	Kick-Out to Level 2 Inspection: Grass on edge of pavement continues to die off for unknown reasons. Swale edge may need to be replaced with other materials (e.g., stone diaphragm).
☐ Grass dying at edge of road	☐ Seed and mulch; add topsoil or compost if needed. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Grass on edge of pavement continues to die off for unknown reasons. Swale edge may need to be replaced with other materials (e.g., stone diaphragm).

Table 2.5.2 SW Inlets

Problem (Check if Present)	Follow-Up Actions
☐ Inlets or the swale edge are collecting grit, grass clippings, or debris or have grass/weeds growing. Some water may not be getting into the swale. The objective is to have a clear pathway for water to flow into the swale.	☐ Use a flat shovel to remove grit and debris (especially at curb inlets or opening). Parking lots will generate fine grit that will accumulate at these spots. ☐ Pull out clumps of growing grass or weeds, and scoop out the soil or grit that the plants are growing in. ☐ Remove any grass clippings, leaves, sticks, and other debris that is collecting at inlets or along the edge of the swale where water is supposed to enter. ☐ For pipes and ditches, remove sediment and debris that is partially blocking the pipe or ditch opening where it enters the swale. ☐ Dispose of all material properly in an area where it will not re-enter the swale. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Inlets are blocked to the extent that most of the water does not seem to be entering the swale.
 ☐ Some or all of the inlets are eroding so that rills, gullies, and other erosion are present, or there is bare dirt that is washing into the swale.	☐ For small areas of erosion, smooth out the eroded part and apply rock or stone (e.g., river cobble) to prevent further erosion. Usually, filter fabric is placed under the rock or stone. ☐ In some cases, reseeding and applying an erosion control matting can be used to prevent further erosion. Some of these materials may be available at a garden center, but it may be best to consult a landscape contractor. ☐ Other: ☐ Level 2 Inspection: Erosion is occurring at most of the inlets or along much of the swale edge. The inlet design may have to be modified.

Table 2.5.3 SW Surface Area

Problem (Check if Present)	Follow-Up Actions
☐ Minor areas of sediment, grit, trash, or other debris are accumulating in the swale.	☐ Use a shovel to scoop out minor areas of sediment or grit, especially in the spring after winter sanding materials may wash in and accumulate. Dispose of the material where it cannot re-enter the swale. ☐ If removing the material creates a hole or low area, fill with good topsoil and add seed and straw to re-vegetate. ☐ Remove trash, vegetative debris, and other undesirable materials. ☐ If the swale is densely vegetated, it may be difficult to do the maintenance; check for excessive ponding or other issues described in this section to see if the accumulated material is causing a problem. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Sediment has accumulated more than 3 inches deep and covers 25% or more of the swale surface. ☐ The source of sediment is unknown or cannot be controlled with simple measures.
 ☐ There is erosion in the bottom or on the side slopes. Water seems to be carving out rills as it flows through the swale or on the slopes.	☐ Try filling the eroded areas with clean topsoil, and then seed and mulch to establish vegetation. ☐ If the problem recurs, you may have to use some type of matting, stone (e.g., river cobble), or other material to fill in eroded areas. ☐ If the erosion is on a side slope, fill with soil and cover with erosion-control matting or at least straw mulch after re-seeding. ☐ Kick-Out to Level 2 Inspection: The problem persists or the erosion is more than 3 inches deep and seems to be an issue with how water enters and moves through the swale. ☐ Kick-Out to Level 2 Inspection: The problem does not seem to be caused by flowing water, but a collapse or sinking of the surface (e.g., "sinkhole") due to some underground problem.
☐ Water does not flow evenly down the length of the swale, but ponds in certain areas for long periods of time (e.g., 72 hours after a storm). The swale does not seem to have "positive drainage." Check during or immediately after a rain storm.	☐ If the problem is minor (just small, isolated areas), try using a metal rake or other tools to create a more even flow path; remove excessive vegetative growth, sediment, or other debris that may be blocking the flow. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Water ponds in more than 25% of the swale for three days or more after a storm. The issue may be with the underlying soil or the grade of the swale. ☐ Water ponds behind check dams for three days or more after a storm. Check dams may be clogged or not functioning properly.



- ☐ Check dams (if present): water is flowing around the edges of check dams, creating erosion or sinkholes on the uphill or downhill side, or the check dams are breaking apart or breaching.

- ☐ If the problem is isolated to just a few check dams, try simple repairs.
- ☐ It is very important for the center of each check dam (where most of the water flows) to be lower (by at least several inches) than the edges of the check dams where they meet the side slopes. Also, the check dams should be keyed into side slopes so water does not flow between the check dam and side slope.
- ☐ Use a level to check the right check-dam configuration, as noted above. Repair by moving around stone, filling and compacting soil, or adding new material so that water will be directed to the center of the check dam instead of the edges.
- ☐ Other:

- ☐ Kick-Out to Level 2 Inspection: Many check dams are impacted and/or the problem seems to be a design issue with height, spacing, shape, or materials used to construct them.

Table 2.5.4 SW Vegetation

Problem (Check if Present)	Follow-Up Actions
 ☐ Vegetation is too overgrown to access swale for maintenance activities	☐ Mow or bush-hog the path. ☐ Other:
 ☐ Vegetation requires regular maintenance: pulling weeds, removing dead and diseased plants, adding plants to fill in areas that are not well vegetated, etc.	☐ If you can identify which plants are weeds or not intended to be part of the planting plan, eliminate these, preferably by hand pulling. ☐ If weeds are widespread, check with the local stormwater authority and/or Extension Office about proper use of herbicides for areas connected with the flow of water. ☐ Even vegetation that is intended to be present can become large, overgrown, block flow, and/or crowd out surrounding plants. Prune and thin accordingly. ☐ If weeds or invasive plants have overtaken the whole swale, bush-hog the entire area before seed heads form in the spring. It will be necessary to remove the root mat manually or with appropriate herbicides, as noted above. ☐ Replant with species that are aesthetically pleasing and seem to be doing well in the swale. ☐ Other: ☐ Kick-Out to Level 2 Inspection: You are unsure of the original planting design or the vegetation maintenance task is beyond your capabilities of time, expertise, or resources. If you are unsure of the health of the vegetation (e.g. salt damage, invasives, which plants are undesirable) or the appropriate season to conduct vegetation management, consult a landscape professional before undertaking any cutting, pruning, mowing, or brush hogging.
☐ Vegetation is too thin, is not healthy, and there are many spots that are not well vegetated.	☐ The original plants are likely not suited for the actual conditions within the swale. If you are knowledgeable about plants, select and plant more appropriate vegetation (preferably native plants) so that almost the entire surface area will be covered by the end of the second growing season. ☐ Other: ☐ Kick-Out to Level 2 Inspection: For all but small practices (e.g., in residential yards), this task will likely require a landscape design professional or horticulturalist.

Table 2.5.5 SW Outlets

Problem (Check if Present)	Follow-Up Actions
☐ Outlet is obstructed with mulch, sediment, debris, trash, etc.	☐ Remove the debris and dispose of it where it cannot re-enter the swale. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Outlet is completely clogged or obstructed; there is too much material to remove by hand or with simple hand tools.

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Tree Planting

Table 2.6.1 TP Watering

Problem (Check if Present)	Follow-Up Actions
☐ Soil is not moist to the touch and/or it has not rained in a week, and leaves/needles are starting to appear wilted/dry.	☐ Water trees deeply and slowly near the base. Soaker hoses and drip irrigation work best for deep watering of trees and shrubs. ☐ Other:

Table 2.6.2 TP Mulch

Problem (Check if Present)	Follow-Up Actions
☐ Mulch is too thin or thick (should be approximately 3" deep) or does not extend to tree canopy (or 5' radius if tree has a larger than 10' canopy reach).	☐ Add or remove mulch around tree canopy to maximum 5' radius but not within 3" of the bark. ☐ If mulch is against the stems or tree trunks, pull it back several inches to expose the base of the trunk and root crown. ☐ Other:

Table 2.6.3 TP Pruning

Problem (Check if Present)	Follow-Up Actions
☐ Presence of suckers, dead or diseased branches, branches that interfere with pedestrian traffic	☐ Selective cutting ☐ Prune to make the tree more aesthetically pleasing and remove disease. ☐ Other:
	☐ Kick-Out to Level 2 Inspection: Use an arborist or landscaper for more extensive pruning jobs.

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Permeable Pavement (Permeable Pavers, Porous Asphalt/Concrete)

Table 2.9.1 PP Drainage Area

Problem (Check if Present)		Follow-Up Actions
	☐ Bare soil, erosion of the ground (rills washing out the dirt)	☐ Seed and straw areas of bare soil to establish vegetation. ☐ Fill in erosion areas with soil, compact, and seed and straw to establish vegetation. ☐ If a rill or small channel is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted. ☐ Other:
	☐ Piles of grass clippings, mulch, dirt, salt, or other materials	☐ Remove or cover piles of grass clippings, mulch, dirt, etc. ☐ Other:
	☐ Open containers of oil, grease, paint, or other substances	☐ Cover or properly dispose of materials; consult your local solid waste authority for guidance on materials that may be toxic or hazardous. ☐ Other:

Table 2.9.2 PP Surface

Problem (Check if Present)	Follow-Up Actions
 ☐ Dirt and grit accumulating on pavement surface	☐ For small areas (e.g., driveways, patios), try a leaf blower or sweep the area to remove the dirt/grit from the Permeable pavement and properly dispose of the material. ☐ If dirt/grit remain in the joint areas between paver blocks, agitate with a rough brush and vacuum the surface with a wet/dry vac. ☐ Remove and replace clogged blocks in segmented pavers. ☐ For larger areas (e.g., parking lots, courtyards), hire a vacuum sweeper to restore the surface to a cleaner condition. ☐ Other:
 ☐ Grass and weeds are growing on the permeable pavement surface (applies only to pavement types that are not intended to be covered in vegetation).	☐ If paver type is not intended to be covered in vegetation, remove the grass/weeds either mechanically (pulling, by hand or with a flame weeder) or with a herbicide approved for use in or near water (consult your local Extension Office for suggestions). ☐ Follow the actions listed above for removing dirt/grit from the pavement surface. ☐ Other:
 ☐ Slumping, sinking, cracking, or breaking of the pavement surface (Source: CSN, 2013)	☐ For small areas (e.g., patios, small driveway), it may be possible to remove the damaged pavers, check and fill in the underlying gravel, and replace with new materials. ☐ Other:
 ☐ Water stands on Permeable pavement for days after a rainstorm; the Permeable pavement is clogged and doesn't let water through. (Source: CSN, 2013)	☐ Kick-Out to Level 2 Inspection: This is generally a serious problem, and it will be necessary to activate a Level 2 Inspection.

Permeable Pavement Stormwater Management Practices Level 1 Inspection Checklist

SMP ID #		SMP Owner		☐ Private ☐ Public
SMP Location (Address; Latitude & Longitude)				
	Latitude		Longitude	
Party Responsible for Maintenance	System Type		Type of Site	
☐ Same as SMP Owner ☐ Other _____	☐ Seasonal ☐ Continuous Use ☐ Other	☐ Above Ground ☐ Below Ground	☐ Commercial ☐ Industrial ☐ Residential ☐ State	
Inspection Date			Inspection Time	
Inspector				
Date of Last Inspection				

PP Drainage Area

Look for areas that are uphill from the Permeable pavement.

Problem (Check if Present)		Follow-Up Actions
	☐ Bare soil, erosion of the ground (rills washing out the dirt)	☐ Seed and straw areas of bare soil to establish vegetation. ☐ Fill in erosion areas with soil, compact, and seed and straw to establish vegetation. ☐ If a rill or small channel is forming, try to redirect water flowing to this area by creating a small berm or adding topsoil to areas that are heavily compacted. ☐ Other:

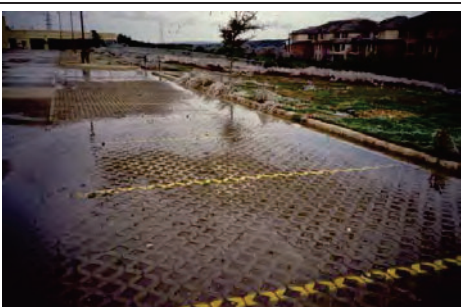
PP Drainage Area

Look for areas that are uphill from the Permeable pavement.

Problem (Check if Present)		Follow-Up Actions
		☐ Kick-Out to Level 2 Inspection: Large areas of soil have been eroded, or larger channels are forming. May require rerouting of flow paths.
	☐ Piles of grass clippings, mulch, dirt, salt, or other materials	☐ Remove or cover piles of grass clippings, mulch, dirt, etc. ☐ Other:
	☐ Open containers of oil, grease, paint, or other substances	☐ Cover or properly dispose of materials; consult your local solid waste authority for guidance on materials that may be toxic or hazardous. ☐ Other:

PP Surface

Examine the entire permeable pavement surface.

Problem (Check if Present)	Follow-Up Actions
 ☐ Dirt and grit accumulating on pavement surface	☐ For small areas (e.g., driveways, patios), try a leaf blower or sweep the area to remove the dirt/grit from the Permeable pavement and properly dispose of the material. ☐ If dirt/grit remain in the joint areas between paver blocks, agitate with a rough brush and vacuum the surface with a wet/dry vac. ☐ Remove and replace clogged blocks in segmented pavers. ☐ For larger areas (e.g., parking lots, courtyards), hire a vacuum sweeper to restore the surface to a cleaner condition. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Grit is widespread and cannot be removed by manual sweeping.
 ☐ Grass and weeds are growing on the permeable pavement surface (applies only to pavement types that are not intended to be covered in vegetation).	☐ If paver type is not intended to be covered in vegetation, remove the grass/weeds either mechanically (pulling, by hand or with a flame weeder) or with a herbicide approved for use in or near water (consult your local Extension Office for suggestions). ☐ Follow the actions listed above for removing dirt/grit from the pavement surface. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Grass/weeds cover more than 25% of surface area.
 ☐ Slumping, sinking, cracking, or breaking of the pavement surface (Source: CSN, 2013)	☐ For small areas (e.g., patios, small driveway), it may be possible to remove the damaged pavers, check and fill in the underlying gravel, and replace with new materials. ☐ Other: ☐ Kick-Out to Level 2 Inspection: Problem affects more than a small, isolated area. Will typically require a qualified contractor to fix it. ☐ Problem recurs or occurs in multiple small locations.
 ☐ Water stands on Permeable pavement for days after a rainstorm; the Permeable pavement is clogged and doesn't let water through. (Source: CSN, 2013)	☐ Kick-Out to Level 2 Inspection: This is generally a serious problem, and it will be necessary to activate a Level 2 Inspection.

Additional Notes:

Inspector: _____

Date: _____

Complete the following if follow-up/corrective actions were identified during this inspection:

Certified Completion of Follow-Up Actions:

"I hereby certify that the follow-up/corrective actions identified in the inspection performed on _____ (DATE) have been completed and any required maintenance deficiencies have been adequately corrected."

Inspector/Operator: _____

Date: _____

Permeable Pavement Stormwater Management Practices Level 2 Inspection Checklist

SMP ID #		SMP Owner		☐ Private ☐ Public
SMP Location (Address; Latitude & Longitude)				
	Latitude		Longitude	
Party Responsible for Maintenance	System Type		Type of Site	
☐ Same as SMP Owner ☐ Other _____	☐ Seasonal ☐ Continuous Use ☐ Other	☐ Above Ground ☐ Below Ground	☐ Commercial ☐ Industrial ☐ Residential ☐ State	
Inspection Date			Inspection Time	
Inspector				
Date of Last Inspection				

Level 2 Inspection: PERMEABLE PAVEMENT

Recommended Repairs and Required Skills

Triggers for Level 3 Inspection

Observed Condition: Bare Soil or Erosion in the Drainage Area

- ☐ Condition 1: Extensive problem spots, but no channels or rills forming

Reseed problem areas. If problem persists or grass does not take, consider hiring a landscape contractor.

- ☐ Condition 2: Problem is extensive, and rills/channels are beginning to form

May be necessary to divert or redirect water that is causing the erosion problem. If it appears that simple regrading—such as installing a berm or leveling a low spot—will fix the problem, make repairs and check to ensure that the problem is repaired after the next storm.

- Large rills or gullies are forming in the drainage area.
- An attempt to regrade the drainage area has been unsuccessful
- Fixing the problem would require major regrading (i.e., redirecting more than a 100-square-foot area.
- It is not clear why the problem is occurring.

- ☐ Level 3 inspection necessary

Observed Condition: Dirt or Grit Accumulating, or Grass Growing on Pavement Surface

- ☐ Condition 1: Grit beginning to form but is isolated to a small area or does not fill the joints between paver blocks

Try to agitate and sweep by hand, or hire a contractor with a vacuum sweeper. Also investigate the drainage area for potential sediment sources. If no obvious sources are found, discuss winter sanding and salting operations with the property owner to identify whether this could be the source.

- ☐ Condition 2: Grit is forming and cannot be removed with agitation and hand sweeping

Hire a vendor with a regenerative air vacuum sweeper, maximum power 2,500 rpm; avoid sweepers that use water.

- More than 2 inches of sand/dirt/grit are on some of the pavement surface.
- More than 25% of the pavement surface is covered with sand/dirt/grit to the extent that joints between paver blocks are filled.
- Regenerative air sweeper cannot remove grit.

- ☐ Level 3 inspection necessary

Level 2 Inspection: PERMEABLE PAVEMENT

Recommended Repairs and Required Skills

Triggers for Level 3 Inspection

Observed Condition: Structural Damage

- ☐ Condition 1: Portions of porous asphalt or permeable pavers are damaged, and the cause is known to be at the surface.

If the damage is from a single event such as heavy equipment or heavy fallen objects, or the surface has been damaged by wear over time, hire a contractor experienced in permeable pavement installation to repair the damaged areas.

- ☐ Condition 2: Damage to other structures, such as drainage infrastructure

If possible, repair or replace damaged items, or hire a contractor with permeable pavement experience if the damaged infrastructure is within the pavement surface.

- More than 25% of the surface needs to be repaired or replaced.
- It appears that the underlying material has “caved in,” indicating an underlying water conveyance or soil stabilization issue.
- Problem is repaired but recurs within less than five years.

- ☐ Level 3 inspection necessary

Observed Condition: Ponding on the Pavement Surface

- ☐ Condition 1: Underdrains (if present) may be clogged

Check to see whether underdrains are clogged by inspecting cleanouts (if present) or catch basins and looking for debris. If underdrains appear clogged, it may be necessary to hire a router service to ream out the underdrains.

- ☐ Condition 2: At time of Level 2 inspection, water is not ponded, and there is no obvious clogging of the surface.

Conduct a flood test to determine whether the ponding is an ongoing problem.

- Water stands on the pavement surface more than 72 hours after a storm, and the problem cannot be resolved by unclogging underdrains.
- More than 25% of the pavement surface is covered with sand/dirt/grit to the extent that joints between paver blocks are filled.

- ☐ Level 3 inspection necessary

Notes:

Inspector: _____

Date: _____

Complete the following if follow-up/corrective actions were identified during this inspection:

Certified Completion of Follow-Up Actions:

"I hereby certify that the follow-up/corrective actions identified in the inspection performed on _____ (DATE) have been completed and any required maintenance deficiencies have been adequately corrected."

Inspector/Operator: _____

Date: _____



APPENDIX I:
LABELLA CERTIFYING PROFESSIONALS LETTER

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February 21, 2025

RE: LaBella Certifying Professionals for NYSDEC SPDES GP-0-25-001

To Whom it May Concern:

In accordance with the NYSDEC SPDES General Permit GP-0-25-001, Part VII.J.2, Walter Kubow, PE, a New York State Qualified Professional employed by LaBella Associates, is duly authorized to sign and seal Stormwater Pollution Prevention Plans (SWPPPs), Notice of Intents (NOIs) and Notice of Terminations (NOTs).

Respectfully submitted,

LaBella Associates

A handwritten signature in blue ink, appearing to read 'Timothy Webber', is positioned above the printed name and title.

Timothy Webber
Vice President, Civil Division Director

A handwritten signature in blue ink, appearing to read 'Walter Kubow', is positioned above the printed name and title.

Walter Kubow, PE
Senior Civil Engineer

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APPENDIX J:
NYSDEC SPDES GENERAL PERMIT GP-0-25-001

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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

Scott E. Sheeley JAN. 29, 2025
Authorized Signature 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

Part I.A.4.a.iii.

- iii. 20+ acres of disturbance - 100 feet.
 - b. NYSDEC consultation form sent to OPRHP,¹ 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

¹ 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

Part I.D.1.b.

- 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 NYSDC'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 1st and March 31st.

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

Part I.D.2.b.i.2.

- 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.²
- 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.

² 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, 4th 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

Part I.E.3.g.

- 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).³ *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.

³ 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,⁴ 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.

⁴ 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, 4th 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

Part II.B.

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

Part II.B. 1.a.vii.

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

Part III.A.1.

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 (CRRRA), 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

Part III.A.3.

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

Part IV.C.1.a.

- 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

Part IV.C.2.d.

- 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*.

Part IV.C.4.

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:

Part IV.C.4.i.i.

- 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:

Part IV.C.5.a.i.

- 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

Part V.A.1.b.

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.

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 plan, such 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.⁵
- 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.

⁵ 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, 4th 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:

- 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,⁶ 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.

⁶ 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.

Part VII.J.1.c.

- 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

Part VII.J.4.

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	
NY/SDC – 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 relative 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 NYSDC 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 NYSDC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDC 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 <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix D • Single-family residential subdivisions with 25% or less <i>impervious</i> cover at total site build-out and <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix D • Construction of a barn or other <i>agricultural building</i>, 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 <i>impervious area</i> <u>or</u> <i>alter hydrology from pre- to post-development conditions</i>.
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, <i>stormwater</i> 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 <i>impervious cover</i> • 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 <i>impervious cover</i>, that are not part of residential, commercial, or institutional development; • Sidewalks, bike paths, or walking paths, surfaced with an <i>impervious cover</i>, 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 planned¹ • 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.	
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1. If the site is redeveloped in the future, a new eNOL 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	
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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

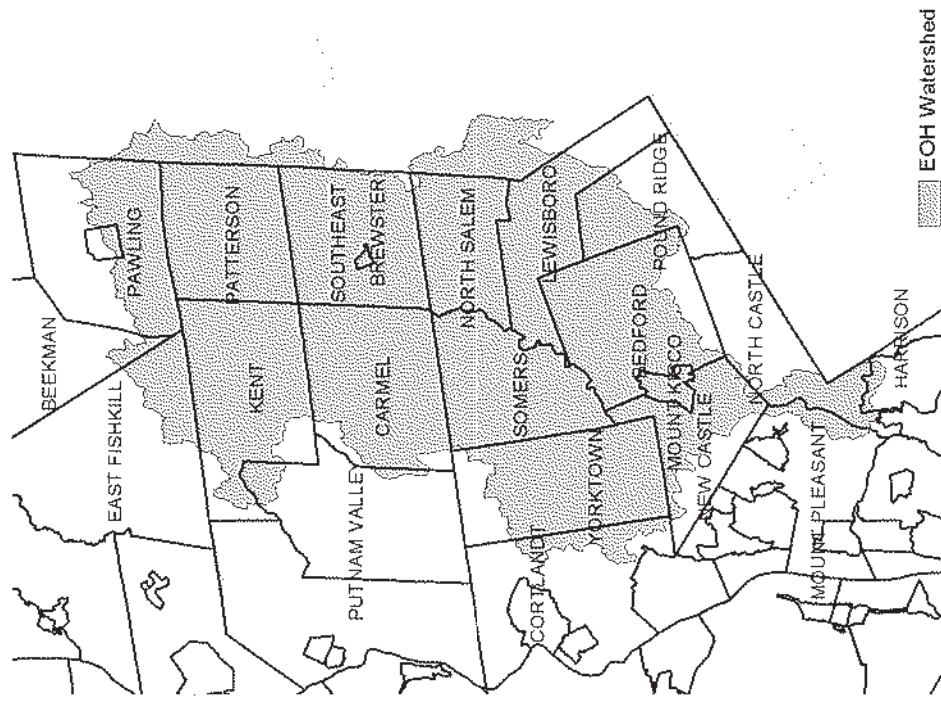


Figure 2 – Onondaga Lake Watershed

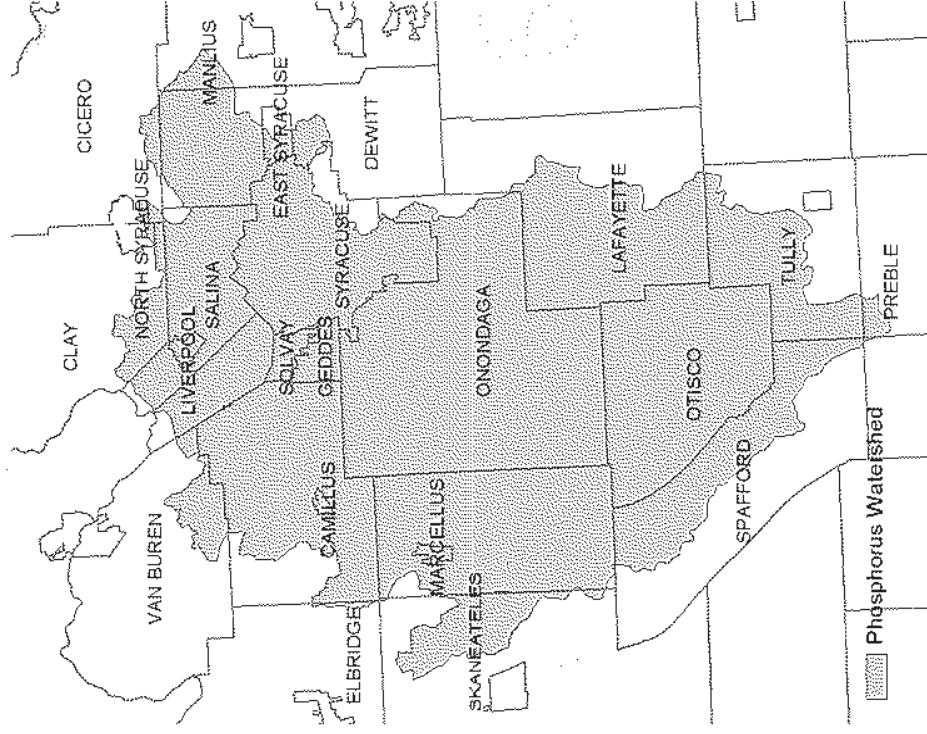


Figure 3 - Greenwood Lake Watershed

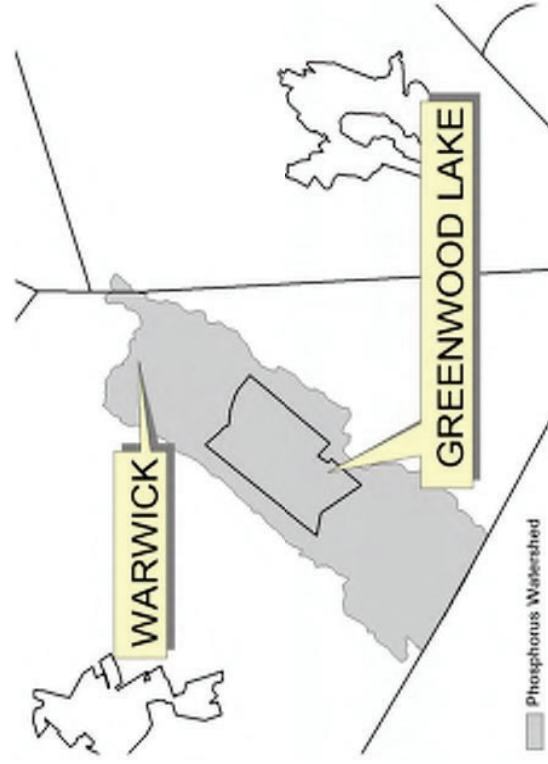


Figure 4 - Oscawana Lake Watershed

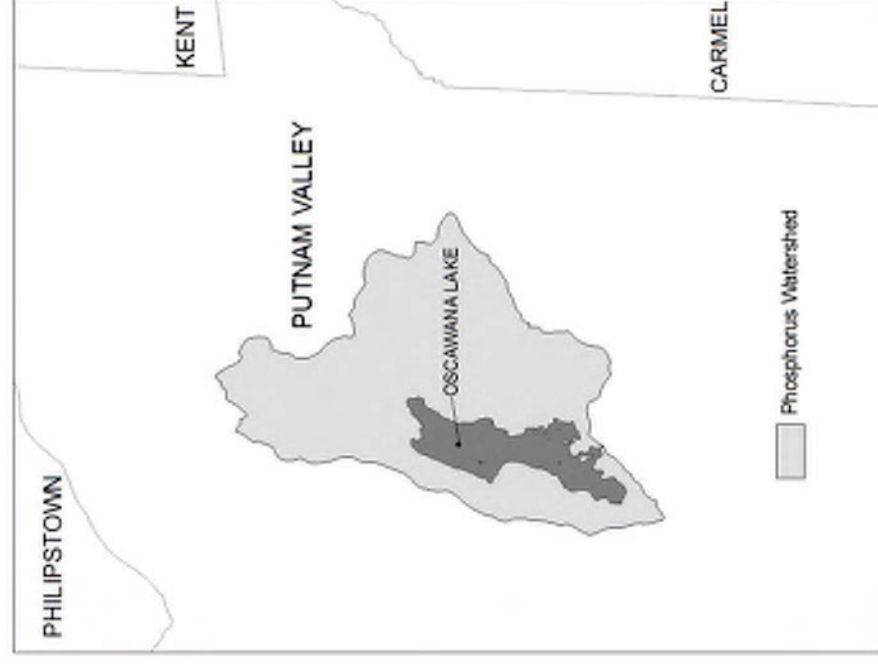
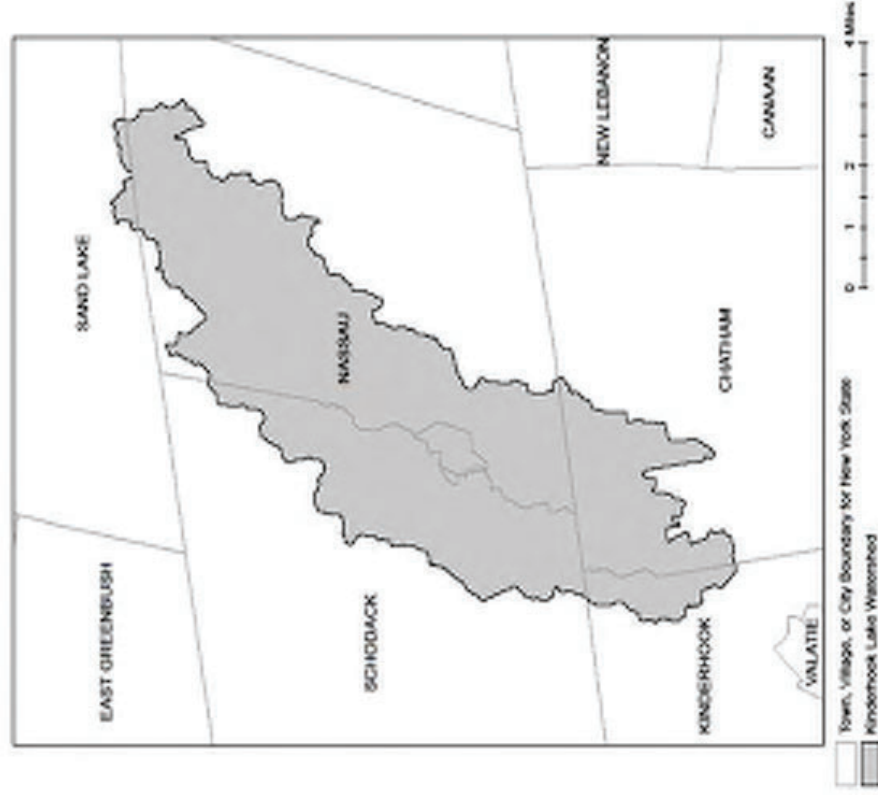


Figure 5 – Kinderhook Lake Watershed



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	Falkill 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	Browsware 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 Walkill (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	Walkill River, Middle, Main Stem (1306-0038)	Phosphorus
Orange	Walkill River, Upper, and Minor tribs (1306-0017)	Phosphorus
Orleans	Glenwood 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 (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 Ronkontoma (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	Walkill 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 FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
1	NASSAU AND SUFFOLK	50 CIRCLE ROAD STONY BROOK, NY 11790 TEL: (631) 444-0385	50 CIRCLE ROAD STONY BROOK, NY 11790-3409 TEL: (631) 444-0405
2	BROOK, KINGS, NEW YORK, QUEENS AND RICHMOND	1 HUNTERS POINT PLAZA, 4740 21ST STREET LONG BEACH CITY, NY 11101-5407 TEL: (718) 482-4987	1 HUNTERS POINT PLAZA, 4740 21ST STREET LONG BEACH CITY, NY 11101-5407 TEL: (718) 482-4933
3	DUTCHESS, ORANGE, PUTNAM, ROCKLAND, SULLIVAN, ULSTER AND WESTCHESTER	21 SOUTH PLATT CORNERS ROAD NEW PALTZ, NY 12561-1696 TEL: (845) 256-3059	220 WHITE PLAINS ROAD, SUITE 110 TEL: (914) 428 - 2505
4	ALBANY, COLUMBIA, DELAWARE, GREENE, MONTGOMERY, OTSEGO, RENSSELAER, SCHENECTADY AND SCHOHARIE	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL: (518) 357-2069	1130 NORTH WESTCOTT ROAD SCHENECTADY, NY 12306-2014 TEL: (518) 357-2045
5	CLINTON, ESSEX, FRANKLIN, CULTON, HAMILTON, SARATOGA, WARREN AND WASHINGTON	1115 STATE ROUTE 86, PO BOX 296 RAY BROOK, NY 12977-0296 TEL: (518) 897-1234	232 GOLF COURSE ROAD WARRENSBURG, NY 12885-1172 TEL: (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL: (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL: (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL: (315) 426-7438	5786 WIDEWATERS PARKWAY SYRACUSE, NY 13214-1867 TEL: (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORCAUS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL: (585) 226-2466	6274 EAST AVON-LIMA RD, AVON, NY 14414-9519 TEL: (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 TEL: (716) 851-7165	700 DELAWARE AVENUE BUFFALO, NY 14209-2999 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

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

Page 1 of 2

MS4 SWPPP Acceptance Form - continued

The City of New York Department of Environmental Protection (NYCDEP) SWPPP Acceptance/Approval form required by this permit begins on the following page.

Printed Name¹:

Signature: _____

VI. Add

VI. Additional Information	
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(NYSDEC - MS4 SWPPP Acceptance Form - January 2025)



SWPPP Acceptance/Approval

Application Number:

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/Approval	
8. SWPPP Reviewed by:	
9. Title/Position: /	
10. Date Final SWPPP Reviewed and Accepted:	
11. Acceptance/Approval Expiration Date:	
IV. Regulated MS4 Information for projects that require coverage under the NY State Pollution Discharge Elimination System General Permit for Stormwater Discharges from Construction Activity	
12. Name of MS4: CITY OF NEW YORK	
13. MS4 SPDES Permit Identification Number: NY-0287890	
14. Contact Person:	
15. Street Address: 59-17 Junction Blvd. 9th Floor	
16. City/State/Zip: Flushing, NY 11373	
17. Telephone Number:	



Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.



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 question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s).

Note: The MS4, 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 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

Date:

VI. Conditions of Acceptance/Approval and Additional Information



Projects in the MS4 area must submit a copy of this SWPPP Acceptance with a Notice of Intent for coverage under the NY SPDES General Permit for Stormwater Discharges from Construction Activity to: NYS Department of Environmental Conservation, Division of Water; 625 Broadway, 4th Floor; Albany, New York 12233-3505.

APPENDIX I – MS4 No Jurisdiction Form

The MS4 No Jurisdiction Form required by this permit begins on the following page.



MS4 No Jurisdiction 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

- a. Owner/Operator Name:
- b. Contact Person:
- c. Street Address:
- d. City/State/Zip:

II. Project Site Information

- a. Project/Site Name:
- b. Street Address:
- c. City/State/Zip:
- d. eNOI Submission ID:

III. Traditional Land Use Control MS4 Operator Information

- a. Name of MS4 Operator:
- b. MS4 SPDES Permit ID Number: NYR20A
- c. Street Address:
- d. City/State/Zip:
- e. Telephone Number:

IV. Certification Statement

In accordance with CGP Part I.D.2.b.ii.3., I hereby certify that the Traditional Land Use Control MS4 Operator identified in section III. of this form does not have review authority over the construction project identified in section II. of this form, which is owned/operated by the entity identified in section I. of this form. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

- a. 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.:

- b. Title/Position:
- c. Signature:
- d. Date:



APPENDIX J – Owner/Operator Certification Form

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

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 _____

Revised: January 2025



APPENDIX K: NYSDEC ESC Winter Stabilization Standards

STANDARD AND SPECIFICATIONS FOR WINTER STABILIZATION



Definition & Scope

A temporary site specific, enhanced erosion and sediment control plan to manage runoff and sediment at the site during construction activities in the winter months to protect off-site water resources.

Conditions Where Practice Applies

This standard applies to all construction activities involved with ongoing land disturbance and exposure between November 15th to the following April 1st.

Design Criteria

1. Prepare a snow management plan with adequate storage for snow and control of melt water, requiring cleared snow to be stored in a manner not affecting ongoing construction activities.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.

7. 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.
8. 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.
9. 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.
10. 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 or;
 - b. the work is in disturbed areas that collect and retain runoff, such as open utility trenches, foundation excavations, or water management areas.
11. Use stone paths to stabilize access perimeters of buildings under construction and areas where construction vehicle traffic is anticipated. Stone paths should be a minimum 10 feet in width but wider as necessary to accommodate equipment.

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.

Compliance inspections must be performed and reports filed properly in accordance with the SWPPP for all sites under a winter shutdown.

