

**Stormwater Pollution Prevention Plan
&
Notice of Intent**

NEW PHYSICAL PLANT BUILDING

HUDSON VALLEY COMMUNITY COLLEGE

City of Troy, Rensselaer County, NY

16 March 2007

Project No. 1970608



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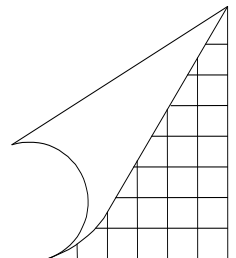


Table of Contents

1. Introduction	3
1.1 Intent and Reference Standards	3
1.2 Site	3
1.3 Proposed Project	3
1.4 Permits and Construction Schedule.	3
2. Existing Conditions	4
2.1 Land Use and Vegetation	4
2.2 Topography	4
2.3 Floodplain, Streams, Ponds and Wetlands	4
2.4 Soils	4
2.5 Hydrogeology	5
3. Storm Water Runoff	6
3.1 Overview	6
3.2 Methodology	6
3.3 Pre-development Runoff	7
3.4 Post Development Runoff	7
4. Stormwater Management	8
4.1 Water Quality Volume	8
4.2 Water Quality Treatment	8
4.3 Surface Water Impacts- Water Quantity Control	10
4.4 Stormwater Management Summary	11
5. Stormwater Conveyance System	11
5.1 General	11
6. Erosion and Sediment Control	13
6.1 Erosion and Sediment Control Measures	13
7. Construction Phase	13
7.1 Responsible Parties	13
7.2 Documentation at Site	13
7.3 Inspections	14

7.4	Construction Sequence _____	14
7.5	Construction Standards and Specifications _____	15
7.6	Construction Pollution Prevention Measures _____	16
8.	<i>Post Construction Inspection, Operation and Maintenance</i> _____	16
8.1	Inspections _____	16
8.2	Operation and Maintenance _____	16
9.	<i>Appendix</i> _____	17
	Stormwater Calculations	
	Water Quality Calculations	
	Notice of Intent (NOI)	
	Compliance Certification	

List of Figures

- 1.1 Site Location
- 2.1 Soils
- 3.1 Pre-Development Drainage Areas
- 3.2 Post-Development Drainage Areas

1. Introduction

1.1 Intent and Reference Standards

The intent of this Stormwater Pollution Prevention Plan (SWPPP) is to evaluate and reduce stormwater quality and quantity impacts associated with the construction of a new Physical Plant Building at Hudson Valley Community College, Rensselaer County, New York. The plan has been prepared in accordance with the New York State Pollutant Discharge Elimination System (SPDES), General Permit for Storm Water Discharges from Construction Activities; Permit Number GP-02-01.

The SWPPP has been prepared in accordance with the following reference standards:

1. *NYSDEC Stormwater Management Design Manual*
2. *NYSDEC Reducing Impacts of Stormwater Runoff from New Development*
3. *New York Guidelines for Urban Erosion and Sediment Control*

1.2 Site

The proposed site is located on a parcel of land currently used as a practice athletic field in the northern portion of the campus. Access to the site is by a gravel service road. For purposes of the study the site limits were selected based on the area directly involved with the construction and those areas tributary to it. Total project site consists of approximately 5.31 acres pre-development and 5.35 acres post-development.

1.3 Proposed Project

The proposed project is the construction of a new physical plant building to consolidate the offices and services to support the campus. The building is approximately 29,500 square feet. In addition to the building is a parking lot for the facility vehicles and staff. This parking area is approximately 35,360 square feet. A 24' wide paved road will be constructed to provide access from the campus to the facility.

The project location is shown in Figure 1.1.

The project sponsor is Hudson Valley Community College who currently owns the property.

1.4 Permits and Construction Schedule.

There are no other environmental permits anticipated for the project. Construction of the project is anticipated to commence in June of 2007 and be complete by December of 2008.

2. Existing Conditions

2.1 Land Use and Vegetation

The site is presently open land used for athletics. The current ground cover is grass in the athletic field, gravel on the access road, scrub meadow between the access road and the ravine, and wooded cover on the banks of the ravine.

2.2 Topography

The site is generally flat with under 1% slopes common. Slope of the land is generally from south to north. At the northern border of the site is the upper edge of a gentle ravine that slopes to the north.

2.3 Floodplain, Streams, Ponds and Wetlands

The site drains to the north to a small tributary of the Wynants Kill. This stream is bordered by Federal Wetlands, which have been delineated and are shown on the project plans. There will be no disturbance of the wetlands by the project.

No part of the project site is within the 100 year flood zone as mapped by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM).

2.4 Soils

Soils information was obtained from the US Department of Agriculture, Natural Resources Conservation Service (formally Soil Conservation Service), Soil Survey of Rensselaer County. The soils mapped at the project site are shown in Figure 2.1. A geotechnical report was prepared based on soil borings in the project area and along the route of the proposed access road. Borings, test pits and percolation tests were made in the project area to identify areas of possible infiltration and recharge.

The predominant soil type at the southern half of the site is classified as Riverhead fine sandy loam (RkB), 3 to 8% slopes. This gently sloping soil formed in glacial outwash that has a high content of sand and gravel. This soil is deep and well drained. Typically, the surface layer is friable, dark grayish brown fine sandy loam 6 inches thick. The subsoil extends to a depth of 35 inches. The upper part of the subsoil is friable, yellowish brown sandy loam, and the lower part is friable, dark yellowish brown sandy loam. The substratum is loose, brown gravelly loamy sand to a depth of 60 inches or more. Depth to bedrock is more than 6 feet.

The soil type at the northern half of the site is classified as Hudson silt loam (HuE). Slopes range from 25 to 45% but is mostly 25 to 35%. This soil formed in silt and clay deposits. This soil is deep and moderately well drained. Typically, the surface layer is friable, dark brown silt loam 5 inches thick. The subsurface layer is friable, brown silt loam 3 inches thick. The subsoil is firm and extends to a depth of 28 inches. It is yellowish brown silty clay in the upper part and plastic and sticky, mottled, brown silty clay in the lower part. The substratum is firm, plastic and

sticky, grayish brown and light olive brown silty clay to a depth of 60 inches or more. Early in spring, a seasonal high water table is perched 18 to 24 inches below the surface.

2.5 Hydrogeology

Within the vicinity of the project site, the College and neighboring residential properties are served by a municipal water system. There are no existing municipal or other high yield production wells in the project vicinity. Properties in the project area are served by municipal sanitary sewers.

3. Storm Water Runoff

3.1 Overview

The addition of driveways, parking lots, and buildings increases the area of impervious surfaces and reduces the time of concentration resulting in increased stormwater runoff. To mitigate this potential impact and conform to the requirements of GP-02-01, peak flow attenuation is provided so that release of stormwater runoff from development will not exceed the pre-development conditions for the 1, 10 and 100 year storms. The 1-year storm will be held on site and infiltrated or released over 24 hours. Water quality treatment is provided through filtration and infiltration.

Calculations of runoff have been made for pre and post-development conditions. Runoff from impervious surfaces will be collected and routed through a combination of filters, infiltration basins, and detention basins. Filtration and settling devices treat the stormwater to remove sediment and improve water quality. Detention facilities are designed to store stormwater runoff and provide for a controlled gradual release to reduce the peak rate of stormwater discharge to levels below predevelopment levels.

3.2 Methodology

Calculations were performed with the assistance of the computer program, Hydraflow © Hydrographs for Windows, by Intelisolve. Soil Conservation Service (SCS now known as National Resources Conservation Service (NRCS)) methods are used to compute the SCS runoff hydrographs for existing and proposed conditions.

The 24-hour rainfall precipitation for storm reoccurrence frequencies of 1 year, 10 year and 100-year storm events were interpolated from the NY Rainfall maps published in the NY Guidelines for Erosion and Sediment Control.

SCS curve numbers (CN) were obtained from SCS tables based on the cover conditions and hydrologic soil group. A weighted average was used to obtain the composite CN for each drainage area.

Time of concentrations for existing conditions were computed based on sheet flow and shallow concentrated flow using SCS methods *TR-55, Urban Hydrology for Small Watersheds*.

Routines within the Hydraflow © computer program were used to model the detention and infiltration basins. Calculated runoff hydrographs are routed through the storage facilities and the resulting outflow (discharge) hydrograph is calculated based on the geometry of the storage and the hydraulics of the outflow structure(s).

Calculation of the Channel Protection Volume (CPv) were made using the methodologies prescribed in the DEC Stormwater Design Manual.

3.3 Pre-development Runoff

For pre-development conditions, the runoff was computed for the site broken up into three areas as shown on the Pre-Development Drainage Area Map.

The calculated runoff for pre-development conditions is shown in Table 3.1.

**Table 3.1
Peak Pre-Development Runoff (in cubic feet per second)**

AREA	1 YEAR	10 YEAR	100 YEAR
Drainage Area A	.8	2.7	5
Drainage Area B	1.5	4.7	8.6
Drainage Area C	.3	1	1.8
Total Site Runoff	2	6.6	12.1

3.4 Post Development Runoff

For post-development conditions, the runoff was computed for the site by breaking the project area up into six drainage areas as shown on the Post-Development Drainage Area Map. The un-mitigated rate of stormwater runoff from the site is predicted to be as shown in Table 3.2.

**Table 3.2
Peak Post Development Runoff Before Stormwater Mitigation (in cubic feet per second)**

AREA	1 YEAR	10 YEAR	100 YEAR
Drainage Area A	.3	1	1.8
Drainage Area B	.3	1.1	2.2
Drainage Area C	1.2	3.6	6.5
Drainage Area D	2.5	4.6	6.8
Drainage Area E	.36	.9	1.5
Drainage Area F	.7	1.5	2.3
Total Site Runoff	4.6	11.1	18.6

4. Stormwater Management

4.1 Water Quality Volume

To reduce stormwater quality impacts, stormwater management systems in accordance with the NYSDEC Stormwater Management Design Manual will be utilized to capture and treat 90% of the average annual stormwater runoff volume. This volume is defined as the Water Quality Volume (WQ_v).

The water quality volume is calculated as follows:

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

Where:

- WQ_v = water quality volume in acre-feet
- P = 90% Rainfall Event = 0.95” for site
- R_v = 0.05+ 0.009(I), where I is the percent impervious cover
- A = site area in acres

4.2 Water Quality Treatment

Stormwater quality is a major component of the Phase II Stormwater Regulations and is typically handled through a combination of devices including settling, filtration, and or infiltration. This particular site is limited in the amount of treatment opportunities that are available.

The predominant soil on the site is a very slowly percolating silt and clay mix which is not suitable for treatment or disposal through infiltration. There is however, a small area of well percolating sandy soil in the northeast quadrant of the proposed parking lot and this will be used for both water quality and quantity treatment through infiltration. This soil has a percolation rate approximately 37 in/hr at the anticipated infiltration depth of 4’ below existing grade. For purposes of design, this infiltration rate was reduced to 10 in/hr to allow for future degradation of the soil’s absorption capacity. Two borings were also advanced in this area and showed this sandy soil extends to a depth of 10’ and showed no groundwater.

This area will be used to treat runoff from the building and the majority of the Physical Plant vehicle parking lot. This drainage area is shown as Area D on the Post Development Drainage Area Map (Drawing SWPPP.02). Runoff from this area will be directed to underground storage composed of 56 Stormtech 740 chambers. The water entering the chambers will first be run through a section of chambers wrapped in filter fabric called an Isolator row by Stormtech. This section will provide for pretreatment and capture of the initial sediment load. The row will have an inspection port and a large supply pipe to permit flushing and collecting of the collected

sediments as necessary. Excluding the amount of runoff infiltrated during a storm event, approximately 8,011 cubic feet of WQv storage volume will be available in these chambers.

The small remainder of the vehicle parking lot, shown as Area E on the drainage area map, will drain southeasterly and be collected by a trench drain at the loading dock and a catch basin in the corner of the parking lot. Runoff from this area will be treated in a second bank of Stormtech 740 chambers with an Isolator row. Treatment will be by storage and infiltration. Excluding the amount of runoff infiltrated during a storm event, approximately 1,122 cubic feet of WQv storage volume will be available in these chambers.

The combined discharge from Areas D & E will be conveyed to an existing swale leading to the ravine. The end section of this pipe will be protected against erosion with stone fill.

The third area of the building site is shown as Area F on the drainage area map and is composed mainly of a visitor parking lot and a section of the access road. The soils in this area are not conducive to infiltration and there is limited area available for surface sand filtration. This area will receive minimal water quality treatment consisting of pretreatment and approximately 2,000 cubic feet of storage in 20 Stormtech 740 chambers. This quantity of WQv was not included in the total WQv in the NOI since it consists primarily of pretreatment.

The configuration of the site is such that the access road runs between the baseball field and the crest of the slope above the ravine. There is very little land available for WQv treatment between the road and the baseball fields and a geotechnical review of the slopes cautioned against storing or concentrating water between the road and the crest of the ravine. Consequently, Area C will only receive WQv treatment that is available in the ditch lines. Longitudinal surface sand filters have been designed for Area C. These will capture runoff from the southerly half of the access road and the softball field to the south. The runoff from Area C will then be directed to an existing discharge pipe that leads to the ravine. Water Quality volumes for area C were also not included in the total WQv posted in the NOI.

Area B will receive no formal WQv treatment since it consists largely of the runoff from the road flowing overland across a broad flat grassy area above the ravine. Although not included in the WQv for the NOI, this water will be treated by flowing across this large expanse of grass.

Area A will receive WQv treatment through a surface sand filter located adjacent to the roadway. Roadside surface swales will provide pretreatment and convey the runoff to this feature. Once filtered, the stormwater will be piped to an existing storm manhole. Approximately 1,700 cubic feet of WQv storage volume will be available in this sand filter.

A total of 7,700 cubic feet of WQv is required for the six drainage areas of the post development site. The total volume of WQv provided is 10,812 cubic feet. The Water Quality volumes are shown for the individual areas in the following table.

Table 4.1
Water Quality Volume

AREA	WQv Required (cf)	WQv Provided (cf)
Drainage Area A	411	1,679
Drainage Area B	431	None Provided
Drainage Area C	1923	None Claimed
Drainage Area D	3506	8,011
Drainage Area E	472	1,122
Drainage Area F	956	None Claimed
Total Site	7,700	10,812

4.3 Surface Water Impacts- Water Quantity Control

As shown in table 3.2 above, the peak discharge for post development drainage conditions has been increased by approximately 50% due mostly to the increase in impervious areas of the site. This increased runoff must be reduced to a level which will not impact the downstream areas.

One of the Phase II Permit requirements is that the 1-year storm be captured and released over a period of 24 hours. This volume is known as the Channel Protection volume (CPv). The required CPv volume for the site is calculated to be 8,207 cubic feet using the DEC Design Manual Procedure and is based on the entire disturbance of the project. The CPv quantities are provided in the Stormtech 740 chambers in Areas D, E, & F and in the surface sand filter in Area A. These volumes are above those for the WQv and include the infiltration from the bottom of the storage chambers in Areas D and E. The Chanel Protection volumes for the individual areas are shown in the following table.

Table 4.2
Channel Protection Volume

AREA	CPv Required (cf)	CPv Provided (cf)
Drainage Area A	536	3,475
Drainage Area B	561	None Provided
Drainage Area C	2,201	None Claimed
Drainage Area D	3,640	12,214
Drainage Area E	439	2,058
Drainage Area F	830	3,536
Total Site	8,207	21,283

The Stormtech 740 chambers and infiltration reduce the peak rates of runoff from the site significantly. The reduction is reflected in the following table of post development rates.

Table 4.3
Peak Post Development Runoff After Stormwater Mitigation (in cubic feet per second)

AREA	1 YEAR	10 YEAR	100 YEAR
Entire Project Site	1.8	6.5	13.6

The post-development peak runoff rates are below pre-development for all except the 100-year event which is only 12% above the predevelopment rate. This does not meet the strict requirements of the Phase II permit however the impact on the downstream conditions does not appear significant.

The complete stormwater and Water Quality calculations are included in the appendix.

4.4 Stormwater Management Summary

The stormwater facilities have been designed to mitigate water quality impacts per the NYS Phase II Stormwater SPDES permit requirements. Surface water impacts have also been mitigated through the use of stormwater management facilities which were designed so that the peak rate of runoff from post development conditions does not exceed the pre-development runoff rate at least up through the 10-year event. Above this level the site constraints limit the storage available and the reductions are not as significant. This is summarized in the following table:

Table 4.4
Peak Pre-Development vs. Post Development Runoff Comparison After Stormwater Mitigation (in cubic feet per second)

AREA	1-YEAR	2-YEAR	5-YEAR	10-YEAR	25-YEAR	50-YEAR	100-YEAR
Pre-Development	2	2.6	4.5	6.6	8.2	9.9	12.
Post-Development	1.8	2.3	3.8	6.5	9	11	13.6

5. Stormwater Conveyance System

5.1 General

Stormwater flow through the stormwater conveyance system, including culverts, storm sewer pipes, swales, road ditches, detention basin and infiltration basin outlets and spillways has been evaluated. The NYS Stormwater Management Design Manual indicates that roadside swales, overflow channels, pond pilot channels and flow over berms be designed for a 2-year, 24 hour

rainfall event and that open channels, outfalls and overflow channels be designed for 10 year storms. Discharge from the treatment devices will be conveyed to the Wynants Kill tributary via a combination of piped and open ditch systems. Discharge from Areas D & E will be piped to an existing swale with a stone fill protected outlet. Discharge from Area F will run from the storm chambers in a pipe to a trapezoidal ditch installed on the least steep section of the hillside above the ravine. The trapezoidal ditch is lined with prefabricated polyethylene panels that fasten together with gaskets and screws. The panels are anchored into the slope so that they will not wash downhill and provide some velocity reduction due to the corrugations in the liner.

6. Erosion and Sediment Control

6.1 Erosion and Sediment Control Measures

Erosion and sediment control measures consistent with the *New York Guidelines for Urban Erosion and Sediment Control* will be implemented. Erosion and sediment control measures are shown on the final plans.

Proposed temporary measures include:

- Silt Saver sediment traps at inlets to catch basins.
- Silt fences on all cleared slopes as further shown on the plans.
- Erosion control blankets on banks of disturbed areas.
- Erosion control blankets and rip rap at outfalls of culverts.
- Hay bale check dams placed at not more than 100' intervals in road side swales.
- Establishing turf on all disturbed areas.
- Minimizing the amount of disturbed area exposed at any one time.

Permanent measures include:

- Riprap outlet protection at major culverts and outlet pipes.
- Erosion control blanket and rip rap outlet protection at minor culverts and outlet pipes.
- Grass lined ditches and swales on slopes less than 5%.
- Establishing turf on all disturbed areas.

7. Construction Phase

7.1 Responsible Parties

The owner of the project has engaged a construction manager who will oversee the construction phase of the project. The construction manager is U. W. Marx who will be responsible for ensuring that the site contractor implements the necessary erosion control practices.

A general contractor will be retained to perform site construction of the improvements. All contractors and subcontractors shall certify compliance with the Stormwater Pollution Prevention Plan as detailed in GP-02-01. A copy of the compliance form is included in the Appendix.

7.2 Documentation at Site

The operator shall maintain a copy of this Stormwater Pollution Prevention Plan, the Construction Plans, Contractor's Certifications, Inspection Logs and any other documents referenced in the SWPPP at the site for inspection by NYSDEC, the qualified professional site inspector and local regulators.

7.3 Inspections

The operator will have a qualified professional inspect the site prior to construction, after the installation of preliminary erosion and sediment control measures prior to the start of construction.

Once construction starts, inspections shall be conducted once per week and within 24 hours after the end of a storm event of 0.5" or greater.

The following items will be inspected:

- Drainage swales.
- Catch basins, storm sewers and culverts.
- Silt fences (until final turf is established and they can be removed).
- Sediment traps.
- Erosion control blankets installed for slope and channel protection.
- Riprap linings and outlet protection
- Road cut and embankment slopes.

The intent of the inspections is to check for:

- Structural stability including differential settlement or cracking.
- Debris or obstructions hindering flow.
- Reduction in infiltration capacity from sediments.
- Signs of erosion.
- Loss of vegetative cover.
- Damage to slope or channel protection.

Corrective action will be taken as required by the applicant.

Inspection checklists shall be developed or adapted from those provided in the NYS Stormwater Management Design Manual, Appendix F.

7.4 Construction Sequence

The suggested construction sequence is as follows:

1. Stake out proposed construction limits and grades.
2. Mark and protect sensitive areas such as streams or wetlands with stakes, flagging or temporary orange construction fencing.
3. Conduct a preconstruction site meeting with owner, qualified professional inspector and contractor(s).
4. Establish a stabilized construction entrance.
5. Install silt fence at downstream work limits as shown on erosion control plan.

6. Clear and grub the areas necessary for construction. Leave as much natural vegetation as possible within the work area.
7. Construct the sand filter basin in Area A.
8. Seed, mulch, and place erosion control devices on disturbed area associated with the sand filter.
9. Construct temporary diversion swales around the work site and direct them to temporary sedimentation basins with protected outlets. Install filter fabric and stone dams as appropriate.
10. Stabilize all areas within one week of exposure.
11. Strip topsoil and stockpile for reuse.
12. Provide silt fences around topsoil stockpiles and protect with temporary seeding and mulch.
13. Cut temporary stormwater ditches and diversion swales as needed to prevent stormwater run-on into disturbed areas and to control runoff from disturbed areas.
14. Excavate temporary sediment basins at all stormwater runoff points from disturbed areas.
15. Cut shallow swales on either side of proposed access road to collect runoff. Provide stone check dams and/or hay bales at 100' intervals. Stormwater shall be diverted out of ditches into temporary sediment basins at 200' intervals.
16. Install culverts, catch basins and storm sewer pipes. Protect with siltation filters such as Silt Saver or Silt Sock.
17. Complete road, building and site construction.
18. Complete fine grading and construction of the stormwater management facilities.
19. Install permanent channel and slope protection riprap and erosion blanket materials.
20. Install permanent culvert outlet protection.
21. Topsoil and seed to establish turf in all disturbed areas.
22. Clean and flush culverts and storm sewers.
23. Inspect and maintain temporary erosion control measures until the site stabilizes and turf is established.

The contractor shall be responsible for means and methods and implementation of effective erosion and sediment control so no water quality standards or General Permit requirements are violated. Additional stormwater management practices may be required as a result of the contractor's operations.

The contractor shall submit a proposed construction sequence if different from above, for review and approval.

7.5 Construction Standards and Specifications

All construction shall be in accordance with the construction standards provided in Appendix C of the NYS Stormwater Management Design Manual, except as otherwise approved by the Engineer.

7.6 Construction Pollution Prevention Measures

- The contractor shall use all necessary precautions to prevent pollution of water bodies or groundwater, in accordance with all Federal, State and Local requirements.
- Spills shall be reported as required under New York State Law. The contractor shall have the proper training, equipment and contingency planning to quickly respond to and contain any spills.
- A phone listing of emergency numbers shall be maintained at the site.
- Construction laydown and storage areas shall be identified and established to minimize potential impacts to the environment or neighbors. All temporary construction areas shall be fully restored and seeded to establish turf.
- Dust shall be controlled through spraying with a water truck as needed.
- Stabilized construction entrances and other measures as needed shall be implemented to minimize the track out of dirt, sediment, or dust on to adjacent roadways.
- Roadways shall be regularly inspected, and power broomed or hosed down to clean and control dust as necessary.
- All temporary fuel tanks shall provide double containment.
- Equipment should be washed and maintained so as not to leak fluids.
- No equipment should enter streams or water bodies.
- Site litter shall be prevented through daily policing and proper disposal.

8. Post Construction Inspection, Operation and Maintenance

8.1 Inspections

All stormwater management and conveyance structures and areas disturbed by the project shall undergo continued inspections after major storm events.

8.2 Operation and Maintenance

The owner shall be responsible for the operation and maintenance tasks related to the improvements and stormwater facilities include the following:

- Repair or correct any items found deficient in the inspections.
- Inspect the Isolator rows on the stormwater chambers at least quarterly until a track record has been established and longer (or shorter) intervals are warranted.
- Remove sediments from the Isolator rows as indicated by the inspections.
- Mow sand filter basin and roadside grass areas a minimum of 2 times per year.
- Re-seed to establish turf as required in areas of thin cover.

9. Appendix

Pre-Development Runoff Calculations
Stormwater Management Calculations
Post Development Runoff Calculations
Notice of Intent (NOI)
Contractor's Certification
Utility and Grading Plans
Erosion Control Plan
Stormwater Details

Location Information

Project Site Information

Project/Site Name

Street Address (NOT P.O. BOX)

City/Town/Village (THAT ISSUES BUILDING PERMIT)

State Zip
 -

County DEC Region (if known)

Name of Nearest Cross Street

Distance to Nearest Cross Street (Feet) Direction to Nearest Cross Street
 North South East West

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.state.ny.us/website/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site go to the dropdown menu on the left and choose "Get Coordinates". Click on the center of your site and a small window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting)	Y Coordinates (Northing)
<input type="text"/>	<input type="text"/>

2. What is the nature of this construction project?

New Construction
 Redevelopment with increase in imperviousness
 Redevelopment with no increase in imperviousness

Project Site Information

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use	Post-Development Future Land Use
<input type="radio"/> FOREST	<input type="radio"/> SINGLE FAMILY HOME
<input type="radio"/> PASTURE/OPEN LAND	<input type="radio"/> SINGLE FAMILY SUBDIVISION
<input type="radio"/> CULTIVATED LAND	<input type="radio"/> TOWN HOME RESIDENTIAL
<input type="radio"/> SINGLE FAMILY HOME	<input type="radio"/> MULTIFAMILY RESIDENTIAL
<input type="radio"/> SINGLE FAMILY SUBDIVISION	<input type="radio"/> INSTITUTIONAL/SCHOOL
<input type="radio"/> TOWN HOME RESIDENTIAL	<input type="radio"/> INDUSTRIAL
<input type="radio"/> MULTIFAMILY RESIDENTIAL	<input type="radio"/> COMMERCIAL
<input type="radio"/> INSTITUTIONAL/SCHOOL	<input type="radio"/> ROAD/HIGHWAY
<input type="radio"/> INDUSTRIAL	<input type="radio"/> RECREATIONAL/SPORTS FIELD
<input type="radio"/> COMMERCIAL	<input type="radio"/> BIKE PATH/TRAIL
<input type="radio"/> ROAD/HIGHWAY	<input type="radio"/> LINEAR UTILITY (water, sewer, gas, etc.)
<input type="radio"/> RECREATIONAL/SPORTS FIELD	<input type="radio"/> PARKING LOT
<input type="radio"/> BIKE PATH/TRAIL	<input type="radio"/> OTHER
<input type="radio"/> SUBSURFACE UTILITY	OTHER <input style="width: 100%;" type="text"/>
<input type="radio"/> PARKING LOT	
<input type="radio"/> OTHER	
OTHER <input style="width: 100%;" type="text"/>	

4. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law ? Yes No

5. Is this a project which does not require coverage under the General Permit (e.g. Project done under an Individual SPDES Permit, or department approved remediation)? Yes No

6. Is this property owned by a state authority, state agency or local government? Yes No

7. In accordance with the larger common plan of development or sale; enter the total project site acreage, the acreage to be disturbed and the future impervious area (acreage) within the disturbed area. Round to the nearest tenth of an acre.

Total Site Acreage	Acreage To Be Disturbed	Existing Impervious Area Within Disturbed	Future Impervious Area Within Disturbed
<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>	<input style="width: 100%;" type="text"/>

8. Will there be more than 5 acres disturbed at any given time? Yes No

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

A <input style="width: 100%;" type="text"/> %	B <input style="width: 100%;" type="text"/> %	C <input style="width: 100%;" type="text"/> %	D <input style="width: 100%;" type="text"/> %
--	--	--	--

10. Is this a phased project? (if yes, The SWPPP must address all planned phases)

Yes No

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

Start Date [][] / [][] / [][][][] - End Date [][] / [][] / [][][][]

Receiving System(s)

12. Provide the name of the nearest, natural, classified surface waterbody(ies) into which construction site runoff has the potential to discharge.

[Grid for text entry]

For Questions 13 and 14 refer to the Instruction Manual for a subset of 303(d) segments and TMDL watersheds subject to Condition A of the permit. These waterbodies and watersheds have been identified for regulation within the stormwater program due to some level of impairment by nutrients, silt or sediment. The Instruction Manual can be accessed at www.dec.state.ny.us/website/dow/toolbox/instr_man.pdf

13. Has the surface waterbody(ies) in question 12 been identified as a 303(d) segment?

Yes No

14. Is this project located in a TMDL Watershed?

Yes No

*NOTE: If you answered Yes to either question 13 or 14, Pursuant to Part I.D.3.(b) of the permit, you must have your SWPPP prepared and certified by a licensed/certified professional and the SWPPP is subject to a 60-business day review.

15. Does the site runoff enter a separate storm sewer system-including roadside drains, swales, ditches, culverts, etc? (if no, skip question 16)

Yes No Unknown

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

[Grid for text entry]

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

Yes No Unknown

Stormwater Pollution Prevention Plan (SWPPP)

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

Yes No*

19. Does this construction activity require the development of a SWPPP that includes Water Quality and Quantity Control components (Post-Construction Stormwater Management Practices) **If no, Skip question 20**

Yes No

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

Yes No*

NOTE: If you answered no to question 18 or 20, Pursuant to Part I.D.3.(b) of the permit, you must have your SWPPP prepared and certified by a licensed/certified professional and the SWPPP is subject to a 60-business day review. Please provide further details in the details/comment section on the last page of this form.

21. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

Professional Engineer (P.E.)

Soil and Water Conservation District (SWCD)

Registered Landscape Architect (R.L.A)

Certified Professional in Erosion and Sediment Control (CPESC)

Owner/Operator

Other

**SWPPP Preparer Information
(if different from Owner/Operator info)**

SWPPP Preparer

Contact Name (Last, Space, First)

Mailing Address

City

State Zip -

Phone - - Fax - -

Email

Stormwater Pollution Prevention Plan (SWPPP)

Erosion and Sediment Control Practices

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

Yes No

23. Select all of the erosion and sediment control practices that will be employed on the project site.

Temporary Structural

- Check Dams
Construction Road Stabilization
Dust Control
Earth Dike
Level Spreader
Perimeter Dike/Swale
Pipe Slope Drain
Portable Sediment Tank
Rock Dam
Sediment Basin
Sediment Traps
Silt Fence
Stabilized Construction Entrance
Storm Drain Inlet Protection
Straw/Hay Bale Dike
Temporary Access Waterway Crossing
Temporary Stormdrain Diversion
Temporary Swale
Turbidity Curtain
Water bars

Biotechnical

- Brush Matting
Wattling

Other

Vegetative Measures

- Brush Matting
Dune Stabilization
Grassed Waterway
Mulching
Protecting Vegetation
Recreation Area Improvement
Seeding
Sodding
Straw/Hay Bale Dike
Streambank Protection
Temporary Swale
Topsoiling
Vegetating Waterways

Permanent Structural

- Debris Basin
Diversion
Grade Stabilization Structure
Land Grading
Lined Waterway (Rock)
Paved Channel (Concrete)
Paved Flume
Retaining Wall
Riprap Slope Protection
Rock Outlet Protection
Streambank Protection

Grid of empty boxes for data entry

Grid of empty boxes for data entry

**Stormwater Pollution Prevention Plan (SWPPP)
Water Quality and Quantity Control**

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

<u>Total Water Quality Volume (WQv)</u>	
WQv Required	WQv Provided
<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> acre-feet	<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> acre-feet

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

<u>Total Channel Protection Storage Volume (CPv)</u> - Extended detention of post-developed 1 year, 24 hour storm event	
CPv Required	CPv Provided
<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> acre-feet	<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> acre-feet
The need to provide for channel protection has been waived because <input type="radio"/> Site discharges directly to fourth order stream or larger	
<u>Total Overbank Flood Control Criteria (Qp)</u> - Peak discharge rate for the 10 year storm	
Pre-Development	Post-development
<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> CFS	<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> CFS
<u>Total Extreme Flood Control Criteria (Qf)</u> - Peak discharge rate for the 100 year storm	
Pre-Development	Post-development
<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> CFS	<input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> . <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> <input style="width: 30px; height: 20px;" type="text"/> CFS
The need to provide for flood control has been waived because <input type="radio"/> Site discharges directly to fourth order stream or larger <input type="radio"/> Downstream analysis reveals that flood control is not required	

IMPORTANT: For questions 27 and 28 impervious area should be calculated considering the project site and all offsite areas that drain to the post-construction stormwater management practice(s) (Total Drainage Area = Project Site + Offsite areas)

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

%

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

%

29. Indicate the total number of permanent stormwater management practices to be installed

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

