Storm Water Pollution Prevention Plan for Proposed Bellisario Materials Storage and Mobilization Site

Town of Dryden Freeville, New York

January 2020

Prepared by:

Stephen J.A. Maybee, PE NYSPE#: 081058

For:

NickBellisario 41 Oakbrook Drive, Suite 102 Ithaca, NY 14850

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ATTACHMENTS

| Attachment A: applicable) | Notice of Intent, (NOI) and MS4 Acceptance Form (if | | |
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| Attachment B: | Notice of Termination, (NOT) | | |
| Attachment C: | Certification Forms | | |
| Attachment D: | Circles and Squares Map – NYSSHPO | | |
| Attachment E: | Inspection Report (Sample Form) | | |
| Attachment F: | Record of Stabilization and Construction Activity Dates | | |
| Attachment G: | Vegetative and Structural Measures for Erosion and Sediment Control <u>New York State Standards & Specifications</u> <u>for Erosion and Sediment Control</u> | | |
| Attachment H: | NYSDEC Stormwater Controls Construction Checklist | | |
| Attachment I: | NYSDEC Controls Operation & Maintenance Check List | | |

1.0 EXECUTIVE SUMMARY

The engineer, owner and all contractors involved with construction activity that disturb site soil or who implement pollutant control measures identified in the Storm Water Pollution Prevention Plan (SWPPP) are responsible for complying with the requirements set forth in the New York State Department of Environmental Conservations SPDES General Permit from Construction Activity Permit No. GP-0-15-002 and any local and/or state governing agencies having jurisdiction with regards to erosion and sediment control. The requirements of the SPDES Permit are as follows:

A. **Owner:**

Nick Bellisario 41 Oak Brook Drive, Suite 102 Ithaca, NY 14850 nick@bellisarioexc.com (607) 327-2798

Project Site:

Bellisario Materials Storage and Mobilization Site Dryden Road (Ste Hwy 13) Freeville, NY 13068

This project is subject to the requirements of a regulated, traditional land use control MS4. As such, the following requirements must be met before a construction activity is authorized to discharge stormwater.

- 1. An owner or operator that is subject to the requirements of a regulated, traditional land use control MS4, must have its SWPPP reviewed and accepted by the regulated MS4 prior to submitting the NOI to the Department. The owner or operator shall then have the "MS4 SWPPP Acceptance Form," as provided in Attachment A, authorized by the MS4 and submitted to the Department along with the NOI for approval.
- 2. Complete the Notice of Intent (NOI) provided in Attachment A and forward to the recipients following this section. Construction may begin if any of the following conditions are met.
 - a. Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for construction activities with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1. of the SPDES General Permit and the performance criteria in the technical standard referenced in Parts III.B., 2 or

3 of the SPDES general permit, for construction activities that require post-construction stormwater management practices pursuant to Part III.C. of the SPDES General Permit; or

- b. Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for construction activities with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for construction activities that require post-construction stormwater management practices pursuant to Part III.C., the performance criteria in the technical standard referenced in Parts III.B., 2 or 3, or;
- c. Ten (10) business days from the date the Department receives a complete paper version of the NOI for construction activities with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for construction activities that require post-construction stormwater.

NYS Department of Environmental Conservation (DEC) Division of Water 625 Broadway, 4th Floor Albany, New York 12233-3505

Town of Dryden – Town Hall 93 E. Main Street Dryden, New York 13053 (607) 844-8622

All notifications shall be sent via certified mail with return receipt. Copies of mailing receipts shall be kept on record at the project site with the SWPPP and shall be considered part of the contract documents.

The Town's representative shall be included in the pre-construction meeting. Copies of the SWPPP must be provided to the Town of Dryden once all signatures and attachments are complete.

- B. A copy of the General Construction Permit (GP-0-15-002), Notice of Intent (NOI), NOI acknowledgement letter received by the DEC, and MS4 Acceptance Form (if applicable), shall be posted in a prominent place for public viewing at the project site.
- C. A complete copy of the SWPPP, NOI, NOI Acknowledgement letter, MS4 Acceptance form (if applicable), including copies of all inspection reports, plan revisions, etc., must be retained at the project site at all times during

working hours and kept as part of the permanent project records for a duration of no less than five (5) years following submission of the Notice of Termination (NOT).

- D. The site development contractors must provide names and addresses of all subcontractors working on the project who will be involved with the major construction activities that will result in soil disturbance. The Owner shall ensure that each contracting firm identifies one trained individual who will be responsible for implementation of the SWPPP. The owner shall also ensure that at least one trained individual is on site on a daily basis when soil disturbance activities are being performed. This information must be retained as part of the SWPPP.
- E. The site development contractor and all subcontractors involved with the major construction activities that disturb site soil must sign a copy of the appropriate certification statement included in Attachment C along with the identity of the appropriate trained individual as described in paragraph D of this section.
- F. Regular inspections must be made to determine effectiveness of the SWPPP. It would be modified as needed to prevent pollutants from discharging from the site. The inspector must be a person familiar with the site, the nature of the major construction activities, and qualified to evaluate both overall system performance and individual component performance. Additionally, the inspector must either be someone empowered to implement modifications to the SWPPP and the pollutant control devices, if needed, in order to increase effectiveness to an acceptable level, or someone with the authority to cause such events to happen.
- G. This SWPPP must be updated each time there is a significant modification to the pollutant prevention system or a change of contractors working on the project who may disturb site soil. The site development contractor must notify the governing agency(s) as soon as these modifications are implemented.
- H. Discharge of oil or other hazardous substances into the storm water is subject to reporting and cleanup requirements. Refer to Part I.B.1.d of the SPDES General Permit for additional information. Copies of the SPDES General Permit and the Notice of Intent Forms may be found on-line.
- I. Notice of Termination (NOT) Once the site reaches final stabilization upon completion of the project, Nick Bellisario, as Owner, may terminate coverage of SPDES permit coverage by submitting a Notice of Termination, Form (included in Attachment B), when one or more of the following conditions are met:

- 1. Total Project Completion All construction activity identified in the SWPPP has been completed; and all disturbance have achieved final stabilization and all temporary, structural erosion and sediment control measures have been removed, and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational.
- 2. Planned shutdown with partial project completion All soil disturbance activities have ceased; and all areas distrubed as of the project shut down date have achieved final stabilization, and all temporary, structural erosion and sediment control measures have been removed, and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational.
- 3. A new owner or operator has obtained coverage under the General SPDES Permit in accordance with Part II.E.
- 4. The owner or operator obtains coverage under an alternative SPDES General Permit or individual SPDES permit.

For construction activities meeting 1.0.I above, the owner or operator shall have a qualified inspector perform a final site inspection prior to submitting the NOT. The qualified inspector shall, by signing the "final stabilization" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all requirements of the SPDES General Permit have been met. Further, construction activities subject to the requirements of a regulated, transitional land use control MS4, must have the MS4 sign the "MS4 acceptance" statement on the NOT, indicating that the project has been constructed in accordance SPDES General Permit requirements.

Lastly, for construction activities that require post-construction stormwater management practices, the owner or operator must, prior to submitting the NOT, ensure one of the following.

- 1. The post-construction stormwater management practices and any right of ways needed to maintain such practices have been deeded to the municipality in which the practice is located.
- 2. An executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practices.
- 3. If the post-constructed management practices are privately owned, the owner or operator must have a mechanism in place that requires operation and maintenance of the practices in accordance with the

operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

- 4. If the post-constructed practices are owned by a public or private institution, government agency or authority, or public utility, the owner or operator has policy and procedure in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.
- J. This SWPPP intends to control water-borne and liquid pollutant discharges by some combination of interception, filtration, and containment. The general contractor and subcontractors implementing this SWPPP must remain alert to the need to periodically refine and update the SWPPP in order to accomplish the intended goals.
- K. This SWPPP must be amended as necessary during the course of construction in order to keep it current with the pollutant control measures utilized at the site. Amending the SWPPP does not mean that it has to be reprinted. It is acceptable to add addenda, sketches, new sections, and/or revised drawings.
- L. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated must be maintained until the NOT is filed. A log for keeping such records is included in the Attachments. A different form for the log may be substituted if it is found to be more useful.

2.0 INTRODUCTION

This SWPPP has been prepared for minor activities associated with the creation of a temporary 385' x 150' dirt pad to be used as a materials storage, stockpiling, and mobilization site. The parcel is roughly 670,388-SF (15.39-AC) in size, stretching in an area from south to north along Dryden Road (State Highway 13), in the Town of Dryden. Route 13 is drained by a typical R.O.W. swale, that runs from west to east, effectively cutting off flow into the site from the south. The pad will be located in a 2.92-AC (127,320-SF) area at the southwest corner of the property representing the total area of disturbance for this project. Existing and proposed flow moves in a northerly direction across the parcel where it eventually terminates off-site into Sixmile Creek. The work will reduce the overall site slope from 3-4% to 1-1.5%.

There will be no planned additions or modifications to the property such as the inclusion of impervious cover, hardscape, or general changes to the land use that will differ from what is existing. To create the work pad, a bulldozer will be used to level a 385' x 150' area for the import and storage of gravel and shale, and as a general construction mobilization and temporary laydown area. The 1' - 2' overburden that will be removed to create the pad, will be pushed toward the back of the site to create a berm to prevent unchecked drainage from leaving the area. A

row of silt fencing will be installed to ensure that there will be no sediment migration or erosion from the pad. Once the project is complete, the site will be returned to its former grass/brush state. Since there will be no changes in the quality or quantity of runoff from the property, water quality volume and quantity attenuation requirements are waived and permanent controls are not necessary. As such, a basic erosion and sediment control plan has been prepared for this SWPPP.

Reference the Project Plans for the temporary stormwater management facilities planned. This SWPPP includes the elements necessary to comply with the SPDES General Permit for Stormwater Discharges GP-015-002 administered by the New York State Department of Environmental Protection, 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 implemented at the start of construction.

Construction phase pollutant sources anticipated at the site are disturbed (bare) 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 storm water.

A. Purpose

The major goal of pollution prevention efforts during project construction is to control the migration of soil and pollutants that originate on-site and prevent them from impacting surface waters and the environment. The purpose of this SWPPP is to provide guidelines for achieving that goal. A successful pollution prevention program also relies upon careful inspection and adjustments during the construction process in order to enhance its effectiveness.

B. Scope

This SWPPP must be implemented before construction begins on the site. It primarily addresses the impact of storm rainfall and runoff in areas of the ground surface disturbed during the construction process. In addition, there are recommendations for controlling other sources of pollution that could accompany the major construction activities. This SWPPP will terminate when disturbed areas are stabilized, construction activities covered herein have ceased, and a completed Notice of Termination (NOT) is mailed to the governing agency requiring the NOT. See Section 1.0.I for specific NOT eligibility requirements.

Particular forms are included which are necessary for implementing the SWPPP.

The SPDES General Permit for Storm Water Discharges from Construction Activities prohibits most non-storm water discharges during the construction phase. Allowable non-storm water discharges that could occur during construction on this project, which would therefore be covered by the General Permit, include:

- 1. Discharges from fire fighting activities;
- 2. Fire hydrant flushing;
- 3. Waters to which cleansers or other components have not been added that are used to wash vehicles or control dust;
- 4. Routine external building washdown which does not use detergents;
- 5. Irrigation drainage;
- 6. Uncontaminated discharges from construction site de-watering operations;
- 7. External building wash down which does not use detergents;
- 8. Runoff from pavement wash down where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents have not been used;
- 9. Air conditioning condensate;
- 10. Springs and uncontaminated groundwater; and
- 11. Foundation or footing drains where flows are not contaminated with process materials such as solvents.

The techniques described in this SWPPP focus on providing control of pollutant discharges with practical approaches that utilize readily available expertise, materials, and equipment.

The Owner/Developer referred to in this SWPPP is Nick Bellisario who will be responsible for full development and build-out of the subject parcel.

3.0 PROJECT DESCRIPTION

Described below are the major construction activities that are subject to this SWPPP. The Owner shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the DEC, or, in areas under the jurisdiction of a regulated MS4, authorization by that municipality. They are

presented in the order (or sequence) they are expected to begin, but each activity will not necessarily be completed before the next begins. Install erosion and sediment control measures as shown on Drainage, Sediment and Erosion Control Plans, down slope from construction activities that disturb site soil before disturbance of soil;

CONSTRUCTION PHASE 1

- A. Construction of stabilized construction entrance(s);
- B. Placement of silt fence;
- C. Begin work to level pad by removing approximately 1 2' of soil from work site.
- D. Fashion a 377' x 15' x 3' drainage collection berm at rear of area.
- E. Seed and mulch berm.
- F. Site is now ready for use as a materials storage and mobilization area.

Note: For all Underground Utilities – Sediment barriers such as silt fencing, proper seeding and mulching will be utilized as required to bind the down slope side of utility construction and soil stockpiles;

- G. When work is complete, return property to permanent lines and grades;
- H. Final Grading Mulching & Seeding Sediment barriers will be maintained down slope from disturbed soil during these operations;
- I. Completion of site stabilization, ie. Vegetative cover, driveway surface. Sediment & Erosion Controls to remain in place until vegetative cover reaches 80% density.

4.0 **RUNOFF REDUCTION VOLUME**

Note: This project does not involve the creation of impervious cover, hardscape or changes in land use that will necessitate the need for water quality volume treatment practices or permanent controls quantity attenuation. As such, this section is waived.

This project follows the newer guidelines set forth by the DEC for runoff reduction. Chapter 3 of the New York State Stormwater Management Design Manual requires a five step planning process to document compliance with required processes.

<u>Step 1 – Protect natural resources and utilize site hydrology</u>

This planning step is designed to preserve area natural resources by protecting areas, avoiding sensitive locations, and minimizing grading and soil disturbances. There were no erodible soils, critical areas, wetlands, riparian buffer areas, or locally listed protected areas.

Another component of the planning process is an evaluation of all green infrastructure practices that might be acceptable for runoff reduction on site.

The selection process is described as follows:

- o Conservation of natural areas –
- Sheetflow to riparian buffers –
- Vegetated open swales –
- Tree planting/tree box –
- o Stream daylighting for redevelopment projects -
- o Bioswale –
- o Green roof –
- Stormwater planters –
- Rain cistern –
- o Porous pavement -

<u>Step 2 – Determine Overall Water Quality Treatment Volume (WQv)</u>

<u>Step 3 – Runoff reduction by applying green infrastructure technology and standard</u> <u>SMPs.</u>

<u>Step 4 – Provide standard practices to address remaining water quality volume</u>

<u>Step 5 – Apply volume and peak rate control practices if still required</u>

5.0 STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS

Various erosion and sediment control measures have been incorporated into the design of the project, Reference Stormwater, Sediment and Erosion Control Plans accompanying this SWPPP. These measures will be implemented during construction to minimize soil erosion and to protect the character and integrity of downstream receiving waters. The site will be leveled and an earthen barrier/berm will remain upon completion of the project to prevent unchecked storm water runoff from leaving the site.

The site development contractor shall take all appropriate precautions to prevent soil erosion and discharge of sediment and other pollutants to receiving water bodies and wetlands. Specific measures are outlined in this plan. In general, disturbance areas shall be limited to the smallest practical areas at any given time, and the areas are to be reseeded as soon as possible. During construction the measures outlined in this document and shown on the plans are to be installed as described. Additional measures may be warranted or required by site and climatic conditions.

Specific erosion control measures, designed to minimize soil loss, and sediment control measures devised to retain eroded soil and prevent it from reaching water bodies or adjoining properties have been developed in accordance with the New <u>York State Stormwater Management Design Manual</u>, 2015, NYSDEC and <u>New York Standards & Specifications for Erosion and Sedimentation Control</u>, November 2016. Reference Attachment G for copy of Vegetative and Structural, Measures for Erosion and Sediment Control, <u>New York State Standards & Specifications for Erosion and Sediment Control</u>, (Vegetative; November 2016, Structural; August 2005)

A variety of storm water pollutant controls are recommended for this project. All controls are intended to function temporarily and will be used as needed for pollutant control during the construction period. These include temporary sediment and erosion control measures as shown on the plans. For all disturbed areas, permanent stabilization will be accomplished by covering the disturbed soil with vegetation, pavement, or commercial structures.

- A. Erosion and Sediment Controls
 - 1. Soil Stabilization The purpose of soil stabilization is to prevent soil from leaving the site. In the natural condition, soil is stabilized by native vegetation. The primary technique to be used under this project for stabilizing site soil will be to provide a protective cover of turf grass, pavement, or building structure.
 - a. Temporary Seeding Where land disturbance is necessary, temporary seeding with fast-germinating temporary seed and a

protection of mulch must be used on areas which will be exposed for more than 14 days.

- b. Permanent Seeding All areas at final grade must be seeded and mulched within 7 days after completion of the major activity.
- c. Structural Controls The storm water will be managed on the site utilizing proposed site grading, bioretention areas and associated drainage systems. Their design is shown on the Project Site Stormwater Plans.

Final site stabilization is achieved when there is a uniform 80 percent density of permanent vegetation on all previously disturbed soil surfaces, exclusive of areas that have been paved.

B. Other Pollutant Controls

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

1. Dust Control – Construction traffic must enter and exit the site at the stabilized construction/driveway entrance. The purpose is to trap dust and mud that would otherwise be carried off-site by construction traffic.

Dust control must be provided by the general contractor to a degree that is acceptable to the Owner, and in compliance with applicable local and state dust control regulations. After construction, the site will be stabilized (as described elsewhere), which will reduce the potential for dust generation.

2. Solid Waste Disposal – No solid materials, including building materials, are allowed to be discharged from the site with storm water. All solid waste, including disposable materials incidental to the major construction activities, must be collected and placed in containers. The containers will be emptied periodically by a contract trash disposal service and hauled away from the site.

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

- 3. Sanitary Facilities All personnel involved with construction activities must comply with state and local sanitary or septic system regulations. Temporary sanitary facilities will be provided at the site throughout the construction phase. They must be utilized by all construction personnel and will be serviced by a commercial contractor.
- 4. Water Source Non-storm water components of site discharge must be clean water. Water used for construction, which discharges from the site, must originate from a public water supply or private well approved by the State Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site. It can be retained in temporary ponds until it infiltrates and evaporates.
- 5. Long-Term Pollutant Controls There are no long term pollutant controls planned for this project. All silt fencing must be removed once the site has received proper stabilization.
- C. Construction Phase "Best Management Practices"

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

- 1. Permanent traffic corridors shall be established and "routes of convenience" shall be avoided;
- 2. Preservation of existing vegetation as much as possible. Following the completion of construction activities in any portion of the site permanent vegetation shall be established an all exposed soils;
- 3. Site preparation activities shall be planned to minimize the area and duration of soil disruption;
- 4. Minimizing soil erosion and sedimentation by stabilization of disturbed areas and by removing sediment from construction site discharges;
- 5. Material resulting from the clearing and grubbing operation will be stockpiled up slope from adequate sedimentation controls.
- 6. The general contractor will designate areas for equipment cleaning, maintenance, and repair. The general contractor and subcontractors will utilize those areas. The areas will be protected by a temporary perimeter berm.

- 7. Use of detergents for large scale washing is prohibited (i.e., vehicles, buildings, pavement surfaces, etc.)
- 8. 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 at an approved solid waste or chemical disposal facility.

6.0 LOCAL PLANS

In addition to this SWPPP, construction activities associated with this project must comply with any guidelines set forth by local and state regulatory agencies. Reference Project Plans prepared to meet any Local and State requirements for post-development stormwater quantity & quality.

7.0 NYSHPO

A search was conducted on the New York State Parks, Recreation and Historic Preservation Office website to identify whether the subject parcel is listed under natural or historic places registration, or if the area resides within an archaeologically sensitive location. Attachment D, includes a "circles and squares map" showing that the property is not found to be within this type of area designation.

8.0 INSPECTIONS AND SYSTEM MAINTENANCE

Between the time this SWPPP is implemented and final site stabilization is achieved, all disturbed areas and pollutant controls must be inspected at least once every seven calendar days by a licensed professional or Qualified Inspector, as identified by the SPDES General Permit. The purpose of site inspections is to assess performance of pollutant controls. The inspections will be conducted by an independent third party Qualified Inspector to be provided by the Owner. The Owner/Operator will also be required to arrange for a designated Trained Contractor (as defined by the SPDES General Permit) to be responsible for the management of this SWPPP during construction, while on-site. Based on these inspections, the Trained Contractor 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 storm water runoff. The Trained 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.

- A. Construction of stormwater facilities. Insure facilities are constructed substantially in accordance with the plans. (Also, Reference Attachment H for sample inspection checklist NYSDEC Stormwater Construction Checklist):
- B. Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. A stabilized construction entrance will be constructed where vehicles enter and exit. This entrance will be maintained or supplemented as necessary to prevent sediment from leaving the site on vehicles.
- C. 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.
- D. 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.
- E. 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.
- F. All discharge points must be inspected to determine whether erosion control measures are effective in preventing significant impacts to receiving waters.

Based on inspection results, any modification necessary to increase effectiveness of this SWPPP to an acceptable level must be made within seven calendar days of the inspection. 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. Inspection reports must be kept on file by the Trained Contractor as an integral part of this SWPPP for at least five years from the date of completion and filing of NOT for the project.

Ultimately, it is the responsibility of the site Trained 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 plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

9.0 POST CONSTRUCTION INSPECTION, OPERATION AND MAINTENANCE PLAN

A. Maintenance Responsibility

Short term maintenance responsibilities for the earthen barrier/berm and silt fencing, will lay with Nick Bellisario. As there are no planned permanent practices, there will be no O&M post construction management plan for this project.

B. Sediment & Debris Removal

Sediment shall be cleaned out from in front of the earthen berm when it accumulates to a depth of more than six inches.

C. Inspection & Periodic Maintenance

To ensure the continued operation and long term performance of the proposed stormwater management system, inspections shall be conducted periodically for the first few months following construction and then on an annual basis. Site inspection should also be performed following major storm events (i.e., intense storms, thunder storms, cloud bursts, etc.). Items to check for include, but are not limited to the following: (Reference Attachment I for complete inspection checklist -NYSDEC Stormwater Operation, Maintenance and Management Inspection Checklists):

i) Embankment & Structural;

Check basin embankments, outlets and spillways note cracks, bulges, animal burrows, differential settlement, damage to or fatigue of stormwater pipe, structures and permanent erosion control. Components of the system that require repair or replacement should be addressed immediately following identification. Check pipes, channels, grates, inlet structures and spillways to insure design capacity. Look for objects or accumulations of sediments and debris obstructing flow path.

ii) Vegetation;

Preclude deep rooted woody plant growth on structure embankment by mowing at least once annually.

Maintain a dense vigorous growth of grass cover. Spot seed, mulch and fertilize where necessary.

Attachment A: Notice of Intent, (NOI) and MS4 Acceptance Form (if applicable)

NOI for coverage under Stormwater General Permit for Construction Activity

version 1.20

(Submission #: HNW-E2HG-X64R5, version 1)

Details

| Form Alias | Bellisario - NOI for coverage under Stormwater General Permit for Construction Activity | | | | | |
|----------------------|---|--|--|--|--|--|
| Form Started | 12/31/2019 12:10 PM by Scott Gibson | | | | | |
| Form Submitted | | | | | | |
| Submission # | HNW-E2HG-X64R5 | | | | | |
| Submission Reason | New | | | | | |
| Status | Draft | | | | | |
| Active Steps | Form Submitted | | | | | |
| Alternate ID: | | | | | | |

Form Input

Owner/Operator Information

Owner/Operator Name (Company/Private Owner/Municipality/Agency/Institution, etc.) Bellisario Excavating

Owner/Operator Contact Person Last Name (NOT CONSULTANT) Bellisario

Owner/Operator Contact Person First Name Nick

Owner/Operator Mailing Address

41 Oak Brook Drive, Suite 102

City

Ithaca

State NY **Zip** 14850

Phone 607-327-2798

Email nick@bellisarioexc.com

Federal Tax ID NONE PROVIDED

Project Location

Project/Site Name Bellisario Materials Storage and Mobilization Site

Street Address (Not P.O. Box) Dryden Road (Ste Hwy 13)

Side of Street North

City/Town/Village (THAT ISSUES BUILDING PERMIT) Town of Dryden State Zip 13053 County TOMPKINS **DEC Region** Name of Nearest Cross Street Main Street **Distance to Nearest Cross Street (Feet)**

NY

7

1500

Project In Relation to Cross Street West

Tax Map Numbers Section-Block-Parcel NONE PROVIDED

Tax Map Numbers NONE PROVIDED

1. Coordinates

Provide the Geographic Coordinates for the project site. The two methods are: - Navigate to the project location on the map (below) and click to place a marker and obtain the XY coordinates.

- The "Find Me" button will provide the lat/long for the person filling out this form. Then pan the map to the correct location and click the map to place a marker and obtain the XY coordinates.

Navigate to your location and click on the map to get the X,Y coordinates 42.47877313214529,-76.3810924169714

Project Details

2. What is the nature of this project? New Construction

3. Select the predominant land use for both pre and post development conditions.

Pre-Development Existing Landuse Pasture/Open Land

Post-Development Future Land Use

Other: Site will be returned to original state.

3a. If Single Family Subdivision was selected in question 3, enter the number of subdivision lots. NONE PROVIDED

4. 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 Area (acres) 15.39

Total Area to be Disturbed (acres) 2.92

Existing Impervious Area to be Disturbed (acres)

Future Impervious Area Within Disturbed Area (acres)

5. Do you plan to disturb more than 5 acres of soil at any one time? No

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

A (%) 0 B (%) 0 C (%) 100 D (%) 0 7. Is this a phased project? No

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

Start Date 1/20/2020

End Date

1/18/2021

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge. Sixmile Creek

9a. Type of waterbody identified in question 9? River Off Site

Other Waterbody Type Off Site Description NONE PROVIDED

9b. If "wetland" was selected in 9A, how was the wetland identified? NONE PROVIDED

10. Has the surface waterbody(ies in question 9 been identified as a 303(d) segment in Appendix E of GP-0-15-002? No

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-15-002?

No

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? Yes

If No, skip question 13.

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

If Yes, what is the acreage to be disturbed? NONE PROVIDED

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? No

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

16. What is the name of the municipality/entity that owns the separate storm sewer system? NONE PROVIDED

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? No

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? No **19.** Is this property owned by a state authority, state agency, federal government or **local government**? No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) No

Required SWPPP Components

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

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? No

If you answered No in question 22, skip question 23 and the Post-construction Criteria and Post-construction SMP Identification sections.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? NONE PROVIDED

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

SWPPP Preparer Steven J. Maybee, PE

Contact Name (Last, Space, First) Scott D. Gibson

Mailing Address

5 Orchard Avenue

City

Watkins Glen

State

New York

Zip 14891

https://nform-prod.dec.ny.gov/app/#/submissionversion/57c7a120-719c-458c-9f32-d5cfbde7a38b/overview

Phone 6072280662

Email scottg@stny.rr.com

Download SWPPP Preparer Certification Form

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

- 1) Click on the link below to download a blank certification form
- 2) The certified SWPPP preparer should sign this form
- 3) Scan the signed form
- 4) Upload the scanned document

Download SWPPP Preparer Certification Form

Please upload the SWPPP Preparer Certification

NONE PROVIDED Comment NONE PROVIDED

Erosion & Sediment Control Criteria

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

Yes



SWPPP Preparer Certification Form

SPDES General Permit for Stormwater Discharges From Construction Activity (GP-0-15-002)

Project Site Information Project/Site Name

Bellisario Materials Storage and Mobilization Site

Owner/Operator Information

Owner/Operator (Company Name/Private Owner/Municipality Name)

Bellisario Excavating

Certification Statement – SWPPP Preparer

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-0-15-002. 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.

| Steven | J. | Maybee, PE | |
|---|---|------------|--|
| First name | MI | Last Name | |
| Stephen J.A. Maybee, P.E. Signature | Digitally signed by Stephen J.A. Maybee, P.E. Date: 2020.01.03 14:22:02 -05'00' | Date | |

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

Temporary Structural Earth Dike Silt Fence Stabilized Construction Entrance

Biotechnical

None

Vegetative Measures

Seeding Sodding Mulching

Permanent Structural

None

Other

NONE PROVIDED

Post-Construction Criteria

* IMPORTANT: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project. NONE PROVIDED

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

NONE PROVIDED

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout). (Acre-feet) NONE PROVIDED

29. Post-construction SMP Identification

Use the Post-construction SMP Identification section to identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity that were used to reduce the Total WQv Required (#28).

Identify the SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use the Post-Construction SMP Identification section

to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29. (acre-feet) NONE PROVIDED

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28)? NONE PROVIDED

If Yes, go to question 36. If No, go to question 32.

32. Provide the Minimum RRv required based on HSG. [Minimum RRv Required = (P) (0.95) (Ai) / 12, Ai=(s) (Aic)] (acre-feet) NONE PROVIDED

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)? NONE PROVIDED

If Yes, go to question 33.

Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. SMPs

Use the Post-construction SMP Identification section to identify the Standard SMPs and, if applicable, the Alternative SMPs to be used to treat the remaining total WQv (=Total WQv Required in #28 - Total RRv Provided in #30).

Also, provide the total impervious area that contributes runoff to each practice selected.

NOTE: Use the Post-construction SMP Identification section to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question #29. (acre-feet) NONE PROVIDED

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). NONE PROVIDED
35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? NONE PROVIDED

If Yes, go to question 36.

If No, sizing criteria has not been met; therefore, NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv required and provided or select waiver (#36a), if applicable.

CPv Required (acre-feet) NONE PROVIDED

CPv Provided (acre-feet) NONE PROVIDED

36a. The need to provide channel protection has been waived because: NONE PROVIDED

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (#37a), if applicable.

Overbank Flood Control Criteria (Qp)

Pre-Development (CFS) NONE PROVIDED

Post-Development (CFS) NONE PROVIDED

Total Extreme Flood Control Criteria (Qf)

Pre-Development (CFS) NONE PROVIDED

Post-Development (CFS) NONE PROVIDED

37a. The need to meet the Qp and Qf criteria has been waived because: NONE PROVIDED

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? NONE PROVIDED

If Yes, Identify the entity responsible for the long term Operation and Maintenance NONE PROVIDED

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). (See question #32a) This space can also be used for other pertinent project information. NONE PROVIDED

Post-Construction SMP Identification

Runoff Reduction (RR) Techniques, Standard Stormwater Management Practices (SMPs) and Alternative SMPs

Identify the Post-construction SMPs to be used by providing the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

RR Techniques (Area Reduction)

Round to the nearest tenth

Total Contributing Acres for Conservation of Natural Area (RR-1) NONE PROVIDED

Total Contributing Impervious Acres for Conservation of Natural Area (RR-1) NONE PROVIDED **Total Contributing Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2)** NONE PROVIDED

Total Contributing Impervious Acres for Sheetflow to Riparian Buffers/Filter Strips (RR-2) NONE PROVIDED

Total Contributing Acres for Tree Planting/Tree Pit (RR-3) NONE PROVIDED

Total Contributing Impervious Acres for Tree Planting/Tree Pit (RR-3) NONE PROVIDED

Total Contributing Acres for Disconnection of Rooftop Runoff (RR-4) NONE PROVIDED

RR Techniques (Volume Reduction)

Total Contributing Impervious Acres for Disconnection of Rooftop Runoff (RR-4) NONE PROVIDED

Total Contributing Impervious Acres for Vegetated Swale (RR-5) NONE PROVIDED **Total Contributing Impervious Acres for Rain Garden (RR-6)** NONE PROVIDED

Total Contributing Impervious Acres for Stormwater Planter (RR-7) NONE PROVIDED

Total Contributing Impervious Acres for Rain Barrel/Cistern (RR-8) NONE PROVIDED

Total Contributing Impervious Acres for Porous Pavement (RR-9) NONE PROVIDED

Total Contributing Impervious Acres for Green Roof (RR-10) NONE PROVIDED

Standard SMPs with RRv Capacity

Total Contributing Impervious Acres for Infiltration Trench (I-1) NONE PROVIDED

Total Contributing Impervious Acres for Infiltration Basin (I-2) NONE PROVIDED

Total Contributing Impervious Acres for Dry Well (I-3) NONE PROVIDED **Total Contributing Impervious Acres for Underground Infiltration System (I-4)** NONE PROVIDED

Total Contributing Impervious Acres for Bioretention (F-5) NONE PROVIDED

Total Contributing Impervious Acres for Dry Swale (O-1) NONE PROVIDED

Standard SMPs

Total Contributing Impervious Acres for Micropool Extended Detention (P-1) NONE PROVIDED

Total Contributing Impervious Acres for Wet Pond (P-2) NONE PROVIDED

Total Contributing Impervious Acres for Wet Extended Detention (P-3) NONE PROVIDED

Total Contributing Impervious Acres for Multiple Pond System (P-4) NONE PROVIDED

Total Contributing Impervious Acres for Pocket Pond (P-5) NONE PROVIDED **Total Contributing Impervious Acres for Surface Sand Filter (F-1)** NONE PROVIDED

Total Contributing Impervious Acres for Underground Sand Filter (F-2) NONE PROVIDED

Total Contributing Impervious Acres for Perimeter Sand Filter (F-3) NONE PROVIDED

Total Contributing Impervious Acres for Organic Filter (F-4) NONE PROVIDED

Total Contributing Impervious Acres for Shallow Wetland (W-1) NONE PROVIDED

Total Contributing Impervious Acres for Extended Detention Wetland (W-2) NONE PROVIDED

Total Contributing Impervious Acres for Pond/Wetland System (W-3) NONE PROVIDED

Total Contributing Impervious Acres for Pocket Wetland (W-4) NONE PROVIDED

Total Contributing Impervious Acres for Wet Swale (O-2) NONE PROVIDED

Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Total Contributing Impervious Area for Hydrodynamic NONE PROVIDED

Total Contributing Impervious Area for Wet Vault NONE PROVIDED

Total Contributing Impervious Area for Media Filter NONE PROVIDED

"Other" Alternative SMP? NONE PROVIDED

Total Contributing Impervious Area for "Other" NONE PROVIDED

Provide the name and manufaturer of the alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

Manufacturer of Alternative SMP NONE PROVIDED

Name of Alternative SMP NONE PROVIDED

Other Permits

40. Identify other DEC permits, existing and new, that are required for this project/facility. None

If SPDES Multi-Sector GP, then give permit ID NONE PROVIDED

If Other, then identify NONE PROVIDED

41. Does this project require a US Army Corps of Engineers Wetland Permit? No

If "Yes," then indicate Size of Impact, in acres, to the nearest tenth NONE PROVIDED

42. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. NONE PROVIDED

MS4 SWPPP Acceptance

43. Is this project subject to the requirements of a regulated, traditional land use control MS4?

Yes - Please attach the MS4 Acceptance form below

If No, skip question 44

44. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? Yes

MS4 SWPPP Acceptance Form Download

Download form from the link below. Complete, sign, and upload. <u>MS4 SWPPP Acceptance Form</u>

MS4 Acceptance Form Upload NONE PROVIDED Comment NONE PROVIDED

Owner/Operator Certification

Owner/Operator Certification Form Download Download the certification form by clicking the link below. Complete, sign, scan, and upload the form. <u>Owner/Operator Certification Form (PDF, 45KB)</u>

Upload Owner/Operator Certification Form

NONE PROVIDED Comment NONE PROVIDED

Status History

| | User | Processing Status |
|------------------------|--------------|-------------------|
| 12/31/2019 12:10:50 PM | Scott Gibson | Draft |

Processing Steps



Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-15-002)

| Project/Site Name: Bellisario Materials Storage and Mobilization Site | | | | | |
|---|----------------|----------------|-------|--|--|
| eNOI Submission Number: HNW-E2HG-X64R5, version 1 | | | | | |
| eNOI Submitted by: | Owner/Operator | SWPPP Preparer | Other | | |

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name Nickolas

Nickolas Bellisario

M.I. Last Name V. Bellisario

Digitally signed by Nickolas Bellisario Date: 2020.01.03 10:40:22 -05'00'

Signature

1/3/2020

Date

| Step Name | Assigned To/Completed By | Date Completed |
|----------------|--------------------------|----------------|
| Form Submitted | | |
| Under Review | Toni Cioffi | |

New York State Department of Environmental Conservation Division of Water 625 Broadway, 4th Floor Albany, New York 12233-3505 MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form for Construction Activities Seeking Authorization Under SPDES General Permit *(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information

1. Owner/Operator Name:

2. Contact Person:

3. Street Address:

4. City/State/Zip:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/State/Zip:

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

8. SWPPP Reviewed by:

9. Title/Position:

10. Date Final SWPPP Reviewed and Accepted:

IV. Regulated MS4 Information

11. Name of MS4:

12. MS4 SPDES Permit Identification Number: NYR20A

13. Contact Person:

14. Street Address:

15. City/State/Zip:

16. Telephone Number:

MS4 SWPPP Acceptance Form -continued

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

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in 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. Additional Information

Attachment B: Notice of Termination, (NOT)

| New York State Department of Environmental Conservation Division of Water 625 Broadway, 4th Floor Albany, New York 12233-3505 *(NOTE: Submit completed form to address above)* NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity | | | | |
|---|--|--|--|--|
| Please indicate your permit identification number: NYR _ | | | | |
| I. Owner or Operator Information | | | | |
| 1. Owner/Operator Name: | | | | |
| 2. Street Address: | | | | |
| 3. City/State/Zip: | | | | |
| 4. Contact Person: | 4a.Telephone: | | | |
| 5. Contact Person E-Mail: | | | | |
| II. Project Site Information | | | | |
| 5. Project/Site Name: | | | | |
| 6. Street Address: | | | | |
| 7. City/Zip: | | | | |
| 8. County: | | | | |
| III. Reason for Termination | | | | |
| 9a. G All disturbed areas have achieved final stabilization in accordance *Date final stabilization completed (month/year): | ce with the general permit and SWPPP. | | | |
| 9b. G Permit coverage has been transferred to new owner/operator. In identification number: NYR (Note by owner identified in I.1. above until new owner/operator (Note of the second | dicate new owner/operator's permit e: Permit coverage can not be terminated obtains coverage under the general permit) | | | |
| 9c. G Other (Explain on Page 2) | | | | |
| IV. Final Site Information: | | | | |
| 10a. Did this construction activity require the development of a SWPP stormwater management practices? G yes G no (If no, go to question | P that includes post-construction 10f.) | | | |
| 10b. Have all post-construction stormwater management practices incl constructed? G yes G no (If no, explain on Page 2) | uded in the final SWPPP been | | | |
| 10c. Identify the entity responsible for long-term operation and mainte | nance of practice(s)? | | | |

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? G yes G no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s): G Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality. G Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s). G For post-construction stormwater management practices that are privately owned, the deed of record has been modified to include a deed covenant that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan. G For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, college, university), or government agency or authority, policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? G yes G no (If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation: (Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:

Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

| I hereby certify that all disturbed areas have achieved final stabilization as defining general permit, and that all temporary, structural erosion and sediment control in Furthermore, I understand that certifying false, incorrect or inaccurate information permit and the laws of the State of New York and could subject me to criminal proceedings. | ned in the current version of the neasures have been removed. ion is a violation of the referenced , civil and/or administrative | | |
|---|---|--|--|
| Printed Name: | | | |
| Title/Position: | | | |
| Signature: | Date: | | |
| VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s): | | | |
| I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. | | | |
| Printed Name: | | | |
| Title/Position: | | | |
| Signature: | Date: | | |
| IX. Owner or Operator Certification | | | |
| I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings. | | | |
| Printed Name: | | | |
| Title/Position: | | | |
| Signature: | Date: | | |

Attachment C: Certification Forms

CONTRACTOR and SUBCONTRACTOR CERTIFICATION STATEMENT

for the New York State Department of Environmental Conservation (DEC) State Pollutant Discharge Elimination System Permit for Stormwater Discharges from Construction Activity (GP-0-10-001)

As per Part III.A.6 on page 13 of GP-0-10-001 (effective January 29, 2010):

'Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and sub-contractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.'

The *owner or operator* shall have each contractor and subcontractor involved in soil disturbance sign a copy of the following certification statement before they commence <u>any</u> *construction activity*:

| Name of Construction Site | NYR DEC Perm | it ID | Municipality (MS4) | |
|---|---|--|---|--|
| "I hereby certify that I understand and agr agree to implement any corrective actions also understand that the owner or opera current version of the New York State P permit for stormwater discharges from o to cause or contribute to a violation of certifying false, incorrect or inaccurate in of the State of New York and could subje | ee to comply wi identified by th ator must comp collutant Discha construction act f water quality of formation is a v ect me to crimin | ith the terms and e qualified insp ly with the term rge Eliminatio vivities and that standards. Furt violation of the nal, civil and/or | ad conditions of the SWPPP and bector during a site inspection. I hs and conditions of the most on System ("SPDES") general t it is unlawful for any person thermore, I understand that referenced permit and the laws r administrative proceedings. | |
| Responsible Corporate Officer/Partner | Signature | Date | | |
| Name of above Signatory | | Name of Com | pany | |
| Title of above Signatory | | Mailing Addre | ess | |
| Telephone of Company | | City, State and | d Zip | |
| Identify the specific elements of the SV | VPPP the cont | ractor or subc | contractor is responsible for: | |
| | | | | |
| | | | | |
| | | | | |
| 'TRAINED CONTRACTOR' FOR THE CERTIFIED CONTRACTOR OR SUBCONTRACTOR | | | | |
| Name of Trained Employee | Title of Traine | d Employee | | |

A copy of this signed contractor certification statement must be maintained at the SWPPP on site

Attachment D: Circles and Squares Map 12/31/2019





SEARCH

COMMUNICATE



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Attachment E: Inspection Report (Sample Form)

INSPECTION REPORT for STORM WATER POLLUTION PREVENTION PLAN

PROJECT LOCATION:

INSPECTOR: DATE:

SITE CONDITIONS:

| POLLUTANT CONTROL | IN CONFORMANCE | EFFECTIVE |
|----------------------------------|--------------------|--------------------|
| Stabilized Construction Entrance | YES/NO (See Below) | YES/NO (See Below) |
| Silt Fence | YES/NO (See Below) | YES/NO (See Below) |
| Temporary Seeding & Mulching | YES/NO (See Below) | YES/NO (See Below) |
| Swales, Ditches, Channels | YES/NO (See Below) | YES/NO (See Below) |
| Rock Check Dams | YES/NO (See Below) | YES/NO (See Below) |
| Wet Pond & Forebays | YES/NO (See Below) | YES/NO (See Below) |
| Material Storage | YES/NO (See Below) | YES/NO (See Below) |
| Other: | YES/NO (See Below) | YES/NO (See Below) |
| | | |

VIOLATION NOTED: (Explain each "NO" circled above)

RECOMMENDED REMEDIAL ACTION(S):

COMMENTS:

Based on the results of the inspection, necessary control modifications shall be implemented within 7 calendar days. These reports shall be kept on file as part of the Storm Water Pollution Prevention Plan for at least three years from the date of completion and submission of the Notice of Termination. A copy of the SWPPP shall be kept at the site at all times during construction.

CERTIFICATION STATEMENT

"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 gathered and evaluated the information submitted. Based on my inquiry of the person(s) 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 imprisonments for knowing violations.

Signature

Date

Printed Name

Attachment F: Record of Stabilization and Construction Activity Dates (Sample Form)

SITE STABILIZATION and CONSTRUCTION ACTIVITY DATES

A record of dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be maintained until final site stabilization is achieved and the Notice of Termination is filed. The dates can be entered in the following form, or on a different form.

MAJOR GRADING ACTIVITIES:

| Description of Activity: | |
|--------------------------|------------------|
| Begin (date): | Site Contractor: |
| Location: | |
| End (date): | _ |
| Description of Activity: | |
| Begin (date): | Site Contractor: |
| Location: | |
| End (date): | _ |
| Description of Activity: | |
| Begin (date): | Site Contractor: |
| Location: | |
| End (date): | _ |
| Description of Activity: | |
| Begin (date): | Site Contractor: |
| Location: | |
| End (date): | _ |
| Description of Activity: | |
| Begin (date): | Site Contractor: |
| Location: | |
| End (date): | _ |
| Description of Activity: | |
| Begin (date): | Site Contractor: |
| Location: | |
| End (date): | |
| Description of Activity: | |
| Begin (date): | Site Contractor: |
| Location: | |
| End (date): | |

Attachment G: Vegetative and Structural Measures For Erosion and Sediment Control (NYS Standards & Specifications for Erosion & Sediment Control) (Reference)

STANDARD AND SPECIFICATIONS FOR MULCHING



Definition and Scope

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch can also be used alone for temporary stabilization in nongrowing months. Use of stone as a mulch could be more permanent and should not be limited to non-growing months.

Conditions Where Practice Applies

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

<u>Criteria</u>

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Hay mulch shall not be used in wetlands or in areas of permanent seeding. Clean straw mulch is preferred alternative in wetland application. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/ acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 - 750 lbs./acre (11 - 17lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.



Table 4.2Guide to Mulch Materials, Rates, and Uses

| Mulch Material | Quality Standards | per 1000 Sq. Ft. | per Acre | Depth of Application | Remarks |
|--|--|-----------------------------------|----------------------------|----------------------------|---|
| Wood chips or shavings | Air-dried. Free of objectionable coarse material | 500-900 lbs. | 10-20 tons | 2-7" | Used primarily around shrub and tree plantings and recreation trails to inhibit weed competition. Resistant to wind blowing. Decomposes slowly. |
| Wood fiber cellulose (partly digested wood fibers) | Made from natural wood usually with green dye and dispersing agent | 50 lbs. | 2,000 lbs. | | Apply with hydromulcher. No tie down required. Less erosion control provided than 2 tons of hay or straw. |
| Gravel, Crushed Stone or Slag | Washed; Size 2B or 3A—1 1/2" | 9 cu. yds. | 405 cu. yds. | 3" | Excellent mulch for short slopes and around plants and ornamentals. Use 2B where subject to traffic. (Approximately 2,000 lbs./cu. yd.). Frequently used over filter fabric for better weed control. |
| Hay or Straw | Air-dried; free of undesirable seeds & coarse materials | 90-100 lbs. 2-3 bales | 2 tons (100- 120 bales) | cover about 90% surface | Use small grain straw where mulch is maintained for more than three months. Subject to wind blowing unless anchored. Most commonly used mulching material. Provides the best micro-environment for germinating seeds. |
| Jute twisted yarn | Undyed, unbleached plain weave. Warp 78 ends/yd., Weft 41 ends/ yd. 60-90 lbs./roll | 48" x 50 yds. or 48" x 75 yds. | | | Use without additional mulch. Tie down as per manufacturers specifications. Good for center line of concentrated water flow. |
| Excelsior wood fiber mats | Interlocking web of excelsior fibers with photodegradable plastic netting | 4' x 112.5' or 8' x 112.5'. | | | Use without additional mulch. Excellent for seeding establishment. Anchor as per manufacturers specifications. Approximately 72 lbs./roll for excelsior with plastic on both sides. Use two sided plastic for centerline of waterways. |
| Straw or coconut fiber, or combination | Photodegradable plastic net on one or two sides | Most are 6.5 ft. x 3.5 ft. | 81 rolls | | Designed to tolerate higher velocity water flow, centerlines of waterways, 60 sq. yds. per roll. |

Table 4.3Mulch Anchoring Guide

| Anchoring Method or Material | Kind of Mulch to be Anchored | How to Apply |
|---------------------------------|---------------------------------|--|
| 1. Peg and Twine | Hay or straw | After mulching, divide areas into blocks approximately 1 sq. yd. in size. Drive 4-6 pegs per block to within 2" to 3" of soil surface. Secure mulch to surface by stretching twine between pegs in criss-cross pattern on each block. Secure twine around each peg with 2 or more tight turns. Drive pegs flush with soil. Driving stakes into ground tightens the twine. |
| 2. Mulch netting | Hay or straw | Staple the light-weight paper, jute, wood fiber, or plastic nettings to soil surface according to manufacturer's recommendations. Should be biodegradable. Most products are not suitable for foot traffic. |
| 3. Wood cellulose fiber | Hay or straw | Apply with hydroseeder immediately after mulching. Use 500 lbs. wood fiber per acre. Some products contain an adhesive material ("tackifier"), possibly advantageous. |
| 4. Mulch anchoring tool | Hay or straw | Apply mulch and pull a mulch anchoring tool (blunt, straight discs) over mulch as near to the contour as possible. Mulch material should be "tucked" into soil surface about 3". |
| 5. Tackifier | Hay or straw | Mix and apply polymeric and gum tackifiers according to manufacturer's instructions. Avoid application during rain. A 24-hour curing period and a soil temperature higher than 45 ⁰ Fahrenheit are required. |

STANDARD AND SPECIFICATIONS FOR PERMANENT CONSTRUCTION AREA PLANTING



Definition & Scope

Establishing **permanent** grasses with other forbs and/or shrubs to provide a minimum 80% perennial vegetative cover on areas disturbed by construction and critical areas to reduce erosion and sediment transport. Critical areas may include but are not limited to steep excavated cut or fill slopes as well as eroding or denuded natural slopes and areas subject to erosion.

Conditions Where Practice Applies

This practice applies to all disturbed areas void of, or having insufficient, cover to prevent erosion and sediment transport. See additional standards for special situations such as sand dunes and sand and gravel pits.

<u>Criteria</u>

All water control measures will be installed as needed prior to final grading and seedbed preparation. Any severely compacted sections will require chiseling or disking to provide an adequate rooting zone, to a minimum depth of 12", see Soil Restoration Standard. The seedbed must be prepared to allow good soil to seed contact, with the soil not too soft and not too compact. Adequate soil moisture must be present to accomplish this. If surface is powder dry or sticky wet, postpone operations until moisture changes to a favorable condition. If seeding is accomplished within 24 hours of final grading, additional scarification is generally not needed, especially on ditch or stream banks. Remove all stones and other debris from the surface that are greater than 4 inches, or that will interfere with future mowing or maintenance.

Soil amendments should be incorporated into the upper 2 inches of soil when feasible. The soil should be tested to determine the amounts of amendments needed. Apply

ground agricultural limestone to attain a pH of 6.0 in the upper 2 inches of soil. If soil must be fertilized before results of a soil test can be obtained to determine fertilizer needs, apply commercial fertilizer at 600 lbs. per acre of 5-5 -10 or equivalent. If manure is used, apply a quantity to meet the nutrients of the above fertilizer. This requires an appropriate manure analysis prior to applying to the site. Do not use manure on sites to be planted with birdsfoot trefoil or in the path of concentrated water flow.

Seed mixtures may vary depending on location within the state and time of seeding. Generally, warm season grasses should only be seeded during early spring, April to May. These grasses are primarily used for vegetating excessively drained sands and gravels. See Standard and Specification for Sand and Gravel Mine Reclamation. Other grasses may be seeded any time of the year when the soil is not frozen and is workable. When legumes such as birdsfoot trefoil are included, spring seeding is preferred. See Table 4.4, "Permanent Construction Area Planting Mixture Recommendations" for additional seed mixtures.

| General Seed Mix: | Variety | lbs./ acre | lbs/1000 sq. ft. | | |
|---|---|----------------|---------------------|--|--|
| Red Clover ¹ <u>OR</u> | Acclaim, Rally, Red Head II, Renegade | 8 ² | 0.20 | | |
| Common white clover ¹ | Common | 8 | 0.20 | | |
| PLUS | | | | | |
| Creeping Red Fescue | Common | 20 | 0.45 | | |
| PLUS | | | | | |
| Smooth Bromegrass <u>OR</u> | Common | 2 | 0.05 | | |
| Ryegrass (perennial) | Pennfine/Linn | 5 | 0.10 | | |
| ¹ add inoculant immediately prior to seeding ² Mix 4 lbs each of Empire and Pardee OR 4 lbs of Birdsfoot and 4 lbs white clover per acre. All seeding rates are given for Pure Live Seed (PLS) | | | | | |

Pure Live Seed, or (PLS) refers to the amount of live seed in a lot of bulk seed. Information on the seed bag label includes the type of seed, supplier, test date, source of seed, purity, and germination. Purity is the percentage of pure seed. Germination is the percentage of pure seed that will produce normal plants when planted under favorable conditions. To compute Pure Live Seed multiply the "germination percent" times the "purity" and divide that by 100 to get Pure Live Seed.

$Pure Live Seed (PLS) = \frac{\% Germination \times \% Purity}{100}$

For example, the PLS for a lot of Kentucky Blue grass with 75% purity and 96% germination would be calculated as follows:

$$\frac{(96) \times (75)}{100} = 72\%$$
 Pure Live Seed

For 10lbs of PLS from this lot =

$$\frac{10}{0.72}$$
 = 13.9 lbs

Therefore, 13.9 lbs of seed is the actual weight needed to meet 10lbs PSL from this specific seed lot.

<u>Time of Seeding:</u> The optimum timing for the general seed mixture is early spring. Permanent seedings may be made any time of year if properly mulched and adequate moisture is provided. Late June through early August is not a good time to seed, but may facilitate covering the land without additional disturbance if construction is completed. Portions of the seeding may fail due to drought and heat. These areas may need reseeding in late summer/fall or the following spring.

<u>Method of seeding:</u> Broadcasting, drilling, cultipack type seeding, or hydroseeding are acceptable methods. Proper soil to seed contact is key to successful seedings.

<u>Mulching:</u> Mulching is essential to obtain a uniform stand of seeded plants. Optimum benefits of mulching new seedings are obtained with the use of small grain straw applied at a rate of 2 tons per acre, and anchored with a netting or tackifier. See the Standard and Specifications for Mulching for choices and requirements.

<u>Irrigation:</u> Watering may be essential to establish a new seeding when a drought condition occurs shortly after a new seeding emerges. Irrigation is a specialized practice and care must be taken not to exceed the application rate for the soil or subsoil. When disconnecting irrigation pipe, be sure pipes are drained in a safe manor, not creating an erosion concern.



80% Perennial Vegetative Cover



50% Perennial Vegetative Cover

Table 4.4 Permanent Construction Area Planting Mixture Recommendations

| Seed Mixture | Variety | Rate in lbs./acre (PLS) | Rate in lbs./ 1, 000 ft ² |
|--|--|----------------------------|---|
| Mix #1 | | | |
| Creeping red fescue | Ensylva, Pennlawn, Boreal | 10 | .25 |
| Perennial ryegrass | Pennfine, Linn | 10 | .25 |
| *This mix is used extensively for shaded areas. | | | |
| Mix #2 | | | |
| Switchgrass | Shelter, Pathfinder, Trailblazer, or Blackwell | 20 | .50 |
| *This rate is in pure live seed, this would be an excellent choice along the upland edge of a wetland to filter runoff and pro- vide wildlife benefits. In areas where erosion may be a problem, a companion seeding of sand lovegrass should be added to provide quick cover at a rate of 2 lbs. per acre (0.05 lbs. per 1000 sq. ft.). | | | |
| Mix #3 | | | |
| Switchgrass | Shelter, Pathfinder, Trailblazer, or Blackwell | 4 | .10 |
| Big bluestem | Niagara | 4 | .10 |
| Little bluestem | Aldous or Camper | 2 | .05 |
| Indiangrass | Rumsey | 4 | .10 |
| Coastal panicgrass | Atlantic | 2 | .05 |
| Sideoats grama | El Reno or Trailway | 2 | .05 |
| Wildflower mix | | .50 | .01 |
| *This mix has been successful on sand and gravel plantings. It is very difficult to seed without a warm season grass seeder such as a Truax seed drill. Broadcasting this seed is very difficult due to the fluffy nature of some of the seed, such as bluestems and indiangrass. | | | |
| Mix #4 | | | |
| Switchgrass | Shelter, Pathfinder, Trailblazer, or Blackwell | 10 | .25 |
| Coastal panicgrass | Atlantic | 10 | .25 |
| *This mix is salt tolerant, a good choice along the upland edge of tidal areas and roadsides. | | | |
| Mix #5 | | | |
| Saltmeadow cordgrass (Spartina patens)—This grass is used for tidal shoreline protection and tidal marsh restoration. It is planted by vegetative stem divisions. 'Cape' American beachgrass can be planted for sand dune stabilization above the saltmeadow cordgrass zone. | | | |
| Mix #6 | | | |
| Creeping red fescue | Ensylva, Pennlawn, Boreal | 20 | .45 |
| Chewings Fescue | Common | 20 | .45 |
| Perennial ryegrass | Pennfine, Linn | 5 | .10 |
| Red Clover | Common | 10 | .45 |
| *General purpose erosion control mix. Not to be used for a turf planting or play grounds. | | | |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | |

STRUCTURAL MEASURES FOR EROSION AND SEDIMENT CONTROL

<u>General</u>

Uncontrolled runoff and excess erosion often occurs in urban developments, particularly during the construction stage. This erosion forms rills and gullies; washes out roads; scours cut and fill areas; fills road ditches, storm drains, and streams; and does other damage that is costly to the developers and damaging to land and water users below. Careful inclusion of proven conservation practices in the development plan can prevent or alleviate much of this damage and should be a part of every development plan.

These practices will usually be a combination of vegetative and structural measures. They may be temporary and serve only during the construction stage or they may be permanent in nature and become a part of the completed development. Permanent structural practices should be installed as early as possible in the construction stage. This section deals with the more common structural measures that may be used. Adequate designs, plans, and specification should be prepared for the measures to be used. A number of measures and specifications are included throughout this section. The designer shall determine those elements to be installed to control erosion (Section 2) and follow the criteria included in these standards and specifications.

Introduction

Structural erosion and sediment control practices have been classified as either temporary or permanent, according to how they are used. Temporary structural practices are used during construction to prevent offsite sedimentation. The length of time that temporary practices are functional varies from project to project, since the sediment control strategy may change as construction activity progresses. Permanent structural practices are used to convey surface water runoff to a safe outlet. Permanent structural practices will remain in place and continue to function after the completion of construction.

Regardless of whether the practices are temporary or permanent, runoff control measures should be the first items constructed when grading begins, and be completely functional before downslope land disturbance takes place. Earthen structures such as diversions, dikes, and swales should be stabilized before being considered functional. Only after the runoff control structures are operational and sediment control measures are in place, should clearing and grading on the rest of the construction site begin.

While clearing and grading the site, it is important to

minimize the amount of sediment that is produced. In general, it is advantageous to clear only as much area as is necessary to accommodate construction needs. Grade and stabilize large sites in stages whenever possible. Limiting the amount of disturbed area limits the amount of sediment that is generated, thus decreasing the amount of maintenance required on sediment control measures.

Sediment generated during the construction of cut and fill slopes can also be minimized through design and grading techniques. When designing either a cut or fill slope, factors to consider include slope length and steepness, soil type, and upslope drainage area. In general, it is important to leave soil surfaces on disturbed slopes in a roughened condition and to construct a water diversion practice at the top of slopes. Rough soil surfaces do not erode as readily as smooth soil surfaces.

Although design and grading techniques can reduce soil erosion, they cannot eliminate it entirely. Therefore, practices must be installed to prevent offsite sedimentation.

Even though the specific conditions of each site determine what measures are necessary to control erosion and sedimentation, some general principles apply to the selection and placement of sediment control measures.

- 1. Prevent clean water from becoming turbid, by diverting runoff from upslope areas away from disturbed areas. Earth dikes, temporary swales, perimeter dike/swales, or diversions that outlet in stable areas can be used in this capacity.
- 2. Remove sediment from turbid water before the water leaves the site. The method of sediment removal depends upon how the water drains from the site. Concentrated flow must be diverted to a trapping device so that suspended sediment can be deposited. Dikes or swales that outlet into traps or basins can accomplish this. A storm drain system may be used to convey concentrated sediment laden water only if the system empties into a trap or basin. Otherwise, all storm drain inlets must be protected so that sediment laden water cannot enter the drainage system before being treated to remove the sediment.
- 3. Surface runoff draining in sheet flow must be controlled and treated before the water leaves the site. Straw bale dikes, silt fences, or vegetative buffer strips can be used to treat sheet flow.

All practices designed and implemented must be properly maintained in order to remain functional. Sediment accumulated in basins and traps must be removed and disposed of in a manner that stabilizes them on the construction site.

Other factors should be observed during construction in order to make erosion and sediment control measures more effective in pollution control.

These are:

- 1. Sprinkle or apply dust suppressors. Keep dust down to a tolerable limit on construction sites and haul roads.
- 2. Use temporary bridges or culverts where fording of streams is objectionable. Avoid borrow areas where pollution from this operation is inevitable.

- 3. Protect streams from chemicals, fuel, lubricants, sewage, or other pollutants.
- 4. Avoid disposal of fill in floodplains or drainage ways. This reduces the capacity of these areas to pass flood flows.
- 5. Do not locate sanitary facilities over, or adjacent to, waterways, wells, or springs.
- 6. Locate storage yards and stockpiles where erosion and sediment hazards are slight. Where this is not possible, apply necessary erosion control practices.
STANDARD SYMBOLS

| BRANCH PACKING | BP |
|---|-------------------|
| BRUSH LAYER | BL |
| BRUSH MATTRESS | BM |
| CHECK DAM | |
| CONSTRUCTION ROAD STABILIZATION | = CRS = |
| CURB DROP INLET PROTECTION | D D D DD D |
| DIVERSION | D |
| DUNE STABILIZATION | DS |
| DUST CONTROL | Â |
| EARTH DIKE | A-2/B-3 |
| EXCAVATED DROP INLET PROTECTION | |
| FIBER ROLL | FR |
| FILTER FABRIC DROP INLET PROTECTION | 1111 |
| GRADE STABILIZATION STRUCTURE | \pm |
| GRASSED WATERWAY | ⊞⊶⊞ |
| | |
| ADAPTED FROM DETAILS PROVIDED BY USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE | STANDARD SYMBOLS |

STANDARD SYMBOLS (cont'd)

| LAND GRADING | |
|--|------------------|
| LEVEL SPREADER | |
| LINED WATERWAY | B RR B |
| LIVE CRIBWALL | (CW) |
| LIVE CUTTINGS/LIVE STAKES PLANTING | LC/LS |
| LIVE FASCINE | LF |
| MULCHING | M |
| OPTIONAL SEDIMENT TRAP DEWATERING DEVICE | |
| PAVED FLUME | |
| PERIMETER DIKE OR SWALE | PD |
| PERMANENT SEEDING | PS |
| PIPE DUTLET SEDIMENT TRAP | |
| PIPE SLOPE DRAIN FLEXIBLE | ⇒₽SD⇒ |
| PORTABLE SEDIMENT TANK | Δ |
| PROTECTING VEGETATION | State State |
| | |
| ADAPTED FROM DETAILS PROVIDED BY: USDA - NRCS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE | STANDARD SYMBOLS |

STANDARD SYMBOLS (cont'd)



STANDARD SYMBOLS (cont'd)



Attachment H: NYSDEC Stormwater Construction Checklists (Sample Form)

Open Channel System Construction Inspection Checklist

Project: Location: Site Status:

Date:

Time:

Inspector:

| CONSTRUCTION SEQUENCE | SATISFACTORY / UNSATISFACTORY | Comments |
|---|----------------------------------|----------|
| 1. Pre-Construction | | |
| Pre-construction meeting | | |
| Runoff diverted | | |
| Facility location staked out | | |
| 2. Excavation | | |
| Size and location | | |
| Side slope stable | | |
| Soil permeability | | |
| Groundwater / bedrock | | |
| Lateral slopes completely level | | |
| Longitudinal slopes within design range | | |
| Excavation does not compact subsoils | | |
| 3. Check dams | | |
| Dimensions | | |
| Spacing | | |
| Materials | | |

| CONSTRUCTION SEQUENCE | Satisfactory / Unsatisfactory | Comments |
|--|----------------------------------|----------|
| 4. Structural Components | | |
| Underdrain installed correctly | | |
| Inflow installed correctly | | |
| Pretreatment devices installed | | |
| 5. Vegetation | | |
| Complies with planting specifications | | |
| Topsoil adequate in composition and placement | | |
| Adequate erosion control measures in place | | |
| 6. Final inspection | | |
| Dimensions | | |
| Check dams | | |
| Proper outlet | | |
| Effective stand of vegetation and stabilization | | |
| Contributing watershed stabilized before flow is routed to the factility | | |

Comments:



Actions to be Taken:

Attachment I: NYSDEC Operation & Maintenance Checklist (Sample Form)

Open Channel Operation, Maintenance, and Management Inspection Checklist

| Project: Location: Site Status: | | |
|---|---------------------------------|---------------|
| Date: | | |
| Time: | | |
| Inspector: | | |
| | | |
| Maintenance Item | Satisfactory/ Unsatisfactory | Comments |
| 1. Debris Cleanout (Monthly |) | · |
| Contributing areas clean of debris | | |
| 2. Check Dams or Energy Dissipator | s (Annual, After M | lajor Storms) |
| No evidence of flow going around structures | | |
| No evidence of erosion at downstream toe | | |
| Soil permeability | | |
| Groundwater / bedrock | | |
| 3. Vegetation (Monthly) | | |
| Mowing done when needed | | |
| Minimum mowing depth not exceeded | | |
| No evidence of erosion | | |
| Fertilized per specification | | |
| 4. Dewatering (Monthly) | | |
| Dewaters between storms | | |

| MAINTENANCE ITEM | Satisfactory/ Unsatisfactory | Comments |
|--------------------------------------|---------------------------------|----------|
| 5. Sediment deposition (Annual) | | |
| Clean of sediment | | |
| 6. Outlet/Overflow Spillway (Annual) | | |
| Good condition, no need for repairs | | |
| No evidence of erosion | | |

Comments:

Actions to be Taken: