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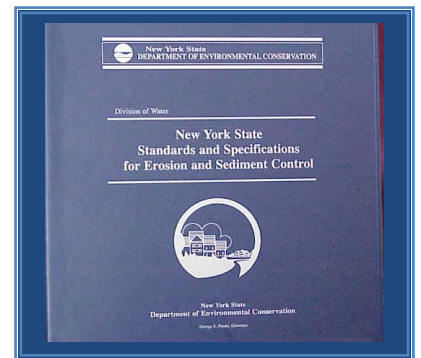
2016 NYS Standards and Specifications for Erosion and Sediment Control Finalized

DEC has finalized updates to the New York State Standards and Specifications for Erosion and Sediment Control (Blue Book). The Blue Book provides standards and specifications for the selection, design, and implementation of erosion and sediment control practices during development of Erosion and Sediment Control Plans as required by the SPDES General Permit for Stormwater Discharges from Construction Activity. The document is available for download on the [Construction Stormwater Toolbox webpage](#).

The Blue Book was updated to address EPA's Effluent Limitation Guidelines (ELGs) as published in December, 2009, advancements in technology, and issues that had been identified by stakeholders that use the document. A draft of the updated Blue Book was Public Noticed on February 24, 2016 for 30 days with 22 sets of comments received.

ELGs are non-numeric, technology based limitations that represent the degree of pollutant reduction attainable through the application of currently available, best practicable technology. Control measures in the Blue Book have been determined to be technologically available, economically achievable, and practicable. Adherence to the design, construction and maintenance standards of erosion and sediment control practices identified in the Blue Book is deemed to meet DEC's ELGs. It should be noted that some practices may not be sufficient to meet wetland requirements. Projects adjacent to wetlands may require a separate wetland permit.

Updates made in the 2016 Blue Book reflect recommended planning/design considerations for developing an Erosion and Sediment Control (ESC) Plan. The document has been completely reformatted. Changes include the addition of a new Section 2 (Erosion Control Planning and Site Management), eighteen new ESC standards, thirteen modified existing standards, and updated appendices. The addition of new standards/specifications reflect changes in technology (i.e. Buffer Filter Strip, Compost Filter Sock, Dewatering Device, Geotextile Filter Bag, Sediment Dike, Anchored Stabilization Matting, Loose Stabilization Blankets, Flow Diffuser). Practices have been characterized for use as Erosion Control, Runoff Control or Sedimentation Control.



Some highlights of the new Blue Book include:

- Provide and Maintain Natural Buffers as a Sediment Control Practice. If you can't set up a buffer, you must implement other BMPs that provide similar benefits.
- Soil Restoration is required on ALL permitted projects.
- In areas where soil disturbance activity has temporarily or permanently ceased, soil stabilization measures must be initiated by the end of the next business day and completed within 14 days from the date the disturbance ceased.
- Soil Stabilization on projects discharging to a 303(d) waterbody is required within 7 days.
- Pollution Prevention requirements are more prescriptive.
- The use of polymers and flocculants require site specific approval from DEC prior to application.
- Design criteria for the majority of the standards have been clarified based on current studies and field testing.
- Out dated and no longer used practices/standards have been deleted.

2016 NYS Standards and Specifications for Erosion and Sediment Control Finalized - Overview

The new Blue Book is organized in a manner to emphasize good planning and environmental site design at the onset of a project, followed by the design process (noting the differences with different types of construction operations). Standards are presented in the order of proper site management in the beginning followed by erosion control, runoff control, soil stabilization, and sediment control practices.

The new Blue Book, **Section 2. Site Planning, Preparation and Management**, discusses the objectives of the erosion and sediment control plan. As summarized below, site and off-site resources are identified and incorporated into a seven step design process. In addition, special considerations for different types of project development and their needs for erosion and sediment control planning are discussed. Typical site management standards are located in this section.

DESIGN PROCESS FOR THE ESC PLAN

Step 1. Identify existing drainage patterns, drainage area boundaries and slopes, discharge points.

Step 2. Identify areas of special concern: wetlands, stream buffers, wooded areas, etc.

Step 3. Inventory site and layout the development.

Step 4. Determine the phasing requirements and design initial E&S controls.

Step 5. Identify interim drainage patterns and design interim E&S controls.

Step 6. Identify proposed drainage patterns, drainage area boundaries, slopes and design final controls.

Step 7. Prepare the construction sequence for each phase of the proposed project.

- Grade the remainder of the phase or site.
- Install utilities and connections.
- Construction of buildings, roads and other construction.
- Installation of permanent stormwater management measures.
- Final grading, soil restoration, landscaping and stabilization.
- Remove temporary erosion and sediment controls.
- Remove and stabilize any disturbed areas remaining upon removal of temporary ESC measures.

STEPS IN THE SEQUENCE OF CONSTRUCTION

- Schedule and conduct a pre-construction meeting with appropriate enforcement authority.
- Delineate resources to protect.
- Establish access, staging, stockpiles, waste areas.
- Clear and grub as necessary for the installation of perimeter controls; set spoil disposal methods.
- Construct and stabilize perimeter controls.
- Continue to clear and grub within the perimeter.
- Initiate road grading.

SITE MANAGEMENT STANDARDS

- Construction Road Stabilization: stabilize interior site access: minimum widths 12 to 24 feet.
- Concrete Truck Washout: no infiltration; minimum 8' x 8' x 2' (**NEW STANDARD**).
- Dust Control: Driving Areas vs. Non-Driving Areas; water spraying or barriers to surface.
- Protecting Vegetation during Construction; Protect tree roots; limit areas of disturbance.

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- Site Pollution Prevention: Manage non-sediment pollutants: construction waste, fuels, chemicals, sanitary spill prevention plan. (**NEW STANDARD**)
- Stabilized Construction Access: Minimum access width 12 to 24 feet; stone thickness minimum 6 inches.
- Temporary Access Waterway Crossing: protect existing watercourses
- Winter Stabilization: Protect perimeter; stabilize stockpiles; maintain buffers for watercourses; maintain access snow management plan. (**NEW STANDARD**)

SECTION 2. NOTE

Performing activities within or adjacent to wetlands, streams and waterbodies may require permits from the NYS DEC pursuant to Article 15 (Protection of Waters), Article 24 (Freshwater Wetlands) and Article 25 (Tidal Wetlands) of the Environmental Conservation Law (ECL).

Project owners should contact NYS DEC's Regional Division of Environmental Permits early in the site planning process to discuss the requirements for meeting permit issuance standards. Following the NYS Standards & Specifications for Erosion & Sedimentation may not ensure compliance with the above referenced sections of the ECL.

Section 3. Erosion Control Part 1- Runoff Control

This section provides a number of specific runoff control standards to meet a variety of project needs. Both temporary and permanent practices are presented to manage stormwater runoff to and within the site. The design of some of these practices can be completed by selecting dimensions based on tributary drainage areas; while others require more detailed design analysis. This section contains one new standard as summarized below:

- Flow Diffuser: A permanent non-erosive outlet for concentrated runoff constructed to diffuse flow uniformly through a stone matrix onto a stabilized area in the form of shallow, low velocity, sheet flow. Appropriate for sites where sediment-free stormwater runoff can be released in low velocity sheet flow down stabilized areas without causing erosion; where the ground slope at the outlet of the diffuser is less than 30% and the runoff will not re-concentrate after release; and where construction of a flow spreader is not practicable.

Drainage Area = 0.1 acre/Linear Foot

Max Design Storm 10yr, 24 hr.

Receiving Buffer Min 150' continuous length

Diffuser Discharge 0.25 cfs per linear foot



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Section 4. Erosion Control Part 2 – Soil Stabilization

This section presents detailed standards and specifications for soil stabilization, the second part of erosion control. It includes standards for grading activities, stabilization with seeding and mulching, use of stabilization matting, application of loose stabilization blankets and addresses special applications. Standards for lime and fertilizer application are also included. Bio-technical standards for live fascines, brush mattress and others, are presented for stabilizing steep slopes, road banks, and stream banks. Structural components are also included to aid where vegetative applications alone are inadequate to stabilize an area. This section contains seven new standards as listed below:

- **Anchored Stabilization Matting:** Required on all slopes 3:1 or steeper; flow channels design for shear stress.
- **Armored Slope/Channel Protection:** Combines former riparian slope protection and streambank protection standards.
- **Fertilizer Application:** Nutrient Runoff Law
- **Lime Application:** Achieve pH of 7.0 or higher.
- **Loose Stabilization Blankets:** Compost and other materials need stable slope.
- **Soil Restoration:** Incorporates NYS Stormwater Design Manual (NYSSWDM) Table 5.3 as Table 4.6.
- **Vegetated Rock Gabions:** Slope stabilization.

Section 5. Sediment Control

This section addresses the capture, retention and control of sediment within the boundaries of the disturbed construction site. Standards and specifications are included for perimeter controls, storm drain inlet protection, buffer filter strips, temporary sediment traps, tanks, tubes, bags and sediment basins, and dewatering devices. A standard for polymer flocculation of dispersive soils is also included in this section. Six new standards have been added to this section as outlined below:

- **Buffer Filter Strip:** 50' minimum width for watercourses; 20' minimum width for paved areas.
- **Coffer Dam Structures:** Protect work areas; maximum height 10'.
- **Compost Filter Sock:** Diameters 8" to 32"; maximum slope 2:1; compost must meet standards.
- **De-watering Devices:** De-water in 2 to 7 days depending on soil; orifice sized to provide detention time; figure 5.3 Skimmer Orifice Design Chart.
- **Geotextile Filter Bag:** Location is key; 50' from waterbodies.
- **Sediment Dike:** Maximum DA = 0.5 acres/100 feet of dike
- **Sediment trap:** Compost filter sock.

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In addition to the new standards outlined above, the following standards have been modified:

- Sediment/Construction Access
- Check Dam
- Construction Ditch
- Flow Spreader
- Diversion
- Mulching
- Permanent Construction Area Planting
- Retaining Walls
- Recreation Area Seeding
- Temporary Construction Area Seeding
- Sediment Basin
- Silt Fence
- Storm Drain Inlet Protection
- Appendices A - I

The following standards were deleted during the Blue Book update process:

- Debris Basin
- Riprap Slope Protection
- Structural Streambank Protection
- Grass Outlet Sediment Trap
- Catch Basin Sediment Trap
- Riprap Outlet Sediment Trap

PROHIBITED DISCHARGES – Part 1.B.1.e

- Wastewater from washout of concrete
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials
- Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance
- Soaps or solvents used in vehicle and equipment washing
- Toxic or hazardous substances from a spill or other release

This newsletter is funded by the CNY Stormwater Coalition, whose membership consist of 29 towns and villages, the City of Syracuse, Onondaga County, and the NYS Fairgrounds. For more information on the CNY Stormwater Coalition and construction stormwater management, visit their website at

www.cnyrpdb.org/stormwater



LOOKING FOR MORE INFORMATION?

Technical Standards – FAQs:

<http://www.dec.ny.gov/shchemical/8694.html>

General Permit Forms:

<http://www.dec.ny.gov/chemical/43133.html>



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