CHAPTER 4.3

EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT

PROJECT ENVIRONMENTAL GUIDELINES

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New York State Department of Transportation
Environmental Analysis Bureau
I. SUMMARY

Various state and federal laws and regulations, including the State Environmental Quality Review Act (SEQRA) and the National Environmental Protection Act (NEPA), require that erosion and sediment control be addressed as part of project development. The Federal Highway Administration (FHWA) requires that all federally-aided projects have formal erosion and sediment control plans. Erosion and sediment control plans are usually required for projects involving state and federal wetlands permits and water quality certifications. Additionally, erosion and sediment control is a concern to regulatory and resource agencies in the protection of threatened and endangered species; wild, scenic and recreational rivers; fish and wildlife resources; the control of non-point source pollution; and protection of coastal and inland waterways resources. Appropriate erosion and sediment control plans shall be developed for all projects involving clearing and grubbing, grading, or excavation.

On November 16, 1990, the United States Environmental Protection Agency (EPA) issued a final rule dealing with stormwater discharges to surface waters of the United States, including federal-
jurisdictional wetlands. Coverage under a non-point source State Pollutant Discharge Elimination System (SPDES) stormwater general permit must be sought from New York State Department of Environmental Conservation (NYSDEC) if any project involves a cumulative disturbance of five or more acres of vegetated, non-Tribal Indian land during the life of the contract by clearing and grubbing, grading or excavation pursuant to a NYSDEC and New York State Department of Transportation (NYSDOT) Memorandum of Understanding (DEC/DOT MOU, 1993). If a project will disturb five or more acres on Tribal Indian lands, coverage under a National Pollutant Discharge Elimination System (NPDES) stormwater general permit must be sought from EPA.

II. DEFINITIONS

**Erosion** - The wearing away of the land surface by running water, wind, or ice.

**Erosion and Sediment Control** - Any temporary or permanent measures taken to reduce erosion, control siltation and sedimentation, and ensure that sediment-laden water does not leave the site.

**Non-point Source Pollution** - Pollution that enters a water body from diffuse origins on the watershed and does not result from discernible, confined, or discrete conveyances such as a pipe or ditch.

**NPDES** - National Pollutant Discharge Elimination System.

**Peak Flow Attenuation** - The reduction of the peak discharge of storm runoff by storage and gradual release of that storage.

**Sedimentation** - The depositing or formation of sediment. Removal, transport, and deposition of detached sediment particles by flowing water or wind.

**Stormwater Facility** - A constructed component of a stormwater drainage system, designed or constructed to perform a particular function, or multiple functions, including but not limited to ditches, detention basins, retention basins, constructed wetlands, infiltration devices, oil/water separators, and sediment basins.

**Stormwater Management System** - Drainage facilities and any other natural features which collect, store, control, treat and/or convey surface and stormwater runoff.

**SPDES** - State Pollutant Discharge Elimination System.
III. APPLICABILITY

This PEG applies to all projects that involve clearing and grubbing, grading or excavation, regardless of the amount of area disturbed. Procedures in this PEG should be initiated in Preliminary Design.

IV PROCEDURES FOR DETERMINING THE NEED FOR EROSION AND SEDIMENT CONTROL PLANS AND SPDES/NPDES STORMWATER PERMITS

STEP 1. Determine if the project involves clearing and grubbing, grading or excavation.

1a) If the project does not involve clearing and grubbing, grading or excavation, an erosion and sediment control plan is not necessary. No further processing is required under this PEG.

1b) If the project does involve clearing and grubbing, grading or excavation, go to Step 2.

STEP 2. Determine if the project is subject to and requires coverage under the SPDES General Permit For Stormwater Discharges From Construction Activities, Permit No. GP-93-06 from the New York State Department of Environmental Conservation (NYSDEC) or a NPDES General Permit from the Environmental Protection Agency (EPA).

A project is subject to and requires coverage under a NYSDEC State Pollutant Discharge Elimination System (SPDES) stormwater general permit if the project:

a) involves a cumulative disturbance of five or more acres of non-Tribal Indian Land during the life of the contract by clearing and grubbing, grading or excavation that disturbs existing vegetated areas (excluding the acreage involved in the cleaning/shaping of existing ditches that will remain after construction is completed and the placing of granular shoulder backing material), and

b) involves a stormwater discharge to surface waters of the United States, either indirectly through stormwater sewers or directly to waterways, and

c) the stormwater discharge is not only from a storm sewer covered by an existing SPDES (point source) permit.

Coverage under an EPA National Pollutant Discharge Elimination System (NPDES) stormwater general permit is required if a project:

a) involves a stormwater discharge to surface waters of the United States, either indirectly through stormwater sewers or directly to waterways, and
b) the project will result in a disturbance of five or more acres total land area (i.e., not just vegetated areas) on Tribal Indian lands.

2a) If the project does not require a SPDES or NPDES stormwater general permit, prepare an appropriate erosion and sediment control plan consistent with the guidance in Attachment 4.3.A. - EROSION AND SEDIMENT CONTROL PLANS. No further steps are required for this PEG.

2b) If the project requires coverage under the NYSDEC non-point SPDES stormwater general permit, meet the requirements described in Attachment 4.3.B. - NYSDEC SPDES STORMWATER GENERAL PERMIT. No further steps are required for this PEG.

2c) If the project involves a five or more acre disturbance on Tribal Indian lands and requires coverage under a NPDES stormwater general permit, meet the requirements described in Attachment 4.3.C. - NPDES STORMWATER GENERAL PERMIT.
V. FLOW CHART

(Not currently available on-line. See paper EPM Chapter 4.3)
The following state and federal laws and regulations are used as a source for this guidance. Copies of the laws and regulations are maintained by the Regional Environmental Contact.

STATE STATUTES

Waterfront Revitalization of Coastal Areas and Inland Waterways Act, Executive Law, Article 42.

Use and Protection of Waters Program, Environmental Conservation Law, Article 15.

Water Pollution Control, Environmental Conservation Law, Article 17.


STATE REGULATIONS

6 NYCRR Part 600 - Department of State Waterfront and Revitalization and Coastal Resources: Policies and Procedures. Coastal Policy 33 requires use of best management practices to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters. Coastal Policy 37 requires use of best management practices to minimize the non-point discharge of excess nutrients, organics and eroded soils into coastal waters.

6 NYCRR Part 663 - Freshwater Wetlands Permit Requirements. Establishes activities subject to regulation, including any form of draining, dredging or excavation; any form of dumping, filling or deposition; and any form of pollution into or within 100 feet of or draining into regulated wetlands.

6 NYCRR, Chapter X, Part 701 - Classifications And Standards Of Quality And Purity. Establishes classifications and standards of quality and purity for State waters. Toxic and other deleterious substances shall not be discharged in amounts that will adversely affect the taste, color, or odor thereof, or impair the waters of the State for their best (classified) usages. Suspended, colloidal and settleable solids shall not be discharged in amounts that cause substantial visible contrast to natural conditions, or cause deposition or impairs the waters for their best classified usages.

6 NYCRR, Chapter X, Part 704 - Criteria Governing Thermal Discharges. Establishes criteria so that all thermal discharges to the waters of the State shall assure the protection and propagation of a balanced, indigenous population of shellfish, fish and wildlife in and on the body of water.
FEDERAL STATUTES


The Federal Water Pollution Control Act (FWPCA) of 1972, updated in 1987, known as the Clean Water Act (CWA). Authorizes federal programs for pollution control efforts and requires state administered discharge permit programs and non-point sources pollution control plans.

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. Requires the Secretary of Transportation to develop erosion and sediment control guidelines for States to follow when carrying out Federal-aid construction projects. It also requires that these guidelines be consistent with nonpoint source management programs under Section 319 of the FWPCA and coastal nonpoint pollution control guidance under Section 6217(g) of the Coastal Zone Act Reauthorization of 1990.

FEDERAL REGULATIONS


"It is the Policy of the Federal Highway Administration (FHWA) that Federal-aid highways and highways constructed under the direct supervision of FHWA shall be located, designed, constructed and operated according to standards that will minimize erosion and sediment control damage to the highway and adjacent properties and abate pollution of surface and groundwater resources."

33 USC Subsection 1342(p) Section 402(p) of the FWCPA. Requires the Environmental Protection Agency (EPA) to establish final regulations governing stormwater discharge permit application requirements under the National Pollutant Discharge Elimination System (NPDES) Program. New York State is a NPDES delegated state and the NYS Department of Environmental Conservation implements the Federal program through its State Pollutant Discharge Elimination System (SPDES) program.

40 CFR Parts 122-124. EPA published final regulations in the November 16, 1990 Federal Register for stormwater discharges to surface waters of the United States, including wetlands. As approved by EPA, NYSDEC has developed a SPDES Stormwater General Permit for New York State.
33 USC  Subsection 1341 - Section 401 of the FWPCA. Sets effluent limitations and standards. In New York State, the NYSDEC administers Section 401 through the Section 401 Water Quality Certification (WQC) Program. The issuance of any Federal permit (Coast Guard Section 9, Corps of Engineers Section 10 and 404) is contingent on receipt of a Section 401 Water Quality Certification from NYSDEC.

V. ADDITIONAL INFORMATION

For further information, contact the Water/Ecology Section of the Environmental Analysis Bureau, Building 5-303, 1220 Washington Avenue, Albany, New York 12232; telephone (518) 457-5672.

RESOURCE MATERIALS:

The following resource materials may be useful in developing erosion and sediment control and/or stormwater management plans:

a) Empire State Chapter, Soil and Water Conservation Society, "New York Guidelines For Urban Erosion and Sediment Control", October 1991; also known as the "Blue Book".

