

Stormwater Quality Regulations and Program

2.1 Water Quality Legislation

Since the National Environmental Policy Act of 1969 (NEPA), much attention has been given to the control of erosion and sedimentation by Federal, State, and local governments. Numerous laws and regulations governing land-disturbing activities have been developed and published. Some important pieces of legislation that affect construction activities in regard to erosion and sediment control are:

- The Clean Water Act (sections 401, 402, and 404)
- The Senate Bill 40 (SB40) Wildlife Certification (title 33, article 5, CRS)
- The Colorado Water Quality Control Act (title 25, article 8, CRS)

Of particular importance are the National Pollutant Discharge Elimination System (NPDES) Phase I and II stormwater regulations issued by the Environmental Protection Agency (EPA).

On November 16, 1990, EPA promulgated the Phase I Stormwater Regulations. Under Phase I, EPA required NPDES permit coverage for stormwater discharges from:

- Medium and large municipal separate storm sewer systems (MS4s) located in incorporated places or counties with populations of 100,000 or more; and
- Eleven categories of industrial activity, one of which is construction activity that disturbs five or more acres of land.

In 1999, the regulation was extended to include smaller municipalities as well. The Phase II Stormwater Permit Regulation, required small municipalities (<100,000 population) to obtain NPDES MS4 Permit coverage. The Phase II regulation also reduced the minimum size of construction projects requiring NPDES permits from 5 acres of disturbed area to just 1 acre.

Colorado is an NPDES state. This means that EPA's authority to issue NPDES permits is delegated to a state regulatory agency, which in this case is the Colorado Department of Public Health and Environment (CDPHE). CDPHE implements and enforces the NPDES Programs through the Colorado Discharge Permit System (CDPS) program.

2.2 Colorado Department of Transportation Water Quality Program

As a consequence of the NPDES regulations, planning and design for CDOT new highway or highway expansion projects must now include considerations not only for stormwater quantity but also for stormwater quality. This is an important impact since, historically, CDOT's standard drainage design practice has been to consider only stormwater quantity.

CDOT has developed several programs to comply with the NPDES regulation, specifically its CDPS MS4 Permit. The programs include:

- New Development and Redevelopment Planning Program
- Public Street Maintenance Program
- Herbicide, Pesticide, and Fertilizer Program
- Illicit Discharge Program
- Industrial Facilities Program
- Construction Sites Program
- Municipal Facility Runoff Control Program
- Structural Controls

The Erosion Control and Stormwater Quality Guide was developed in part to support these programs and provide guidance in the selection of stormwater quality BMPs.

2.2.1 Construction Program

CDOT has enhanced its construction program to include stormwater quality management. The program requires contractors to obtain appropriate construction permits and develop and implement a Stormwater Management Plan (SWMP) and an Inspection and Maintenance Program. The stormwater quality management aspects of the construction program are described in the following.

Permits

To ensure water quality is protected during construction, CDOT requires the contractor to obtain several permits before commencing with construction. The permits issued will depend on the construction activity and the potential water quality impact as a result of the activity. The next paragraph discusses several of the permits that may be required. The CDOT Water Quality Program Manager should be consulted to better understand the specific permit requirements of the construction project.

CDOT State Highway Access Permit-A State Highway Access Permit is required when vehicular access is needed to construct, relocate, and modify any facilities associated with stormwater that are within highway right-of-way.

CDOT Utility Permit -Utility Permits are needed to perform utility accommodation work in the CDOT right-of-way, including installation, adjustment, relocation, removal or maintenance of facilities not owned by CDOT. These permits are issued to the owner of the utility. The connection of another entity's stormwater drainage system to the State highway drainage system will require a Utility Permit.

CDOT Special Use Permit -Similar to a Utility Permit, a CDOT Special Use Permit is required for other types of work that is done within the State highway right-of-way. This would include landscaping, surveying, or connection of any type of drain line (other than a stormwater drain) to a CDOT storm sewer – such as a dewatering discharge from a construction site located either within or next to the State highway right-of-way.

Stormwater Management Plan

To ensure that the water quality of receiving waters is protected during construction, the development and implementation of a Stormwater Management Plan (SWMP) is required for all construction projects.

The SWMP serves to improve water quality by reducing pollutants in stormwater discharges. The SWMP achieves this by including BMPs necessary to provide for erosion, sediment, and general pollution prevention controls. The requirements of the SWMP and guidance for the development of SWMPs are included in Chapter 4.

Inspection and Maintenance Program

CDOT has adopted an Inspection and Maintenance Program to ensure proper implementation and maintenance of the SWMP. The frequency of inspections is a function of the phase of construction. Required inspection frequencies for active and completed construction sites are described below.

Active Sites. For sites where construction has not been completed, thorough inspections of the stormwater management BMPs shall occur at a minimum of every 14 days and after any precipitation or snowmelt event that causes surface runoff.

Completed Sites. For sites where construction has been completed, but final stabilization has not been achieved due to lack of vegetative cover, thorough inspections of the stormwater management BMPs shall occur at a minimum of every 30 days.

A CDOT Stormwater Management Plan Field Inspection Form shall be used for documentation of the inspections. A sample of the inspection form is included in Appendix B. The latest revision of the inspection form can be obtained from the CDOT Water Quality Program Manager.