

Section 1: Purpose and Authorities

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1.1 Introduction

This section provides an overview of the authorities and regulations that govern the South Dakota Department of Transportation (SDDOT) Water Quality Enhancement Program, as well as the rules and statutes that govern the requirements for managing erosion and sediment control for construction sites. The rules for implementation of the National Pollutant Discharge Elimination System (NPDES), as published in the Federal Register, comprise over 300 pages of text and numerous pages in the state code for implementation of the South Dakota program. As appropriate, references to specific sections have been provided in this document. However, this section focuses on the primary authorities governing the requirement for erosion and sediment control for construction sites and how erosion and sediment control can be implemented within the requirements of the law and the unique needs of SDDOT.

1.2. Clean Water Act

The authority for the current requirements for erosion and sediment control on construction sites is based on the Federal Water Pollution Control Act as amended in 1972 and again in 1977. These revisions essentially established the current structure for regulating the discharge of pollutants into U.S. waters and gave the Environmental Protection Agency (EPA) the authority to implement pollution control programs. This body of legislation has become known as the Clean Water Act (CWA).

The sections of the CWA that bear most directly on SDDOT are contained in Title IV Permits and Licenses:

- [Section 401 Certification](#),
- [Section 402 National Pollutant Discharge Elimination System \(NPDES\)](#), and
- [Section 404 Permits for Dredge or Fill Material](#).

Section 401 of the CWA requires permitting for the discharge into waters of the U.S. Section 402 establishes the NPDES and gives the EPA the authority to promulgate and enforce rules. Section 404 requires permits for dredging or filling of navigable waters and has subsequently been interpreted to govern the infringement upon all wetlands of the U.S.

Further revisions to the act, in 1981 and 1987, mandated efforts to reduce polluted runoff considered the primary source of nonpoint source pollution. These revisions specifically targeted runoff from urban storm sewers, industrial facilities, and construction sites. The initial implementation of the program commonly referred to as Phase I of the Municipal Separate Storm Sewer System (MS4) occurred in November of 1990. About this time, the EPA established permitting requirements for storm water discharges from “large” and “medium” MS4s.

By definition a “large” MS4 is an urban population center of 250,000 or more and a “medium” MS4 is a population of 100,000 and greater. Phase II of the program was implemented in December of 1999 and extended the coverage to include storm water discharges from “small” MS4s.

A “small” MS4 is defined in the rules as a separate storm sewer system that is owned or operated by a federal, state, city, town, county, association, district, sanitary district, or other public body with jurisdiction over the disposal of sewerage industrial wastes or other wastes. The rule also defines a “small” MS4 as an incorporated place that serves a population of less than 100,000 or is located in one or more counties with unincorporated urbanized populations serving less than 100,000. The rules specifically designate transportation departments as “small” MS4s.

1.3. Historic Resource and Endangered Species Legislation Impacting Erosion and Sediment Control Requirements

Other legislation that impacts the selection of erosion and sediment controls includes the Archeological and Historic Preservation Act of 1974 (AHPA PL 93-291; 16 U.S.C. 469), the National Historic Preservation Act as amended (NHPA, PL 89-665; 16 U.S.C. 470), and the [Endangered Species Act of 1973](#) (16 U.S.C. 1531-1544, 87 Stat. 884). While not directly associated with physical erosion and sediment controls used in construction, compliance with provisions of these acts must be addressed when preparing the construction general permit, Storm Water Pollution Prevention Plan (SWPPP). Special situations covered in the requirements of these acts may require that special additional measures be taken to avoid impacting historic resources and threatened or endangered species and their habitat.

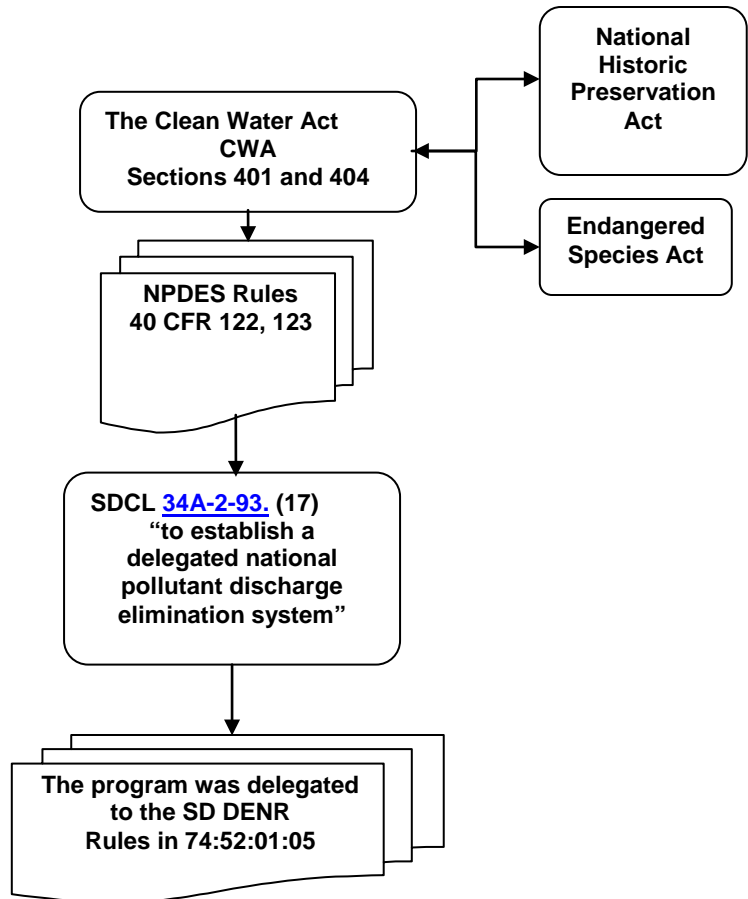
1.4. Code of Federal Regulations

The Code of Federal Regulations (CFR) require permits for storm water discharges associated with industrial activity and construction projects that disturb one acre of land or more, and designated MS4 ([40CFR 122.26](#)). Storm water discharge permits require temporary and permanent controls on storm water discharges to reduce the transport of sediment and other pollutants that may be picked up and transported into adjacent waters.

1.5. South Dakota Code

The general authority for the South Dakota rules is found in the South Dakota Codified Laws (SDCL) [34A-2-93](#).(17). This section requires the state “To establish a delegated national pollutant discharge elimination system program as provided for in the U.S. Code of Federal Regulations (CFR) under 40 CFR Part 123 as amended to January 1, 1993” The specific requirements of 40 CFR Part 123 [State Program Requirements](#) also references other parts of the following rules: 40 CFR Parts: 9 [OMB Approvals under the Paperwork Reduction Act](#); 122 [EPA Administered Permit Programs: The National Pollutant Discharge Elimination System](#); and 124 [Procedures for Decision Making](#).

In December 1993, the [South Dakota Department of Environment and Natural Resources](#) (SD DENR) was delegated the permitting authority for the South Dakota’s storm water program. The SD DENR incorporated the federal storm water regulations by reference into the Administrative Rules of South Dakota (ARSD), Chapters 74:52:01 through 74:52:11. The parts of the South Dakota Code that specifically impact on the erosion and sediment control practices are found in the rules of the SD DENR. The applicable section is [74:52:02:36](#) which designates discharges subject to surface water discharge permit regulations.



1.6. SDDOT Storm Water Management Program

This program should not be confused with the obligations of the department to implement erosion and sediment control best management practices (BMPs) on construction sites. This is a separate program and has totally different requirements.

Since SDDOT is a designated “small” Municipal Separate Storm Sewer System, the department has to meet the requirements outlined in 40CFR 123 for implementation of the NPDES. This rule requires the preparation and submission of a [Storm Water Management Program \(SWMP\)](#). This requirement has been completed by the department.

1.7. Storm Water General Construction Permit

Normal construction projects, those that do not have special requirements due to special site conditions such as endangered species covered by the Endangered Species Act (ESA), or historic, archaeological or cultural resources covered by the National Historic Preservation Act (NHPA), or are Indian lands or lands that remain under federal jurisdiction, are covered under the South Dakota “General Permit for Storm Water Discharges Associated with Construction Activities.” The General Permit requires the use of Best Management Practices (BMPs) for erosion and sediment control on construction sites. The permit relies on the installation and maintenance of appropriate BMPs to affect acceptable storm water discharge quality and does not set any specific constituent loading standards for storm water discharges.

1.7.1. Requirements of the General Construction Permit for Storm Water Discharges Associated with Industrial or Construction Activities

Three documents are necessary to meet the requirements of the South Dakota and the U.S. EPA General Permits:

- Notice of Intent (NOI),
- Storm Water Pollution Prevention Plan (SWPPP), and
- Notice of Termination (NOT).

The NOI and the SWPPP are required prior to beginning construction activities. The NOT is completed upon final stabilization of all the disturbed areas affected by construction activities.

1.7.1.1. *The Notice of Intent (NOI)*

Since administration of the NPDES program has been delegated to the state of South Dakota, the program for lands under the State's jurisdiction is administered by the SD DENR. The NOI required by SD DENR must be filed 15 days prior to beginning construction. SD DENR has developed their own form for filing the NOI for storm water discharges associated with industrial and construction activities. For lands that remain under federal jurisdiction (e.g. Indian lands) the U.S. EPA remains the permitting authority. U.S. EPA requires that the NOI be filed on the federal forms. This can be done electronically at <http://www.epa.gov/npdes/stormwater/cgp>. The contact for Region 8 storm water issues is:

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US EPA, Region 08
999 18th St
Suite 300
Denver, CO 80202-2466
Phone: (303) 312-6314
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1.7.1.2. *The Storm Water Pollution Prevention Plan (SWPPP)*

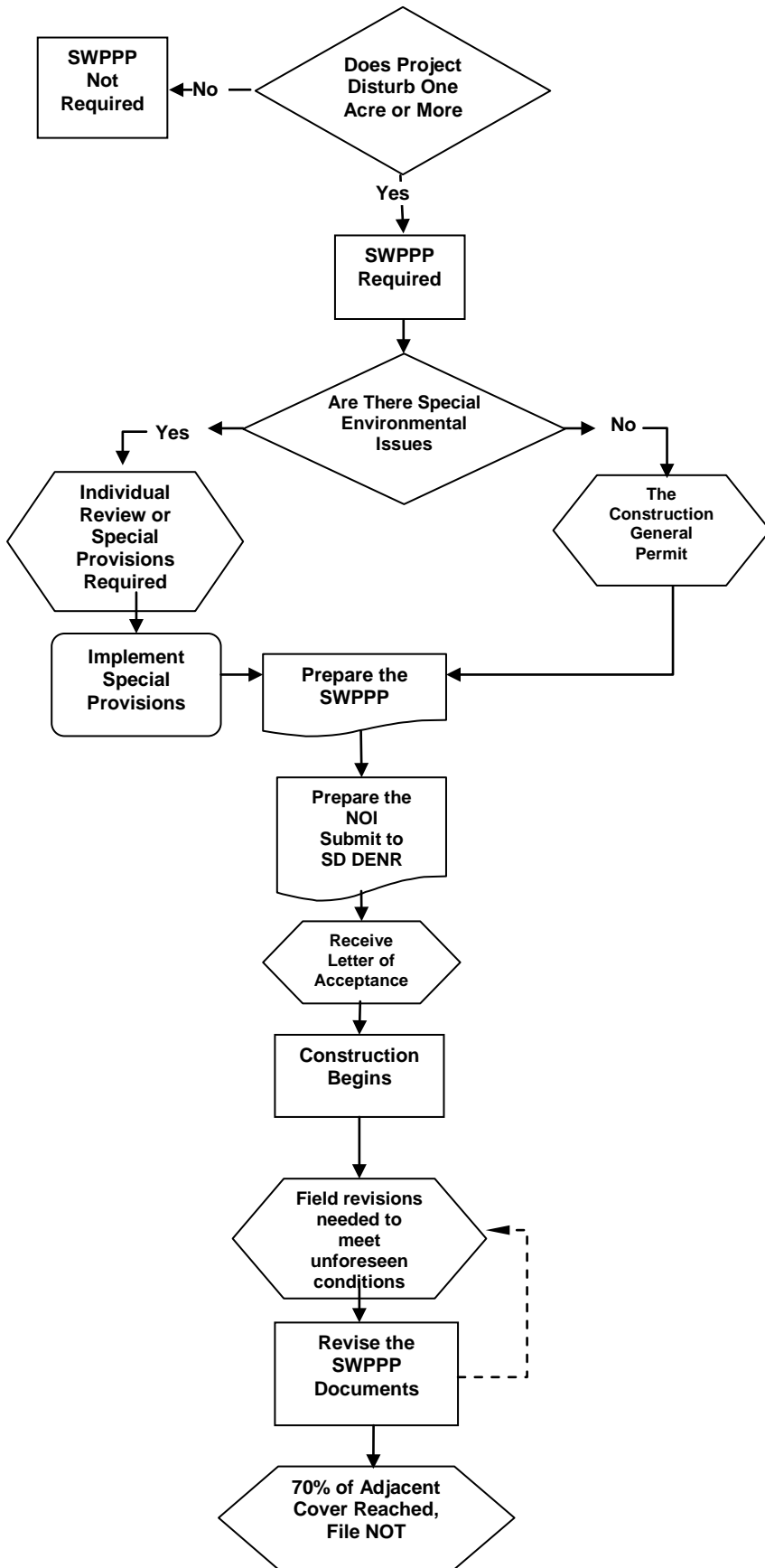
The SWPPP is the primary instrument for ensuring compliance with the requirements of both the State and federal General Permits for storm water discharges associated with construction activities. The SWPPP is a construction document and included in the plans for every project that will disturb one or more acres. This site size criterion must be applied with judgment. Sites less than one acre that are a part of a larger effort, though not on the same site, and are adjacent to sensitive habitat or water bodies should be protected even though they may be below the one acre threshold.

Regardless of the formal jurisdiction, federal or State, the SWPPP has ten (10) sections that must be addressed in detail. For SDDOT projects, this information has been integrated into the Section D general plan notes. This was formerly the Sediment and

Erosion Control Plan and is now designated as the SWPPP. This section serves as a stand alone document to satisfy the regulatory requirements, as well as being an integral part of the project document set. The preparation of these materials will be discussed in detail in the training materials and other sections of the Design Manual.

1.7.1.3. *The Notice of Termination (NOT)*

The NOT is required upon completion of permanent stabilization of the construction site. Stabilization is complete when the vegetation cover of the surface reaches a cover equal to seventy percent (70%) of adjacent vegetation cover. This is sometimes misinterpreted to be seventy percent (70%) of surface cover but it means that the cover of the site is generally uniform and the cover is equal to 70 percent (70%) of the cover for a typical mature stand of vegetation for the soils, climate, and species mix.



SWPPP Preparation Process Diagram

1.8. Maintenance of the SWPPP

The SWPPP is different than most construction documents in that the regulations require that it be revised and kept up to date during the construction of the project. If erosion and sediment control methods are changed or added due to unforeseen site conditions or if there are changes in the work that significantly change the erosion and sediment control measures, the SWPPP must be revised.

1.8.1. Inspections

Revisions are usually based on changes made as the result of regular site inspections. The construction site must be inspected every 7 days and after every rainfall event of 0.5 inches (12mm) of depth or greater. Inspections are recorded on form DOT-298 and maintained for inspection by SD DENR or U.S. EPA. If construction activities or excessive rainfall damage erosion and sediment controls, this damage is to be noted and appropriate corrections made as soon as possible but no greater than 7 days . There is often confusion about the 24 hour stipulation. In some cases, an area needing repair may be inaccessible due to standing water or saturated soils. In these cases it is important that actions be taken to prevent any transport of sediment from the site and to perform maintenance activities within 24 hours of the site becoming accessible.

1.8.2. Plan Revision

When on-site changes are made in erosion and sediment control methods and materials, they have to be noted on the SWPPP plan and drawings. The SWPPP has two parts, Section D plan notes, and the erosion and sediment control plan sheets used for construction. Depending on the type of change, it is generally satisfactory to note the changes on the field drawing set located on the job site. The inspection forms, DOT-298, provide the necessary backup information for the notes made on the drawings. The appropriate text section of the SWPPP should be revised as needed to correspond to the plans. It is important that changes be made in a neat and timely manner, generally immediately after the required inspection has been completed.

1.9. Conclusion

Sediment, which is primarily soil, is the primary pollutant in surface water. The sediment and erosion control measures SDDOT uses to revegetate construction projects are most all proven technologies and will continue to be used. What is different from previous practices is the requirement to control erosion and sedimentation during the construction process rather than waiting until construction is complete. In essence, the requirement is that no sediment generated during the construction period be allowed to leave the construction site. To accomplish this goal there is a large palette of effective temporary erosion and sediment control tools available that will effectively control erosion when properly installed and maintained. While there are costs associated with implementing these controls, the costs are insignificant when compared to the costs of cleaning drainage structures and streams, restoring fisheries, or cleaning silted farm lands.