



Minnesota
Pollution
Control
Agency

Municipal
Division

Overview of Minnesota's NPDES/SDS Construction Stormwater Permit

Water Quality/Stormwater #2-05, November 2005

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Why – Although the quality of Minnesota's waters has improved, degraded and impaired waters still exist. Sediment-filled stormwater runoff is the leading source of pollution for Minnesota's surface waters by volume. Runoff can change both water quality and quantity affecting our water resources physically, chemically and biologically.

Sediment levels in construction site runoff are typically far greater than levels from agricultural or forest lands. During a short period of time, construction activity can contribute more sediment to streams than can be deposited naturally over several decades, causing physical and biological harm to our waters. The Environmental Protection Agency (EPA) estimates that 20-150 tons of soil per acre is lost every year to stormwater runoff from construction sites. Many studies indicate that controlling erosion can significantly reduce the amount of sediment and other pollutants transported by runoff from construction sites.

What – Mandated by Congress under the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) Stormwater Program is a comprehensive national program for addressing polluted stormwater runoff.

The program regulates stormwater discharges from construction sites, industrial facilities and urbanized municipalities using NPDES permits. These permits require permittees to control polluted discharges.

The State of Minnesota regulates the disposal of stormwater by a State Disposal System (SDS) permit. The Minnesota Pollution Control Agency (MPCA) administers both NPDES and SDS permits in Minnesota.

Who – Owners and operators of construction activity disturbing **one acre or more** of land need to obtain an NPDES/SDS permit. Sites disturbing less than one acre within a larger common plan of development or sale that is more than one acre also need permit coverage.

How – Regulated parties must develop a Stormwater Pollution Prevention Plan (SWPPP) and submit:

- Completed application
- \$400 application fee

Applications and other forms are available by calling 651-297-1457 or visiting www.pca.state.mn.us/water/stormwater/stormwater-c.html.

Construction may begin **seven days** after the application is postmarked for most sites.

Sites that are more than 50 acres and discharging to outstanding resource value waters or impaired waters must **submit their SWPPP** and application at least **30 days prior** to commencing construction.

This fact sheet summarizes the requirements of Minnesota's NPDES/SDS General Stormwater Permit for Construction Activity. **Please review the permit itself for more detailed information.**





Stormwater Pollution Prevention Plan

The SWPPP must be completed prior to submitting permit application and before beginning construction.

Plans must:

- Describe the nature of the construction activity
- Address the potential for sediment and pollutant discharges from the site
- Identify someone to oversee BMP implementation
- Identify chain of responsibility for general contractor and owner
- Identify temporary sediment basins, if more than 10 acres are disturbed and drain to a single point of discharge
- Identify permanent stormwater management system
- Identify erosion prevention practices
- Identify sediment control practices
- Identify dewatering and basin draining practices
- Identify inspection and maintenance practices
- Identify pollution prevention management measures
- Retain records
- Describe the timing of BMP installation
- Location and type of temporary and permanent BMPs
- Include standard plates and specifications of BMPs
- Include a site map identifying:
 - Existing and final grades
 - Dividing lines and direction of pre and post-construction stormwater flow and drainage areas
 - Impervious surfaces and soil types
 - Location of areas not to be disturbed
 - Phased construction areas
 - Surface waters and wetlands within 1/2 mile that receive runoff from the site
- Describe methods of final stabilization of exposed soil
- Include any additional measures needed to protect special waters and for projects in Karst areas or in drinking water supply management areas
- Include any additional measures necessary to comply with any total maximum daily load (TMDL) established for the receiving waters

SWPPP amendments are required when:

- Any change effects the discharge of pollutants
- Inspections indicate ineffectiveness
- General objectives or terms and conditions of permit aren't being met
- A TMDL is established for the receiving water for the project and has a waste load allocation for construction activities

10+ acres disturbed at one time?

Temporary sediment basins must:

- Provide storage for a two-year, 24-hour storm, but no less than 1800 cubic feet per acre
- Prevent discharge of floating debris
- Allow for maintenance
- Provide emergency overflow
- Be built concurrent with start of soil disturbance
- Consider public safety

When site limitations don't allow for temporary sediment basins, you must use equivalent controls.

Temporary basins are also recommended for projects with steep slopes or highly erodible soils.

Permanent Stormwater Management System

When a project replaces vegetation or other pervious surfaces with one or more acres of cumulative impervious surface, 1/2" of runoff from the new impervious surface must be treated by one of the following methods. See the permit for specific design requirements.

- Wet sedimentation basin
- Infiltration/filtration
- Regional ponds
- Combination of practices
- Alternative method, pending MPCA approval. At least 90 days before the start of the project submit:
 - All calculations, drainage areas, plans and specifications
 - Two-year monitoring plan
 - Mitigation plan if alternative method fails



Best Management Practices

Erosion prevention practices must be installed in an appropriate and functional manner. Regulated parties choose which practices are best for specific sites. Prior to construction, they must identify areas not to be disturbed with flags, stakes, signs and so on. Possibilities include, but are not limited to:

- Construction phasing
- Vegetative buffer strips
- Temporary seeding
- Sod stabilization
- Horizontal slope grading
- Minimize land disturbance
- Preserve trees and natural vegetation
- Mulch or wood fiber blanket
- Stockpile covers

Within 200 feet of surface water?

The permit limits the time exposed soils can remain unstabilized when they are within 200 lineal feet of a surface water. Sites must have temporary erosion protection or permanent cover.

Slope	Maximum Time unstabilized and unworked
Steeper than 3:1	7 days
10:1 to 3:1	14 days
flatter than 10:1	21 days

Sediment control practices must minimize sediment from entering surface waters, curb and gutter systems, and storm sewer inlets. Regulated parties choose which practices are best for specific sites and practices must:

- Be established down gradient before upgradient land disturbance begins
- Protect storm drain inlets
- Control temporary soil stockpiles
- Control vehicle tracking with stone pads, concrete, steel wash racks or equivalent
- Remain until final stabilization

Possible sediment control practices include:

- Silt fences
- Inlet protection
- Check dams
- Sedimentation traps and basins
- Stabilized construction entrances

Dewatering and basin draining must discharge to a temporary or permanent sedimentation basin whenever possible. Draining activities must:

- Prevent erosion and scour
- Disperse over natural rock riprap, sand bags, plastic sheeting or other accepted measures
- Avoid nuisance conditions in receiving waters
- Not inundate wetlands

Inspections and maintenance are conducted by the owner, operator, or designee and must:

- Occur every seven days
- Occur within 24 hours of ½” storm
- Occur once a month on finally stabilized area
- Be routinely recorded and kept with the SWPPP
- Ensure the integrity and effectiveness of erosion prevention and sediment control measures
- Repair or replace nonfunctional BMPs
- Drain and remove sediment from basins
- Inspect surface waters, drainage ditches and conveyance systems for sediment
- Remove sediment deposits and stabilize any exposed soil during sediment removal
- Inspect and clean vehicle exits
- Ensure infiltration areas are protected

Pollution prevention management measures include housekeeping practices that help prevent polluted runoff and include:

- Proper collection and disposal of solid waste
- Proper storage and disposal of oil, paint, gasoline and other hazardous materials
- Establishing a specific truck washing site
- No on site engine degreasing

Final stabilization must be ensured by the permittee. This includes establishing a uniform perennial vegetative cover over 70% of pervious surface area.

For residential construction only, permittees may establish temporary erosion protection and distribute the MPCA fact sheet, [Sediment and Erosion Control for New Homeowners](#), to homeowners.



Discharges to special waters

Additional best management practices and enhanced runoff controls are required for discharges to the following special waters:

- Wilderness areas
- Portions of the Mississippi River
- Scenic or recreational river segments
- Lake Superior
- Lake trout lakes
- Trout lakes
- Scientific and natural areas
- Trout streams

Additional best management practices include:

- Temporary erosion protection or permanent cover over exposed soil with a slope of 3:1 or steeper within three days after the area is no longer being worked
- Temporary sediment basins that drain to a single point of discharge for five or more acres disturbed at one time
- Permanent stormwater management system designed to treat 1" of runoff
- 100 linear feet buffer zone from special waters
- Enhanced runoff controls
- Temperature controls for discharges to trout waters

Discharges to Wetlands

Permittees must follow a wetland mitigative sequence if the project's stormwater discharge has the potential for adversely impacting (for example, excavating or permanently flooding a wetland to create a stormwater pond) a wetland. Potential adverse impacts may be addressed by:

- Permits or other approvals from an official statewide program (U.S. Army Corps of Engineers, DNR, WCA etc.)
- Use of appropriate measures to avoid, minimize or mitigate all adverse impacts

Special situations

The Minnesota NPDES permit does not replace or satisfy any requirements dealing with:

- Environmental review
- Environmental impact statements
- Environmental worksheets
- Federal environmental review
- Endangered or threatened species
- Historic places or archeological sites

Owner or operator changes?

Subdivision

- New owner or operator must submit a *Subdivision Registration* within seven days
- May use previously developed SWPPP
- May not make previously implemented BMPs ineffective

Entire project

- New owner or operator must submit an *Application for Permit Transfer/Modification* within seven days
- May use previously developed SWPPP
- May not make previously implemented BMPs ineffective

Resources

Minnesota's NPDES/SDS General Stormwater Permit for Construction Activity

<http://www.pca.state.mn.us/water/stormwater/stormwater-c.html>

Protection Water Quality in Urban Areas Manual, MPCA

<http://www.pca.state.mn.us/water/pubs/sw-bmpmanual.html>

Stormwater Management for Construction Activities, EPA

<http://cfpub1.epa.gov/npdes/stormwater/const.cfm>

Summary Guidance, EPA

<http://www.epa.gov/npdes/pubs/owm0307.pdf>

Erosion & Sediment Control Certification, University of Minnesota

<http://erosion.coafes.umn.edu>