

Minimum Control Measure (MCM) 4

Construction Site Stormwater Runoff Control

Uncontrolled stormwater runoff from construction sites can significantly impact rivers, lakes and estuaries. Sediment in waterbodies from construction sites can reduce the amount of sunlight reaching aquatic plants, clog fish gills, smother aquatic habitat and spawning areas, and impede navigation.

Phase II MS4s are required to develop a program to reduce pollutants in stormwater runoff to the MS4 for construction sites disturbing one or more acres. This primarily includes developing:

- An ordinance,
- Requirements to implement erosion and sediment control best management practices (BMPs),
- Requirements to control other waste at the construction site,
- Procedures for reviewing construction site plans,
- Procedures to receive and consider information submitted by the public, and
- Procedures for inspections and enforcement of stormwater requirements at construction sites.



Poorly maintained BMPs can result in significant quantities of sediment being discharged to storm drains.

In addition to the stormwater requirements that Phase II MS4s place on construction sites, construction operators must also apply for NPDES permit coverage if their project disturbs at least one acre and discharges to a waterbody. A description of these requirements is available at [EPA's stormwater construction website](#).


Additional information on this minimum measure, including the stormwater Phase II [regulatory requirements](#) for construction site runoff control and a [fact sheet on the construction minimum measure](#) (4 pp, 256K, [About PDF](#)), is also available.

Key BMPs and Resources:

MS4s addressing the construction minimum measure should focus on the following four key BMPs to help them in developing a stormwater construction program.

- [Local Ordinances for Construction Site Runoff Control](#) BMP fact sheet
- [Construction Phase Plan Review](#) BMP fact sheet
- [Contractor Training and Certification](#) BMP fact sheet

USEPA Guidance
Stormwater Management Control Measures – Best Management Practices
MCM4 - Construction Runoff Control BMPs

- [Municipal Construction Inspection Program](#) BMP fact sheet
- [Construction Industry Compliance Assistance website](#)  provides plain language information on environmental rules, including stormwater, for the construction industry.

BMP Fact Sheets:

The fact sheets in this section describe BMPs and how to use them to help municipal stormwater programs and construction site operators comply with the stormwater Phase II requirements.

EPA has started updating these fact sheets to include new practices and technologies. Several of these updated fact sheets are now available in PDF format.

Municipal Program Oversight

[Construction Phase Plan Review](#)

[Contractor Training and Certification](#)

[Local Ordinances for Construction Site Runoff Control](#)

[Municipal Construction Inspection Program](#)

Construction Site Planning and Management

[Construction Sequencing](#)

[Construction Site Operator BMP Inspection and Maintenance](#)

[Land Grading](#)

[Preserving Natural Vegetation](#)

Erosion Control

[Chemical Stabilization](#)

[Compost Blankets](#) (6 pp, 887K, [About PDF](#))

[Dust Control](#)

[Geotextiles](#)

[Gradient Terraces](#)

[Mulching](#)

[Riprap](#)

[Seeding](#)

[Sodding](#)

[Soil Retention](#)

[Soil Roughening](#)

[Temporary Slope Drain](#)

[Temporary Stream Crossings](#)

[Wind Fences and Sand Fences](#)

Runoff Control

[Check Dams](#)

[Grass-Lined Channels](#)

[Permanent Slope Diversions](#)

[Temporary Diversion Dikes](#)

Sediment Control

[Brush Barrier](#)

[Compost Filter Berms](#)

[Compost Filter Socks](#)

[Construction Entrances](#)

[Fiber Rolls](#)

[Filter Berms](#)

[Sediment Basins and Rock Dams](#)

[Sediment Filters and Sediment Chambers](#)

[Sediment Traps](#)

[Silt Fences](#) (5 pp, 1.2MB, [About PDF](#))

[Storm Drain Inlet Protection](#)

[Straw or Hay Bales](#)

[Vegetated Buffers](#)

Good Housekeeping/Materials Management

[Concrete Washout](#) (5 pp, 929K, [About PDF](#))

[General Construction Site Waste Management](#)

[Spill Prevention and Control Plan](#)

[Vehicle Maintenance and Washing Areas at Construction Sites](#)

USEPA Guidance
Stormwater Management Control Measures – Best Management Practices
MCM4 - Construction Runoff Control BMPs

EPA Internet Resources:

- [Construction Industry Compliance Assistance Web Site](#) EXIT Disclaimer provides plain language information on environmental rules, including stormwater, for the construction industry.
- [Model Ordinances](#) including erosion and sediment control ordinances, are available from EPA's Nonpoint Source Program.
- [Urban Management Measures Guidance Chapter 5](#) focuses on construction site erosion, sediment, and chemical control.
- [Stormwater Pollution Prevention Plans for Construction Activities](#) describes the steps necessary to develop a stormwater pollution prevention plan for construction activity.
- [Stormwater case studies on municipal construction programs](#) includes case studies of how a Phase I or Phase II community has implemented the construction requirements.
- [Stormwater outreach materials for the construction industry](#) including brochures in English and Spanish, and a poster are available for download.

Other Internet Resources:

- [Minnesota Pollution Control Agency](#) EXIT Disclaimer stormwater guidance:
 - [Stormwater Construction Inspection Guide](#) (35 pp, 5.77MB, [About PDF](#)) EXIT Disclaimer describes how municipal inspectors should conduct construction site inspections.
 - [Stormwater Compliance Assistance Tool Kit for Small Construction Operators](#) (44 pp, 500K, [About PDF](#)) EXIT Disclaimer provides guidance to help small construction operators comply with their stormwater requirements.
- Kentucky Erosion Prevention and Sediment Control Field Guide is available for download in three parts from the [Kentucky Division of Water's Stormwater website](#) EXIT Disclaimer.
- [2005 Stormwater Management Manual for Western Washington: Volume II -- Construction Stormwater Pollution Prevention](#) EXIT Disclaimer describes 12 elements of construction SWPPPs and BMP standards and specifications.

Note: If you are referencing this page, please use this alias web address:
<http://www.epa.gov/npdes/stormwater/menuofbmps/construction>