

Introduction to MS4

The Municipal Separate Storm Sewer System Program

This factsheet is part of our Municipal Separate Storm Sewer System (MS4) series. To access this series and many other educational resources, please visit: spcwater.org.

What is the MS4 Program?

Certain stormwater regulations associated with the Federal Clean Water Act (CWA) are administered under the Municipal Separate Storm Sewer System (MS4) Program. In Pennsylvania, the MS4 program is managed by the Pennsylvania Department of Environmental Protection (PA DEP).

What is an MS4?

The Environmental Protection Agency (EPA) defines an MS4 as a "conveyance or system of conveyances that is:

- Not part of a Publicly Owned Treatment Works (sewage treatment plant)
- Owned by a state, city, town, village, or other public entity that discharges to waters of the U.S.
- Designed or used to collect or convey stormwater including storm drains, pipes, ditches, etc.
- Is not a combined sewer."



Bioswales (above) are a structural BMP that can help mitigate the effects of stormwater once a site has been developed.

Who is an MS4?

MS4 regulations were rolled out in two phases:

- **Phase I**, issued in 1990, requires medium and large cities or certain counties with populations of 100,000 or more to obtain National Pollutant Discharge Elimination System (NPDES) permit coverage for their stormwater discharges.
- **Phase II**, issued in 1999, requires regulated small MS4s in urbanized areas, as well as some small MS4s outside the urbanized areas, to obtain NPDES permit coverage for their stormwater discharges.

What is required under the MS4 Program?

Operators of a small MS4 must obtain an NPDES permit from PA DEP and develop and implement a Stormwater Management Plan (SWMP) according to the details of their specific permit.

Mandatory elements of the SWMP include 6 Minimum Control Measures (MCMs). Each MCM has a number of associated Best Management Practices (BMPs) that explain in more detail how the MCM can be carried out (all 6 MCMs are listed in the right side panel).

MS4s in the SPC Region

As of February 2020, there are 307 municipalities out of 548 within the 10-county SPC region that hold an MS4 permit or waiver.

The 6 Minimum Control Measures (MCMs):

1. Public Education and Outreach on Stormwater Impacts
2. Public Involvement / Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management in New Development and Redevelopment
6. Pollution Prevention / Good Housekeeping



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