

Small MS4 Stormwater Program Overview



Polluted stormwater runoff is often transported to municipal separate storm sewer systems (MS4s) and then discharged into local rivers and streams without treatment. EPA's Phase II stormwater rule establishes a National Pollutant Discharge Elimination System (NPDES) program for small MS4s that is intended to improve the Nation's waterways by reducing the quantity of pollutants that stormwater picks up and carries into storm sewer systems during storm events. Common pollutants include oil and grease from roadways, pesticides from lawns, sediment from construction sites, and carelessly discarded trash, such as cigarette butts, paper wrappers, and plastic bottles. When deposited into nearby waterways through MS4 discharges, these pollutants can impair waterways, thereby discouraging recreation, contaminating drinking water supplies, and degrading the habitat for fish, other aquatic organisms, and wildlife.

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What Is a Phase II Small MS4?

In 1990, EPA promulgated rules establishing Phase I of the NPDES stormwater program. The Phase I program for MS4s requires operators of “medium” and “large” MS4s that generally serve populations of 100,000 or greater, to have NPDES permit coverage. The permits require implementation of stormwater management programs to control polluted discharges from these MS4s.

The Phase II stormwater rule extends coverage of the NPDES stormwater program to certain “small” MS4s. The Phase II rule automatically covers on a nationwide basis all small MS4s located in “urban areas with a population of 50,000 or more people” as mapped by the Bureau of the Census (unless waived by the NPDES permitting authority), and on a case-by-case basis those small MS4s located outside of these urban areas that the permitting authority designates as needing NPDES permit coverage to protect water quality. For more information on Phase II small MS4 NPDES coverage, see Fact Sheets 2.1 and 2.2.

What are the Phase II Rule Requirements for Small MS4s?

Operators of Phase II-designated small MS4s must obtain NPDES permit coverage, most likely under a general rather than individual permit, and implement stormwater discharge management controls (sometimes referred to as “best management practices” (BMPs) or stormwater controls) that meet the specific requirements of the permit. Specific requirements for each type of discharge are summarized below.

- Each permitted small MS4 operator must develop a written stormwater management program that describes in detail how it will comply with the NPDES permit requirements for each of the six minimum control measures: public education and outreach; public participation/involvement; illicit discharge detection and elimination; construction site runoff control; post-construction runoff control; and pollution prevention/good housekeeping.
- The Phase II rule requires that all small MS4 permits must include clear, specific, and measurable permit requirements. These requirements must meet the regulatory permit standard for MS4s of reducing the discharge of pollutants to the MS4 to the “maximum extent practicable,” protecting water quality, and satisfying the appropriate water quality requirements of the CWA, and that address the six minimum control measures. The permit may also include additional, more stringent requirements where the permitting authority considers it necessary to protect water quality. See Fact Sheets 2.3 through 2.8 for more information on each measure.

The NPDES permitting authority defines specific permit requirements on a state-by-state basis. However, each small MS4 permit, as stated above, must include requirements that address the

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six minimum control measures, which are further described below. For more information on each of these required minimum control measures, see Fact Sheets 2.3 – 2.8.

Public Education and Outreach

Distributing educational materials to the community and conducting outreach activities to inform citizens about the impacts of polluted stormwater runoff discharges on water quality and the steps that can be taken to reduce stormwater pollution.

Public Participation/Involvement

Implementing a public involvement/participation program that provides opportunities for community members to participate in program development and implementation, including effectively publicizing public hearings and/or encouraging community representatives to participate on a stormwater management panel.

Illicit Discharge Detection and Elimination

Developing, implementing, and enforcing a program to detect and eliminate illicit discharges to the storm sewer system. The program includes developing a system map, prohibiting through local requirements illicit discharges into the MS4, a plan to detect and eliminate illicit discharges, and informing the community about hazards associated with illegal discharges and improper disposal of waste.

Construction Site Runoff Control

Developing, implementing, and enforcing a program to reduce pollutants in stormwater runoff to the MS4 from construction activities that disturb 1 or more acres of land. Permits will also require the MS4 to develop and implement local requirements for erosion and sediment controls, including sanctions to enforce the requirements; requirements to control other construction wastes, such as discarded building materials, chemicals, and litter; and procedures for site plan review, inspections, and the receipt and consideration of information submitted by the public.

Post-Construction Runoff Control

Developing, implementing, and enforcing a program to address discharges of post-construction stormwater runoff from new development and redevelopment projects that result in disturbance of 1 or more acres. Permits will also require the MS4 to implement strategies, which include a combination of structural and non-structural controls (e.g., protecting sensitive areas or using stormwater controls such as grassed swales or porous pavement), use local

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requirements to address post-construction runoff, and ensure long-term operation and maintenance of the controls.

Pollution Prevention/Good Housekeeping

Developing and implementing an operation and maintenance program with the goal of preventing or reducing pollutant runoff from municipal operations. The program must include municipal staff training on pollution prevention measures and techniques, and adoption of appropriate controls (e.g., regular street sweeping, reduction in the use of pesticides or street salt, frequent catch-basin cleaning).

What Are the Implementation Options?

The Phase II rule identifies several implementation options for regulated small MS4 operators. These include sharing responsibility for program development with a nearby regulated small MS4, taking advantage of existing local or state programs, or participating in the implementation of an existing Phase I MS4's stormwater program as a co-permittee. These options are intended to promote a regional approach to stormwater management coordinated on a watershed basis.

What Kind of Program Evaluation/Assessment Is Required?

NPDES permits require small MS4 permittees to evaluate their compliance with the terms and conditions of their NPDES permits, including the effectiveness of the components of its stormwater management program, and the status of achieving the measurable requirements in the permit. Permits also require permittees to submit reports that include the status of permit compliance as well as other information to the permitting authority. The reports are required at least annually for their first permit term, and at least in year 2 and 4 for subsequent permit terms. As of December 21, 2025, these reports are required to be submitted electronically to the permitting authority in accordance with the NPDES electronic reporting rule at 40 CFR Part 127. For more information on program evaluation/assessment, see [Fact Sheet 2.9](#).

What type of permits may be used for small MS4s?

Permitting authorities may use either individual or general permits to provide NPDES coverage for their designated small MS4s. Most permitting authorities have elected to use general permits. There are two types of general permits that permitting authorities may choose to utilize, either a “comprehensive general permit” or a “two-step general permit.” For more information about these permitting options, refer to [Fact Sheet 2.9](#).

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What other requirements apply to small MS4 permits?

The Phase II regulations require that conditions included in small MS4 permits must be expressed in clear, specific, and measurable terms. Guidance for establishing clear, specific, and measurable conditions can be found at <https://www.epa.gov/npdes/permit-writing-tips-and-best-practices>. For more information, including clear, specific, and measurable requirements, refer to [Fact Sheet 2.9](#).

For Additional Information

Contacts

A list of contacts for the U.S. EPA's Office of Wastewater Management (Headquarters), each EPA regional office, and state office is located at: <https://www.epa.gov/npdes/contact-us-stormwater>

Your NPDES Permitting Authority

Most states and territories are authorized to administer the NPDES Program, except the following, for which EPA is the permitting authority:

- American Samoa
- District of Columbia
- Guam
- Johnston Atoll
- Massachusetts
- Midway and Wake Islands
- New Hampshire
- New Mexico
- Northern Mariana Islands
- Puerto Rico
- Most Indian country lands

Reference Documents

- [EPA's Stormwater website](#)
- [Stormwater Phase II Final Rule \(64 FR 68722\)](#)
- [Final MS4 General Permit Remand Rule \(81 FR 89320\)](#)
- [Final Small MS4 Urbanized Area Clarification \(88 FR 37994\)](#)
- [MS4 Permits – Compendium of Clear, Specific, and Measurable Permitting Examples](#)
- [Stormwater Phase II Rule Fact Sheet Series](#)
- [National Menu of Best Management Practices for Stormwater Phase II](#)

Disclaimer: This information is guidance only and does not establish or affect legal rights or obligations. Agency decisions in any particular case will be made by applying the law and regulations to the specific facts of the case.