

NPDES-MS4 Background



The National Perspective...

In 1990, updates to federal Clean Water Act regulations established the National Pollutant Discharge Elimination System (NPDES), requiring large construction sites, certain industrial facilities, and municipalities with populations of 100,000 or more to obtain NPDES (Phase I) permits and develop stormwater management plans.

In 1999, NPDES Phase II was signed into law to build on the initial program. While Phase I applied to construction sites affecting 5 acres or more, Phase II required all individual land development projects that disturb one acre or more to obtain permits. Phase II also required small municipalities to obtain permits for their stormwater discharges. Whether small or large construction site, industrial facility, or municipal separate storm sewer system (MS4), each facility must now obtain a permit and implement and enforce a stormwater management program. Polluted stormwater runoff is commonly transported through Municipal Separate Storm Sewer Systems (MS4s), from which it is often discharged untreated into local waterbodies. To prevent harmful pollutants from being washed or dumped into an MS4, operators must obtain a NPDES permit and develop a stormwater management program.

- Phase I, issued in 1990, requires *medium* and *large* cities or certain counties with populations of 100,000 or more to obtain NPDES permit coverage for their stormwater discharges. There are approximately 750 Phase I MS4s.

- Phase II, issued in 1999, requires regulated small MS4s in urbanized areas, as well as small MS4s outside the urbanized areas that are designated by the permitting authority, to obtain NPDES permit coverage for their stormwater discharges. There are approximately 6,700 Phase II MS4s.

Generally, Phase I MS4s are covered by individual permits and Phase II MS4s are covered by a general permit. Each regulated MS4 is required to develop and implement a stormwater management program (SWMP) to reduce the contamination of stormwater runoff and prohibit illicit discharges.

WHAT IS AN MS4?

An MS4 is a conveyance or system of conveyances that is:

- 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.);
- Not a combined sewer; and
- Not part of a Publicly Owned Treatment Works (sewage treatment plant).

...And How it's Applied in PA

Though the federal Environmental Protection Agency (EPA) manages the permitting process in some states, in Pennsylvania, the PA DEP administers the program and establishes permits for MS4s, industrial sites, and any construction activities which disturb more than one acre of land. This might sound straightforward enough, but there are additional layers, new programs, and evolving permit requirements to consider—all of which can make coordination and management of stormwater programs pretty complex.

Adding to the mix is Pennsylvania's unique system of "power sharing" amongst different levels of government, as laid out in the Pennsylvania Storm Water Management Act of 1978 (more commonly known as Act 167). The Act requires counties to create watershed-level stormwater management plans, and individual municipalities to adopt ordinances to implement the plans.

Key "moving targets" to keep an eye on include:

- EPA's **National Rulemaking** process;

- **TMDLs**, or "total daily maximum load" (especially important is the "pollution diet" for the Chesapeake Bay and PA's Watershed Implementation Plan (WIP), which is DEP's proposal for our role in bringing the Bay back to health); and
- Changes to PA's **Chapter 102** requirements and **MS4 Permits**.

The federal Clean Water Act (CWA) prohibits the discharge of pollutants into waterways without the appropriate permits. Pennsylvania's Stormwater Management Act (better known as Act 167), MS4 Program, Chapter 102 (Erosion and Sediment Control Requirements), and NPDES Permit Program for Stormwater Discharges Associated with Construction Activities are amongst the Commonwealth's methods for meeting the runoff-related requirements of the Clean Water Act.

For all practical purposes, though, implementation of stormwater management efforts in Pennsylvania occurs at the community level because individual municipalities are ultimately responsible for adopting zoning ordinances, subdivision and land development regulations, and other programs that keep their locality's runoff under control.

The stormwater requirements of the federal Clean Water Act are administered under the **Pennsylvania Department of Environmental Protection's** Municipal Separate Storm Sewer (MS4) Program. In December 2002, DEP issued a General Permit ("PAG-13") for use by MS4s that fall under the National Pollutant Discharge Elimination System (NPDES) Phase II program, requiring the implementation of a stormwater management program for minimizing the impacts from runoff. Several extensions have occurred since the expiry of the initial 5 year permit period.

Under the MS4 Program, permittees are required to incorporate the following six elements (known as minimum control measures, or MCMs) into their stormwater management programs:

- Public education and outreach
- Public involvement and participation
- Illicit discharge detection and elimination
- Construction site runoff control
- Post-construction stormwater management in new development and redevelopment

- Pollution prevention and good housekeeping for municipal operations and maintenance

Each MCM has a series of suggested best management practices (BMPs) associated with it to guide permit holders in program development, tracking, and reporting.

Pennsylvania has close to 1,000 jurisdictions that are considered small municipal separate stormwater systems (MS4s) and therefore require Phase II permits.