



Your Water, Your Future

by Dauphin County Conservation District

Dauphin County's Stormwater Publication for Municipalities
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Navigating Stormwater Regulations

This issue of *Your Water, Your Future* will familiarize you with existing federal, state, and local stormwater management programs. The programs to be discussed are Act 167 planning, NPDES Municipal Separate Storm Sewer Systems (MS4), NPDES construction site permitting, local stormwater ordinances and the Pennsylvania Stormwater Manual. It is important to understand that this level of stormwater management in Pennsylvania is still a relatively new process. The coordination of the programs discussed is evolving, with changes expected as the "bugs" are worked out. The Conservation District strives to stay abreast of changes and provide up to date information to you.



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Please contact Gil Hirschel at 921-8100 regarding questions, comments, and requests for additional information.

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Act 167 Stormwater Planning

Act 167, the Pennsylvania Stormwater Management Act, was passed in 1978, and requires that all counties prepare comprehensive stormwater management plans for all watersheds within their boundaries. Act 167 plans are developed with input from a Watershed Plan Advisory Committee, comprised of appointees of local governments, watershed organizations or other stakeholders; a Municipal Engineers Committee; and a Legal Advisory Committee of municipal solicitors. These committees provide input and guidance for the plan development process.

When completed and approved by the Pennsylvania Department of Environmental Protection (DEP), municipalities affected by the plan are required to implement the stormwater management standards in the plan. Currently in Dauphin County, all Act 167 plans include peak discharge, infiltration, water quality and channel protection standards.

Peak discharge standards are developed using hydrologic computer modeling of the watershed. A developer would be required to manage the peak discharge from a site to conform with a specified release rate.

Release rates typically vary from 30 to 100 percent. The release rates are calculated based on the timing of peak flows downstream, to minimize the possibility of creating new stormwater problems or worsening existing problems.

Infiltration and water quality standards

are based on a 90% storm. Through an analysis of rainfall records, a rainfall depth is calculated such that 90% of all rainfall events expected in a given year are managed. Calculations based on this depth determine the volume of runoff that must be infiltrated and treated for water quality. This is achieved by routing runoff to Best Management Practices (BMPs) designed to infiltrate or provide water quality treatment.

The **channel protection standard** is a slow release over 24 hours of the 1-year storm. The goal is to release the stormwater in such a manner as to prevent channel erosion at and downstream of the discharge point.

Dauphin County Act 167 Planning Status



(Continued on reverse)

NPDES MS4 Regulations

These are federal regulations under the National Pollutant Discharge Elimination System (NPDES) program. They are administered in Pennsylvania by DEP. Under these regulations, municipalities and certain other entities identified as being regulated (based on population and density from the 2000 census) must implement a plan to manage stormwater discharges to separate storm sewer systems owned or operated by the municipality. A separate storm sewer system is a system that carries only stormwater. Sanitary systems and combined systems are *not* regulated under this program. The plan must include methods for addressing six Minimum Control Measures (MCMs) – Public Participation, Public Education, Illicit Discharge Elimination, Construction Site Stormwater Management, Post-Construction Stormwater Management, and Good Housekeeping at municipal facilities.

Within the MCM for Post-Construction Stormwater Management is a requirement that the municipality implement ordinances requiring that water quality standards be met. Where there is an Act 167 plan approved by DEP, the water quality standards in the Act 167 plan will satisfy this requirement. Ordinances must also be implemented to prohibit illicit discharges and to require that discharges from construction sites be managed. Plans for managing discharges from construction sites are currently reviewed by the Conservation District through the NPDES permitting program. The municipal ordinance should require that NPDES permits be obtained for construction site activities.

NPDES Construction Site Stormwater Management

This is also part of the federal NPDES program and is administered in Pennsylvania by DEP. This program requires that stormwater runoff from development sites under construction be managed to minimize discharge of sediment to streams. Also included in the permit is a requirement that a post-construction stormwater management plan be developed. This plan details how stormwater will be managed long-term for water quality and infiltration after construction is completed.

As is evident from the above, a stormwater management plan for water quality and infiltration is required for both the Act 167 plan and NPDES permitting. These programs are not necessarily conflicting programs (i.e. two different sets of standards that must be met). However, development of the plan should be coordinated in such a manner as to avoid issues.

Local Stormwater Management Regulations

These regulations are your regulations, as implemented by your individual local government. Your ordinances may contain a variety of stormwater standards, depending on whether or not any of the programs previously mentioned are applicable.

Because Pennsylvania places the authority to manage stormwater in the hands of local government, the current status of stormwater management has implications for you as a local government decision maker. If there is an approved Act 167 plan for any watersheds in your municipality, or if you are regulated by the MS4 program, your ordinances must reflect the specific requirements of these programs. The post-construction stormwater management plan for NPDES construction site permitting is required as part of the permit approval process. That is, you do not need to require it through your local ordinances.

Also, because the adverse impacts of stormwater runoff affect stream and water quality, place financial burdens on the municipality and taxpayers, and cause increased flooding, you, as a local municipal official, play a key role in ensuring the stormwater runoff is managed properly.

The Pennsylvania Stormwater Management Manual

This document has recently been finalized by DEP. It provides guidance and technical information for designing BMPs and managing stormwater runoff in a manner that will minimize the adverse impacts of runoff on streams. It is important to understand that the manual is not a regulatory instrument, but a guidance document.

Summary

The information presented in this issue is a very basic description of several stormwater management programs. As is evident from the above, there are many programs regulating or relating to stormwater management. These regulations, in many cases, overlap. To avoid unnecessary confusion and delay for development projects, it is important that your stormwater management ordinances be consistent with applicable regulations and programs. The Conservation District website (www.dauphincd.org) contains information relating to stormwater management. Conservation District staff are also available to provide information at 921-8100. □



Next Issue: The Economics of Stormwater Management