MCM #5 - Post-Construction Stormwater Management in New Development and Redevelopment

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.

Under Chapter 102 Erosion and Sediment (E&S) Control, county conservation districts and/or the Pennsylvania Department of Environmental Protection (DEP) must issue a permit for earth disturbance activities greater than or equal to 1 acre. If the permittee chooses to rely on DEP’s statewide program for issuing NPDES permits for stormwater discharges associated with construction activities, they satisfy all requirements under BMPs 1-3 of this MCM. It is a good practice for permittees to have a written agreement, such as a Memorandum of Understanding (MOU), with their county conservation district which clearly defines roles in the permitting, inspection, and enforcement of land development activities.

There are 3 Best Management Practices (BMPs) required under this MCM. Learn more about their requirements and resources to help meet these requirements below.

BMP #1

Enact, implement, and enforce an ordinance to require post-construction stormwater management from new development and redevelopment projects, including sanctions for non-compliance. This ordinance must require implementation of post-construction stormwater management BMPs such as ones found in the PA Stormwater Best Management Practices (BMP) Manual.

BMP #2

Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment. Measures also should be included to encourage retrofitting LID into existing development. DEP’s Pennsylvania Stormwater Best Management Practices Manual provides guidance on implementing LID practices. Additionally, ordinances should be enacted that are consistent with LID practices. Sections of existing ordinances that conflict with LID practices should be repealed.

Preserving and restoring riparian buffers are best management practices that can effectively manage stormwater in post-construction situations.
BMP #3
Ensure adequate operation and maintenance (O&M) of all post-construction stormwater management BMPs that have been installed at development or redevelopment projects that disturb one or more acres. An inventory of PCSM BMPs must be developed within the first year of permit coverage and be continually updated. The inventory should include all PCSM BMPs installed since 3/10/2003 that discharge to your regulated MS4. Information required in the inventory includes but is not limited to: owner, location, type of BMP, installation date, required maintenance, inspection activities, and an assessment to determine if proper inspection and maintenance of BMP has been taking place.

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

What is a Post Construction Stormwater (PCSM) BMP?
PCSM BMPs are practices that are put in place to prevent and mitigate stormwater runoff after the site is developed. They include non-structural and structural BMPs, as spelled out in the PA Stormwater BMP Manual. Non-structural BMPs include practices that aim to avoid and/or minimize damages associated with stormwater runoff from development. Structural BMPs are engineered systems that are designed to mitigate the impacts of stormwater.

Examples of Non-Structural BMPs
- Minimize Impervious Area
- Protect Special Value Features (e.g., Floodplains, Wetlands, Riparian areas, etc.)
- Re-vegetate Disturbed Areas with Native Vegetation

Examples of Structural BMPs
- Rain Gardens
- Constructed Wetlands
- Riparian Buffer Restoration

*Please note that this information is not intended to replace regulatory requirements. Actual individual and/or general permits issued by PADEP should be followed to ensure that MS4 regulatory requirements are met. This information was adapted from PADEP’s PAG-13 NPDES General Permit for Small Municipal MS4s & EPA’s Stormwater Phase II Final Rule Fact Sheet Series.