



MS4 Program Minimum Control Measures

Montgomery County Conservation District

November 21, 2019

Tom Wolf, Governor

Patrick McDonnell, Secretary

What is MS4?

Municipal Separate Storm Sewer System



Why is MS4 Important?

MS4 Requirements

Tom Wolf, Governor

patrick pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Patrick McDonnell, Secretary

MS4 Requirements

BACKGROUND

Municipalities and other entities such as universities and prisons that meet certain standards must obtain NPDES permit coverage for discharges of stormwater from their municipal separate storm sewer systems (MS4s).

A municipal separate storm sewer is any conveyance or system of conveyances (including but not limited to streets, ditches, and pipes) that is owned by a municipality or other public body (created under state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater or other wastes; designed or used for collecting or conveying stormwater; not a combined sewer (i.e., not intended for both sewage and stormwater); AND not part of a publicly owned treatment works (POTW).

Additional information regarding permitting requirements can be found at the [Pennsylvania Municipal Stormwater Homepage](#).

Help is available by clicking the question mark icon in the header.

Select a County
ADAMS

Select a Municipality
CONEWAGO TWP

Click to View Features

Minimum Control Measures

- Both the MS4 general permit (PAG-13) and the MS4 individual permit require the development, implementation and enforcement of a stormwater management program (SWMP). There are six Minimum Control Measures (MCMs) that comprise the SWMP. Each MCM has its own set of best management practices (BMPs).

The Basic MS4 Program



**Can you list the six
Minimum Control
Measures?**

Minimum Control Measures

- #1 Public Education and Outreach Program (PEOP)
- #2 Public Involvement and Participation Program (PIPP)
- #3 Illicit Discharge Detection & Elimination (IDD&E)
- #4 Construction Site Stormwater Run-off
- #5 Post Construction Stormwater Management
- #6 Pollution Prevention/Good Housekeeping

Minimum Control Measures

- Today we are going to focus on:
 - MCM #4: Construction Site Stormwater Runoff Control
 - MCM #5: Post-Construction Stormwater Management (PCSM)

MCM #4 Construction Site Stormwater Runoff Control

- MCM #4: Construction Site Stormwater Runoff Control. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(4))

MCM #4 Construction Site Stormwater Runoff Control

- BMP #1: The permittee may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring an NPDES permit unless the party proposing the earth disturbance has valid NPDES Permit coverage (i.e., not expired) under 25 Pa. Code Chapter 102.

MCM #4 Construction Site Stormwater Runoff Control

- BMP #2: A municipality or county which issues building or other permits shall notify DEP or the applicable county conservation district (CCD) within 5 days of the receipt of an application for a permit involving an earth disturbance activity consisting of one acre or more, in accordance with 25 Pa. Code §102.42.

MCM #4 Construction Site Stormwater Runoff Control

- BMP #3: Permittees must enact, implement and enforce an ordinance or SOP (non-municipal permittees) to require the implementation and maintenance of E&S control BMPs, including sanctions for non-compliance, as applicable.

Good Vs. Bad

Stormwater and the Construction Industry

Protect Natural Features



- Minimize clearing
- Minimize the volume of exposed soil
- Identify and protect areas where sensitive resources, such as wetlands, are located
- Provide erosion control measures and sedimentation controls to reduce sedimentation and turbidity in receiving water bodies

Construction Phasing



- Prepare construction activities so that the soil is not exposed for long periods of time
- Schedule construction activities to avoid sensitive periods
- Install best management practices before beginning the project
- Schedule construction activities, such as backfilling, to avoid sensitive periods when the local hydrogeologic system is stressed

Vegetative Buffers



- Protect and install vegetation buffer strips immediately in final certified construction
- Maintain buffers by mowing or mowing periodically to avoid tree dieback

Silt Fencing



- Repair and maintain all erosion control systems
- Make sure the fence is the right kind or kind for the project
- Regularly check the fence for damage
- Don't place soil debris in the middle of a fence or in any other way that will block it
- Make sure personnel do not damage erosion control lines

Site Stabilization



- Regularly check on erosion control alignment and make sure it is in good condition throughout completion

Maintain your BMPs!
www.epa.gov/npdes/menuofbmps

Construction Entrances



- Register and post entry into the stormwater discharge under the National Pollutant Discharge Elimination System
- Properly use approved BMPs for all construction vehicles
- Make sure that the entrance has concrete curb and kerf and is properly maintained

Slopes



- Slope grade at erosion sites
- Slope erosion sites to help stabilize the slope or under BMPs, or direct stormwater away from slope

Dirt Stockpiles



- Cover or cap dirt stockpiles

Storm Drain Inlet Protection



- Use best or better practices available to prevent the storm drain from being blocked by debris and silt
- Make sure the best practices are approved locally and are in good condition
- If not per local BMPs, maintain from upstream

Good Vs. Bad: Local Example



Pictures taken by MCCD

Post-Construction Stormwater Management (PCSM)

- MCM #5: Post-Construction Stormwater Management (PCSM) in New Development and Redevelopment. (25 Pa. Code § 92a.32(a) and 40 CFR § 122.34(b)(5))

Post-Construction Stormwater Management (PCSM)

- BMP #1: MS4 permittees must enact, implement and enforce an ordinance or SOP to require post-construction stormwater management from new development and redevelopment projects, including sanctions for non-compliance.

Post-Construction Stormwater Management (PCSM)

- BMP # 2: Permittees must develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new development and redevelopment. Measures should also be included to encourage retrofitting LID into existing development.

Post-Construction Stormwater Management (PCSM)

- BMP #3: Ensure adequate O&M of all PCSM BMPs that have been installed at development or redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

Post-Construction Stormwater Management (PCSM)

- BMP #3: O&M Program Requirements:
 - Develop and maintain an inventory of PCSM BMPs. Track the following information in the inventory:
 - All PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003.

Post-Construction Stormwater Management (PCSM)

- **BMP #3: O&M Program Requirements (con't.):**
 - The exact location of the PCSM BMP (e.g., latitude and longitude, with street address).
 - Information (e.g., name, address, phone number(s)) for BMP owners and entities responsible for BMP O&M, if different from BMP owners.
 - The type of BMP and the year it was installed.

Post-Construction Stormwater Management (PCSM)

- **BMP #3: O&M Program Requirements (con't.):**
 - Maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources.
 - The actual inspection/maintenance activities conducted for each BMP.
 - An assessment by the permittee if proper O&M has occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements.

Qualifying Local Programs (QLP)

- Option to rely on a QLP
 - Usually will be with the county conservation districts
 - Considerations:
 - Does the municipality have an MOU with the QLP?
 - Does the QLP know the municipality is relying on them for MCMs 4 & 5?
 - Has the QLP agreed to take on that responsibility for the municipality?

Enforcement of Municipal Ordinances

- The MS4 permits require the municipalities **ENACT**, **IMPLEMENT**, and **ENFORCE** their stormwater ordinances.
- Ultimately it is the responsibility of the municipality to ensure compliance with its ordinances.
- Municipal employees should be trained on:
 - Requirements of the municipal ordinances
 - How to identify E&S and PCSM violations.
 - What steps should be taken to rectify violations.
 - Enforcement options available to the municipality.

Why is a Stormwater Management Plan (SWMP) important?



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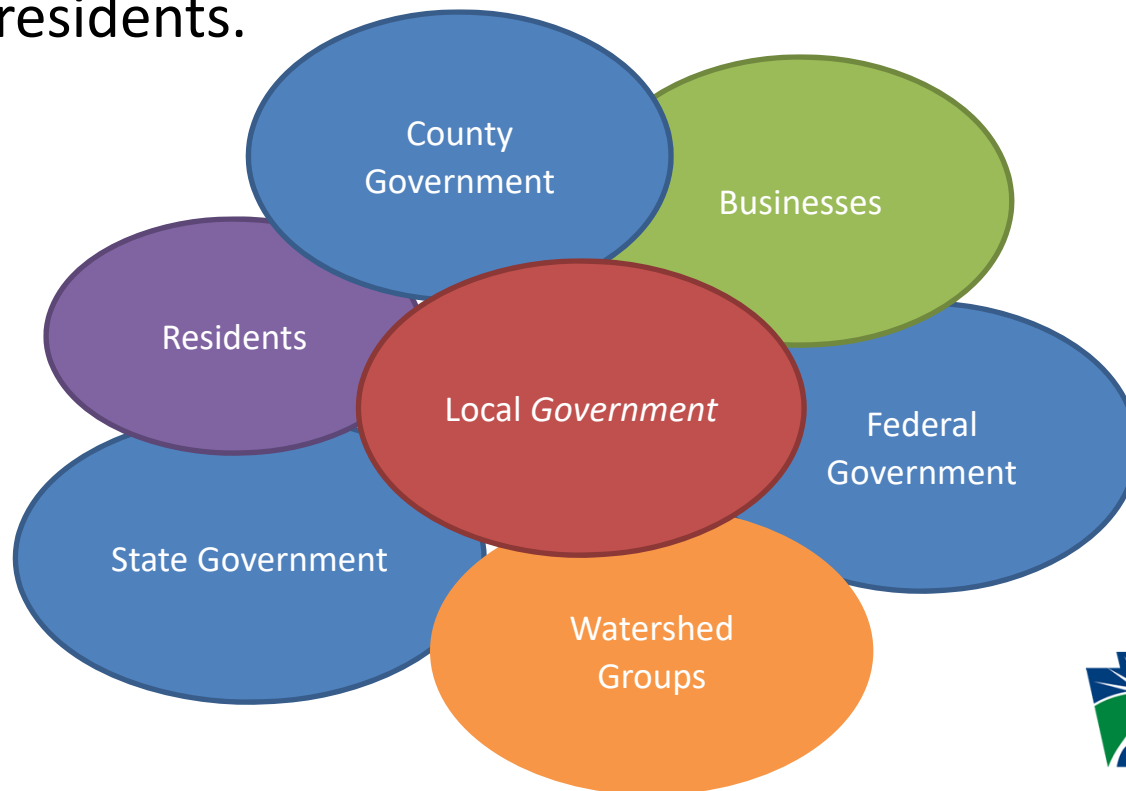
Conclusion

- The ultimate goal of the MS4 program is to turn our red streams blue. Once this is achieved, PRP and TMDL plans will no longer be needed.
- At times, this goal may seem overwhelming and unattainable; however, the Brandywine Red Clay Alliance's Red Streams Blue project in Chester County has documented increased water quality in some of their streams after implementing a variety of projects.

[\(http://www.brandywineredclay.org/watershed-conservation/red-streams-blue/\)](http://www.brandywineredclay.org/watershed-conservation/red-streams-blue/)

Conclusion (Cont.)

- The key to success will be to form partnerships and working with your neighbors in implementing cost-effective, high impact projects that will increase water quality, decrease flooding impacts, and increase the quality of life of your residents.





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