

# Ferguson Township Municipal Separate Storm Sewer System (MS4)

## Stormwater Management Program Review

May 16, 2022 Board of Supervisors Meeting



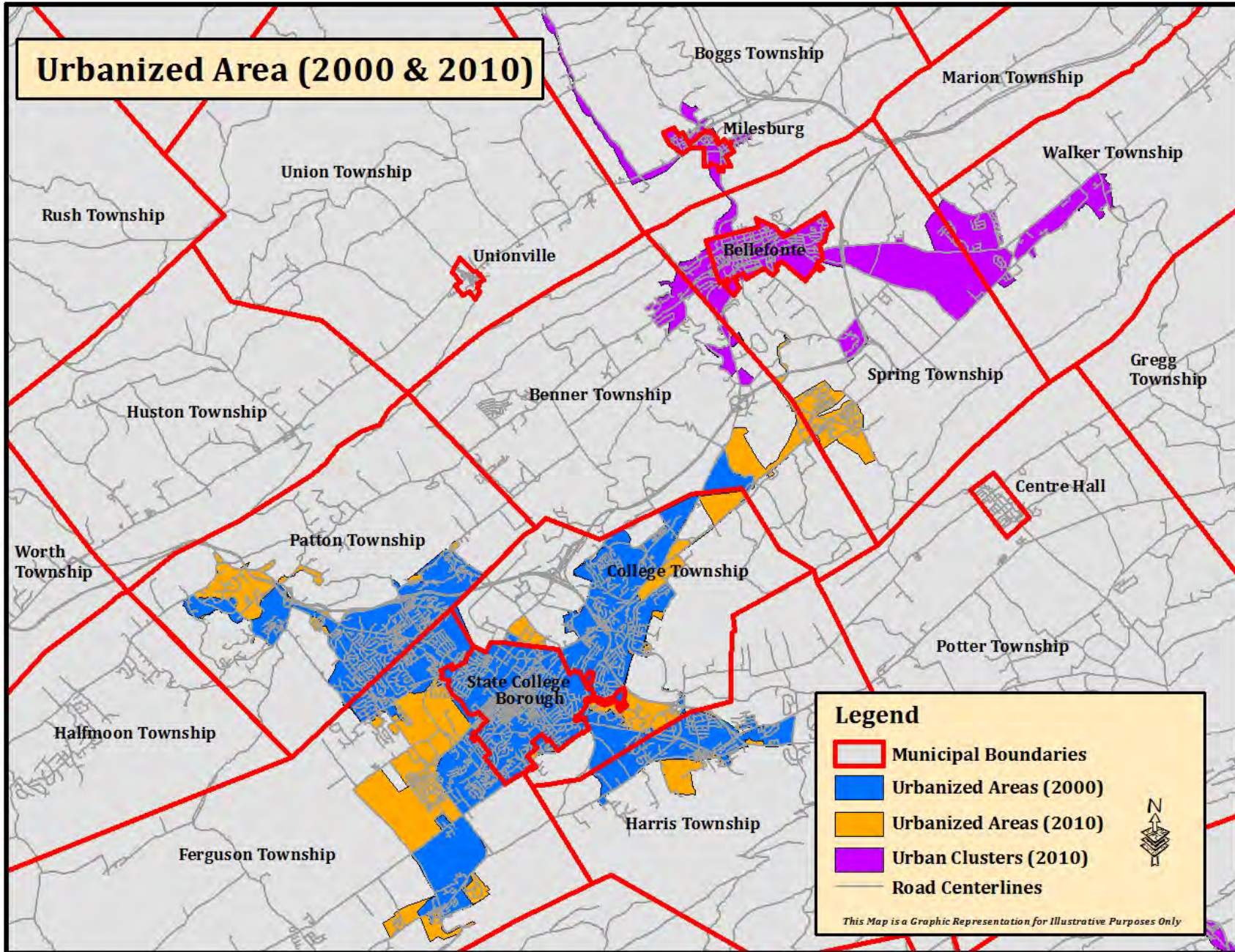
# NPDES - Phase II MS4 Permit

**N**ational  
**P**ollution  
**D**ischarge  
**E**limination  
**S**ystem

**M**unicipal  
**S**eparate  
**S**torm  
**S**ewer  
**S**ystem



# Urbanized Area (2000 & 2010)



**Legend**

- Municipal Boundaries
- Urbanized Areas (2000)
- Urbanized Areas (2010)
- Urban Clusters (2010)
- Road Centerlines

*This Map is a Graphic Representation for Illustrative Purposes Only*



# What Does Our Permit Require?

- Implement a Stormwater Management Program (including SWM Ordinance)
  - Six Minimum Control Measures
  - Track progress toward goals
    - Document, Document, Document
  - Report on our progress
- Develop and Implement a Pollution Reduction Plan (PRP) for Chesapeake Bay and Impaired Waterways



# Stormwater Management Program

## Six Minimum Control Measures

1. Public Education and Outreach

2. Public Involvement and Participation

3. Illicit Discharge Detection and Elimination

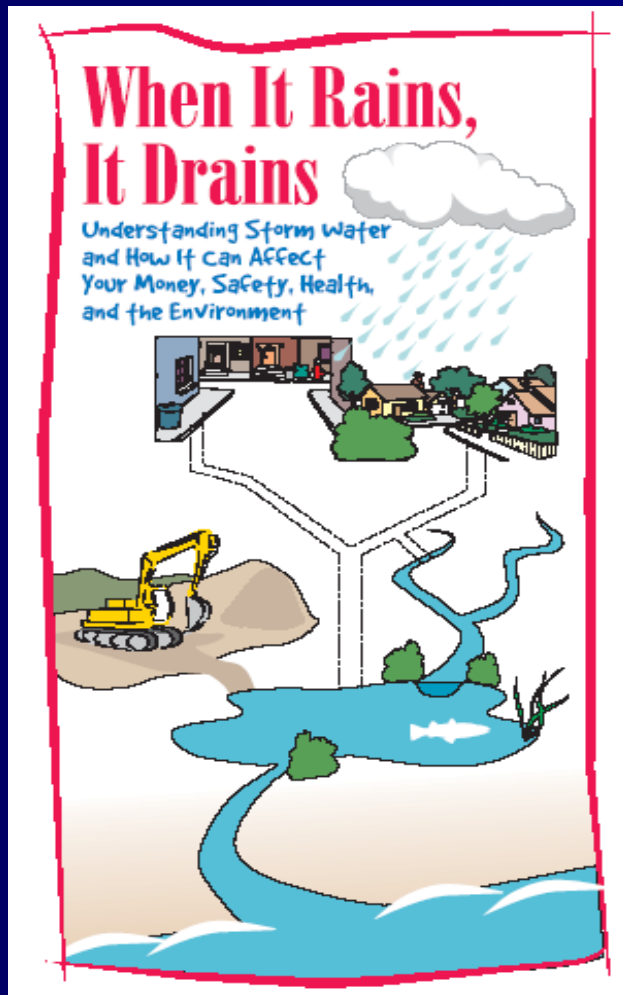
4. Construction Site Runoff Management

5. Post-Construction Stormwater Management

6. Pollution Prevention and Good Housekeeping



# 1. Public Education and Outreach



- Develop a written Public Education & Outreach Program (PEOP)
- Send Out Educational Material & Track Who Gets Them.

# PEOP Strategies

- Newsletters – 2 per year to all property owners
- Brochure – “Stormwater Pollution Prevention” with all zoning permits
- Poster in lobby
- Spring Creek Watershed Map
- Fact Sheets – newsletter and website
- Storm Drain Stenciling
- Website – MS4 Partners.org & Twp page



# 2. Public Involvement and Participation

- Develop Written Public Involvement/Participation Plan (PIPP)
- Provide Opportunities for Public Involvement
- Hold 1 Public Meeting Per Year





# PIPP Strategies for Notification

- Legal Notices of public meetings – CDT
- CDT Advertisements
- Optional Press Releases
- Website  
([www.twp.ferguson.pa.us/stormwater-management/](http://www.twp.ferguson.pa.us/stormwater-management/))
- Newsletter



# PIPP Strategies for Participation

- Partner with Other Groups
  - Watershed Clean-up
  - Rain Barrel Workshop
  - Water Resources Monitoring Project
- Storm Drain Stenciling
- Adopt a Highway
- Public Meeting
- Ordinance & PRP Development



# 3. Illicit Discharge Detection and Elimination



- **Keep Stormwater Clean**
- **Everyone Participates**
- **Screening & Response**

Report any sighting of illicit discharge to Township Engineer

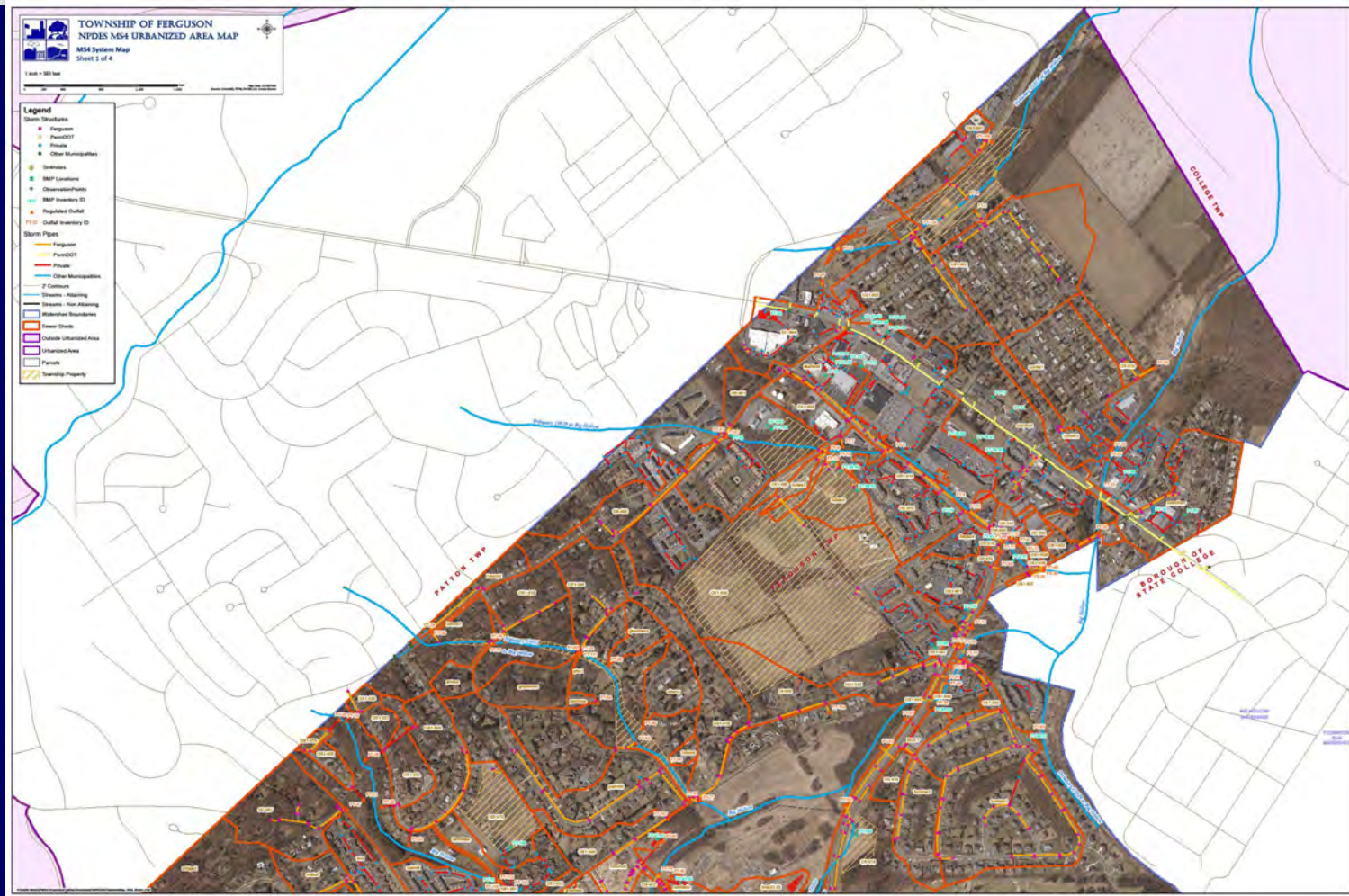


# IDDE Strategies

- **Maintain Storm Sewer System Map**
  - GIS Map
  - Update for Development / Capital Projects
- **Ordinance Prohibits Illegal Discharges**
  - Update Ordinance by 2024
- **Annual Dry Weather Screenings**
- **Investigate Complaints**
- **Proceed to Eliminate Illicit Discharge & Report/Document**



# MS4 System Map



# MS4 System Map



# 4. Construction Site Stormwater Runoff Control

- This MCM is now shared with DEP through the Centre County Conservation District (CCCD).
- Memorandum of Understanding (MOU) with CCCD to be updated by 2024.
- New tracking and notification requirements for Township.
- Update Stormwater Ordinance by 2024.



# 5. Post-Construction SWMSP

- SW Ordinance – to be updated prior to 2024.
- Requires developers to install and maintain BMP's
- Permanent Ownership, Maintenance, and Inspection Requirements





# PCSM Strategies

- **Maintain GIS Layer of BMPs**
  - All Permitted BMPs since 2003
  - All documents being migrated to GIS.
- **Inspection of BMPs**
  - Update inventory 69 sites, 158 BMPs and counting.....
  - Inspect 20% each year of permit cycle
- **Enforcement per Ordinance**
- **Tracking**



# 6. Pollution Prevention / Good Housekeeping

- BMP#1 – Evaluate and Inventory all BMPs with Township Responsibility (annual review)
- BMP#2 – Develop/Implement/Maintain Written Operation & Maintenance Program (O&M)
- BMP#3 – Develop/Implement a Training Program for Appropriate Topics / Attendees

*Training provided to: All municipal employees, CRPR field employees, elected officials, police & fire responders, and contracted personnel – (annually)*



# Pollution Prevention Strategies

- Fleet Maintenance Operations
- Fleet Fueling Operations
- Salt Storage / Application
- Road / Storm Sewer System Maintenance
- Waste Collection
- PPC / SPCC Program



# Pollution Reduction Plan (PRP)

Objective – Implement PCMs to produce tangible improvements to the quality of stormwater discharges in the Chesapeake Bay Watershed and impaired local waterways

Plan Components –

- Describe Planning Area / Evaluate Pollutant Loading
- Propose PCMs to reduce pollutants



# Approved PRP

- Completed study/plan development by consultant with MS4 Partners
  - Approved with current MS4 Permit.
  - Determined requirement for reduction of pollutant loading by 10% (this permit cycle).
  - Identified PCMs to be implemented during permit cycle to address permit requirements.
- Design, obtain easements, permitting, and construction of PCMs within permit cycle.



# Approved PRP

Table D.4-3. Ferguson Township Proposed Primary BMP TSS Load Reduction Summary

Watershed/BMP Description	Primary/ Secondary	BMP Load Reduction (lb./yr.)	Partner Share (lb./yr.)	Notes
<b>Beaver Branch</b>				
Pinney Ridge Stream Restoration (A2)	P	40,250	40,250	
Wyoming Avenue Stream Restoration (B7)	S	23,000	23,000	
<b>Required TSS Load Reduction</b>			<b>10,070</b>	
<i>Excess Treatment Primary Projects</i>			<i>30,180</i>	
<i>Excess Treatment Primary and Secondary Projects:</i>			<i>53,180</i>	
<b>Spring Creek</b>				
Pine Grove Mills Slab Cabin Restoration (A4)	P	40,250	250	Allocating 250 lbs. from Slab Cabin Run Watershed (Project A4 below) to meet Spring Creek Requirements.
<b>Required TSS Load Reduction</b>			<b>146</b>	
<i>Excess Treatment Primary Projects</i>			<i>104</i>	
<i>Excess Treatment Primary and Secondary Projects:</i>			<i>104</i>	
<b>Slab Cabin Run</b>				
UNT Slab Cabin Run Restoration - Duck Pond Channel (A3)	P	115,000	20,125	Shared with Penn State, College Township, and Borough of State College.
Pine Grove Mills Slab Cabin Restoration (A4)	P	34,500	34,250	
Myer-Everhart Streamside Buffer (B1)	S	1,501	1,501	100% allocated but may be shared with College and Harris Townships, and Borough of State College (all or some).
<b>Required TSS Load Reduction</b>			<b>49,309</b>	
<i>Excess Treatment Primary Projects</i>			<i>5,066</i>	
<i>Excess Treatment Primary and Secondary Projects:</i>			<i>6,567</i>	



# MS4 – SWMP Review

# Open Discussion

