

# Ferguson Township Municipal Separate Storm Sewer System (MS4)

## Stormwater Management Program Review

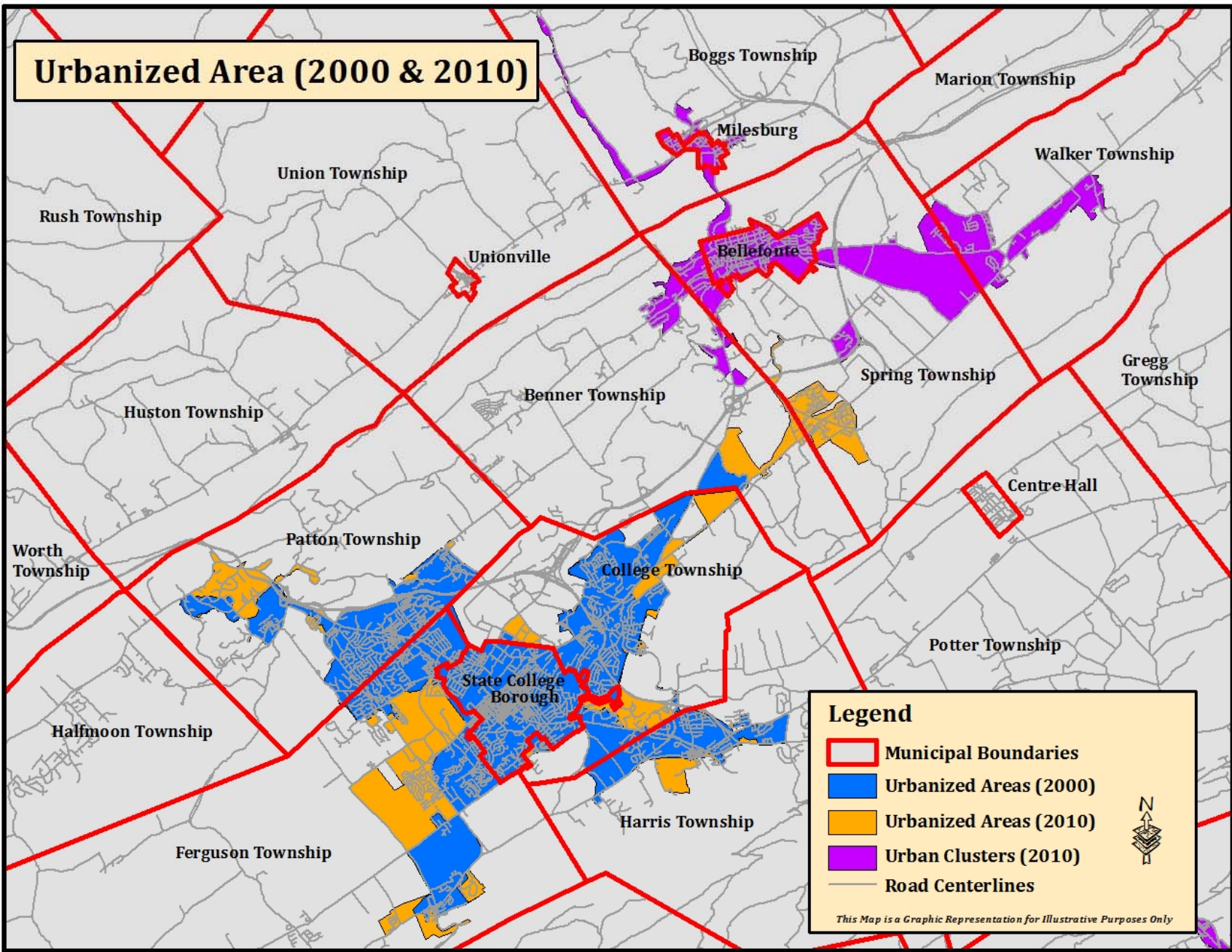
February 20, 2018 Board of Supervisors Meeting

# 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?

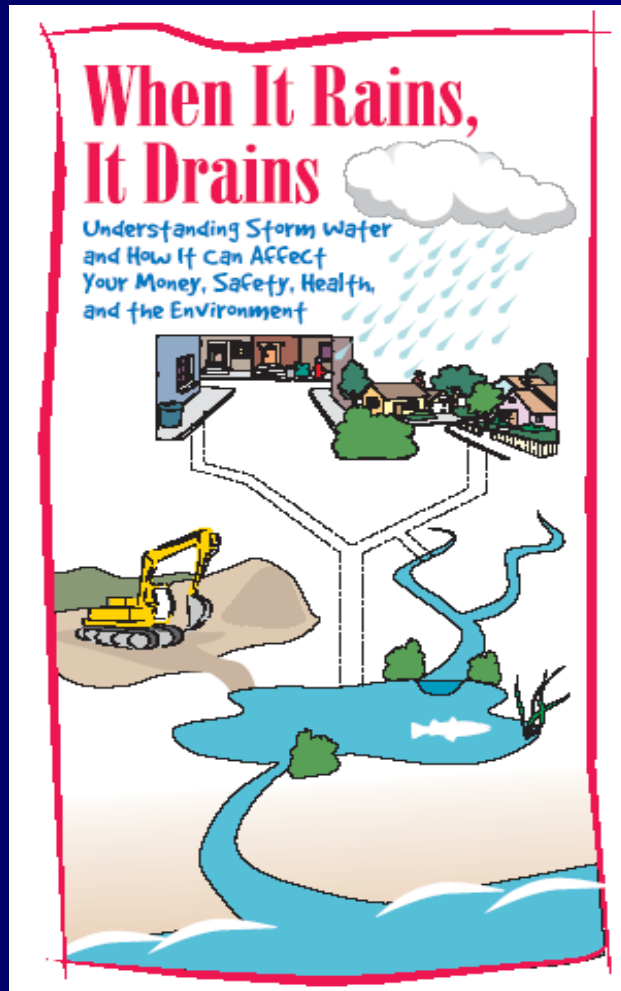
- Implement a Stormwater Management Program (including SWM Ordinance)
  - Minimum Control Measures
  - Track progress toward goals
    - Document, Document, Document
  - Report on our progress
  
- Develop and Implement a Chesapeake Bay Pollution Reduction Plan (CBPRP)



# Stormwater Management Program 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 It.

# PEOP Strategies

- Newsletters – 2 per year to all property owners
- Brochure – “Stormwater Pollution Prevention” with all zoning permits
- Posters in lobby and main meeting room
- Spring Creek Watershed Map
- Fact Sheets – newsletter and website
- Storm Drain Stenciling (Option)

## 2. Public Involvement and Participation

- Develop Written Public Involvement/Participation Plan (PIPP)
- Provide Opportunities for Public Involvement:
  - Spring Creek Watershed Cleanup Day
  - Inlet Stenciling Project
- 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 Public Groups / Committees**
  - **Clearwater Conservancy**
  - **SCWC**
- **Storm Drain Stenciling**
- **Water Resources Monitoring Project**
- **Volunteer Clean-Up Programs**
- **Rain Barrel Workshop**
- **Public Meeting**

# 3. Illicit Discharge Detection and Elimination



Permit Holders must test *dry weather* flow:

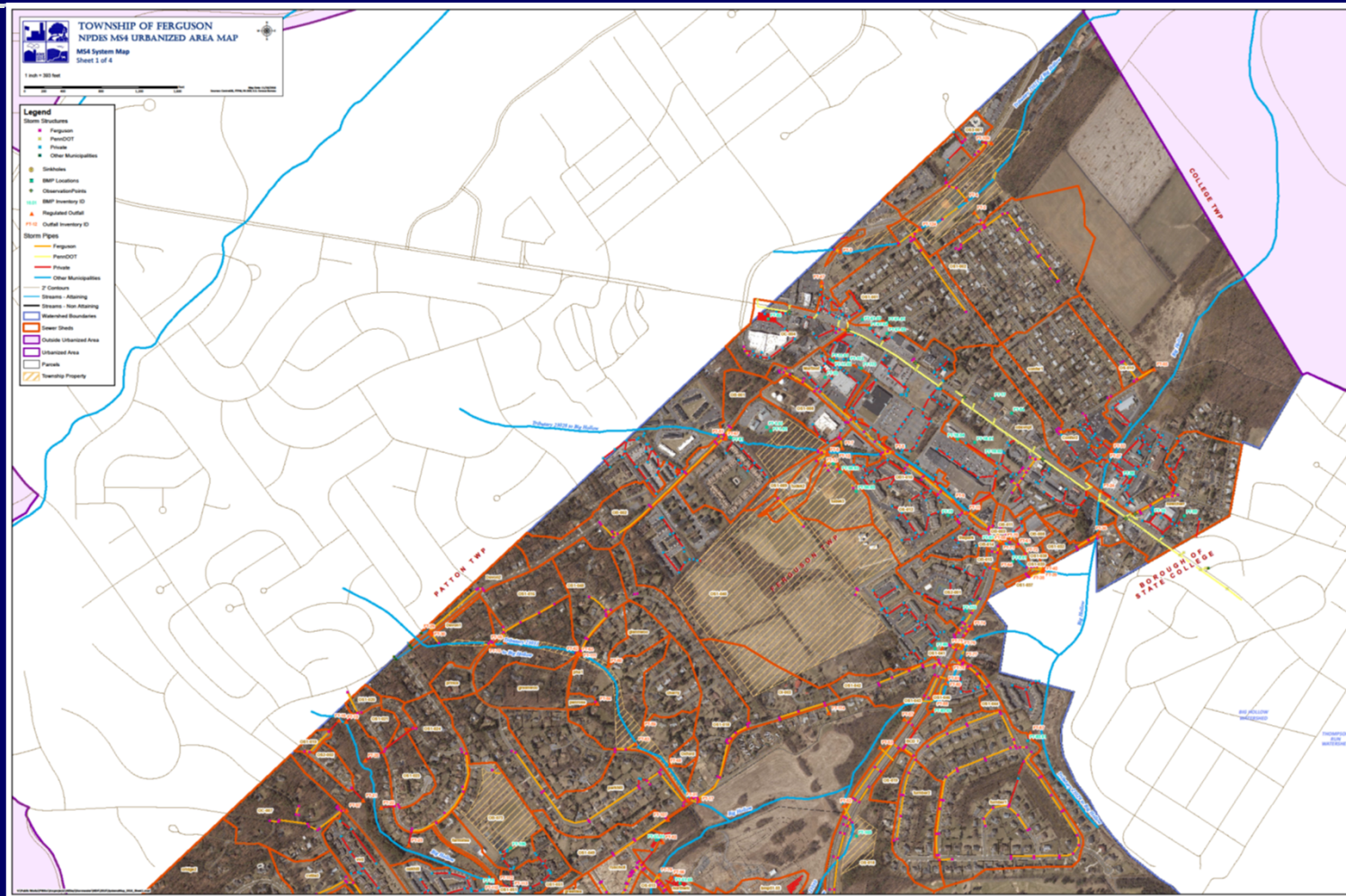
- Track down illicit discharge (IDDE)
- Ordinance allows for citation for non-compliance
- Maintain Storm System Map
- Report all findings

**Report any sighting of illicit discharge to Township Engineer**

# IDDE Strategies

- **Maintain Storm Sewer System Map**
  - GIS Map
  - Update for Development / Capital Projects
- **Prohibit Illegal Discharges**
- **Outfall Screenings**
- **Investigate Complaints**
- **Procede to Eliminate Illicit Discharge**

# MS4 System Map



# MS4 System Map



# 4. Construction Site Runoff Management

- This portion of our Stormwater Management Program is administered by DEP.
- Memorandum of Understanding (MOU) with Centre County Conservation District (CCCD)

# 5. Post-Construction SWMSP

- Requires BMP's (Best Management Practices)
- Ordinance Requirements
- Ownership/Maintenance/Inspection





# PCSM Strategies

- **Maintain Map of BMPs**
  - All Permitted BMPs since 2003
  - Separate folders for each project
- **Inspection of BMPs**
  - Updated inventory (2017) 65 sites, 146 BMPs and counting.....
  - Inspect 20% each year of permit cycle
- **Enforcement per Ordinance**
- **Tracking**

# 6. Pollution Prevention / Good Housekeeping

BMP#1 – Develop a Written Pollution Prevention/Good Housekeeping Program

BMP#2 – Develop/Implement/Maintain Written Operation & Maintenance Program (**O&M**)

BMP#3 – Develop/Implement an Employee **Training Program** for Appropriate Topics

*Training provided to: All municipal employees, contractors, elected officials, police & fire responders, volunteers 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 – new this year.
- Training Programs

# Chesapeake Bay Pollution Reduction Plan (CBPRP)

Objective – Implement BMPs 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 BMPs to reduce pollutants

# Proposed PRP

- Completed study/plan development with consultant and MS4 Partners
  - Will be submitted with permit application (Feb 2018). Permit to be issued by June 2018
  - Determined requirement for reduction of pollutant loading by 10% (more in the future).
  - Identified BMPs to be implemented during permit cycle to address permit requirements.
  - Estimated plan costs are \$258,250 just for construction. Other costs are engineering, permitting, and right of way.

# Other SWMP Considerations

- Stormwater Fee Feasibility Study
  - Consultant team working with staff and SWAC.
  - Evaluate status of current infrastructure.
  - Consider level of service models.
  - Consider financing options.
  - Conduct public meetings.
  - Present feasibility findings to BOS.

# MS4 – SWMP Review

## Open Discussion



Ferguson Township  
Centre County, PA