

Mechanicsburg Borough

2015 UPDATE

**MUNICIPAL
SEPARATE
STORM SEWER
SYSTEM (MS4)**



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MS4 – What Is It?

- Permit Issued to the Borough by DEP for Stormwater Discharges
- Regulates Point Source Discharges
- Extension of Federal Clean Water Act regulated by EPA
- Intended to Improve Water Quality



MS4 – What Is It NOT?

- NOT Intended to Control Flooding
- NOT Intended to Control Erosion
- NOT without Cost Implications
- NOT to be Ignored!
 - EPA audits have resulted in fines up to \$75,000



MS4 in Mechanicsburg

- Second Term Permit Issued March 2013
 - First Term permit in place for 10 years prior
- Entire Borough within the Urbanized Area
- Receiving streams are considered Impaired



Minimum Control Measures (MCM's)

- Six Minimum Control Measures
 - Public Education & Outreach
 - Public Involvement
 - Illicit Discharge Detection (ID&D)
 - Erosion Control during Construction
 - Post Construction SWM
 - Good Housekeeping & Pollution Prevention



MCM #1

- Public Education & Outreach on Stormwater Impacts
 - Develop a written Public Education & Outreach Plan
 - Identify Target Audiences
 - Publish and Distribute Educational Materials related to Storm Water



MCM #2

- Public Involvement/Participation
 - Develop a written Public Involvement and Participation Program
 - Provide for Public Notice and Comment on Stormwater Issues
 - Conduct Public Meetings



MCM #3

- Illicit Discharge Detection & Elimination (IDD&E)
 - Develop a written IDD&E Program
 - Map Storm Sewer System
 - Annual Outfall Screening
 - Stormwater Management Ordinance Updates



MCM #4

- Construction Site Storm Water Runoff Control
 - Memorandum of Understanding with Cumberland County Conservation District (CCCD)
 - Proactive Approach to Apparent Violations
 - System to Report Complaints



MCM #5

- Post-Construction Stormwater Management In New Development
 - Stormwater Management Ordinance Updates
 - Install and Maintain Best Management Practices (BMP's)
 - Incorporate Low Impact Development (LID) Principles



MCM #6

- Pollution Prevention / Good Housekeeping
 - Document all Activities/Facilities Operated by the Borough with a Pollution Prevention Plan
 - Operations and Maintenance Program
 - Annual Training



Chesapeake Bay Pollutant Reduction Plan

Statewide Watershed Implementation Plan (WIP)

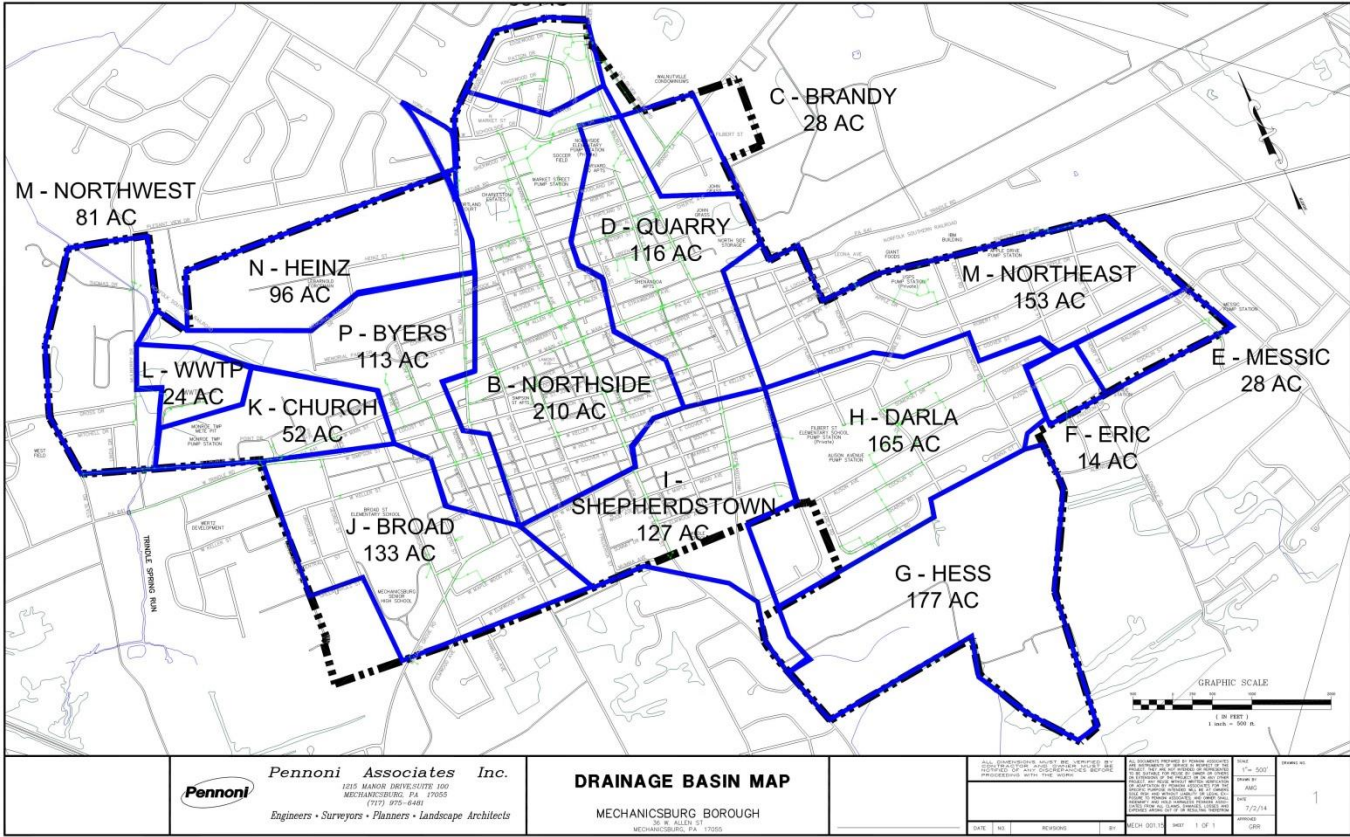
GOALS:

- 41% Reduction in Nitrogen
- 44% Reduction in Phosphorous
- 50% Reduction in Total Suspended Solids

- 60% Achieved by 2017
- 100% Achieved by 2025



Borough Drainage Areas



Pennoni Associates Inc.
 1215 MANOR DRIVE, SUITE 100
 MECHANICSBURG, PA 17055
 (717) 875-6400
 Engineers • Surveyors • Planners • Landscape Architects

DRAINAGE BASIN MAP

MECHANICSBURG BOROUGH
 MECHANICSBURG, PA 17055

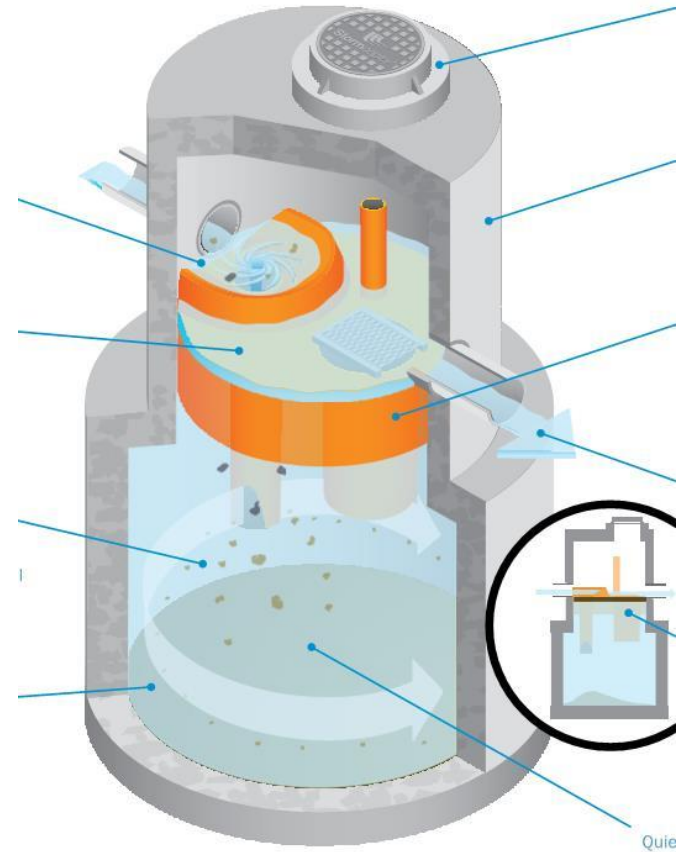
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Best Management Practices

Required to Implement BMP's to Improve Water Quality

- Structural (Stormceptor)
- SWM Basin Retrofit
- Bioretention/Infiltration
- Nutrient Credit Trading



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Best Management Practices

Basin Retrofit & Bioretention



CapCOG Regional Plan

- Allows for construction of projects with the greatest Cost – Benefit
- Greater flexibility in the implementation of the plan
- Potential for limiting the Borough's long term maintenance responsibilities



Cost of Compliance

- Annual Cost of Implementing Minimum Control Measures \$15,000 - \$25,000
- BMP Installation
 - About \$1,000 per acre of drainage area
 - 1567 Acres in Borough
 - \$1.6 million
- Funding sources will be needed
 - General Fund
 - Stormwater User Fees & Authority



Closing

- Plans must be made for future capital projects
- Rising costs expected for both annual & capital expenditures
- Creative funding will be needed

