Municipal Separate Storm Sewer Systems – MS4

Why do you want to do it all yourself?
Partnerships Produce Results
History of MS4

- Municipal Separate Storm Sewer System
- 1987 Clean Water Act Amendments
- Phase I MS4s for places with populations greater than 100,000
- Certain industrial and construction sites
- In Pennsylvania – Erie and Pittsburgh have combined sewer systems
- Allentown and part of Philadelphia are included in MS4 Phase I
Berks County’s Cooperative Approach to MS4 Requirements

• 2002
  – What is MS4, confusion reigns
  – Who does it affect

• 2003 – 2008 HELP!!!!
  – How do we coordinate our approach

• 2009 – 2012 HOW DO WE MOVE FORWARD!!!!
  – What are we going to do when the new permit is approved

• 2012 and BEYOND!!!!
  – Let’s make sure that we are covering all of our bases
2012 – New Permits Due

- All MS4 Municipalities are invited to join the Berks County MS4 Steering Committee and participate with the Berks County Cooperative Education Program
- Multiple Solicitor input into Intergovernmental Agreement
- 36 Municipalities sign the IGA
Berks County MS4 Steering Committee & Cooperative Education Participants

- Alsace
- Amity
- Bechtelsville
- Berks County
- Birdsboro
- Boyertown
- Colebrookdale
- Cumru
- Earl
- Exeter
- Fleetwood
- Heidelberg
- Kenhorst
- Laureldale
- Leesport
- Lower Alsace
- L. Heidelberg
- Maidencreek
- Mohnton
- Mt. Penn
- Muhlenberg
- Ontelaunee
- Reading
- Richmond
- Robeson
- Robesonia
- Shillington
- Sinking Spring
- S. Heidelberg
- Spring
- St. Lawrence
- Washington
- Wernersville
- West Reading
- Wyomissing
- Womelsdorf
- Berks County Conservancy
- Berks County Conservation District
Berks County MS4 Steering Committee

- Adopted By-Laws January 2013
- Meets Quarterly (January, April, July, October)
- Municipal Representative from each participating Municipality – one vote per Municipality
- Engineers and Solicitors of participating municipalities may attend
- Chairman – Mark Kitzmiller, Systems Design
- Vice Chairman – Bob May, St. Lawrence Boro.
- Secretary – BCPC (Ashley & Shannon)
- Treasurer – Kate Keppen, BCCD
Who are the Berks County Cooperative Education Program Providers

• Berks County Planning Commission Staff
• Berks County Conservation District Staff
• Berks County Conservancy
Cooperative Efforts for New Permit

• Berks County MS4 Steering Committee
  – Berks County Cooperative Education Program

• Berks County Conservation District MOUs
  – --- Municipal Agreements Adopted 2012

• Wyomissing Creek Watershed Coalition
  – Seven Municipal Members

• Pennsylvania Stormwater Coalition
  – Legal & Technical
What’s New for the 2013-2018 Permit

• Beyond the six MCMs
  – Stream Impairments
  – Total Maximum Daily Loads for MS4s (TMDLs)
    • Maiden Creek/Lake Ontelaunee – Sediment
    • Schuylkill River – Polychlorinated Biphenyls (PCBs)
    • Wyomissing Creek - Sediment

• New requirements for six MCMs
  – Increased Vigilance
  – Documentation
<table>
<thead>
<tr>
<th>MCMs</th>
<th>MCM Cooperative Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Public Education and Outreach</td>
<td>1. Berks County MS4 Steering Committee &amp; BCCEP/Municipality</td>
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<tr>
<td>2. Public Participation and Involvement</td>
<td>2. Berks County MS4 Steering Committee &amp; BCCEP/Municipality</td>
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<tr>
<td>3. Illicit Discharge Detection and Elimination (IDDE)</td>
<td>3. Municipality (guidance provided by BCCEP)</td>
</tr>
<tr>
<td>4. Construction Site Runoff Control</td>
<td>4. Berks County Conservation District Adopted Agreements</td>
</tr>
<tr>
<td>5. Post-Construction Stormwater Management (New and Redevelopment)</td>
<td>5. Municipality/BCCD/Guidance provided by BCCEP</td>
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<tr>
<td>6. Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance</td>
<td>6. Berks County MS4 Steering Committee &amp; BCCEP/Municipality</td>
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The “Target Audience” of the Cooperative Education Program

Residents
Businesses
Developers
Schools
Municipal Employees
MS4 Cooperative Education Program
General Education Plan

• **MCM #1 – Public Education**
  – BMP #1: Develop, implement and maintain a written Public Education and Outreach Program (PEOP)
  – BMP #2: Develop and maintain lists of target audiences in area
  – BMP #3: Annual Publication – general stormwater information, description of program and information about activities along with annual updates
  – BMP #4: Distribute stormwater educational materials to target audiences
BC MS4 CEP Partners

• Schedule Public Meetings with all BC MS4 Steering Committee Municipalities
• Involve Multiple Target Audiences
• Invite feedback for future presentations
  – Topics
  – Questions from public, municipalities, schools...
Storm Water In Berks County
HOW ARE AREAS DETERMINED TO BE IN AN MS4?

Answer: The United States Census categorizes areas as “urban areas” based on population.
MOWING

• How close are you mowing to a stream?
• Are you mowing areas, regularly that could be let to grow back to meadow?
• Do your drains get clogged with grass/debris?
• **MCM #2 – Public Involvement and Participation**

  – **BMP #1**: Develop, implement and maintain a written Public Involvement and Participation Program (PIPP)

  – **BMP #2**: Prior to any adoption of ordinances with regard to the Permit provide notice and opportunities for review, input and feedback

  – **BMP #3**: Solicit public involvement and participation from the target audience groups
Playground Programs

Good Morning Reader

Kids take the lead in ideas for clean public water

BY MARY E. YOUNG
READING EAGLE

The children in the Cumru Township Summer Recreation Program couldn’t have chosen a better slogan for their entry in a contest to create a design appropriate for the area around a stormwater drain.

This totally tubular design was inspired by a Ninja Turtle, which they thought looked like something that could be a pipe, hollowed out with a piece of chalk on a cone. The design, submitted by the Berks County Drainage Commission, was second in the contest, with the first-place winner from a Cumru Township program.

Shannon L. Rossman, county intergovernmental planner, said the county’s program, known as StormWaterSmart, helps communities turn stormwater into public resources. It requires municipalities to have permits, so they get together with the conservation and the Berks County Conservation District to plan joint efforts to meet the requirements, she said.

“The target audience is everybody – businesses, residents, schools, municipalities and officials,” Rossman said. “We need to make sure everybody understands what the stormwater needs to stay clean.”

Rossman announced the winners of the playground contest at a county commissioner’s meeting Thursday. Because playground season is near

Shannon L. Rossman, county intergovernmental planner, with the top entries in a playground contest to create a design appropriate for the area around a stormwater drain. At left is first-place winner from a Cumru Township program. The other is from Pandora Park.

Other activities planned include a rain barrel decorating contest, information on rain gardens for residents and educational programs with municipalities.

Having the children involved is good, Commissioner Kevin S. Barnhardt said. “If we teach the kids, everybody learns from them,” he said.
• MCM #3 – Illicit Discharge Detection and Elimination (IDD&E)

—BMP #6: Provide educational outreach to public employees, business owners and their employees, property owners, the general public and elected officials about IDD&E
• MCM #4 – Construction Site Stormwater Runoff Control (BCCD)
  – BMP #3: Education of construction site operators regarding pollutants
  – BMP #4: Consideration of public inquiries regarding local construction activities
• MCM #5 – Post Construction Stormwater Management (PCSM) in New and Re-Development Activities
  — BMP #5: Encourage the use of Low Impact Development (LID) in new, re-development and retrofits
  — BMP #6: Education regarding maintenance of BMPs
Agenda

**Developing a TMDL Plan: BMP Identification and Pollutant Load Reduction**

Friday, October 24, 2014  8:30am – 12:00pm

8:30 – 8:45  Registration

8:45 – 9:10  Training Introduction/Overview

9:10 – 9:15  Break into groups

9:15 – 10:30  Conduct field work to identify BMPs at park

10:30 – 11:00  Drive to classroom at Warren Recreation Center/ Break
    - Location: Intersection of Welsh and Church Roads (see map)

11:00 – 12:00  Classroom exercises using field data
• **MCM #6 – Pollution Prevention/Good Housekeeping for Municipal Operations**
  
  – **BMP #1**: Identify and document all facilities and activities that are owned or operated by the permittee and have a pollution potential to stormwater
  
  – **BMP #2**: Develop, implement and maintain a written O & M program for all municipal operations and facilities Identified in #1.
  
  – **BMP #3**: Develop and Implement Employee Training Program
MS-4 Stormwater Management Program Protocol

Pollution Prevention and Good Housekeeping for Municipal Operations and Maintenance
IDD&E

- Where are your Outfalls?
- Are you inspecting annually?
- What happens if there is flowing water/inspection issue?
- Documentation for annual report?
- Updating maps with stormwater facilities?
IDD&E Program

(Illicit Discharge, Detection & Elimination)

Presented by the Center for Watershed Protection in cooperation with the Berks County MS4 Cooperative Education Program

**When:** September 24, 2013

**Program Time:** 8:15 a.m. to noon

**Registration:** 7:45 a.m. to 8:15 a.m. (morning refreshments provided)

**Location:** Berks County Agricultural Center

1238 County Welfare Road, Leesport, PA 19633

**Cost:** This program is FREE for those municipalities that are participants with the Berks County MS4 Steering Committee & Cooperative Education Program

**Program Overview:**

This program will cover the basics of IDD&E, what types of IDD&E are found in rural and urban areas, what and how to identify IDD&E. Outside classroom examples will be provided to allow for interactive learning and real-world scenarios. Also included, tools that will help identify areas with the highest likelihood of IDD&E issues.

**Who should attend:**

Road crews doing inspections of outfalls, Municipal Engineers, Municipal Managers/Secretaries, Municipal Employees that do outdoor maintenance (including park & recreation staff)

All Attendees will receive a certificate of attendance via e-mail or the municipality that they are employed by. This program may be appropriate for Continuing Education Credits for Engineers.

Please forward the below registration form via email to ashowers@countyofberks.com or via mail to Berks County Planning Commission, 14th Floor Services Center, 633 Court Street Reading, PA 19601 by September 17, 2013.
Training for Municipalities & Engineers
<table>
<thead>
<tr>
<th>Storm Water Facility Type (check if applicable)</th>
<th>Description of Corrective Maintenance Activities</th>
<th>Description of Preventative Maintenance Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Channels</td>
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<tr>
<td>Culverts</td>
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<td>Detention Facilities</td>
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<tr>
<td>Other</td>
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| Storm Water Facility Operation and Maintenance Program Development: Proposed Program Modifications for Permit Year 2 |

- Culvert
- Detention Facilities
- Drainage Structures
- Infiltration Facilities
- Other
## Operations & Maintenance Tracking Forms

### Vehicle Maintenance, Fueling and Washing Program Development:
#### Existing Program Information (for Permit Year 1)

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Description of Existing Programs and Procedures (include information on location, materials, disposal practices)</th>
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<tbody>
<tr>
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<tr>
<td>Vehicle Fueling</td>
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<tr>
<td>Vehicle Washing</td>
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#### Proposed Program Changes (for Permit Year 2)

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WHAT ARE THE BENEFITS?

• Less Duplication
• Same Message
• Reach more Target Audiences
• Phone a “Friend Option”
• Single point of contact for DEP
• 39 Heads are better than 1
• Tracking & Documentation for Reporting