



**Camp Hill  
Borough**

**Stormwater  
Management**

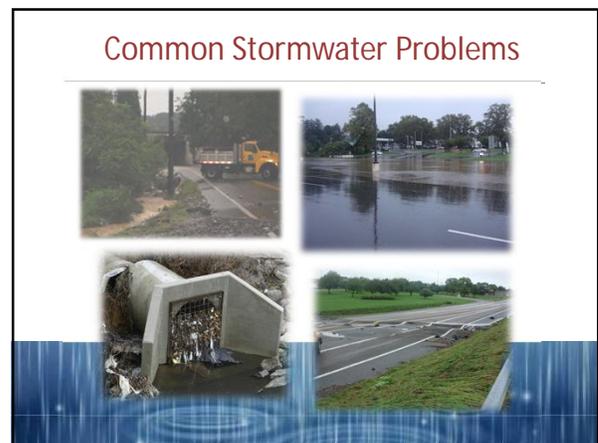
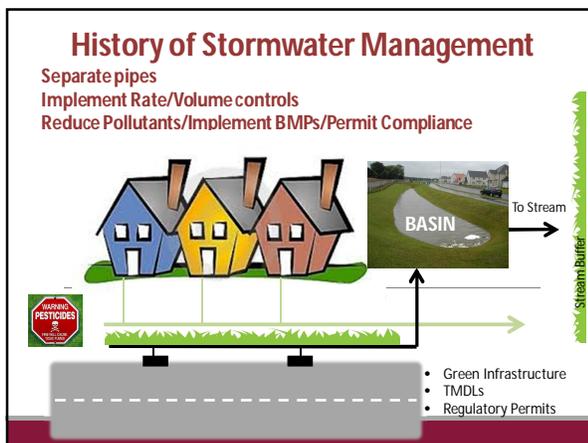
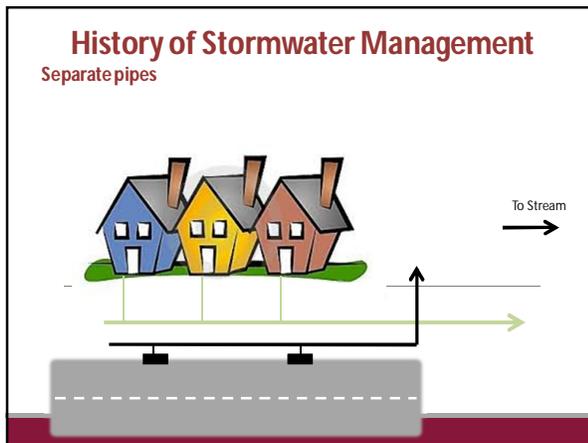
Stormwater Utility Implementation

Stormwater  
Stakeholder Advisory  
Committee Meeting #2  
October 2018



### Agenda

1. Recap, News & Updates
2. Revisit Roles of the Borough and Advisory Committee
3. Permit History and New Requirements
4. Levels of Service & Current Stormwater Program
5. Closing Questions and Discussion



## Best Management Practices (BMPs)



## New Challenges and Mandates

Aim To Improve Water Quality



## Borough Stormwater System

17 miles of pipe/culvert, 750 inlets/manholes  
 End of useful life in next few years  
 Significant costs for needed improvements  
 Tightening regulations from new MS4 Permit



## 2017 STORMWATER UTILITY LOCATIONS

Stormwater Utilities by State 2017



Ref: WKU Stormwater Utility Survey 2017

**More than 1600 Stormwater Utilities documented in 40 states**

### Outline of Key Responsibilities for Stormwater Management Program

Borough	Authority	Advisory Committee
<ul style="list-style-type: none"> <li>- Appoint Authority &amp; Committee Members</li> <li>- MS4 Permittee</li> <li>- Enter agreement to transfer assets to Auth.</li> <li>- Enter Management Agreement with Authority outlining services like:                             <ul style="list-style-type: none"> <li>- billing</li> <li>- public works services</li> <li>- regulatory compliance</li> <li>- private infrastructure inspection / enforcement</li> <li>- condition assessment: GIS</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Own, operate, maintain and improve stormwater facilities through:                             <ul style="list-style-type: none"> <li>- Enact Stormwater Management Fee</li> <li>- Lease and Management agreements with Borough</li> <li>- Priority planning and capital improvements</li> <li>- Oversee engineering and management of projects</li> <li>- Obtain funding as needed</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Partner as residents, businesses, industries, &amp; institutions for effective stormwater management</li> <li>- Provide technical and value-based input</li> <li>- Collaborate on topics that affect the community</li> <li>- Be a sounding board to Authority on program</li> <li>- Serve as liaisons in areas of influence</li> <li>- Engage and educate public on program</li> </ul>

Items in Green = Role still to be determined

## PAG-13 History: *Regulatory Timeline*

<b>1972</b>	<b>1990</b>	<b>1999</b>	<b>2003</b>	<b>2013</b>	<b>2018</b>
Clean Water Act	NPDES Permits required for Phase I MS4 Municipalities	NPDES Permits required for Phase II MS4 Municipalities	First PAG-13 Permit Issued	Second PAG-13 Permit Issued	Third PAG-13 Permit Issued

## PAG-13 History: *Current Permit*

- **2018** – DEP issues latest PAG-13 Permit
  - 5 year permit term (March 16, 2018 - March 15, 2023)
  - Changes from previous permit include:
    - Outfall inspection schedule changed to once per permit term for areas without reported problems;
    - Chesapeake Bay Pollutant Reduction Plans required to be implemented for MS4s discharging to watersheds that drain to the Chesapeake Bay.




## New Permit Term in March 2018

### Chesapeake Bay Pollutant Reduction Plan

- 10% Sediment load reduction
- 5% total nitrogen, 3% total phosphorus reductions
- Identifies specific projects to achieve reduction goal
- Was submitted w/ NOI in September 2017
- Approved in June 2018
- 5 Years to complete upon approval



### Additional Pollution Reduction Plans (PRPs)

- Address runoff to impaired receiving waters
- Yellow Breeches Creek – Pathogens
- Cedar Run - Pathogens
- Susquehanna River – PCBs
- Planning and investigatory activities rather than BMPs




## Improving Local Stormwater Quality

### Stream Restoration Projects

- Reduce streambank erosion
- Floodplain reconnection
- Improve habitat

### Riparian Buffer Projects

- Reduce rate of runoff
- Provide plant uptake of pollutants
- Capture sediment before entering streams
- Reduce thermal impacts
- Improve habitat

### Infiltration BMPs

- Reduce volume of runoff
- Groundwater recharge
- Natural filtration of pollutants
- Reduce thermal impacts
- Reduce flood impacts




## 2018 Permit Implementation

- Permittees are **automatically expected to comply** with latest permit terms.
- Failure to comply may trigger DEP to require application filing under an Individual Permit (higher annual fee, higher penalties for non-compliance).




## 2018 Permit Regulatory Changes

### Summary

1. Pollution Control Measures (PCMs)
2. New Individual Permit triggers
3. NOI renewal applications are no longer necessary, but annual reports are required for all permittees
4. Updated list of authorized non-stormwater discharges
5. Increased public involvement
6. Clearer requirements requiring public access



## 2018 Permit Regulatory Changes

### Pollution Control Measures

- PCMs required for any MS4 that has at least one stormwater outfall that discharges to impaired waters, regardless of the existence of an established TMDL.
- Impairments to be managed:
  - Metals
  - pH
  - Pathogens
  - Nutrients
  - Sediment
  - Priority organic compounds




## 2018 Permit Regulatory Changes

### Pollution Control Measures

➤ Permit appendices list strategies to identify and control various pollutants

- **Appendix A** - metals (e.g., iron, manganese and aluminum) and/or pH associated with acid mine drainage
- **Appendix B** - pathogens (e.g., fecal coliform)
- **Appendix C** - priority organic compounds (e.g., polychlorinated biphenyls [PCBs], pesticides)
- **Appendix D** - sediment, nitrogen, phosphorus




## 2018 Permit Regulatory Changes

### Authorized Discharge List

- Authorized non-stormwater discharges updated for 2018 permit
- New authorized discharges:
  - Non-contaminated water from geothermal systems
  - Residential car washing wastewater (as long as cleaning agents are not used)
- Removed from authorized discharge list:
  - Dechlorinated swimming pool water




## 2018 Permit Regulatory Changes

### Increased Public Involvement

MS4s municipalities must make available to the public all plans, programs, maps, and reports.

If a plan is to be updated and submitted to DEP, a public comment period needs to be provided, advertised, and documented in the annual report.




## Funding Implications:

### Budget Preparation



- Permit application submittal
  - Plans need to be fully implemented and documented
- Budget for additional municipal staff time for required inspections and document review
- Lack of funding to cover unfunded mandate is not an acceptable reason to not comply

E. The permittee shall develop and maintain adequate legal authorities and shall maintain adequate funding and staffing to implement this General Permit, including the SWMP contained in Part C 1 of this General Permit.



## Program Level of Service

Level of Service	O&M	Planning & Compliance	Capital Improvements
Exceptional			
Comprehensive			
Expanded			
Average			
Minimal			



## Program Level of Service

Level of Service	O&M	Planning & Compliance	Capital Improvements
Exceptional	Fully Preventative/ 100% Routine		
Comprehensive	Mix of routine & inspection based		
Expanded	Inspection based		
Average	Responsive only		
Minimal	Non-Responsive		

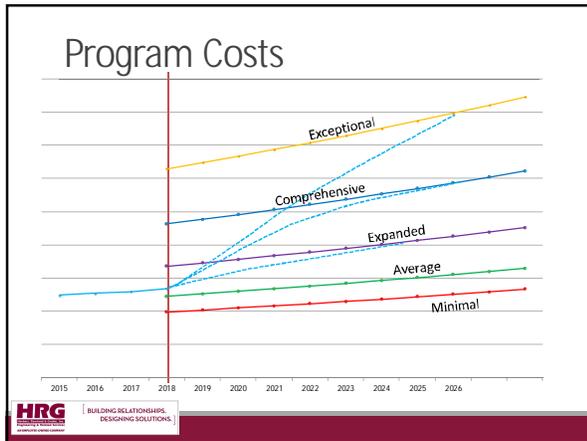


### Program Level of Service

Level of Service	O&M	Planning & Compliance	Capital Improvements
Exceptional	Fully Preventative/ 100% Routine	Comp planning, NPDES compliance	
Comprehensive	Mix of routine & inspection based	Priority Planning	
Expanded	Inspection based	Reactionary Planning	
Average	Responsive only	Emergency	
Minimal	Non-Responsive	No Planning	

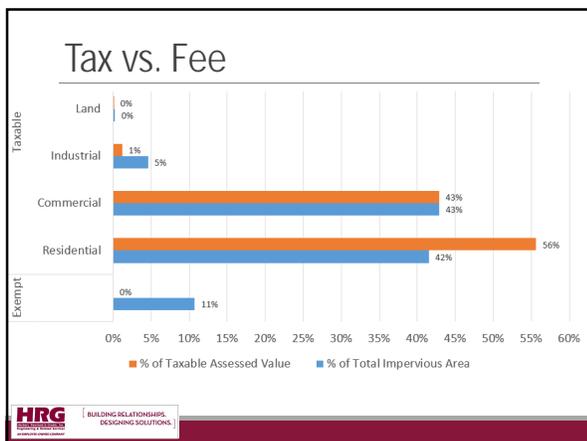
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Level of Service	O&M	Planning & Compliance	Capital Improvements
Exceptional	Fully Preventative/ 100% Routine	Comp planning, NPDES compliance	Prioritized/Fully Funded
Comprehensive	Mix of routine & inspection based	Priority Planning	Phased/allocated budgets
Expanded	Inspection based	Reactionary Planning	Inspection-based/moderate budget
Average	Responsive only	Emergency	Critical needs only/minimal budget
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### Current Level of Service

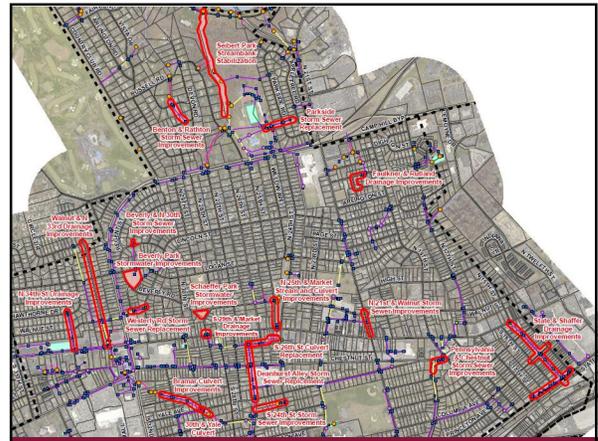
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- ### Some current services
- Street sweeping
  - Drain grate cleaning
  - Inlet box cleaning
  - Pipe flushing
  - Planned capital improvements
  - Televising/cleaning
  - GIS development
  - Complaints investigation
  - Contracted and In-house Repairs
  - Outfall/BMP monitoring
  - Enforcement
  - MS4 reporting
  - Illicit discharge program (IDDE)
  - Leaf collection
  - Composting

### Example Capital Improvement Needs

- Beverly & North 30<sup>th</sup> Street Storm Sewer
- Bramar Culvert
- South 26<sup>th</sup> Street Culvert
- Siebert Park Stream Stabilization



### Example Concerns



Beverly & 30th Project



### Example Concerns



Bramar Culvert



### Example Concerns



Pennsylvania Avenue Storm Sewer



### Example Concerns



Siebert Park Stream Stabilization



### Current Level of Service

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### Target Level of Service

Level of Service	O&M	Planning & Compliance	Capital Improvements
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