Finding Common Ground

Challenges and successes in maintaining watershed partnerships through long-term planning

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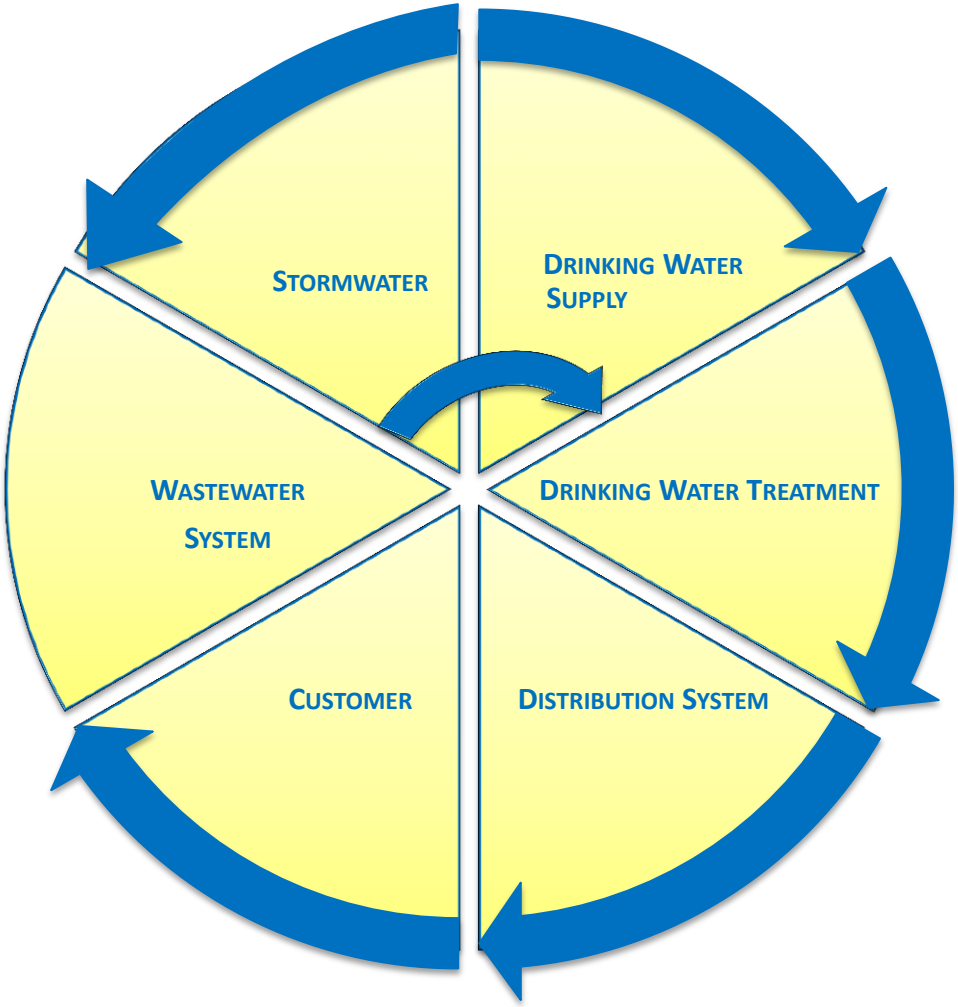
Today's Overview

1. Introduction
2. Partnership Scenario
3. Analysis and Discussion of Challenges
4. Success Stories

1. Watershed Planning

- An Integrated Approach to Watershed Management
- Regulatory Drivers for Clean Water

An Integrated Approach to Watershed Management



Clean Water Act (Amended 1972)

Goals:

Fishable, Swimmable, Drinkable Waterways

Established:

- Established the basic structure for regulating pollutant discharges into the waters of the United States.
- Made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions.
- Recognized the need for planning to address the critical problems posed by nonpoint source pollution

Safe Drinking Water Act (1974)

Goals:

Protect public health by regulating the nation's public drinking water supply.

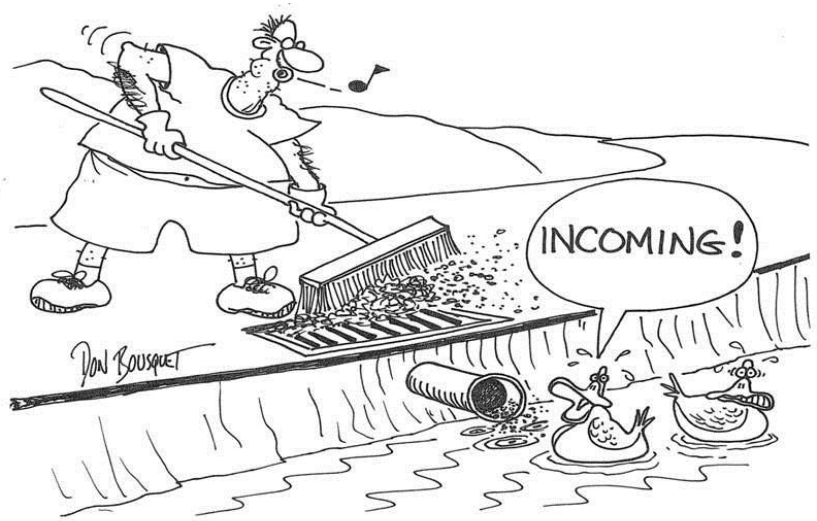
Established:

- Established national standards to ensure consistent quality for public drinking water.
- Public notification and education of water quality and chemistry

National Pollution Discharge Elimination System –NPDES (1972)

Goals:

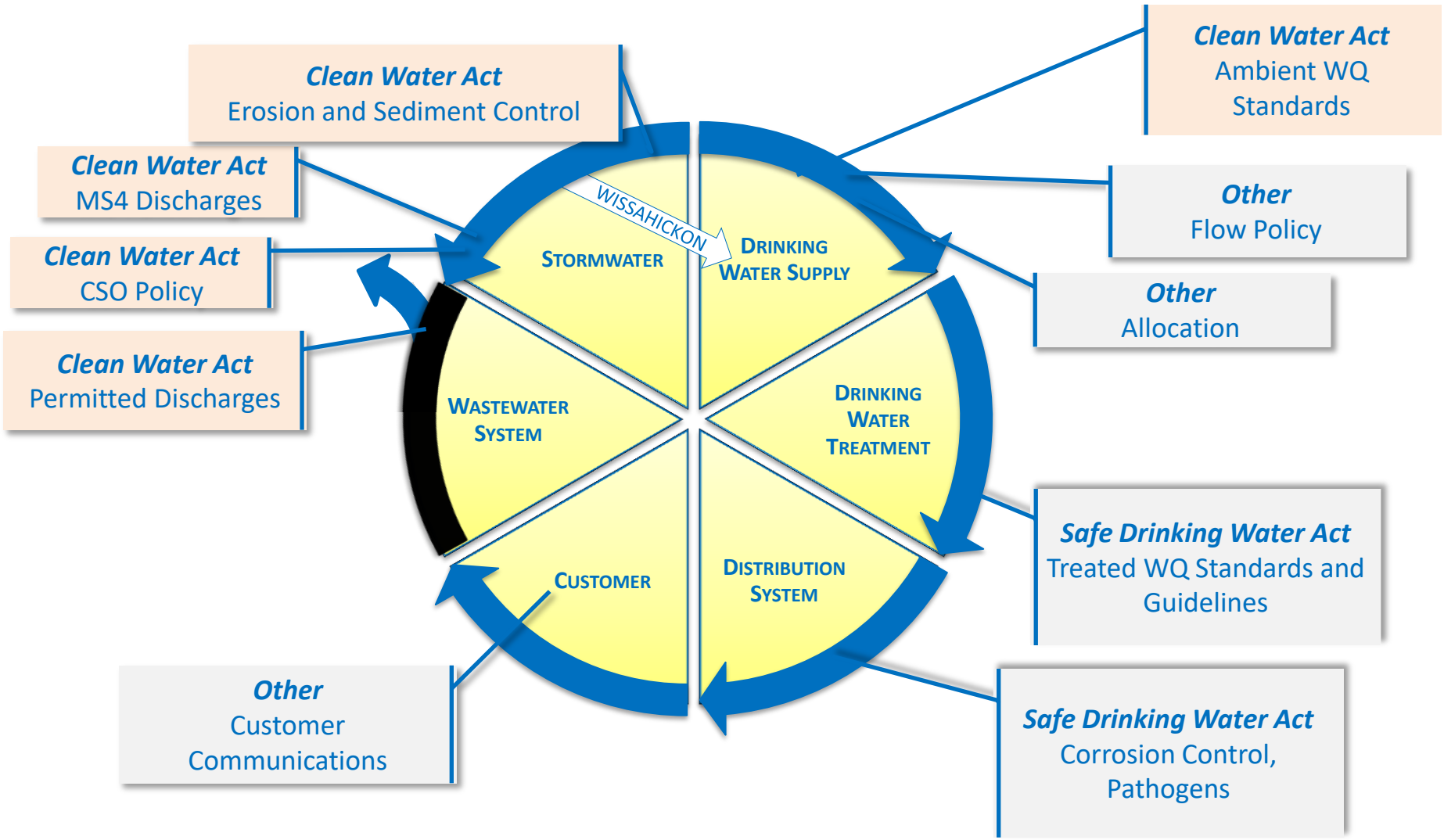
1972 Amendments to the CWA included a permitting program to protect public health and aquatic life and assure that every facility treats wastewater.



Established:

- Permits setting pollution limits for dischargers
- Specifies monitoring and reporting requirements for each discharger
- Enforcement action for non-compliant dischargers

“One-Water” Approach & Source Water Protection



Who Are Watershed Stakeholders?

2. Creating a Partnership

- Lenapehoking River Watershed Scenario

Scenario Setting

You are all stakeholders living or working in the Lenapehoking River Watershed.

Please divide into groups and select a stakeholder profile sheet. The profiles include details on county, city, borough, business and nonprofit partners.

Please read your profile carefully and prepare answers to the questions provided. Select a speaker for your group to participate in the guided discussion.

2. Discussion and Analysis

- Partnership Challenges
- Tools for Success
- Implementation Planning & Metrics

Partner Profiles

- Keystone County Planning Commission
- Pocono Forge Borough
- City of Pennsport
- Lenapehoking River Heritage Area
- Youse Brewery
- Lenapehoking Kayaker’s Union

What challenges do you foresee this and other watershed partnerships may face?

Challenges facing watershed partnerships

Watersheds do not align with political boundaries
PA's home rule charter
Water Quality improvements are expensive
CWA is now mostly regulated through unfunded mandates
Long-term and slow progress: hard to see results
Not often at the top of political or citizen priorities
Diffuse and difficult to understand without expertise and experience managing water resources

What are the advantages for bringing together a watershed partnership together?

Mandates vs. Vision

National CSO policy

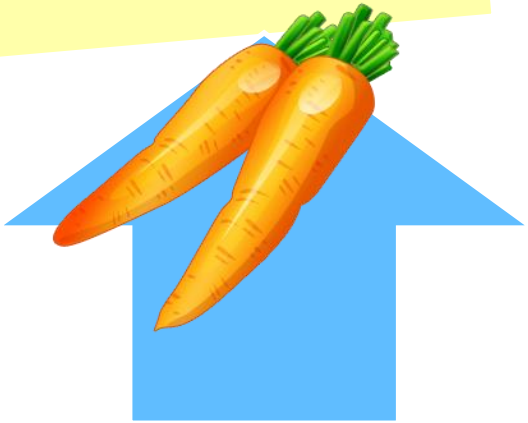
MS4 Stormwater Regulations

Act 167

Sense of Place

Shared Problems

Recreational Opportunities



What outcomes or results do you think are necessary to keep the partnership engaged over time?

Water Quality improvement takes a long time, so celebrate the small successes:

- Demonstration projects
- Outreach events
- A shared watershed identity
- Passing and enforcement of local ordinances

Potential Outcomes of consensus building

First order Effects	Second Order Effects	Third Order Effects
• Social capital • Shared data • Mutual understanding • Innovative strategies • High-quality agreements	• New partnerships • Coordinate • Joint action • Changes in practice • Community perception	• New collaborations • Coevolution • New institutions • New norms and dialogue • Results on the ground

Innes and Booher 1999

What are the key ingredients for a successful partnership?

DIAD Partnership Model

Innes and Booher 2010

What tools may be valuable for keeping a long-term watershed partnership engaged?

Tools for finding common ground

Wondollock and Yaffee (2000) suggest several tools to promote collaboration:

- Non-governmental organizations
- A paid coordinator
- Joint Fact Finding
- Memorandums of Understanding

How do you measure success of a watershed partnership?

Framework for evaluating collaborative approaches

Evaluation Approach		Example Metrics
Inputs	Improved Information	Citizen awareness MS4 permit requirements
Process	Quality of the process	Self-assessments Partner-derived objectives
Outputs	Results of the plan	Adoption rate Response in press/ social media
Performance	Plans and policies	Miles of stream restored Directly connected impervious area
Outcome	Environmental Indicators	LBS of Sediment reduced Average daily D.O.

Based on Margerum 2011

Framework for evaluating collaborative approaches

Passive Approach	• Increased understanding • Decisions made on increased understanding
Informal Approach	• Social network strength • On-going interaction and momentum
Cooperative Approach	• Predictability of other partners • Leading to action
Adaptive Network Approach	• Self-sufficient • Facilitated implementation

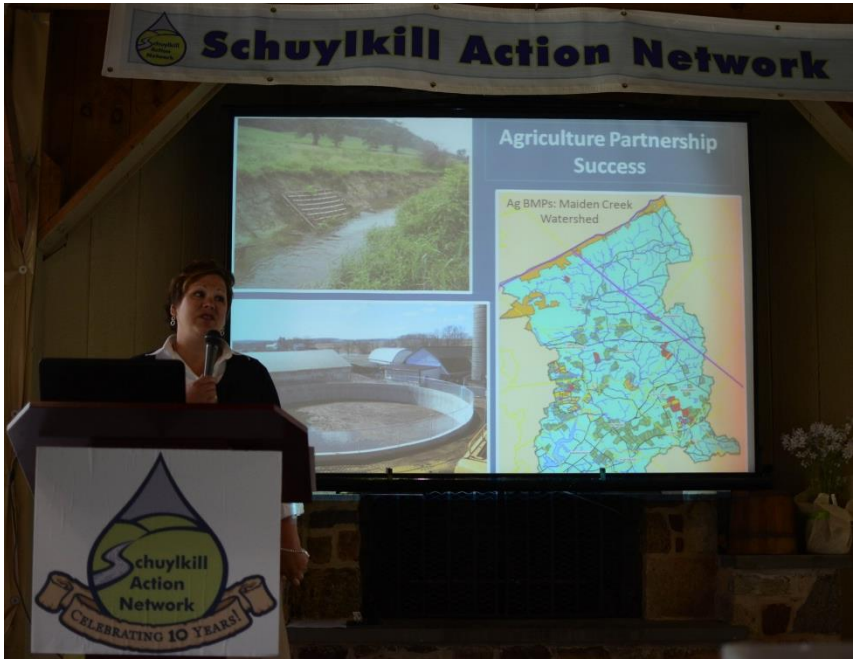
Margerum 2011

4. Successful Case Studies

- Examples of collaboration in the greater Philadelphia watersheds.

Schuylkill Action Network

- Founded in 2003 to support an EPA Source Water Protection grant
- Highly engaged partners, ranging from regulators, municipalities, non-profits, County Conservation Districts
- All workgroups support the strategic plan through the development of their own annual work plan
- Success is tracked and reported to partners on an annual basis



Schuylkill Action Network Fact Sheet – August 2006

Steering Committee

The role of the Steering Committee is to ensure that partners are knowledgeable and supportive of SAN activities and to provide feedback and direction to the workgroups. Members include US. Environmental Protection Agency (EPA), PA Department of Environmental Protection (PADEP), City of Phila Water Department (PWD), Delaware River Basin Commission (DRBC) and the Partnership for the Delaware Estuary (PDE).

Watershed Land Collaborative

This newly formed workgroup is working to develop products and tools for municipalities and nonprofit groups to help identify land preservation areas based on habitat and drinking water protection. Members include EPA, PADEP, PWD, PDE, several nonprofits and local county planning organizations.

Planning Workgroup

Source Water Protection Strategy development and implementation, workshops, web services, communication, and events. Members include EPA, PADEP, PWD, DRBC & PDE.
reporting, technical team

Education/Outreach

Team is working to increase awareness regarding source water, is assisting the technical teams on outreach/education, and is responsible for the SAN source water protection awards program. Members include EPA, PADEP, PWD, League of Woman Voters, & Partnership for the Delaware Estuary.

Agricultural Workgroup

The role of this workgroup includes implementing protection projects for agricultural practices, the management of runoff, and establishment of practices to reduce pathogens, sediment, and nutrient loadings. Members of this workgroup include EPA, PADEP, PWD, local water suppliers, Berks County Conservation District, Natural Resources Conservation Service, Farm Bureau, Pomona Grange, Penn State Extension Service, and the Hay Creek Watershed Assoc.iation.

Abandoned Mine Drainage (AMD) Workgroup

The AMD workgroup is working to characterize and minimize flow from the abandoned Pine Knot drainage tunnel. The discharge is the largest contributor of metals from AMD. Once the sources of inflow are identified, prioritization of the sources will occur followed by implementation of remedial actions. Members of the AMD workgroup include EPA, PADEP, PWD, Schuylkill Headwaters Association, Schuylkill County Conservation District, Army Corp. of Engineers, US Geological Survey, Exelon, & Reading Anthracite.

Storm Water Workgroup

Contaminated storm water runoff is the leading cause of impairment within the watershed. The workgroup is seeking to reduce stream impairment through better storm water management and to protect high quality streams from potential threats. Activities include education, outreach, and the implementation of best management practices (BMPs) demonstration projects. In addition to EPA, PADEP, and PWD, the team includes a subcommittee of land management, preservation, and conservation organizations given the critical role land use plays in storm water management.

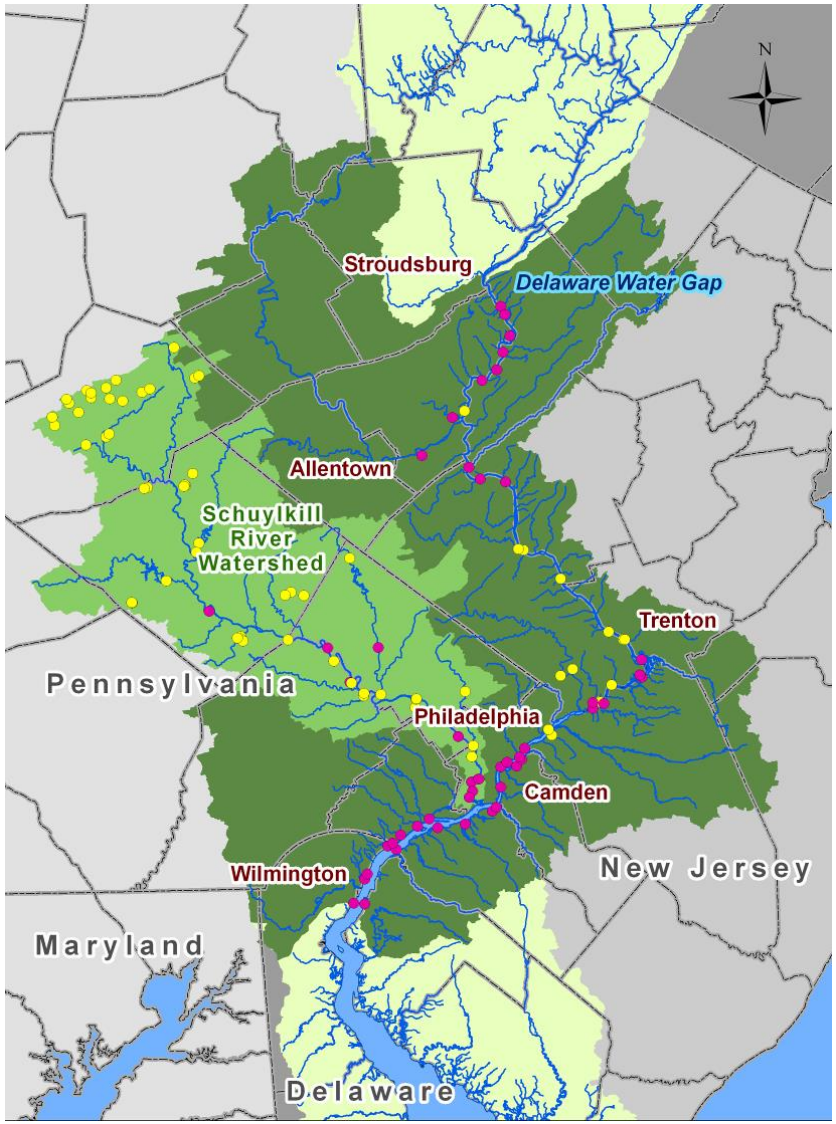
Pathogen/Compliance Workgroup

Workgroup focus is on discharges in violation of National Pollutant Discharge Elimination System (NPDES) permit requirements, releases from combined and separate sewer systems as well as from unsewered communities. Discharges upstream of drinking water intakes are a priority. Technical assistance to publicly owned treatment plants, targeted inspections, and compliance assistance regarding the management of on-site waste treatment facilities are activities of this team. Members include EPA, PADEP, PWD with input from county health depts.

Data Team

Data drives the technical teams. This group assists with indicators, monitoring, establishment of base lines, scientific support, data quality, and information management. Members include EPA, PADEP, and PWD.

Delaware Valley Early Warning System



115 intake sites

28 water suppliers

29 industrial user

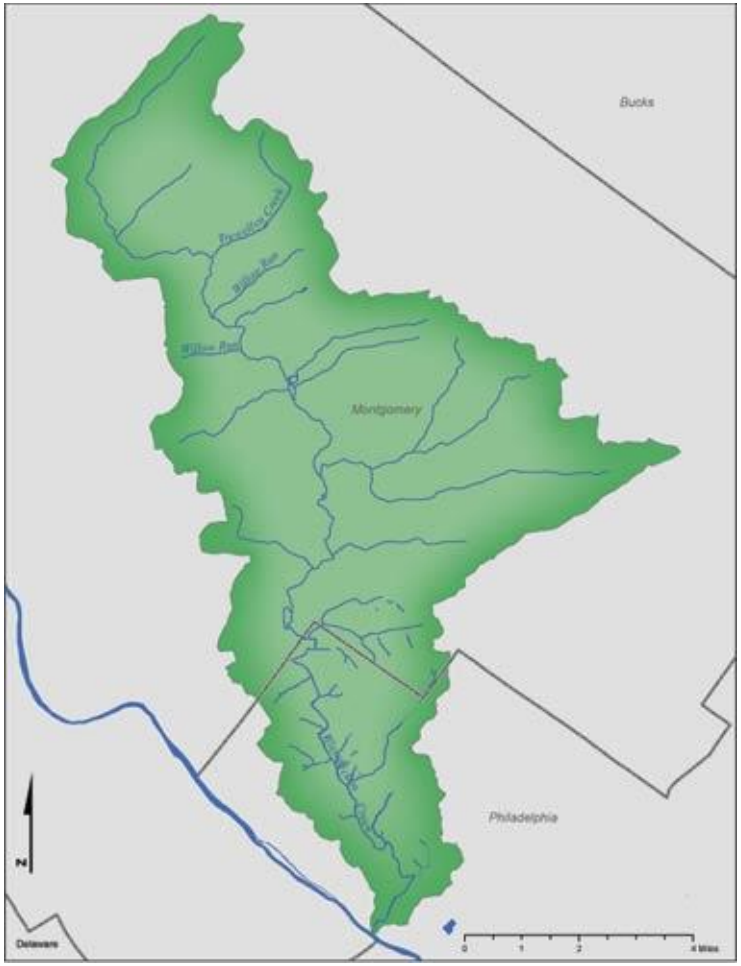
- Exelon, Sunoco, Valero, PP&L

United States Coast Guard
U.S. Department of Homeland Security

Delaware River Basin Commission
DELAWARE · NEW JERSEY
PENNSYLVANIA · NEW YORK
UNITED STATES OF AMERICA

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Wissahickon TMDL Alternative Plan



- History of TDML legal disputes
- EPA and DEP agreed to allow multi-municipal planning to reach same endpoints as TMDL
- 13 of the 16 municipalities in the watershed have adopted the intergovernmental agreement (IGA).

3. The long game

Thinking through how to maintain engagement over time

Scenario – Part 2

Congratulations on 10 successful years of partnership in the Lenapehoking Watershed! Here's the current state:

- Despite your collaboration a number of stakeholders are disengaged and beginning to ask themselves, what's next?
- A new Governor is in Harrisburg and the state house majority party has changed hands. This is causing uncertainty on how environmental programs will be enforced.
- Water Quality in the Lenapehoking has remained the roughly the same.
- A trash TMDL may be developed for this watershed.

How do you think the partnership will have changed and what is necessary to continue to succeed?

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