



Shared Streams, Shared Goals: Collaboration for MS4 Success

CENTER FOR
**WATERSHED
PROTECTION**

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Center for Watershed Protection



**Southwestern Pennsylvania Commission
Water Resource Center Webinar Series
February 29, 2024**



About Center for Watershed Protection (CWP)

National non-profit founded in 1992

Mission to advance clean water resources and healthy ecosystems through responsible land and water management

Programs include research, training, membership and watershed and stormwater services

22 staff, headquartered in MD with offices in VA, PA, NY, SC, and MI

www.cwp.org



AGENDA

- 1) Comparison of PA and Other States
- 2) Background on PA MS4 Requirements
- 3) Types of Regional Collaborations in PA
- 4) Examples
- 5) Framework
- 6) Challenges and Benefits
- 7) Tools

Background

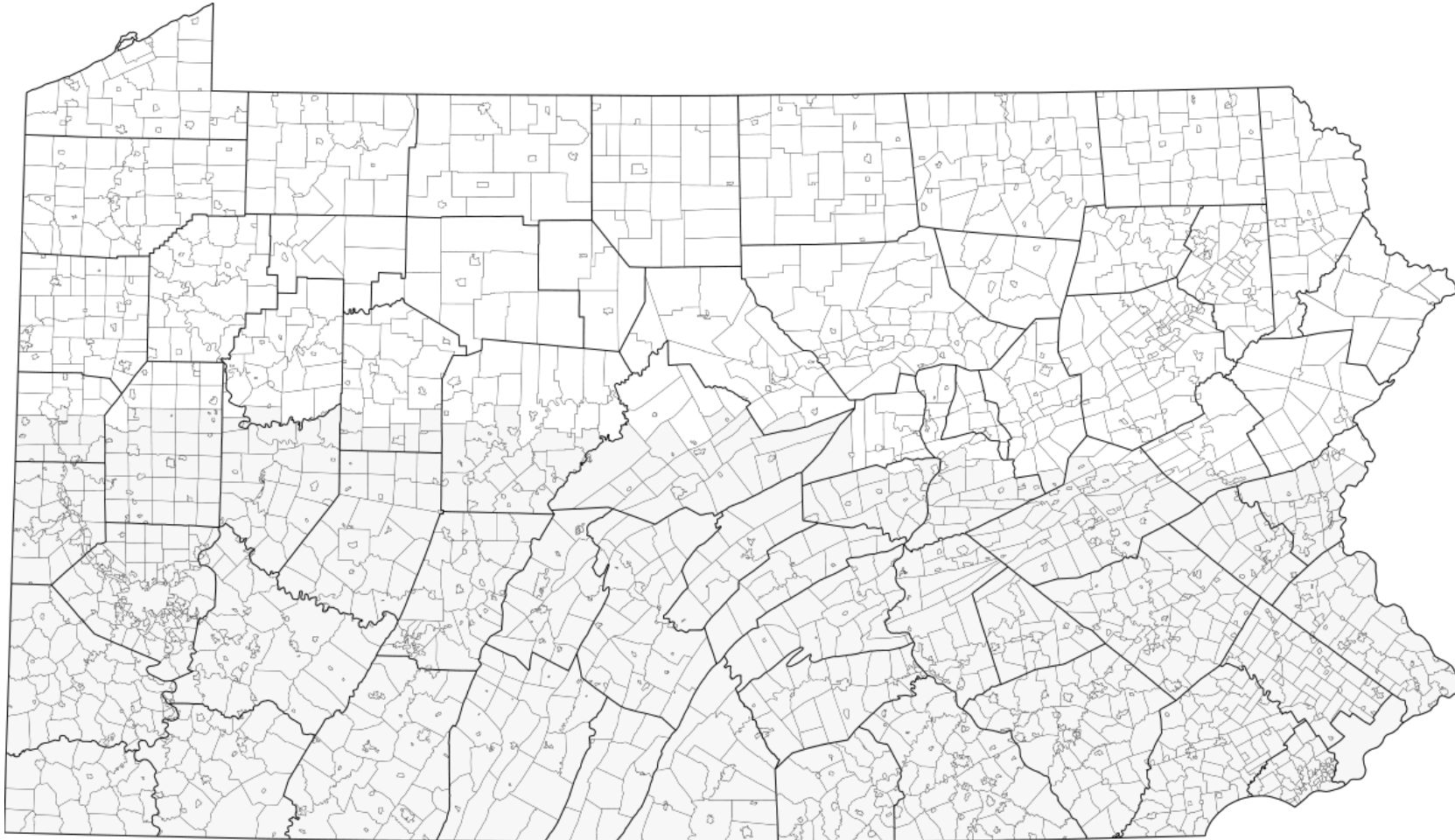


➤ **6,695 Phase II MS4s Nationally**

Regulated MS4 area represents 4% of the U.S. land area and > 80% of the population

Source: EPA 2009

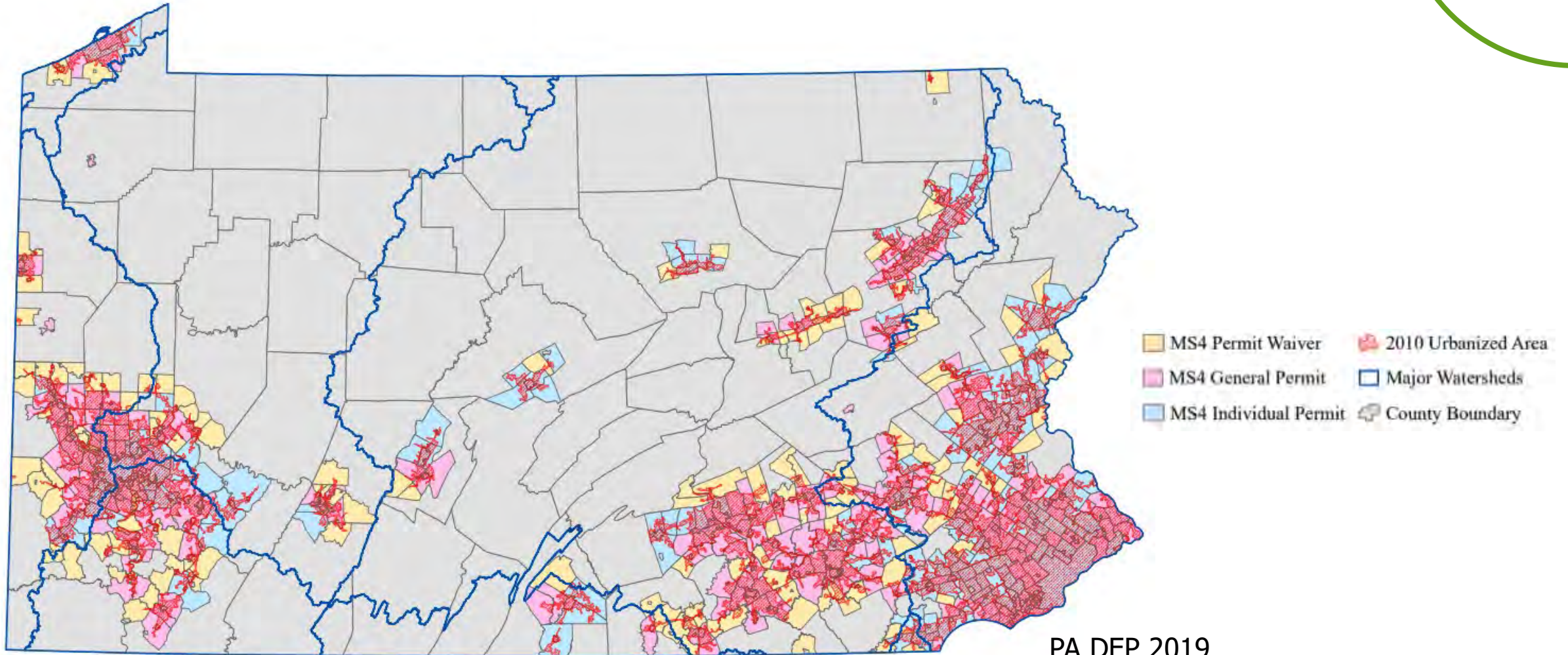
Pennsylvania Local Government



67 Counties
2,560 Municipalities

- Boroughs
- Cities
- Townships
- +1 Town

Pennsylvania Regulated MS4s



PA DEP 2019

State Level Comparison

State	Phase I Permittees	Phase II Permittees
New Jersey	0	557
Delaware	2	8
Maryland	11	74
Pennsylvania	1	1,059



Pennsylvania NPDES MS4 Program Components

Minimum Control Measures

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping

Pollutant Reduction Plans (PRPs)

- Stormwater discharges to streams impaired for sediment and/or nutrients

Total Maximum Daily Load (TMDL) Plans

- Stormwater discharges to streams with TMDLs for sediment and/or nutrients

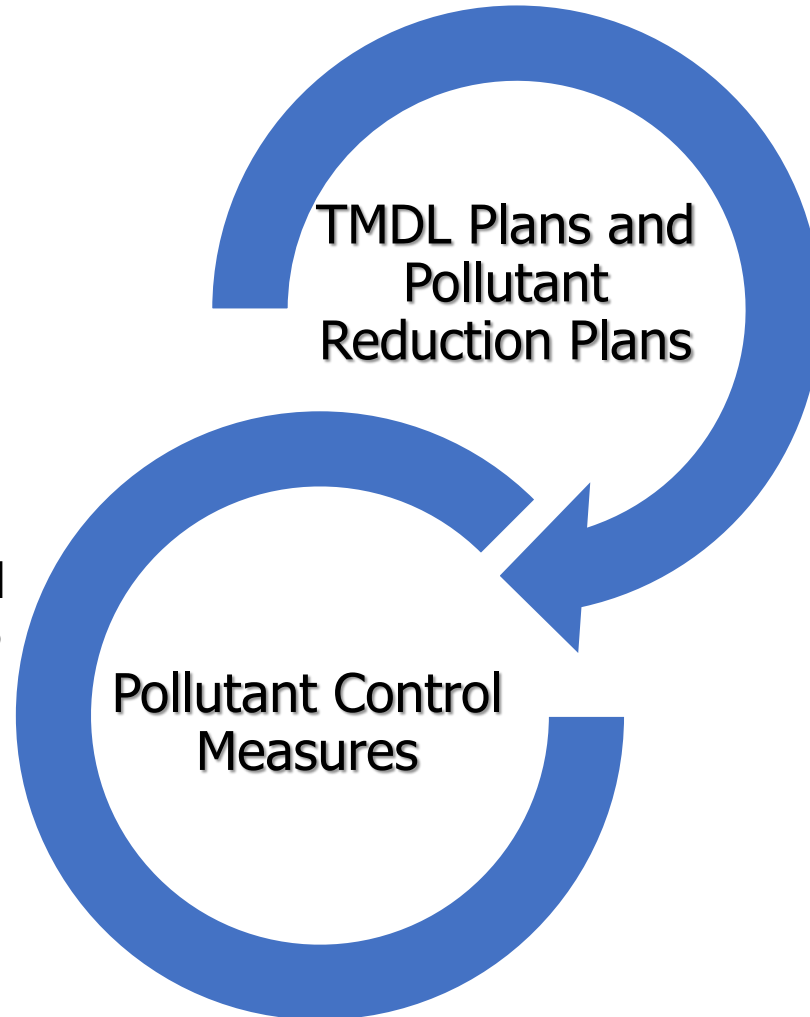
Pollutant Control Measures (PCMs)

- Stormwater discharges to streams impaired for acid mine drainage, priority organic compounds, and/or pathogens

Annual MS4 Status Report

Addressing Stream Impairment Requirements

- Metals and pH from Abandoned Mine Drainage, Pathogens, PCB Impairments
- Research & Enforcement



- Sediment and/or Nutrient Impairments
- Design & Implementation (shovels in the ground)

Pennsylvania NPDES MS4 Permit History

Permit Round 1 – 2003 - 2013

- Implement Best Management Practices (BMPs) under the 6 Minimum Control Measures (MCMs)

Permit Round 2 – 2013 - 2018

- Continuation of MCMs
- Added Total Maximum Daily Load (TMDL) Requirements (and Chesapeake Bay)

Permit Round 3 – 2018 - 2023

- Continuation of MCMs
- Added Pollutant Reduction Plans & Pollutant Control Measures (PCMs) Requirements



Total Maximum Daily Load (TMDL) Plans



Projects (i.e. BMPs) that will reduce **SILTATION and/or **NUTRIENTS** to **TMDL STREAMS**:**

- Sediment by 10%
- Total Phosphorous by 5%
- Total Nitrogen by 3%

Over a 5-year Implementation Period

PLUS Long-Term TMDL Objectives

Examples include:

- **Rain Gardens/Bio-retention**
- **Basin Retrofits**
- **Stream/Floodplain Restoration**
- **Infiltration**
- **Riparian Buffer Enhancement**

Pollutant Reduction Plans



Projects (i.e. BMPs) that will reduce SILTATION and/or NUTRIENTS to LOCALLY IMPAIRED STREAMS:

- Sediment by 10%
- Total Phosphorous by 5%
- Total Nitrogen by 3%

Over a 5-year Implementation Period
NO Long-Term Objectives

Examples include:

- **Rain Gardens/Bioretention**
- **Basin Retrofits**
- **Stream/Floodplain Restoration**
- **Infiltration**
- **Riparian Buffer Enhancement**

TMDL Plan/Pollutant Reduction Plan Components



- 1. Public Participation**
- 2. Mapping**
- 3. Pollutants of Concern**
- 4. Determine Existing Loading**
- 5. Select BMPs to Achieve Minimum Required Reduction**
- 6. Identify Funding Mechanisms**
- 7. Identify Responsible Parties for O&M**

Regional MS4 Collaborations in PA



Regional Collaborations in PA

1

Christina Watershed
Municipal Partnership
Perkiomen Watershed
Conservancy

2

Berks County MS4
Steering Committee

3

York County Stormwater Consortium
Wissahickon Clean Water Partnership
Wyomissing Creek Watershed Stormwater
Coalition
Paxton Creek Cooperative
Skippack Creek TMDL Alliance
Eastern Delaware County Stormwater
Collaborative (+)
Blair County Intergovernmental Stormwater
Committee (+)
Lebanon County Stormwater Consortium

4

Southwest Butler Stormwater Planning Group
Dauphin County Water Resource Enhancement
Program

5

Wyoming Valley Sanitary Authority
Dallas Area Municipal Authority

Regional Collaborations in PA

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**Dauphin County Water Resource Enhancement
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Wyoming Valley Sanitary Authority

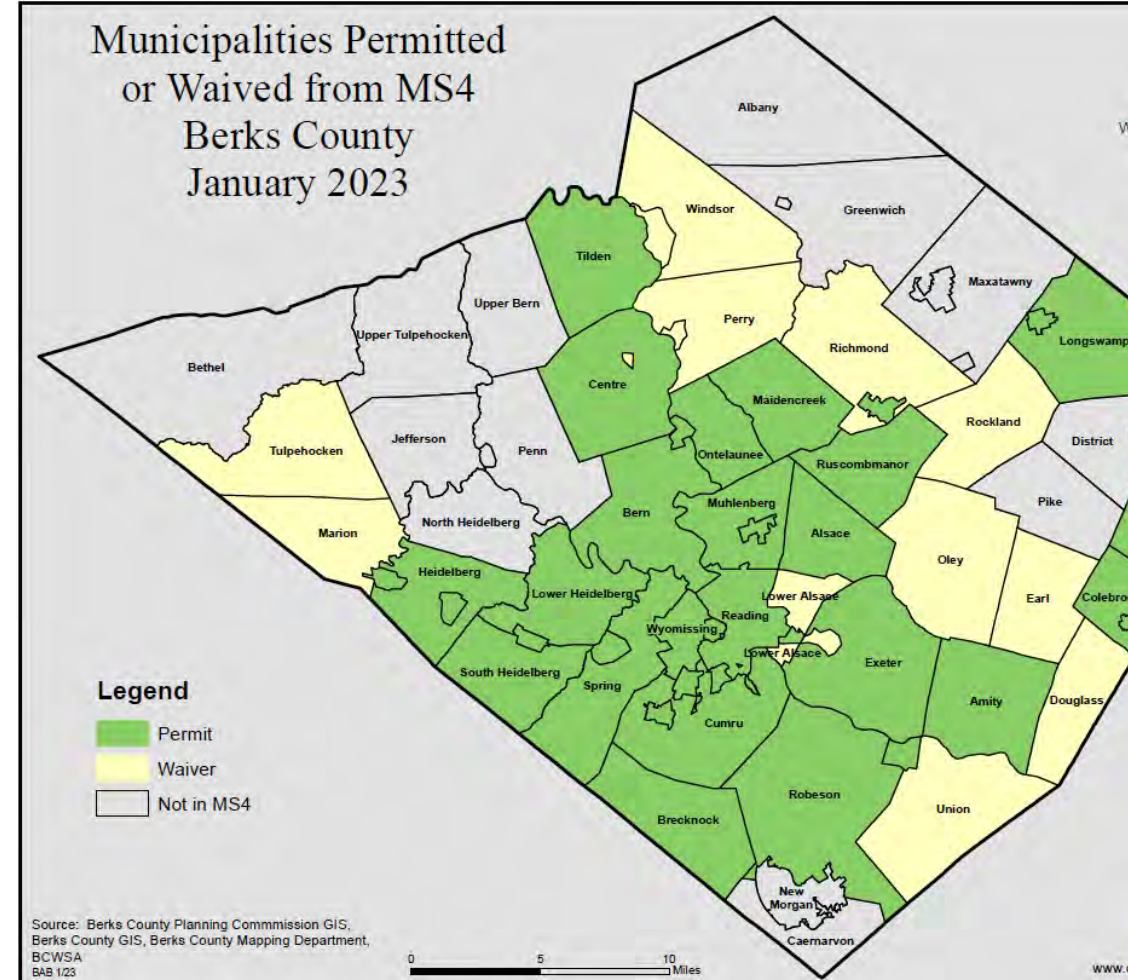
Dallas Area Municipal Authority

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Berks County MS4 Steering Committee



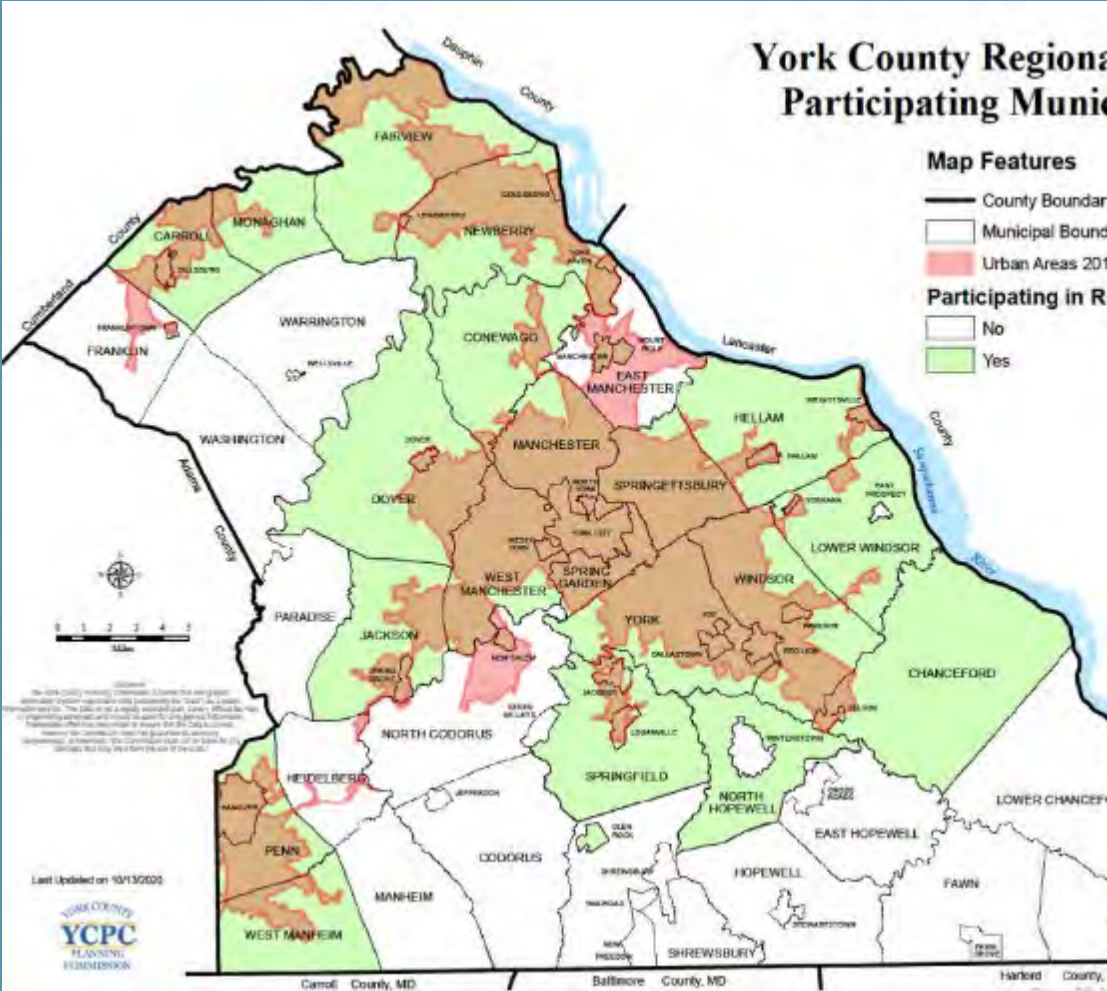
QUICK FACTS	
Lead Organization:	Berks County Planning Commission (Ashley Showers)
# of Municipalities:	39
Location:	Berks County (Delaware River Watershed)
Year Established:	2013
Cost:	\$500 per municipality/year
Function:	Meetings, education and outreach, events, trainings, YouTube channel content, annual report summary
Formal Agreement:	Yes



3

York County Stormwater Consortium

QUICK FACTS	
Lead Organization:	York County Planning Commission (Pam Shellenberger)
# of Municipalities:	45
Location:	York County (Chesapeake Bay)
Year Established:	2014
Cost:	\$4,200-224,000 per municipality/year
Function:	Pollutant Reduction Plan
Formal Agreement:	Yes

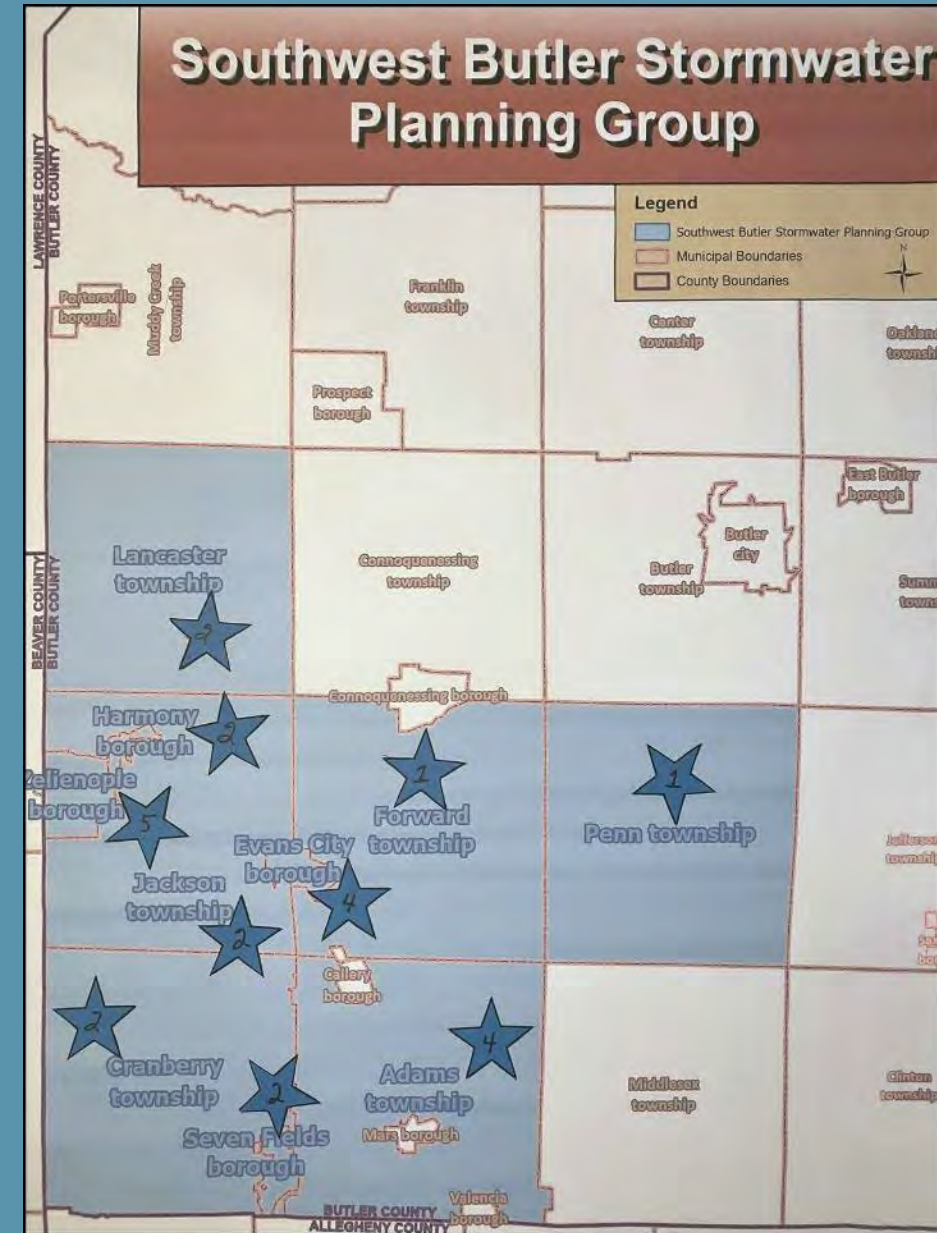


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Southwest Butler Stormwater Planning Group

QUICK FACTS

Lead Organization:	3 rd Party Consultant (Jerry Andree)
# of Municipalities:	10 + Butler County
Location:	Butler County (Ohio River)
Year Established:	2020
Cost:	\$2,000 per municipality/year
Function:	Flood Reduction
Formal Agreement:	Yes



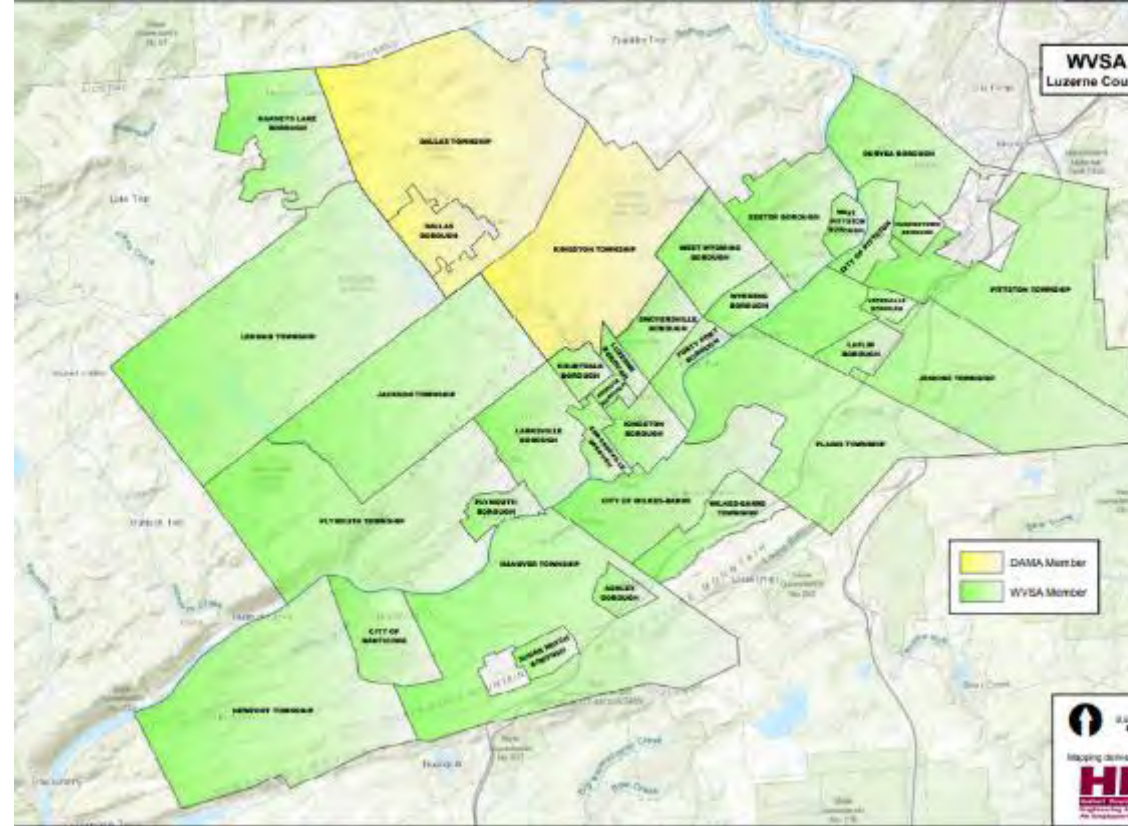
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Wyoming Valley Sanitary Authority



QUICK FACTS

Lead Organization:	Wyoming Valley Sanitary Authority (Jeff Colella)
# of Municipalities:	35
Location:	Luzerne County (Chesapeake Bay)
Year Established:	2017
Cost:	Average of \$56.40 per ratepayer/year
Function:	Regional Stormwater Management Program and Pollutant Reduction Plan
Formal Agreement:	Yes



PennDOT Municipal Partnerships



QUICK FACTS

Lead Organization:	PennDOT (Daryl St. Clair)
# of Municipalities:	10+
Location:	Statewide
Year Established:	Pilot project constructed in 2019
Cost:	~\$2.00-5.00/lb of sediment
Function:	Pollutant Reduction Plan/TMDL Plan
Formal Agreement:	Yes

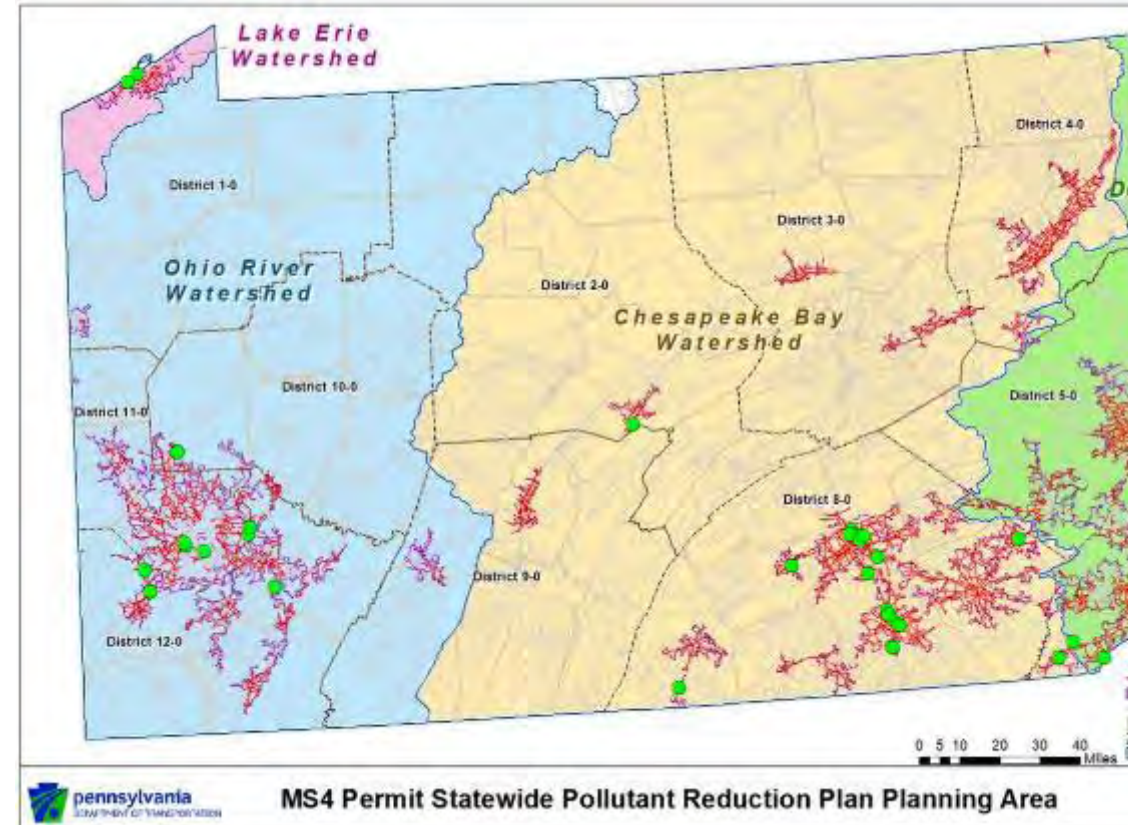


Image courtesy of PennDOT

Framework for Collaboration

1

**Identify
Purpose,
Goals and
Objectives, &
Stakeholders**

2

**Assign
Roles**

3

**Engage
Regulators**

4

**Develop
Cost &
Funding
Strategy**

5

**Conduct
Outreach**

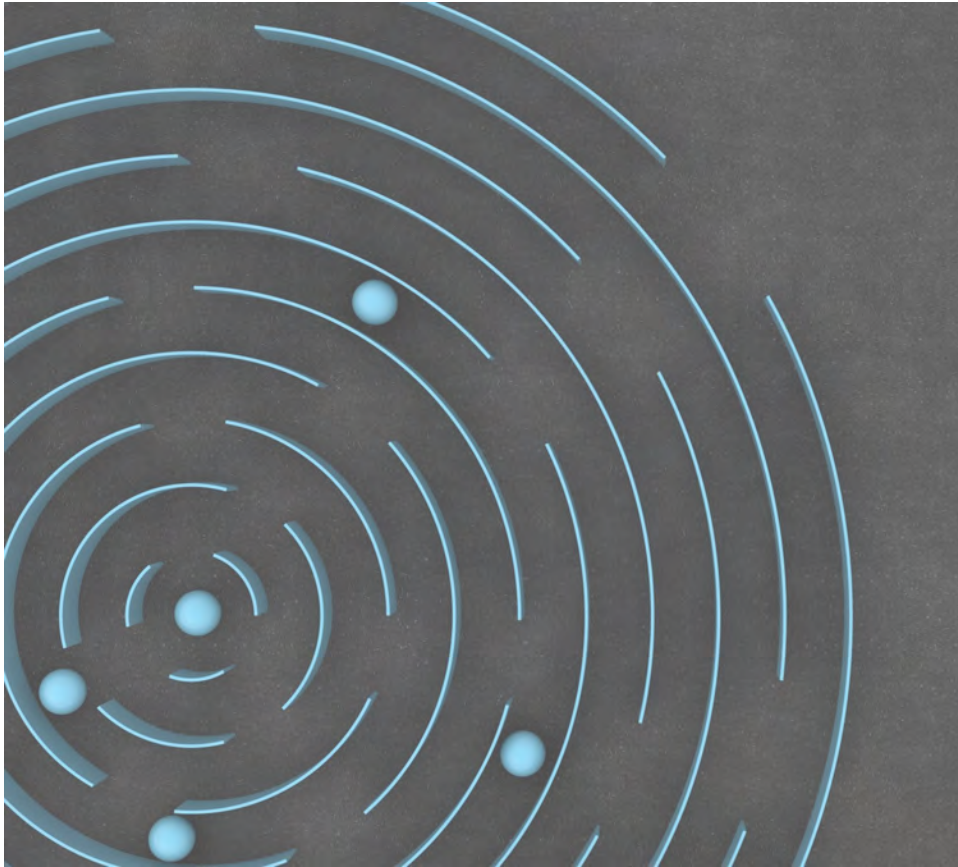
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**Enact
Formal
Agreements**

7

**Begin to
Implement**

Challenges



Decision-making speed

Active participation from all members

Municipal staff turnover

Election cycles

Benefits

Saves time and MONEY

Provides an advantage in grant funding

Expands potential project locations

Enables bigger, more meaningful projects

Offers the opportunity to communicate, connect, and share resources

Facilitates consistency on a regional scale



Next Pennsylvania NPDES MS4 Permit Cycle

- **Current NPDES MS4 General Permit was set to expire on March 15, 2023.**
- **PA DEP has extended for 24 months to March 15, 2025.**
- **Does not impact timelines within the Permit (TMDL Plans, Pollutant Reduction Plans, Ordinance, etc.)**
- **Updates to Permit will consider improvements to facilitating multi-municipal collaboration.**



Tools

PA DEP MS4 Collaboration Webpage

<https://www.dep.pa.gov/Business/Water/CleanWater/StormwaterMgmt/Stormwater/Pages/Collaboration.aspx>

PA DCED Intergovernmental Cooperation Handbook

<https://dced.pa.gov/download/intergovernmental-cooperation-handbook/?wpdmdl=56790>

Center for Watershed Protection

<https://cwp.org/>

THANK YOU



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