Is a Stormwater Utility Right For Your Community?

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Municipal Stormwater Challenges & Level Funding

1. Amount of deferred maintenance growing
   a. ASCE's 2018 Report Card graded PA a "D" for stormwater facilities.
   b. Costs of infrastructure maintenance increase with inflation
2. Original infrastructure may not have been municipally funded
3. Increased development may cause increased flooding in watershed
4. New regulations leading to increased cost
   a. MS4 Permit requires implementation of a Pollutant Reduction Plan over next 5 years.
   b. 2018 MS4 Permit requires Township to have **funding and staffing necessary to fully comply with increased regulations**, including BMP installation.
   c. Growing number of communities fined for non-compliance.
5. **Municipal tax revenue often fully allocated**

Financing SW Capital Improvements

- Government Subsidized Financing:
  - PENNVEST
  - USDA
  - USACE
  - NFWF
  - CFA
  - CDBG
  - Various others…

Consider getting in early as competition will likely increase.

- Private Financing
  - Bank Loan
  - Bond Issue

Balance annual debt service payment with interest over life of loan to find the right fit for your community.

- Federal Infrastructure Stimulus on horizon

Stormwater Fee provides long term revenue stream to fund projects through PAYGO or Debt.

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Stormwater Authorities (SWA)… A Growing Trend

- Over 1,800 stormwater utilities in the U.S.
- First utility formed in 1974
- Continued growth over past 5 decades due to:
  - Increased regulation
  - Significant precipitation events
- Enabling legislation in PA passed in 2013
- Currently there are over 130 municipalities in PA who are at some level of SWA formation or regional collaboration

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Financial Benefits of a Stormwater Utility

Benefit #1: Provides a steady dedicated revenue stream

- Dedicated source of funds
- Funds directed solely to stormwater management
- Need for capital improvements and revenue requirements increase as infrastructure ages
- More predictable and steady stream

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Benefits of a Stormwater Utility

Benefit #2: Avoid Costly Deferred Maintenance

- Traditional mindset: use PAYGO to finance → significant **deferred maintenance**
  - ASCE Grade for PA SW infrastructure: **D**
- Pay now or Pay Later?
  - What is life cycle length of the assets being installed?
  - What future improvement needs are looming?
  - Who benefits from the repair? Is community population growing or declining?

Example

30 miles of pipe → 160,000 ft

Replaced 400 feet last year

Equals 0.25% replaced per year

➔ 400 years to replace all pipe

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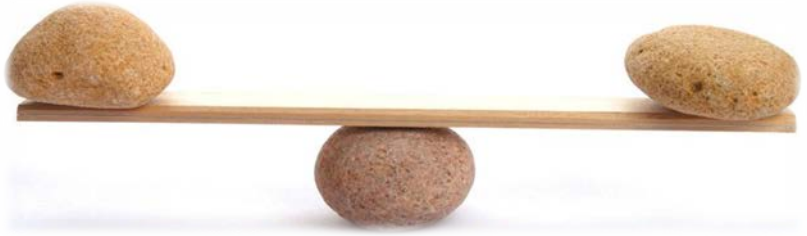
Financial Benefits of a Stormwater Utility

Benefit #3: Funding via Stormwater fees is more equitable than a tax



- Fairly apportions costs to the burden each property contributes to the system

  In roughly 40 municipalities surveyed, an avg residential property owner saves between 50% - 70% by paying a fee vs. through taxes.

- Fees can be collected from tax exempt users
- Credits provided based on level of service received
- Provides an incentive for businesses to reduce impervious surface

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The Current Approach: Is This Fair?

This homeowner pays for stormwater . . .

. . . but this school pays nothing!

Financial Benefits of a Stormwater Fee?

Benefit #4: Provides financial relief to municipalities

- Allows funds previously directed towards stormwater and pavement facilities to be redirected to other municipal needs
  - Municipal tax revenue anticipated to be reduced by 10%-15% on average in 2020 and not fully recover until the end of 2021
  - Funding through SW Fees shifts money from general fund to sw budget thereby helping to balance municipal budget
  - Helps municipalities with revenue need while avoiding sale of utility assets.
- For SWA's, new debt associated with the stormwater system not recognized as direct municipal debt
- Fees may allow the utility to incur more debt

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How Does a Stormwater Utility Work?

Utility Formed

- Does not need to be a new group
- Could use existing utility or municipality/county

Fees Assessed

- Credits provided for impact reduction
- Promotes community collaboration and green stormwater BMPs

Funds Reinvested

- Studies, design, engineering, consulting costs
- Maintaining, repairing, and constructing stormwater infrastructure

Funding SW through Tax vs. Fee

TAX

- Tax exempt users do not help fund SW
- Property's assessed value not linked to SW runoff
- Residential property owners pay more
- Property Owner can not control magnitude of their charge
- Counts towards muni borrowing limits

FEE

- All property owners pay
- Impervious Area is best link to runoff generation
- Saves constituents money
- Incentivizes property owners to partner with muni to meet SW needs of community
- Can self liquidate debt

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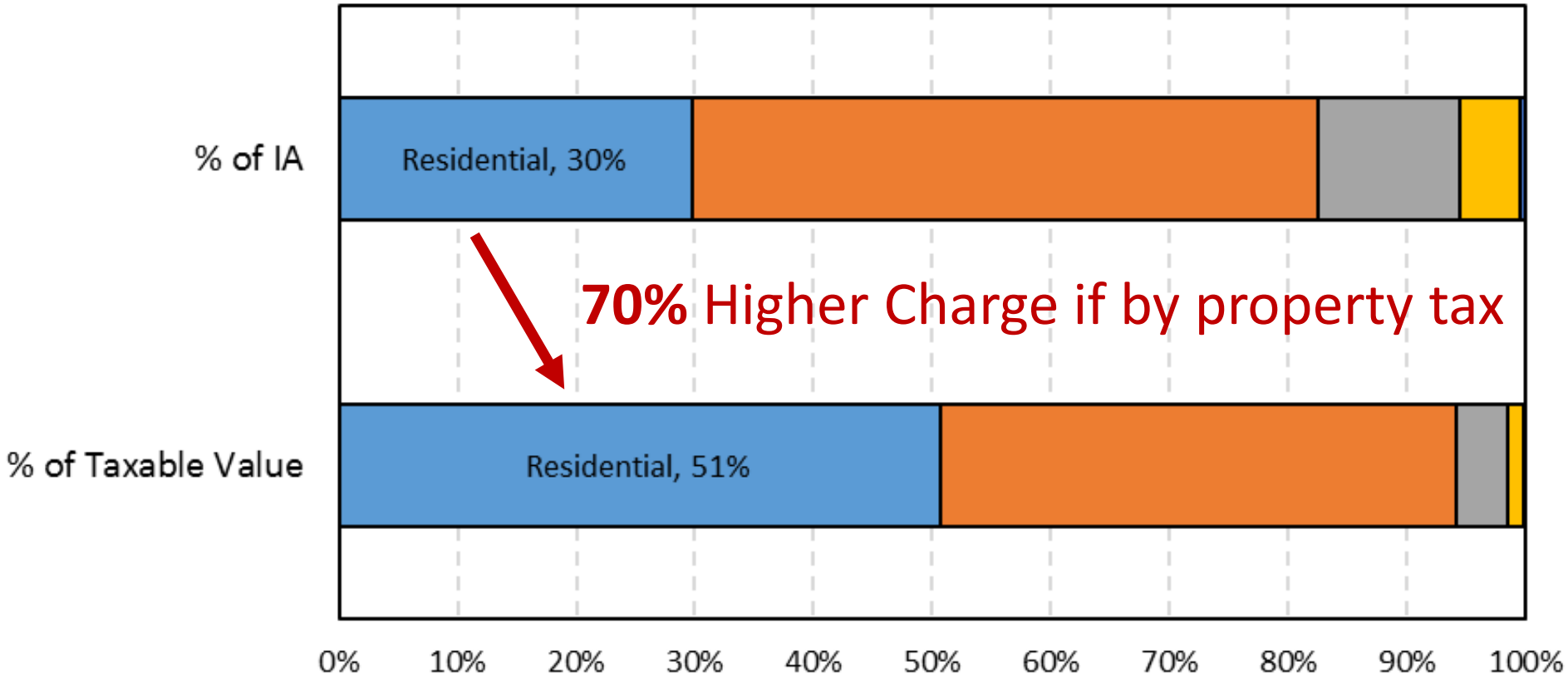
Tax Vs. Fee Comparison for PA Community



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Tax Vs. Fee Comparison for PA Community

	RESIDENT	NON-PROFIT	LARGE COMMERCIAL
Assessed Property Value	218,000	2,033,100	38,802,000
Annual Tax related to SW	$162	$0	$28,853
Annual Fee related to SW	$66	$1,608	$26,596
… with 40% Credit	$40	$965	$15,958

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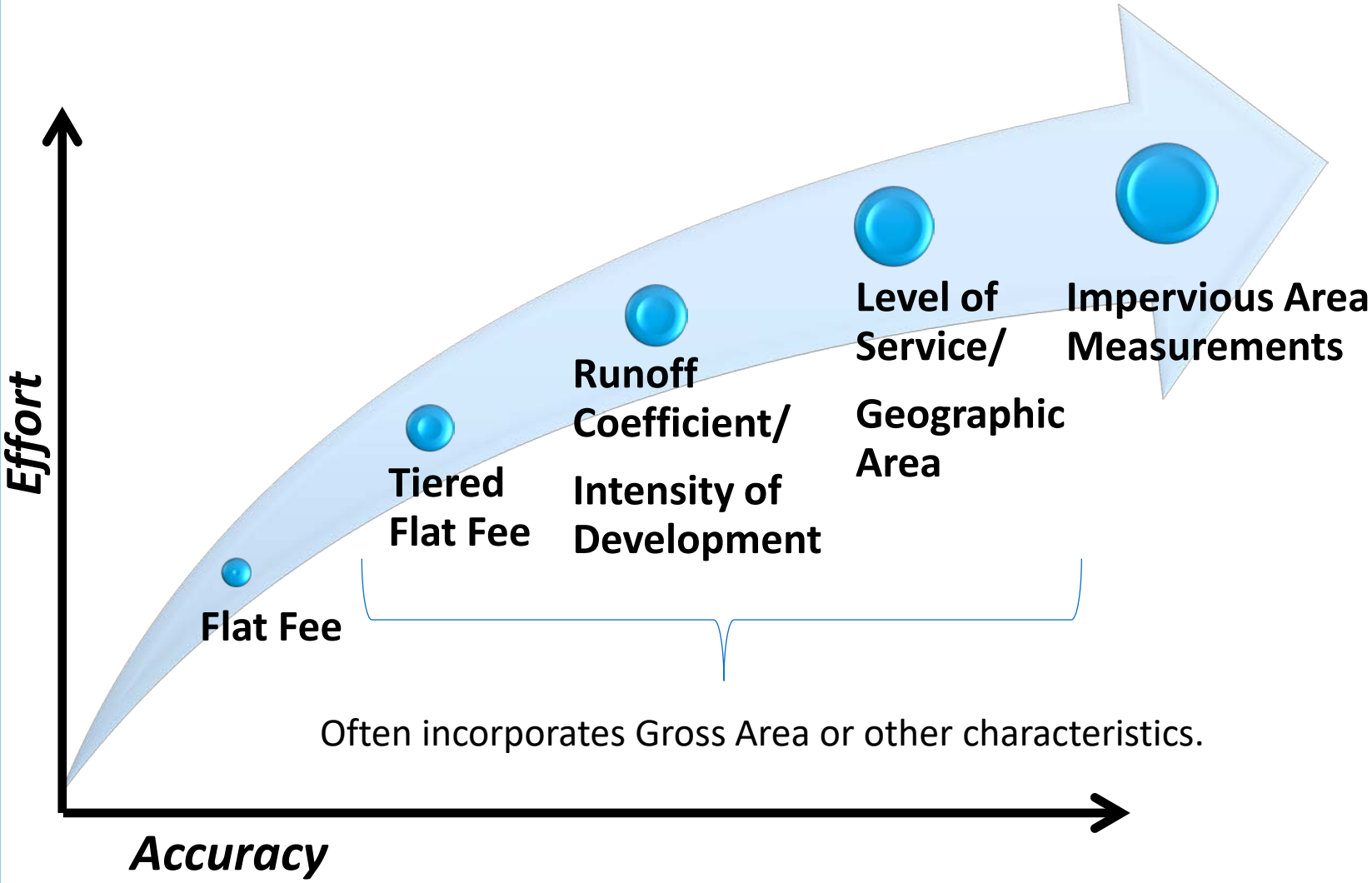
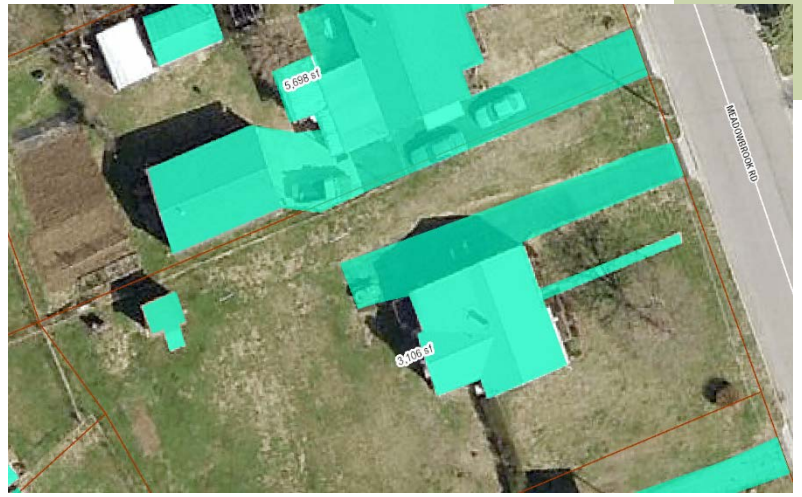
How Are Stormwater Fees Assessed?





92% of Stormwater Fees based on **Impervious Area**

18% are based upon **Gross Area**

Source: Black & Veatch 2018 Stormwater Utility Survey

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Common Stormwater Rate Structures

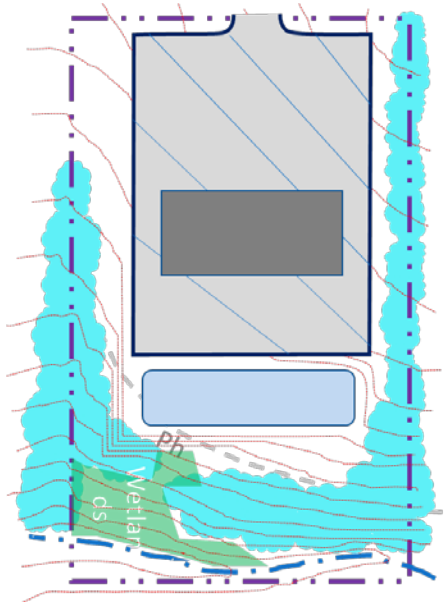
Tiered Approach

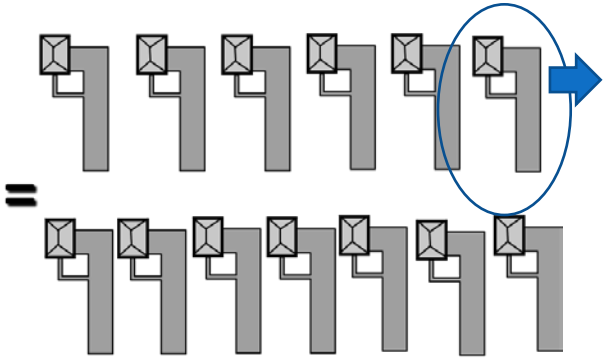
- **Impervious Area (IA) estimates developed for all properties**
- **Does not differentiate between residential and non residential properties**
- **Typically more equitable**

Tier	Tier IA Range (sq ft)	Monthly Charge
0	0-499	No Fee
1	500-1499	$2.00
2	1500-3999	$4.50
3	4000-6499	$8.30
4	6500-	$1.70 per 1000 sq ft IA

ERU Approach

- **ERU = Equivalent Residential Unit**
- **IA estimates developed for a sampling of residential properties and all nonresidential**
- **Residential properties pay either a flat ERU or Tiered ERU fee.**
- **Nonresidential properties pay multiples of an ERU**





Building =	8,500 sf
Parking Lot =	37,000 sf
Total Impervious Area =	45,500 sf
ERU =	3,500 sf
TOTAL ERU's =	**13 ERUs**

13 ERUs * $5/mo. = $65/mo.

Credits

- Account for varying levels of on-site stormwater management
- Account for properties that:
  - Reduce rate or volume of stormwater leaving property
  - Improve quality of stormwater leaving property
  - Are separate MS4 Permit holders
- Typically capped [25%-50%] of fee

- Requirements
  - Criteria
  - Documentation
  - O&M Agreement

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Technical Process for Implementing a Utility

1. Stormwater Management Program Review
2. Public Outreach and Education
3. Evaluation of Rate Structures/Fee Development
4. Evaluation and Recommendation for an Appeals Process / Credit Policy Development
5. Stormwater Fee Ordinance Adoption

Public Outreach and Education

1. Use of Stakeholder Advisory Committee (SAC)

2. Public Meetings:
   - New Stormwater Management Program (SWMP)
   - SWMP and Funding Structure
   - Fee Implementation and Credit Policy

3. Community Education (Public Education Strategy):
   - Information on Websites
   - Email blasts or social media
   - Bill Inserts
   - Newsletters
   - News Reporter Meetings
   - Pamphlets/Handouts
   - Community Events

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Water Doesn’t Follow Municipal Boundaries

Collaboration Provides a Regional Solution

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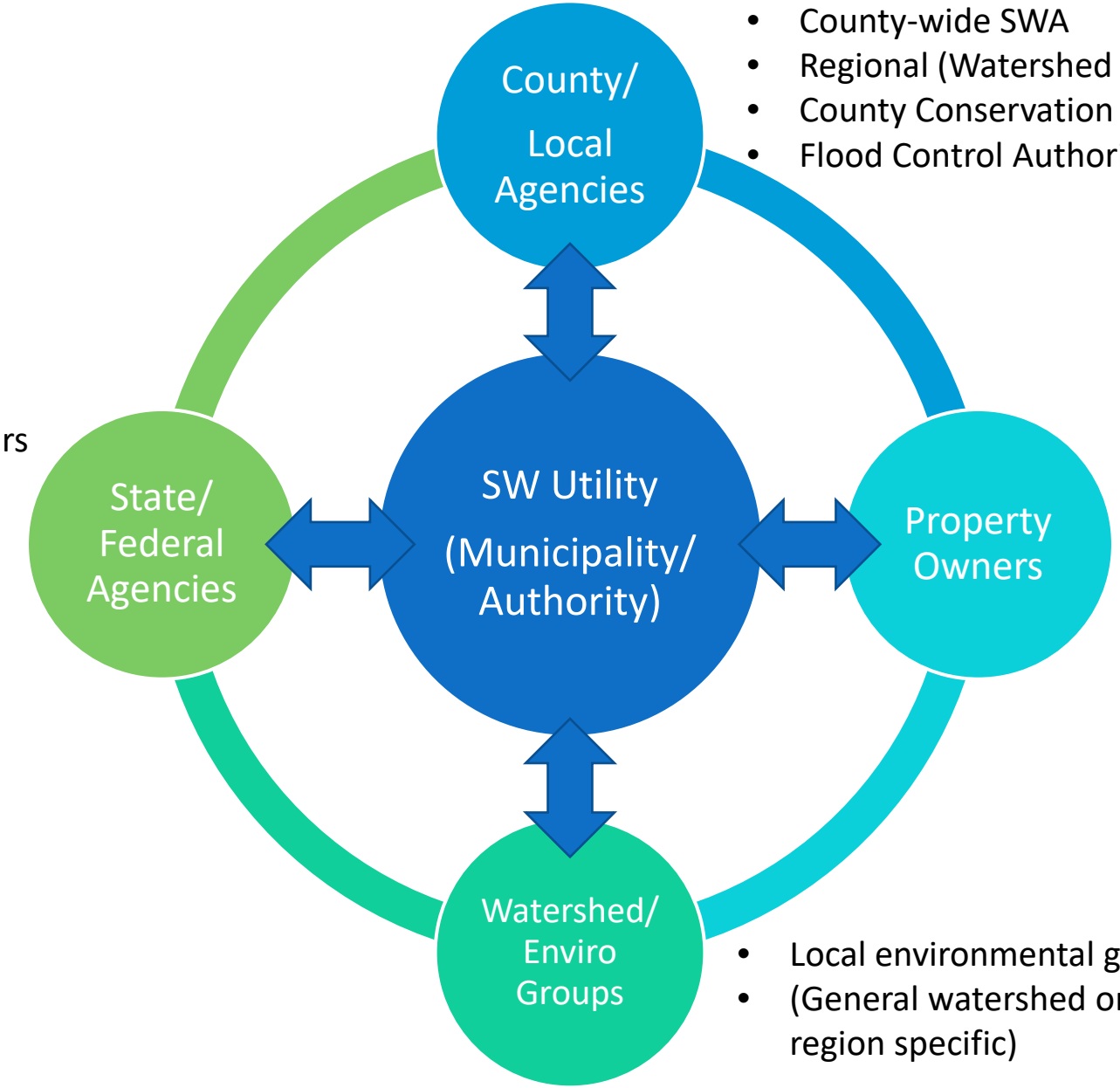
SWUs Are Platforms for Collaboration



- County-wide SWA
- Regional (Watershed based) SWA
- County Conservation District
- Flood Control Authorities

- US Army Corps of Engineers
- National Fish & Wildlife
- US Geological Survey
- DOTs
- State Funding Agencies

- BMPs installed by Single Property Owners
- Developer Partnerships
- Non Profits
  - School Districts
  - Churches
  - Others

- Local environmental groups
- (General watershed or region specific)

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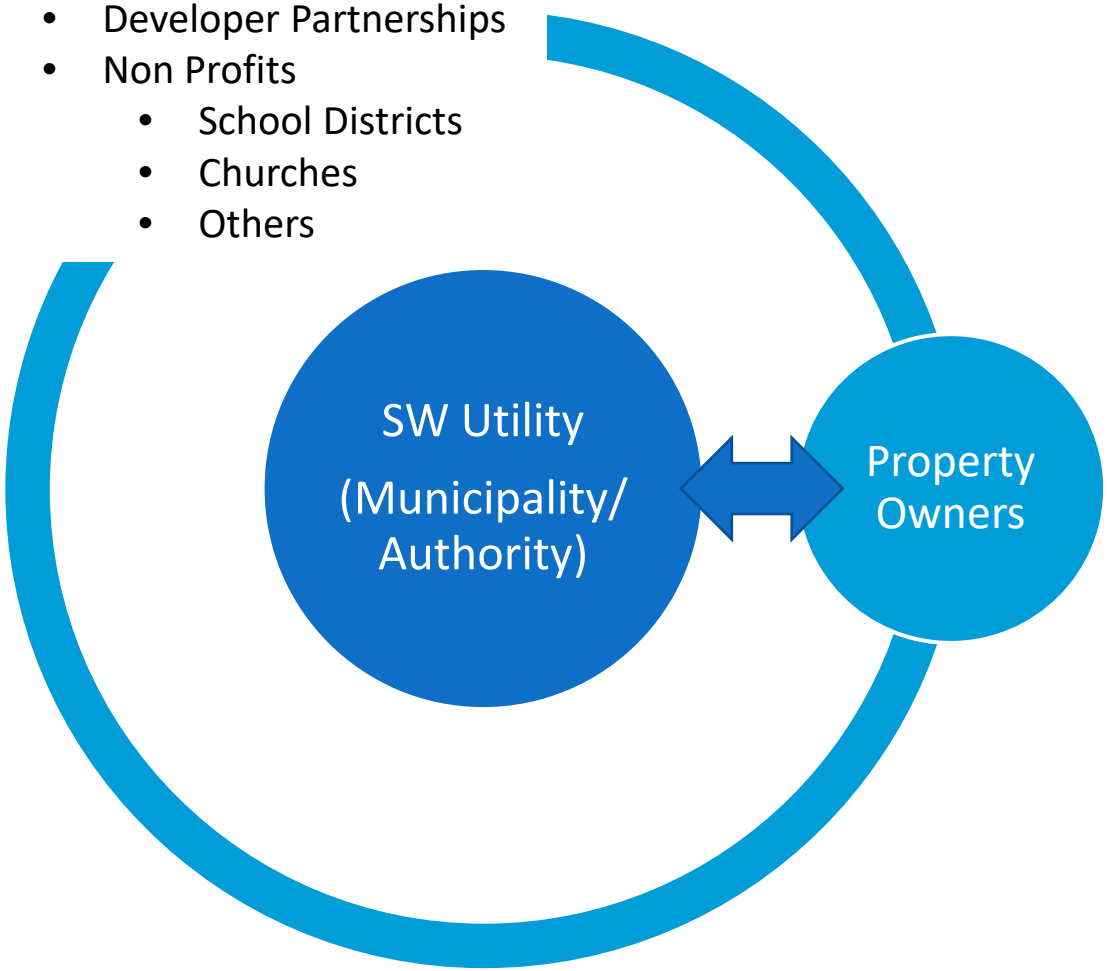
Opportunities for Collaboration

- BMPs installed by Single Property Owners
- Developer Partnerships
- Non Profits
  - School Districts
  - Churches
  - Others



- Property owners are more likely to get involved when they are rewarded
  - Stormwater fees provide a mechanism to provide a benefit back to property owners via credits
- Municipality can realize financial and administrative benefits to SW program thru property owners:
  - Maintaining private infrastructure, installing green infrastructure and other BMPs, leading public education and outreach, overall partnering to save costs (ex. street sweeping disposal)

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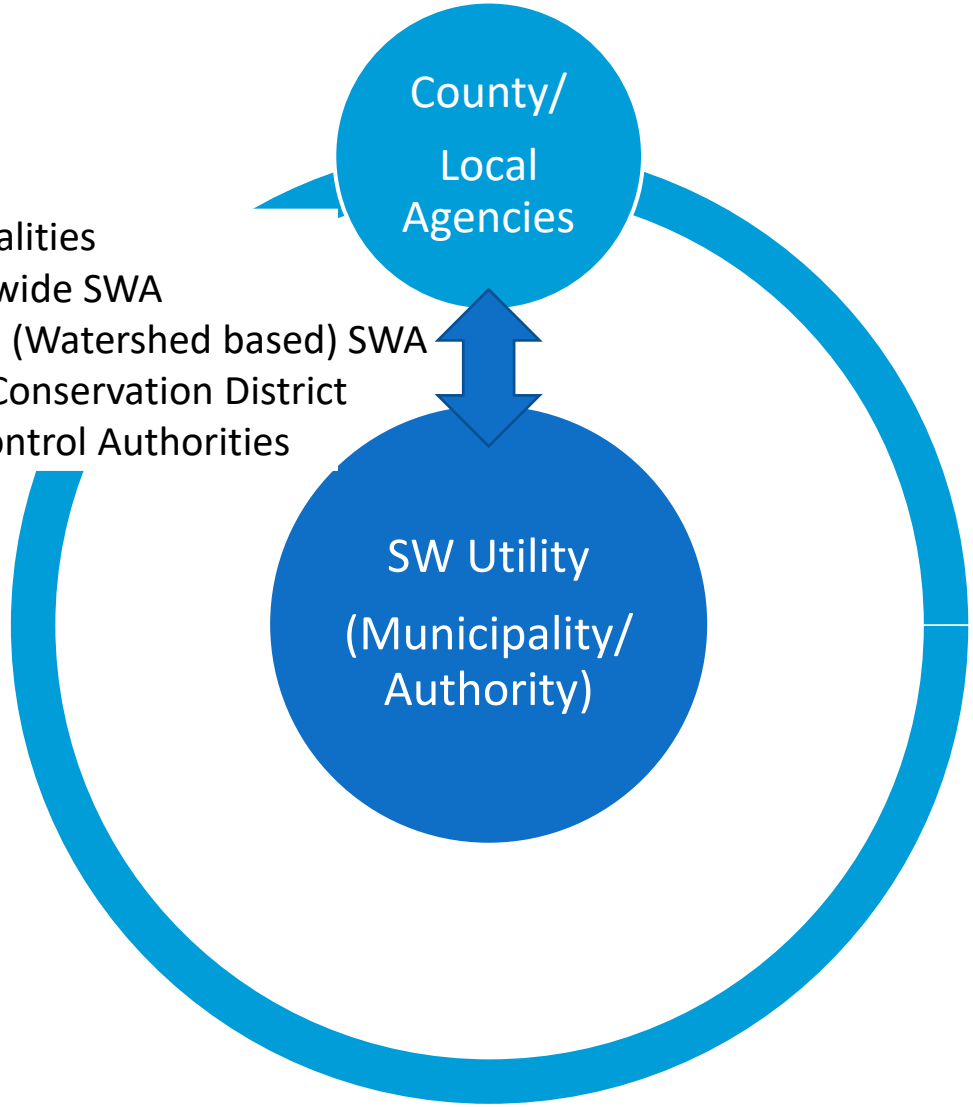
Opportunities for Collaboration

- Municipalities
- County-wide SWA
- Regional (Watershed based) SWA
- County Conservation District
- Flood Control Authorities



1. Supports watershed planning and management
2. Streamlines regulatory requirements
3. Eliminates duplication of services
4. Gains economies of scale
5. Increases purchasing and borrowing power
6. Enhanced opportunities for government grants and loans
7. Expanded cost share options
8. More cost effective and equitable approach to rate payers

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Shifting to lower cost BMPs….

Not all BMPs cost the same!

Streambank Restoration

$8 to $15/lb. of sediment removed

Detention basin retrofit

$15 to $20/ lb. of sediment removed

Regional approaches provide more opportunity for lower cost BMPs!

Rain Garden

$40 to $75/lb. of sediment removed

Permeable Pavement

$500+ / lb. of sediment removed

Anticipated Evolution of SW Regulation

2018 MS4 Permit Term → Future Permits?

- Regulation tied to Urbanized Area
- Municipal Sediment Load
- Place BMPs in Urbanized Area to receive credit

- Regulation tied to Land Use
- Pollution reduction requirements to improve local impairments and possibly large scale watersheds
- Place BMPs in developed and potentially rural areas to receive credit.

Future MS4 Permit Rounds are anticipated to require regionalization to meet requirements at lowest cost to municipalities and property owners.

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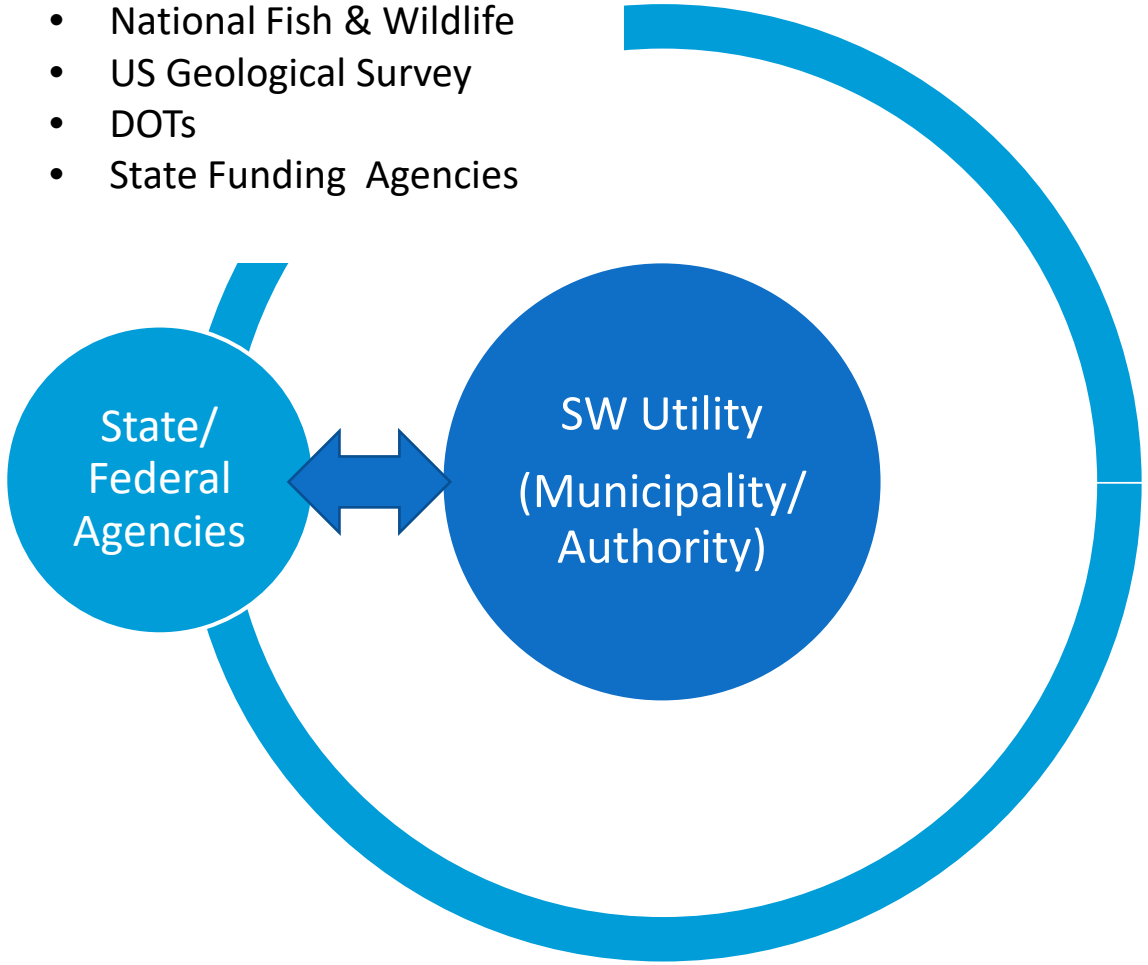
Opportunities for Collaboration

- US Army Corps of Engineers
- National Fish & Wildlife
- US Geological Survey
- DOTs
- State Funding Agencies



Examples of current collaboration:

- USACE provides technical assistance and project funding. Desire to work with regional collaborations. Typically provides $1M plus in savings.
- National Fish and Wildlife – Offers funding for utility implementation and BMPs
- US Geological Survey – Opportunities for cost savings from IA development
- PENNDOT – Looking for partnerships for BMP implementation.
- PENNVEST, CFA, etc. opening up new opportunities for stormwater authority implementation and project financing

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Examples of Regional Approaches

Regional/County Stormwater Authorities (SWA):

- Implement programs
- Provide Services
- Implement fee
- Co-Permit holder

Examples: Wyoming Valley Sanitary Authority, Lycoming County Water & Sewer Authority, York County & Dauphin County initiatives

Regional Council of Governments/MS4 Workgroups:

- Platform to collaborate on solutions which are then individually implemented by each municipality

Examples: North Hills COG, 3 Rivers Wet Weather, Nine Mile Run Stormwater Partnership, County Watershed Alliances

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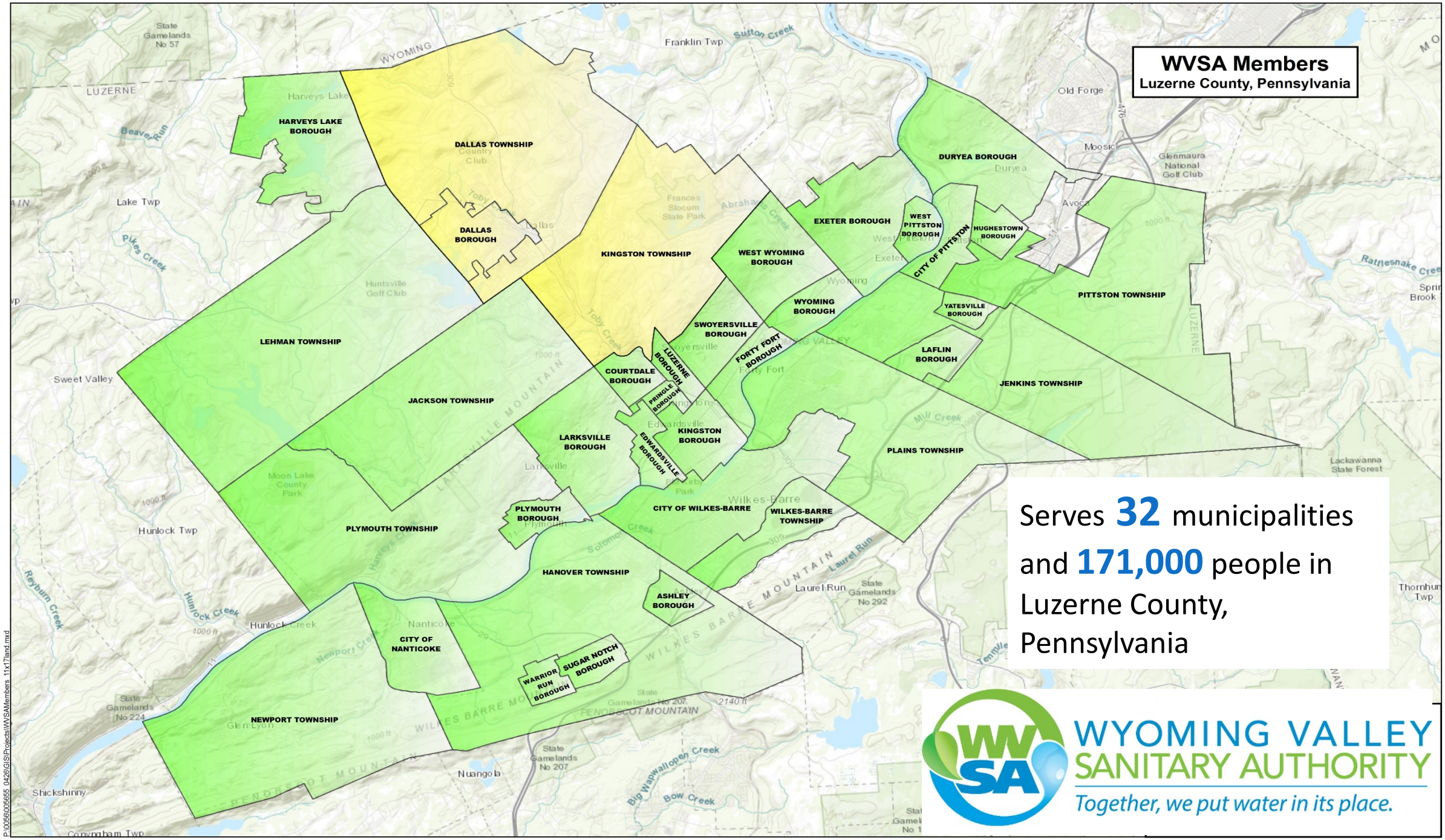
WVSA Members
Luzerne County, Pennsylvania
HARVEYS LAKE BOROUGH
DALLAS TOWNSHIP
DALLAS BOROUGH
KINGSTON TOWNSHIP
LEHMAN TOWNSHIP
JACKSON TOWNSHIP
PLYMOUTH TOWNSHIP
NEWPORT TOWNSHIP
HANOVER TOWNSHIP
CITY OF NANTICOKE
WARRIOR RUN BOROUGH
SUGAR NOTCH BOROUGH
ASHLEY BOROUGH
PLYMOUTH BOROUGH
CITY OF WILKES-BARRE
WILKES-BARRE TOWNSHIP
LARKSVILLE BOROUGH
EDWARDSVILLE BOROUGH
KINGSTON BOROUGH
COURTDALE BOROUGH
PRINGLE BOROUGH
LUZERNE BOROUGH
SWOYERSVILLE BOROUGH
FORTY FORT BOROUGH
WEST WYOMING BOROUGH
WYOMING BOROUGH
EXETER BOROUGH
WEST PITTSTON BOROUGH
CITY OF PITTSTON
HUGHESTOWN BOROUGH
DURYEA BOROUGH
PITTSTON TOWNSHIP
YATESVILLE BOROUGH
LAFLIN BOROUGH
JENKINS TOWNSHIP
PLAINS TOWNSHIP
Serves 32 municipalities and 171,000 people in Luzerne County, Pennsylvania
WYOMING VALLEY SANITARY AUTHORITY
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WVSA Stormwater Management Vision

	WVSA	Municipalities

PHASE 1
 	
Commence:
NOW
 	
$3 - $4.50/ERU/mo
	Permit Administrator
	- Complete New Permit Requirements
	  - Prepare Regional CB PRPs and Watershed PRPs
	  - Complete BMP design/implementation
	  - Map System, PCM's
	- Certain MCM's
	- Emergency O&M
	- Stormwater Parks/ Funding to municipalities for infrastructure improvements
	- Enact Stormwater fee
		MS4 Permittee
		- Remain responsible for:
		  - O&M of assets not installed by WVSA
		  - Capital Improvements related to existing assets
		  - NOI Submission
		  - Certain MCM's
		  - Annual Status Update Reports

PHASE 2 Commence: 2023 $5.50 - $7/ERU/mo	**MS4 Co-Permittee/ System Lessee** - Complete all Permit Administrator Items - Complete all MCMs - Condition Assessment/AM Planning, CI Planning - O&M of stormwater infrastructure - Repair/Replacement/Rehabilitation of SW assets - New Regulatory Requirements	**MS4 Co-Permittee/System Lessor** - Serve as system lessor - Provide support through adoption of ordinances and similar actions to ensure proper stormwater management
PHASE 3 Commence: TBD	**MS4 Co-Permittee & Stormwater System Owner**	**MS4 Co-Permittee**

Partnering to Meet Stormwater Needs

Municipalities:

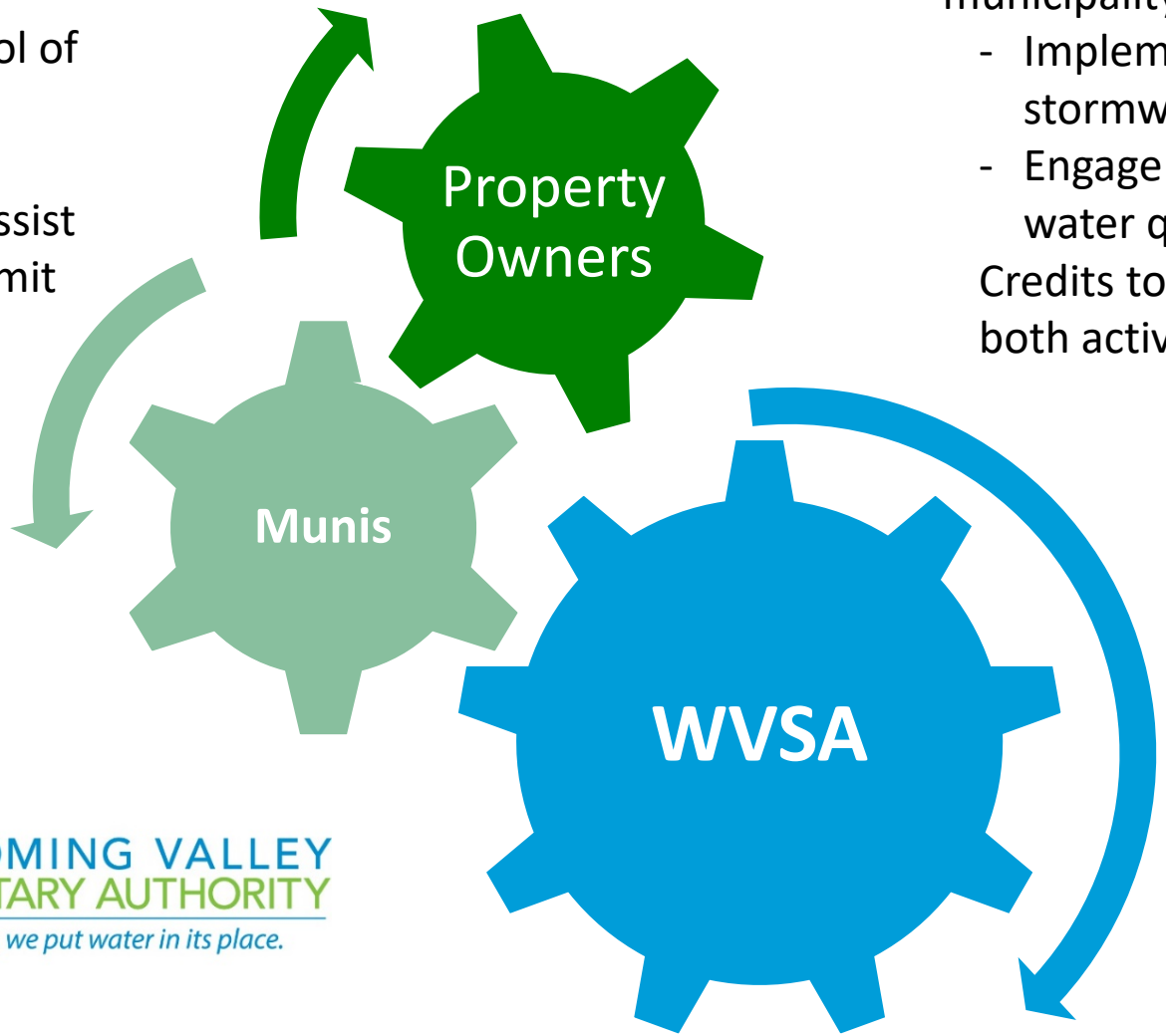
- Maintain ownership of MS4 permits.
- Maintain local control of existing stormwater infrastructure.
- Adopt ordinances, assist with MCMs and submit annual reports.

Property Owners:

Partner with WVSA and their municipality to:

- Implement BMPs for control of stormwater runoff.
- Engage in public events promoting water quality.

Credits to reduce fees are available for both activities.



Cost savings per municipality:

50% to 70%

90% of property owners pay $4.80/mo. or less

= 60% savings

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Strategic Partnerships

WVSA is Reducing Costs through:

1. Partnering with 32+ municipalities to save money w/ economies of scale and streamlined permitting requirements
2. Strategic Partnerships for MS4 BMPs

   Ex. PENNDOT, Luzerne County Flood Protection Authority and developers = Up tp $9M+ savings over 5 year permit term.
3. Strategic Partnerships for Mapping & Data Development

   Ex. USACE and USGS = $10M+ savings over 5 year permit term
4. Strategic Partnerships for SW Facility O&M

   Ex. Developers, PENNDOT = $1M+ savings over 5 year permit term
5. Strategic Partnerships for MCM's

   Ex. Large Property Owners, Schools, Universities, Watershed Stewards, Girl Scouts, Boy Scouts

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WVSA's Process for Multi-Municipal Collaboration

1. Commenced Study to determine feasibility & benefits – 9/2016
2. Commenced discussions with legislators and DEP – 10/2016
3. Developed presentation to Municipalities – 11/2016
4. Surveyed Municipal Needs – 12/2016
5. Commenced Multi-Municipal PRP and developed Agreements 1/2017
6. Met with Municipalities to discuss: 4/2017
    1. Study Results
    2. Agreements
    3. Amending Articles of Incorporation
7. Expanded Authority to include stormwater 10/2017
8. Developed and Implemented Programming 11/2017 – Present
9. Fee & Credit Policy Drafted 7/2018
10. Focused Public Education and Outreach 7/2018-1/2019
11. Commencement of Stormwater Fee Billing 1/2019

Only cost born by municipalities relative to startup = $3,000 (do to DEP permit requirement)

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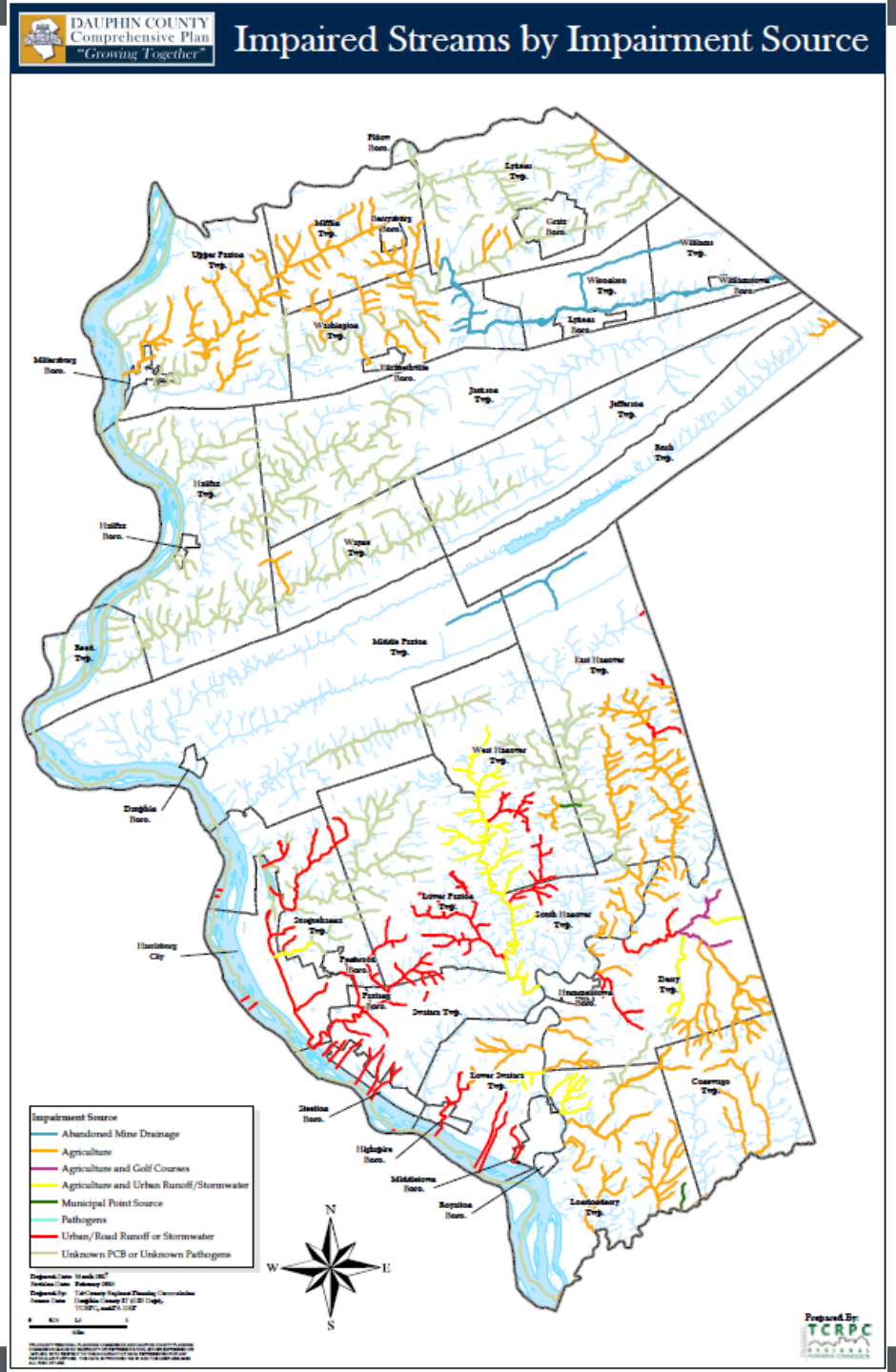
Dauphin County SW Initiative

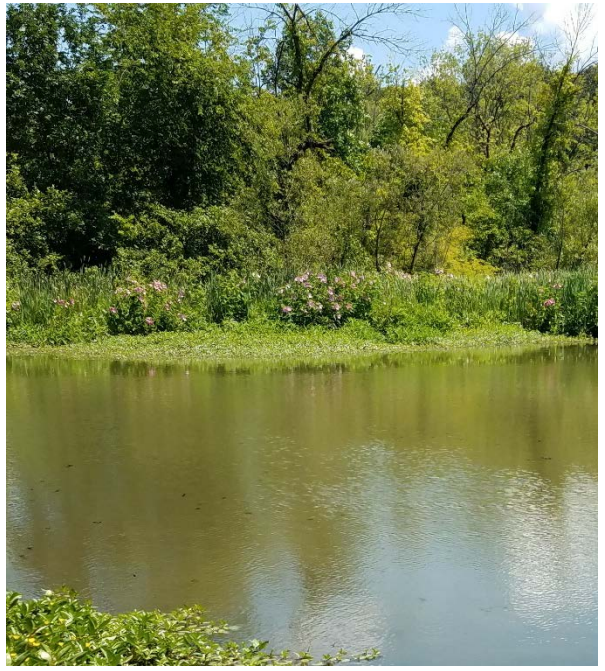
- Intended to support Water Quality & Stormwater Management
- Primary Goal of County Comprehensive Plan
  - "Support the efforts of municipalities and others to address MS4 storm water requirements"
  - Regional initiative intended to support that action item
- Light blue streams are <u>not</u> impaired, the rest are



Dauphin County Survey of Municipalities

- General Results
  - Interest in County leading funding opportunities
  - Interest in County leading water quality project delivery (large-scale)
  - Municipalities have accepted that finding new sources of funding for stormwater needs is inevitable (taxes, fees, grants, loans)
  - Non-MS4s are interested in funding for infrastructure and stream restoration (similar to MS4s)

DAUPHIN COUNTY



Dauphin Regional Stormwater Vision

- Watershed-level cost-effective BMP implementation to address local impairment
- Ag/urban BMP placement for nitrogen reduction
- Assist with new 2023 MS4 permit requirements

This supports the intended direction of future MS4 permit requirements/WIP Plans.

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Dauphin County-led Cost Saving Approach

- Overall program coordination (assist municipalities with staying on track for permit compliance)
- Administration of grant/loan funds (to support BMP design/permit/construction)
- Regional stormwater BMPs
  - Pair initiatives together (Ag, MS4, flooding)
  - Install BMPs in locations that lessen/solve other existing SW problems such as flooding
  - Enable municipalities to install more cost-effective BMPs
  - 2023 Permit requirements projected to necessitate urban/rural partnerships to reduce cost
- Develop partnership with all levels of government/ agencies, corporations, businesses, non profits, etc. (for more meaningful and less costly solutions)

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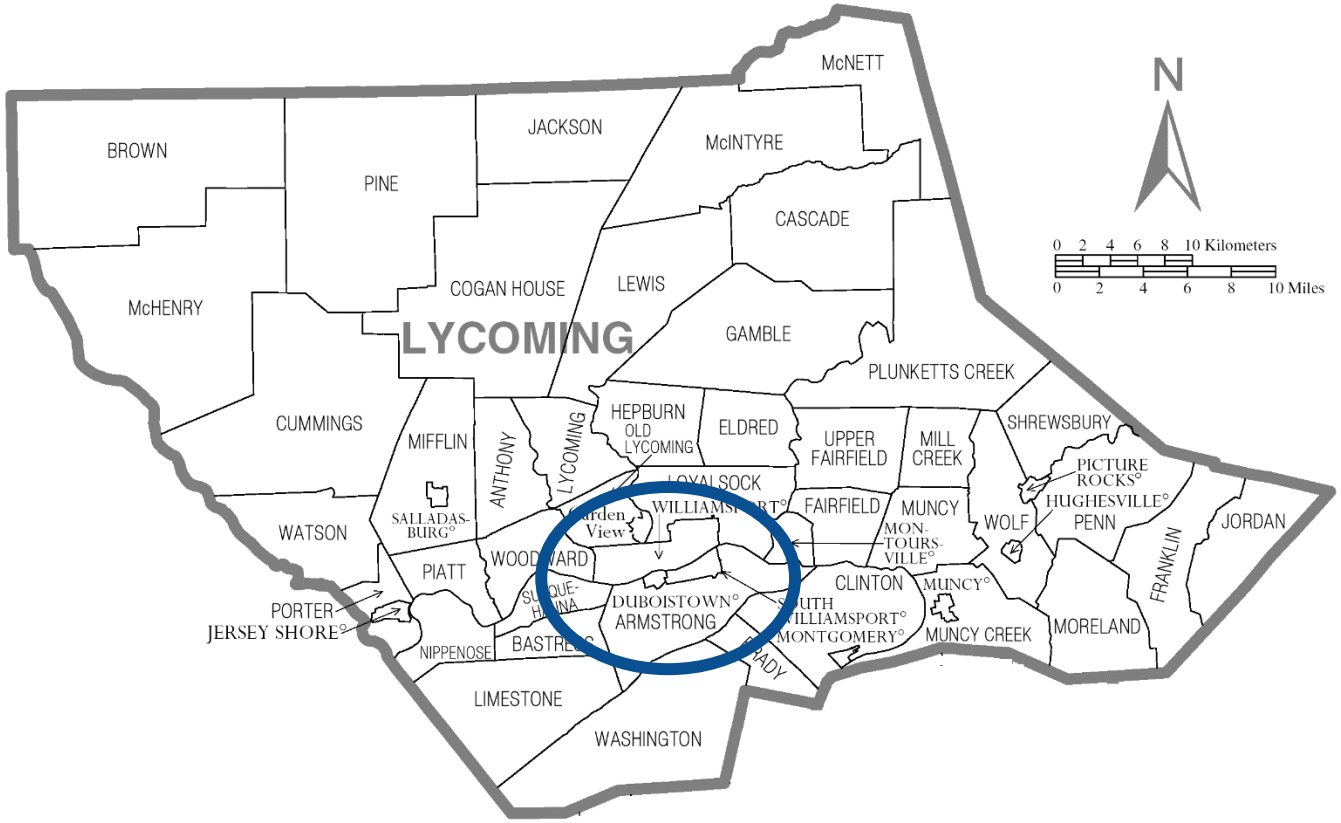
Lycoming County Regionalization Efforts



LCWSA
LYCOMING COUNTY WATER & SEWER AUTHORITY

Borough of Duboistown

Borough of South Williamsport

- History County led cooperation between municipalities on north and south sides of the Susquehanna River surrounding Williamsport
- Large-scale cooperation disbanded to groups of municipalities working together
- LCWSA approached by two boroughs to expand and take on stormwater efforts.

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Stormwater Management Program

Roles/Responsibilities & Cost Share Philosophy

LCWSA

70/30 - Stormwater Program activities, Permit Management/coordination, SW Fee Billing & Collections, Mapping, Recordkeeping, Reporting, Admin.
50/50 – Professional Services – SMP set up, fee rules regs, credit program, joint CBPRP, Engineering of BMP

SOUTH WILLIAMSPORT 100%
LOS - STORMWATER Public Works Functions – pipes, inlets, catch basins, repairs, operation, maintenance, leaf collection, street sweeping, capital improvements, PLUS employee time and management functions – *similar level of service*

DUBOISTOWN 100%
LOS - STORMWATER
Public Works Functions – inlets, catch basins, repairs, maintenance – *same limited service proposed*

BSW -100%
Debt Service SW Pipe Projects

DEBT SERVICE –
COMPLIANCE BMP PROJECTS - SHARED
PERMIT CBPRP PROJECT(S) - 70/30
The Boroughs may also have infrastructure capital/debt service
(This will be determined based on "Level of Service" expected by each borough)

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LCWSA - Steps towards Regional Cooperation

- Executed MOU, defining roles and responsibilities
  - Cost sharing during implementation
- Finalized role and responsibilities of LCWSA and Boroughs
- Executed Intergovernmental Cooperation Agreement
  - Cost sharing – long term
- Developed regional PRP for submittal to DEP
- Developed Budget Projections for MS4 Permit term
- Implementing Public Education & Outreach Strategy
- Developed Rates & Credit Policy
- Commence programming and billing for service in July 2020

LCWSA
LYCOMING COUNTY WATER & SEWER AUTHORITY

Borough of Duboistown

Borough of South Williamsport

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How To Implement a Multi-Municipal Approach?

Leadership	• A watershed champion who can assemble stakeholders
Investment	• Willingness to spend money to get things started
Planning	• Develop a plan to demonstrate real improvements at reduced cost

Moving Forward Toward Multi-Municipal Collaboration

Through course of Feasibility Study:

- Define local government needs
- Define benefits of Multi-Municipal Stormwater Management (specific to community)
  - Financial
  - Administrative
  - Environmental
  - Other
- Establish vision
  - Set scope and schedule
- Summarize via Feasibility Study
- Implement dialogue with municipal leaders throughout the process to educate and collaborate

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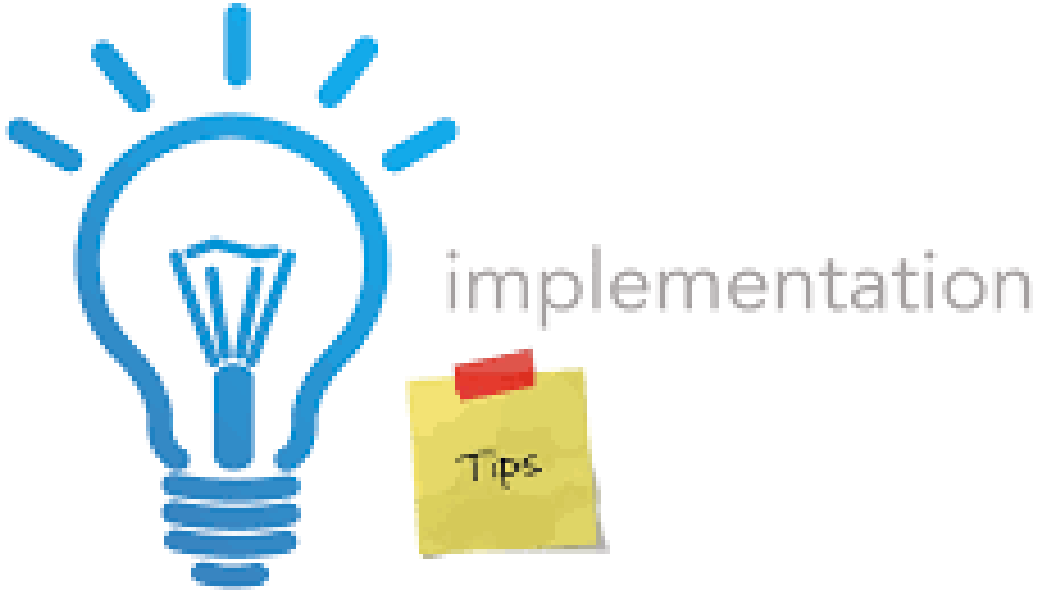
Tips for Implementing a Utility

- Open, collaborative communication between municipality and authority
- Complete a holistic assessment of current program
- Develop future vision with feedback from community
- Develop a robust public education and outreach program
- Don’t try to rush the process



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Why Now?

- **MS4 is an unfunded mandate** and municipalities are behind in compliance.
- **COVID will impact municipal tax revenue**, increasing the challenge for municipalities to fund MS4.
- **Regional stormwater programming** funded by a fee **will cut the majority of SW costs** from municipal budgets.
- Funding through a fee in place of taxes will **save residents money**.
- **Federal Infrastructure Stimulus program** is intended to provide at least $10B in stormwater funding with an additional $455M for projects benefitting the Chesapeake Bay.
- PA Funding programs intend to award Stimulus Funds through grant/loan packages which can dramatically save the region money. Funds will be awarded towards:
  - **Regional initiatives**
  - **Green Infrastructure**
  - **Permit compliance needs**
  - Shovel Ready projects

HRG has **success** in receiving state and federal funding to **reduce start up costs** for stormwater utilities. (PENNVEST, USACE, USGS, NFWF)

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Who is HRG?

Herbert, Rowland & Grubic, Inc. (HRG)

- 220 employees, 10 office locations serving PA, Ohio, and West Virginia
- 57 years experience providing municipal services
  - 100+ MS4 clients throughout PA
  - **Wyoming Valley Sanitary Authority** (32 Municipalities)
  - **Dauphin County** (SW Regionalization)
  - **Lycoming County Water & Sewer Authority** (SW Regionalization)
  - **Lackawanna County** (SW Regionalization)
  - **Cumberland County** (County-wide Action Plan)
  - **Centre County** (County-wide Action Plan)

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For additional information regarding Stormwater Utilities:
http://www.hrg-inc.com/stormwater-fees/

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