



# Borough of Northumberland

## Stormwater Program Funding Discussion

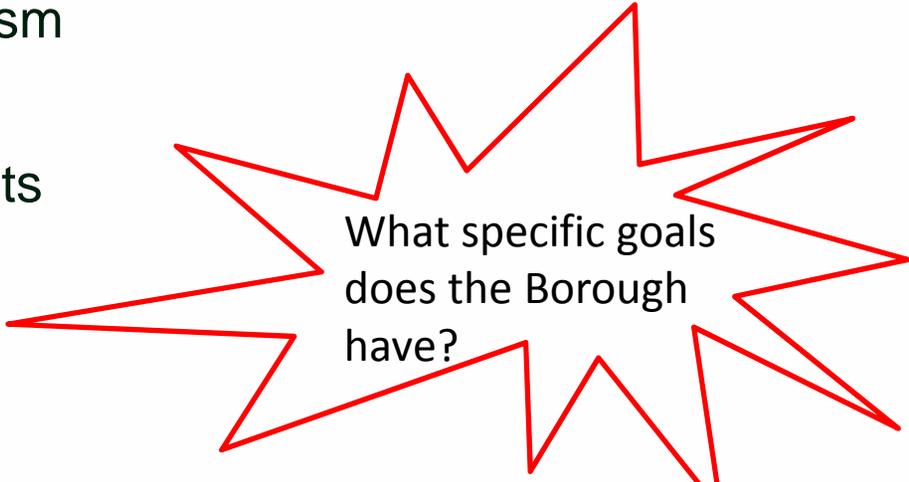
**HAZEN AND SAWYER**  
Environmental Engineers & Scientists

March 3<sup>rd</sup>, 2015

# Northumberland Specific Drivers

\*Act 68 of 2013 allows the formation of stormwater authorities

- Failing Infrastructure, Sinkholes, other upgrades necessary
- Sustainable Funding Mechanism
- SSO Reduction
- Chesapeake Bay Requirements
- TMDL
- Flood reduction
- Public Safety
- Prevent Stream Erosion, sustain and promote stream revitalization
- Community revitalization
- MS4
- CSO Reduction



What specific goals does the Borough have?



Why should we implement a SW fee?

# Steps to implement a Stormwater Fee

## 1. Gather Data

- Existing system
- Current funding , budgets,
- Billing system

## 2. Develop Costs

- Understand planned and necessary projects
- Consider master planning elements (inventory, condition assessment, modeling)
- Determine annual allowance for improvements (WQ & Drainage)

## 3. Rate Structure Establishment

- Based on available data and best-fit approach for the Borough
- Exemptions & Credits
- ESU / imperviousness analysis

## 4. Ordinance Adoption

- Implementation schedule
- Legal requirements
- Develop ordinances
- Public involvement

## 5. Utility Billing Database

- Determine appropriate billing method
- Maintenance and management
- Fee collection methods

# Historically, rate structures have been based on proxies for runoff generation

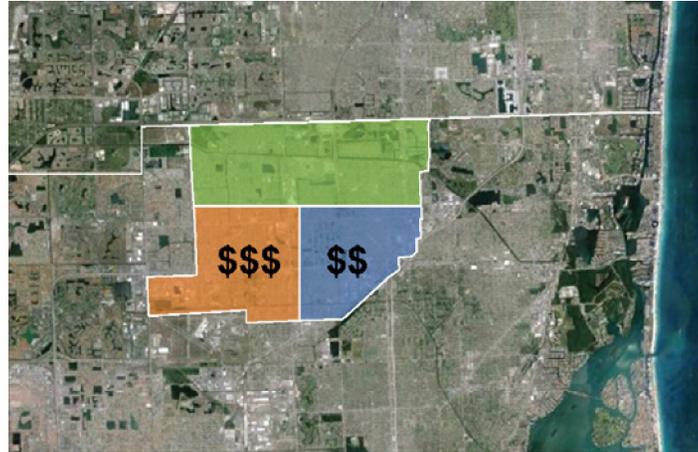


...contribution to burden is a measure of the benefit from the system / program



# Rate structure architecture can be highly variable, but fairness depends on:

- Cost Apportionment
  - What services?
  - For whom?



=



- Parcel Apportionment
  - Impervious area
  - Total and impervious area
  - Land use

# ERU/ESU could be based on single or multiple classifications



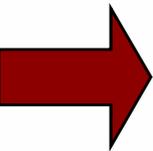
SFR



Residential

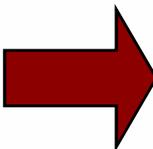
... what works best for your community

# Depending on community demographics, perceptions, etc., multiple tiers may be needed

0  1500 sf



Small House

1501  3500 sf



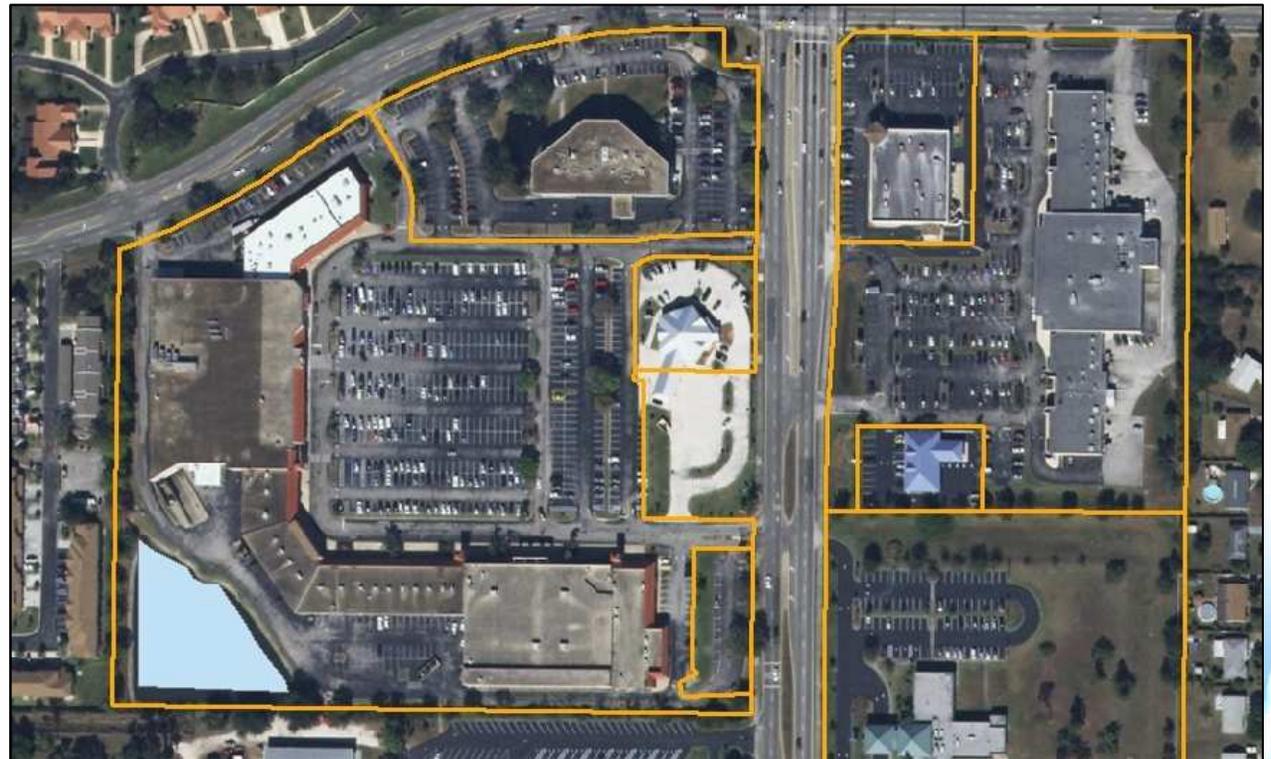
Medium House

3500 sf <



Large House

# Non-Flat rate category properties should have uniquely computed ERU values



... typically there is a large degree of variability

# Implementation Costs

- Utilities implemented in PA range from \$30 to \$90 annually per household.
- A more acceptable breakdown is \$2.50 - \$7.50 per household per month.

Some municipalities choose to start out with even smaller costs per household per month, to establish the program and fund the start up study such that more appropriate costs can be recognized as the program develops and needs are realized.

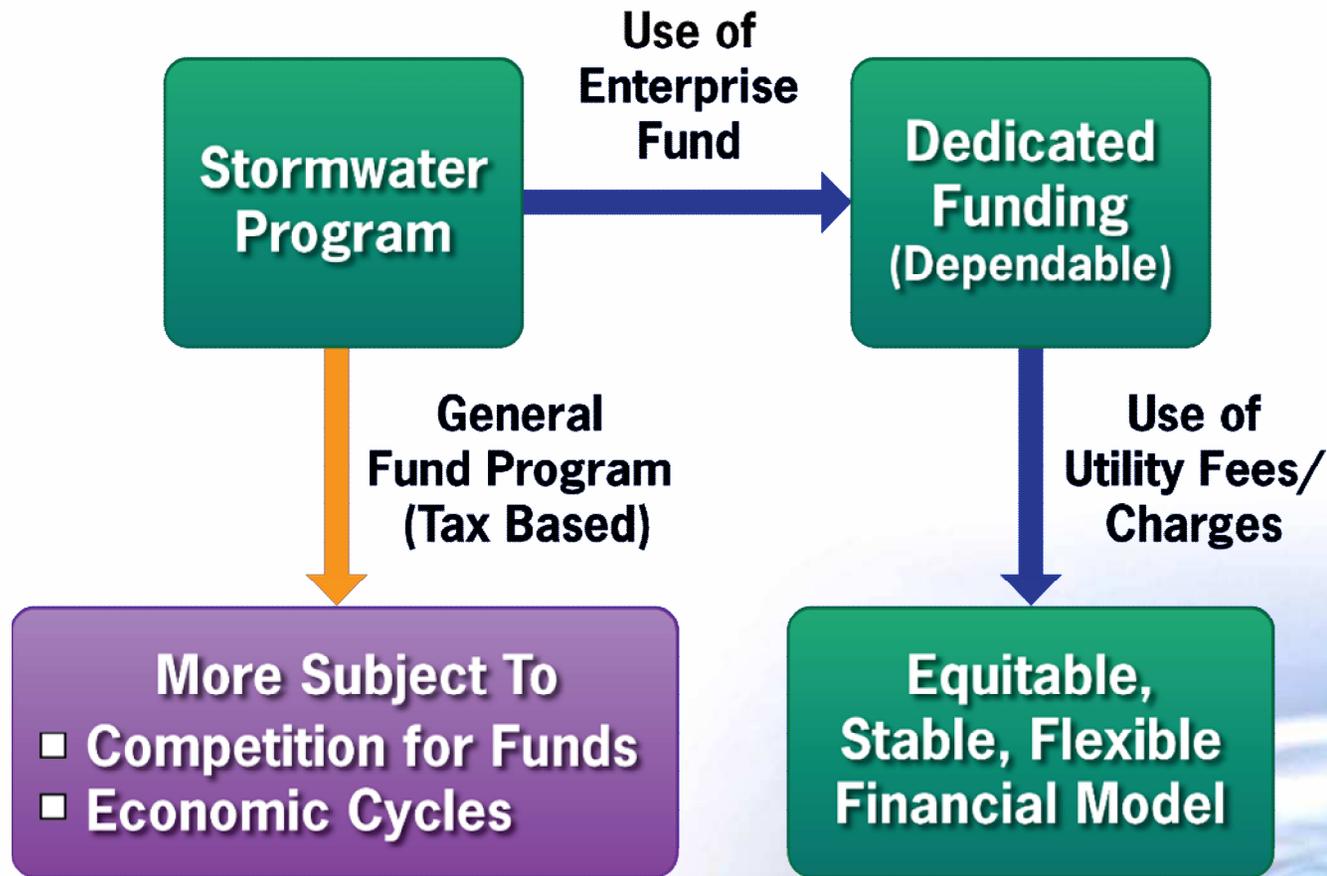
# Study Costs

- Dependent upon the prep work that the borough has done to understand their issues.
- Dependent upon the Borough's understanding of the true costs associated with correcting deficiencies.
- Dependent upon the amount of previous program efforts completed to date....i.e. mapping, modeling, condition assessment, maintenance programs, etc.
- Typically in the neighborhood of \$45k-\$55k, but each municipality is unique.

# Advantages of Implementation

- When deciding to fund stormwater projects, other priorities and departments can easily take precedence. Dedicating a stream of revenue to stormwater improvements alleviates this issue.
- Stormwater Authorities/Fees provide opportunity for sustained, flexible, & adaptive methods for financing improvements and complying with regulatory requirements.
- User Fees are generally more acceptable to residents than a stormwater “tax”. The fee can be based upon real costs, and the implemented benefits can be visible.

# The choice of a funding model has a tremendous effect on your program



# Services and costs which can be included in the utility

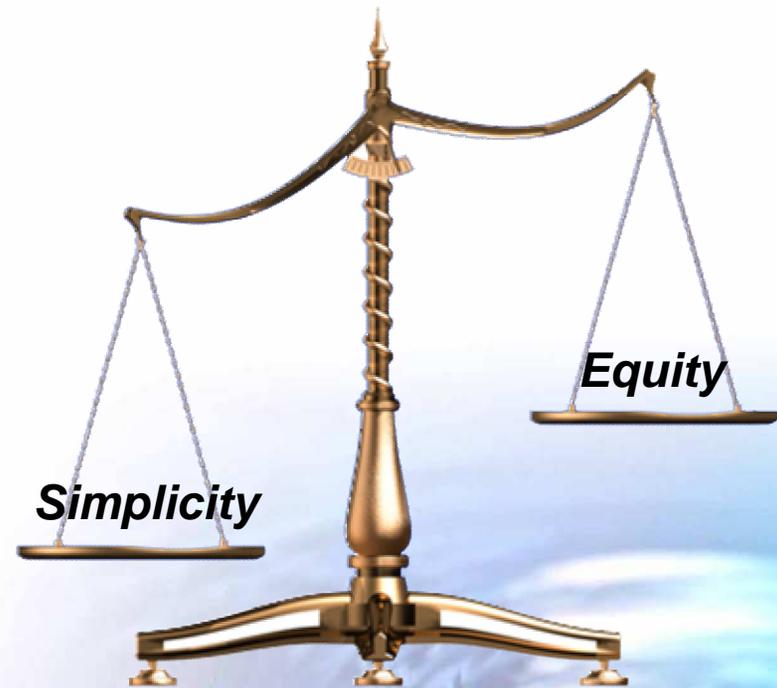
- Administration
- Planning
- Development review
- Operation & maintenance
- Water quality monitoring
- Capital improvements



# Fundamental requirements of a stormwater utility

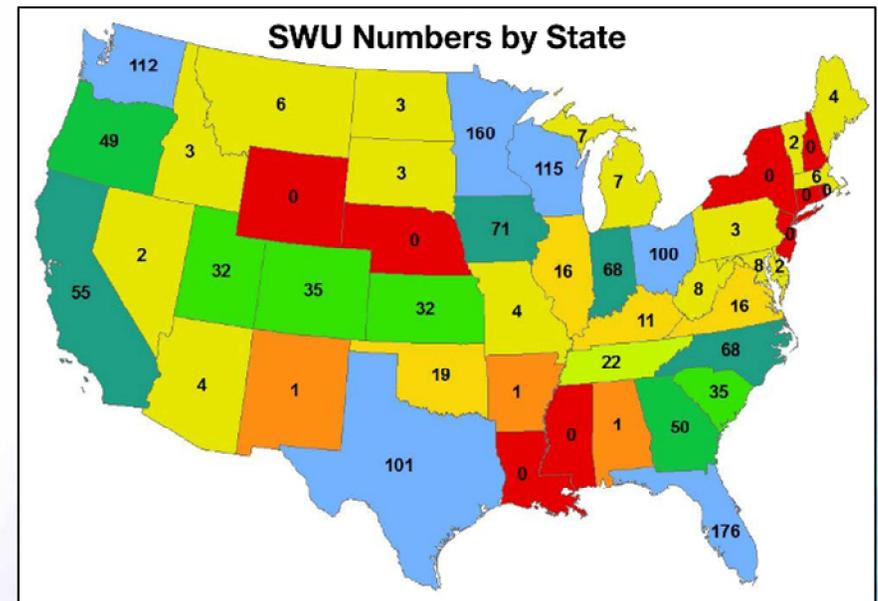
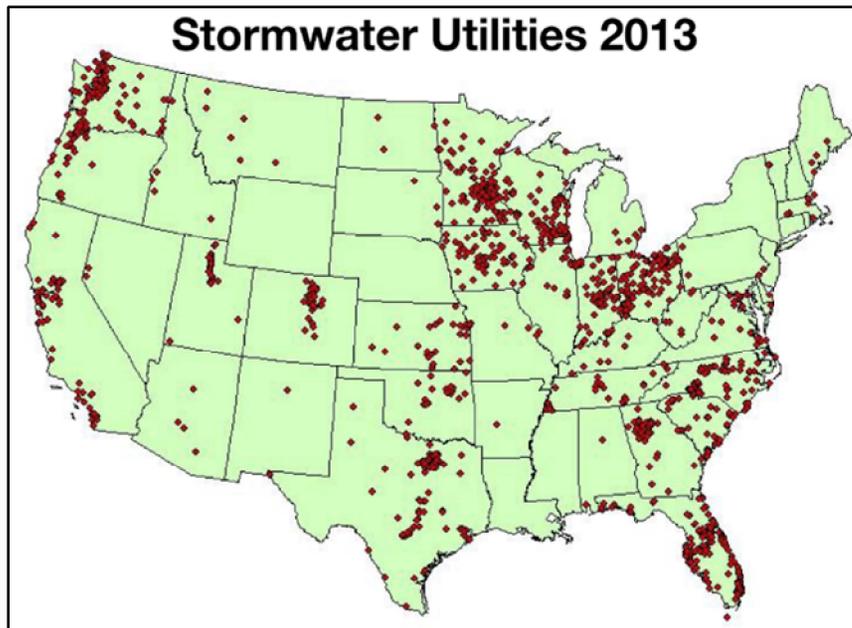
- Dedicated / sufficient revenues
- Equitable rate structure for customers
- Collectable / enforceable
- Easily administered
- Adaptable
- Long-term sustainability
- Legally defensible (ordinances/resolutions)

**Balancing  
administrative  
simplicity and fairness  
is the key**



# The groundswell of Stormwater Utilities is well under way

- 39 States with SWU's (over 1400 total)
- Six states with over 100 (Florida approaching 200)
- Charges are widely variable (usually higher for established programs)



*\*Western Kentucky University Stormwater Utility Survey 2013.*

# Recent Pennsylvania Legislation Enables Stormwater Authorities/Utilities

- On July 9, 2013, amended Senate Bill 351 was signed into law, now known as Act 68. Took effect on September 6, 2013.
- Authorizes new or existing municipal authorities to undertake stormwater planning, management, and implementation.
- Municipalities can form stormwater authorities.
- Can levy a fee to fund programs that address stormwater management.

# Pennsylvania Stormwater Utilities to Date

1. Philadelphia Water Department – Parcel-based Fee since July 2010; fee based on gross area and impervious area.
2. Mt. Lebanon – Stormwater Management Fee since Sept. 2011; flat rate for single family units, and other properties in terms of ERUs. (\$8/SFR unit)
3. City of Meadville – Stormwater Management fee since Fall 2012; annual fee for properties greater than 200 SF; use of ERUs.
4. Radnor Township (in Delaware County) – Since Dec. 2013; single family flat rate, with other properties in 4 categories using ERUs.
5. Jonestown Borough (Lebanon County) – Stormwater Fee (user fee) approved in Dec. 2012 for stormwater service customers; flat fee for residential, and ERU basis for non-residential.

## Other Notable PA Stormwater Utility Potential

1. City of Reading – Analysis, fee structure, program recommendations completed but on hold
2. Sunbury Municipal Authority (in Northumberland County) – Bills separate fee for Flood Control since Jan. 2013; residential flat fee, with other properties' fees tied to assessment, 5 categories.
3. West Chester Borough (Chester County) – In Dec. 2013, Public Works Committee voted to move ahead with Public Outreach for 6-Tier Stormwater Fee rate structure.
4. Borough of Whitehall – Breaking out a portion and dedicating part of the sanitary bill as a stormwater fee. Tried separating tenants from owners, but became “too hard”. Sewer rates reduced to help offset the new fee (\$11.97 to \$9.82 per 1k gallons). New SW fee for a SFR unit is \$96/yr.

# Each community is unique

- Types of Stormwater Issues
- Wealthy versus Poor
- Urban versus Rural
- Proactive versus Reactionary
- Commercial-Industrial versus Residential/Suburban

*Understand your audience; tailor your approach*

# Questions?

- Contact Information

Mark R. Delisio, P.E.

- [mdelisio@hazenandsawyer.com](mailto:mdelisio@hazenandsawyer.com)

*Special Thanks to Source: Rob Taylor, P.E. (Hazen and Sawyer)*