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Ferguson Township  
Stormwater Advisory Committee

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# Meeting No. 1 Phase II Kick Off

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Phase II  
Stormwater User Fee Feasibility Study

April 10, 2019



 **Gannett Fleming**

Excellence Delivered **As Promised**

# Agenda

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Welcome & Introductions

Overview of Stormwater User Fee Study

Review & Discussion

Future Meeting Logistics

# Background

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Challenges in stormwater management place pressure to find strategies to meet short term and long term program objectives with sufficient funding. The purpose of this study was to evaluate the feasibility of establishing a user fee in the Township to provide stormwater management service funding for infrastructure needs, regulatory compliance, and maintenance objectives.



# Study Process

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- What is the current stormwater management program?
- What are the problems, needs, and opportunities?
- Why change the current funding method?
- What are the priorities in the next 5 years and what are the long range goals?
- What is the best organizational structure to deliver services to the community?
- What program elements require additional funding?
- What is the best way to pay for stormwater management?

# Scope of Study

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Program Review

Stormwater Management Program  
Development

Public Outreach / Education

Stakeholder Advisory Committee

Organization and Staffing

Rate Structure



# Evaluation of Current Stormwater Program

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- Collection / Conveyance System
  - Drainage Inlets
  - Pipes
  - Channels
- BMPs / Stormwater Basins
- Green Infrastructure & Low Impact Development
- Regulatory Pressures
- Permit Compliance – Outfall Screening Program
- Equipment
- Staffing

# Evaluation of Current Stormwater Program

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## Infrastructure

- BMPS
- CMP
- Basins
- Inlets
- Plastic & Concrete Pipes
- Channels
- Curbing

## Operations

- Assessment
- System Inventory
- Proactive Maintenance
- Staffing – Maintenance Tasks
- Partnering with other Communities
- Flow Capacity Analysis
- Staffing – Engineering
- Staffing – Inspections

## Investment

- Mandated Capital Projects
- Non-mandated Capital Projects
- Equipment

## Regulatory

- NPDES MS4 Permit
- Development Standards
- Design Standards (GSI goals)

## Issues

- Privately owned facilities that managed public runoff
- Erosion along streambanks
- Maintenance of roadside channels in non-urban areas

# Evaluation of Current Stormwater Program

Priority		Priority					
		Most Important + Important	Less Important + No Opinion	Most Important	Important	Less Important	No Opinion
<b>Infrastructure</b>							
1	BMPs	88%	12%	41%	47%	12%	0%
1	CMP	82%	18%	71%	12%	12%	6%
2	Basins	71%	29%	24%	47%	29%	0%
3	Inlets	65%	35%	24%	41%	29%	6%
4	Plastic Pipes	53%	47%	12%	41%	41%	6%
5	Concrete Pipes	47%	53%	6%	41%	41%	12%
6	Channels	35%	65%	0%	35%	59%	6%
7	Curbing	29%	71%	0%	29%	65%	6%
<b>Operations</b>							
1	Assessment	94%	6%	41%	53%	6%	0%
2	System Inventory	88%	12%	47%	41%	12%	0%
3	Proactive Maintenance	82%	18%	41%	41%	18%	0%
4	Staffing - Maintenance Tasks	82%	18%	35%	47%	12%	6%
5	Partnering with other Communities	71%	29%	41%	29%	24%	6%
6	Flow Capacity Analysis	59%	41%	12%	47%	35%	6%
7	Staffing - Engineerings	59%	41%	12%	47%	29%	12%
8	Staffing - Inspections	53%	47%	24%	29%	41%	6%
<b>Investment</b>							
1	Mandated Capital Projects	94%	6%	35%	59%	6%	0%
2	Non-Mandated Capital Projects	71%	29%	12%	59%	29%	0%
3	Equipment	47%	53%	24%	24%	53%	0%
<b>Regulatory</b>							
1	National Pollutant Discharge Elimination System (NPDES) MS4 Permit	88%	12%	41%	47%	12%	0%
2	Development standards for new and redevelopment projects	71%	29%	24%	47%	29%	0%
3	Min. design standards to advance green infrastructure/climate change related goals	41%	59%	18%	24%	59%	0%
<b>Issues</b>							
1	Privately owned basins and systems that manage public stormwater runoff	82%	18%	18%	65%	18%	0%
2	Erosion along streambanks in both urban and non-urban areas.	53%	47%	12%	41%	41%	6%
3	Maintenance of roadside channels in non-urban areas.	41%	59%	0%	41%	59%	0%

# Priority Analysis

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## Gap

- Current stormwater program 'gaps'

## Priority / Goal

- As determined by the SAC and Township Staff

## Strategy

- The action item to resolve or begin resolving the gap

# Program Level of Service Options

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Current

- Current Level of Service is the “business as usual” option with minimal to no change in program or services.

Basic

- Basic Level of Service – This is the minimum improvement to a program or service.

Medium

- Medium Level of Service – This is an increased level of effort most closely aligned as being proactive.

High

- High Level of Service – This is the optimum level of effort for a particular program or service.

# Stormwater Collection System - Drainage Inlets

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- Township owns almost 2,000 drainage inlets
- Routine inspection & maintenance is not conducted (limited shared work force)
- Inlets replaced/repared as part of or ahead of highway projects.



# Stormwater Collection System - Pipes

- Township owns approx. 33.5 miles of drainage pipe (with additional privately owned pipe)
- Inspection and Repair/Replacement done in advance of highway projects
- Township has a Capital Improvements Plan for pipe replacement, but not driven by greatest risk of failure.



# Stormwater Collection System - Channels

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- Township owns almost 48 miles of roads without curbing (i.e. rely on side drainage / channels)
- Debris in channels (both roadside and “backyard”) is a consistent issue.
- Township has identified approx. 24 miles of existing roadside channels in need of maintenance.



# BMPs (Stormwater Basins)

- Inventory lacks pre-2003 facilities.
- 118 Private BMPs
- 23 Township Owned BMPs
- 20% of post 2003 inspected for permit compliance.



# BMPs & Basins – Roles & Responsibilities

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- There are “orphaned” basins (one owner providing maintenance for facility serving many)
- Failure of private facilities receiving public land runoff can create safety and health issues, blockages, reduced capacity.



# Green Infrastructure & Low Impact Development

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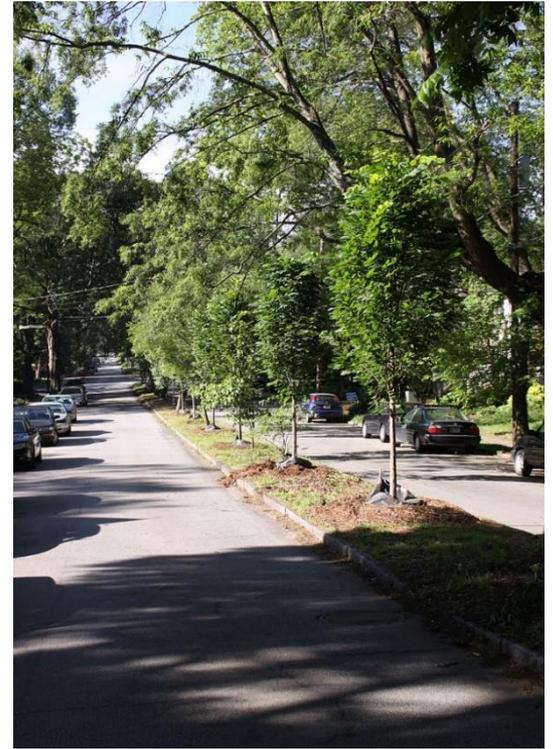
- Township required to maintain written program for inspection of BMPs.
- Inspections rely on part time staff member.
- Township is mandated to “encourage” LID practices.



# Green Infrastructure (GSI) – Why Invest

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- Increased use of BMP's provide on-site solutions addressing water quality and quantity.
- Build on Township Tree Inventory efforts – reduce “heat island” and infiltrate runoff.
- Promote “green” practices such as neighborhood rain barrel programs to engage the public.
- Stream restoration and implementation in agricultural areas support meeting land management goals.



# Regulatory Pressures

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- Township in headwaters of streams/rivers leading to Chesapeake Bay.
- 2003 Pennsylvania Stormwater Discharge Permit for Small municipal storm sewer systems (MS4) issued to Ferguson Township.
- 2018 MS4 permit is renewed with additional mandates.
- Five-year permit will be renewed in 2023.

## Permit Compliance – Outfall Screening Program

- Township screens 126 outfalls regulated under the MS4 program.
- Inspections currently rely on part time staff member.
- GIS can be useful in management of the screening or data collection effort.

# Equipment

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- Township rents equipment or shares with other departments and as available. Limits ability to proactively plan and can cause delays in effort and increases in costs.
- Township lacks CCTV truck, flush truck or modern vac truck to perform basic stormwater inspection and maintenance.



# Staffing

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- Township retains part time stormwater staff member for inspections.
- Township shares role for stormwater with Township Engineer.
- GIS is a key to resource allocation to maintain system and inventory database.
- Proactive management requires additional “dedicated” staff (both office and field)



# Stormwater Program Priorities

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- Assessment of infrastructure systems
- Pipeline rehabilitation
- Mandated MS4 PRP projects
- O&M enhancements
- Increase LOS for facilities outside of urban areas
- Routine Inspections
- Partnership with Transportation Improvement Program

# Stormwater Utility

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- A way to organize operations and clarify roles.
- A way to quantify root problems and the cost to correct.
- A way to build political support for change in services.
- A way to move along efficiently; goal-driven.
- A way to identify and focus on priorities to meet needs.

**Stormwater Management Program**



# Why is Ferguson Evaluating a User Fee?

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- Regulatory requirements will continue to drive much of the future “non-optional” change.
- What, who and how long it takes to “do stormwater” are each growing complex .
- Systems are aging and need reinvestment.
- Costs are typically greater when “reacting” to problems – pay me now or pay me later.
- Collaboration with other communities can help in emergencies or for one-time need. Create challenges in operations planning.

# Funding Values

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- Stability to Manage Long Term Program?
- Dedication to Stormwater Services Only?
- Linked to Purpose for Public System/Services?
- Easy to Administer? Minimal Overhead Costs?
- Easy to Understand Method(s)?
- Distribute Costs based on Level of Service? (often considered in rural/urban areas)
- Ability to use Credits/Incentives?

# Funding Methodologies

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## Current

- General fund revenues (income (65%); real estate transfer tax, and real property tax (35%))
- Transportation Improvement Fund (dedicated tax) when working in the roadway

## Stormwater User Fee

- **Impervious area** is the primary link between the parcel and amount of the fee. It is the 'meter' for stormwater fees.
  - Many communities have used the "ERU" approach— equates all land use to single family residential footprints.
  - All properties pay on the same rate unit
  - Different rates assigned in "zones" in the Township
  - Different service districts based on services provided

# Comparison of Funding Methods

Value/Goal	General Funds	Stormwater User Fees
Accomplish Long Term Goals	✓ Yes	✓ Yes
Dedicated to Stormwater Only	○ No	✓ Yes
Link to Purpose of Services	○ No	✓ Yes
Easy to Administer	✓ Yes	<input type="checkbox"/> Maybe
Easy to Understand by Public	✓ Yes	Only with Education
Cost Distributed based on LOS	○ No	✓ Yes
Ability to Use Credits/Incentives	○ No	✓ Yes

# Feasibility Determination

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- Compelling reason for action
- Benefits of user fees
- Operational Impacts
- Ability to Address Unique Conditions
  - Revenue Neutrality
  - Credits for Private Investments
  - Inter-Program Connections
  - Level of Service Variability
- Rate Fairness and/or Equity
  - Different service districts based on services provided (urban/agricultural)
  - Fee policies

# Current Revenue Sources & Potential Impacts of User Fee

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## Current

- General fund revenues (income (70.75%); real estate transfer tax (14.5%), and real property tax (14.75%))

## Stormwater User Fee

- Will reduce GF revenue demand by 17.4%

## Real Property Taxes

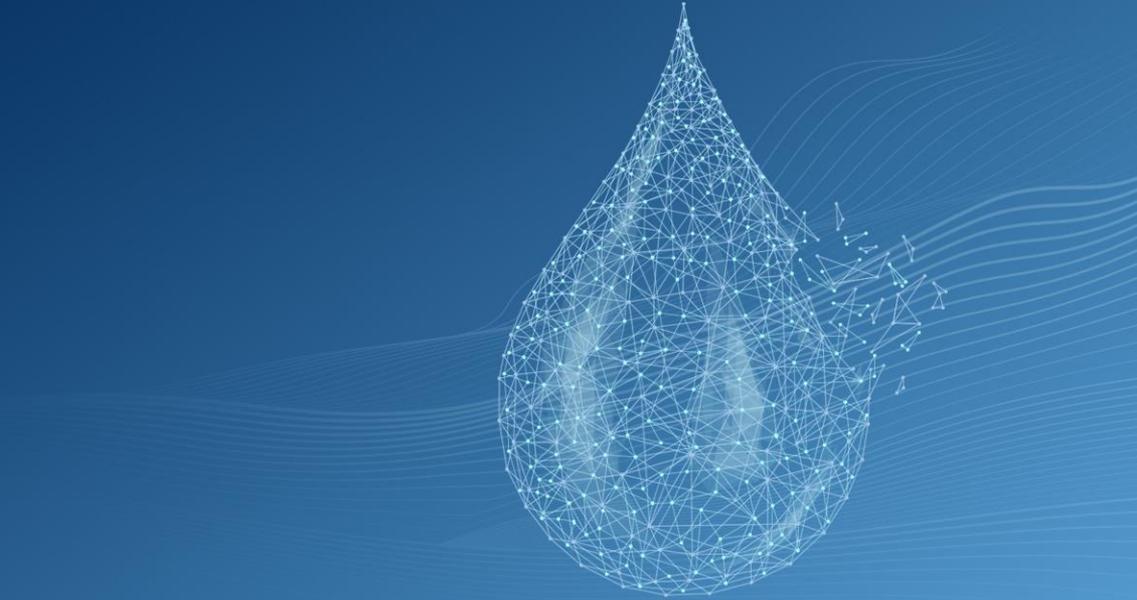
- RPT as primary funding will raise millage by 2.435-3.218

## **Update - Activities Since June 2018**

**Dave Modricker, Public Works Director**  
**Ron Seibert, City Engineer**



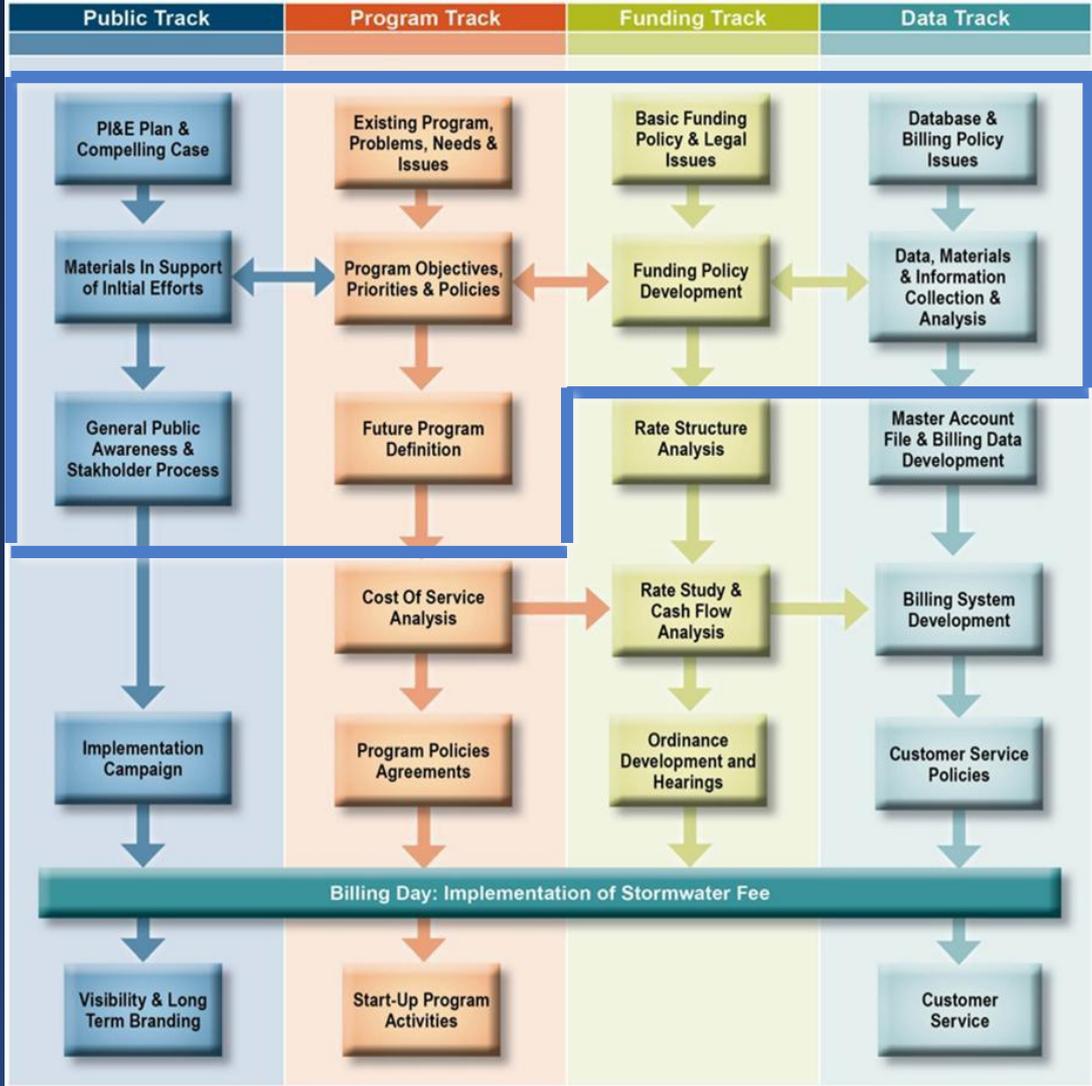
# Phase 2 Focus

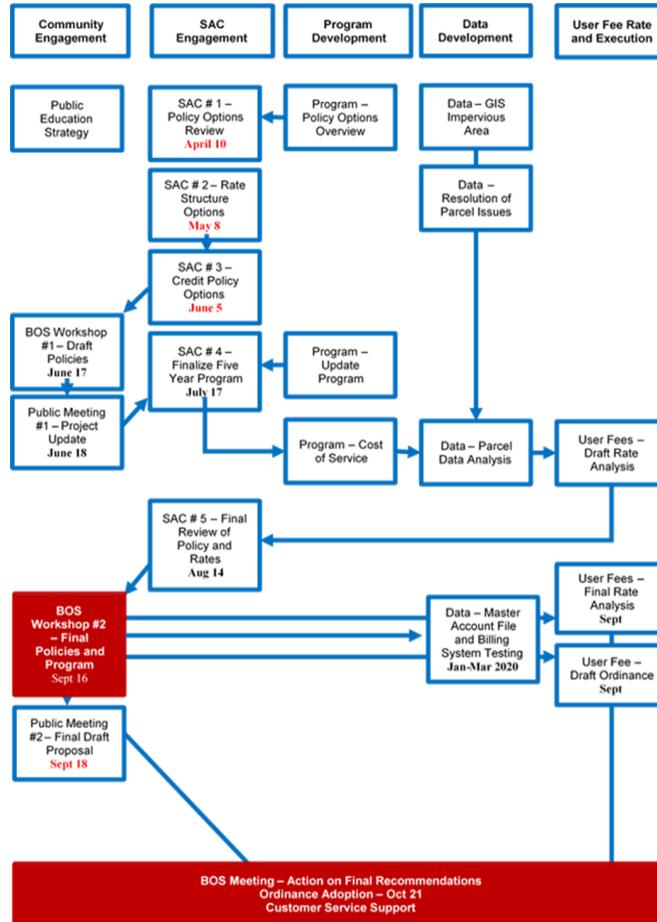


# Policy Issues – Role of the Advisory Committee

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- Urban vs Rural/Agricultural
  - Level of Service delivered in each (what, frequency, needs)
  - Extent of Service (geographic boundary of service area)
- PSU Partnership
  - Both hold water quality permits
  - Both have extensive systems
  - Define areas of responsibility in partnership
- Revenue Neutrality
  - Substituting fees for taxes changes who pays and how much
  - Strategy for long-term capital and maintenance needs
- Credits of Private Investment of Stormwater Infrastructure





# Next Steps

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- Refine recommendations on program investments
  - Finalize Level and Extent of Service definitions/policy
  - Update Cost of Service Model
- Finalize mapping data and complete QC review
  - Analyze potential revenue impacts of rate options
  - Identify shifts in revenue generation impacts based on rate options
- Workshops for the Board of Supervisors
- Public outreach initiatives (public meetings, targeted stakeholder meetings)
- Finalization of cost and rate options
- Policy refinements
- Final recommendations

# Preliminary Schedule

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- Advisory Committee (Wednesdays at noon)
  - May 8 – Policy discussion and rate structures
  - June 5 – Policy discussion on credits and public/private investment strategy
  - July 17 – Final recommendations on program elements
  - August 14 – Review of all recommendations
- BOS Meetings
  - June 17 – review policies and rate recommendations
  - September 16 (refined/final policies and program recommendations)
  - October 21 (final decision/ordinance)
- Public Meetings
  - June 18
  - September 18

# Service Priorities

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- **Assessment of infrastructure systems** including expanded documentation on facilities built prior to 2003, as well as current and complete data on infrastructure
- **Investment in pipe rehabilitation**, lining corrugated metal pipe in neighborhoods as well as replacement when critical condition indicating potential or eminent failure is identified.
- **On-going compliance with mandated water quality permit**
- **Operation and maintenance enhancements for all components of the drainage infrastructure**
- **Increased level of service for maintenance of ditches and cross-pipe system components outside the urban area.**
- **Inspection of infrastructure** on a routine basis for inlets, pipes, open channels, and stormwater management facilities.
- **Continued partnership with the Transportation Improvement Program** for drainage system components within the Township roadway network.

# Funding Options:

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- **Status quo**, a combination of Township general funds and capital resources from the Transportation Improvement Fund (TIF) for stormwater systems within the roadway in conjunction with roadway projects. **Utilization of grant funds** when opportunities exist.
- **Implementation of a user fee** as the primary funding methodology with **grant funds** when opportunities exist.
- **Implementation of a user fee**, utilization of **grant funds** when opportunities exist, and **partnership with TIF** for capital funding for improvements in ROW.
- **Implementation of a user fee**, utilization of **grant fund** when opportunities exist, **partnership with TIF for capital funding for improvements in ROW**, and **partnership with community through incentives to create public/private investments**.

# Funding Structures for Fees:

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1. Fixed billing unit using single family residential impervious area as basis (ERU).
2. Tiered Single Family Residential using three tiers of single family residential categories that differentiate by impervious area ranges (i.e., 300-2000 sq. ft.; 2001-3000 sq. ft. and over 3000 sq. ft.). All other properties are billed on the relative basis to the median single family home impervious area as the billing unit.
3. Urban/Rural Level of Service rates establishing a base rate that all property owners pay and varying the rate for other services that are identified by level of service.
4. Fixed billing unit on a square foot of impervious area basis regardless of land use.

# Decision Process

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- Advisory Committee Discussions
- Staff Guidance
- Refinement of the GIS Data
- Update of Documents on Cost and Service Levels
- Feedback from the BOS
- Feedback from the Community
  
- BOS final review and decision (GO/No-GO)

# Advisory Committee Logistics

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- Day of Week
- Time of Day
- Review of preliminary dates:
  - May 8
  - June 5
  - July 17
  - August 14

# Questions

