



Water  
Resource  
Center

Southwestern Pennsylvania Commission

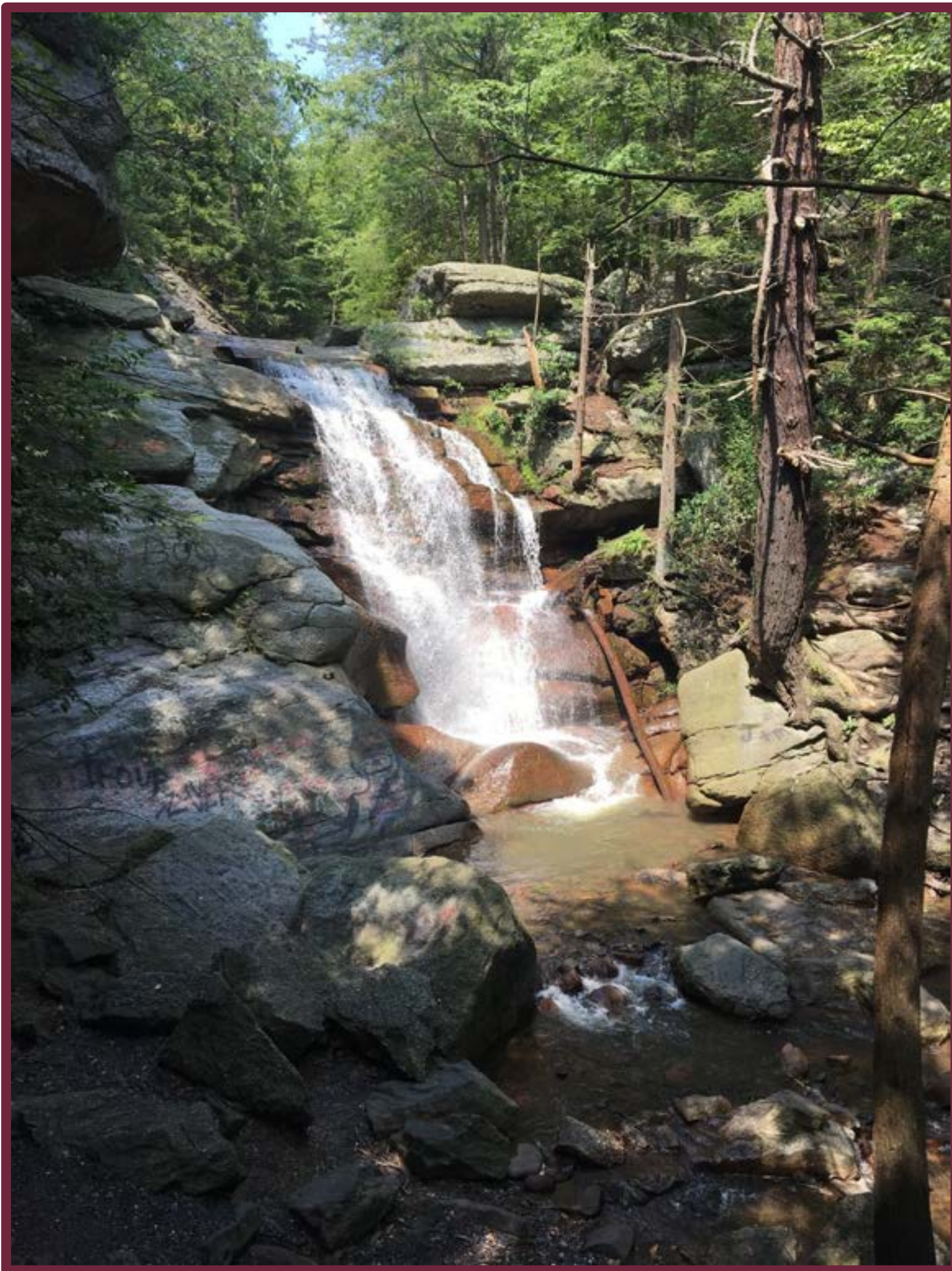
# MS4 Program Refresher:

A general overview of the MS4 Program and funding opportunities



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## **Presentation Topics:**

Stormwater Overview

MS4 Permit and Program Requirements

Regulatory Inspections/Compliance

Pollution Reduction Plan

Funding Opportunities



# MS4 Permits

## NPDES

> National Pollutant Discharge Elimination System

## General Permit (PAG – 13)

- > Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4)
- > Water Quality Permit
- > Reduce quantity of runoff
- > Increase quality of runoff
- > Reduce stream impairments
- > Improve watershed health



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DEPARTMENT OF ENVIRONMENTAL  
PROTECTION



# What exactly is included in the MS4?

- > Stormwater Conveyances or system of conveyances that is owned by a public entity that discharges to the waters of the U.S.
  - > Inlets, pipes, swales, curbing, detention BMPs, infiltration BMPs, Water Quality BMPs, outfalls
- > Not a combined sewer system
- > System is located within the Urbanized Areas designated by the Census.





# Common Stormwater Pollutants

- > Sediment
- > Nutrients (nitrogen & phosphorus)
- > Bacteria
- > Oxygen Demand
- > Oil and Grease
- > Metals
- > Toxic Chemicals
- > Chlorides
- > Thermal Impacts
- > Pesticides & Herbicides





# Stormwater Runoff



# 6 Minimum Control Measures

**MCM 1: Public Education and Outreach**

**MCM2: Public Involvement/Participation**

**MCM 3: Illicit Discharge Detection and Elimination**

**MCM 4: Construction Site Stormwater Runoff Control**

**MCM 5: Post Construction Stormwater Runoff Control**

**MCM 6: Pollution Prevention and Good Housekeeping**



# MCM 1: Public Education/Outreach

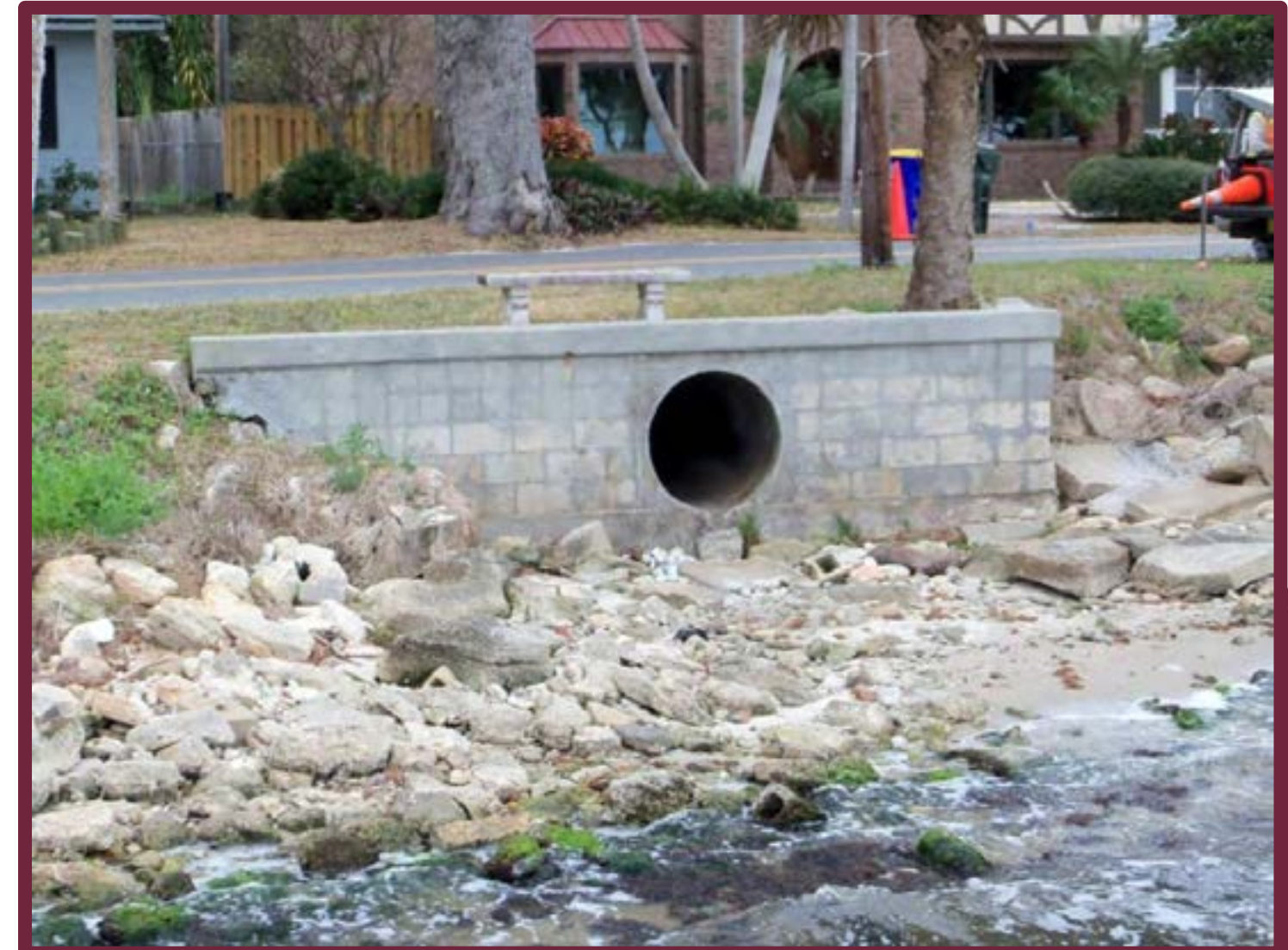
## MCM 2: Public Involvement/Participation





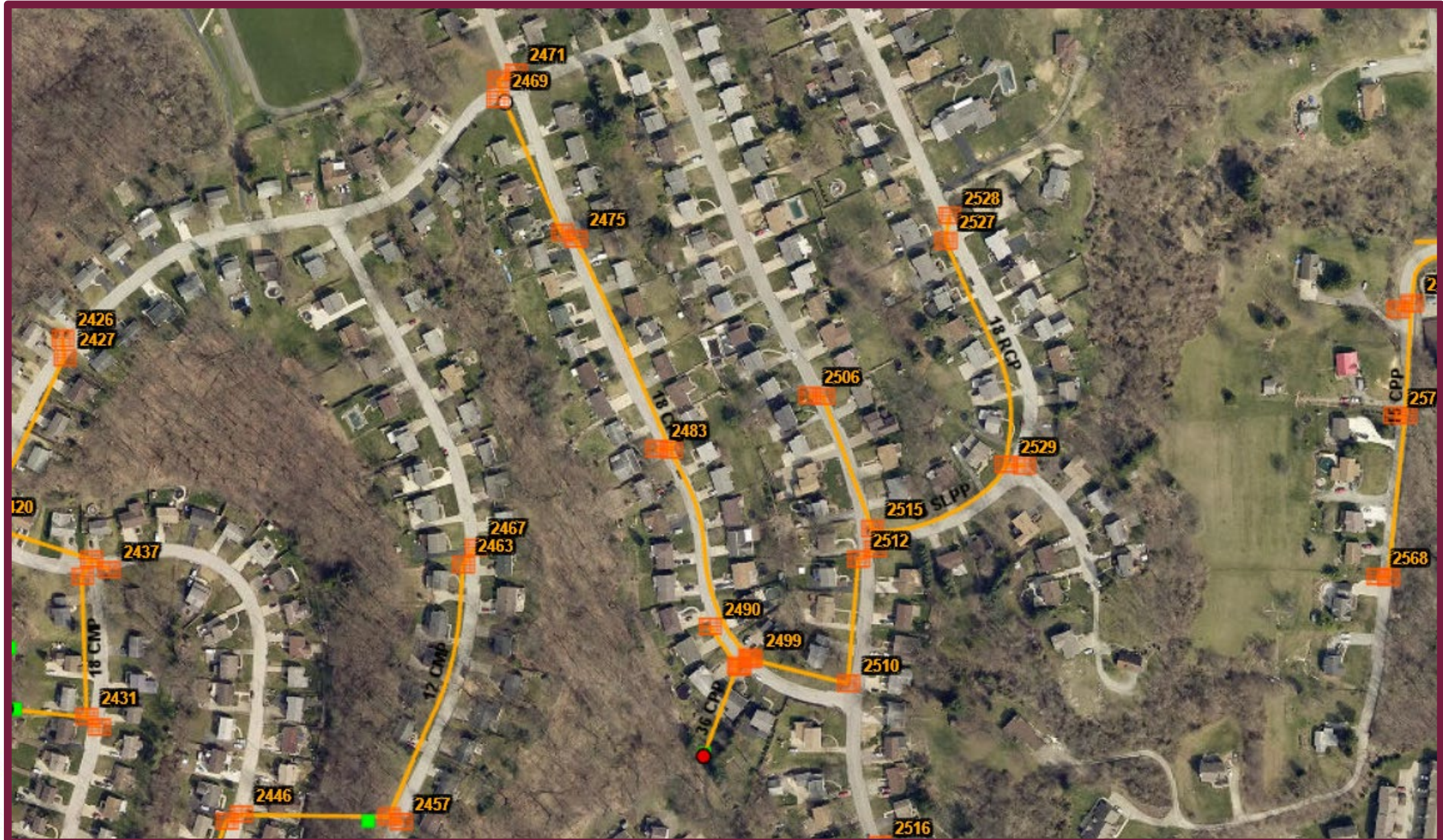
# MCM 3: Illicit Discharge Detection and Elimination

- > Reporting Illicit Discharges and Record Keeping
- > Outfall Inspections
- > Mapping the MS4





# MCM 3: Illicit Discharge Detection and Elimination





# MCM 3: Illicit Discharge Detection and Elimination

## Concerns Form PHONE CALLS

Date of Concern \_\_\_\_\_

Concerned Party Name(s) \_\_\_\_\_

Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email \_\_\_\_\_

Concern Address/Location \_\_\_\_\_

Concern Parcel Number \_\_\_\_\_

Concern Parcel Owner Name(s) \_\_\_\_\_

Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email \_\_\_\_\_

Concerned Party's Concern \_\_\_\_\_

Concerned Party's Request/Recommendation \_\_\_\_\_

Date of Inspection \_\_\_\_\_

Investigator \_\_\_\_\_

Observations \_\_\_\_\_



# MCM 4: Construction Site Stormwater Runoff Control

## MCM 5: Post-Construction Stormwater Runoff Control





# MCM 6: Pollution Prevention and Good Housekeeping





# Permit Reporting and Records

- > Deadline for Annual Status Reports are due by September 30
- > Based on activities performed between July 1 of the previous calendar year and June 30 of the current calendar year
- > Annual report fee = \$500
- > MS4 municipalities must make available to the public all plans, programs, maps and reports

**Not Documented, Not Done**





# Pollution Reduction Plan

- > 10% Sediment Load Reduction, 5% Total Phosphorous (assumption)
- > Retrofitting Detention Ponds
- > Installation of New Water Quality Infiltration Basins
- > Streambank Restoration
- > Street Sweeping
- > Rain gardens and other green infrastructure





# Collaboration

- > DEP is encouraging collaboration in this permit cycle
- > Stormwater does not recognize municipal boundaries or ownership of properties
- > With the cost and constraints some municipalities face, it may be beneficial to work together to meet regulatory obligations





# Collaboration

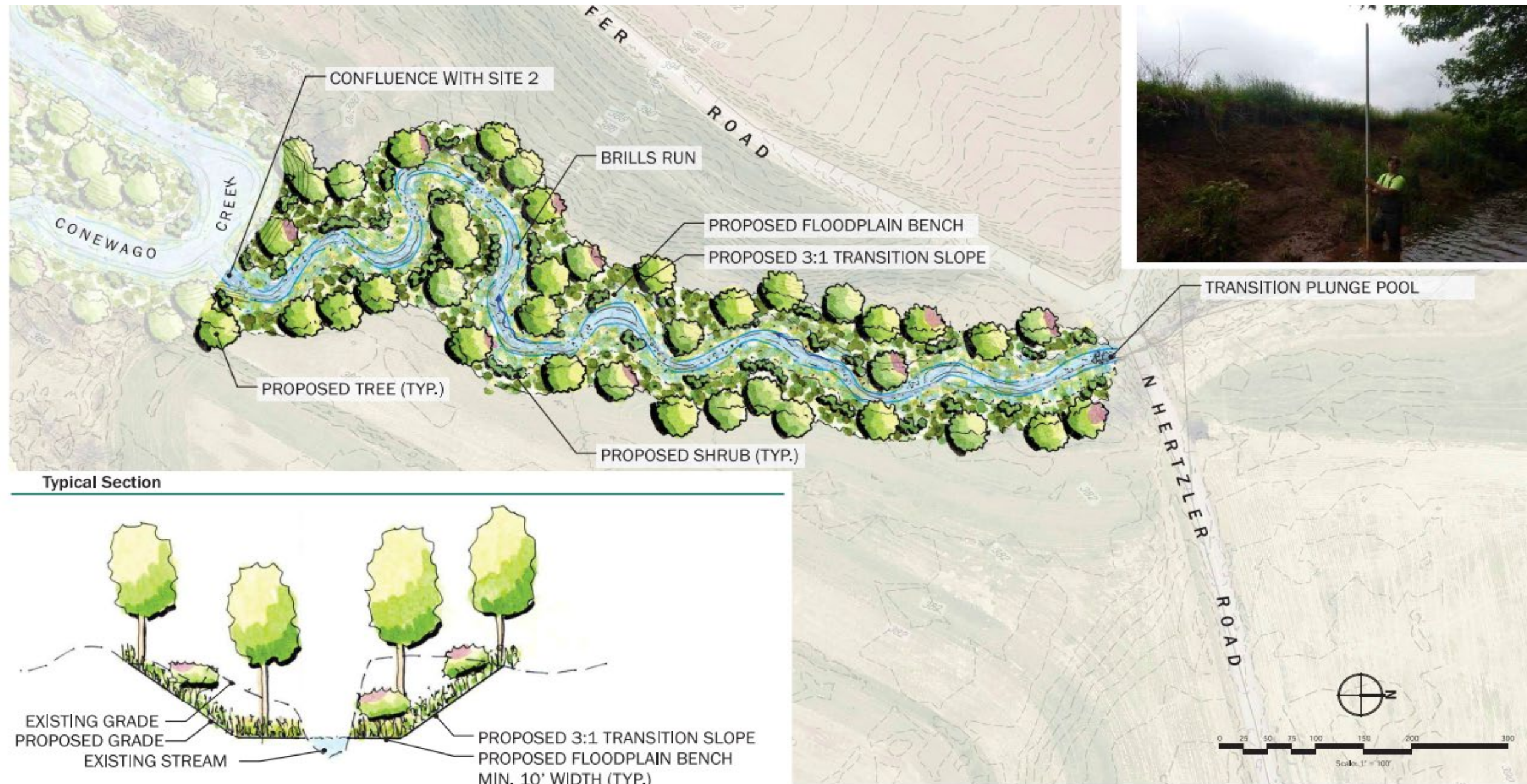
## Next Steps

- > Develop an agreement which clearly outlines the rights and responsibilities of each participating municipality
- > Consider working with local sportsman's groups, environmental groups, colleges, and others on public education efforts required by MCMs 1 and 2 and long-term implementation of BMP installation
- > If not already working with local conservation districts, consider cooperation with the CCD on construction and post-construction stormwater management plans. Also funding and volunteer opportunities



# Collaboration

<https://storymaps.arcgis.com/stories/c3a1e7e257f54ad59b237e1d40417fa9>





# Collaboration – Agreements between Permittees

## Scope of Agreement

- > Complete Pollution Reduction Plan Implementation

## Roles and Responsibilities

- > Selection process for projects, engineer, and other contracted services
- > Long-term O&M responsibilities
- > Adaptive management of the PRP over the permit period
- > Commitment to using the plan

## Allocation of Costs

- > Methodologies for sharing cost
- > Timeline for implementation/milestones



# Funding Strategies – Stormwater Utilities



**Benefit #1: Predictable, steady, dedicated revenue stream**

**Benefit #2: More equitable than property tax**

- > Stormwater utility fees ensure that everyone who contributes to a community's stormwater pays for the services they use (even tax-exempt organizations).

**Benefit #3: May improve municipal finances**

- > Allows funds to be redirected to other municipal needs



# Funding Strategies

- > Municipal/Mitigation Bank
- > Public-Private Partnerships

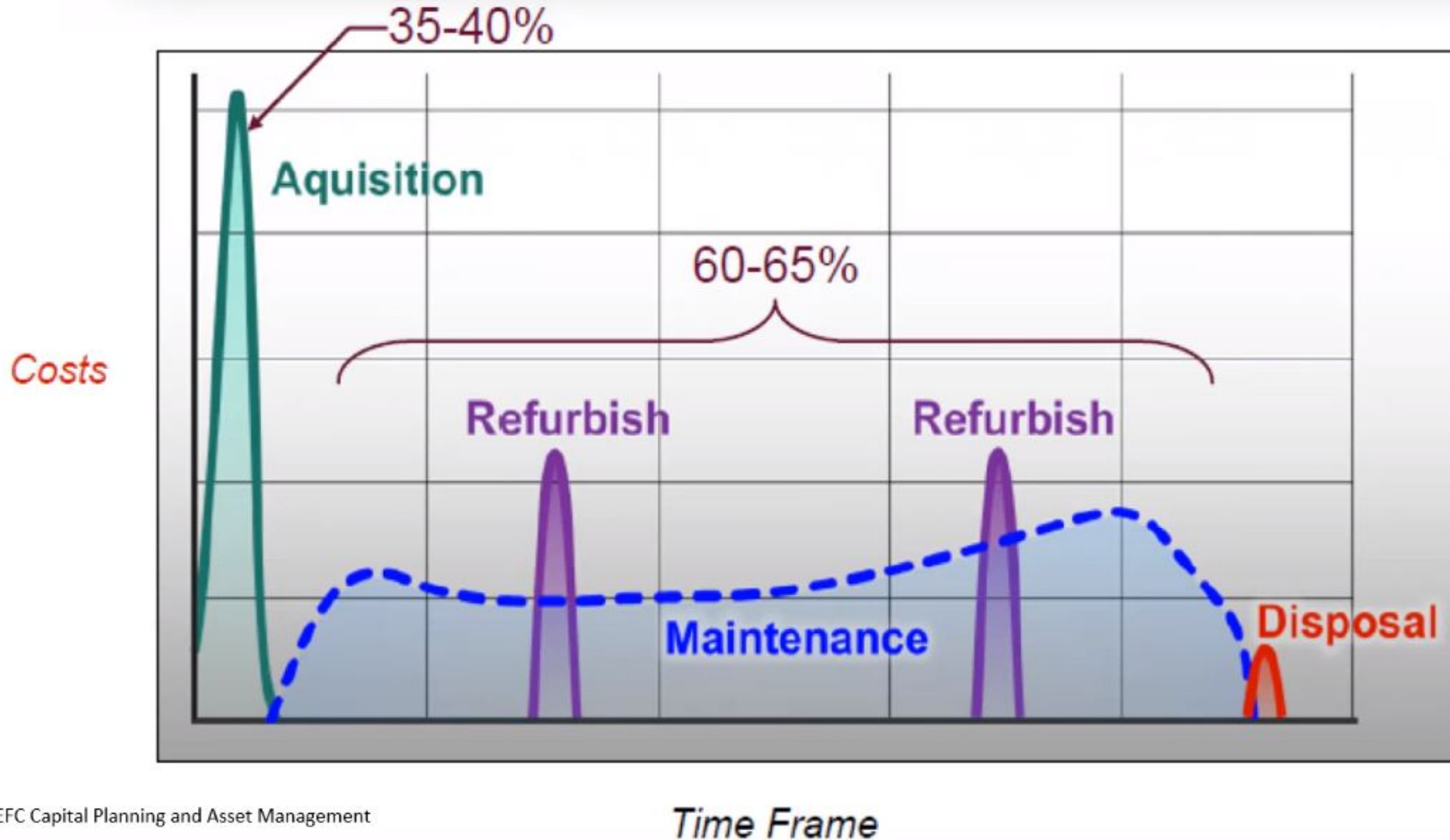
## Grants

- > National Fish and Wildlife Foundation (NFWF)
- > DCNR (Community Conservation Partnerships Program and Riparian Buffer Grants)
- > PennVEST
- > Growing Greener
- > Commonwealth Financial Authority (CFA)
- > Conservation Districts





# Lifecycle Costs





Source	Cost Coverage		Strengths	Weakness
	Capital	O&M		
General Fund	Yes	Yes	Can be used to support all program costs	Competes with other community priorities, changes from year-to-year, less equitably spreads costs across payers
Grants	Yes	No	Good source for “shovel ready” project implementation, demonstration projects and initial program staff	Not guaranteed, highly competitive, suitable for demonstration projects, not sustainable in the long-term
SRF & Loan Programs	Yes	No	Can offer up-front capital for larger projects	Not guaranteed fund source, highly competitive, must repay often with interest
Bond Financing	Yes	No	Can be used for large, long-term expenditures	Dependent on fiscal capacity, must repay with interest, cost of securing bond may be high
Permit, Development & Inspection Fees	Yes	No	Offers nexus to system and program expansion needs	May not sufficiently cover program costs, may deter development
Stormwater Utility Fee	Yes	Yes	Can generate sufficient revenue, sustainable, dependable, equitable depending on design, support all program costs	Requires significant public dialogue, can create administrative challenges
Tax Districts	Yes	Yes	Can generate sufficient revenue, sustainable, dependable	Necessitates enabling statute, can have equity problems due to property value basis

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# Resources



Southwestern Pennsylvania Commission



Pennsylvania Clean Water Academy



Southwestern Pennsylvania Commission



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