Feasibility Study for Creation of a Stormwater Utility for Maplewood, NJ

Association of New Jersey Environmental Commissions (ANJEC)

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and

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Agenda

1. Introduction and Background
2. Rate Structures & Rate Setting in Stormwater Utilities
3. Credit Policy
4. Stormwater Utility Fee Examples
5. Funding Uses and Budget Breakdown
6. Experiences and What We Learned…
7. Question and Answer

Introduction & Background

Introduction and Background…

What is a Stormwater Utility?

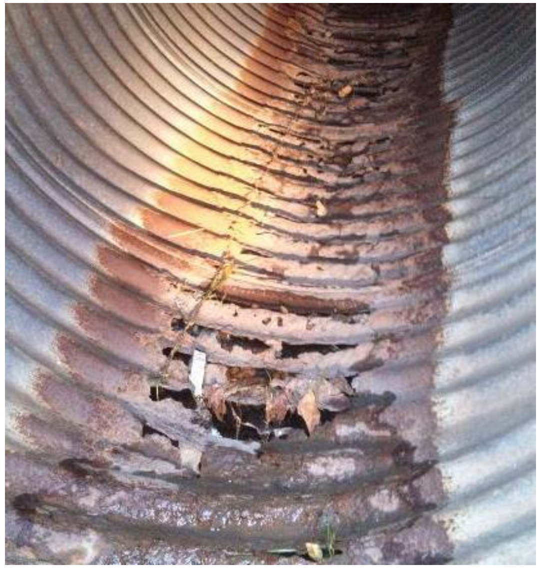
According to the New Jersey Department of Environmental Projection (NJDEP), a stormwater utility is a public utility that assesses fees and uses the revenue from these fees to maintain infrastructure designed to control stormwater flooding and reduce pollutants from entering into waterbodies.

- A Stormwater Utility User Fee system is a means of distributing the costs of operating the community's stormwater system amongst its various users
- NJSA 40A:26B-1 authorized municipalities to establish a stormwater utility
- Part of the Clean Stormwater and Flood Reduction Act
- Other reference and general information is available at the following links:
  - https://dep.nj.gov/njpdes-stormwater/swu_stormwaterutility/swu_establishing_utility/
    https://www.maplewoodnj.gov/government/stormwater-utility

History

- March 2019 – New Jersey passes Clean Stormwater and Flood Reduction Act (SW Utility Law)
- October 2022 – Maplewood applies for NJDEP Grant to Fund SW Utility Feasibility
- November 2023 – NJDEP directs Arcadis to prepare a Feasibility Study for Maplewood
- January 2024 – NJDEP, Maplewood, and Arcadis kickoff study

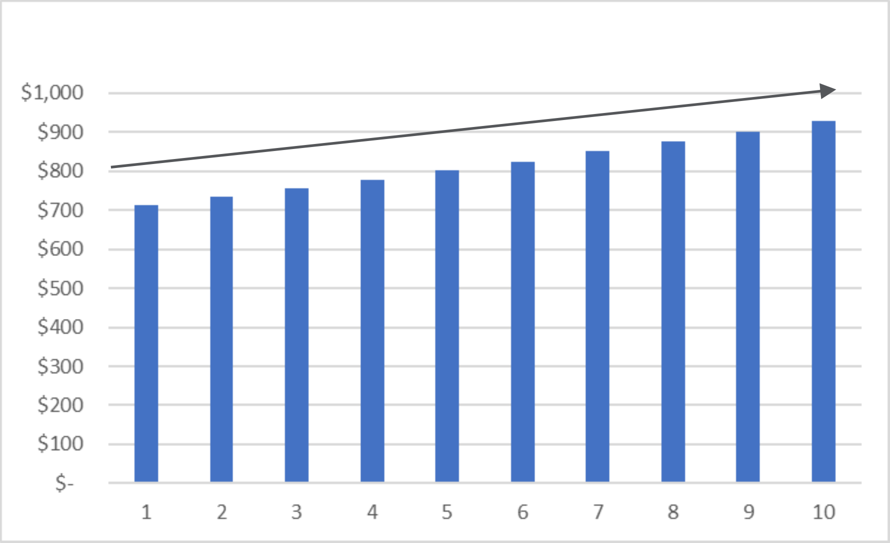
Stormwater Utilities. Why do we need them?



- Aging infrastructure
- Increasing regulatory/MS4 permit requirements
- Increased flooding issues due to climate change
- Recognition of stormwater as a true utility like water, power, etc.

Benefits of Stormwater Fees

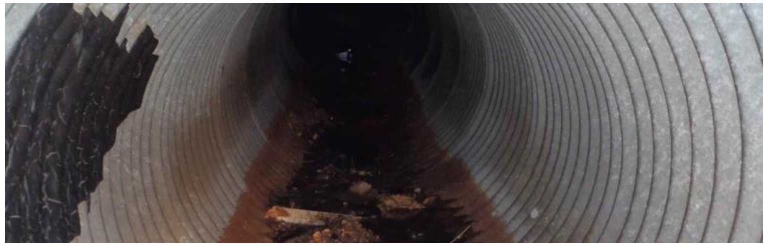
- Dedicated funding source for stormwater management
  - Stable revenue allows for long-term planning and financing
  - Capital Funding vs. Stormwater Utility
  - Stormwater projects don’t compete with other General Fund priorities for limited capital funding
- Credit policy can offer incentive for private stormwater facility maintenance and upgrades
- Can provide matching funds for Grants



Existing Stormwater Infrastructure

1,812 Storm Inlets

39.3 Miles Storm Pipe



2.8 Miles Open Curb Drainage

391 LF Storm Culverts

839 Storm Manholes

80 Storm Outfalls & Discharge Locations

Stormwater Examples in Maplewood

Stream Erosion and Undermining at Oakland Road

Recent Stormwater Projects (Funded from Road Program)

- Richmond Ave Drainage Extension (2023) - $100,000
- Stream Clean Up at Civic House (2023) - $50,000
- Oakland Road Drainage Improvements (2022) - $100,000
- Jacoby St & 44th St Drainage Improvements (2021) - $200,000
- Midland Blvd Drainage Improvements (2020) - $150,000
- Collinwood Rd Drainage Improvements (2019) - $100,000
- Oakview Avenue Drainage Improvements (2025)- $85,000

Sinkhole at Dunnell Road near Memorial Park and Maplewood Train Station

Curb Inlet Installation at Community Facility

Reinforced concrete pipe for Richmond Ave drainage extension

Rate Structures & Rate Setting in Stormwater Utilities

What is a Rate Structure?

Rate Structure determines how costs for services are apportioned to customers.

<u>Examples:</u>

- Electricity – $ per kilowatt-hour
- Water - $ per 1,000 gallons of water
- Sanitation - $ per month per trashcan
- Phone - $ per month per line based on plan

What does New Jersey Enabling Legislation require for Stormwater Utilities

- Fees shall be “…based on a fair and equitable approximation of the proportionate contribution of stormwater runoff…”

Typical Rate Structures

Common Models

- Impervious Area Model
- Equivalent Residential Unit (ERU) Model
- Tiered Rate Structure Model
- Flat Rate Model
- Combination Model

Keep it simple

- Accurate, fair, and defensible
- Representative of local conditions

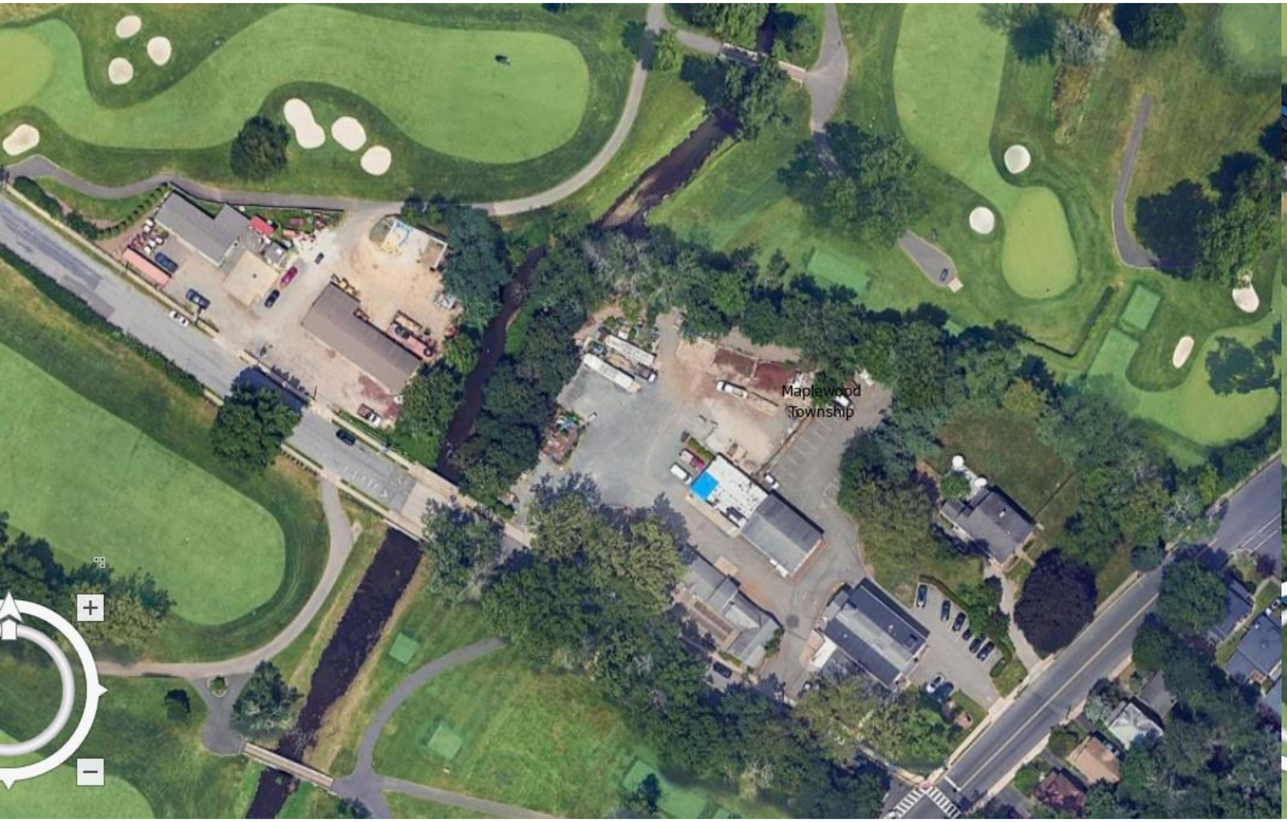
Residential → Impervious Area

Nonresidential & Multi-Family Residential → Impervious Area

Undeveloped → No Fees

Balance Precision vs Simplicity

Impervious Area



Residential Impervious Areas

Source: New Jersey Department of Environmental Protection (NJDEP)

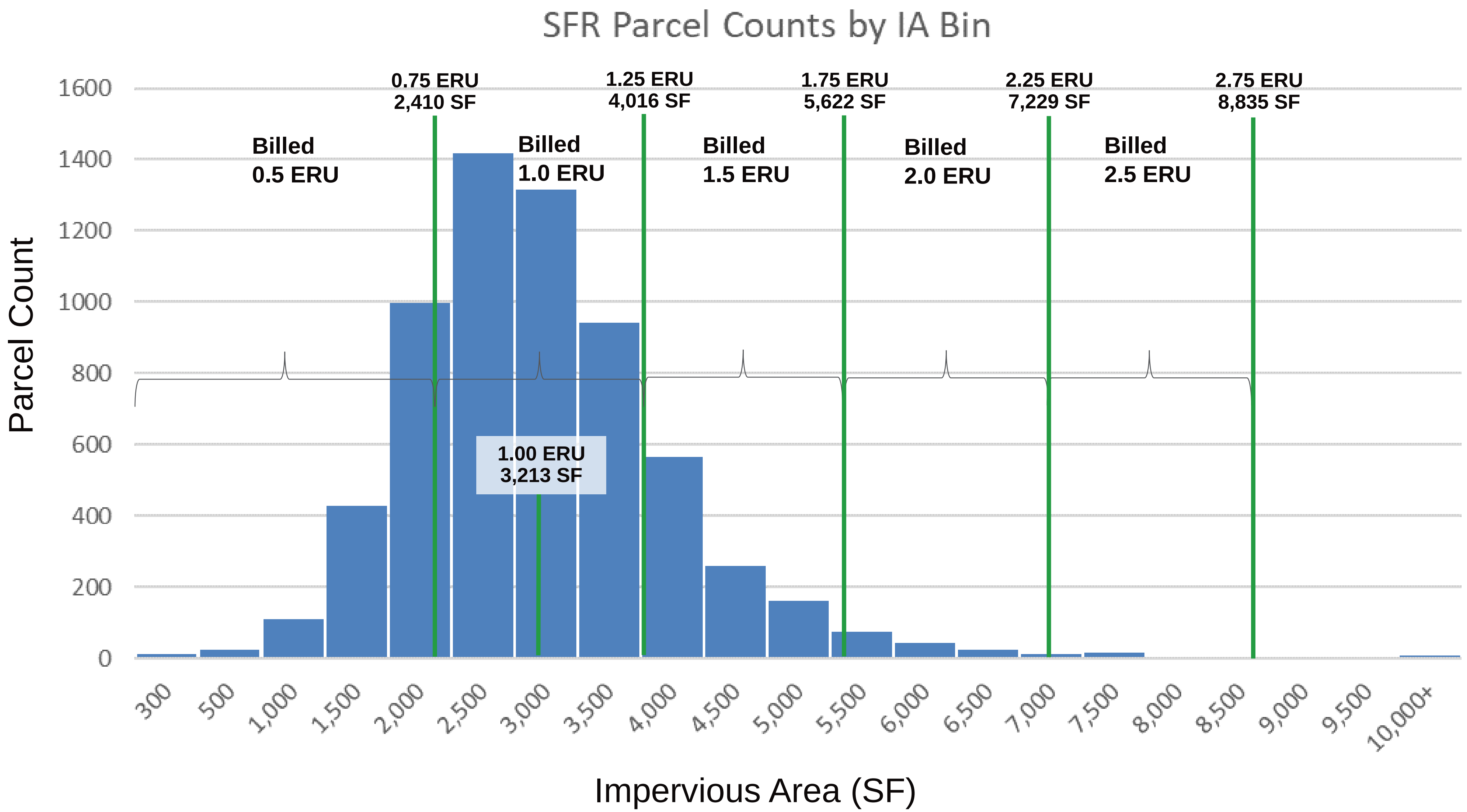
Created: 2015 Accessed: August 2023

Commercial Impervious Areas

Source: New Jersey Department of Environmental Protection (NJDEP)

Created: 2015 Accessed: August 2023

Rate Structure Example



Rate Structure Example

- Equivalent Residential Unit (avg impervious area of single-family residential parcel) = 3,213 SF
- Rate Payers would be billed a minimum of 0.5 ERU (base charge)
- Rate Payers above 0.5 ERU would be billed in 0.5 ERU increments rounded to the nearest 0.5 ERU
- Examples
    - Parcel 1 = 2,313 SF / 3,213 SF = 0.72 ERU = 0.5 ERUs billed
    - Parcel 2 = 3,340 SF / 3,213 SF = 1.04 ERU = 1.0 ERUs billed
    - Parcel 3 = 4,500 SF / 3,213 SF = 1.40 ERU = 1.5 ERUs billed
    - Parcel 4 = 7,500 SF / 3,213 SF = 2.33 ERU = 2.5 ERUs billed
    - Parcel 5 = 8,960 SF / 3,213 SF = 2.79 ERU = 3.0 ERUs billed
- Advantage
    - Increases Equity by reducing base charge for 1,364 residential parcels
- Disadvantages
    - Increases billing complexity
    - Increases rate to generate the same revenue for program


Legend
Single Family Residential ERUs Assessed
(Parcel Count)
0.5 ERU Charge (1,364)
1.0 ERU Charge (3,902)
1.5 ERU Charge (979)
2.0 ERU Charge (134)
2.5 ERU Charge (26)
3.0+ ERU Charge (13)
Maplewood Township
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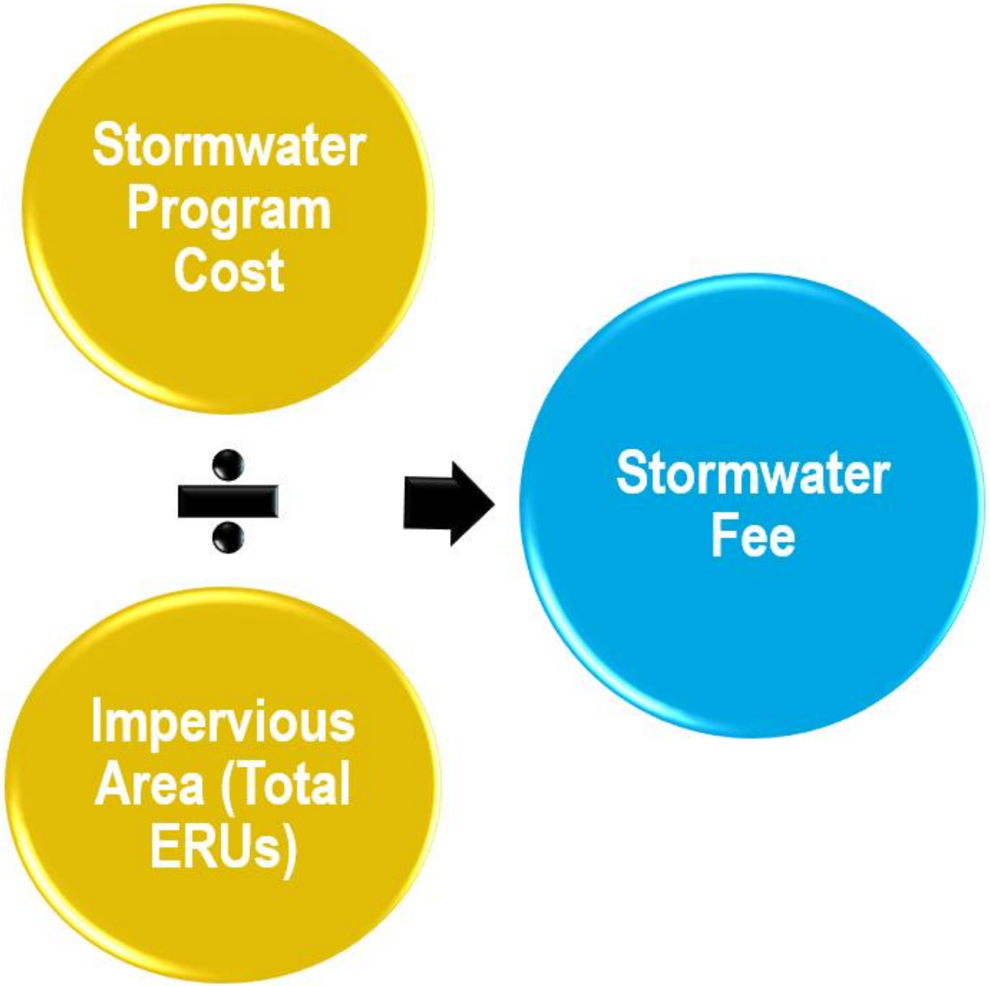
How are Rates Set in a Stormwater Utility



Stormwater
Program Cost
$1,000,000

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Impervious Area
(Total ERUs)
10,000

➡ $100 per ERU

Rate Setting Factors

- **Revenue**
  - Rate Structure (# of ERUs - how costs will be allocated)
  - Rate (how bills will be calculated)
  - ERU Growth Rate (ERUs grow over time)
  - Collection Rate (will there be delinquency in the billings)
  - Credits (will customers take advantage of credits)
  - Clean SW & Flood Reduction Fund Deduction (State Law)
- **Expense**
  - Stormwater Utility Operating Expenses (billing, etc.)
  - Personnel Expenses
  - Maintenance Expenses
  - System Renewal Expenses
  - Flood Mitigation Projects
  - Inflation

Expenses Breakdown

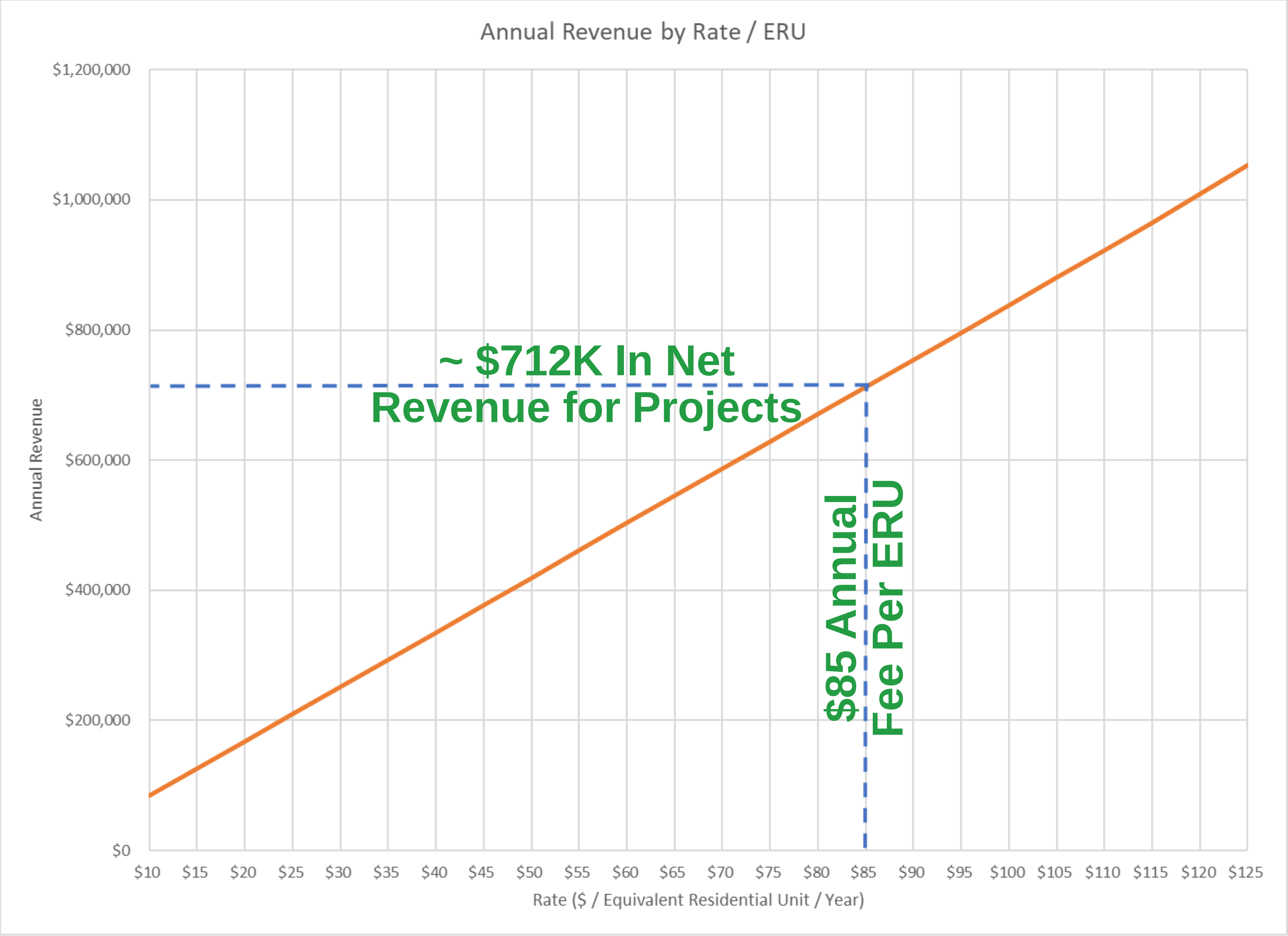
Underfunded Stormwater Activities Potentially Covered by SW Utility Revenue

- Pipe Repairs (Estimated Currently at $350,000/year from Roads Budget)
- System Renewal (Proactive Rehabilitation)
- Capital Improvement (Flood Mitigation)

Stormwater Activities Already Addressed through Existing Funding Programs

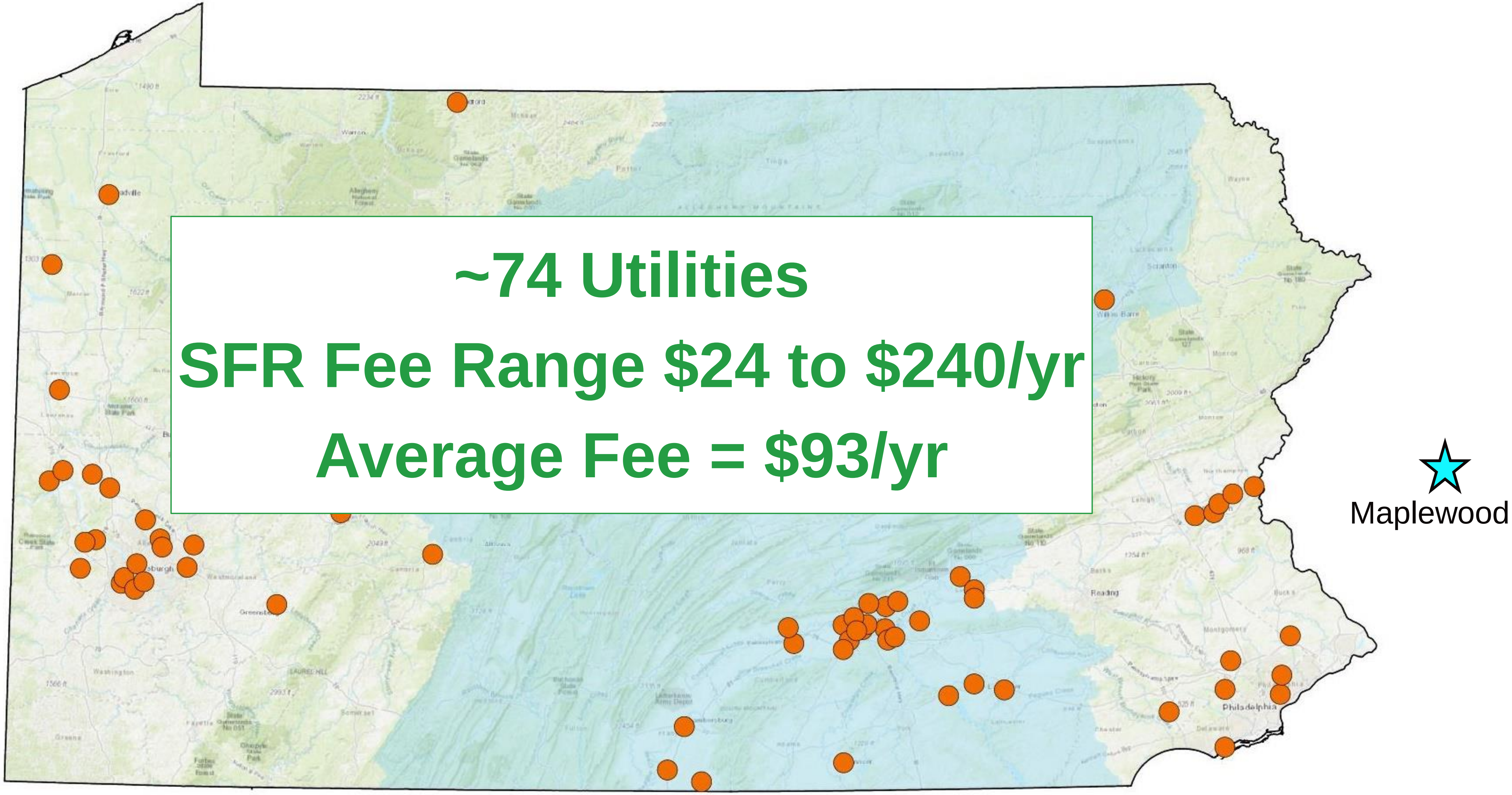
- Leaf Collection
- Street Sweeping
- Inlet Cleaning
- Regulatory Compliance

Increase in Revenue with an Increase in Rate



Based on 9,288 net ERUs

Residential Stormwater Utility Charges



Includes information from WKU Stormwater Utility Survey 2023

Credit Policy

NJ Enabling Legislation Requires Credits

"In establishing fees and other charges pursuant to this section, a county, municipality, or authority shall provide for:

(1) a partial fee reduction in the form of a credit for any property that maintains and operates a **stormwater management system that complies with the State and local stormwater management standards <u>that were in place at the time the system was approved</u> and that <u>effectively</u> reduces, retains, or treats stormwater onsite**;

(2) an additional partial fee reduction in the form of a credit for any property which has installed and is operating and maintaining **<u>current</u> stormwater best management practices that reduce, retain, or treat stormwater onsite and which are approved by the county, municipality, or authority**;

(3) an additional partial fee reduction in the form of a credit for any property which has installed and is operating and maintaining **<u>green infrastructure</u> that reduces, retains, or treats stormwater onsite and <u>which exceeds any requirements for green infrastructure</u> that may be applicable to that property under any rule or regulation** adopted by the Department of Environmental Protection or the local stormwater control ordinance;…"

Credits Policy Benefits and Concerns

Credits = fee reduction or discount on stormwater user fee for onsite mitigation

Exemptions = waiver of stormwater user fee for properties that meet specific requirements (e.g. agricultural or horticultural use, undeveloped land)

BENEFITS

- Rate payers can reduce user fee
- Provides a more equitable rate structure
- Increases BMP proper O&M
- Encourages voluntary retrofits
- Compliance with Enabling Legislation

CONCERNS

- Complexity of credit calculations
- Maintaining sufficient revenue
- Requires application process/reviews
- Audit proper O&M to maintain credits

Potential Stormwater Utility Fee Examples

Residential ERU/Billing Examples-Single Family Homes

2.55 ERUs → 2.5 ERUs
$175 /yr

1.21 ERUs → 1 ERUs
***$70 /yr**

0.86 ERUs → 1 ERUs
***$70 /yr**

1.48 ERUs → 1.5 ERUs
$105 /yr

***5,266 of 6,418 rate payers pay 1 ERU base rate: $70/year.**

Residential ERU/Billing Examples-Condos

16 ERUs

$1,120 /yr

(÷ 92 units=$12.17/unit/yr)

Commercial ERU/Billing Examples

9 ERUs
$630 /yr

7.5 ERUs
$525 /yr

7 ERUs
$490 /yr

Township Municipal Building
17 ERUs
$1,190 /yr

Commercial ERU/Billing Examples

78+57=135 ERUs
$9,450 /yr

13 ERUs
$910 /yr

5 ERUs
$350 /yr

27 ERUs
$1,890 /yr

Proposed Funding Uses and Budget Breakdown

Stormwater Examples in Maplewood

Stream Erosion and Undermining at Oakland Road

Sinkhole at Dunnell Road near Memorial Park and Maplewood Train Station

Upcoming Stormwater Projects

Major Capital Projects	Preliminary Estimate Cost
1. Maple Terrace General Drainage Improvements	$900,000
2. Kendall Ave Drainage Improvements (Township is receiving a $960,000 federal grant)	$4,000,000
3. Nelson Place Bank Stabilization	$400,000
Capital Projects	
1. Burnett Terr. & Ivy Place Drainage Improvements	$150,000
2. St. Lawrence Ave Drainage Repairs	$200,000
3. Porter Ave Drainage Improvements	$100,000
4. Boyden Ave Drainage Improvements	$100,000
5. Meadowbrook Ave Drainage Improvements	$300,000
6. Tiffany Place Drainage Improvements	$150,000
7. GIS Update for NJDEP	$250,000
8. Maplecrest Park Drainage Improvements	$100,000
9. Drainage Improvements to accommodate Sump Pumps	$300,000/yr
Long Term, Multiple Year Capital Projects	
1. Outfall Reconstruction Program	$1,000,000 over 5-year program

Budget Breakdown

- Funds collected by the Stormwater Utility User Fee are placed in an Enterprise Fund (government accounting system for services that are financed primarily through user fees) and used only for Stormwater Program expenses

- Overall Breakdown:
  - Total Billings: $975,000
    - Township Roads & Property: $295,000
    - County Roads: $28,000
    - Other Properties: $652,000

Budget Breakdown

• Revenue Collected (assumes 5% delinquency):	$926,000
• State Payment (5% of Annual Revenue):	<u>$46,000</u>
Revenue Available for Operating Costs:	$880,000
Planned Expenses (Improvements, etc):	**$760,000**
Fund Balance:	$120,000

Experiences and What We Learned…

Experiences and What We Learned…

- Have shovel ready projects
- We received many requests for credit applications
- Included bills with sewer bill
- Brief staff members before launching utility in full
- Have specific funding accounts for individual projects but plan for miscellaneous/general line item for unforeseen circumstances
- Update your website and provide links to residents to get information
- Design your credit policy to reflect known standards, ie. NJDEP BMP's NJAC 7:8
- Have a sign at the construction site to inform residents how the Stormwater Utility is helping them

Question and Answer…

Questions????

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Thank You!