Transformative Approach to Stormwater Funding

Clean Water Council Meeting - New Jersey

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Discussion

• The Utility Concept
• National Trends At-a-Glance
• Stormwater Management Programs
• Stormwater Funding Considerations
• User Fee Development Framework
• Stakeholder Engagement
• New Localism: A Plausible Approach?
Stormwater Utility Encompasses Three Facets

- **Program**: Planning, Operations, Capital Program, & Community Initiatives
- **Organization**: Organizational Capacity & Technical Resources to deliver services
- **Funding**: Reliable sources of funding and revenues dedicated to the utility
General Perspectives ....
Stormwater Management Priorities

Four Priority Issues for the Utilities

#1 Availability of adequate funding
#2 Enhancing public awareness and support
#3 Management of expanding regulations
#4 Water quality – Nutrient/TMDLs

Stormwater Utilities: A Nationwide Look

1,600+ Stormwater Utilities in the US

Jurisdictional Responsibility for Stormwater Management

Enforcement of a user fee is administratively easier within a municipality rather than across multiple jurisdictions

Source: Western Kentucky University Survey - 2016

What are the Common Alignment Gaps in Funding?

- Defensibility Gap
- Equity Gap
- Adequacy Gap
The Stormwater Fee Structure: A Hodge-Podge?

What do we see nationally with respect to Stormwater Fee Structure?

- Flat Fee per Electric Account
- Total Lot Size Based Fee
- Flat Fee per Water Account
- Impervious Area Based Fee
- Flat Fee per Dwelling Unit
- Fee Based on Meter Size
- Millage Fee; Benefit Assessments (Taxes)
Why is Stormwater “User Fee” Not a “Tax?”

**Services Provided**

![Annual Costs Incurred]

**Services Received**

![Costs Recovered through User Fees]

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**Key Tests of a User Fee**

- Fee is assessed to address a regulatory purpose?
- Fee is in exchange for benefits received by the general public?
- Fee is voluntary?
- Fee is a fair approximation of costs incurred in providing services?
Stormwater Funding Considerations

Benefits of a User Fee Funding

- Equitable Cost Recovery
- Revenue Stability
- Stronger Cost-Revenue Nexus
- Flexibility to Incentivize
Program Considerations ....
Types of Stormwater Systems in New Jersey

(Examples: Newark; Perth Amboy; Gloucester)

Combined Sewer System

Downspout Runoff
Surface Runoff
Sewage and stormwater
Flows to Wastewater Treatment Plant
CSO Outfall

Separate Sewer Systems

Downspout Runoff
Surface Runoff
Sewage
Flows to Wastewater Treatment Plant
Stormwater Outfall

(Examples: New Brunswick; Princeton)

Source: Philadelphia Water Department Advisory Committee Meeting Presentation
Utilities must balance multiple, sometimes competing demands with limited resources.
What are the major components of a stormwater management program?

- System Operations
  - Routine O&M
    - Inspections
    - Cleaning
    - Minor Repairs
  - Customer Complaint Response
- Capital Improvements
  - Flood Mitigation
  - Rehab & Replacement
  - CSO / I&I Abatement
  - Green Infrastructure
- Compliance Requirements
  - Public Education
  - IDDE
  - Development Related
  - Tracking/Reporting
  - Water quality monitoring
- System Planning
  - Asset Inventory
  - Modeling
  - Asset Management
- Program Administration
  - Organization
  - Funding programs
  - Shared resources / partnerships
Reliable Program Cost Estimation Requires Defensible Cost Allocation

Program Needs Assessment
(Combined Sewer, Storm Sewer, Separate Sanitary, Green Initiatives)

- WASTEWATER SYSTEM COSTS (O&M and Capital)
- SEPARATE STORM SYSTEM COSTS (MS4) (O&M and Capital)
- SANITARY SEWER COSTS
- STORMWATER COSTS
Funding Considerations
Six Key Components in Stormwater User Fee Development

- Program and Costs
- Stormwater Policy Development
- Financial Plan & Rate Structure
- Parcel Data Management & Billing Mechanism
- Customer Credits & Incentives Program
- Stakeholder Engagement
Well defined policies provide a defensible foundation for stormwater user fee programs and initiatives.
A Stormwater User Fee is analogous to a water user fee but with some distinct differences.

**WATER USER FEE**

**Basis of Fee**
- Water Usage

**Unit of Measure**
- 100 Cubic Feet (CCF)
- 1,000 Gallons

**Rate Structure**
- Rates by customer classes
- Tiered Rates

**STORMWATER USER FEE**

**Basis of Fee**
- Impervious Area

**Unit of Measure**
- Square Feet
- ERU: Equivalent Residential Unit

**Rate Structure**
- Rates by customer classes
- Tiered Rates

*Equity in Cost Recovery: Users Pay According to What They Use!!!*

<table>
<thead>
<tr>
<th>Impervious Area (Sq. Ft.)</th>
<th>ERUs</th>
<th>Quarterly Fee</th>
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<tbody>
<tr>
<td>0 to 799</td>
<td>1.00</td>
<td>$8.14</td>
</tr>
<tr>
<td>800 to 1,299</td>
<td>1.45</td>
<td>$11.80</td>
</tr>
<tr>
<td>1,300 to 2,399</td>
<td>2.48</td>
<td>$20.19</td>
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<tr>
<td>2,400 and over</td>
<td>4.40</td>
<td>$35.82</td>
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</tbody>
</table>

Example: Residential Rate Structure
Impervious Area Analysis: A balanced approach can be used to determine impervious area units

How Is Impervious Area (IA) Data Developed and Analyzed?

• Approaches to determining impervious area
  • Customer Classes: Meaningful classification of parcels into customer classes
  • IA Estimation: Use single or a combination of approaches
    • GIS spatial data / Infra-red and aerial imagery
    • Intensity of development / Runoff Coefficient

Factors to Consider:
Balance efficiency, consistency, defensibility, fairness, timely data management

One Residential Unit = 1 ERU
Stakeholder Engagement
Internal and External

Shared Vision

Utility & Community Benefits

Opportunity for Input

Program Definition
Successful launch of a stormwater user fee program
A Case Study: Newark, Delaware
Newark’s (Delaware) Compelling Case for Action

<table>
<thead>
<tr>
<th>Bill Component</th>
<th>2017 Monthly Charge Without SW Charge</th>
<th>2018 Monthly Charge Without SW Charge</th>
<th>2018 Monthly Charge With SW Charge</th>
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<tbody>
<tr>
<td>Water</td>
<td>$30.17</td>
<td>$30.17</td>
<td>$30.17</td>
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<tr>
<td>Wastewater</td>
<td></td>
<td>$42.83</td>
<td></td>
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<tr>
<td>Sewer</td>
<td>$32.30</td>
<td></td>
<td>$32.30</td>
</tr>
<tr>
<td>Stormwater</td>
<td></td>
<td></td>
<td>$2.89</td>
</tr>
<tr>
<td>Total Charge</td>
<td>$62.47</td>
<td>$73.00</td>
<td>$65.36</td>
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<tr>
<td>Difference from FY 2017 (%)</td>
<td>$10.53 (16.9%)</td>
<td>$2.89 (4.6%)</td>
<td></td>
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</table>

City transitioned to an Impervious Area based stormwater fee in January 2018!!!
What were the practical benefits of a fee initiative?

- Cost effective funding for capital program initiatives
- Resources for consistent and enhanced level of service
- Fair & equitable recovery of stormwater costs from all types of customers
- Revenue stability & certainty for fulling utility obligations
- Fee reduction for private stormwater management

- Budgeted $470K annual funding for addressing Stormwater conveyance rehabilitation
- Reassigned staff and added a stormwater inspector dedicated to stormwater management
- Recovered stormwater costs only from Inside City customers with non-residential paying its fair share
- Assured of a $1.4M annual funding stream to plan and execute O&M and capital obligations
- Achieved buy-in from highly impacted stakeholders by providing fee reduction mechanisms
Peer Utility Collaboration: A New Plausible Paradigm in New Jersey?

Potential Areas of Collaboration

- Enabling Legislation
- Collaborative Resourcing
- Concurrent Execution
- Similar Methodologies
- Sharing of Resources
- Stakeholder Engagement & Public Education
The Road Ahead for Sustainable Stormwater Management …..

**Leadership**
- Commitment
  - Enhance Equity & Defensibility

**Diligence & Transformative Approaches**
- Holistic Evaluation & Innovative Solutions

**Stakeholder Engagement**
- Educate on Issues & Embrace Ideas

**Enhanced Nexus**
- Program & Costs
- Customer Benefits & Experience
- Funding Equity

**Enhance Equity & Defensibility**