LOCAL STORMWATER UTILITY IMPLEMENTATION PROCESS: LESSONS LEARNED

New Jersey Stormwater Utility

Virtual In-State Retreat

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Speaker and Moderator

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Steps to Establish a Stormwater Utility

Develop a Funding Strategy

Build Public Consensus for the Program

Q&A
Drivers for Stormwater Utility Formation

Enabling Legislation: “….Stormwater infrastructure in New Jersey currently lacks a dedicated source of funding…” (2.a.5)

- NPDES permit and TMDL compliance requirements
- Local stormwater / flood risk management needs
- Capital project mandates (CSO/SSO, Stormwater)
- Critical maintenance needs and operations
- Lack of funding for planning and implementation
- Competition for funding with other programs/utilities
Steps to Develop a Stormwater Utility and Implementation Process

- Program Review & Revenue Requirements
- Organization & Staffing
- Endorsement from Elected Officials / Management
- Rate Structure
- Credits & Appeals
- Billing Requirements
- Public Outreach / Community Support
- SWU Implementation / Ordinance
## Stormwater Program Elements

### STORMWATER MANAGEMENT
- Master Planning
- Monitoring
- BMP /GI Implementation Program
- Pollution Prevention / Good Housekeeping
- Nutrient Management
- Spill Response
- Illicit Discharges D&E
- Industrial Inspections
- Watershed Assessments & TMDLs
- Permit Management

### ENGINEERING & PLANNING
- Design Criteria and Standards
- Field Data Collection
- Design & Engineering
- Hazard Mitigation
- Zoning & Planning Support
- GIS & Database Mgmt.
- CSO program
- Source Water Protection

### CAPITAL IMPROVEMENTS
- CIP Project Planning & Management
- Implementation Forecast
- Project Evaluation Process
- Construction Management
- Land, Easements, and Right of Way

### OPERATIONS & MAINTENANCE
- Maintenance Management
- Routine & Remedial Maintenance
- Emergency Response
- Infrastructure & Asset Mgmt.
- Stormwater System Inventory / GIS
- Water Quality and Drainage Assistance

### REGULATIONS & ENFORCEMENT
- Code Development and Ordinances
- Drainage System & BMP Inspections
- Flood Insurance Program
- Flood Risk Management
- E & S and Site Runoff Control
- Septic and I&I Program
- Wellhead Protection

### OUTREACH
- Public Education and Outreach Programs
- Community Values
- Website and Social Media
- Public Meetings
- Citizens Advisory Group
- Public Involvement

### ADMINISTRATION
- Operations Management, Program Planning and Development, Human Resources, Interagency Coordination, Support Services, Policies for Operations

### BILLING & FINANCE

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Adapted from Guidance for Municipal Stormwater Funding, NAFSMA 2006
Stormwater Utility Services

“...acquiring, constructing, improving, maintaining, and operating stormwater management systems ...” (5.a)

ENGINEERING, PLANNING, PROGRAM ADMINISTRATION

• MS4 Permit and SWU administration/reporting
• Public education and outreach

OPERATIONS & MAINTENANCE

• Stormwater system inspections and BMP maintenance
• Outfall inspections / IDDE inspections
• Floodplain management
• Development review and inspections
• Street sweeping, leaf collection

CAPITAL

• Stormwater compliance projects
• Drainage and watershed projects
• CSO LTCP projects
• Flood risk management projects

Establish and Communicate the Need for Your Program:
Summary of the Stormwater Program Operations and Maintenance Needs

- FY19 approved budget: $1.5M
- Additional needs (gap): $0.8M - $1M+ per year

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<tr>
<th>Year</th>
<th>Operating - Floodplain Mngt.</th>
<th>Operating - Plan Review / Inspection</th>
<th>Operating - Water Quality</th>
<th>Operating - Storm Sewer</th>
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<td>FY 2020</td>
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Projection includes yearly escalation = 5%

FY 2019 = $1.5 M
Summary of the Stormwater Program
Capital Needs

- FY19 approved CIP budget: $3.8M
- Additional needs (gap): $8M+ per year
Developing Levels of Service

- **A**
  - BMPs
  - Reactive
  - Limited Maintenance

- **B**
  - Enhanced BMPs
  - Planned Drainage
  - Operations & Limited Maintenance

- **C**
  - Enhanced BMPs + Retrofits
  - Planned Drainage + Equipment + Watershed Projects
  - Operations & Scheduled Maintenance

- Stormwater Compliance CIP
- Drainage/Watershed CIP
- O&M

**Improved System Performance**
How Are Fees Determined?

The stormwater management fee is based on…

- The proportionate contribution of stormwater runoff from a property (8.b)
  - Option 1: impervious area of each parcel
  - Option 2: total area of each parcel (pervious and impervious)
  - Option 3: pollutant load from each parcel
- The types of services and the cost of the program
- Policy decisions
Rate Structure Alternatives

Keep it simple
• Accurate, fair, and defensible
• Representative of local conditions

Link to benefits
• Service area
• Program
• Projects

Stormwater Program Cost

Impervious Area (Total ERUs)

Stormwater Fee
Potential Benefits of an Effective Stormwater Program

- Improved recreational and aesthetic values
- Lower drinking water treatment costs
- Lower dredging costs for navigational channels
- Reduce pollution of water supply reservoirs
- Reduce flooding damage
- Groundwater recharge – clean water available
- Cleaner & healthier streams – improved water quality

Enabling Legislation (2.a.1)

• …New Jersey faces an extensive set of problems due to inadequate stormwater infrastructure and management, and these problems directly affect the health, safety, economic well-being, and quality of life of New Jersey residents…”
Balancing Costs, Performance and Co-Benefits

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<tr>
<th>Cost Co-benefits</th>
<th>Description of Value</th>
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<tbody>
<tr>
<td>Projected Savings - Joint Projects</td>
<td>Joint funding from different department(s) - Percentage of saving amount to / from another project as compared to overall project cost</td>
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<tr>
<td><strong>Environmental Co-benefits</strong></td>
<td><strong>Description of Value</strong></td>
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<tr>
<td>Biological Diversity: Quality of Vegetation</td>
<td>Increase in Biological diversity by increasing the number of native plant species.</td>
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<tr>
<td>Biological Diversity: Area of Vegetation</td>
<td>Addition of new vegetative area as a percentage of total watershed area.</td>
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<td><strong>Social Co-benefit</strong></td>
<td><strong>Description of Value</strong></td>
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<tr>
<td>Job Creation - Capital Projects</td>
<td>Number of total labor hours estimated for construction and maintenance projects</td>
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<tr>
<td>Property Values - Access to Scenic Features and Recreational Areas</td>
<td>Number of square feet (adjusted) of recreational area added, accessed, or improved</td>
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<tr>
<td>Property Values - Benefits of Street Scape Improvements</td>
<td>Improves aesthetics of streets and protect property values</td>
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Developing a Funding Strategy That Meets Your Community’s Needs

- Available Funding Options and GI Considerations
- Process to Develop Funding Strategy
- Credits and Exemptions to Enhance Acceptance
- Billing and Policy Considerations
Numerous Funding Options Available

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<th>TRADITIONAL</th>
<th>INNOVATIVE</th>
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<td>Stormwater utilities and taxing districts</td>
<td>Capital markets (EIB, incentives)</td>
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<td>General appropriation revenues</td>
<td>Cost sharing</td>
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<td>Grant and loan programs</td>
<td>Private and non-profit sources</td>
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<td>Municipal bonds</td>
<td>Public-private partnerships</td>
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<td>Fee in-lieu-of programs</td>
<td>Mitigation banking and credit trading</td>
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<td>Developer funding</td>
<td>Water quality and volume trading</td>
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<td>Water / wastewater revenues</td>
<td>Other miscellaneous sources</td>
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Considerations in Selecting Funding Options

- Identify viable funding sources
- Include a stormwater utility, in light of equity and reliability considerations
- Consider at least one long-term mechanism, depending on size of program and nature of projects
- Leverage funding from other programs and integrate market-based options
Integration of Other Market-Based Options

• Water Quality (Nutrient) or Volume Trading
  – Property owner meets stormwater requirements by buying stormwater nutrient or volume credits from an established bank (aggregators, clearinghouse, etc.) or other property owners (bilateral)
  – Adjustments (credits) to stormwater fee are provided to property owner

• Subsidies
  – Property owners receive a subsidy to retrofit existing parcel to meet stormwater requirements (needs lower implementation costs)
  – Adjustments (credits) to stormwater fee are provided to property owner

• P3 and CBP3s
  – SWU pays for local share of P3 and provides adjustments (credits) once BMPs are implemented
  – Potential for leveraging funds
A Systematic Process to Develop a Funding Strategy Leads to Successful Implementation

4 Steps to Identifying and Evaluating SW/GI Funding Options

**STEP 1**
Define Goals and Objectives

**STEP 2**
Identify Potential Options and Strategies

**STEP 3**
Calculate Potential Revenue from Selected Options

**STEP 4**
Recommend and Implement Funding Strategy
Credits and Exemptions to Enhance Acceptance

Credits = fee reduction or discount on stormwater user fee for onsite mitigation (8.c)
Exemptions = waiver of stormwater user fee for properties that meet specific requirements

**BENEFITS**

- Rate payers can control and reduce user fee
- Promote fairness provisions of enabling legislation
- Promote equity in rate structure
- Facilitate increased use of O&M agreements
- Encourage property owner participation
- Reduce public expenditures on SWM program

**CONCERNS**

- Calculation of basis of credit – keep it simple
- Maintain revenue collections
- Need a documented process
- Often an application process is required, unless an **innovative** process is used
“In establishing fees and other charges pursuant to this section, a county, municipality, or authority shall provide for (8.c):
(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 that were in place at the time the system was approved and that effectively reduces, retains, or treats stormwater onsite;

…

(4) an exemption from fees and other charges for land actively devoted to agricultural or horticultural use that is valued, assessed, and taxed pursuant to the “Farmland Assessment Act of 1964,” P.L.1964, c.48 (C.54:4-23.1 et seq.).”
Credits Can Facilitate Stakeholder Buy-In

- Credits provide incentives to implement program components and reduce the fee
- Credits improve equity during implementation
- A well-structured credit program will not impact revenue
Credits Considerations

- Credits account for varying levels of onsite stormwater management
- Credits promote retrofits on older parcels
- Credit and incentive programs are generally capped at an annual maximum
Basis for Credit Development

- Classes of Payers or Properties
- Location of Properties in the MS4 or separate MS4 Permits
- Contributions to the Stormwater Infrastructure
- Reduction of Stormwater Impact
- Reduction of Cost of Service
Parcels Receiving Credits Without Application

Case Study 1:

- VPDES permit holders – 100% credit
- Parcels with less than 16% impervious area – 30% credit
- Parcels served by BMPs:

<table>
<thead>
<tr>
<th>Credit Amount Applied for BMP</th>
<th>Example BMPs</th>
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<tbody>
<tr>
<td>15%</td>
<td>Quantity (e.g., flood control)</td>
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<tr>
<td>30%</td>
<td>Water Quality &amp; Quantity (before 7/1/14 stormwater regulations: extended detention, retention basin, bioretention, grass swale, vegetated filter strip, sand filter, etc.)</td>
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<tr>
<td>50%</td>
<td>Water Quality &amp; Quantity (after 7/1/14 stormwater regulations: extended detention pond, wet pond, sheet flow to filter/open space, constructed wetland, etc.)</td>
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</tbody>
</table>
BMP Credit Categories
Credit Program Options

Case Study 2:
• Submit annual inspection report or lose credit.
• Available to Non-Residential Properties
• No application fee
• Monitor and adjust policy over time

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<th>Credit Description</th>
<th>Maximum Credit Amount</th>
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<tr>
<td>Rate Controls</td>
<td>25%</td>
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<td>Volume Controls</td>
<td>25%</td>
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<td>Riparian Buffer</td>
<td>50%</td>
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<td>Stream Restoration</td>
<td>50%</td>
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<td>Education Program</td>
<td>20%</td>
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<td>Fertilizer Management Program</td>
<td>15%</td>
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<tr>
<td>NPDES/MS4 Permit</td>
<td>50%</td>
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</table>

Maximum Total Credit = 50%
## Billing Considerations

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<tr>
<th>Criteria / Approach</th>
<th>Funding Via Increased Tax Rates</th>
<th>Billed with Taxes</th>
<th>Billed with Utility Bills</th>
<th>Separate Stormwater Bill</th>
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<td>Ease of Implementation</td>
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Policy Considerations

Address Impacts on Rate Structure and Revenue Estimates

- Should tax-exempt parcels be billed?
- How would the utility impact organization and staffing?
- What is the definition of an improved property?
- How should facility maintenance issues be handled?
- What options / requirements do developers have?
- What are the criteria for credits/fee adjustments?
Equitable Contributions Example
Based on Impervious Area Distribution

Number Properties

- Single Family Residential: 20,823 (84%)
- Multi-Family Residential: 488 (2%)
- Non-Residential: 2,827 (11%)
- Non-Residential (Tax Exempt): 635 (3%)

Number of ERUs (ERU Basis = 1,971 sf)

- Single Family Residential: 15,831 (25%)
- Multi-Family Residential: 26,519 (42%)
- Non-Residential: 14,696 (23%)
- Non-Residential (Tax Exempt): 6,582 (10%)
Building Public Consensus for the Program

Methods for Gaining Public Support

Benefits of a Public Stakeholder Process

Public Outreach and Education for Implementation
Public Outreach and Consensus Building – Engagement at All Levels
Public Outreach Plan

Benefits from Staff Relationships with Key Stakeholders

PROGRAM REVIEW

- Stakeholder identification
- Develop public outreach/education materials
- Framing the issue in public terms
  - Program and regulations
  - Stormwater funding/utility

PUBLIC ENGAGEMENT

- Stormwater advisory committee/group
- Small group meetings with civic (non-profit and tax exempt), business, community groups
- Watershed tours, media relations, fact sheets, website, social media
Building Community Support

Result of Stakeholder Process
Keys: How things get done in your community, understand culture, engage leaders and stakeholders
Conduct Public Outreach

• Continuous involvement = community buy-in and support

• **Keep it simple** – most don’t understand role of SW infrastructure

• **Residential Benefits:** reduced flooding, protect property values, co-benefits, etc.

• **Non-Residential Benefits:** site sustainability, reduced drainage issues, co-benefits, good neighbor/positive PR

• Review and refine the plan
Develop a Realistic Project Schedule

- Plan ahead
- Review schedule regularly
- Take your time with stakeholders

![Project Schedule Table]

Table:

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<th>Phase</th>
<th>Task</th>
<th>Mar-14</th>
<th>Apr-14</th>
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<td>8.0 Program Implementation</td>
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Conclusions

Municipal stormwater and parcel data facilitates implementation of stormwater utilities

Proactive approach to establishing SWUs promote property owner and local management acceptance of stormwater utility

New Jersey has good enabling legislation & stormwater/watershed problems are understood, but funding remains a challenge

Implementation success: share program vision, obtain leadership and stakeholder buy-in, define expectations and risks
YOUR COMMENTS OR QUESTIONS ON THE IMPLEMENTATION PROCESS:

- SW program needs
- Public engagement
- Rate structure
- Policies
- Credits
- Schedule
- Other?
THANK YOU!

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