Laying the Groundwork for Rate Setting

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Jennifer Watson

September 17, 2020
Presentation Agenda

• Establishing the Need for Funding
• Stakeholder Engagement
• What Can States and Local Organizations Do to Help
• Questions and Discussion
Is A Stormwater Utility Right for You?

- Over 1,800 documented stormwater utilities nationally (39 states and the District of Columbia)

- Large range in size
  - Smallest: Indian Creek Village, Florida (pop: 88)
  - Largest: Los Angeles, California (pop: ~ 4 million)
  - Average Population: 66,153
  - Median Population: 18,217

*Data Source: Western Kentucky University Stormwater Utility Survey 2020*
What is the First Step in the Process?

Identify the Drivers for the Program

• Regulatory programs (i.e. “unfunded mandates”)

• Backlog of capital improvement projects (CIP)

• Aging infrastructure

• Public demand for service
What Are You Currently Doing to Address These Challenges?

• Identify all stormwater-related services performed by your program
• Estimate costs to provide these services
• Identify the benefits gained by the community as a result of these services
# Stormwater Management Functional Areas

*Simplifying the Complexities*

## PROGRAM MANAGEMENT
- Master planning
- Complaint response
- Development review

## REGULATORY COMPLIANCE
- NPDES (i.e. 6 minimum measures)
- TMDL compliance

## OPERATIONS AND MAINTENANCE
- Storm sewer cleaning
- Culvert cleaning and repair

## CAPITAL IMPROVEMENT PROJECTS (CIP)
- Storm System Upgrades & Replacement
- Stream restoration

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*Laying the Groundwork for Rate Setting*
Stormwater Services – A City-Wide Function

Laying the Groundwork for Rate Setting
How Do We Quantify These Services & Costs?

• Interview staff in all departments
  – What stormwater services are provided
  – What staff/equipment is utilized to perform the services
  – How effective are the services

• Review annual budgets and reports
  – Identify appropriate budget line items
  – Apply information learned from interviews
Summarize the Cost of Service
By the Four Functional Areas

<table>
<thead>
<tr>
<th>Primary Stormwater Program Costs</th>
<th>Program Management</th>
<th>Regulatory Services</th>
<th>Operation &amp; Maintenance</th>
<th>Capital Improvements</th>
<th>Totals</th>
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<tbody>
<tr>
<td>Utilities</td>
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<td>Non-Departmental</td>
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<td>Soil and Water Conservation District</td>
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<td>Capital Improvements</td>
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<td>$554,000</td>
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<td>SUBTOTALS</td>
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<td>$467,000</td>
<td>$959,000</td>
<td>$554,000</td>
<td>$2,322,000</td>
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<table>
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<tr>
<th>Other Storm-Related Program Costs</th>
<th>Program Management</th>
<th>Regulatory Services</th>
<th>Operation &amp; Maintenance</th>
<th>Capital Improvements</th>
<th>Totals</th>
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<td>Loose Leaf Collection</td>
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<td>Transportation Capital Projects</td>
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<td>Vehicle Depreciation</td>
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<td>$0</td>
<td>$506,000</td>
<td>$1,340,000</td>
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</table>

| TOTALS                                  | $342,000           | $467,000            | $1,465,000              | $1,894,000           | $4,168,000|

Laying the Groundwork for Rate Setting
What Does This Cost of Service Provide for Your Community?

**Customer Expectations**
- Erosion
- Water Quality
- Flood protection
- Safety
- Aesthetics

**Regulatory Requirements**
- NPDES
- 303d List
- TMDLs
- FEMA Floodplain

**Important Questions Regarding Stormwater Level of Service**
1. Citizens’ choice, but how much $$?
2. Regulations define the minimum, but should we do more?
## What Does This Cost of Service Provide for Your Community?

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Program Management</th>
<th>Regulatory Compliance</th>
<th>Operation and Maintenance</th>
<th>Capital Improvement Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>A or 5</td>
<td>Comprehensive Planning &amp; Full Implementation Capabilities</td>
<td>Exemplary Permit Compliance</td>
<td>Fully Preventative/100% Routine</td>
<td>Prioritized/Fully-Funded</td>
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<tr>
<td>B or 4</td>
<td>Pro-Active Planning &amp; Systematic CIP Implementation Capabilities</td>
<td>Pro-Active Permit Compliance</td>
<td>Mixture of Routine and Inspection Based</td>
<td>Phased Implementation/Allocated Budgets</td>
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<tr>
<td>C or 3</td>
<td>Priority Planning &amp; Partial CIP Implementation Capabilities</td>
<td>Minimal Permit Compliance</td>
<td>Mixture of Inspection and Responsive Based</td>
<td>Complaint, Inspection-Based/Moderate Budget</td>
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<tr>
<td>D or 2</td>
<td>Reactionary Planning &amp; Minimal CIP Implementation Capabilities</td>
<td>Below Minimum Permit Compliance</td>
<td>Responsive Only</td>
<td>Critical Needs Only/Minimum Budget</td>
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<tr>
<td>F or 1</td>
<td>No Planning &amp; No CIP Implementation Capabilities</td>
<td>Non-Compliance</td>
<td>Non-Responsive</td>
<td>No Planning/No Budget</td>
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</tbody>
</table>
If You Don’t Think Your Choice of How to Do Ratings Matters?

City gets ‘F’ for stormwater management

MOST POPULAR
1 Police chase from OR to Jefferson Co.
   Jul 24 at 6:57 PM
2 The Groves at Oak Ridge: 17 residents have tested positive for virus, 1 dead
   Jul 26 at 6:17 PM
3 4th virus death in AC, active cases 219
   Jul 27 at 5:46 PM

CDM Smith engineer David Mason, at right, gave a presentation on stormwater to Oak Ridge city Council.
The Bar Has Been Set  
*Where Do We Go From Here?*

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Program Management</th>
<th>Regulatory Compliance</th>
<th>Operation and Maintenance</th>
<th>Capital Improvement Projects</th>
<th>Total Program Cost</th>
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<tbody>
<tr>
<td>A or 5</td>
<td>$1,137,000</td>
<td>$828,000</td>
<td>$1,712,000</td>
<td>$854,000</td>
<td>$4,531,000</td>
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<tr>
<td></td>
<td>Comprehensive Planning &amp; Full Implementation Capabilities</td>
<td>Exemplary Permit Compliance</td>
<td>Fully Preventative/100% Routine</td>
<td>Prioritized/Fully-Funded</td>
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<tr>
<td>B or 4</td>
<td>$790,000</td>
<td>$530,000</td>
<td>$1,487,000</td>
<td>$754,000</td>
<td>$3,561,000</td>
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<td></td>
<td>Pro-Active Planning &amp; Systematic CIP Implementation Capabilities</td>
<td>Pro-Active Permit Compliance</td>
<td>Mixture of Routine and Inspection Based</td>
<td>Phased Implementation/Allocated Budgets</td>
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<tr>
<td>C or 3</td>
<td>$551,000</td>
<td>$384,000</td>
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<td>$654,000</td>
<td>$2,851,000</td>
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<td></td>
<td>Priority Planning &amp; Partial CIP Implementation Capabilities</td>
<td>Full Permit Compliance</td>
<td>Mixture of Inspection and Responsive Based</td>
<td>Complaint, Inspection-Based/Moderate Budget</td>
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<tr>
<td>Existing LOS (2.5)</td>
<td>$342,000</td>
<td>$290,000</td>
<td>$1,146,000</td>
<td>$554,000</td>
<td>$2,332,000</td>
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<td></td>
<td>Well-Trained, In-House Staff, Minimal Long Range Planning</td>
<td>Minimum Permit Compliance Resources At Capacity</td>
<td>Limited Routine Activities Lack of Dedicated Resources</td>
<td>Critical Needs Only/Minimum Budget</td>
<td></td>
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</table>
Stormwater Utility 101
What is It? How Does It Work?

• Enterprise Fund Similar to Water, Wastewater, Electric Utilities

• Dedicated Funding through User Fee

• Fee Related to Needs or Services Provided

If it walks like a duck...
How is the Fee Calculated?

Residential Customers

Single Family Units
Multi-Family Units
Condominiums
Mobile Homes

Each is assigned 1 or less Equivalent Residential Unit (ERU) depending on type and number of dwelling units.

Fee = ERU x Rate ($ per ERU per month)

Average monthly fee nationally for single-family residential is $5.87
What Data is Needed to Determine the ERU?

• Acquire aerial photography of your area
• Randomly select a statistically significant sample of residential properties (typically 300-400 parcels)
• Properties should be selected from multiple property classes
• Measure the impervious area of sampled properties
  – Option: aerial photo interpretation
• Calculate the average or median of sampled properties
An Alternative to the Standard ERU Method

City of Lynchburg, VA
Histogram of Measured Single Family Homes

Summary of Data
N = 400
Mean = 2,672 sf
Std Dev = 1,403 sf
Min = 759 sf
Max = 10,144
This Analysis Leads to a Tiered Approach to Residential Customer Billing (SFU Method)

Small Single-Family

< 1,293 Sq. Ft. = 0.48 SFU

Average Single-Family

1,294 to 4,256 Sq. Ft. = 1.0 SFU

Large Single-Family

> 4,257 Sq. Ft. = 1.59 SFU
The ERU Becomes the Base Unit By Which All Other Properties are Compared

In this example, the commercial customer pays three times the amount as the residential customer.
Real World Example of ERU Calculation for Non-Residential Property

554,750 sq. ft (Building + Parking)

Equivalent Res. Unit (2,043 sq. ft./ERU)

272 ERUs
Build a Rate Model to Evaluate Options

- Consider rates for various levels of service to estimate cost burden on customers
- Consider how rates change with different rate structure options
- Include estimate of collections and impacts of credit policies

<table>
<thead>
<tr>
<th>LOS</th>
<th>Annual Program Cost</th>
<th>ERU Rate</th>
<th>SFU Rate</th>
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</thead>
<tbody>
<tr>
<td>5</td>
<td>$2,258,000</td>
<td>$5.55</td>
<td>6.53</td>
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<tr>
<td>4</td>
<td>$1,879,000</td>
<td>$4.64</td>
<td>5.46</td>
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<tr>
<td>3</td>
<td>$1,573,000</td>
<td>$3.90</td>
<td>4.59</td>
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<tr>
<td>Exist</td>
<td>$1,096,000</td>
<td>$2.75</td>
<td>3.24</td>
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Let Your Stakeholders Weigh in on the Decision

### Level of Service

<table>
<thead>
<tr>
<th>Program Components</th>
<th>Operation and Maintenance</th>
<th>Program Management and Compliance</th>
<th>Capital Improvement Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder Voting Tally</td>
<td>Stakeholder Voting Tally</td>
<td>Stakeholder Voting Tally</td>
<td>Stakeholder Voting Tally</td>
</tr>
</tbody>
</table>

#### A
- Fully Preventative/ 100% Routine
- Stakeholder Voting Tally: 9
- Program Components: Comprehensive Planning, NPDES Compliance, Full Implementation
- Stakeholder Voting Tally: 7
- Program Components: $6 million/year (16-year program)
- Stakeholder Voting Tally: 7

#### B
- Mixture of Routine and Inspection Based
- Stakeholder Voting Tally: 7
- Program Components: Pro-Active Planning, NPDES Compliance, Systematic Implementation
- Stakeholder Voting Tally: 9
- Program Components: $4 million/year (25-year program)
- Stakeholder Voting Tally: 9

#### C
- Inspection Based Only
- Stakeholder Voting Tally: 6
- Program Components: Priority Planning, NPDES Compliance, Partial Implementation
- Stakeholder Voting Tally: 6
- Program Components: $3 million/year (33-year program)
- Stakeholder Voting Tally: 6

#### D
- Responsive Only
- Stakeholder Voting Tally: 0
- Program Components: n/a
- Stakeholder Voting Tally: 0
- Program Components: $2 million/year (50-year program)
- Stakeholder Voting Tally: 0

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SWAC voted to increase LOS from $6.5 M to $12 M annually
Exemptions

“Don’t Throw the Baby Out with the Bath Water”

- Limit the number of exemptions offered, typically just the properties required in State Law
- Common exemptions offered by most utilities
  - Federal, state and local roadways
  - Undeveloped properties
- Other exemptions for consideration
  - Railroad corridors
  - Greenway trails/systems
  - Cemeteries

New Jersey law only exempts agriculture and horticulture
Potentially Your Most Important Decision

How Are We Going to Bill This?

- Facilitate a meeting with utility billing and IT staff to discuss options
- External agencies may be an option as well
- Primary options to consider:
  - On a customer’s monthly or bi-monthly utility bill
  - As a fee on a property owner’s annual property tax bill
  - On a separate, stormwater bill
  - Combination
Some Important Questions to Discuss

• Can you physically get the charge on the bill? (i.e. is there an open space to do so)

• What is the best method to reach every property?

• Do you have a preference for billing the owner vs. the tenant?

• Will the new fee require software programming/enhancement to your existing system?
The Public must want the stormwater service provided by the new revenues before they will agree to pay for them.
General Guide for Public Awareness and Acceptance

- Define the public involvement team.
  - Municipal Staff
  - Agency Partners
- Assess Community Needs
- Define Targets and Focus Groups
- Stormwater Funding Advisory Committee
- Find a Champion
  - Elected Official or Manager
  - May Come from Committee
- Prepare for a Two-Way Dialogue
What Can States Do to Help

- Develop a model ordinance that complies with State Law
- Maintain a survey of rate structures and rates throughout the State
- Provide technical guidance (workshops, website, manuals)
- Provide grant money for feasibility studies
Summary

• Do your homework and know your community well before you start
• You must sell the **service** before selling the **fee**
• A stakeholder process can be the difference between success and failure of your efforts
• Internal and external education can prevent “surprises” at the 11th hour
• Stormwater utilities can be appropriate for communities of any size
Thank You for Your Time and Attention!

Questions?

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Jennifer Watson: jennifer.watson@gallatintn.gov