Stormwater Revenue Options and the Future of Stormwater Finance

Stormwater Finance Workshop

December 8, 2020

Virtual Workshop

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Environmental Finance Center

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Environmental Finance Center

Dedicated to enhancing the ability of governments and other organizations to provide environmental programs and services in fair, effective, and financially sustainable ways through:

- Applied Research
- Teaching and Outreach
- Program Design and Evaluation

CELEBRATING 20 YEARS OF ENVIRONMENTAL FINANCE

How you pay for it matters

Workshop Roadmap

Tuesday, December 8, 2019 **Zoom Meeting**

10:00 Stormwater Revenue Options and the Future of Stormwater Finance
Overview of revenue options available to addressing stormwater management costs and an update on Stormwater Utility Fees in North Carolina. A look at One Water, Integrated Planning, and stormwater debt.
Erin Riggs, Executive Director, Environmental Finance Center
Evan Kirk, Project Director, Environmental Finance Center

11:15 Break

11:30 Stormwater Partnerships
A look at regional partnership options for stormwater management.
Dave Canaan, Director, Mecklenburg County Storm Water Services

12:20 MS4 Audit Overview
An overview of trends in MS4 audits in North Carolina.
Evan Kirk, Project Director, Environmental Finance Center

12:45 Lunch

1:30 Legal Considerations
Presentation of legal considerations and issues related to stormwater revenues and management.
Kara Millonzi, Professor of Public Law and Government, UNC School of Government

3:00 Recess

Workshop Roadmap

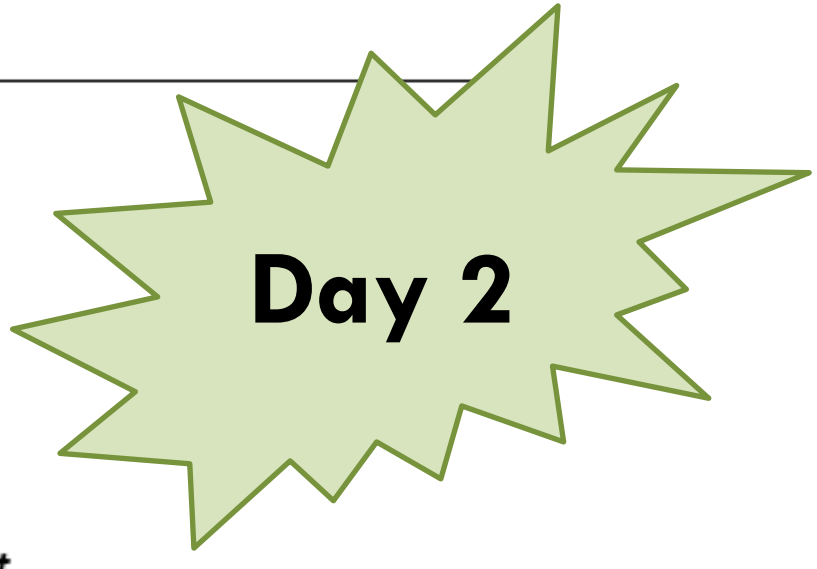
Wednesday, December 9, 2020

10:00 Stormwater and Resiliency
Resiliency in stormwater management.
Erin Riggs, Executive Director, Environmental Finance Center
Evan Kirk, Project Director, Environmental Finance Center

11:00 Break

11:15 The Private Perspective
A look at the role of the private sector in stormwater management.
Seth Robertson, Vice President – Director of Funding and Asset Management, WithersRavenel

12:15 Dismissal



Instructors

Erin Riggs, JD
Executive Director

Evan Kirk
Project Director

Who is in the "room"?

- Name?
- Organization?
- Responsibility?
- Stormwater utility? ("Yes", "No", "I wish", "Never!")
- What are you proud of OR what keeps you up at night?

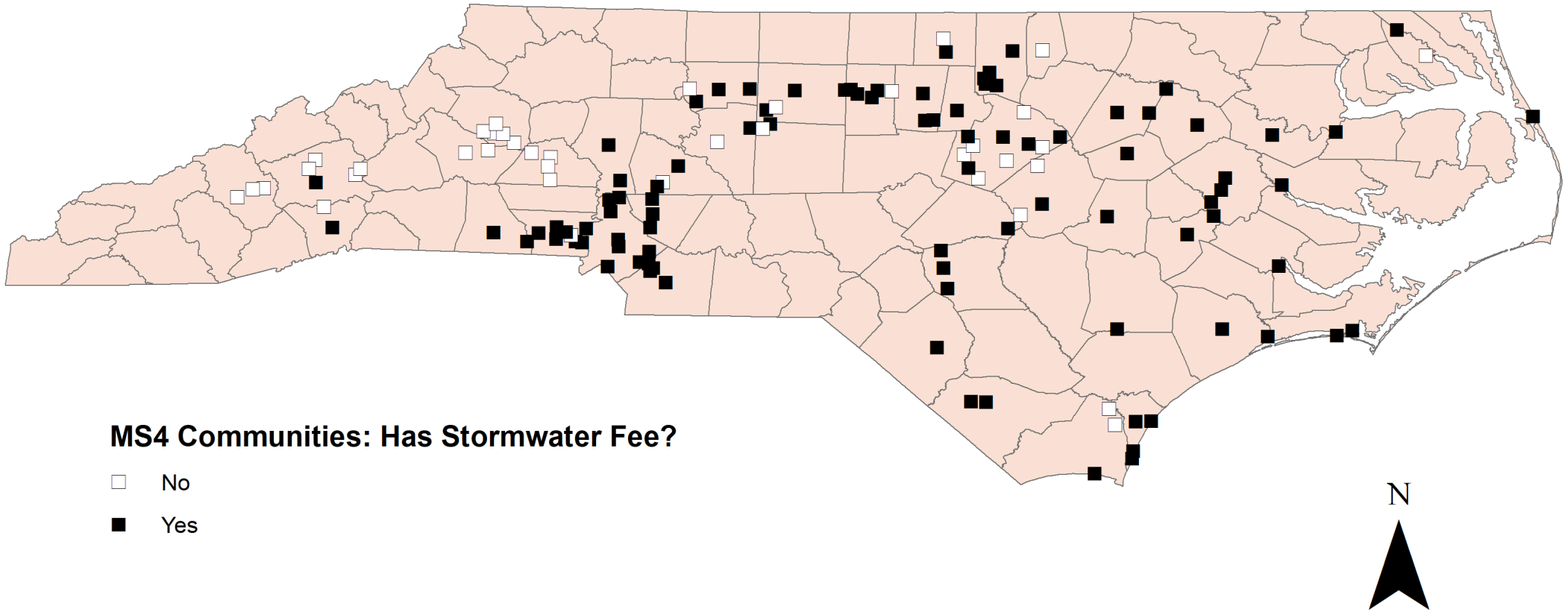
Paying for stormwater management

How does a municipality pay for stormwater services if it doesn't have a utility?

General Fund vs. Stormwater Utility

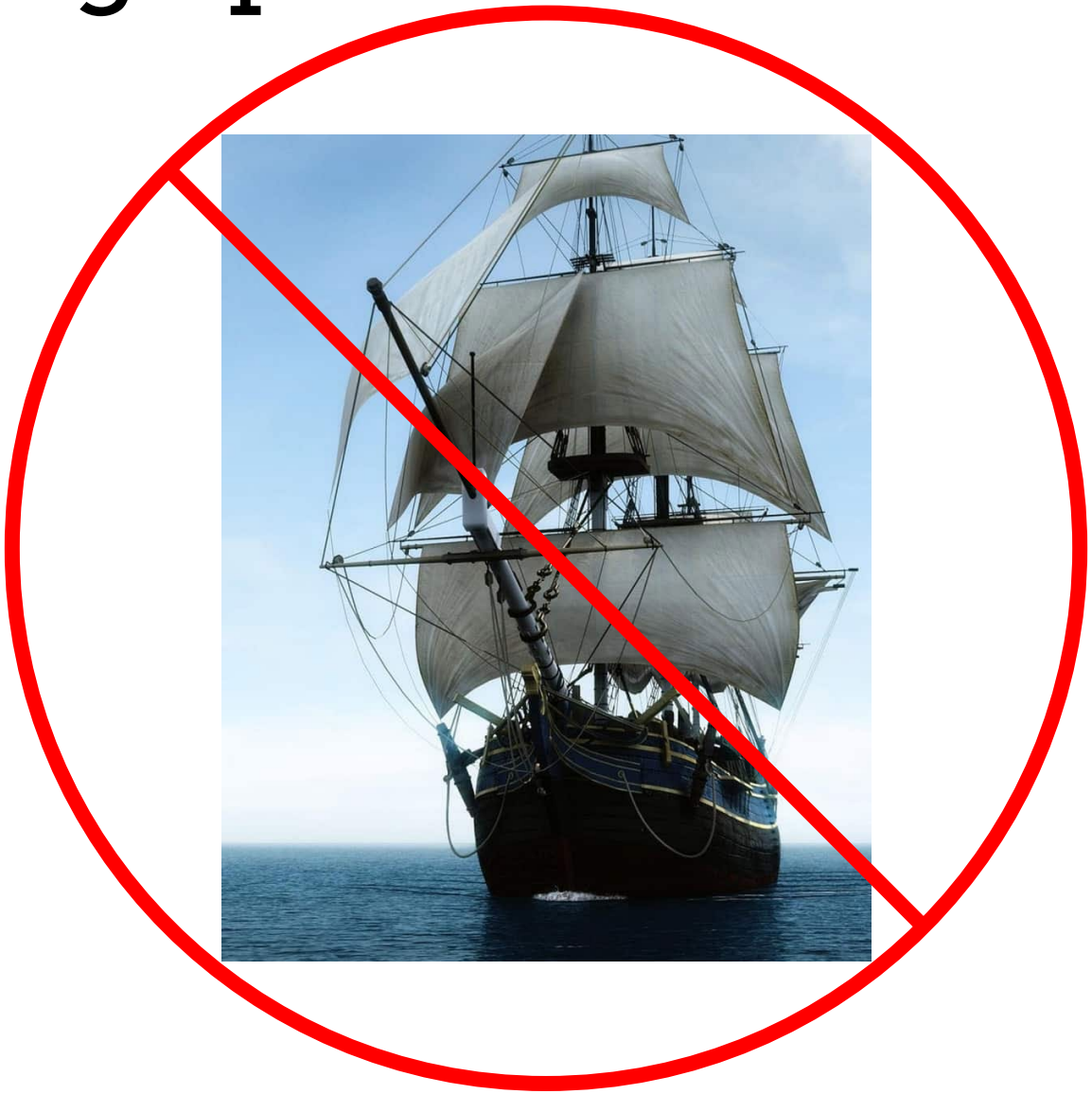
- Regulation requires action, but doesn’t identify revenue source
- Stormwater utilities provide a dedicated source of revenue for stormwater spending.
- Stormwater utility fees can be proactive. General fund is more reactive.

Municipal MS4 permit holders



STATUTORY AUTHORITY FOR STORMWATER FEES

Setting up a stormwater utility



Stormwater utilities ("public enterprises")

§ 160A-311:

"Stormwater management programs designed to protect water quality by controlling the level of pollutants in, and the quantity and flow of, stormwater and structural and natural stormwater and drainage systems of all types."

§ 160A-311. Public Enterprise Defined

(1) Electric power generation, transmission, and distribution systems.
(2) Water supply and distribution systems.
(3) Wastewater collection, treatment, and disposal systems of all types, including septic tank systems or other on-site collection or disposal facilities or systems.
(4) Gas production
(5) Public transportation systems.
(6) Solid waste collection and disposal systems and facilities.
(7) Cable television systems.
(8) Off-street parking facilities and systems.
(9) Airports.
(10) ……**Stormwater**……

§ 160A-313. Financing Public Enterprise

Subject to the restrictions, limitations, procedures, and regulations otherwise provided by law, a city shall have full authority to finance the cost of any public enterprise by levying taxes, borrowing money, and appropriating any other revenues therefore, and by accepting and administering gifts and grants from any source on behalf thereof.

§ 160A-314. Authority to Fix and Enforce Rates

(a) A city may establish and revise from time-to-time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished by any public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the city.

Rate and charge limitations

- Rates and charges can not exceed cost of providing service. (160A-314 (a1)(2)
- Customers can not be charged by two jurisdictions, but two jurisdictions can share revenue (160A-314 (a1)(3)
- Can not be arbitrary

Local Government Institutional Options

- **Municipality** (G.S. 160A, Art. 16)
- **Counties** (G.S. 153A, Art. 15)
- **Water and Sewer Authorities** (G.S. 162A, Art. 1)
- Other (Water and sewer districts, sanitary districts) –less clear
- Inter-local Agreement (G.S. 160A, Art. 20, Part 1)

Justifications for Variations in Stormwater Rates and Charges (§160A-314 (a1)(2))

- Property type (residential, commercial and industrial)
- Property's use
- Property size
- Impervious surface area
- Run-off characteristics
- Drainage watershed characteristics
- Municipal boundary (§ 60-314 (a))
- Other

Public Hearing Requirements

- New or revised rates or charges require advertised public hearing.
- Advertised in paper of general circulation seven days before hearing.
- Public hearing can be concurrent with proposed budget ordinance.

Exemptions, Waivers and Credits

- Credits linked to costs of providing service conform with rate variation guidance
- Exemptions for factors not related to stormwater costs not allowed

Stormwater credits

Who is the target of your credit program?

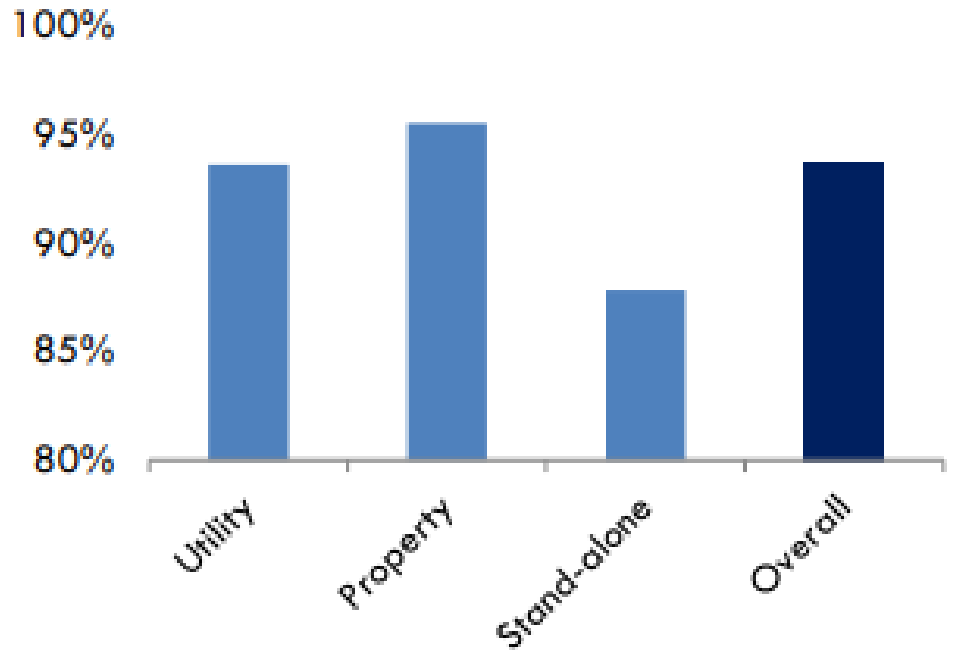
Are you incentivizing customers to utilize the credit program?

Ensure you have language mandating maintenance. Ensure customer is compliant with existing regulations and that credit is for project above and beyond.

Billing and Collections

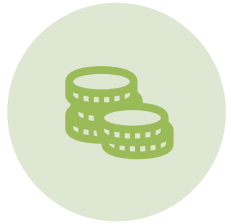
- Tax bills
- Utility bills
- Stand-alone bills

Figure 12: Fee Collection Rate by Collection Method (n = 37)



Rate structure options

FLAT FEE



TIERED FLAT FEE

PER ERU FEE

Flat fee for all classes

Stormwater Fee

Stormwater Charge	$2.00 per month per utility account

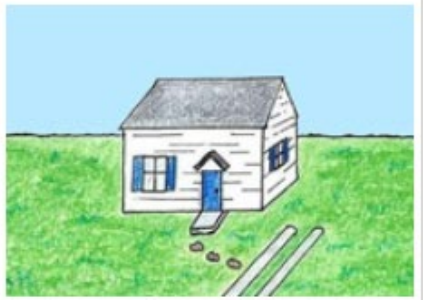
$$\frac{\text{Monthly Revenue}}{\text{Total Parcels}} = \$ \text{ per month per parcel}$$

Flat fee by customer class

Stormwater	Residential	$3.07 per month
	Commercial	$6.00 per month
	Industrial	$12.00 per month

Tiered flat fee

Tier 1
Total impervious area less than 2,000 square feet - $39.12 annually



Tier 2
Total impervious area between 2,000 and 3,999 sq. ft. - $81.00 annually

Tier 3
Total impervious area 4,000 sq. ft. or more - $162.24 annually

Per ERU fee

Single Family or Single Owner Properties

IMPERVIOUS SURFACE AREA (SQUARE FEET)	FEE
0 – 199	$0.00
200 – 1,000	$32.15
1,001 – 2,000	$64.30
2,001 – 3,000	$96.45
3,001 – 4,000	$128.60
4,001 – 5,000	$160.75
5,001 – 6,000	$192.90

The fee increases by $32.15 for every additional 1,000 square feet or portion thereof.

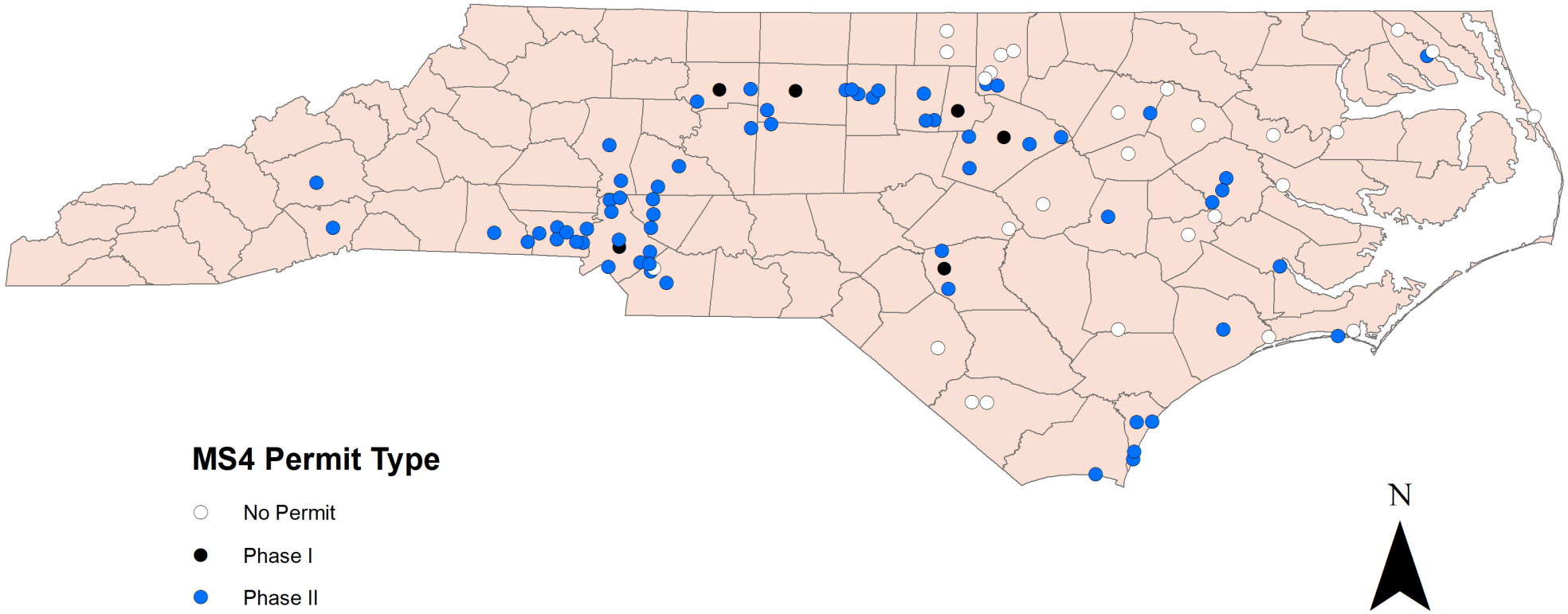
Per ERU calculation

$$ERU = \frac{Res.\,Impervious\ Area}{No.\,Res.\,parcels}$$

$$\text{Total ERUs} = \frac{Total\ Impervious\ Area}{ERU\ Size}$$

$$\text{ERU Rate} = \frac{Monthly\ Revenue}{Total\ Number\ of\ ERUs}$$

NC stormwater fee structures



2020 North Carolina Stormwater Fee Survey

By the numbers

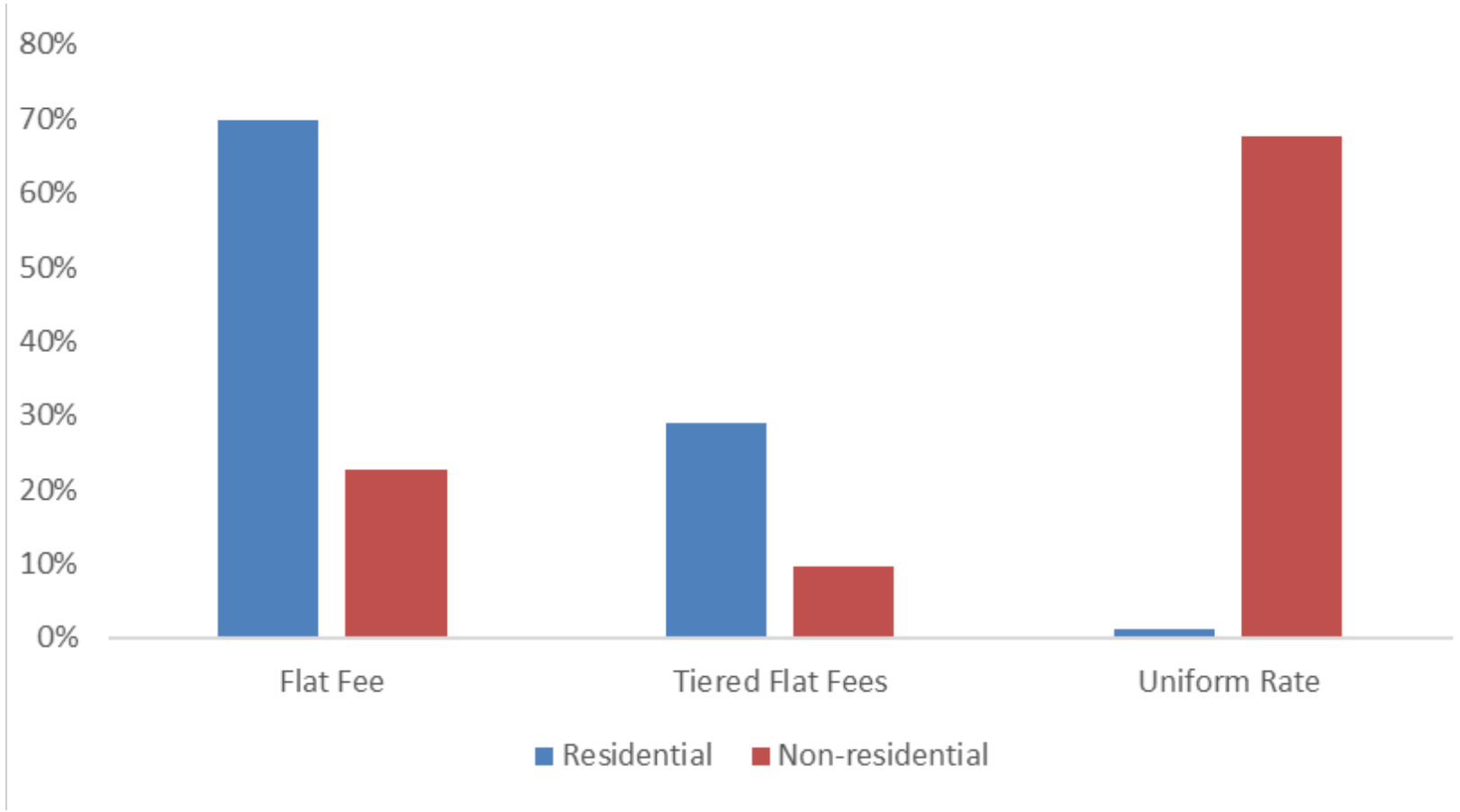
93 Fee Structures

81 Municipalities

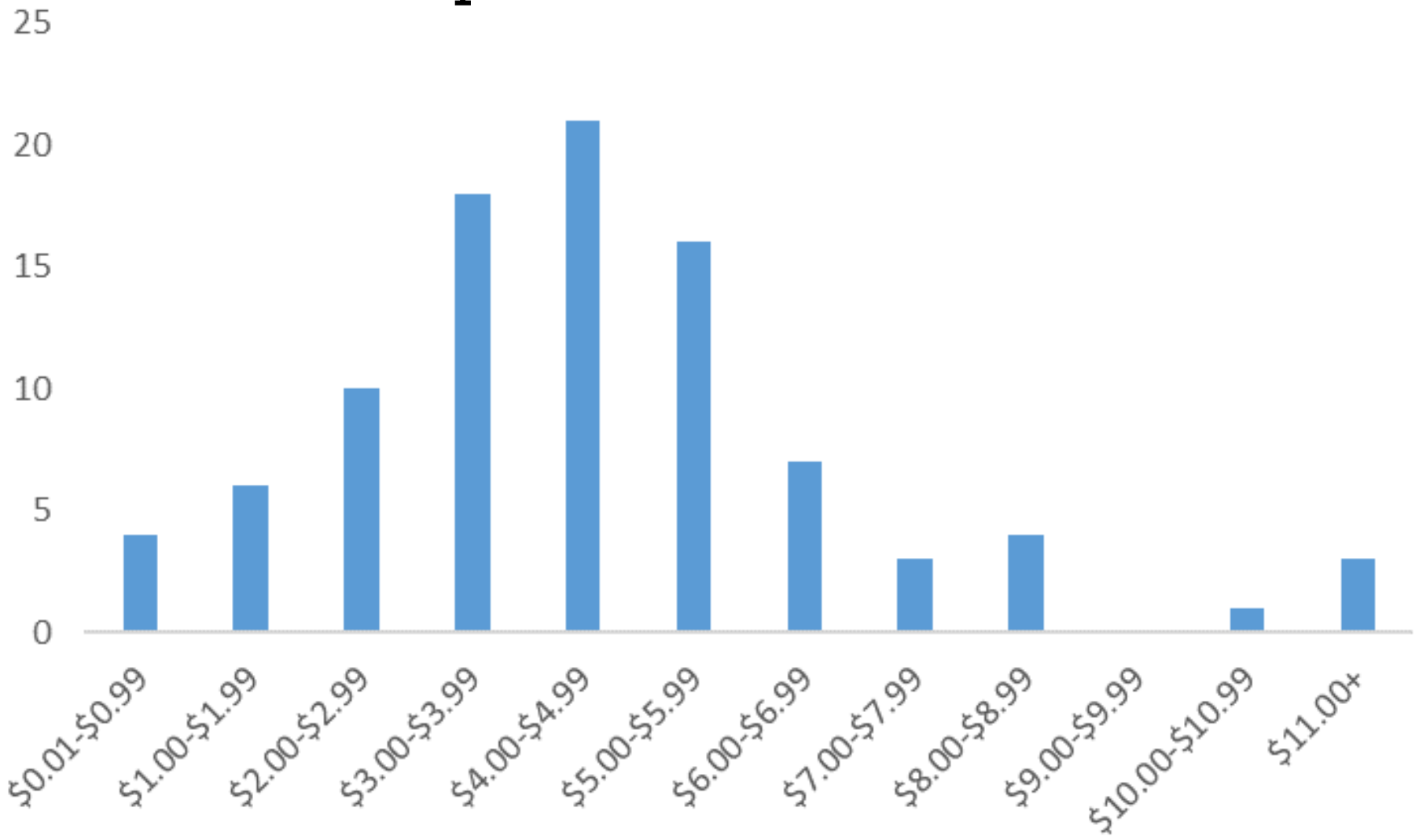
3 Counties

$6.70 Weighted average residential bill at 3,000 sq. ft. of impervious surface

Fee Structures (n=93)



Monthly Residential Fee at 3,000 Square Feet of Impervious Surface Area



Stormwater Fee Dashboard

2019-2020 NC Residential Stormwater Utility Fee Dashboard

Enter Origin City

Asheville

Select Comparison Group:

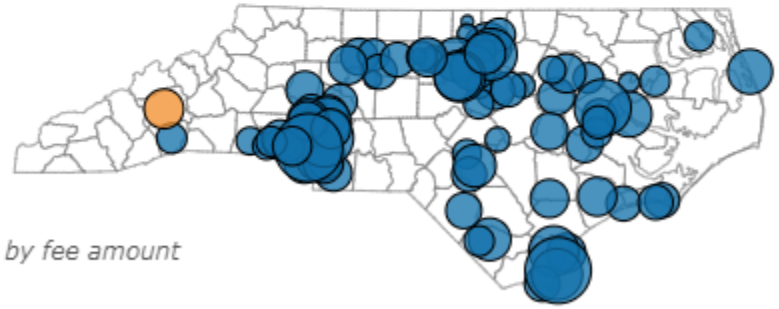
All

Select Impervious Area

3,000 Square Feet

Normalize Revenue by Population?

Don't Normalize



*Circles sized by fee amount

Stormwater Fee Trends

(Residential fees at 3,000 feet of impervious surface)

- 7 utilities not in last year's survey, 1 utility dissolved
- 12 utilities raised fees since last year
  - Median monthly increase of $1.09 at 3,000 square feet of impervious

Future landscape

One Water

Integrated Planning

Debt

One Water 

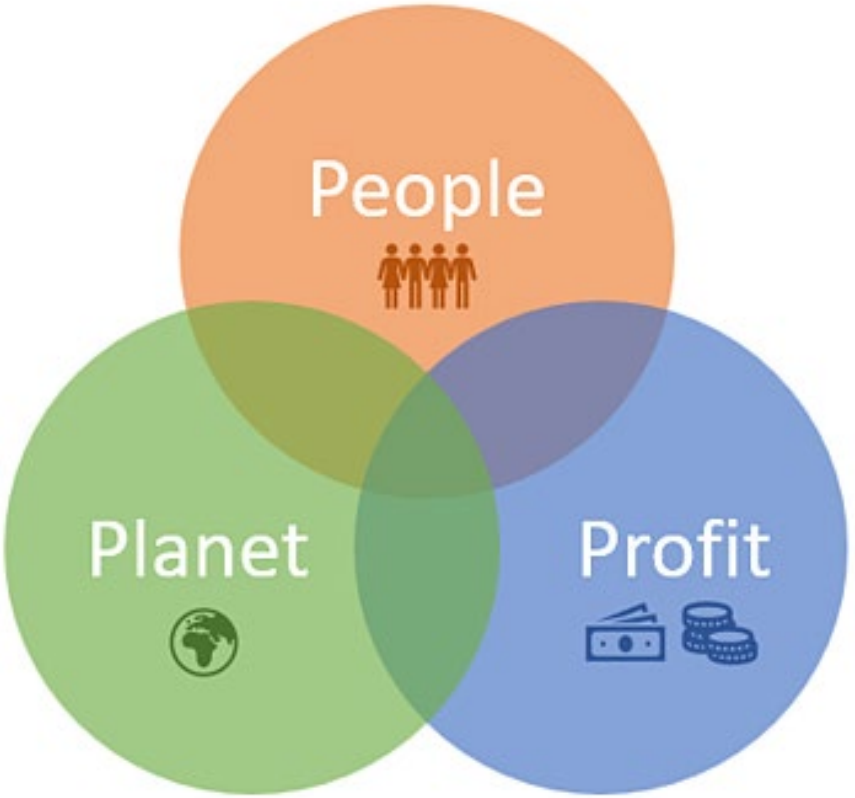
"…an integrated planning and implementation approach to managing finite **water** resources for long-term resilience and reliability, meeting both community and ecosystem needs."

-Water Research Foundation

"A mindset that all water has value." "A focus on achieving multiple benefits - economic, environmental, & social."

-Jordan Lake One Water

One Water



Integrated Planning

Many municipalities that developed integrated plans have gained:

	Faster water quality improvements and health protections.
	More cost-effective and affordable infrastructure investments.
	Consideration of investments that support other community objectives.
	Innovative long-term solutions that reduce pollution sources rather than just controlling or treating discharges.

Integrated planning addresses…

Aging Infrastructure

Sewage Overflows

Sewage Backups

Erosion

Flooding

Road Failures

Stormwater Pollution

Regional Treatment

WHY AN INTEGRATED MANAGEMENT PLAN?

- Meet multiple demands with limited resources
- Align investments with community priorities
- Ensure effective wastewater & stormwater operations
- Improve water quality and meet regulatory requirements

Wastewater Treatment

- Biosolids Improvements
- Pump Station & Effluent Conveyance Capacity
- Regulatory Drivers

Wastewater Collection

- Sanitary Sewer Overflows
- Basement Backups
- I/I Reduction
- Repair & Rehabilitation
- Asset Management
- Operation & Maintenance
- Infrastructure Demands

Stormwater Management

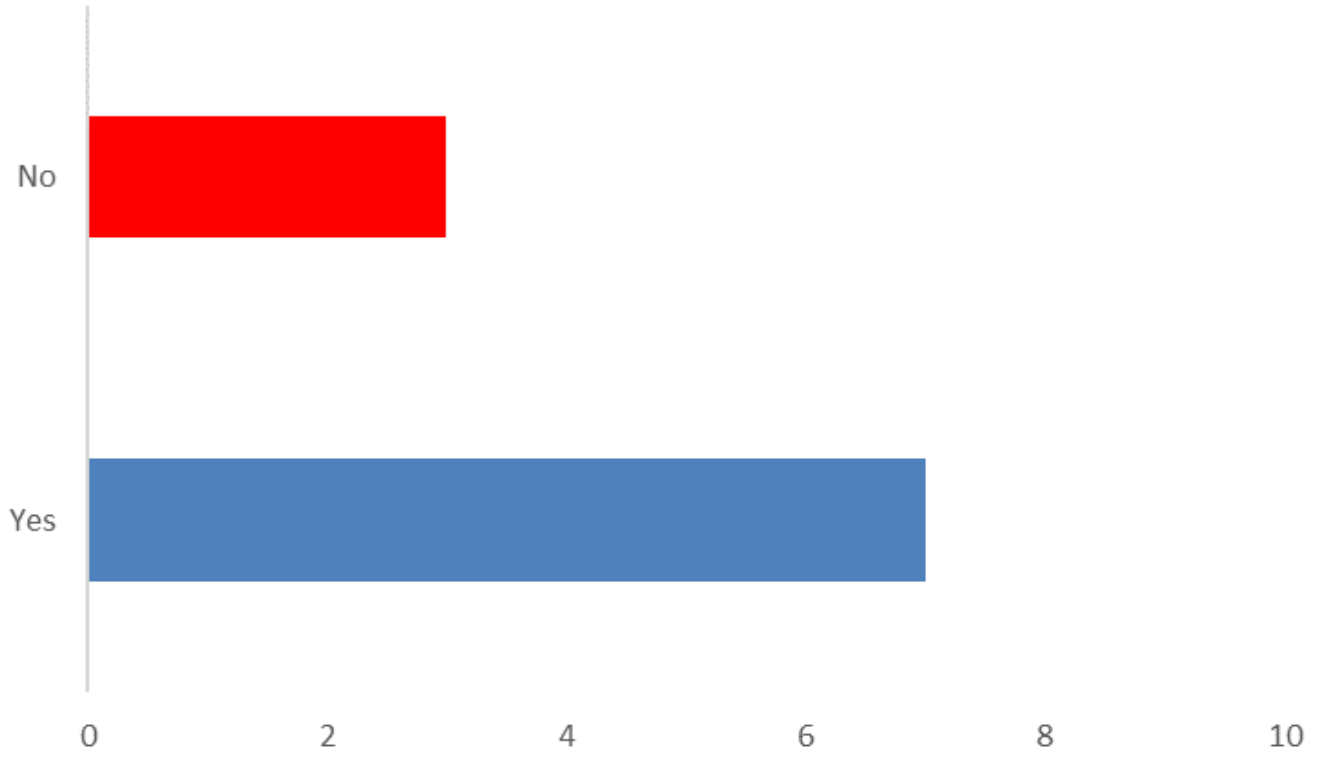
- Repair & Rehabilitation
- Asset Management
- Operation & Maintenance
- Infrastructure Demands
- Water Quality Improvement Measures

Asset Management

Stormwater asset management in NC

Capstone survey

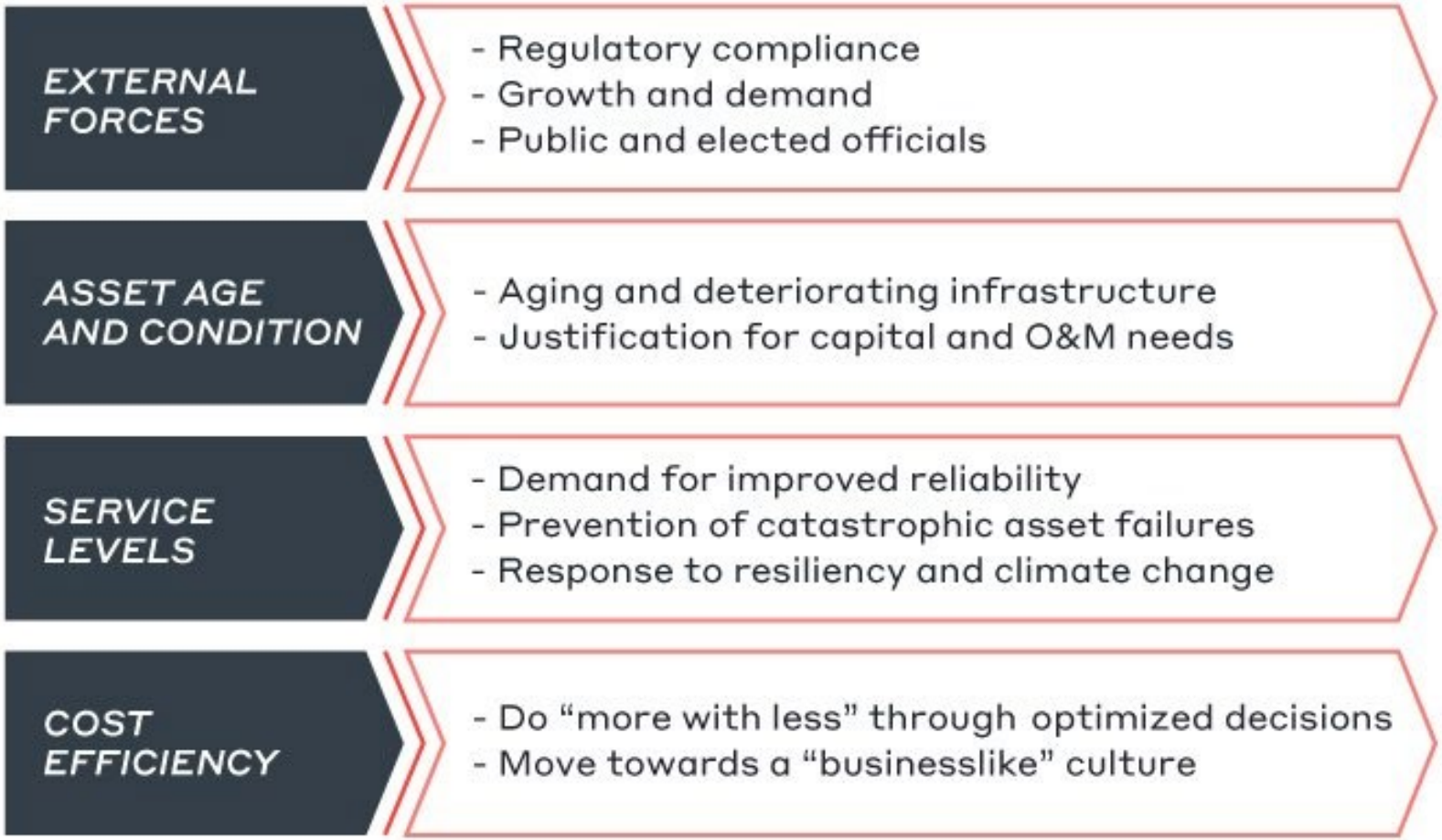
Do you have an inventory of your assets for stormwater infrastructure?



Understanding needs is critical…

- Setting fees based on needs provides justification for fee level
  - When increased fees are proposed, perceived public resistance
  - Public resistance is lessened when increases are justified
- Understanding needs allows for capital planning
  - Proactive
  - Just one of the five utilities with a CIP reported having no asset inventory

Asset Management Drivers



Debt

State revolving fund loans

Municipal bonds

Revenue bonds

Green bonds

Stormwater Debt in NC: Need and willingness

Capstone survey

March 2019 webinar

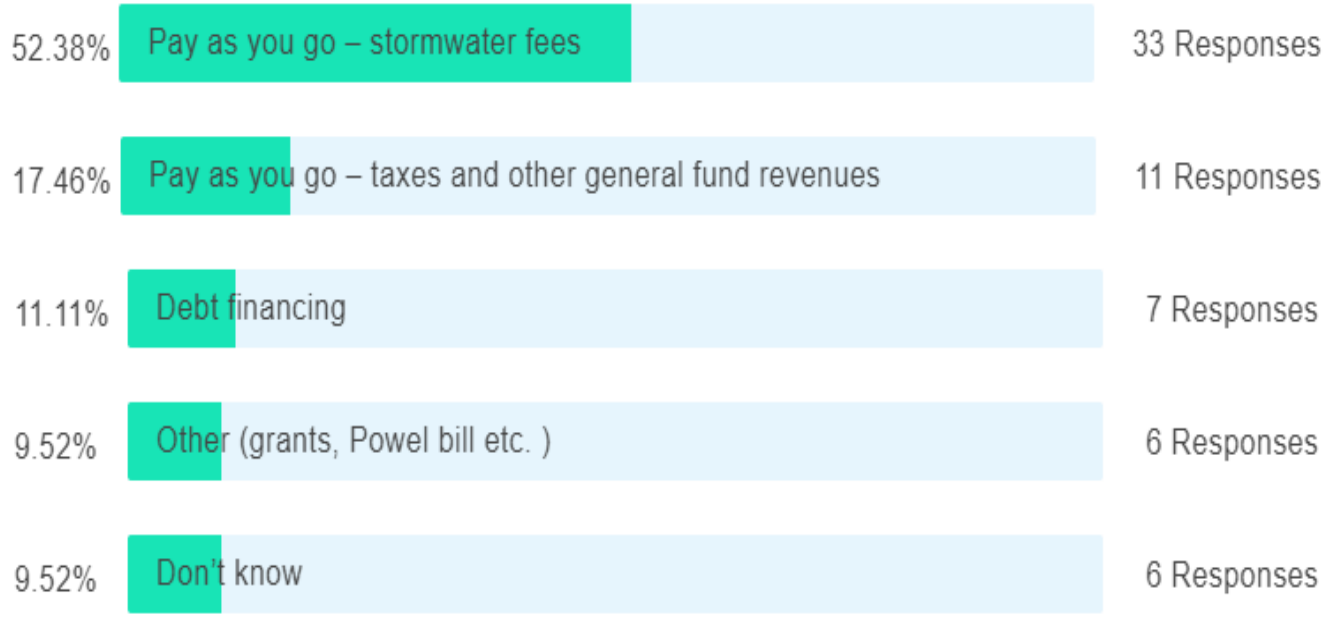
Capstone survey

- “The current fee does not fully cover operational costs or address the CIP need.”
- “We have several stormwater projects that need to be done but we are not sure where the funding will come from.”
- “We have one large project that we can't fund.”

Webinar survey

4 of 9. From where will the majority of your funding for capital improvements come over the next five years? 63 of 119 Attendees responded

Multiple choice with single answer

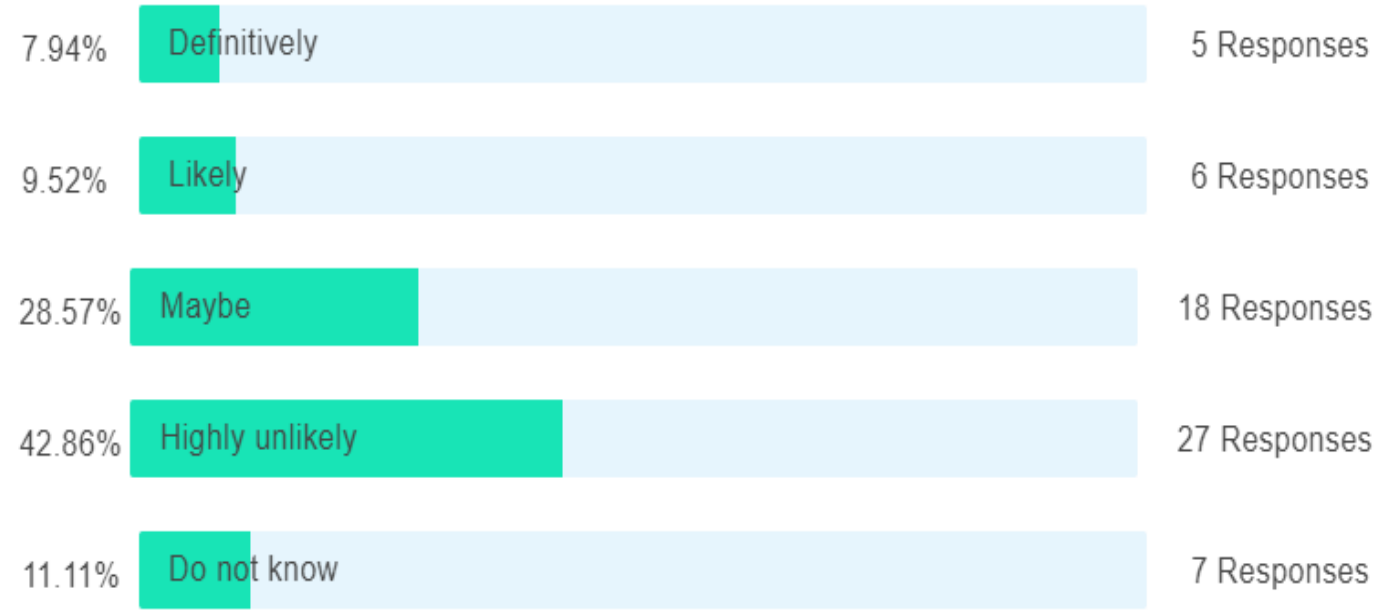


Webinar survey

6 of 9. How likely do you think it is that your program will borrow money for a stormwater project in next 5 years?

63 of 119 Attendees responded

Multiple choice with single answer



Questions?

Erin Riggs
riggs@sog.unc.edu
(919) 966-3126

Evan Kirk
emkirk@sog.unc.edu
(919) 962-2789

Environmental Finance Center at the University of North Carolina
School of Government, Knapp-Sanders Building
CB #3330
Chapel Hill, NC 27599-3330
USA

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