

Revenue Options for Stormwater Management Costs

Stormwater Finance Workshop

December 10, 2019

Chapel Hill, NC



SCHOOL OF GOVERNMENT
Environmental Finance Center

www.efc.sog.unc.edu



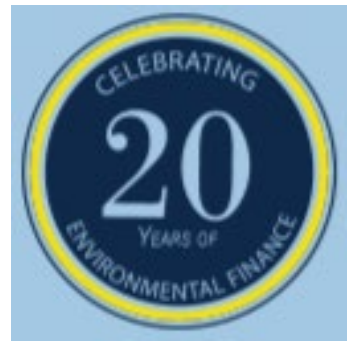
SCHOOL OF GOVERNMENT

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



How you pay for it matters

Instructors



Erin Riggs, JD
Senior Project Director



Evan Kirk
Project Director



House Keeping

- Wi-Fi:
 - UNC Guest
 - Go to wifi.unc.edu and accept terms
- Handouts
 - Access on computer or print
- Restrooms and water fountains are out the entrance and to the left
 - Please feel free to leave or stretch at any time, should you need to

Agenda Screenshot



Day 1

Stormwater and Green Infrastructure Finance

December 10-11, 2019

NC Botanical Garden & UNC School of Government
Chapel Hill, NC

Tuesday, December 10, 2019

Reeves Auditorium North

9:00 Registration | Continental Breakfast

9:30 Stormwater Revenue Options I – Overview

Overview of revenue options available to addressing Stormwater management costs. The current and future landscape of stormwater finance in North Carolina.

*Erin Riggs, Senior Project Director, Environmental Finance Center
Evan Kirk, Project Director, Environmental Finance Center*

10:30 Break

10:45 Stormwater Utility Fee Setting

Overview of stormwater fees in North Carolina including structuring stormwater fees to cover total cost of service. Stormwater dashboard demonstration and data visualization considerations. A review of Carrboro's stormwater rate structure.

*Evan Kirk, Project Director, Environmental Finance Center
Julia Cavalier, Research Assistant, Environmental Finance Center
Randy Dodd, Stormwater Utility Manager, Town of Carrboro*

12:00 Lunch

1:00 Innovative Uses for Stormwater Revenues

Strategies, considerations, and programs for incentivizing urban retrofits.
*Justin Harcum, Stormwater Engineer, City of Raleigh Stormwater Management
Dave Canaan, Director, Mecklenburg County Storm Water Services*

2:15 Break

2:30 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

3:30 Networking time

4:00 Recess

Agenda Screenshot

Day 2

Wednesday, December 11, 2019

8:30 Continental Breakfast

9:00 Affordability

A wholistic look at the costs of water services from a One Water approach. How charging fee structuring affects proportion of stormwater revenue responsibility by customer class.

Evan Kirk, Project Director, Environmental Finance Center

10:00 Break

10:15 Funding Programs and Activity

Overview of the Clean Water Management Trust Fund. Subsidized loan calculator demonstration and funding activity.

Steve Bevington, Restoration Program Manager, Clean Water Management Trust Fund

Erin Riggs, Senior Project Director, Environmental Finance Center

11:45 Lunch

12:45 Public Outreach and Communication

Local government outreach, communication, and education strategies for stormwater.

Erin Riggs, Senior Project Director, Environmental Finance Center

Laura Smith, Public Education Coordinator, City of Durham Stormwater

2:00 Course Evaluation

2:15 Stormwater and Green Infrastructure tour of Battle Grove

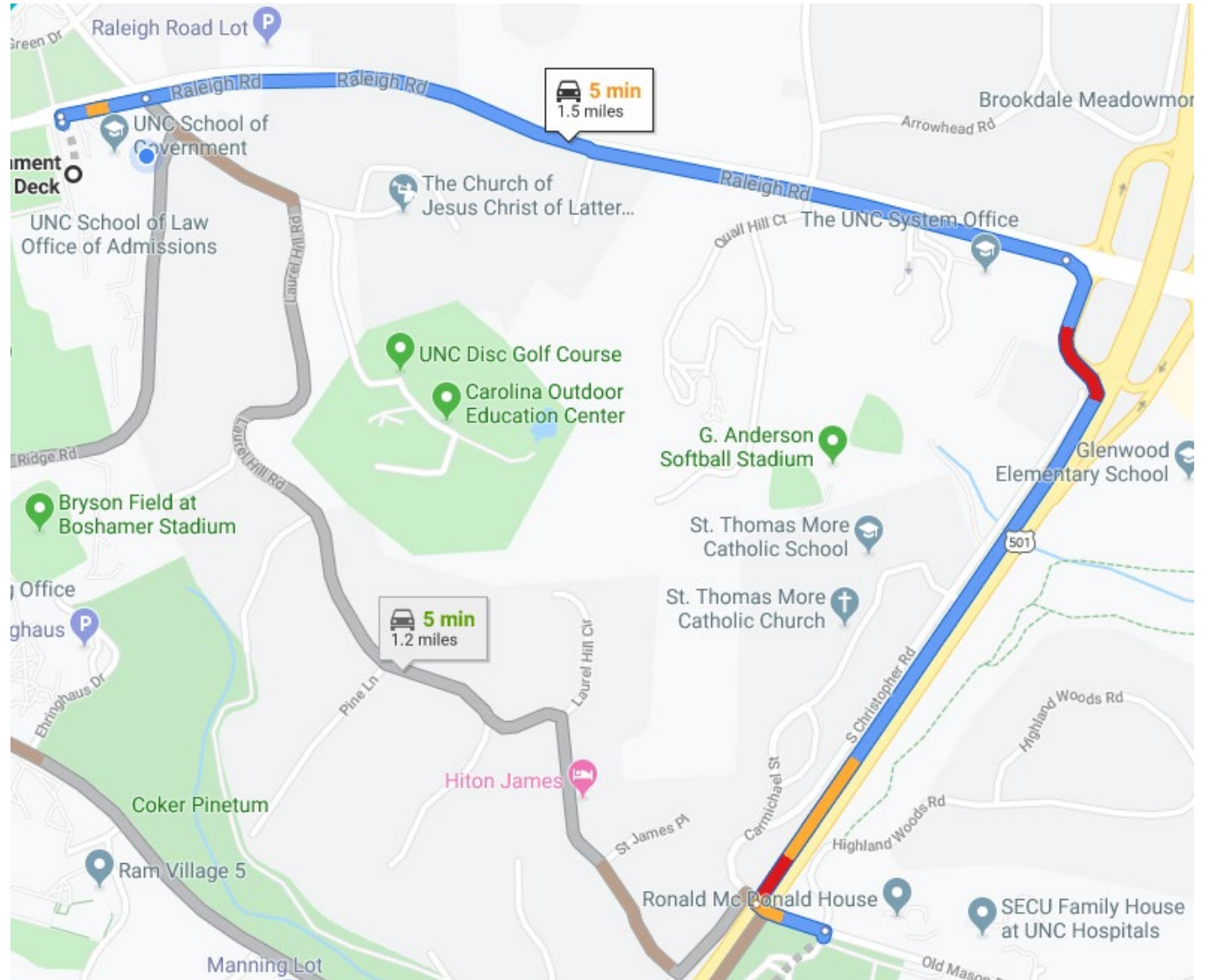
Walking tour followed by discussion of ancillary benefits of the installation and the funding structure for the project.

Sally Hoyt, Stormwater Engineer, University of North Carolina

3:45 Dismissal

Tomorrow's outside tour

- Temperatures in the 40's
- Chance for rain
- Please wear comfortable shoes with good traction
- We will have a parking pass for you
- Park at UNC School of Government parking deck

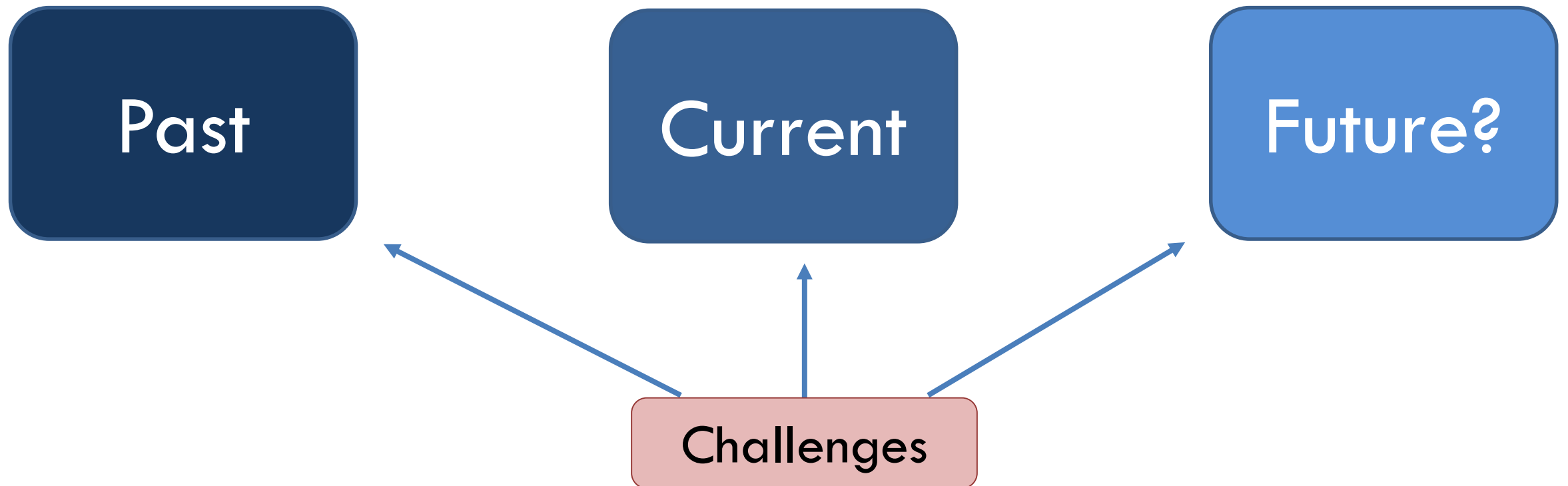


Just a quick reminder of why we need this course...

- <https://wnep.com/2019/01/08/wyoming-valley-sanitary-authority-stormwater-fee-sparks-controversy/>

Outline

The Stormwater Finance Landscape



THE PAST AND CURRENT LANDSCAPE



The Past Landscape

- Stormwater services mostly paid for with property tax revenue
- Establishing a stormwater utility was common theme
- Many cities have set up a stormwater fee
 - One to two new stormwater utilities each year in the State
- Grant funding was more abundant
 - Not necessarily more available, just fewer utilities making use of it



The Current Landscape

- High capital needs
 - \$7.5 billion nationally (2018 Water Environment Federation survey)
- NC needs...community specific, but largely unknown????
- Cash financing with and without fees – not much change
- Regulatory needs growing...resilience, flooding, contaminants, etc.



The Current Landscape

- Local governments are resistant to implementing or unable to implement projects if there is no dedicated source of funding
- Difficult to pinpoint 'stormwater' spending in jurisdictions with no fees
- North Carolina stormwater regulatory enforcement has been delayed (MS4)

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

General fund budget vs. dedicated stormwater fee

- 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.

General Methods of Raising Local Government Revenue

- Taxes
- Public Enterprise Fees
 - **Stormwater Management/Utility fees**
 - Drinking water/wastewater fees
 - Impact fees
- **Regulatory fees**
- **Fines and Penalties**
- Contractual agreements
- Assessments



Factors that (Can, Should and Do) Influence Revenue Choices

- **Legal**
- Community perspectives, goals and objectives
- Fairness
- Revenue stability and reliability
- Political
- Administrative
- Inertia...times are changing!
- Peer pressure

STATUTORY AUTHORITY FOR STORMWATER FEES

a refresher...



§ 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**.....

NC Gen Stat. § 160A-311(10).
Stormwater as a public enterprise.

“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-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.

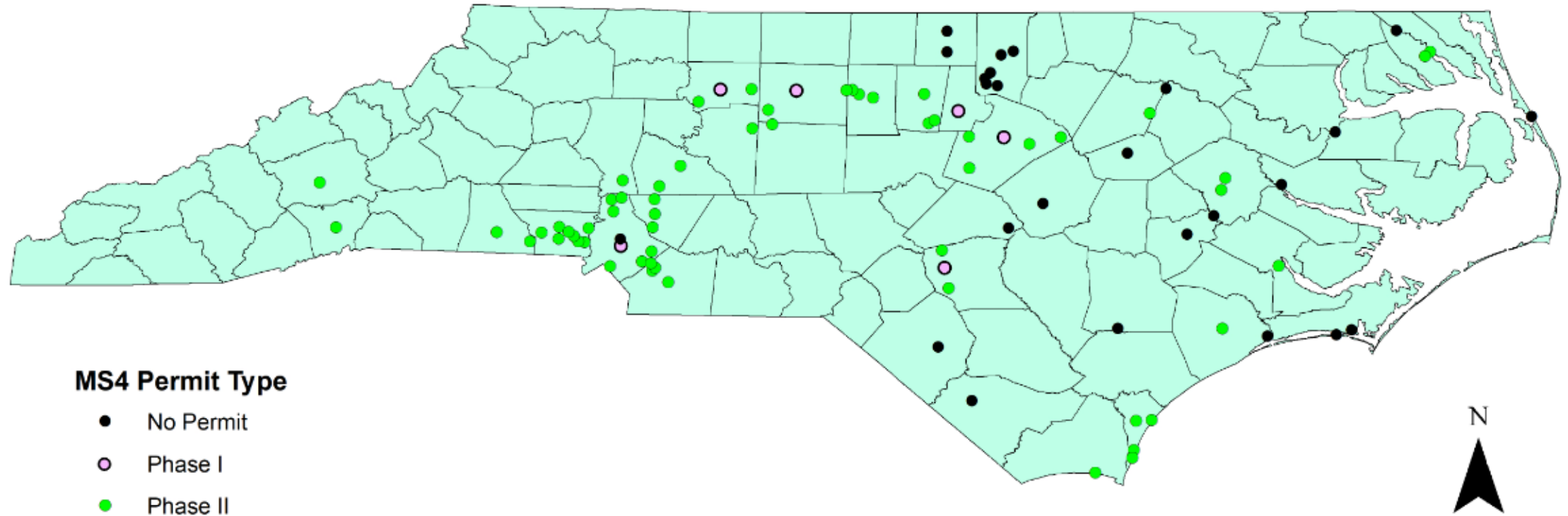
Rate and Charge Limitations

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

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

NC Stormwater Utilities



Stormwater Needs Survey

- Timing projects with funding availability
- Historical cash finance
- Stormwater services as communicated to the public
- Public/private ownership



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
- Asset inventory

“Stormwater utility fees on city workshop agenda”

February 11, 2019

“...the committee estimated the city would have to triple its current stormwater fee over the next six years to fund \$150 million in capital project which included flood control, water quality, and streambank stabilization.”



“City Council seeks ways to reduce likely stormwater fee increase”

February 12, 2019

“...too costly, especially for apartment dwellers.”

“We all agree there needs to be more money put towards stormwater, but let’s not tax the heck out of the citizens.”



Working toward a needs survey

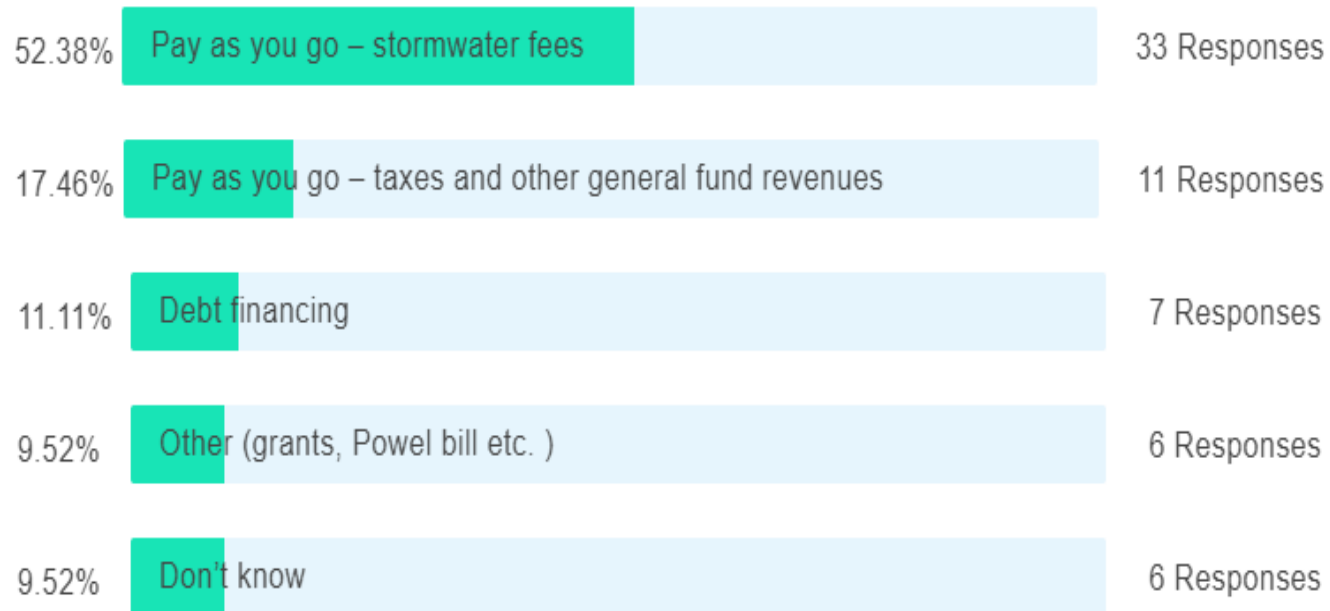
- We are working to understand needs and willingness to finance using debt
- March Stormwater Fee Webinar survey
- Undergraduate Capstone project
 - Survey of 26 utilities in the Cape Fear and Onslow Bay river basins



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

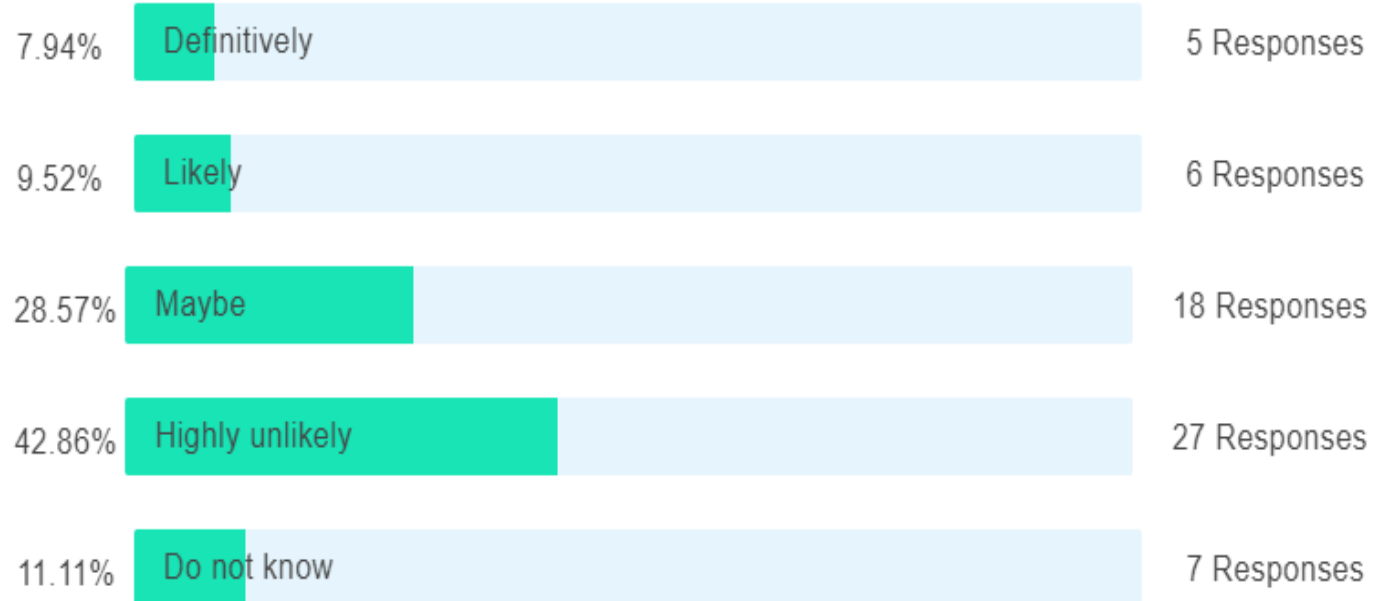


Webinar survey

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



Capstone survey

- In your opinion, would the stormwater utility be willing to take on debt to finance stormwater projects?
 - 8 yes, 4 unsure, 0 no
- Are there instances within your community of stormwater projects that are impeded by a lack of funding?
 - 12 yes, 1 no

Capstone survey

- What is most concerning for the utility about taking on debt for stormwater projects?



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

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.”



Capstone Survey

- “there are high expectations that a project will solve all problems...”
- “The board and citizens want instant results with little to no impact to their lives. If streets and yards have to be torn up or closed off, they don't want it done until it's too late to fix it easily.”



FUTURE LANDSCAPE: WHAT CAN WE EXPECT?



Fees will be going up...

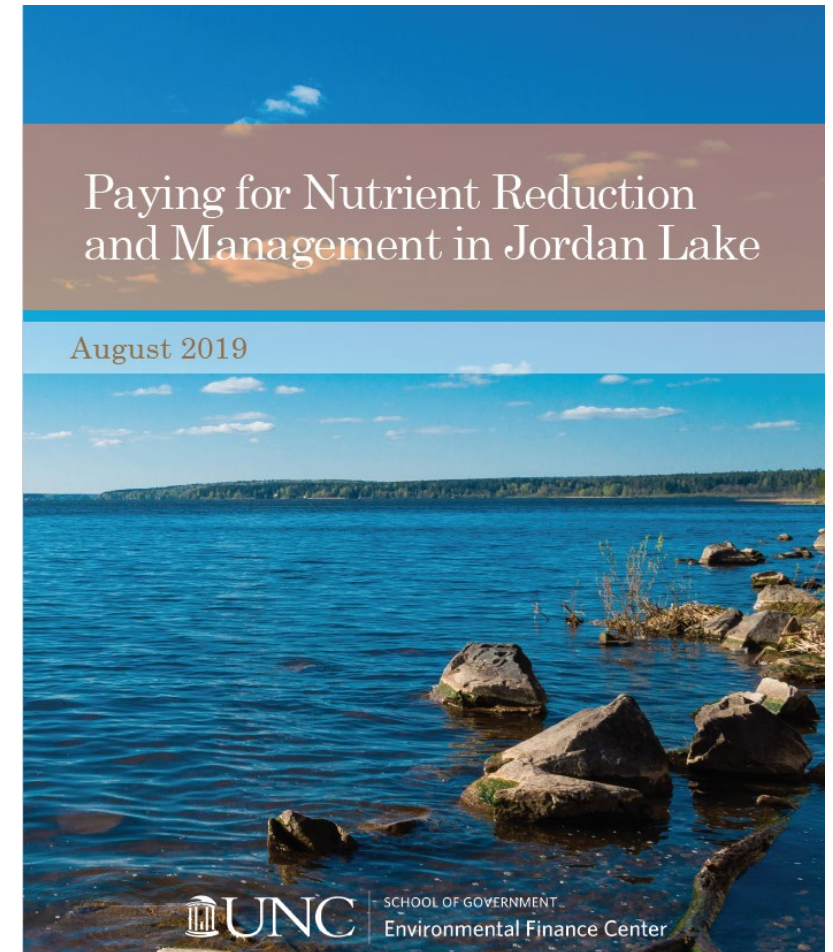
- When you start low, takes a while to raise to where you need to be
- Lack of asset inventory and capital improvement plans
- Water quantity challenges are accelerating needs
- Shrinking availability of grant funding
- Regulatory pressures
- Low hanging fruit has been plucked
 - Private land issues, more expensive projects



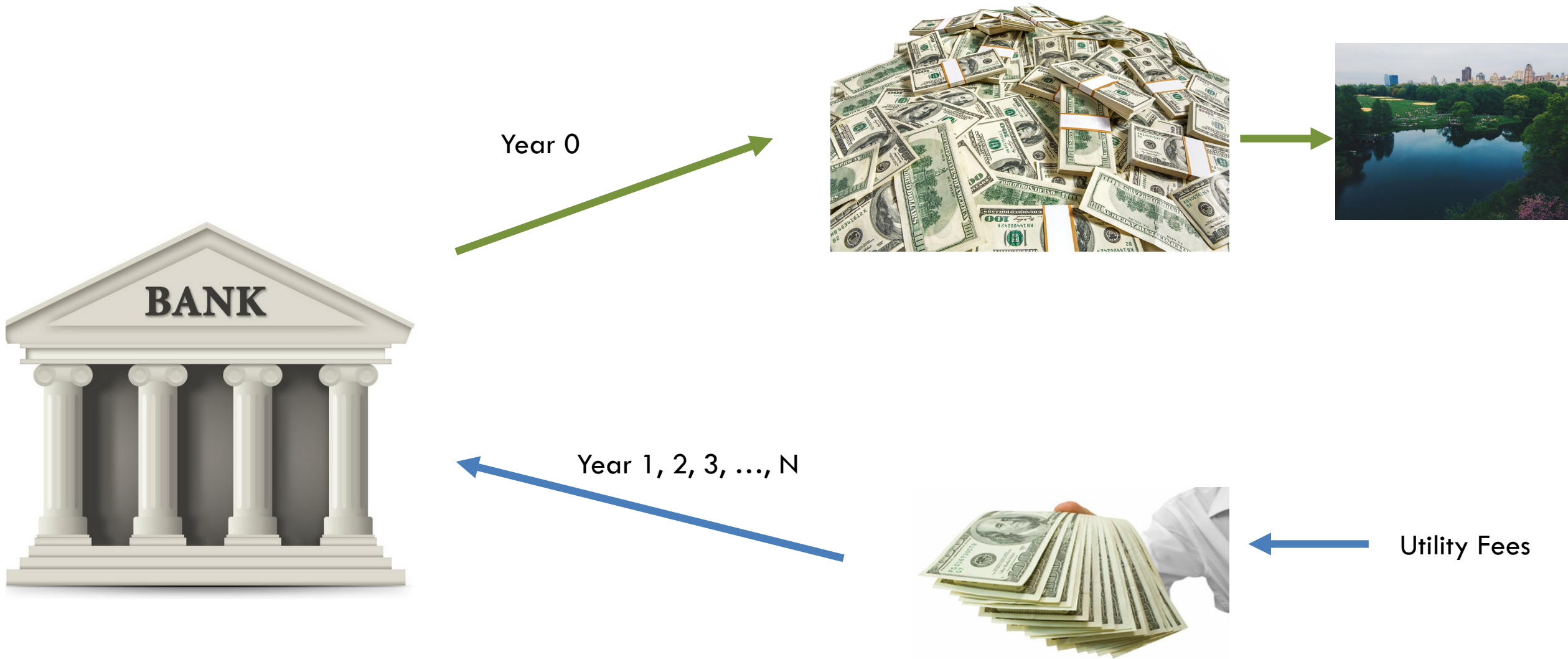
© Erin Witzel www.erinwitzel.com

Regional options should be considered

- Charlotte-Mecklenburg County
- Watershed Protection fees (Raleigh)
 - Public non-profit partnerships
- Regional fees (i.e. Bay Restoration Fee)
- Minnesota watershed districts and authorities



Debt financing will likely be on the table



Resilience needs are speeding up the urgency

Fair Bluff, NC



Resilience as a need and an opportunity

- Much of resilience finance is stormwater finance
- Most communities, even non-coastal, are concerned with flooding
- Quantity vs. quality
 - Quantity impacts quality, but quality is hard to prove
 - Many funding options are water quality linked
- Opportunities for buyouts and retrofits



More comprehensive projects on the horizon

ALL WATER IS ONE WATER



Per Pound of Nutrient Reduction

DURHAM COUNTY

Wetlands and a boardwalk coming to downtown Durham

BY DAWN BAUMGARTNER VAUGHAN
APRIL 24, 2018 06:38 PM



The estimated cost of the project is \$8 million, not including amenities,

The South Ellerbe stormwater restoration design, view from the intersection of Trinity Avenue and North Duke Street.



Installations on private land will be critical

- Challenges
 - ‘Low hanging fruit’ is gone
 - Stormwater not limited to Public property...it's fluid!
 - Low participation in voluntary cost-share programs
 - Undo historically poor planning
 - Environmental justice



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



SCHOOL OF GOVERNMENT
Environmental Finance Center

www.efc.sog.unc.edu