

FINANCING FALLS LAKE NUTRIENT MANAGEMENT: YEAR 4

Megan Doherty



SCHOOL OF GOVERNMENT
Environmental Finance Center

WHAT IS BEING STUDIED IN YEAR FOUR?

1. Summarize the research on the Falls Lake and Jordan Lake watersheds in years 1 – 4.
2. Summarize the Clean Water Act obligations in the Falls Lake Watershed and describe current compliance.
3. Summarize the IAIA and its investment approach.
4. Collaborate with partners on ongoing financial, legal, and regulatory research.



YEARS 1-4 IN REVIEW

OVERVIEW - RULE COMPLIANCE - FINANCE - AFFORDABILITY - REVENUESHED

WHAT IS THE STATUS OF RULE MANAGEMENT?

Clean Water Act

NC Nutrient and Use Requirements

Management

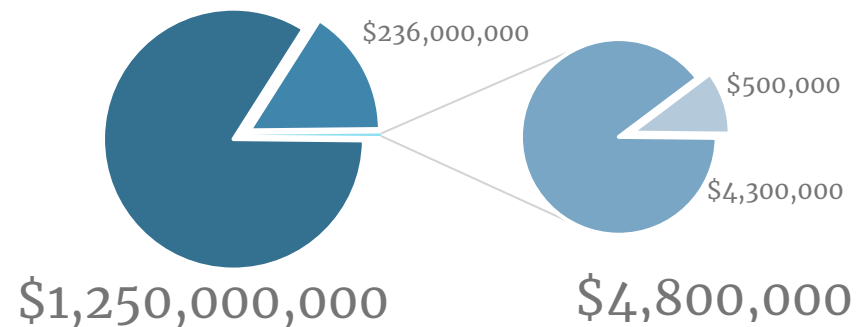
Finance



DEQ



EMC



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- Private Entities
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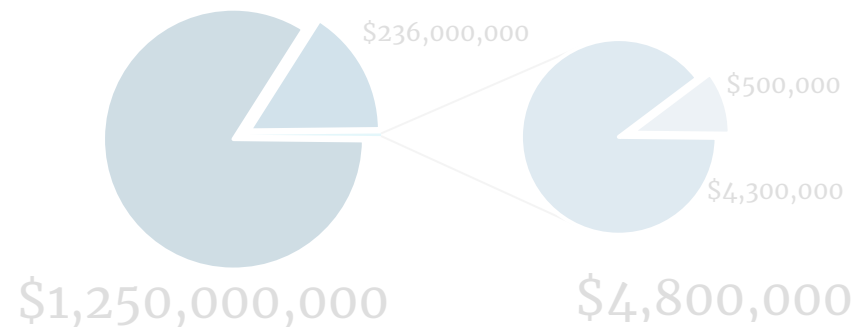
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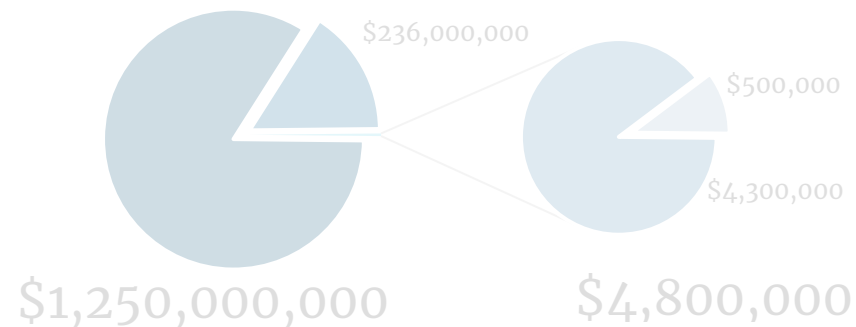
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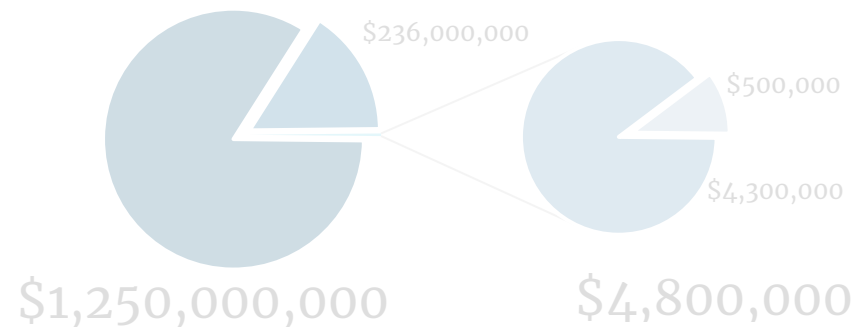
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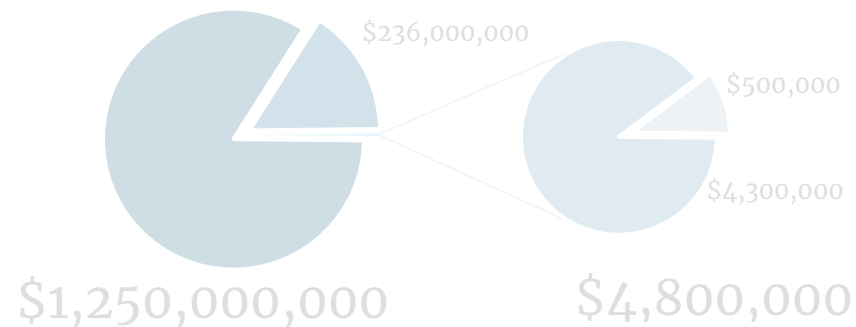
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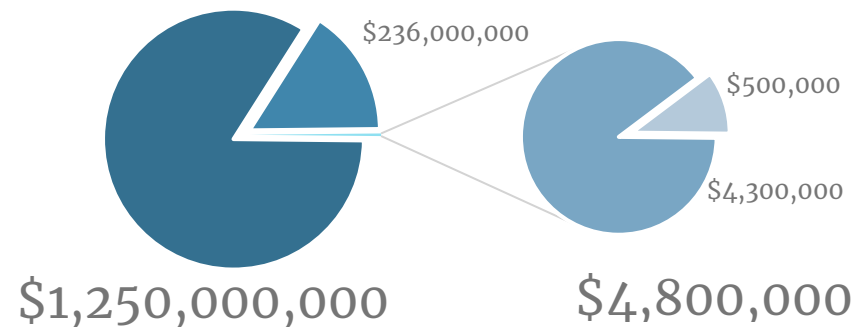
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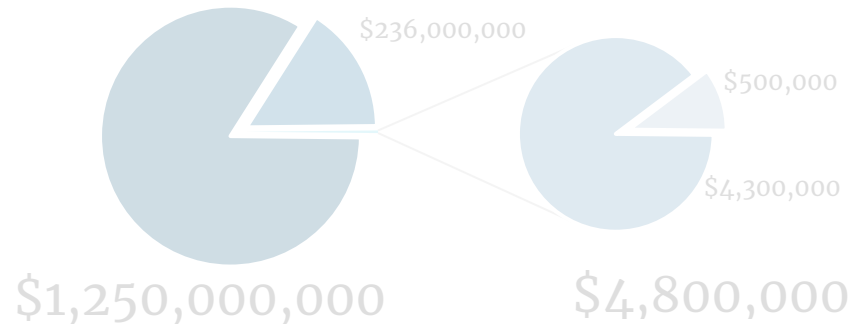
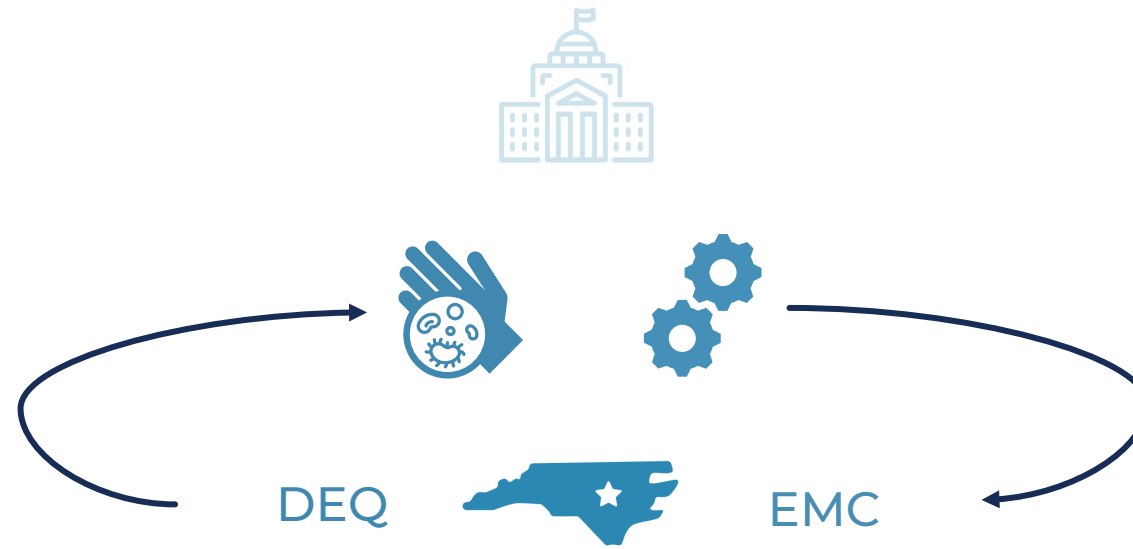
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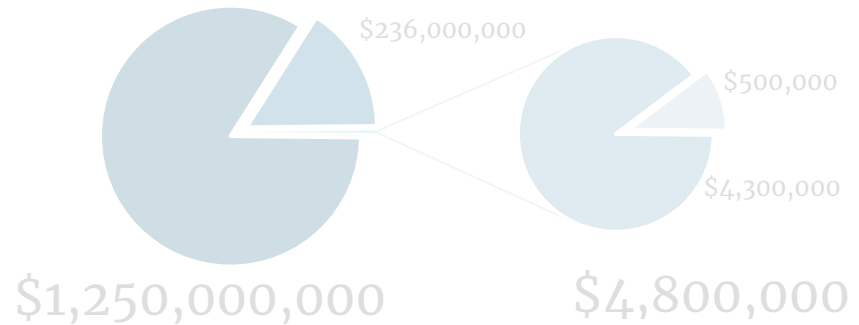
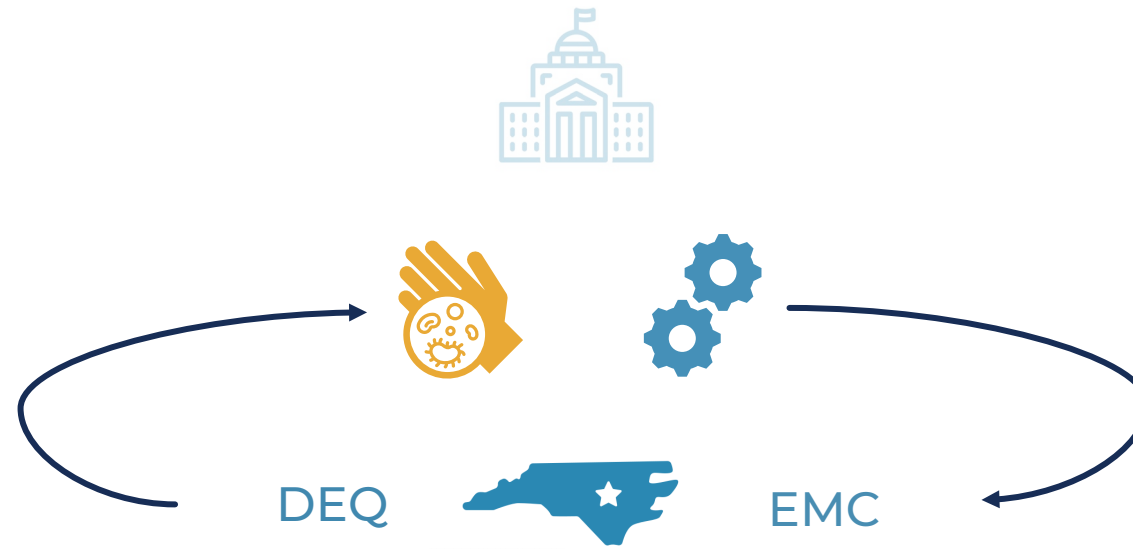
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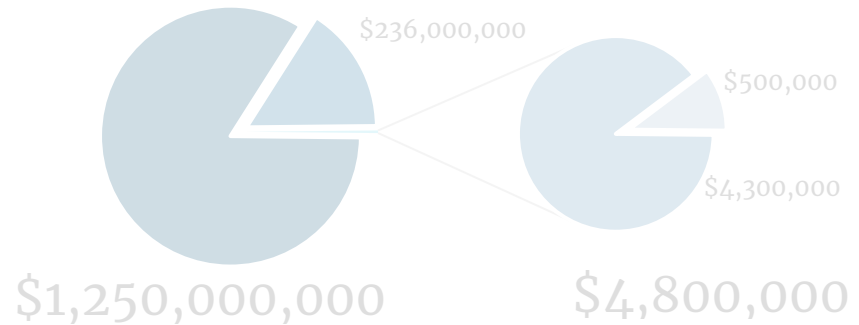
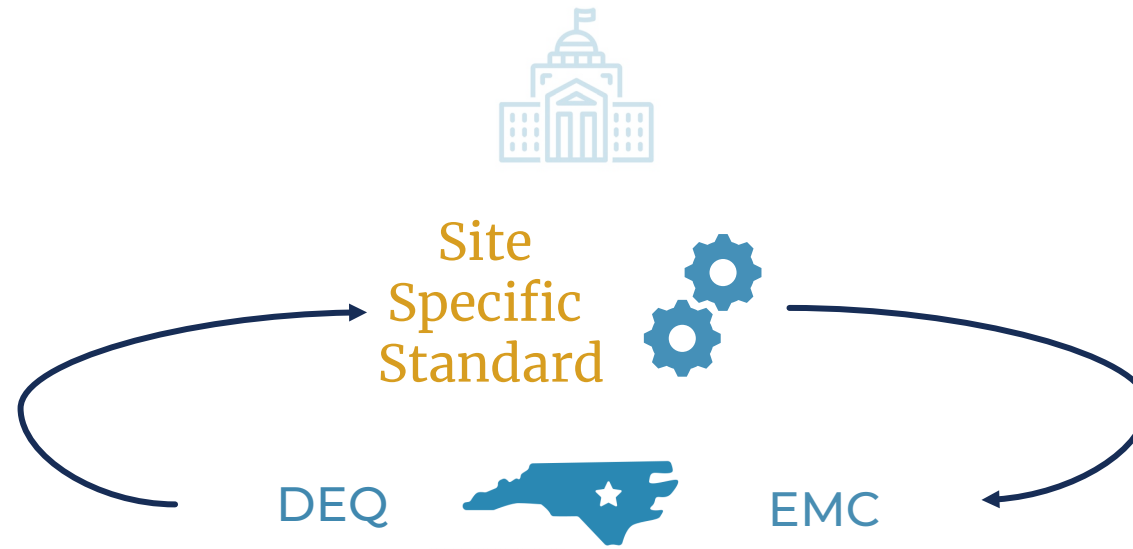
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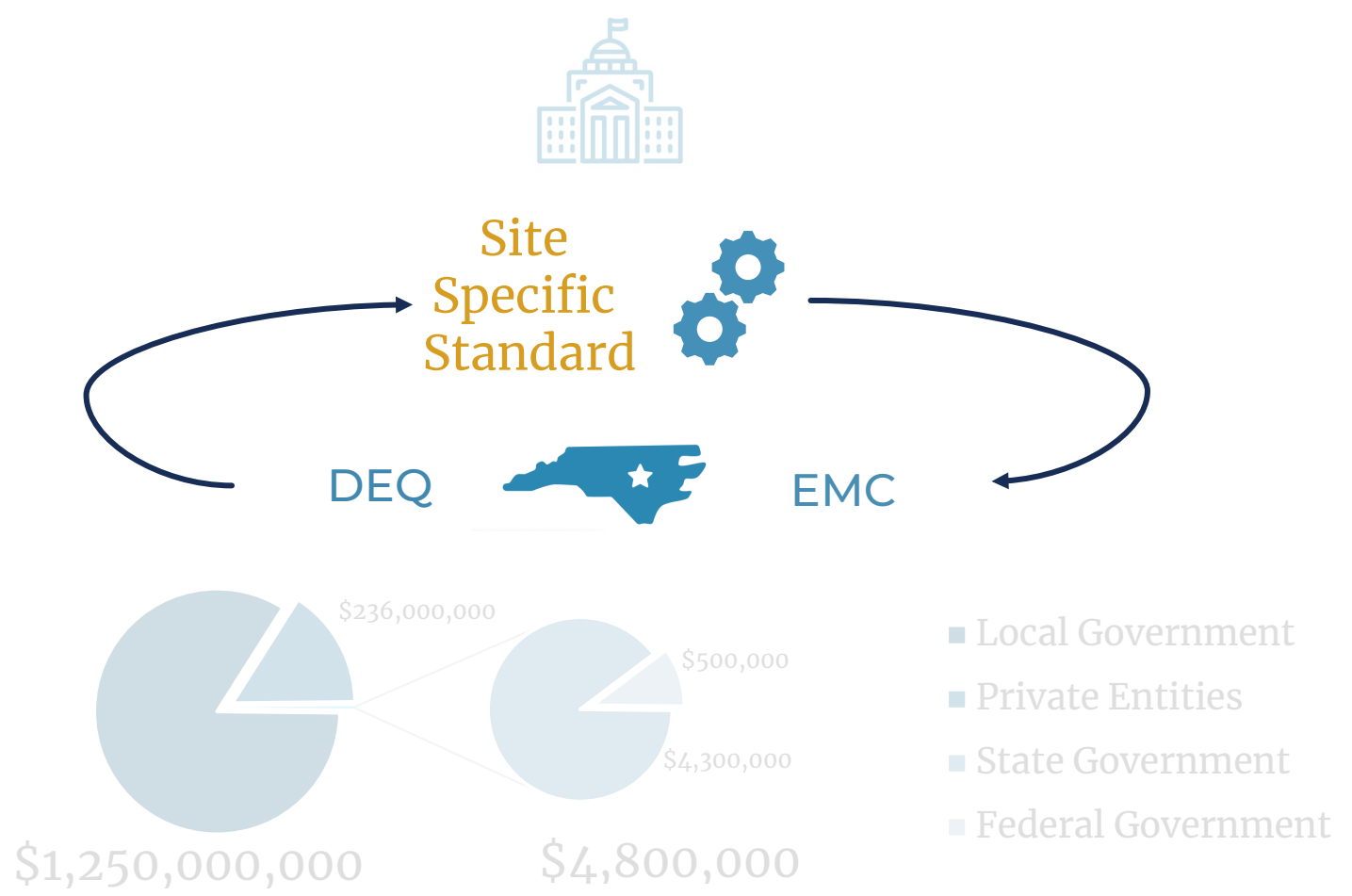
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WHAT IS THE STATUS OF RULE COMPLIANCE?



IAIA Feedback

Positive remarks regarding cost and support.

Requested more comprehensive credit tracking, mitigation of project competition, and expanded creditable projects.

Expressed concern with decreased development in towns due to ND rules as well as inability to see quick changes in nutrient loads.

WHAT IS THE STRUCTURE OF FINANCIAL COMPLIANCE?

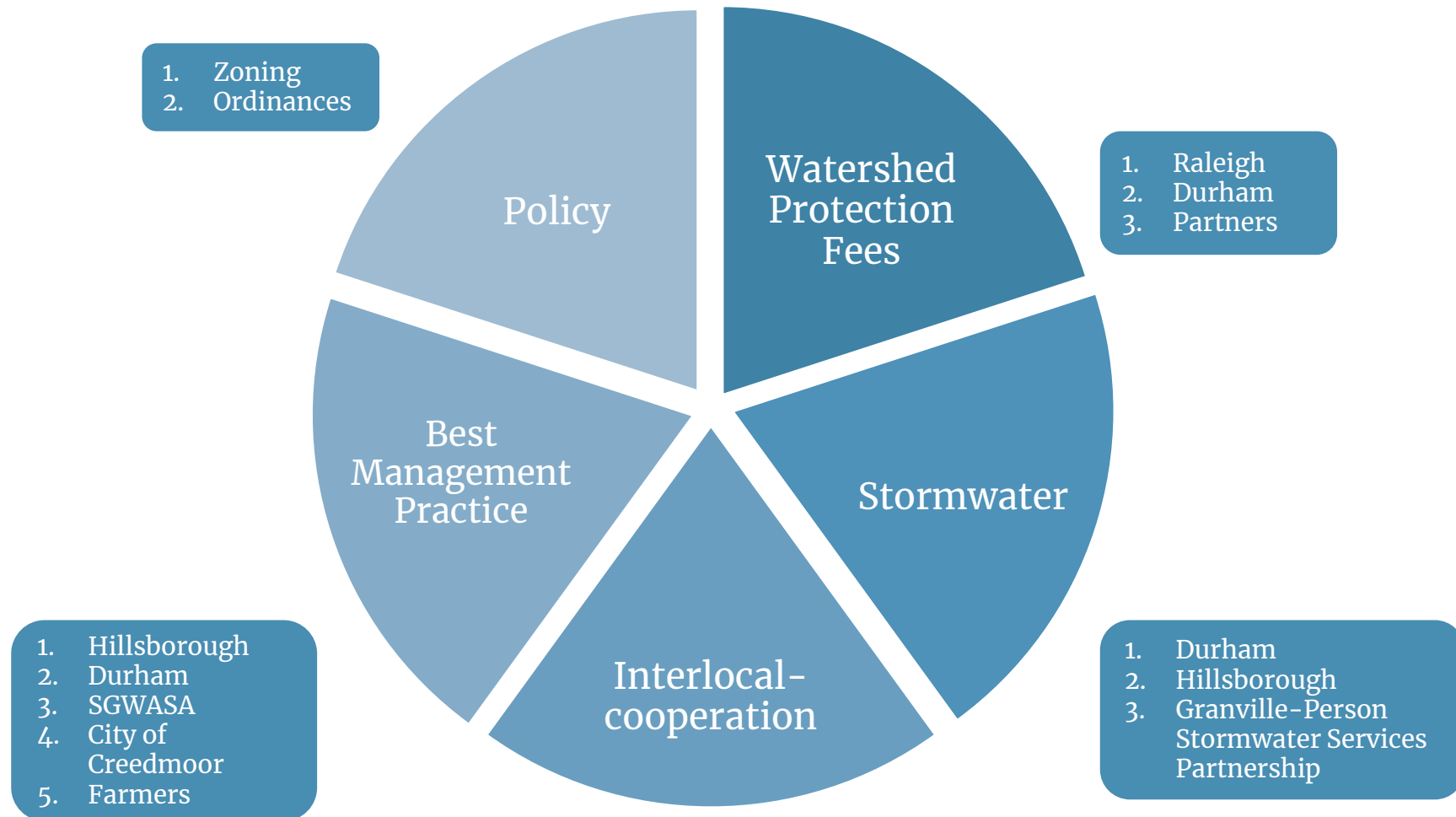
IAIA Membership Fee

Annual Project Funds

+

Version 6.1 Credit
Tracker

WHAT IS THE STATUS OF FINANCIAL COMPLIANCE?



WHAT ARE FUTURE FINANCE MECHANISMS?

 License Plates

 Tax Check Off NC Nongame and Endangered Wildlife Fund

 Hunting, Boating, and Fishing License

 Vehicle Excise Tax

 Program Open Spaces NC requires a vote to enact publicly funded conservation

 Habitat Conservation Permits

HOW CAN AFFORDABILITY BE MEASURED?

Metrics

- Percent of 20th percentile household income
 - <4%
- Affordability ratio at the 20th percentile household income
 - <10%

Applied

Local Government	Percent 20th Percentile Household Income	AR20
Butner	4.9%	14.1%
Creedmoor	4.3%	11.9%
Durham	2.8%	20.0%
Hillsborough	3.9%	15.4%
Raleigh	2.6%	11.9%
Roxboro	5.1%	Negative
Stem	3.7%	9.0%
Wake Forest	1.6%*	3.9%*

- Issues
 - No account for supplemental income
 - Inside vs outside rates

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HOW CAN AFFORDABILITY BE MITIGATED?

- Charge higher cost for higher water use.

Block Rate
Utility
Structure



- A bill is based on last year's consumption for predictable billing.

Budget
Billing



- Voluntary CAP programs.
- Provide cheap efficient machines to reduce utility consumption.

Customer
Assistance
and
Incentive
Programs



- DAC
- Stormwater Planning
- Financial Planning

Funding
Tools



HOW CAN AFFORDABILITY BE MITIGATED?



**2022 PROPOSED
FCA
FINANCIAL
CAPABILITY
ASSESSMENT**



**JUSTICE40
AND SCREENING TOOL**



**NC DEQ
COMMUNITY
MAPPING**



**CLASIC
COMMUNITY- ENABLED
LIFECYCLE ANALYSIS OF
STORMWATER
INFRASTRUCTURE**

HOW CAN JURISDICTIONS COLLABORATE ON FUNDING?

Introduction **Participants** Water Wastewater Stormwater Property Tax

Falls Lake Revenueshed

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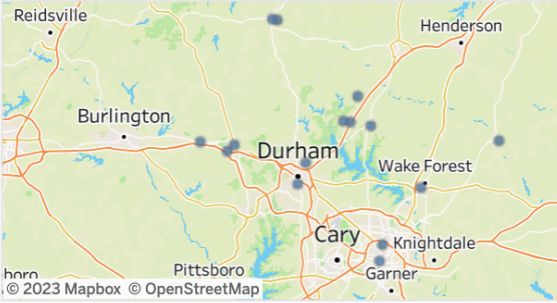
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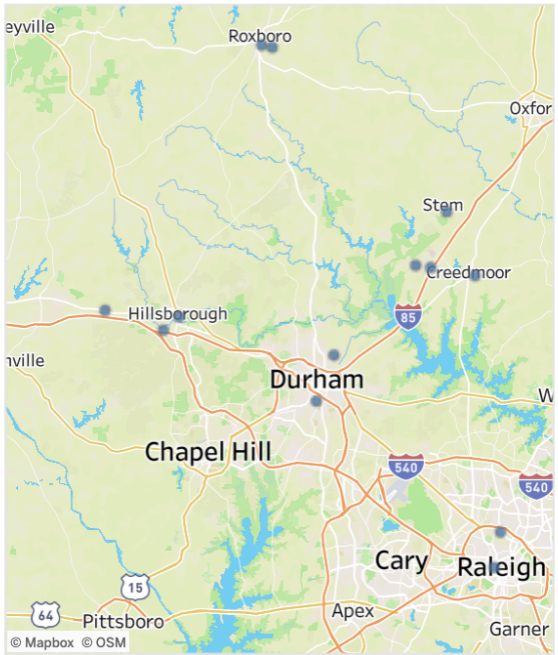
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<https://efc.sog.unc.edu/resource/falls-lake-revenueshed-tool/>

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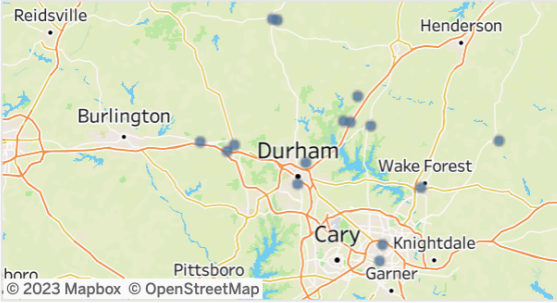
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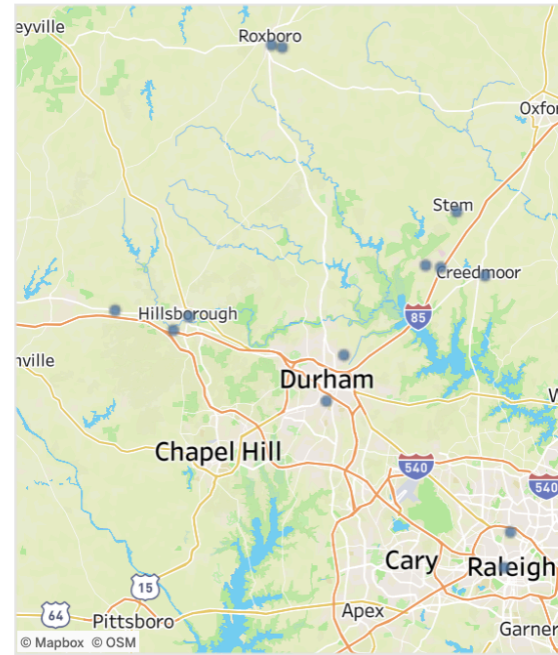
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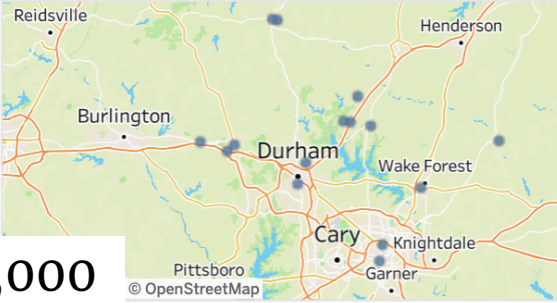
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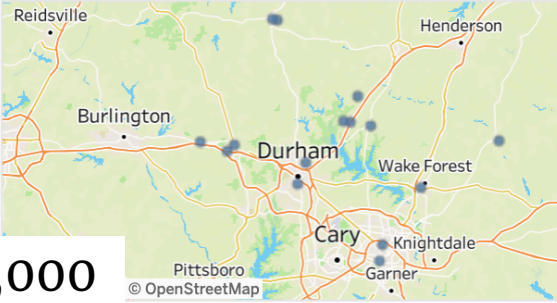
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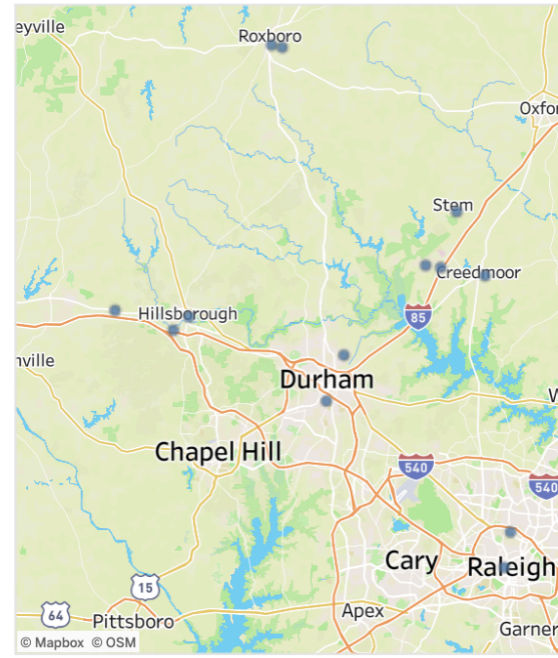
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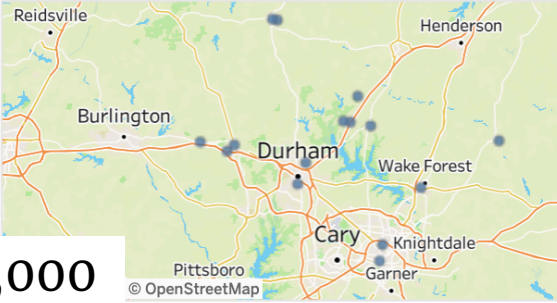
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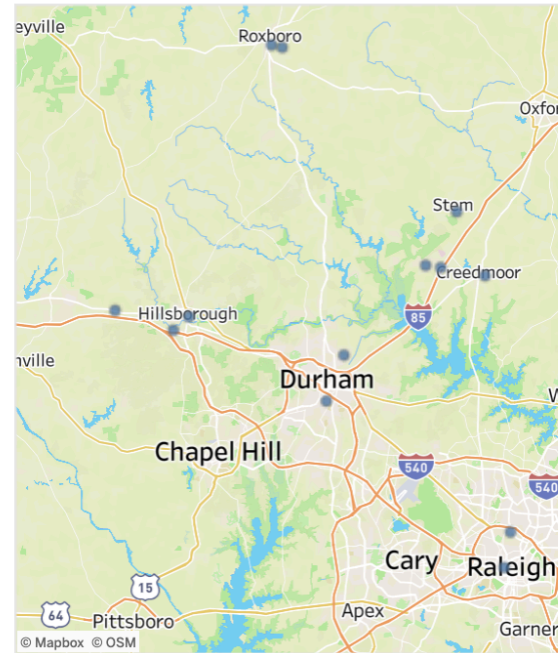
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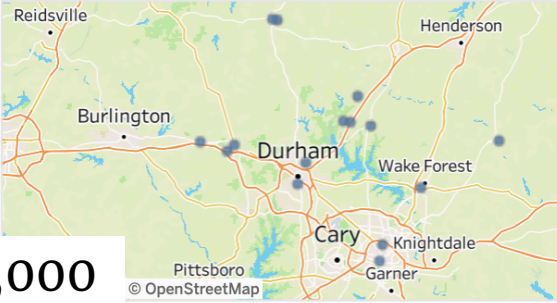
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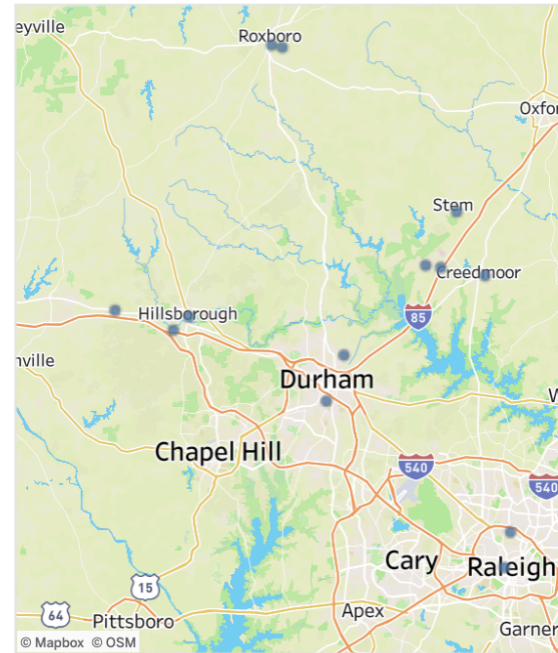
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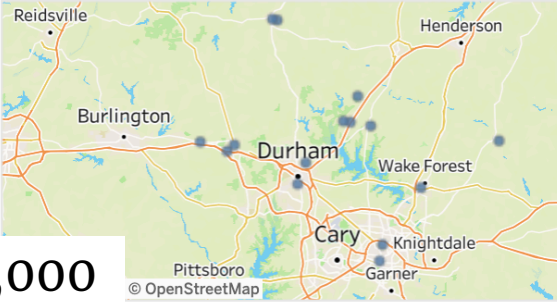
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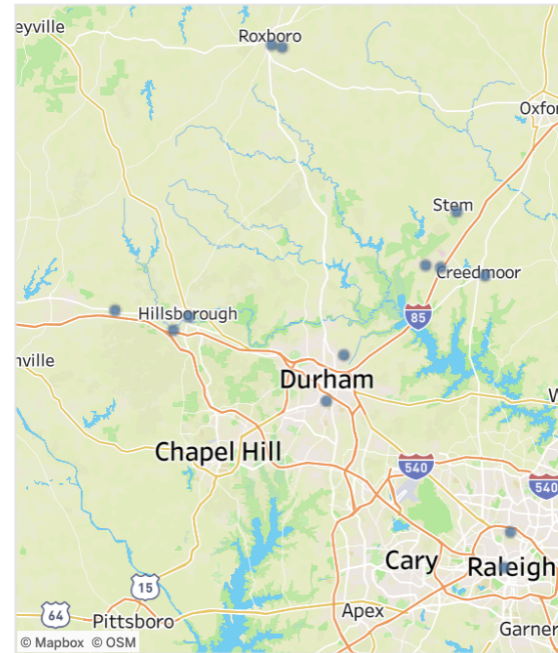
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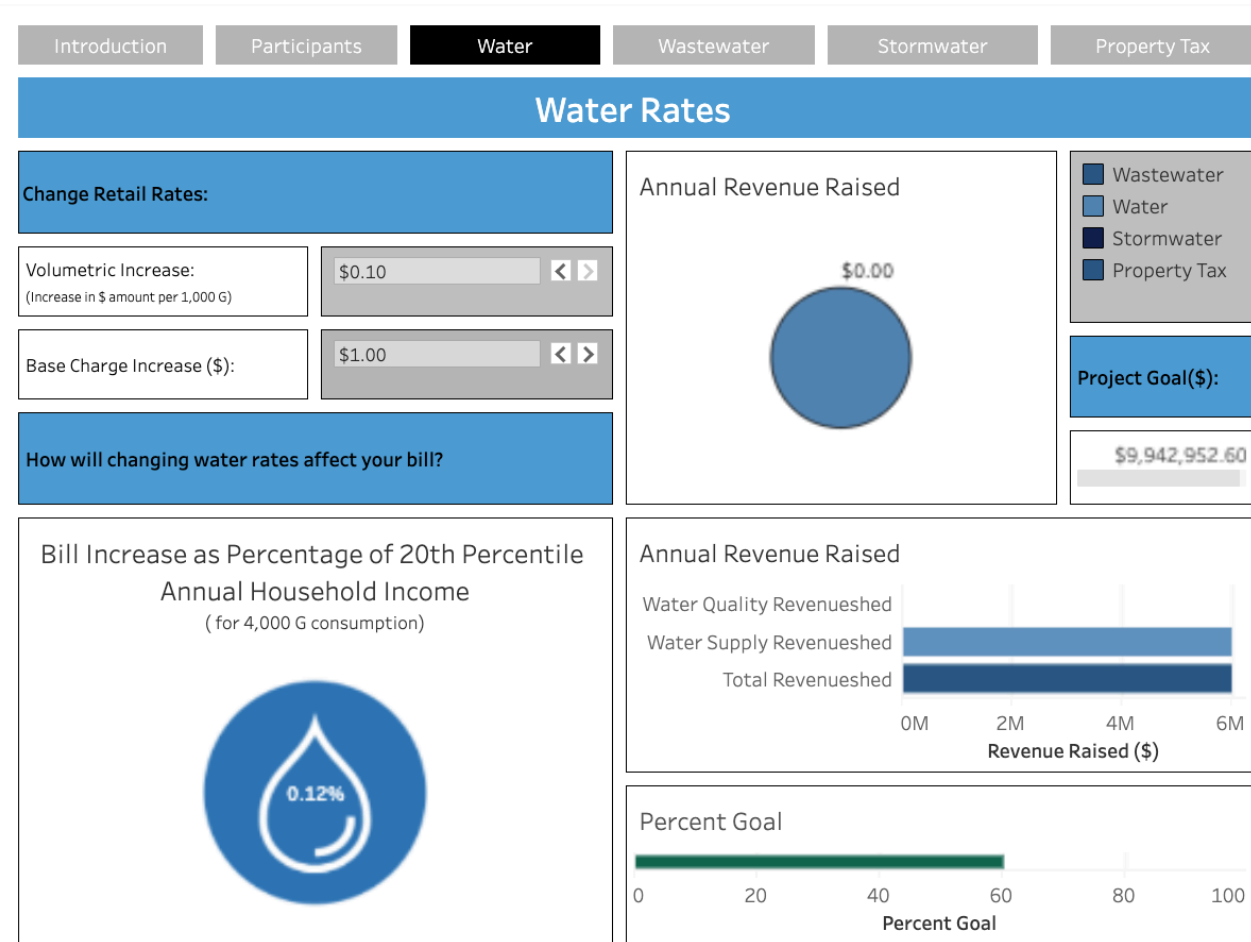
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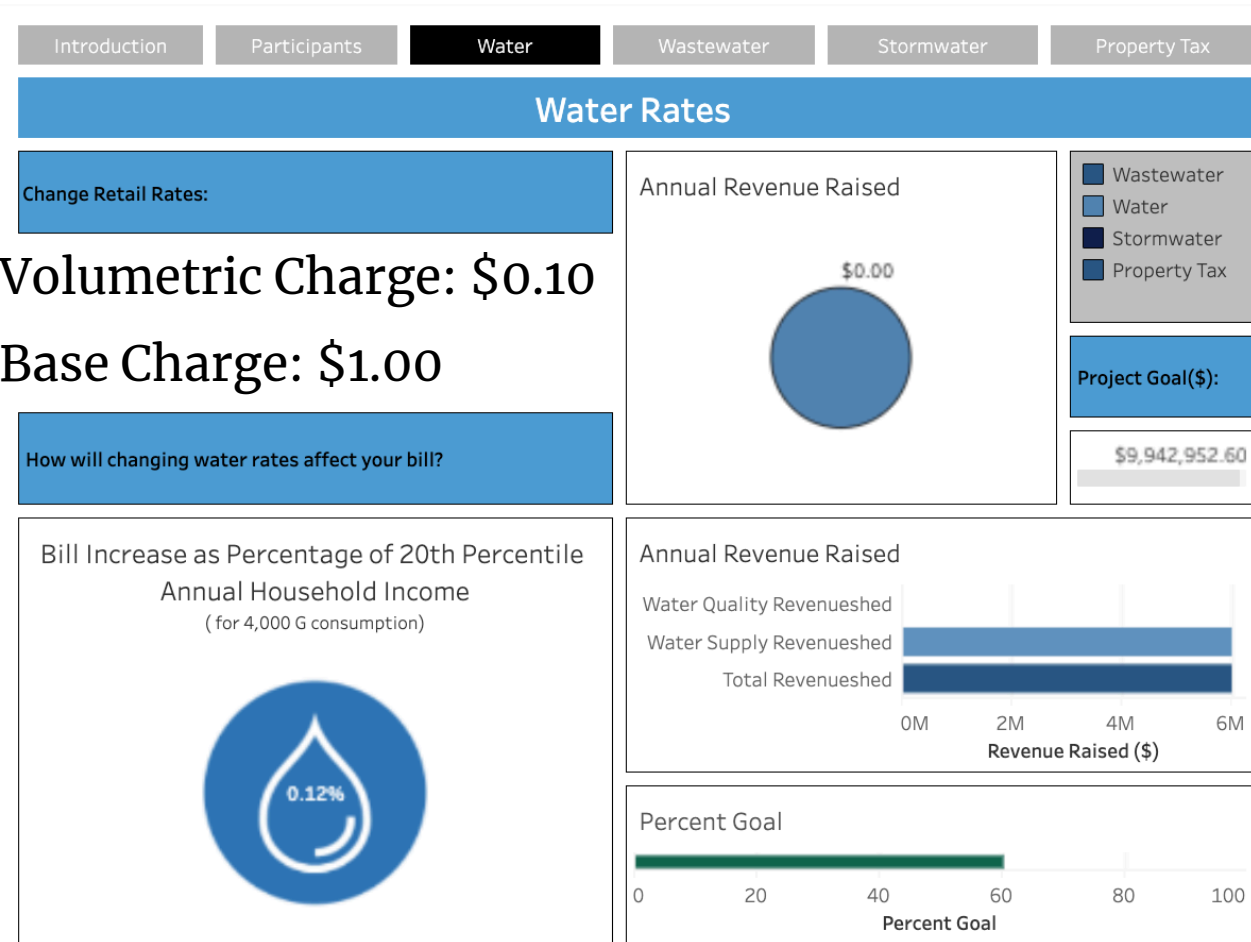
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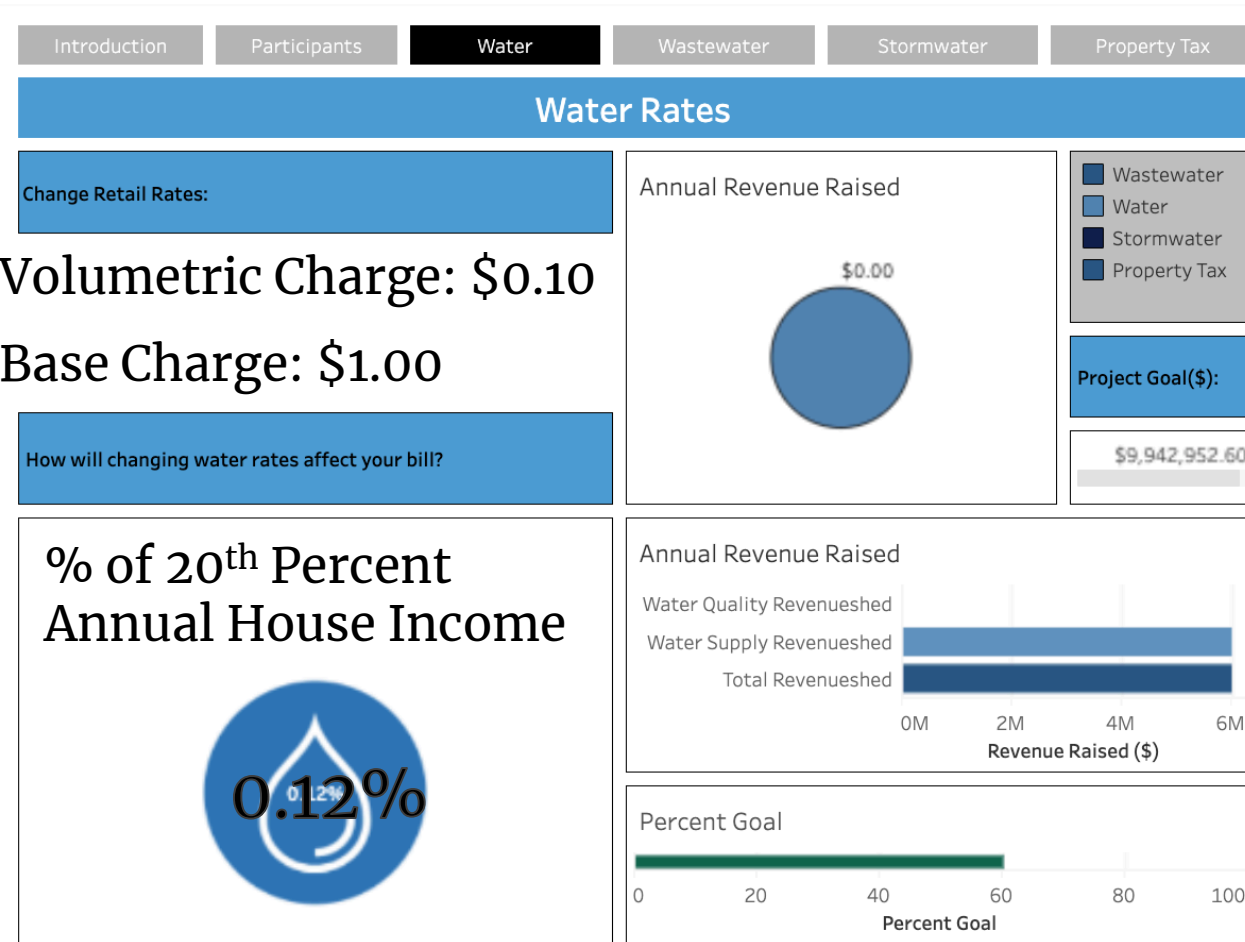
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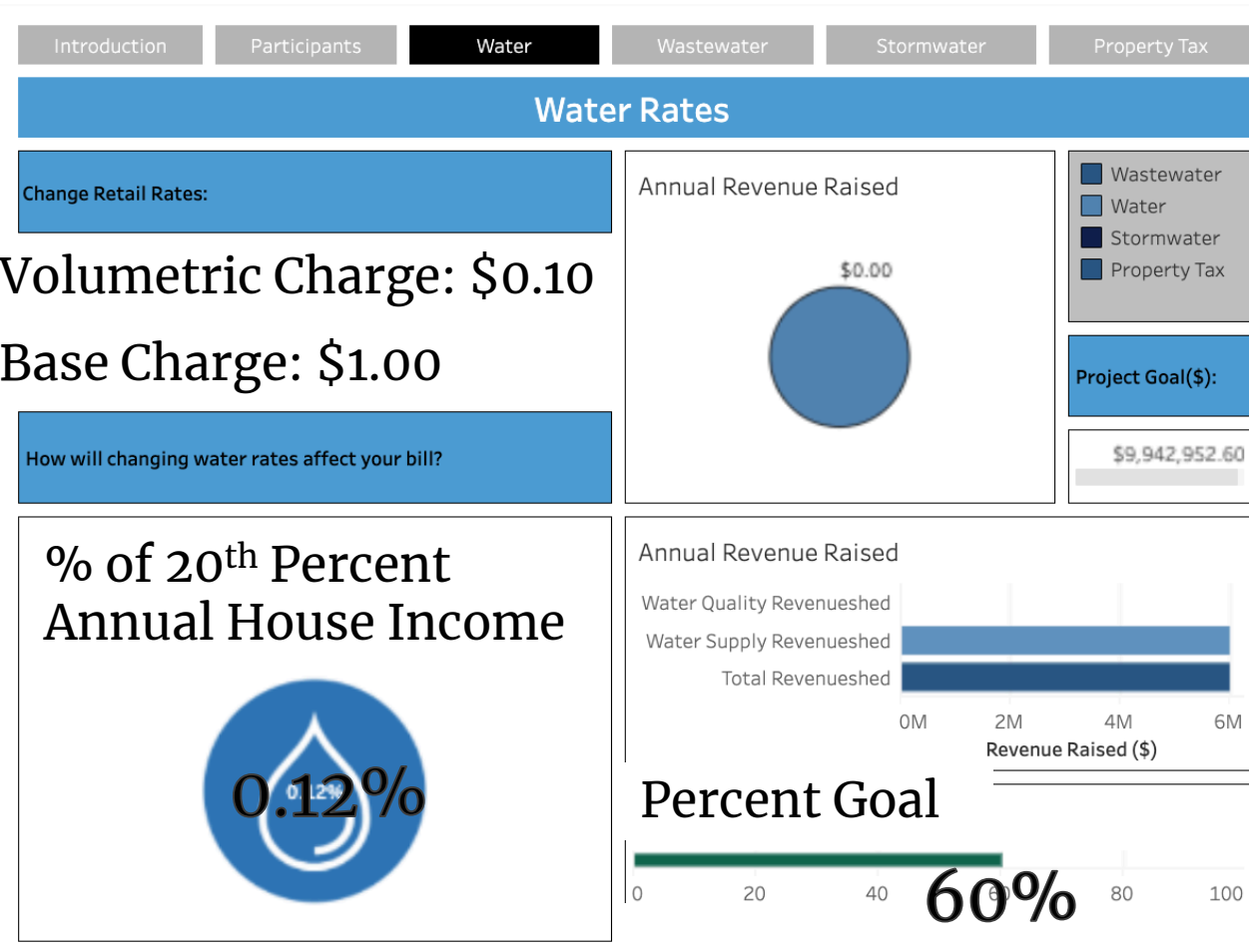
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Incremental changes to bills can **raise significant funds**



No **free-rider** problem



Aligns boundaries of policy and watersheds



Allows jurisdictions to **plan with multiple watersheds**



Both **polluter** and **beneficiary** contribute

WHAT HAVE WE LEARNED?

Summary of Research

- Developed a deep [understanding of the UNRBA and IAIA](#) under a financial lens (y1, y2, y4)
- Studied the [financial implications](#) under Stage II re-examination outcomes (y3)
- Complied current nutrient management [financing mechanisms](#) (y1,y2)
- Researched mechanisms for [future nutrient management finance](#) (y2)
- Determined the [affordability](#) and how to [mitigate affordability](#) of future finance mechanisms (y3)
- Created the [Revenueshed Tool](#) (y1,y2)

Questions to Answer

- Review Jordan Lake Report and identify policy and financial impacts that it has on Falls Lake. (y4)
- Work on financial research questions, as they arise, in conjunction with ongoing legal and regulatory research. (y4)



With the right support, Falls Lake can harness multidisciplinary financing mechanisms to fund future nutrient management.

Affordability in Stage II is a top concern as nutrient management, even with a site-specific standard, is expected to be expensive, and residents already face existing affordability concerns.



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