



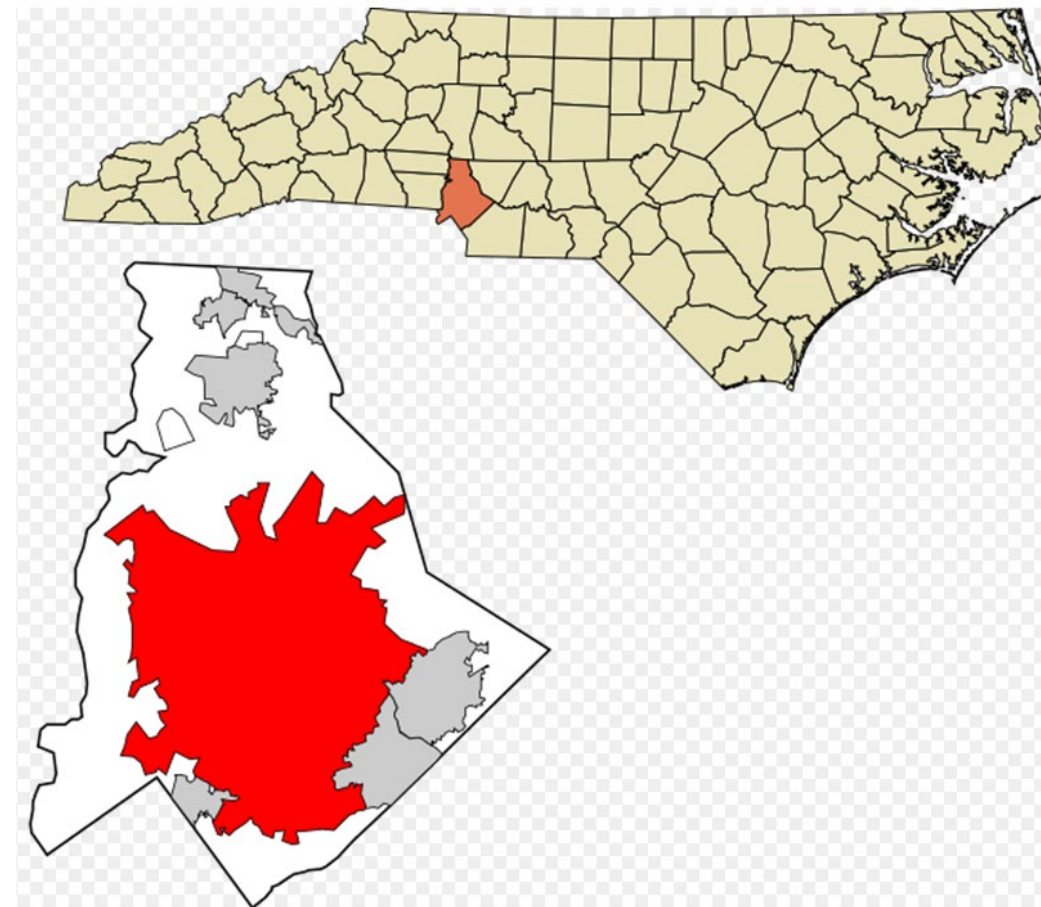
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# Financial Strategies to Accelerate Infrastructure Investments

**SESWA Spring Seminar  
April 23, 2021**

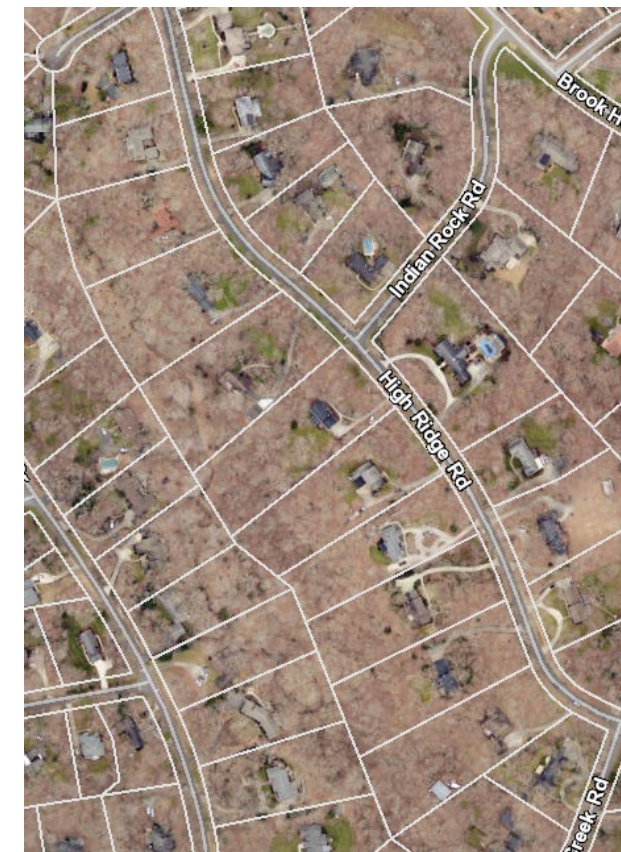
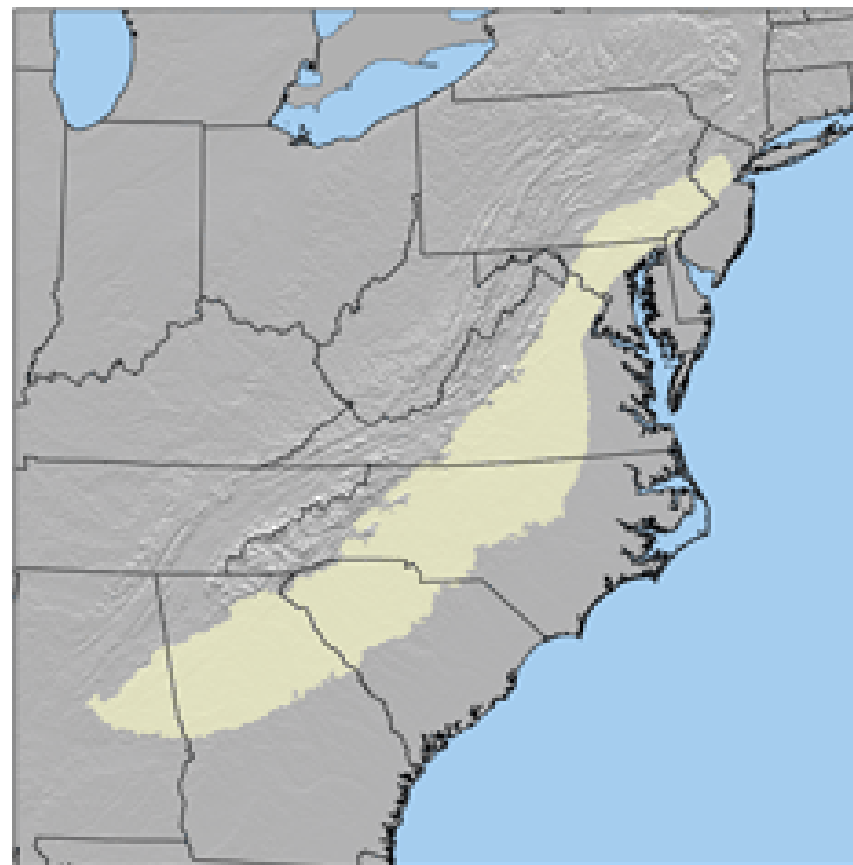
# Charlotte, NC: Quick Stats

- ◁ **Land Area: 308 sq. mi.**
  - Nashville, TN: 475
  - Lexington, KY: 283
  - Birmingham, AL: 146
  - Columbia SC, 132
- ◁ **FEMA stream miles: 350**
- ◁ **Stormwater utility: 1993**
- ◁ **Consolidated by agreement w/Mecklenburg**
- ◁ **MS4**



# Charlotte, NC: Quick Stats

- ▾ Abundant rain, clay soils
- ▾ Sprawling development, 28.5% impervious
- ▾ Oversee more than 100,000 storm drains and 6,200 miles of pipes and open streams



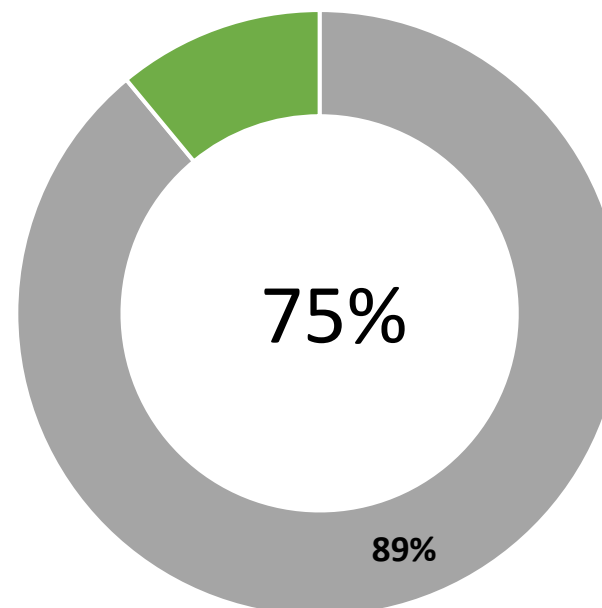
# Funding

## ◁ Fee payer accounts

- 195,000 / 25,000

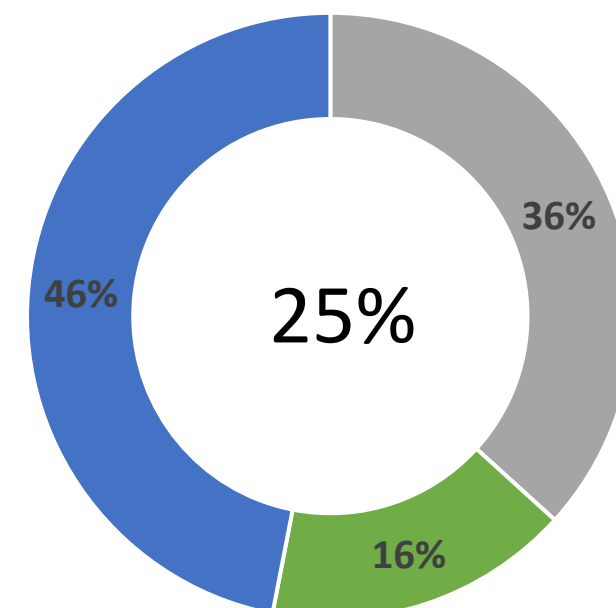
## ◁ Two mitigation banks

Capital Fund



- Gray Infrastructure
- Green Infrastructure

Operating Fund



- Gray Infrastructure
- Green & NPDES

# Current Program Drivers

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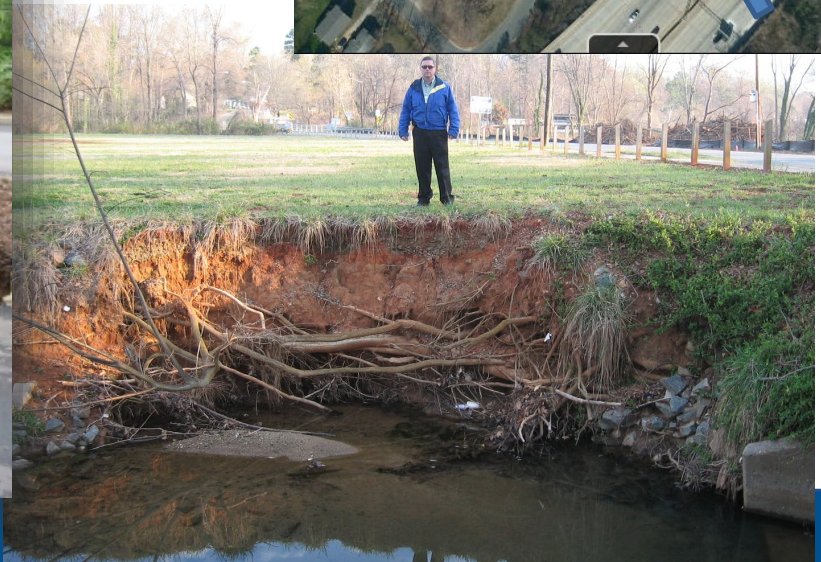
- ◁ Flooding problems no longer dominate
- ◁ Aging infrastructure, surface water quality
- ◁ Shift to asset management principles to assess and plan
- ◁ Program has evolved to focus inside right-of way, less on private



*Concrete failures expose reinforcing steel in a box culvert, causing a serious concern*

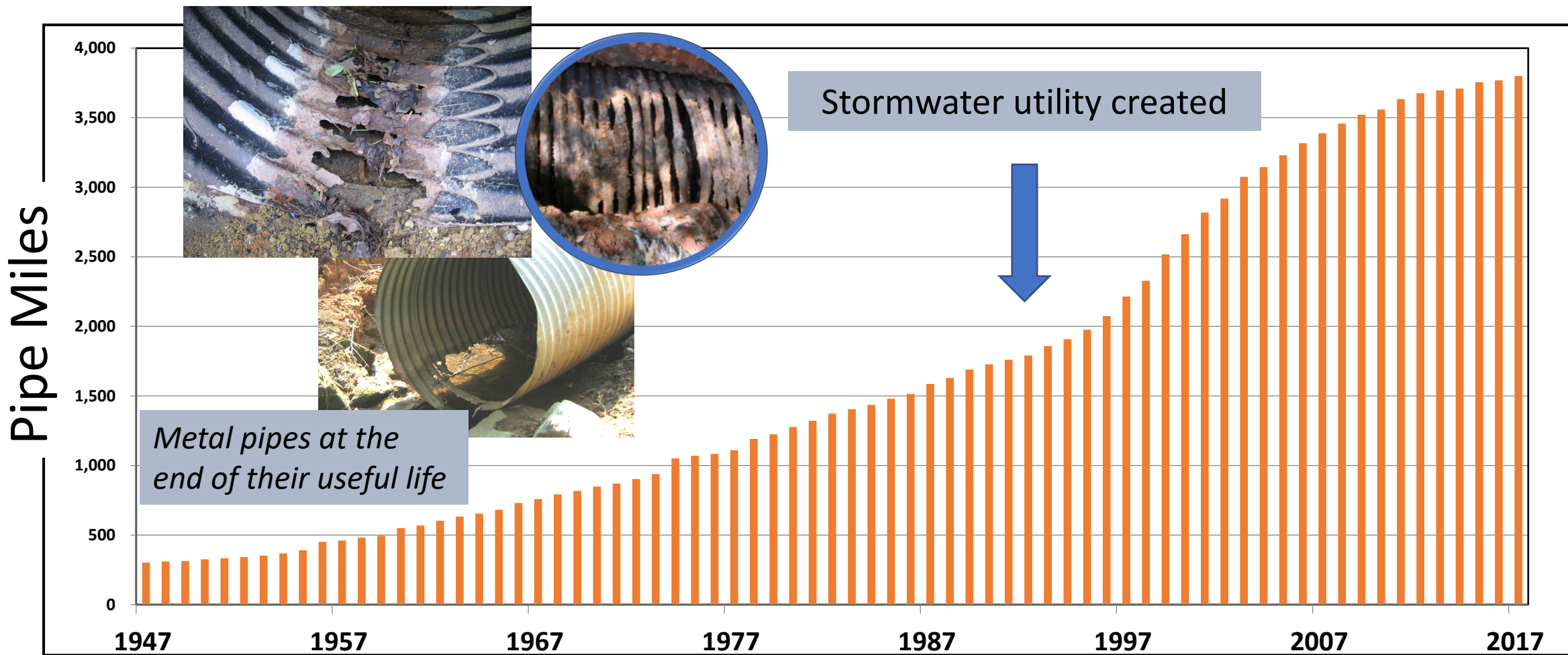


## Project Types





# Aging, failing, & growing drainage system

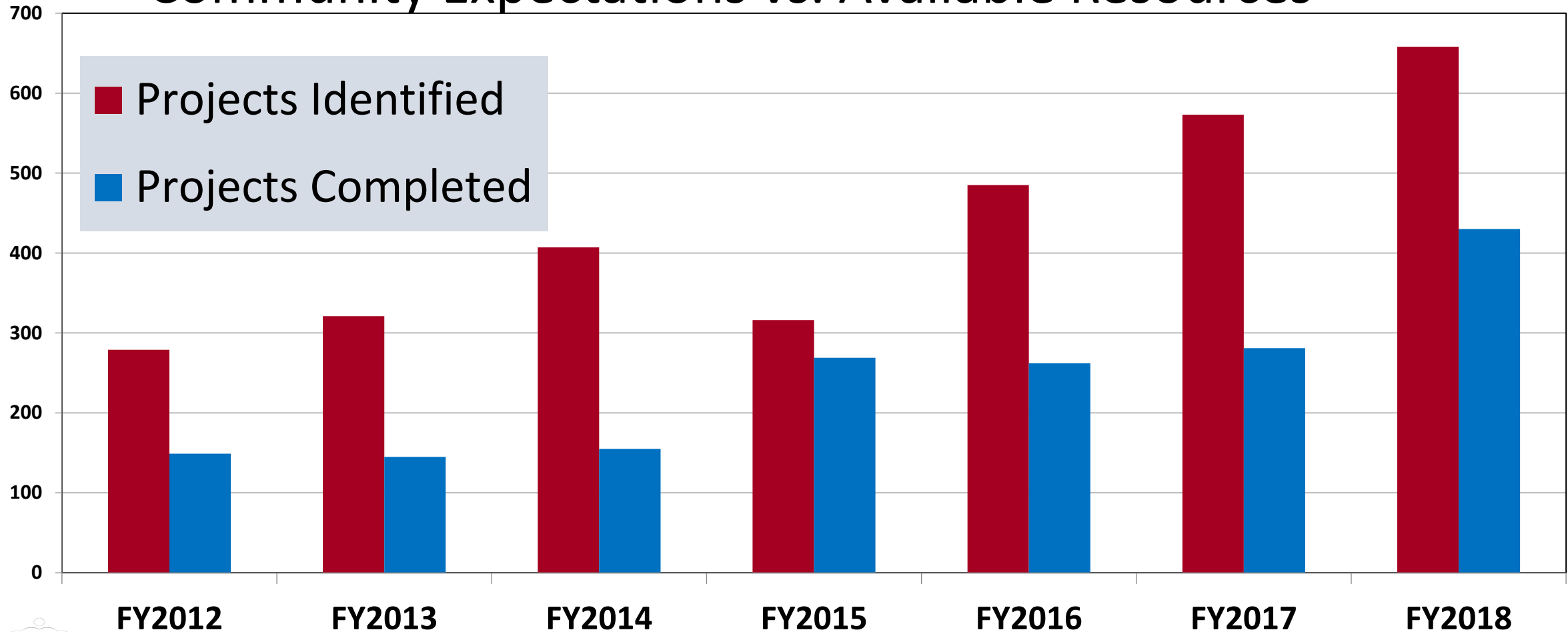


Drainage system doubled since 1993

# Infrastructure Conditions



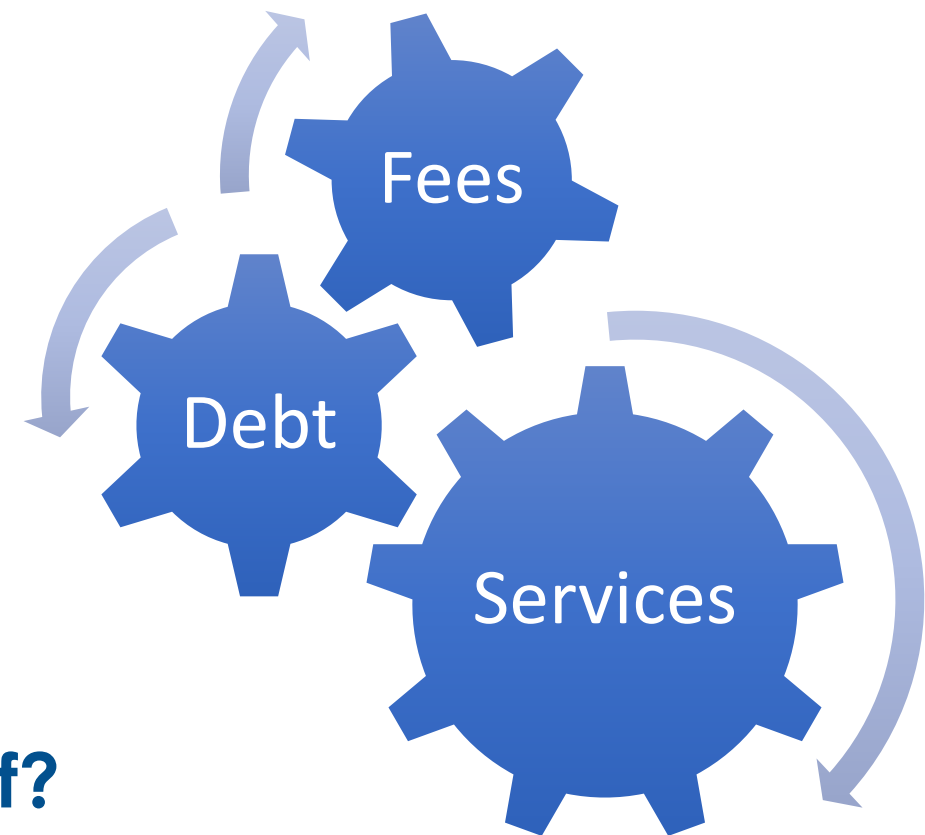
## Community Expectations vs. Available Resources





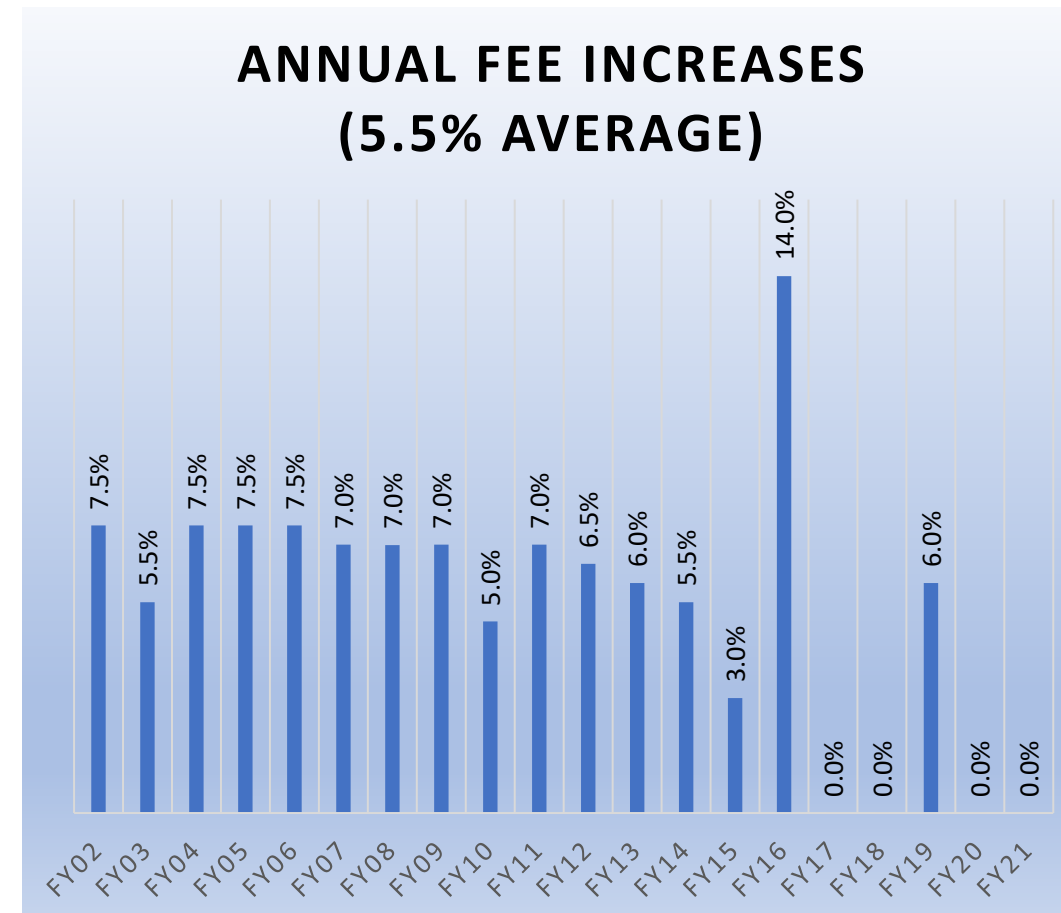
# What can be done?

- ◁ Find a way to fix projects quickly
- ◁ Support to raise fees?
- ◁ Ability to take-on debt?
- ◁ Service adjustments?
- ◁ How fast can you scale? Increase staff?  
Talent available? House and train?



# Financial Conditions

- ▷ Long standing goal to cash fund
- ▷ Low debt level, with debt capacity
- ▷ Focus shifted to accelerating repairs
  - Debt, fee increases, combination
- ▷ Larger fee increases would have been needed
- ▷ Lending rates are lower



# Financial Conditions

- ◁ Estimated extra capital needed
- ◁ Added that to what we were already doing
- ◁ What-if scenarios and variables:
  - Time (years)
  - Cost of the work (fee revenues, debt revenues)
  - Constrained by coverages, and other factors
- ◁ Emphasis on rate affordability with other city fees





# Scenarios – Our Cash Model

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## Starting Balances

- ◁ Cash
- ◁ # of accounts
- ◁ Impervious area
- ◁ Contracts and encumbrances
- ◁ Outstanding debt

## Projections

- ◁ Timing of work
- ◁ Capital Project costs
- ◁ Sources of funds

## Assumptions

- ◁ Impervious area growth
- ◁ Operating expense growth
- ◁ Capital project costs
- ◁ Inflation
- ◁ Collection rates
- ◁ Borrowing rates

## Coverages

- ◁ Days Cash on Hand
- ◁ Debt Service

# Credit Rating Agencies

- ◁ **Your credit rating is a key consideration**
- ◁ **Unique community strengths**
  - Debt coverage, days cash,
  - Service Area Wealth (MFI), Willingness to raise fees
  - Regulatory compliance(NPDES), useful life of system
- ◁ **Our rating improved over time**
  - Stable, strong, well managed financials
  - Growing investment over time
- ◁ **Higher ratings = eager buyers**



# What-if Cash Model Results

## ◁ What can be done?

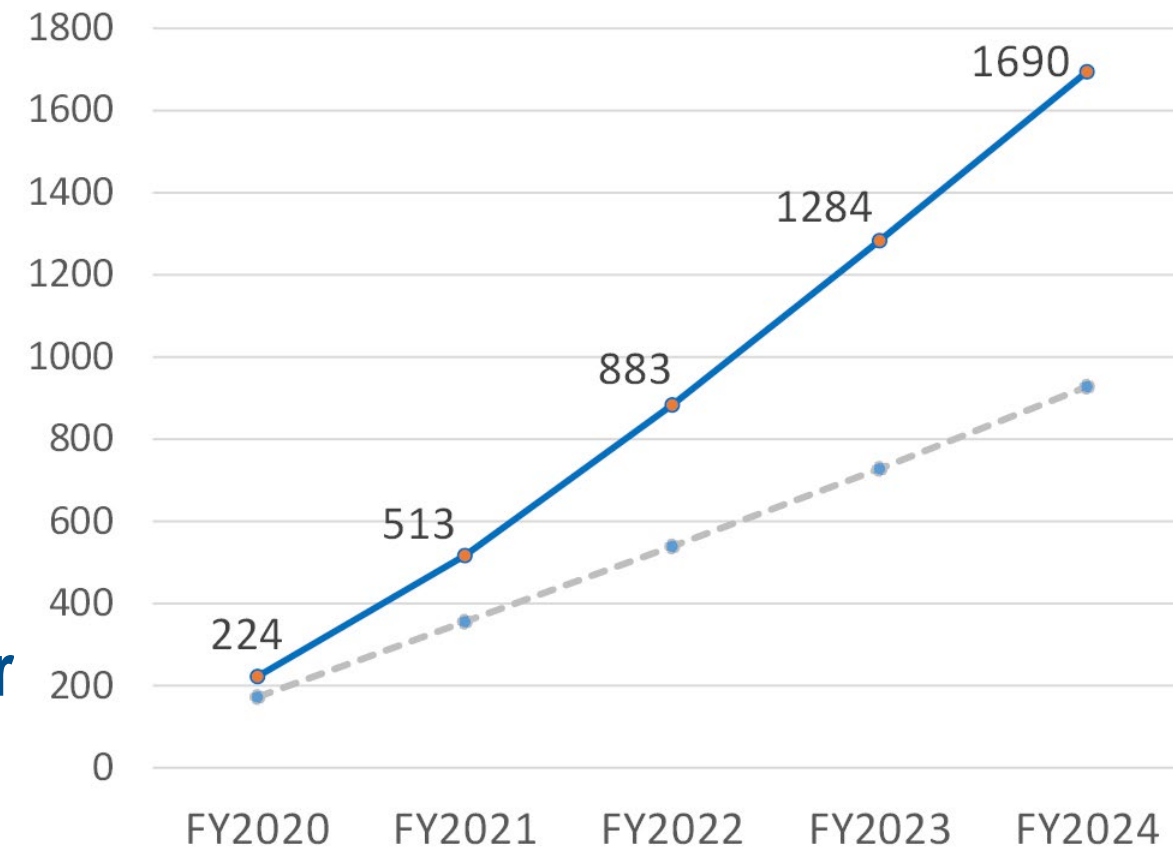
- Modest / low fee increases over 5 years
- Infusion of cash through debt

## ◁ Positive message

- Keeps increases low
- Quick, feasible, and allows the work to be done sooner
- Leverages our cash position, and takes advantage of favorable rates

## ◁ Sets up higher production later

- We are unlikely to slow down after 2024





# Long Range Debt

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## ◁ Work with banks, State agency

- Conservative investments
- 30-year term (2%, vs 5%)

## ◁ Cash position is still strong

- Slightly more of our 5-year CIP is debt funded
- Debt coverage ratio – still well within limit



# Look Ahead

- ◁ Increasing repair needs, old approaches did not keep up
- ◁ To better predict, started to adopt AM principles
- ◁ The extra work will pay off in the long run
  - Can smooth out future bumps
  - Reduces long term costs of the utility
- ◁ On track to complete 1700 projects by 2024
- ◁ Annual fee increases coupled with moderate debt will prepare us for the future





# So, what can I do?

- ◁ Know your system, condition, size
- ◁ Try to assess funding you need, and how soon
- ◁ Look at current debt levels
- ◁ Assess your creditworthiness and at ways to improve
  - Increasing rates over time
  - Staying compliant w. NPDES.
  - Recognize that the success of your city affects your creditworthiness
- ◁ Lending rates below inflation





# Questions

*Special thanks go to Business Manager, Joe Hecksher for his valuable expertise and assistance*  
Daryl Hammock, PE Assistant Manager City of Charlotte, Storm Water Services

