

DeKalb County

Revenue Optimization

Reducing the Burden on Rate Payers



Maria Houser
June 27, 2024





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NEW DAY PROJECT
WATER METER
REPLACEMENTS IN
PROGRESS

Questions?

Call (404) 378-4475 or visit www.dekalbcountyga.gov/newdayproject

DEKALB'S WATER AND SEWER INFRASTRUCTURE SUCCESSES

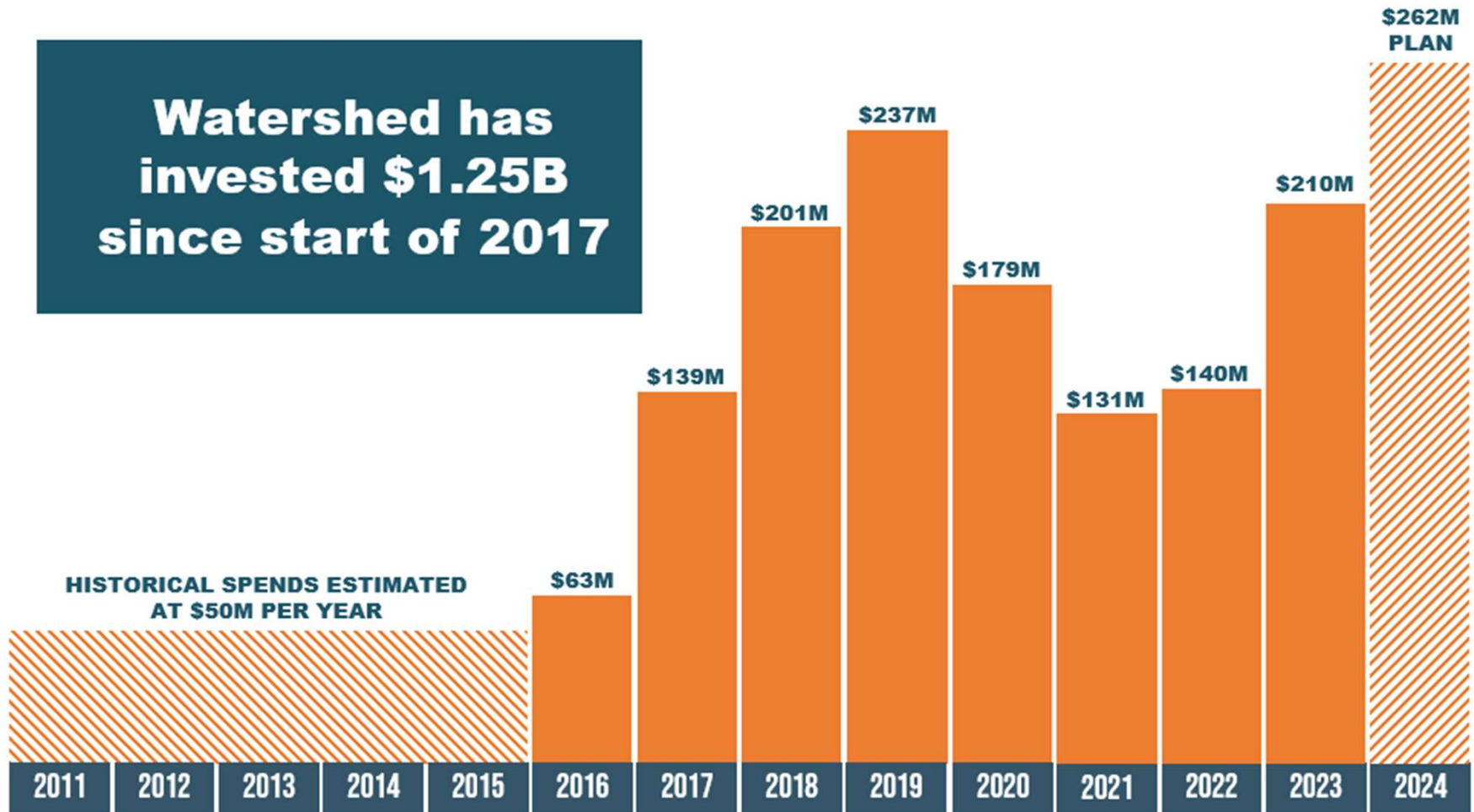
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**\$1.25B CIP Investment Since 2017**

*Contractor working on New Day Project*



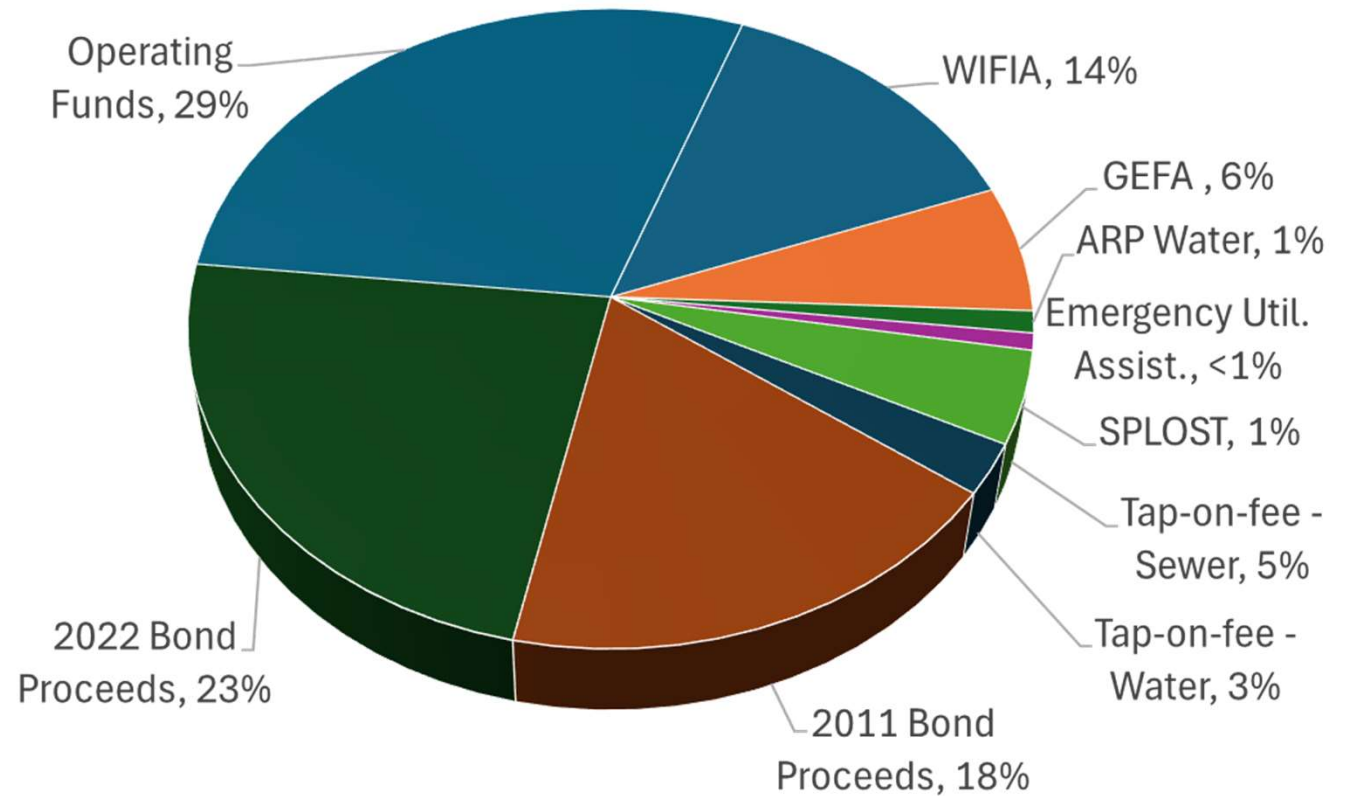
# Historic Capital Spending

**Watershed has  
invested \$1.25B  
since start of 2017**



# 2017-2024 CIP Spend by Funding Source

DWM's CIP is made possible through a diverse mix of funding tools.





# CIP 2021 as Presented by CEO Thurmond and Approved by the BOC February 23, 2021

## A BALANCED APPROACH

*58% focus on the sewer system  
42% focus on the water system*

## 5 PROJECT CATEGORIES

*Water Supply and Treatment  
Water Distribution  
Wastewater Collection  
Wastewater Treatment  
Annual/Recurring*

## PROPOSED PLANNED SPEND \$240 M/YR

*Average annual investment in 2021  
dollars*



# Water Capital Investment

## (\$520M Water Investment Since 2017)

### Key capital water investments:

- Rehabilitated tanks and headers at Scott Candler Water Treatment Plant
- Replaced 89 miles of aging water pipe
- New Day Meters Upgrade (~150,000 meters) and Advanced Metering Infrastructure (AMI) implementation (90% of meters)

### Benefits from investment:

- An estimated 150 million gallons per year saved through reduced breaks from water main replacements to date and leak reduction programs
- Restoring trust in metering and billing systems

### Awards:

- Water Fluoridation Quality Award (CDC)
- GAWP Drinking Water Facility Gold Award (Scott Candler)

# **Sewer Capital Investment** **(\$735M Sewer Investment Since 2017)**

## Key capital sewer investments:

- Fixed 153+ repeat spill sites
- Rehabilitated or replaced 203 miles of leaking sewer lines
- Cleared debris from 4,200 miles of sewer lines
- Assessed 80% of all sewer lines

## Benefits from investment:

- 26.1 million gallons of stormwater removed
- Stabilized sewer system and began addressing most significant spill sites

## Awards:

- Collection Systems Gold Award (Georgia Association of Water Professionals)
- Sustainable, Thoughtful, Regional, Engaging, Applicable, and Measured (STREAM) Award for Excellence in Education (“No FOG, No Clog” program)
- Polebridge Plant Gold award for consistent compliance with NPDES permit



*Contractor working on New Day Project*

# Revenue Optimization

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Finding opportunities in the normal course of business where Watershed Management can lower expenses and increase revenues. These efforts reduce the revenue increases.



Revenue Optimization Strategy Overview

Reduce lost water	<ul style="list-style-type: none"> • Reduce water losses before sale, thus reducing the related treatment and delivery costs
Reduce cost of debt	<ul style="list-style-type: none"> • New low-cost loans identified: WIFIA and GEFA • Implement lower-cost bond options going forward • Refinance existing bonds • Reduce negative arbitrage

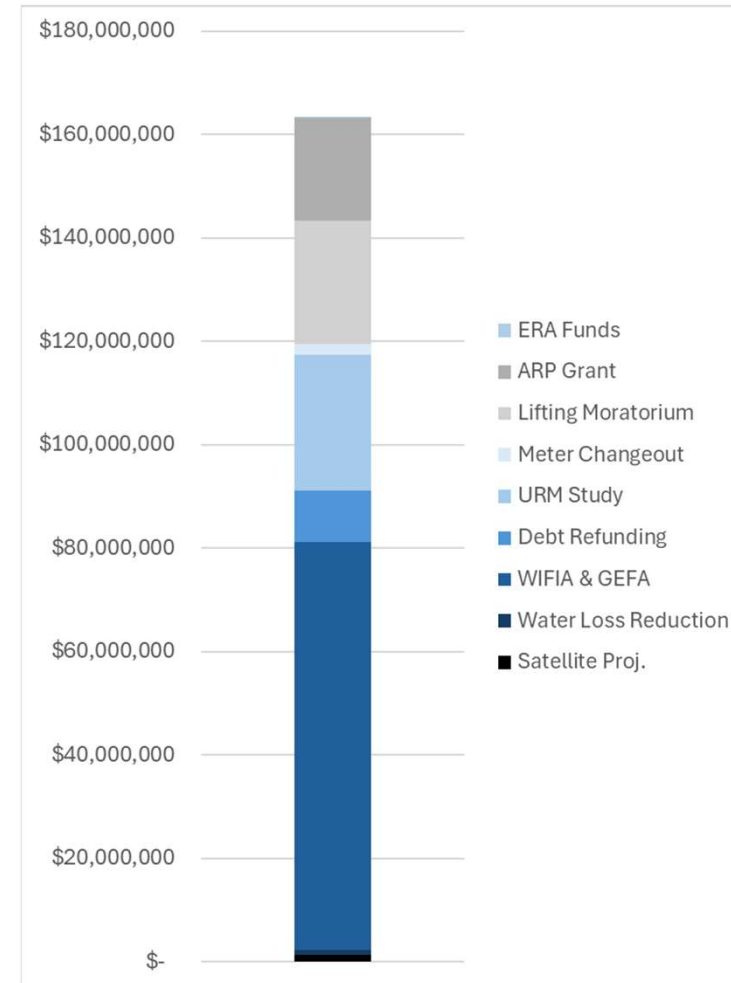
DECREASE EXPENSES

INCREASE REVENUES

Convert non-revenue water to revenue	<ul style="list-style-type: none"> • Reduce unauthorized consumption • Accurate meters and bills
Collect what is due	<ul style="list-style-type: none"> • Improve percent of customers who are current with their accounts • Improve collection of past-due accounts • Help those in need who can't pay their bill

Savings 2021-2024

- **Decrease Expenses (\$90,000,000 to \$110,000,000):**
 - ✓ Reducing Water Loss (\$1,000,000 saved)
 - ✓ Maximizing Low Interest Debt WIFIA & GEFA (\$79,000,000 in costs avoided)
 - ✓ Debt Refunding (\$9,800,000 saved)
 - ✓ Eliminating Negative Arbitrage (\$20,000,000 avoided)
- **Increase Revenue (\$74,000,000):**
 - ✓ Commercial Accounts Audit (\$26,413,763 collected)
 - ✓ Meter Changeout Program (\$2,000,000 collected)
 - ✓ Lifting the Service Disconnection Moratorium (\$23,800,000 collected)
 - ✓ American Rescue Plan Grant (\$20,000,000)
 - ✓ Emergency Utility Assistance (\$1,655,512 awarded)



By increasing revenues and reducing cost, Watershed has saved over \$164 million from 2021 through 2024. Hence delaying the need for a rate increase.

Decrease Operation Costs by Addressing Real Losses

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**SATELLITE LEAK
DETECTION and SMART
BALL TECHNOLOGY**



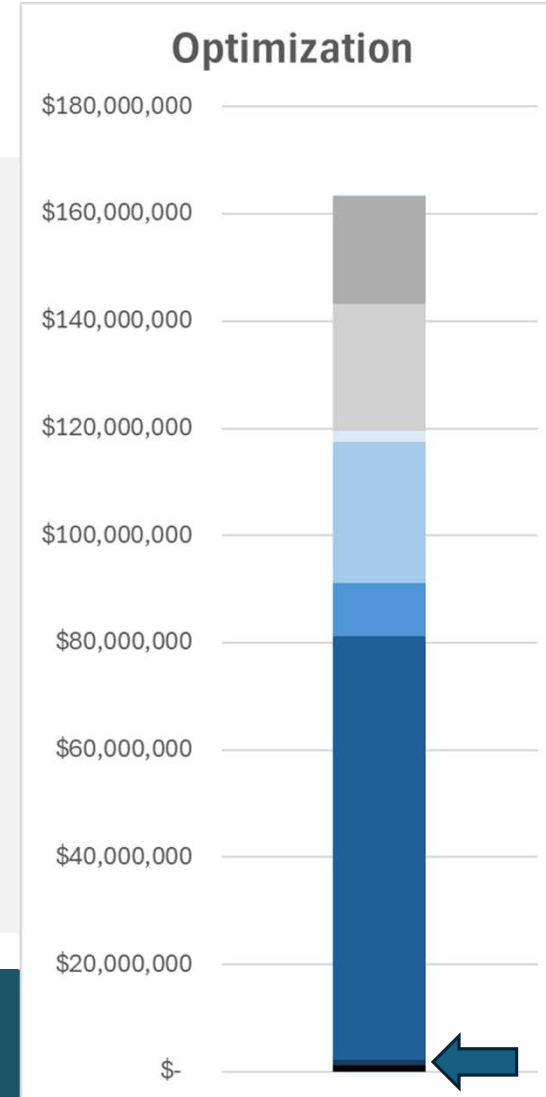
SATELLITE PROJECT SUMMARY

- 3,033 miles of water distribution system analyzed from satellite imagery
- 49 miles then physically inspected
- Savings to date of 1.4 million gallons per day
- Estimated Non-revenue Water reduction to date of 2%



62% of sites inspected to date did not show any surface evidence of the leak and would not have been detected without this technology

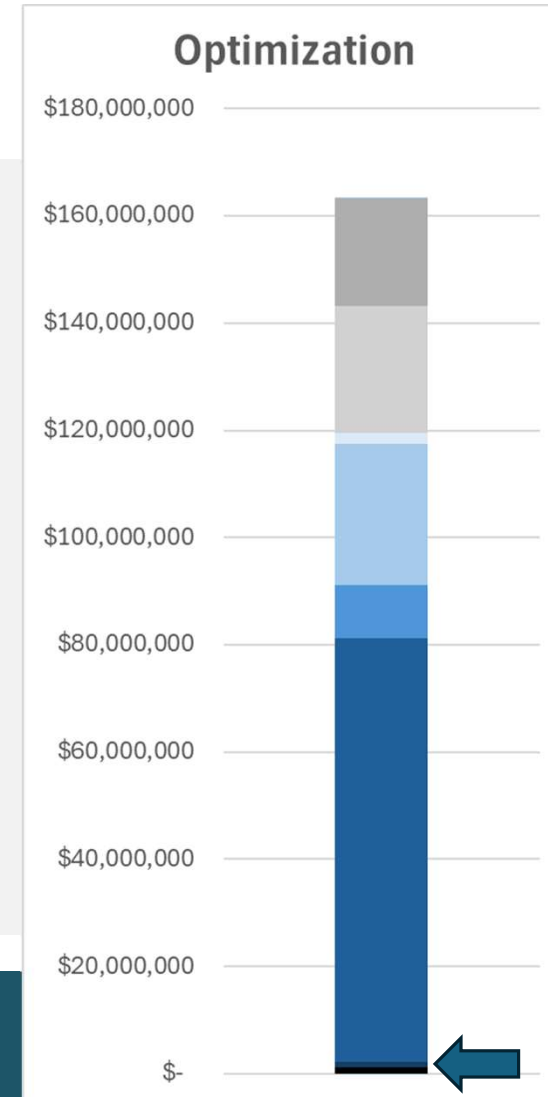
Estimated 5-Year Savings of \$1,250,000



SMART BALL TECHNOLOGY

- 7 miles of water transmission mains analyzed – 30” and 48” mains
- 3 leaks detected and fixed – associated with service taps
- Savings estimated to be approximately 1.5 million gallons per day

Estimated 5-Year Savings of \$1,250,000



*Scott Blvd II Water Project – 2023
WIFIA 2 Loan*

REDUCE COST OF DEBT

Finding and Leveraging Better Debt Options



WIFIA (Water Infrastructure Finance & Innovation Act)

- ▶ This 2014 act established the WIFIA program, a federal credit program administered by EPA for water/wastewater infrastructure.
- ▶ Program features include:
 - ▶ 49% max portion of eligible project costs that WIFIA can fund
 - ▶ Total federal assistance cannot exceed 80%
 - ▶ 35 years max final maturity date from substantial completion
 - ▶ 5 years max time that repayment may be deferred after substantial completion.

'A new trajectory': DeKalb, EPA tout \$284M loan for water projects

The Atlanta
Journal-Constitution

By Tyler Estep

May 19, 2022



June 27, 2024



REQUIREMENTS

Contracts modified to be “Federal compliant”:

- ▶ Davis-Bacon – wage rate determinations
- ▶ American Iron and Steel
- ▶ State and Federal Disadvantaged Business Enterprise (DBE) and DeKalb LSBE good faith efforts documentation
- ▶ National Environmental Policy Act (NEPA)-environmental review process



GEFA (Georgia Environmental Finance Authority)

- Low-interest financing for drinking water, reservoir & water supply, water quality, stormwater, and solid waste infrastructure
- Initial meeting of CEO Thurmond with GEFA's Director in March 2020
- Water Loan – Funds \$25M of water projects fully
- Sewer Loan – Funds remaining 31% of select WIFIA sewer loan projects.

WIFIA

WIFIA Loan #1: Closed 2020 for \$265M funding primarily wastewater projects

WIFIA Loan #2: Closed 2022 for \$284M funding primarily water projects

GEFA

\$75M in loans closed in 2021

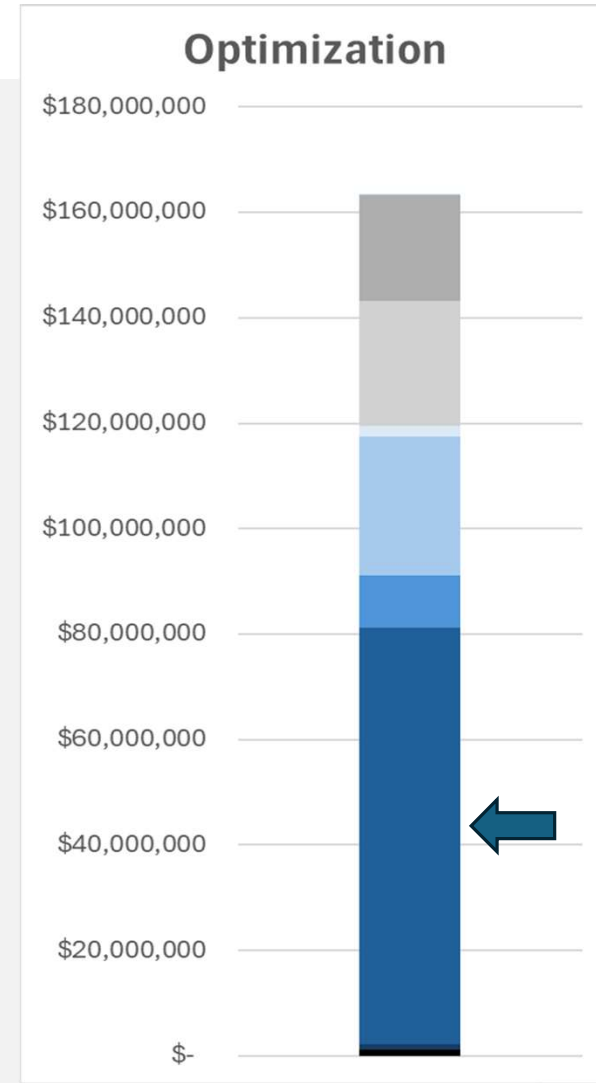
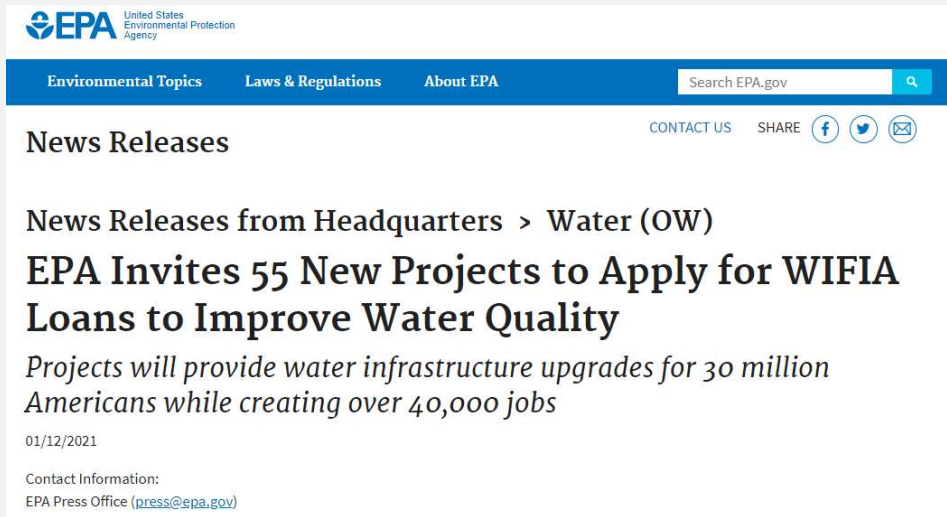
- \$50M in sewer loans
- \$25M in water loans

Bottom line: \$624M, to date, in low-interest, long amortization state and federal loans.

Planning to apply for a 3rd GEFA loan in 2025 and a 3rd WIFIA loan in 2026.

LEVERAGING:

- Historically low rates
- Improved financial rating
- \$79M in avoided costs
- Negative Arbitrage



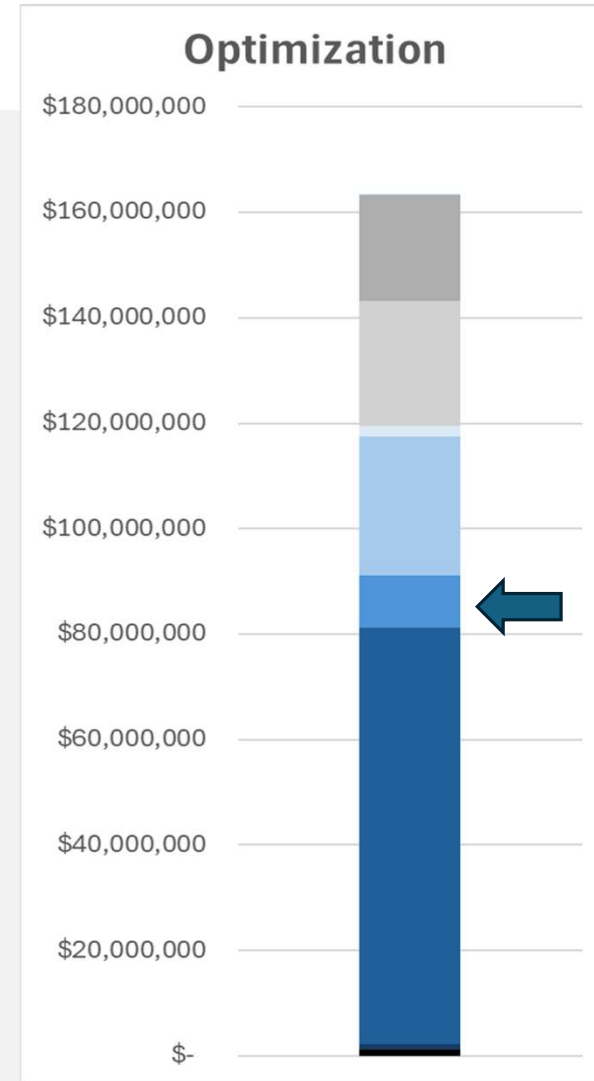



Refinanced Revenue Bonds:

- Historically low rates
- Improved financial rating
- Result: lower cost of debt

Refunding Existing Bonds

It is anticipated that the refinancing of existing bonds will save \$9.8 million through 2025; \$28.5 million through the life of the bonds



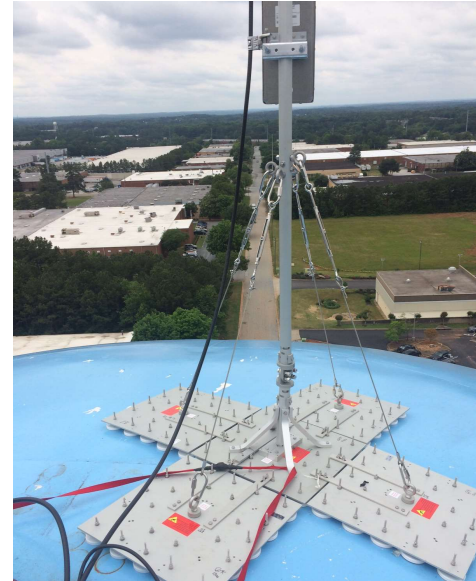
A contractor wearing a white long-sleeved shirt, a cap, and safety glasses is bent over, working on a meter changeout project. The scene is outdoors on a construction site with gravel ground. There are several white buckets and a shovel nearby. The image has a blue tint.

Contractor working on New Day Project

Meter Changeout Program

Improving Meter Accuracy

NEW DAY PROJECT RESULTS



THE RIGHT METER

CORRECTLY INSTALLED AND
REPLACED TO SCHEDULE

PROVIDING TIMELY AND
ACCURATE DATA

FOR TRUSTED AND VERIFIABLE
BILLS

Successfully replaced 150,000 meters as
planned

90% of meters now on
Advanced Metering
Infrastructure

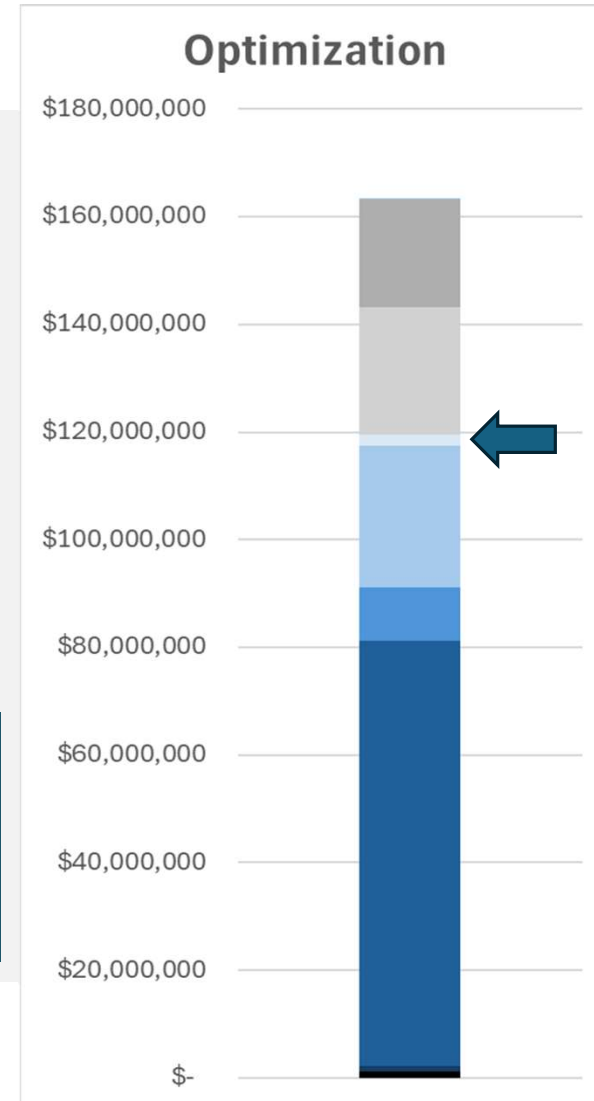
Disputes continue to
decreased (averaging ~77
per month this year)



Ensuring Accurate Water Use Data:

- **Regular replacements and upgrades to meters**
 - Meter measurement slows with age
 - Confirm meter locations

Expected 5-year savings of
\$2,000,000



COMMERCIAL METER AUDIT

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All Pay Their Share

TouchRead® System

1516161900

GALLONS

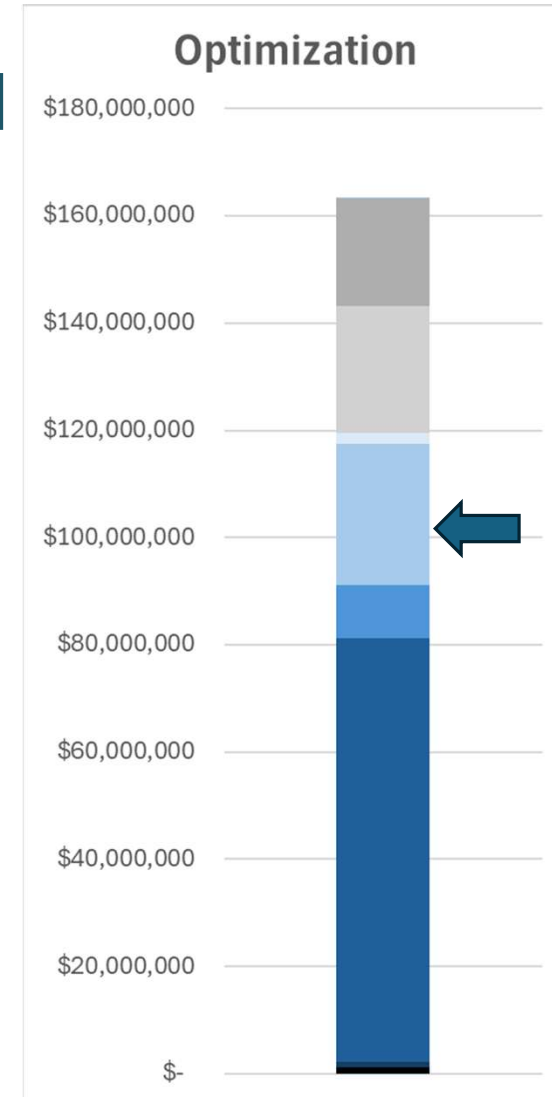
READING 100 G

FIELD INVESTIGATIONS CONFIRM

- Land use
- Meter bypass closed
- Metering accuracy
- Billing rate matches the connection type
- Lost accounts and illegal connections

➤ Performed August 2020 through 2023

Revenue Increase of
\$26.4M through 2024





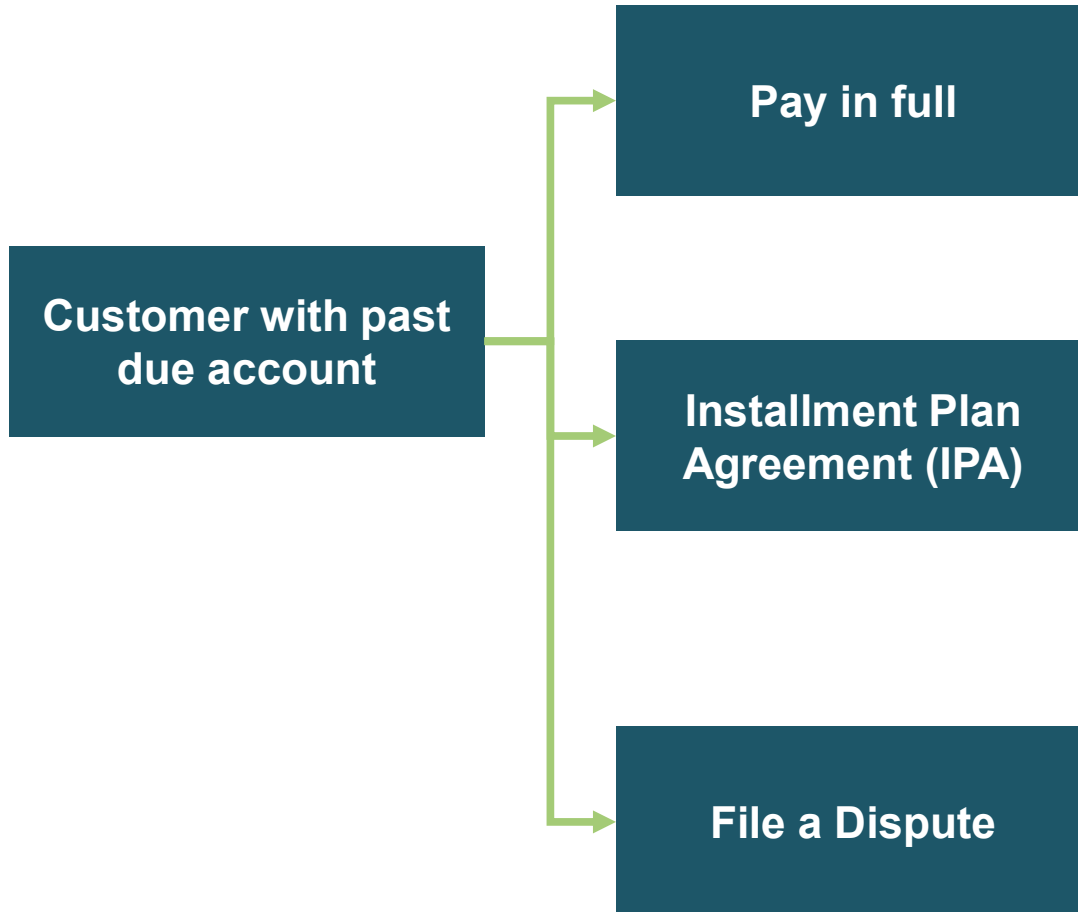
LIFTING THE DISCONNECTION MORATORIUM

////////////////////
All Pay Their Share

New Day Project meter installation

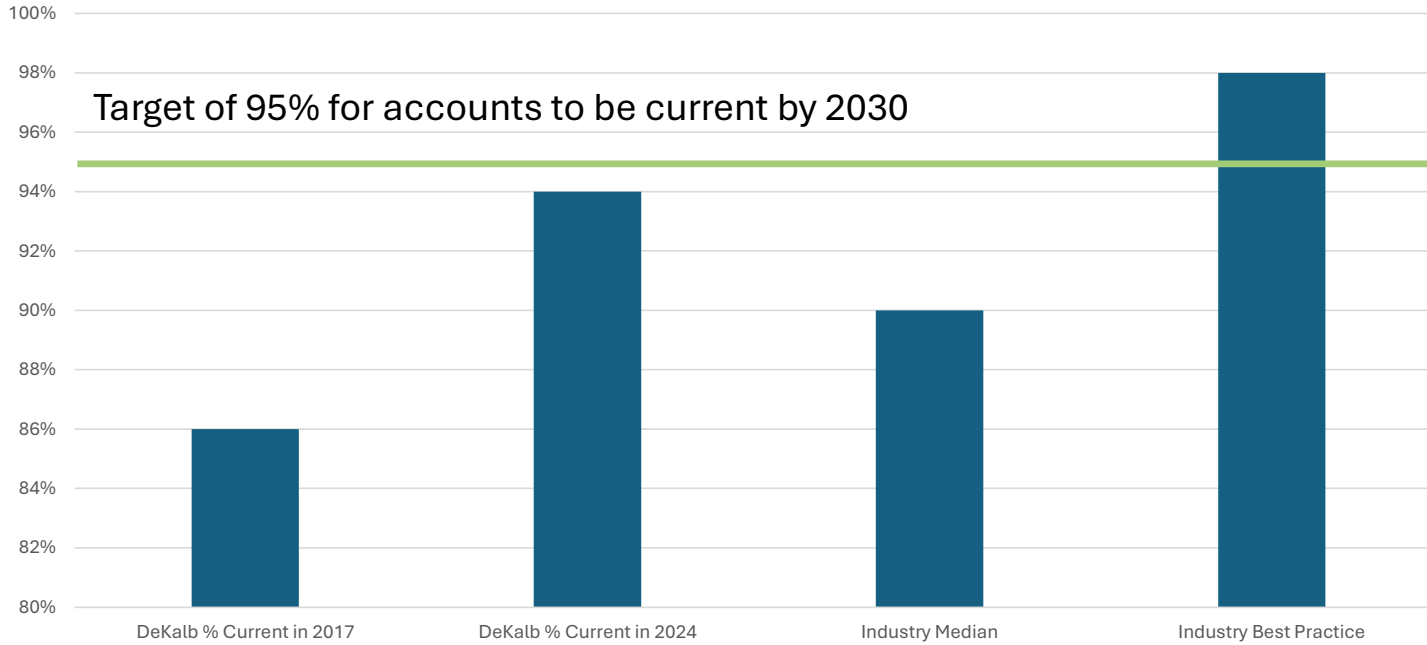


Options Provided



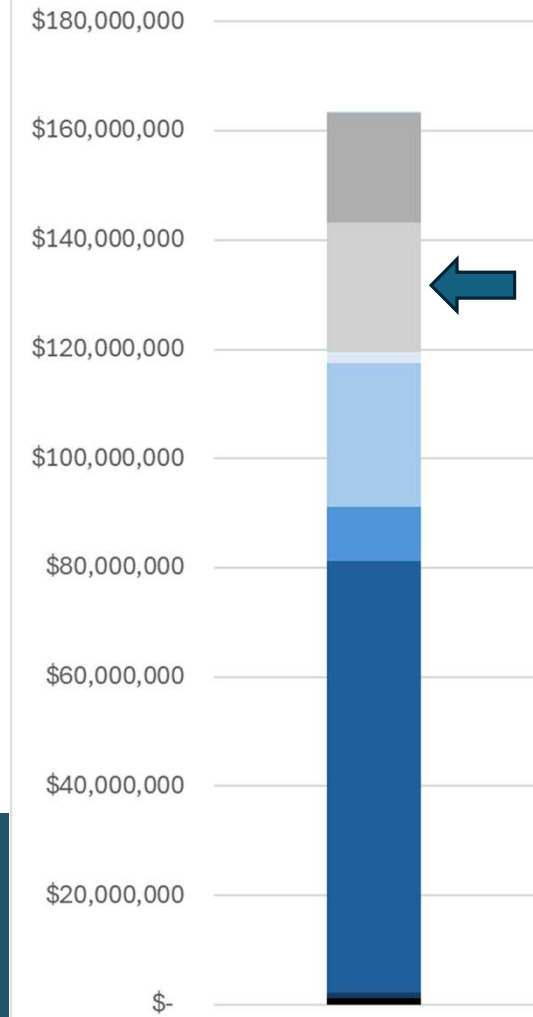
All Pay Their Share

Percent of Accounts Current



The County's percent of accounts that are current has passed industry median and now approaching industry best practice

Optimization



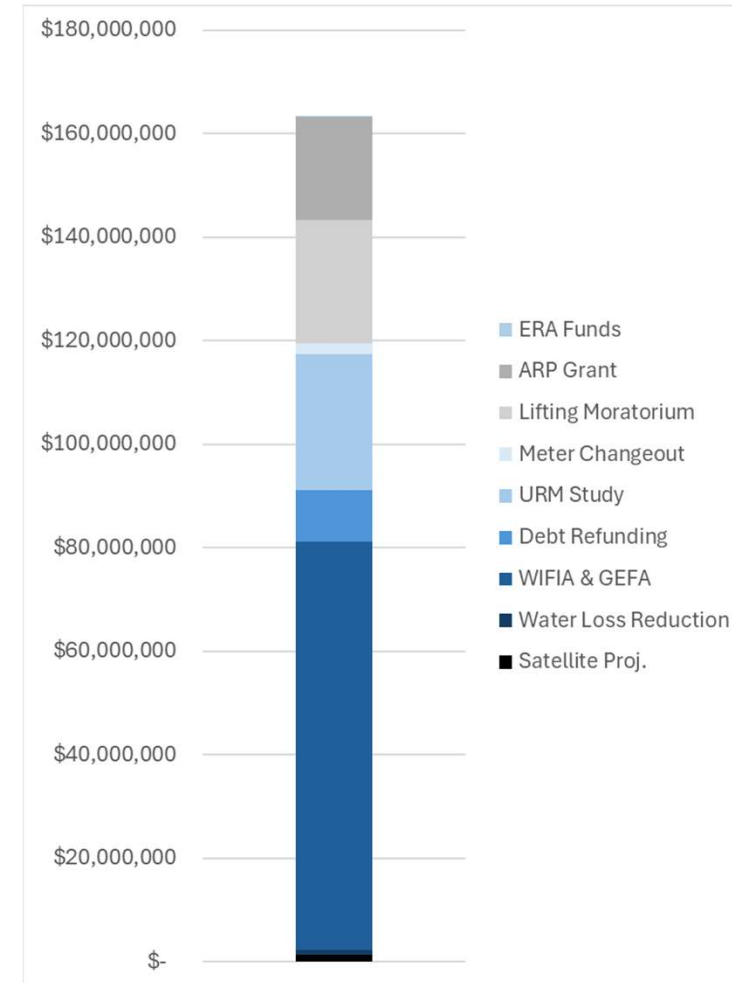


Federal Funding

- **ARP funding for water projects - \$13M**
- **Emergency Utility Assistance payments to landlords and DeKalb County - \$1.7M**

Savings 2021-2024

- **Decrease Expenses (\$90,000,000 to \$110,000,000):**
 - ✓ Reducing Water Loss (\$1,000,000 saved)
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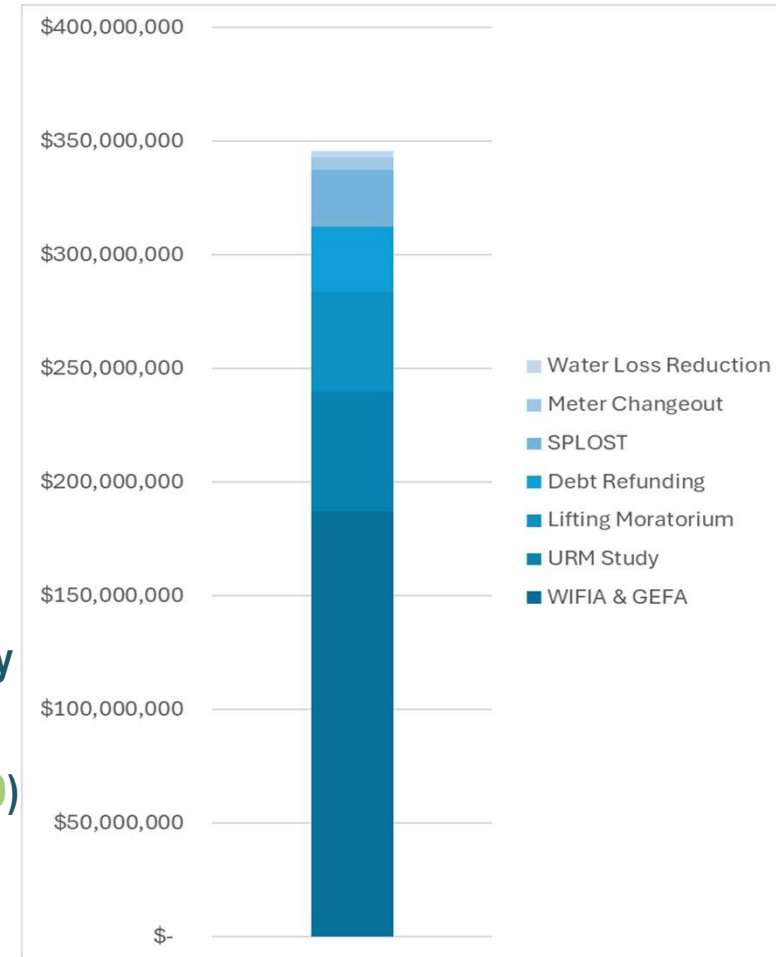
*Stone Mountain/Lithonia Water Project
Completed 2023 – WIFIA 2 Loan*

FUTURE OPTIMIZATION EFFORTS AND FUNDING SOURCES



Future Optimization Efforts

- Continue Reduction in Expenses:
 - ✓ Reducing Water Loss (\$2,750,000)
 - ✓ Maximizing Low Interest Debt WIFIA & GEFA (\$187,000,000)
 - ✓ Savings from Debt Refunding (\$28,500,000)
- Continue to Increase Revenues:
 - ✓ Improved Collections (\$44,000,000)
 - ✓ Applied for \$52,000,000 in multiple grant-type funding (assisted by FEMA, GA DNR, USACE and Congressman Johnson)
 - ✓ Special Purpose Location Option Sales Tax; SPLOST (\$25,000,000)
 - ✓ Commercial Accounts Added Revenue (\$52,800,000)
 - ✓ Meter Changeout Program (\$5,500,000)



As a result of improvement efforts, Watershed will save a total of \$346 million which reduces the need for additional revenues.

PLANT OPERATIONAL ENHANCEMENTS AND COST SAVINGS

- Performing trials of using poly-aluminum chloride (PAC) to reduce the cost of phosphorus management
- Caustic and lime being compared for pH adjustment

Grants

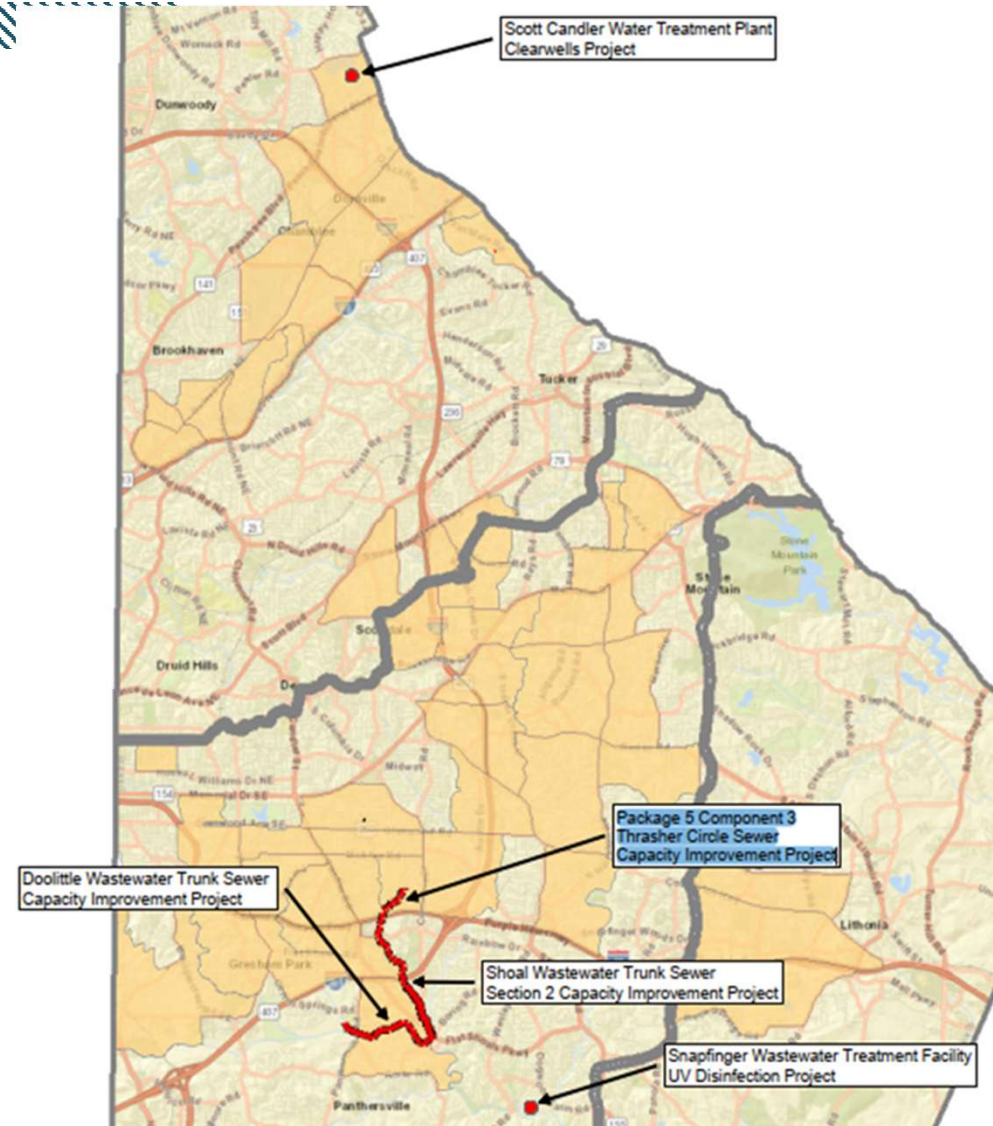
Source/Project	Amount	Status
WRDA (Water Resources Development Act)	\$40M	Awaiting response
FEMA BRIC Grant - Scott Candler Water Treatment Plant (SCWTP) dual electrical feed	\$10M	Awaiting notification
GA CARES Act Grant - 1) Wachs Coop, 2) Reindeer Drive, 3) Scott Blvd Ph 3, 4) SCWTP & Water Distr. Sys SCADA, and 5) Water Meter Replacement	\$45M	Unsuccessful – smaller communities given priority
DeKalb Care and Conserve*	\$5M	Implemented
Emergency Utility Assistance**	\$1.7M	Implemented
2024 & 2025 - SPLOST funding for SCWTP	\$25M	Implemented
GEFA – Lead Assessment	\$0.8M	Declined for 2023, awaiting notification for 2024
Community Improvement in disadvantaged communities (stream bank restoration)	\$2.1M	Waiting on response

* Funding of the DeKalb Cares Program did not directly fund DWM CIP work, however it did assist DWM's customers in repairing their assets thus reducing the negative impact to DeKalb's infrastructure

** Funding of the Emergency Utility Assistance program did not directly fund DWM CIP work, however it did assist DWM's customers in paying their bills thus increasing revenue.

WRDA (Water Resources Development Act)

- ▶ Applied through Office of Congressman Henry C. “Hank” Johnson, Jr., January 2024
- ▶ Five projects shown (\$187M request \$40M)
 - ▶ Well progressed and are shovel ready in 2025
 - ▶ Serving the citizens of disadvantaged communities.
 - ▶ Provide substantial community benefits.



GEFA Lead Service Line Inventory and Replacement

- ▶ Applied to GEFA for Lead Service Line Funding
- ▶ Amount TBD.



HELP US BY SUBMITTING THE MATERIAL OF YOUR WATER SERVICE LINE!

Why Should I Identify My Water Service Line?

Exposure to lead in drinking water may cause serious health problems including damage to the kidneys and brain. **Infants, children, and those who are pregnant are especially at risk.** Identifying your service line can let you and DeKalb locate what materials are in our water system.

HOW TO CHECK YOUR SERVICE LINE:

- STEP 1** Check if your home has lead pipes by visiting the DeKalb County Department of Watershed Management (DWM) at **[website placeholder]** and clicking "check your line," or by contacting The DeKalb County Department of Watershed Management's (DWM) Lead Service Line Inventory Program: **[phone number placeholder]** or **[email placeholder]**.
- STEP 2** If the Service Line Inventory states that you have a lead, galvanized steel or unknown service line material, please visit **[insert look up tool link]** or click on the "Complete Self-ID Form" button within your material results tab.
- STEP 3** Once you have completed your Lead Service Line Material Self-ID Form, you should receive an email confirmation that it was received. A member of the DWM will contact you if there are more questions.

Property owners are responsible for maintenance of their water service line from the curb to inside their house. DeKalb County DWM is responsible for the water service from the main in the street to the curb. Both sides can contain lead.



MOVING FORWARD SUMMARY

- **Complete the Water First designation in 2024**
- **Apply for additional GEFA funding in 2025**
- **Apply for a third WIFIA loan in 2026**
- **Continue water loss reduction efforts by implementing new leak detection technology**
- **Continue grant funding applications**
- **Continue to address the remaining non-responsive residential accounts**
- **Address commercial past-due accounts**
- **Continue to monitor and report dispute levels**

A blue-tinted photograph of a construction site. In the foreground, a deep, narrow trench is visible, lined with wooden shoring. Several workers in hard hats and safety vests are scattered throughout the site. To the left, a large piece of machinery, possibly a CAT excavator, is partially visible. In the background, there are trees, a fence, and a white pickup truck. A large, dark pipe lies on the ground to the right. The overall scene depicts an active construction project.

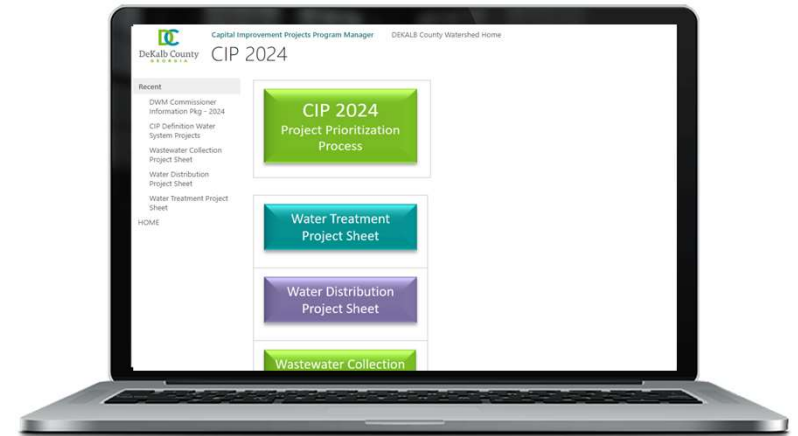
Communications



Communication

Updates to the BOC and PWI Committee are available to Commissioners on the CIP 2024 SharePoint site.

Summaries are also available to the public via <https://www.dekalbcountyga.gov/watershed-management/2024-capital-improvement-program-cip>



QUESTIONS?





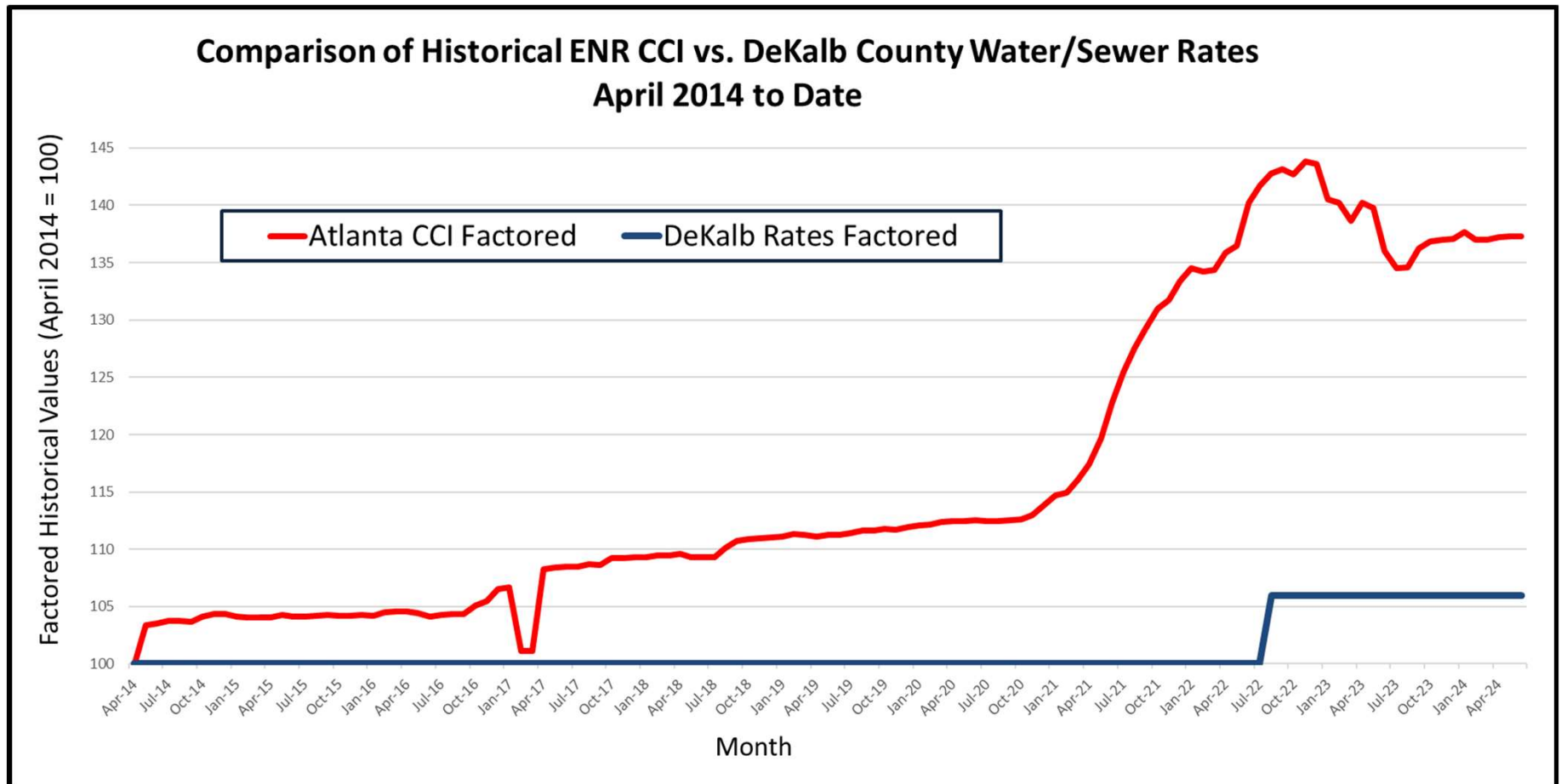
WIFIA 1 Loan

Project/Task	Loan Amount	Status
Capital Impr. Projects (CIP) PMS (AECOM)	\$6.0M	Ongoing
Consent Decree Program Manager	\$26.2M	Ongoing
Consent Decree Projects – Small Diameter PASARP projects	\$59.7M	Approaching completion
Consent Decree Projects – Trunk sewer projects	\$98.1M	Design complete and easements being obtained – begin construction in 2025
Consent Decree Projects – Small Diameter OSARP projects	\$58.2M	Assessment ongoing
Briarcliff Area Water Pressure Project	\$16.5M	Complete
Total (Escalated)	\$264.7M	

WIFIA 2 Loan

Project/Task	Loan Amount	Status
Capital Impr. Projects (CIP) PMS (AECOM)	\$8.2M	Ongoing
Valve & FH Assessment Coop Contract	\$2.5M	Ongoing
Scott Candler Clear Well Redundancy	\$46.2M	Design-build bridging documents being finalized
Scott Candler Primary Electrical Feed Redundancy	\$5.8M	Awaiting proposal from Georgia Power
Scott Candler Ozone Generator Mods	\$3.5M	Complete
Scott Blvd Water Replacement Phase II	\$12.1M	Nearly complete
Scott Blvd Water Replacement Phase III	\$7.7M	Ongoing
Donaldson Drive Area Water Main Replacement	\$8.1M	Future Procurement
Annual On-Call Water Main Replacement	\$97.5M	Ongoing
Concrete/Steel Tank Rehab Replacement (Whites Mill, Columbia, Dunwoody)	\$17.0M	In procurement for Design- Build contract for tank replacement; Tank Painting project also in procurement
Avondale Elevated Storage Tank Replacement	\$9.8M	In design
Clairmont Elevated Storage Tank Replacement	\$7.2M	Future Procurement
60" Transmission Loop - Phase A	\$36.9M	Future Procurement – design then portion of construct
60" Transmission Loop - Phase B	\$5.1M	Future Procurement- Design only
Total (Escalated)	\$284M	

Cost of Work



March 3, 2022