

**GWINNETT COUNTY WATER AND SEWERAGE AUTHORITY AGENDA****Monday, June 13, 2022 - 4:00 P.M.**Department of Water Resources, Training Room  
684 Winder Highway, Lawrenceville, Ga. 30045Present: B. Martin, C. Thompson, B. Kerlin, JC Lan, W. Allick  
(Mr. Thompson joined meeting after vote taken on Item III)

- I. Call to Order
- II. Approval of Agenda  
  
{Action: Approved: Motion: Lan; Second: Martin; Vote: 4-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Absent; Allick-Yes)
- III. Approval of Minutes – May 31, 2022  
  
{Action: Approved: Motion: Martin; Second: Lan; Vote: 4-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Absent; Allick-Yes)
- IV. Award of BL033-22, F. Wayne Hill Water Resources Center flare improvements project, to Crowder Industrial Construction LLC, amount not to exceed \$6,019,781.00. Contract to follow award. Subject to approval as to form by the Law Department.  
  
{Action: Approved: Motion: Lan; Second: Allick; Vote: 5-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Yes; Allick-Yes)
- V. Award of BL037-22, F. Wayne Hill Water Resources Center influent screenings improvements project to Reeves Young, LLC, amount not to exceed \$3,828,864.00. Contract to follow award. Subject to approval as to form by the Law Department.  
  
{Action: Approved: Motion: Lan; Second: Martin; Vote: 5-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Yes; Allick-Yes)
- VI. Approval to renew BL076-20, restoration of utility repairs on an annual contract (October 7, 2022 through October 6, 2023), with DAF Concrete, Inc., base bid \$1,200,000.00. Water and Sewerage approval amount is \$744,000.00.  
  
{Action: Approved: Motion: Martin; Second: Thompson; Vote: 5-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Yes; Allick-Yes)

Monday, June 13, 2022 – 4:00 p.m.

Page 2

- VII. Award of BL057-22, purchase of water meter assembly repair parts, fittings, and meter boxes on an annual contract (June 21, 2022 through June 20, 2023), to Delta Municipal Supply Company and Ferguson Enterprises, LLC, base bid \$1,200,000.00.

{Action: Approved: Motion: Lan; Second: Martin; Vote: 5-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Yes; Allick-Yes)

- VIII. Award of BL046-22, above ground pre-stressed concrete tanks inspection and repair on an annual contract (July 17, 2022 through July 16, 2023), to CROM, Precon Corporation, and Structural Preservation Systems, LLC, base bid \$1,600,000.00.

{Action: Approved: Motion: Thompson; Second: Lan; Vote: 5-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Yes; Allick-Yes)

- IX. Approval/authorization for the Chairwoman to execute a Development Participation Agreement between Gwinnett County, the Gwinnett County Water and Sewerage Authority and TPG Development, LLC to outline the responsibilities of the parties as it pertains to water infrastructure improvements within the right-of-way of Duluth Highway near the intersection with Claiborne Drive in the City of Duluth. Subject to approval as to form by the Law Department.

{Action: Approved: Motion: Lan; Second: Thompson; Vote: 5-0}  
(Kerlin-Yes; Lan-Yes; Martin-Yes; Thompson-Yes; Allick-Yes)

- X. Advanced Metering Infrastructure Presentation

- XI. Comments

- XII. Adjourn

{Action: Unanimous Approval}

The June 13, 2022,  
Gwinnett County  
Water and Sewerage  
Authority meeting  
will begin at  
4:00pm



1

Welcome  
to the June 13 2022,  
Gwinnett County  
Water and Sewerage  
Authority meeting

Please mute your  
phone unless  
speaking



2



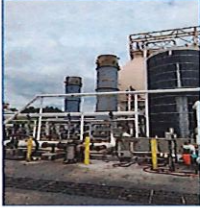


F. Wayne Hill  
Water Resources Center  
Flare Improvements

BL033-22  
June 13, 2022




3

Project Location

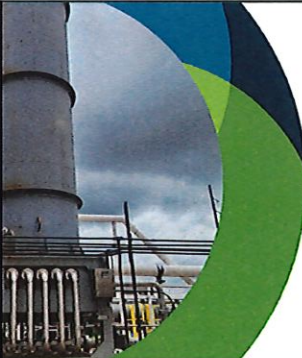
4



**Project Background**

- Existing flares are 22 years old
- Located very close to digesters and FOG/HSW Station
- Gas production can exceed flare capacity
- Maintenance issues

5

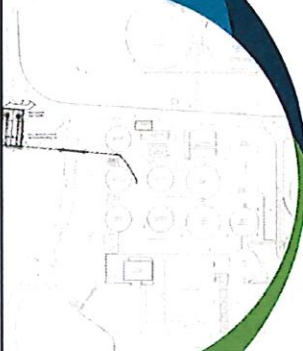


**Project Purpose**

- Replace undersized units
- Improve unit reliability
- Add capacity for future increased digester gas production
- Relocate this plant process to safer location

6

### Project Description




- Replace 2 Waste Gas Flares
- Install a pipe bridge over the plant road
- Install 430 ft of stainless steel pipe on elevated supports
- Install access driveway for new equipment



7

### Project Schedule

- Anticipated Construction Notice to Proceed**
  - August 2022
  - 60 calendar days after BOC approval
- Anticipated Substantial Completion**
  - October 2023
  - 420 Calendar days after NTP
- Anticipated Final Completion**
  - November 2023
  - 450 Calendar days after NTP




8

### Bids Received



Contractor	Total Bid Price
Crowder Industrial Construction, LLC	\$6,019,781
Western Summit Constructors, Inc.	\$6,299,000
Alberici Constructors, Inc.	\$7,040,317

- Engineer's Estimate • \$4,047,225
- Recommend to award to Crowder Industrial Construction, LLC



9

### Questions?

10

### F. Wayne Hill Water Resources Center


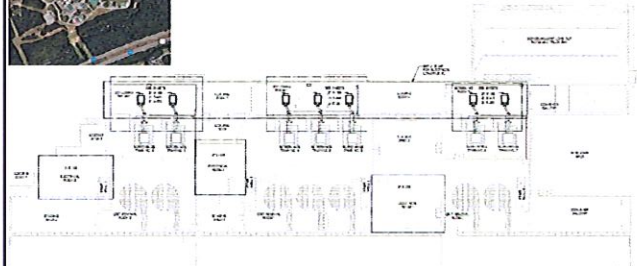
#### Influent Screenings Improvements

811.837.222  
June 13, 2022




11

### Project Location






12



### Project Background

- Existing brush screens are over 20 years old
- Carousels and rollers are worn and brushes are failing
- Parts not available
  - Now must be custom manufactured

13

### Project Description


- Replace the 7 obsolete Brush Screens with new more efficient Drum Screens
- Replace 7 Diverter Gates
- Relocate 3 Monorails
- Install 3 Hot Water Pressure Washers




14

### Project Benefits


- Reliability:** Replacing worn and difficult to maintain brush screens with new, more efficient drum screens
- Performance:** Improved dewatering of screenings prior to disposal in landfill
- Serviceability:** Wearable parts are accessible and available
- Maintainability:** Hot water pressure washers will aid in cleaning units



15

### Project Schedule

- Anticipated Construction Notice to Proceed**
  - August 2022
  - 30 calendar days after BOC approval
- Anticipated Substantial Completion**
  - January 2024
  - 530 Calendar days after NTP
- Anticipated Final Completion**
  - February 2024
  - 560 Calendar days after NTP




16

### Bids Received

Contractor	Total Bid Price
Heavy Constructors	\$3,260,166 (withdrew bid)
Reeves Young	\$3,828,864
Lakeshore Engineering	\$3,867,961
Western Summit	\$4,276,244

- Engineer's Estimate \$6,029,000
- Recommend to award to Reeves Young LLC
- Bid Amount \$3,828,864



17





### Questions?

18

**Renewal: BL076-20**  
Restoration of Utility Repairs  
on an Annual Contract

June 13, 2022



19

**Background**  
BL076-20 Restoration of Utility Repairs

- Second Renewal of Four options
- Contract includes storm water
- WSA approval requested ONLY for Water and Sewer portion



20

**Background**  
BL076-20 Restoration of Utility Repairs


- Asphalt, Concrete, and Landscape Restoration
- Utility Repairs for Water, Sewer, and Stormwater Mains
- Not for stand-alone projects



21

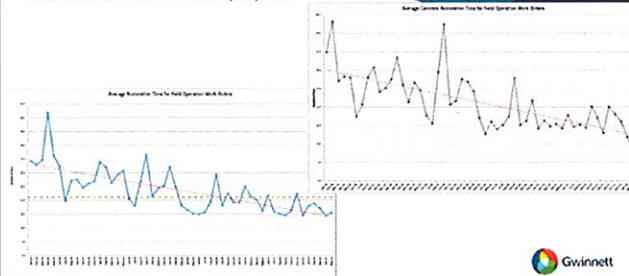

**Performance**  
BL076-20 Restoration of Utility Repairs

- Track Response Time**: On Site within 24 hours for work requests
- Track Repair Time**: Service restored within 12 hours
- Track Restoration Time**: Target 14 days, Last Interface with GCDWR



22


**Performance**  
BL076-20 Restoration of Utility Repairs

23

**Contract Summary**  
BL076-20 Restoration of Utility Repairs

- DAF Concrete, Inc.
- Request Total \$1,200,000
- WSA being asked to act on the \$744,000 W&S portion of that total





24



Renewal: BL076-20  
Restoration of Utility  
Repairs on an Annual  
Contract


Questions ?

25

BL057-22  
Award  
Purchase of Water Meter Repair  
Parts, Fittings, and Meter Boxes on  
an Annual Contract


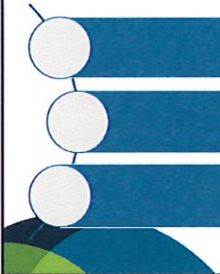
6/13/2022

26

**Background**  
BL057-22 – Purchase of Water Meter Repair Parts, Fittings and Meter Boxes


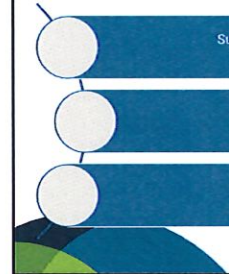
- Award of New Contract
- One-Year Contract Term with One Option to Renew
- Market volatility limits renewals

27

**Background**  
BL057-22 – Purchase of Water Meter Repair Parts, Fittings, and Meter Boxes

- Supplies the necessary ancillary parts and fittings for water meter installations.
- Specifications tight regarding metal content Assist crews in locating assets.
- Two Vendors Selected Respective low-price bid per each Line Item



28

**Summary**  
BL057-22 - Purchase of Water Meter Repair Parts, Fittings, and Meter Boxes

**Vendors:**

- Delta Municipal Supply Company
- Ferguson Enterprises Inc.


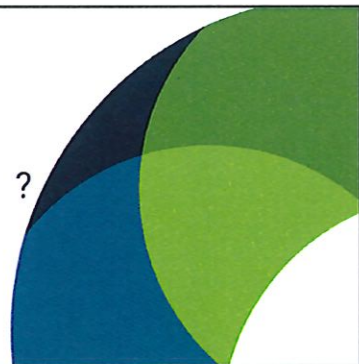
**\$ 1,200,000 requested**

29



BL057-22  
Award - Purchase of Water Meter Repair  
Parts, Fittings, and Meter Boxes on an  
Annual Contract

Questions ?

30

**BL046-22**  
**ABOVE GROUND**  
**PRE-STRESSED**  
**CONCRETE TANKS**  
**INSPECTION AND**  
**REPAIR**

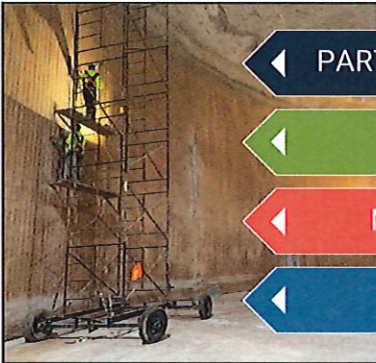



31

**WHAT THIS**  
**CONTRACT COVERS**




32



- ◀ PARTS AND LABOR
- ◀ INSPECTION
- ◀ MAINTENANCE
- ◀ REPAIR

33

**BACKGROUND**



34

<p>▼</p> <p>In 2017 DWR initiated a <b>5-Year Tank Inspection Program</b></p> <p>Tanks are scheduled for repair based on need and ability to take the tank out of service</p>	<p>▼</p> <p>DWR has <b>28</b> Above Ground Pre-stressed Concrete Tanks</p> <p>17 TANKS for potable water</p> <p>11 TANKS for wastewater</p>	<p>▼</p> <p><b>Repair and Rehabilitation</b></p> <p>is critical to the safe and efficient operation and maintenance of these tanks</p>	<p>▼</p> <p><b>Periodic Maintenance</b></p> <p>will ensure the useful life of these tanks</p>	
---	---	--	---	---

35



36

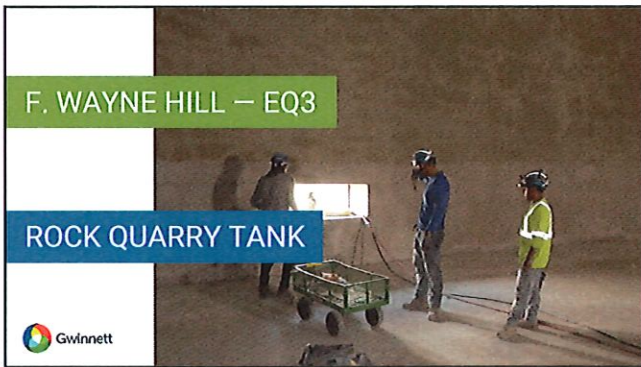




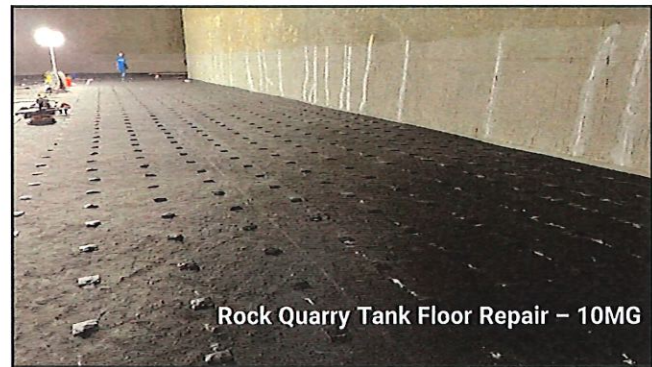
37



38



39



40



41



42



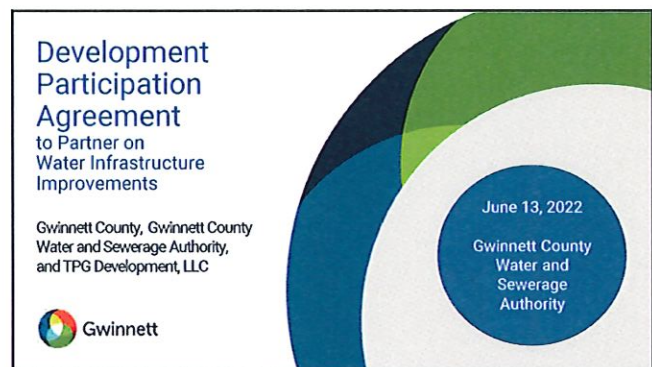
43

<b>CONTRACT</b>	<ul style="list-style-type: none"> <li>Award of BL046-22</li> <li>4 renewal options</li> </ul>
<b>VENDORS</b>	<ul style="list-style-type: none"> <li>CROM, LLC</li> <li>Precon Corporation</li> <li>Structural Preservation Systems, LLC</li> </ul>
<b>REQUESTING BASE AMOUNT</b>	<ul style="list-style-type: none"> <li>\$1,600,000</li> </ul>

44



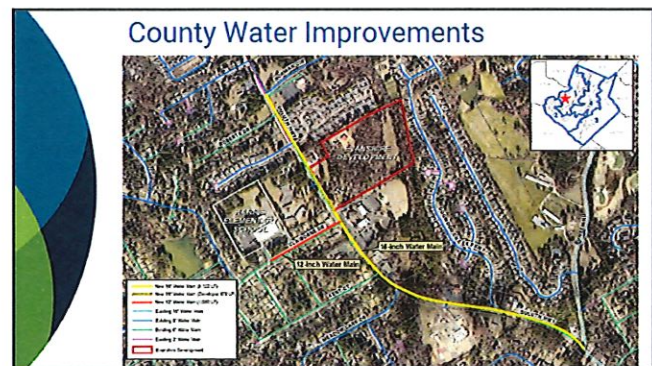
45



46



47




48



### County Water Improvements

- **B B Harris Elementary Water Upsize Project**
  - Replace 7,100 LF of existing 6-inch water main with 12-inch (Claiborne Road) and 16-inch water main (Duluth Hwy)
  - To provide increased fire flow for Harris Elementary School
- **Project Status**
  - 60% Design / Land Acquisition Underway
  - Construction 2023-2024



49


### Agreement Responsibilities

**TPG Development, LLC**

- Install 678 linear feet of 16-inch ductile iron pipe water main within the right-of-way of Duluth Highway adjacent to the proposed development.

**Gwinnett County**

- Pay to TPG Development, LLC the estimated amount of \$67,910.00 towards implementation of the water improvements following acceptance of the infrastructure installation.




50

### Financial Commitment

- Estimate by Empire Pipe Supply (5/6/2022)
 


\$ 107,134 = Material Cost of 16-inch Water Main and Fittings
LESS
\$ 39,224 = Material Cost of 8-inch Water Main and Fittings
\$ 67,910 Material Price Differential
- Validated by Gwinnett DWR and Design Consultant
- Actual amount to be paid based on invoice from the supplier for material installed



51

### Benefits

- Minimizes impact to community and disruption to citizens
- Expedites the implementation of the County project
- Reduces cost for the County project



52


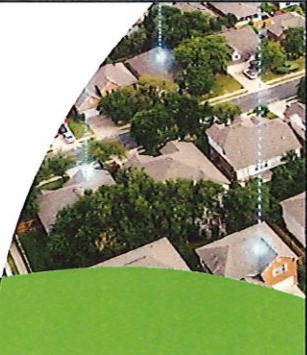
### Questions?



53

### Advanced Metering Infrastructure (AMI) Overview

Tuesday, June 14, 2022

54





## Agenda

- AMI Overview
- Pilot Project
- Business Cases
- Peer Reviews
- Large Meter AMI Project




55

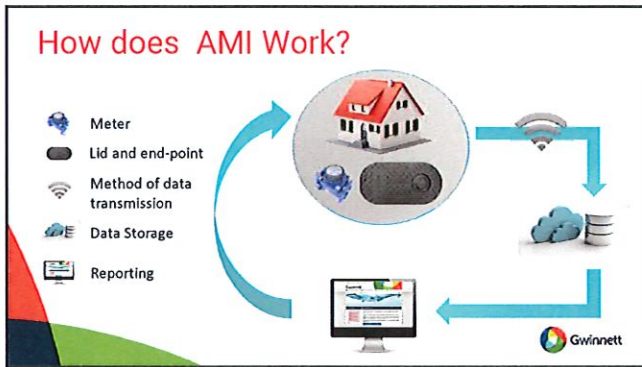
## What is AMI?

Advanced Metering Infrastructure

A metering system that captures customer consumption hourly or more frequently and that provides for daily or more frequent transmittal of measurements over a communication network to a central collection point




56




57

## What Methods Are Offered?

Cellular



Fixed Network



58

## What Are the Benefits?



**Improved Customer Service**

Provide detailed usage data  
Quickly identify leaks  
Give tools to Customer Care



**Environmental**

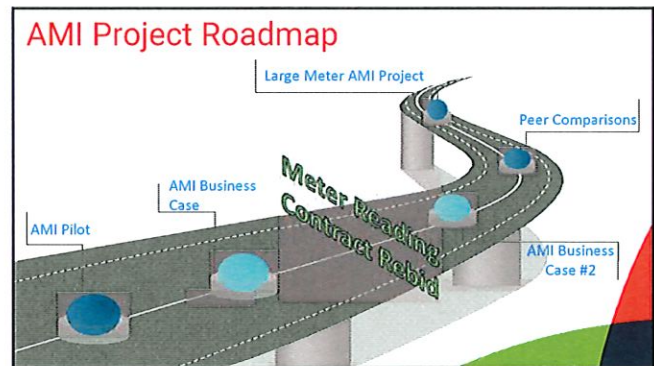
Reduce greenhouse gases  
Encourage water conservation



**Operational**

Identify pressure zones  
Water loss identification



59



60

### Pilot Project

- Project Kickoff March 2017
- Partnered with CH2M, AT&T, and Qualcomm
- 500 residents

61

### Pilot Project – Lessons Learned







62

### AMI Business Case

Conducted by Jacobs in May 2019

#### Scenarios Considered

Base Case	Wireless	Fixed
		



63

### Meter Reading Contract

Meter reading Cost \$2.8 Million 2021

Contract issues




Meter reading Cost \$5.9 Million 2022


64

### AMI Business Case Update

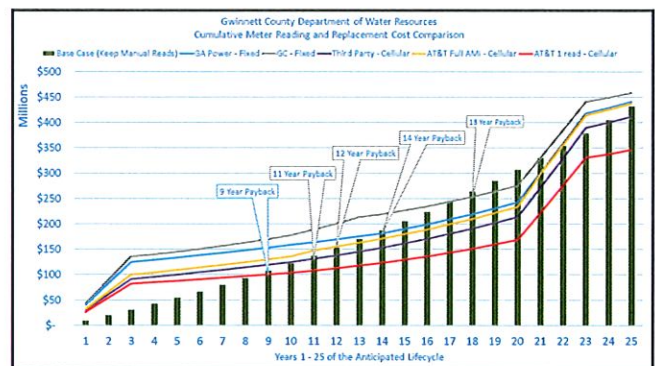
Conducted by Gwinnett County DWR in November 2021

#### Scenarios Considered

New Base Case	Wireless AMI	Fixed Network
		
<ul style="list-style-type: none"> <li>• Manual Reads</li> </ul>	<ul style="list-style-type: none"> <li>• Cellular - one monthly read - data only</li> <li>• Standalone GC hosted cellular system</li> <li>• Third party hosted through cellular</li> </ul>	<ul style="list-style-type: none"> <li>• County Hosted</li> <li>• GA Power hosted</li> </ul>



65



66



### Peer Comparisons – Success Stories

<p><b>Clayton County, GA</b> 89,000 Meters Verizon network</p>	<p><b>City of Gainesville, GA</b> 60,000 Meters Fixed internal owned network</p>
<p><b>Henry County, GA</b> 70,000 Meters Fixed GA Power network</p>	<p><b>United States Postal Service</b> 300,000 Devices AT&amp;T Cellular network</p>

67

### Large Meter AMI Project

- 800 AMI endpoints installed
- \$150k cost
- Digital read to billing under development

68

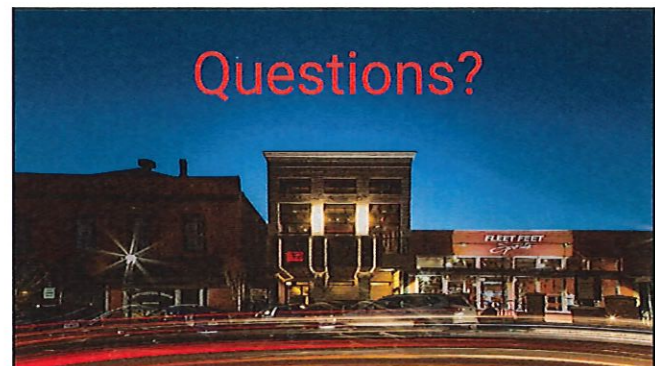
### Current AMI Budget

2023	2024	2025	2026	2027	2028
\$5,000,000	\$10,000,000	\$20,000,000	\$20,000,000	\$20,000,000	\$15,000,000

**\$90M** Initial implementation cost over 6 years

20-year meter and endpoint lifespan

69



70

### Triple Bottom Line Analysis – 20 Year Analysis

**PEOPLE** (Social):

- Increased communication between DWR and residents
- Ability to detect leaks
- Greatly increased transparency of water data to customers

**PLANET** (Environmental):

- Greatly reduced meter reading carbon footprint
- Reduction in wasted water due to leak detection

**PROFIT** (Financial):

- Gwinnett County is a zero-based budget organization
- Long-term this project will save the County money

71

### GA Power Propagation Study Results

72