ADVANCED METERING INFRASTRUCTURE (AMI) FULTON COUNTY PUBLIC WORKS DEPARTMENT





FULTON COUNTY WATER SYSTEM (NORTH OF CHATTAHOOCHEE)

- Tom Lowe Water Treatment Facility
 - 90 MGD capacity
 - 60 MGD peak demand
 - 40 MGD Fulton County / 20 MGD City of Atlanta
- Population Served ≈ 265,000
- 1,200 miles of 8" 54" main
- 16.7 MG Storage Capacity
- 12 Storage Tanks
 - 9 Elevated Storage Tanks
 - 3 Ground Storage Tanks
- 13,000 Fire Hydrants
- 4 Pump Stations



EXISTING WATER METERING SYSTEM

- 5 total billing zones. 4 residential zones (bimonthly) and I commercial zone (monthly)
- Combination of Manual Read Meters and Automated Meter Reading (AMR)
- Approximately 3,000 commercial customers
- 77,575 residential customer meters
 - 45% manual meter reads
 - 55% are AMR drive-by system
- More than half of meters are older than 10 years (nominal average life is 15 years)
 - Mechanical meters slow down (under-register) with age
 - Mechanical meters less accurate at lowest flow rates
 - Existing initial AMR radio devices reaching end of life

CURRENT METER READING ISSUES



- In April 2015, due to staffing cost and efficiency, Fulton County contracted with a company to provide meter reading services (same as Cobb and Gwinnett Counties)
- Issues with contractor:
 - Staffing inability to maintain capable staff
 - Meter readers not reading all devices (older AMR malfunctioning)
 - Billing backlog due to contractor delays or incomplete reads
- Billing delays and inaccuracies (due to estimates) causing customer dissatisfaction
- Gaps in AMR performance make billing difficult to manage

METER READING TECHNOLOGY EVOLUTION



- Manual Meter Reading required to manually observe and record the numerical register reading
 - Difficult Labor Market
 - Manual Reading is a dying industry
- Radio Frequency Reading (RF). AMR (Automated Meter Reading) accomplished by walking or driving past water meters connected to RF transmitters with data transformed to billing by electronic files
- Advanced Metering Infrastructure (AMI) integrated system of water meters, communications networks, and data management systems that enables direct communication between meters and central billing

AMI BENEFITS TO THE COUNTY AND CUSTOMERS

Financial	Network service costs less than current field labor and vehicle costs
	Ability to create monthly bills to all customers
Improved Customer Service	Access to a customer web portal
	View water usage in real time
	Pay bills online
	Customer communications and customized messages
Technical Advances	Hourly readings and alarms
	Obtain more accurate low flow readings
	Ultrasonic Meter Technology maintains accuracy for life of meter (15 to 20 years)
	Potential leak detection
	Potential Remote connect and disconnect service

AMI meters aren't just meters – they can become sensors that gather important information that make your processes more responsive and effective

AMI METERS IN GEORGIA

- City of Roswell

AMI Meters 100% Deployed

- Forsyth County
- Coweta County
- Dekalb County
- Henry County
- Athens-Clarke County
- City of Dallas
- City of Calhoun
- City of Winder



- Clayton County
- Gwinnett County
- City of Atlanta
- Cherokee County
- Rockdale County
- City of Gainesville
- Fayette County

ANTICIPATED SCHEDULE

- Prepare RFP and advertise
 - o Dec. 2024 Receive and evaluate proposals
 - o Jan. 2025 Negotiate contract with selected vendor
 - Feb. 2025 BOC award contract
 - Apr. 2025 Execute agreement and notice to proceed
- Full deployment (3 years)
 - o 26,000 per year
- Dec. 2027 Expected completion
- Cost of AMI implementation incorporated into the rate study

