

STATE OF ALABAMA                )(  
   :  
COUNTY OF BALDWIN             )(

The City Council met in a Work Session  
at 4:30 p.m., Fairhope Municipal Complex Council Chamber,  
161 North Section Street, Fairhope, Alabama 36532,  
on Monday, 9 October 2023.

Present were Council President Pro Tempore Corey Martin, Councilmembers: Jack Burrell and Kevin Boone, Mayor Sherry Sullivan, City Attorney Marcus E. McDowell, and City Clerk Lisa A. Hanks. Council President Jay Robinson, Councilmember Jimmy Conyers, and City Attorney Marcus E. McDowell were absent.

Council President Pro Tempore Martin called the meeting to order at 4:30 p.m.

The following topics were discussed:

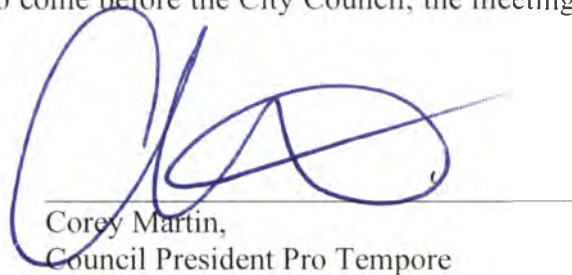
- The first item on the agenda was the Presentation on the Litter Getter Project and Osprey Initiative by Code Enforcement Officer Kim Burmeister who gave an update on the Winn Dixie Retention Pond. She mentioned a GOMESA grant that is 100 percent funded to purchase 12 collectors for storm drains.
- The Next item on the agenda was the Presentation on the Demo of Heil RevAMP Electric Side Loader by Public Works Director Richard Johnson. See Power Point Presentation titled “RevAMP The future of Refuse Collection is now.” He gave an update on the City trying out one of these trucks and how it worked.
- Caleb Leach, P.E. and Mark Smith, P.E. with Krebs Engineering, Inc. began the Water Well Expansion Discussion. See Power Point Presentation titled “Fairhope Water System Improvements Progress Update.” This presentation will give a summary of existing water system, water demands (historical and projected), construction progress for Phase I improvements, schedule for Phase 2 improvements, and planning for future improvements. The City Council asked about reusing wastewater and reclaiming surface water.
- Councilmember Burrell said the Airport Authority meeting is tomorrow. Councilmember Burrell commented he was opposed to cosigning on the new terminal; and attorneys need to look at new contract.
- Recreation Director Pat White addressed the City Council and introduced the new Marina Manager Mark Redditt. Mr. White explained Agenda Item No. 23; and answered any questions if needed. He told the City Council his department uses 1,340 man hours painting.
- Gas Superintendent Wes Boyette addressed the City Council regarding Agenda Item No. 29; and answered any questions if needed.
- IT Director Jeff Montgomery addressed the City Council regarding Agenda Item No. 25; and answered any questions if needed.

Monday, 9 October 2023

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- Community Affairs Director Paige Crawford addressed the City Council regarding Hannah Legg and the murals in Arts Alley. Ms. Legg explained she used anti-graffiti finish on the murals. She announced the City hired another part-time shuttle driver. Ms. Crawford explained Agenda Items No. 9 through No. 22, No. 34, and No. 35 are appropriations; and answered any questions if needed.
- Public Works Director Richard Johnson addressed the City Council and gave an update on the following projects: Track at Founders Park, Roof Project at City Hall and Civic Center, Road Paving Project, and the Haven Project.
- Electric Superintendent Ben Patterson addressed the City Council and mentioned Public Power Week was last week. He explained Agenda Item No. 24; and answered any questions. Mayor Sullivan said that it pinpoints weather for our area.
- Water and Wastewater Superintendent Daryl Morefield addressed the City Council regarding Agenda Items No. 26 and No. 27; and answered any questions if needed.
- City Treasurer Kim Creech addressed the City Council regarding Agenda Items No. 28 and No. 30; and answered any questions if needed. Councilmember Burrell questioned the grant contract.
- Mayor Sherry Sullivan addressed the City Council regarding Agenda Items No. 32, No. 33, No. 34, and No. 35; and answered any questions if needed. She commented the FEEF resolution is only for Bronze, Silver, and Gold sponsorships.

There being no further business to come before the City Council, the meeting was duly adjourned at 5:50 p.m.



Corey Martin,  
Council President Pro Tempore



Lisa A. Hanks, MMC  
City Clerk



# RevAMP™

The future of refuse collection is now



## RevAMP™



### POWERED BY ELECTRICITY!

The first all-electric on-route refuse collection body



City of Fairhope, AL June 19, 2023

CONFIDENTIAL 2023 Environmental  
Solutions Group



**Route – June 19th**

- **Demo Driver:**
- **Site: Fairhope, AL**
- **Starting Mileage: 8369**
- **Ending Mileage: 8387**
- **Total Mileage: 18**
- **Battery state of charge (Start): 96%**
- **Containers Serviced: 120**
- **Battery State of charge (EOD): 86%**
- **Avg. # cans in single charge-1200**
- **Type of Service: Trash/Waste**
- **Daily Payload Tonnage:**



## RevAMP Electric Body on Route



**Environmental  
Solutions Group**

A **BEVER** COMPANY

Collaborative Entrepreneurial Spirit Winning Through Customers High Ethical Standards, Openness, and Trust Expectations for Results Respects and Values People



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## RevAMP Electric Body on Route



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## RevAMP Route June 19, 2023

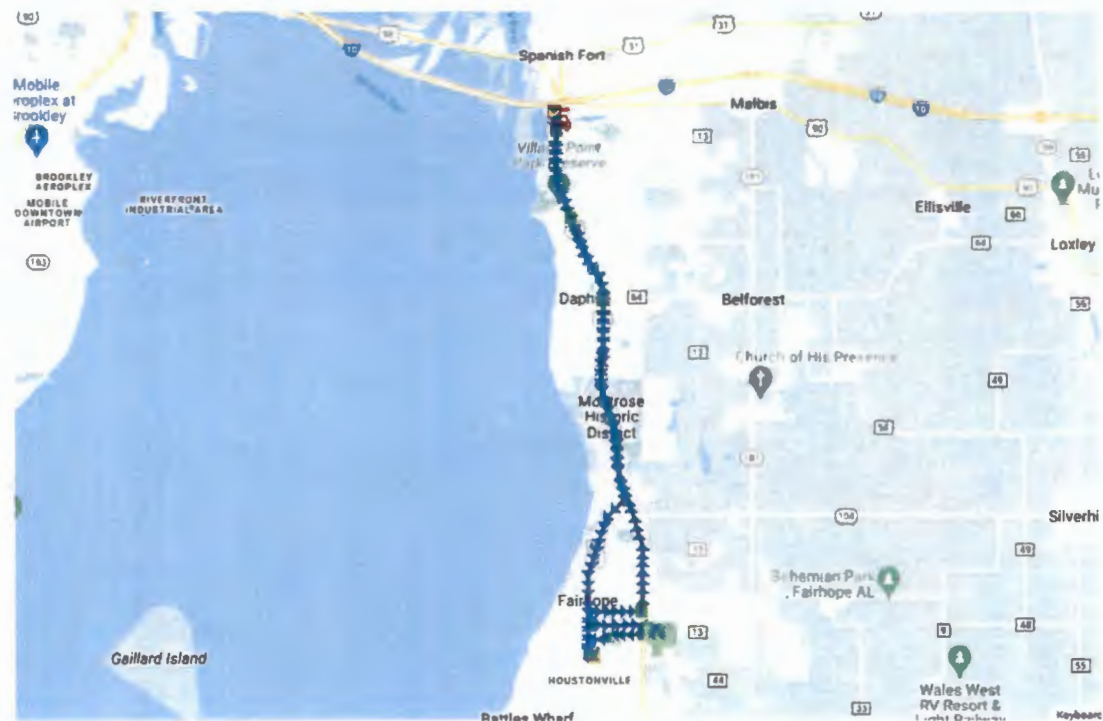


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- Total Number of Containers Serviced: **120**
- Times on route: **8:30 AM to 9:36 AM**
- Total Hours: **1.1 Hours**
- Container Serviced per Hour: **109**



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# Positive Service Verification- (Green Cans)- Birmingham Route June 6<sup>th</sup> 2023



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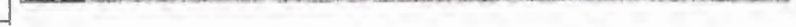
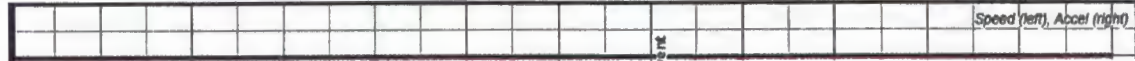
**Positive Service Verification- 212 Southchase  
CT, Fairhope, AL**



Collaborative Entrepreneurial Spirit  Winning Through Customers  High Ethical Standards, Openness, and Trust  Expectations for Results  Respects and Values People

Stop ID#: 0 Name: Type: Status: Unknown Stop

Route: Stop Address: 212 Southchase Ct, Fairhope



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## Heil RevAMP eASL



**Connected  
Collections™**



NO Hydraulics on route

Auger Compactor

Reduce chassis power  
consumption by ~25%

Full Eject

Can mount to EV, CNG,  
or diesel chassis

Lightweight Body

Fully electric automated arm

Onboard independent battery  
capable of ~1,200 homes





## Heil® RevAMP™ Electric Automated Side Loader

The Future of Refuse Collection is Now.

### Discover What Sets The Heil® RevAMP™ Apart



#### LIFT ARM

- ✓ Fast, precise arm motion enables highly productive refuse collection while on route
- ✓ Shake-free, smooth operation reduces driver fatigue
- ✓ No arm kick-out allows for the collection of refuse in alleyways and other tight areas
- ✓ Fully electric arm is remarkably quiet and has no hydraulic hoses or tubes that can leak or break



#### ENERGY

- ✓ 47 kWh Battery. Up to 400A available at 100V
- ✓ More than 1,200 containers on an overnight battery charge (6-8 hours)
- ✓ No power required from a chassis diesel engine
- ✓ Type 2 AC charging with 208/240 VAC shop power



#### EJECTION PANEL

- ✓ An electric motor is used to drive the ejection panel
- ✓ Pack-through innovation (patent pending) provides full-eject capability (no tilt-to-dump)
- ✓ Full-eject design improves stability at the landfill
- ✓ Body fixed to frame allows for shortening wiring, simplified body installation
- ✓ Large entrance points for easy access behind the ejector



#### AUGER

- ✓ The auger, tapered from 30 inches to 24 inches, requires less energy than a typical compactor arm
- ✓ Self-cleaning hopper to avoid material bridging
- ✓ Sturdy endless auger design allows the refuse material to dump over it while in operation, so that the hopper cleans quickly
- ✓ Surface treatment on the hopper and auger is designed specifically for harsh material





## Key Benefits of an Electric Body



### Efficiency

*Electric arm and auger reduces the energy required. This means you use less fuel and increase your chassis range.*



### Flexibility

*Onboard battery option can be paired with any chassis fuel type. Or choose the integrated power configuration with your preferred EV chassis.*



### Eliminate Hydraulics

*Eliminate leaks on route that generate expensive clean-ups and angry customers.*



### Quiet Operation

*Homeowners and drivers both agree that a quieter garbage truck is a better garbage truck.*

***RevAMP Electric ASL delivers benefits that a hydraulic body cannot***

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## **IMPROVE YOUR SUSTAINABILITY. IMPROVE YOUR BOTTOM LINE.**

The Heil RevAMP electric side loader is more environmentally friendly than any other standard automated truck on the market.

- 🍃 100% electric on-route – NO hydraulics – NO hydraulic leaks
- 🍃 Fuel savings of up to 35% on diesel chassis; 100% fuel savings on electric chassis
- 🍃 Easily charge overnight with plenty of energy for a day's work
- 🍃 GHG reduction of 41 tons/year/truck on diesel chassis
- 🍃 Lighter body (less than 16,400 lbs.) – less fuel consumed – better payload



## GET AMPED ABOUT FUEL SAVINGS



When the RevAMP body is configured with a diesel-fuel chassis, fuel consumption is reduced by up to **35%** when compared to an hydraulic body. This pairing can result in dramatic fuel savings per year.



When the RevAMP body is configured with an electric-powered chassis, range is extended due to elimination of the power take off from the EV chassis.





## INFINITELY CUSTOMIZABLE CONFIGURATIONS TO MAXIMIZE YOUR ROUTE PRODUCTIVITY



Available with electric powered chassis, with the option to integrate into the chassis to use a common battery pack



Available with conventional diesel chassis



Available with CNG chassis



## DISCOVER WHAT SETS THE HEIL REVAMP APART



### EJECTION PANEL

- An electric motor is used to drive the ejection panel
- Back-thru innovation (patent pending) provides full ejection capability (no tilt-to-dump)
- Full ejection design improves stability at the landfill
- Body fixed to frame allows for shortening wiring, simplified body installation
- Large entrance points for easy access behind the ejector



### LIFT ARM

- Fast 8-second cycle time and precise 3" motion enables highly productive refuse collection while on route
- Shake-free smooth operator reduces driver fatigue
- Full arm kick-out allows for the collection of refuse in alleyways and other tight areas
- Fully electric arm is remarkably quiet and has no hydraulic hoses or tubes that can leak or break



## ENERGY

- 46 kW Battery Up to 400A available at 100V
- More than 1,200 containers on an overnight battery charge (approx. 6-8 hours to charge)
- No power required from a diesel engine
- Type 2 AC charging with 208, 240 VAC drop power



## AUGER

- The auger tapered from 30 inches to 24 inches requires less energy than a typical compactor ram
- Self-cleaning hopper to avoid material bridging
- Sturdy endless auger design allows the refuse material to dump over it while in operation so that the hopper clears quickly
- Surface treatment on the hopper and auger is designed specifically for worst material



## The Cost Of Hydraulic Leaks



### One Drop Every 10 Seconds



Gallons Per Day: **0.11**



Gallons Per Year: **27.5**



Cost Per Gallon: **\$8.50**

**\$ Cost Per Year: \$234**



### One Drop Every Second



Gallons Per Day: **1.1**



Gallons Per Year: **275**



Cost Per Gallon: **\$8.50**

**\$ Cost Per Year: \$2,338**



### Stream



Gallons Per Day: **24**



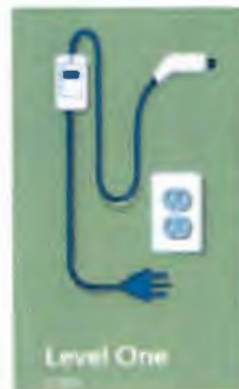
Gallons Per Year: **6,000**



Cost Per Gallon: **\$8.50**

**\$ Cost Per Year: \$51,000**

## Charging Considerations



*Heil RevAMP uses level 2*

	120V AC	220/240 AC	480V DC
<b>Charging Time</b>	Slow	6-8 hours	Fastest
<b>Cost</b>	\$	\$	\$\$\$
<b>Infrastructure</b>	n/a	Available	Consult your power company



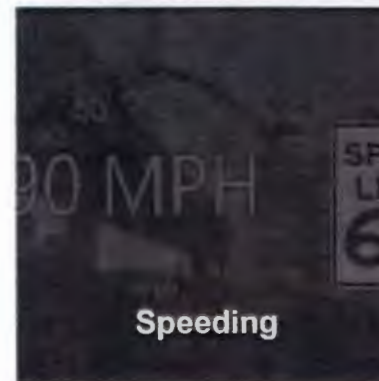
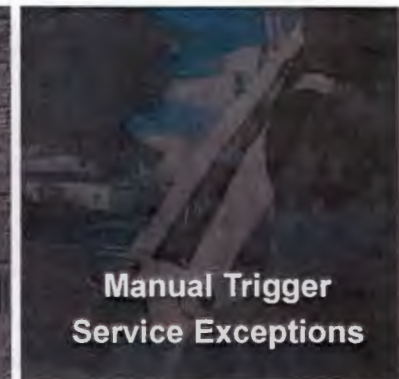
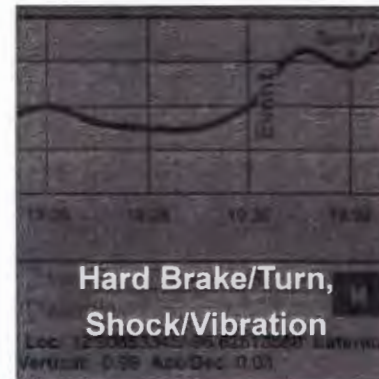
## Hardware Features & Design

- Up to 256GB MicroSD card (Approximately 300 hours)
- Up to 8 cameras recording
- Real time video analytics and driver event processing
- Linux Operating System
- Open architect for future expansion



## Safety- How it Works: Triggered Events

- Event Recording Device
  - Records all installed cameras
  - Audio is recorded as desired
- Gathers Information From:
  - Outside the vehicle
  - Live tracking of truck (GPS)
  - J1939 Information – Speed, Telemetry



## Public Safety- Exoneration



# Verif-Eye- Positive Service Verification



**Blocked Containers**



**Identifying Container Location**



**Failed Set-Outs**



**Property Damage Claims**



**Overloaded Containers**



**Recycling Contamination**

**DOVER**





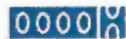
# Tracking & Quantifying a Fleet in Transit

## Certif-Eye – What does it do?

- Tracks key data points about the vehicle's activity and travels



- Engine Hours — Total time the engine was running "Ignition On"



- Odometer Value — Current Odometer reading



- Distance Traveled — Total miles driven



- Fuel Consumed — Total gallons burned

- All values are summarized by:

- Hourly
- Daily
- State/Province
- On/Off Road

- Data can be consumed via:

- Reports
- Delimited data file (csv)
- API Feed



A DOVER COMPANY



**The Curotto-Can**  
The Original & Most Popular



**SOFT-PAK**  
SOFTWARE SOLUTIONS



# Any Questions?

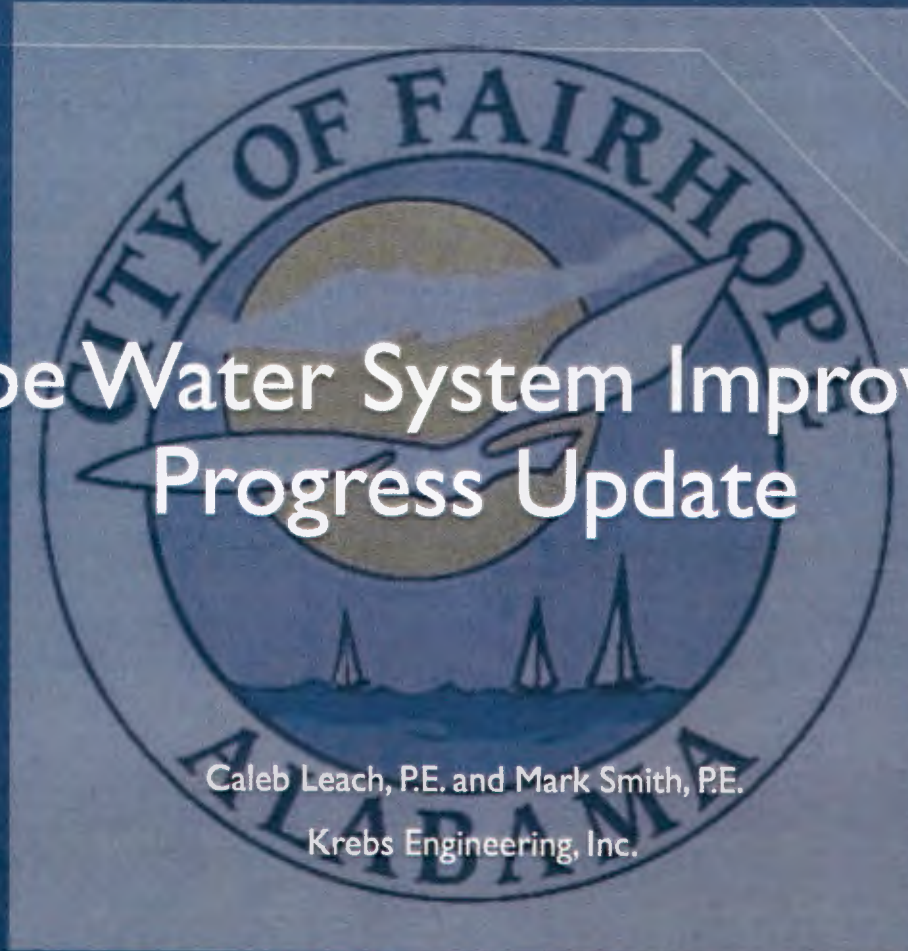


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# Fairhope Water System Improvements Progress Update



Caleb Leach, P.E. and Mark Smith, P.E.

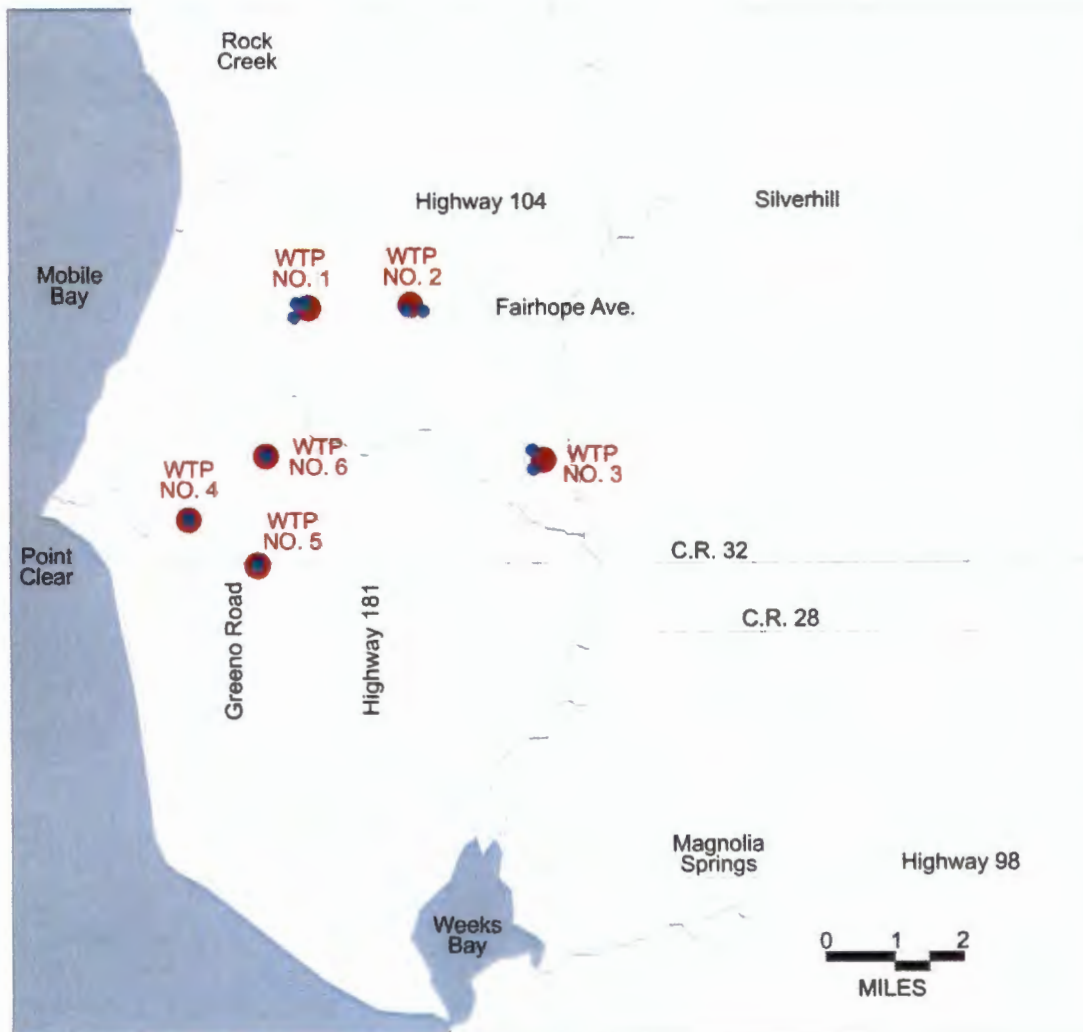
Krebs Engineering, Inc.



## OVERVIEW OF DISCUSSION

- Summary of Existing Water System
- Water Demands (Historical and Projected)
- Construction Progress for Phase I Improvements
- Schedule for Phase 2 Improvements (May 2024)
- Planning for Future Improvements

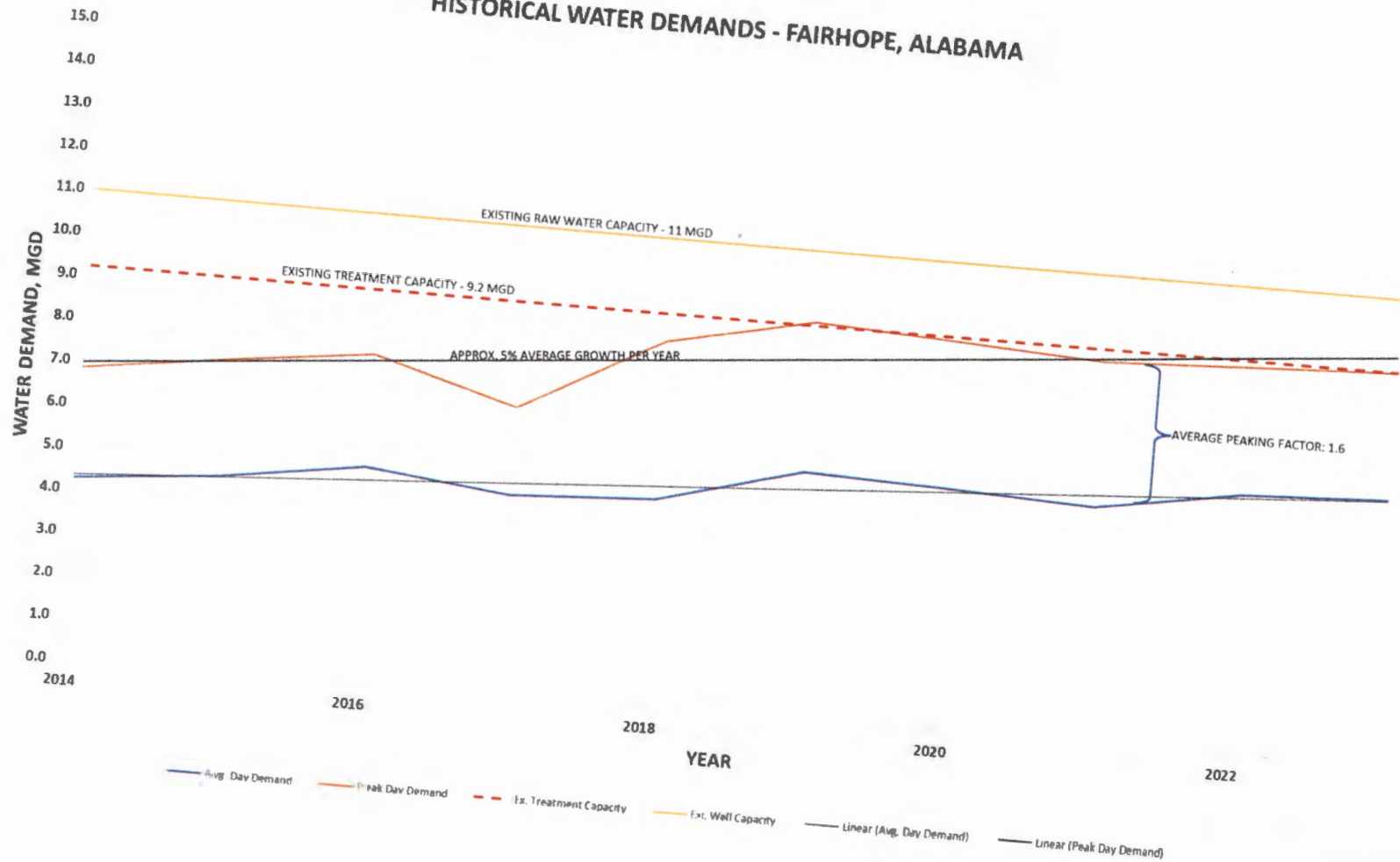




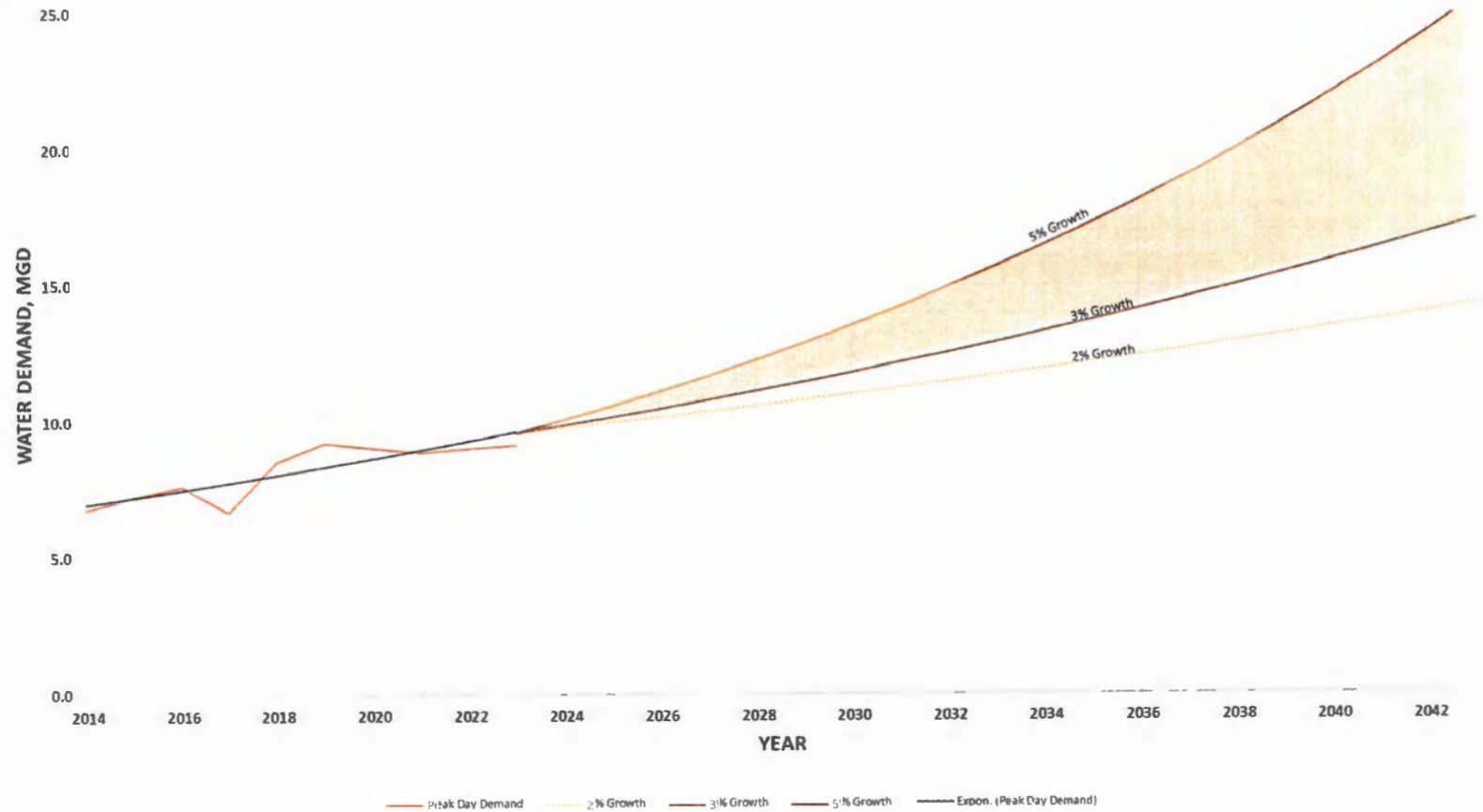
## SUMMARY OF EXISTING WATER SYSTEM

- Avg. Demand = 6.1 MGD
- Peak Demand = 9.2 MGD
- 10 Wells: Total Raw Water Capacity of 11 MGD
- 6 Treatment Facilities: 9.2 MGD Treatment Capacity
- 5 Water Storage Tanks (6.3 MG of Storage)
- Most Existing Piping is 8-inch or Smaller

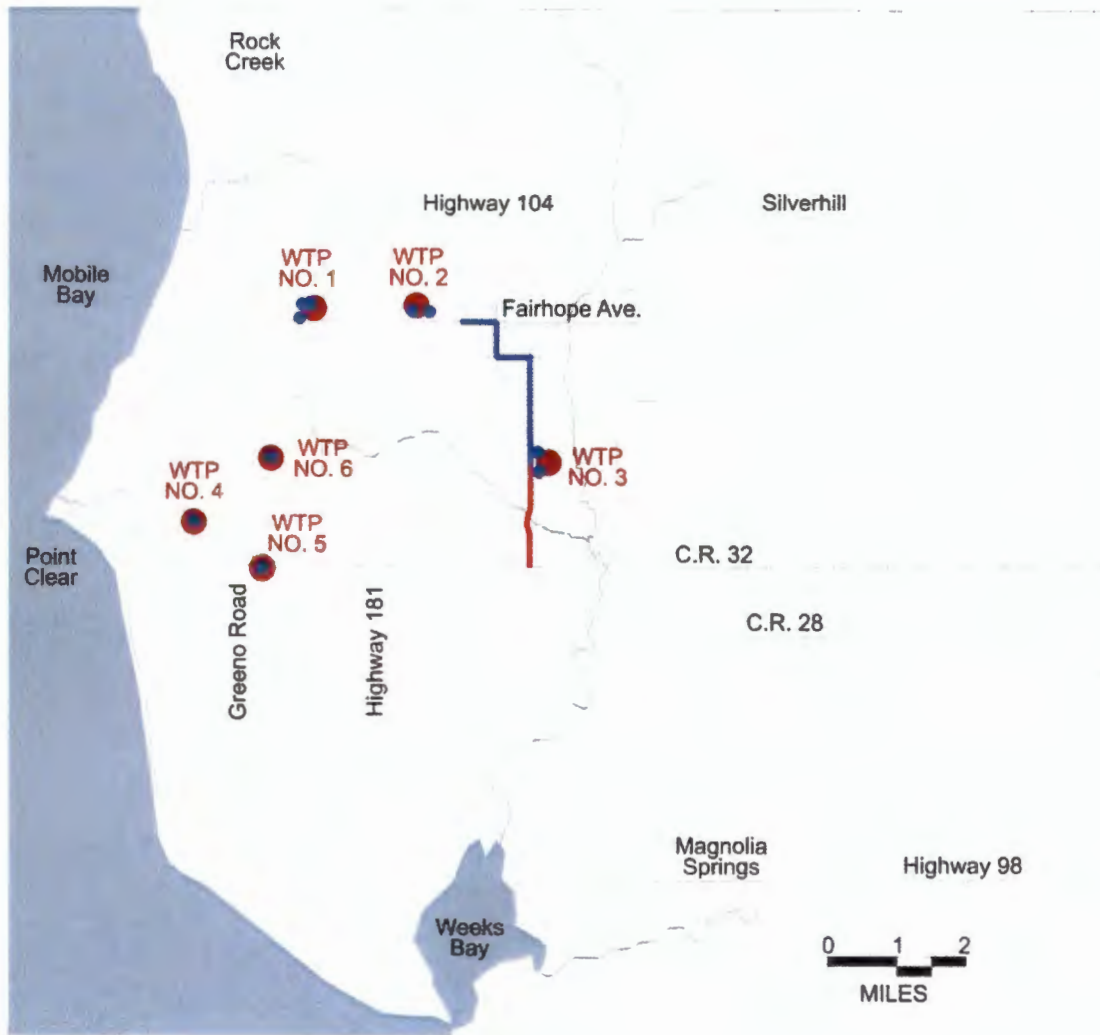
# HISTORICAL WATER DEMANDS - FAIRHOPE, ALABAMA



# PROJECTED WATER DEMANDS - FAIRHOPE, ALABAMA







## PHASE I WATER SYSTEM IMPROVEMENTS (UNDER CONSTRUCTION)

- WTP No. 3 Expansion
- Connection to Daphne
- 24-Inch Water Main
- 12-Inch Water Main

## **PHASE I WATER SYSTEM IMPROVEMENTS**



### **CONSTRUCTION PROGRESS FOR WATER TREATMENT PLANT NO. 3**

- Overall Project: 65% Complete
- FWPS Building: 90% Complete
- Concrete: 95% Complete
- Equipment: 90% Complete
- Electrical: 30% Complete
- March 2024 Completion

## PHASE I WATER SYSTEM IMPROVEMENTS



Photo from WKRG - Mobile

## CONSTRUCTION PROGRESS FOR CONNECTION TO DAPHNE WATER SYSTEM

- **Completed** in September
- 6" Connection Near High Demand Area
- Estimated of Capacity: 1 MGD (Approximate)
- No Pump Station Required  
(32' Difference in Elevation of Tanks)

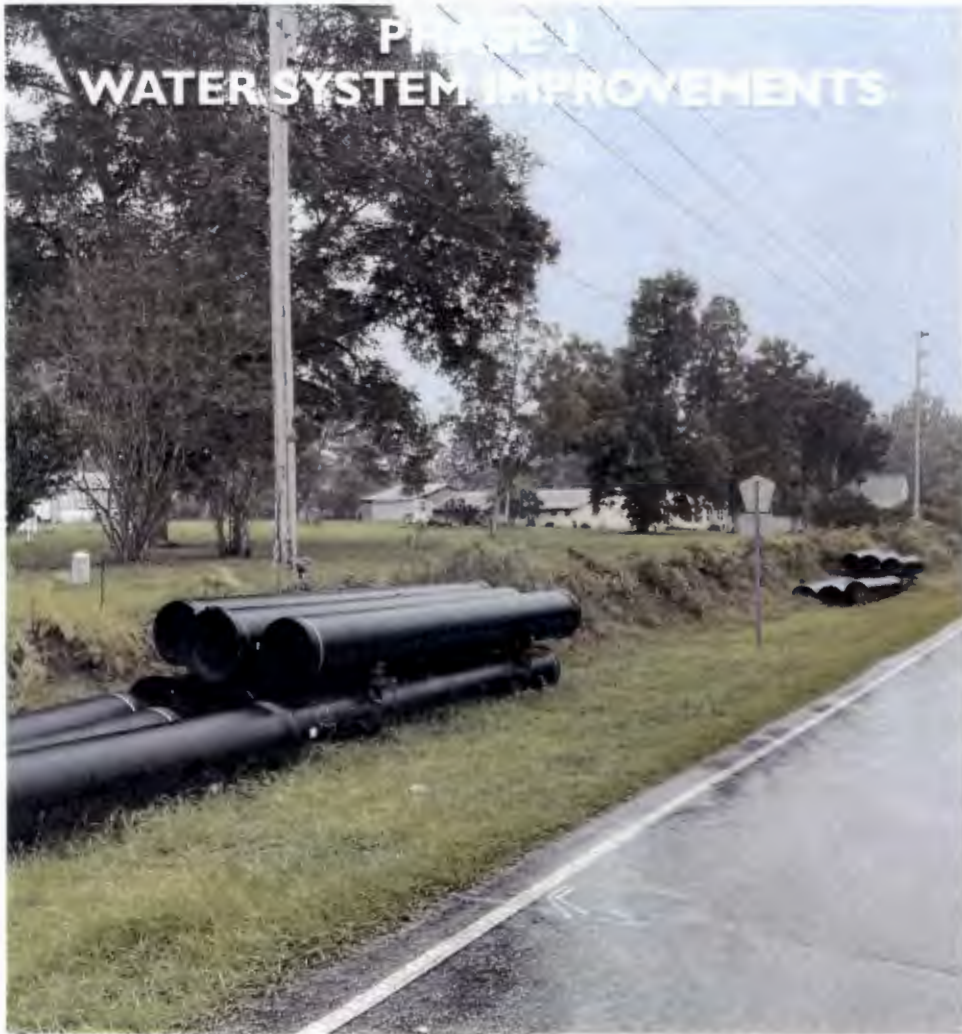


## **PHASE I WATER SYSTEM IMPROVEMENTS**



## **CONSTRUCTION PROGRESS FOR 24-INCH WATER MAIN**

- 24-inch Diameter Water Main
- Total Length = 19,900 Feet (3.8 Miles)
- \$6.5 Million
- 70% of Pipe has been Delivered
- 9,700 Feet (49% Of Total) Installed To Date
- Estimated Completion – March 2024



**KREBS**  
ENGINEERING

## CONSTRUCTION PROGRESS FOR 12-INCH WATER MAIN

- 12-Inch Diameter Water Main
- Total Length = 8,000 Feet (1.5 Miles)
- \$1 Million
- All Pipe Has Been Delivered except for HPDE for Creek Crossing
- Beginning Work this Month
- Estimated Completion - March 2024





## **WHAT TO EXPECT UPON COMPLETION OF THE PHASE I WATER SYSTEM IMPROVEMENTS?**

- Includes a New Well (No. 11) at WTP No. 3
- Will Increase WTP Capacity by Approximately 1.7 MGD
- Will Increase Total Water System Capacity from 9.2 MGD to 10.9 MGD
- Daphne Connection Can Be Used to Provide Additional Capacity





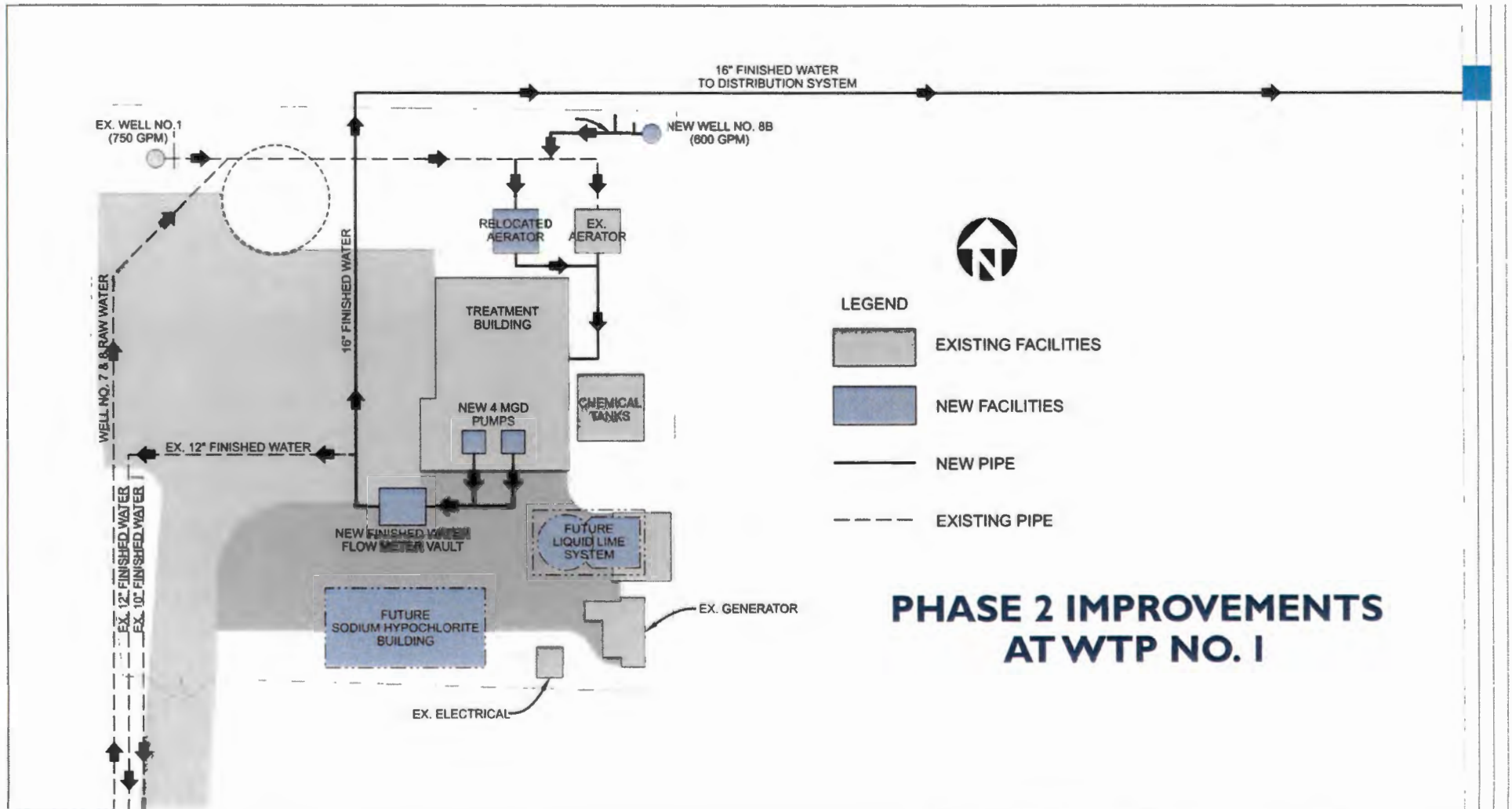
## **PHASE 2 WATER SYSTEM IMPROVEMENTS (MAY 2024 COMPLETION)**

- Develop New Well at WTP No. 1
- Expand WTP No. 1 Capacity
- Develop New Well at WTP No. 3
- Expand WTP No. 3 Capacity by 1 MGD
- Goal of Expanding Total System Capacity from 10.9 MGD to 13.8 MGD by May 2024



## PHASE 2 IMPROVEMENTS INCREASE CAPACITY AT WTP NO. 1

- Develop New 0.9 MGD Well
- Increase Tray Aeration Capacity
- Increase Finished Water Pump Capacity
- Increase Chemical Feed Capacity
- Increase Distribution Capacity Leaving the WTP
- Increase Treatment Capacity from 2.4 MGD to 4 MGD



## PHASE 2 IMPROVEMENTS AT WTP NO. 1

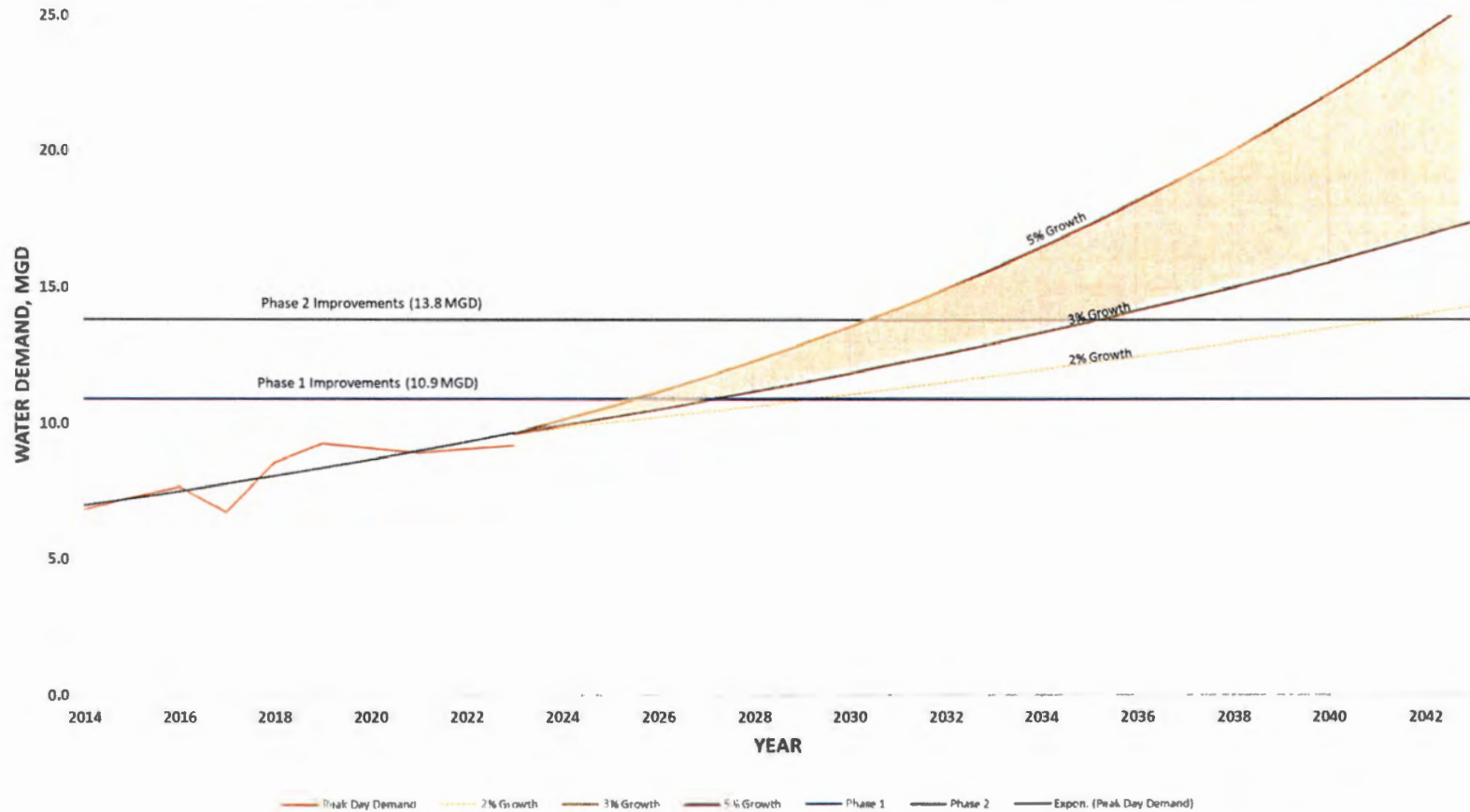


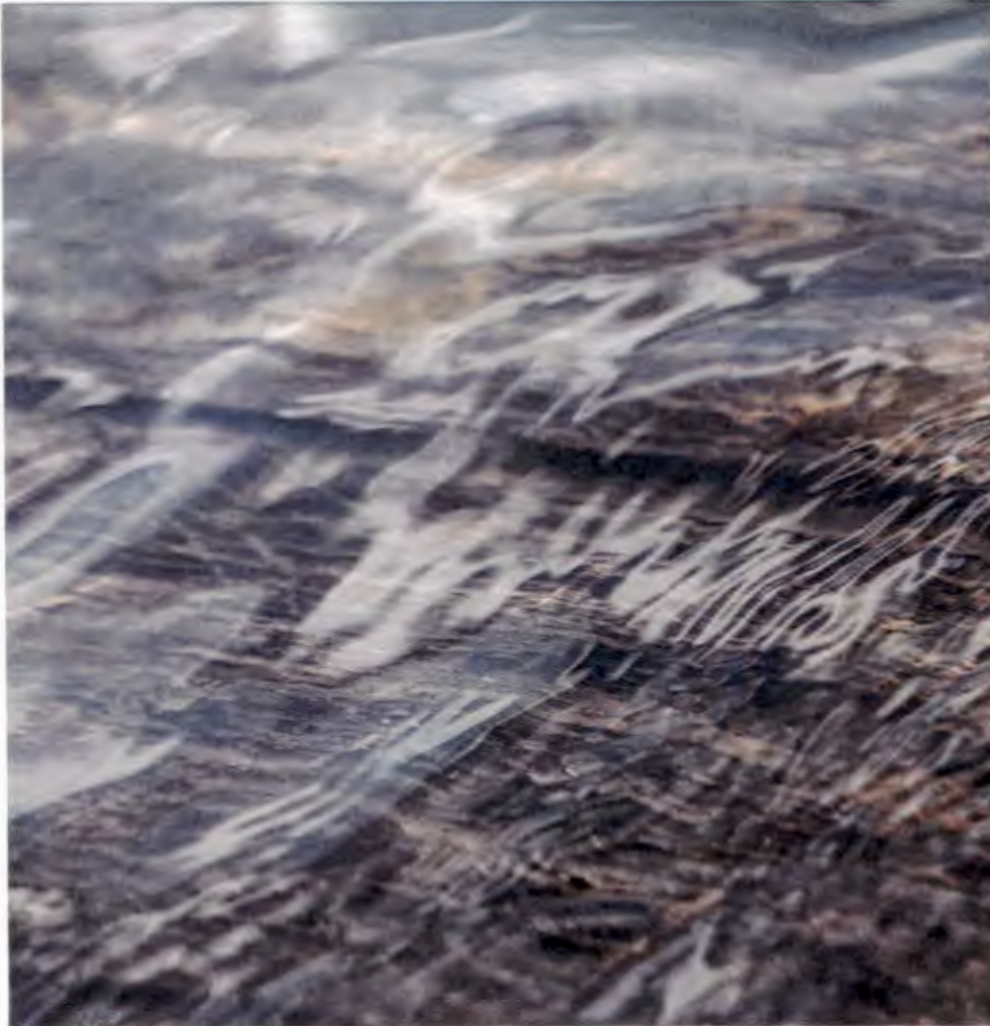


## **PHASE 2 IMPROVEMENTS AT WATER TREATMENT PLANT NO. 3**

- Develop 1 New Well
- Increase Finished Water Pump Capacity
- New Raw Water Transmission Main from New Well

# PROJECTED WATER DEMANDS WITH FUTURE IMPROVEMENTS - FAIRHOPE, ALABAMA





## PLANNING FOR FUTURE IMPROVEMENTS

- Water System Evaluation
- Hydraulic Modeling
- Pilot Well Exploration
  - Vicinity of St. Michael Way
  - Morphy Ave
  - Nichols Street
- Identify Recommended Water System Improvements
- Technical Memorandum to Summarize Water System Evaluation and Recommended Improvements



# QUESTIONS?

[KREBSENG.COM](http://KREBSENG.COM)