

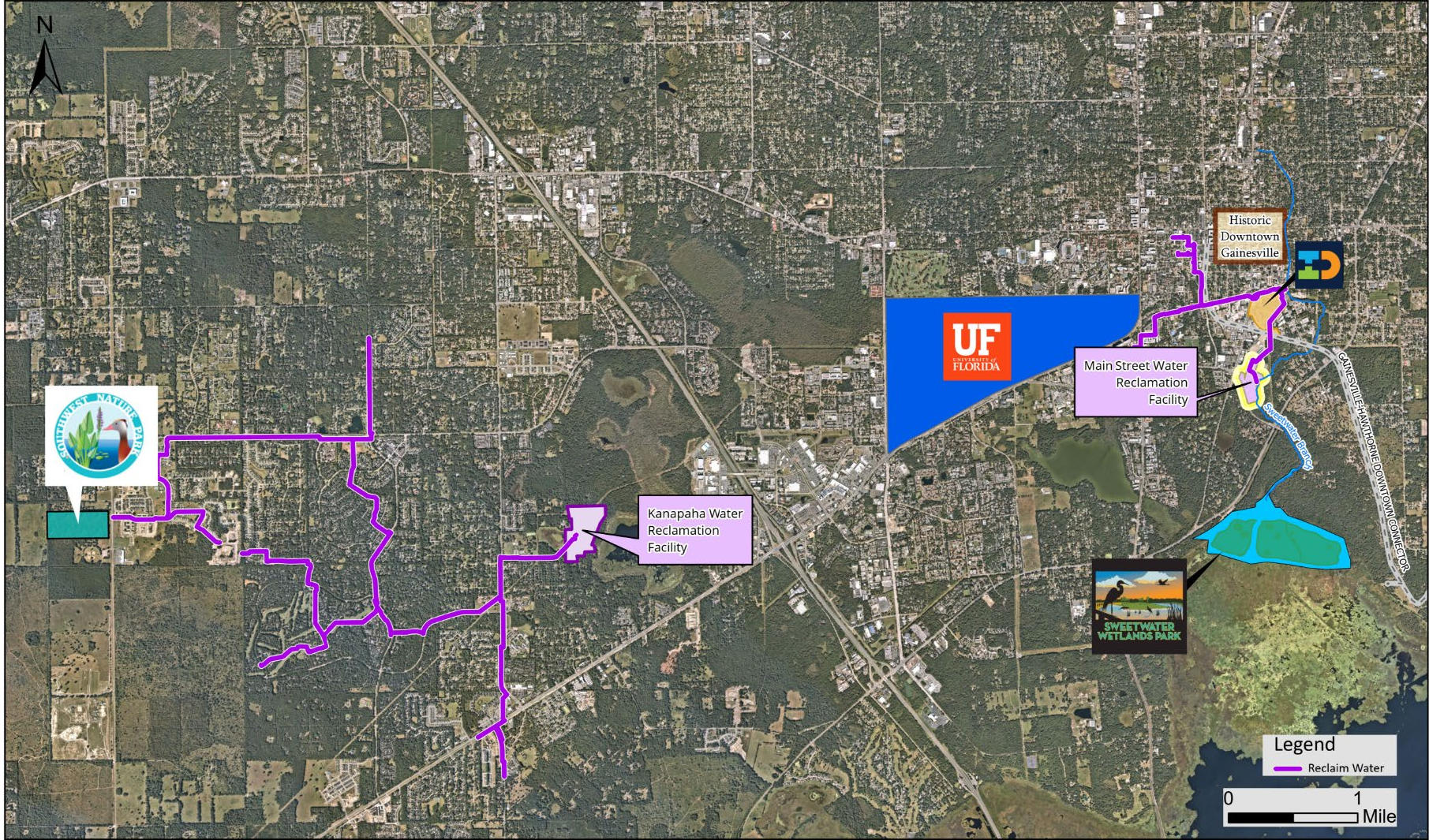
2023-856A

Update: Main Street WRF Capacity and Renewal Upgrade

September 7, 2023



Water Reclamation and Reuse



Capacity and Renewal Upgrade: Overview

- Capacity
- Aging Infrastructure
- Operations & Maintenance
- Water Quality
- Reliability/Redundancy

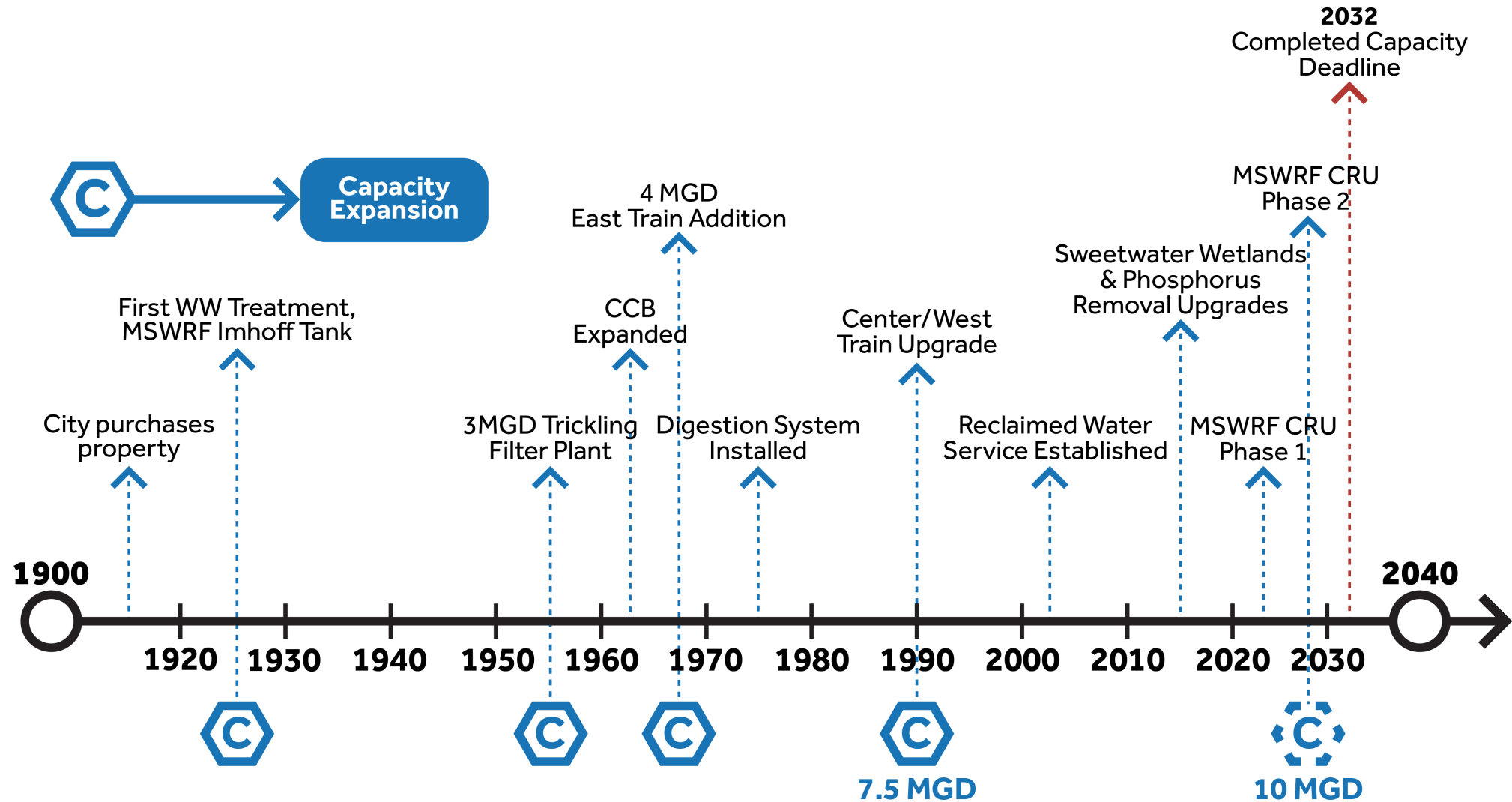


Capacity and Renewal Upgrade

Table of Contents

- **Timeline**
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- **Planning Phase**
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- **Inflation**
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- **Future**
- **Recommendation**

Main Street WRF Timeline



Capacity and Renewal Upgrade: Goals

Value to Customer

- Lower O&M costs per MGD = Lower rate pressure
- Meet Future capacity needs on-site

Sustainability

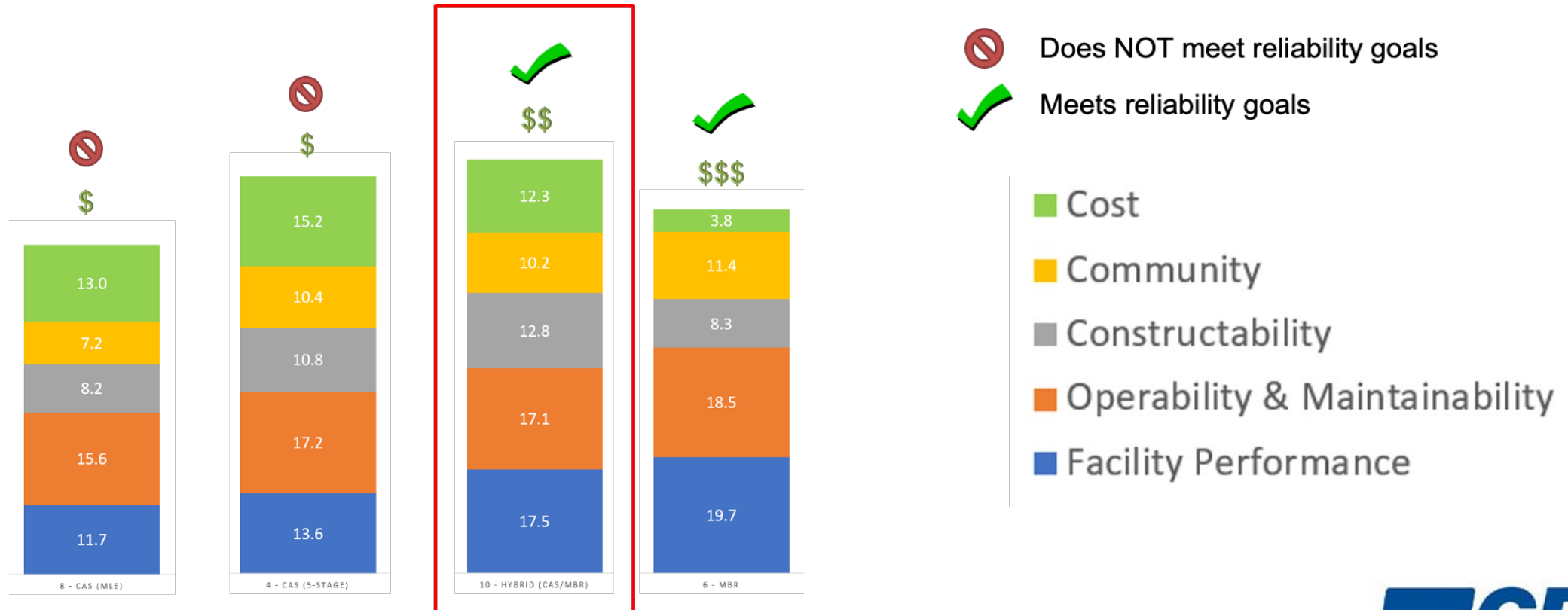
- Improves capacity for downtown/east growth
- Improves water quality
- Efficient equipment
- reduces chemicals and trucking

Reliability

- Maintains 24/7/365 wastewater treatment service
- Replaces aging equipment/basins
- Increases maintainability of facilities under flow/operation

Capacity and Renewal Upgrade: Planning Phase

1. Investigated 12 treatment technology combinations for facility
2. Selected four highest-scoring alternatives

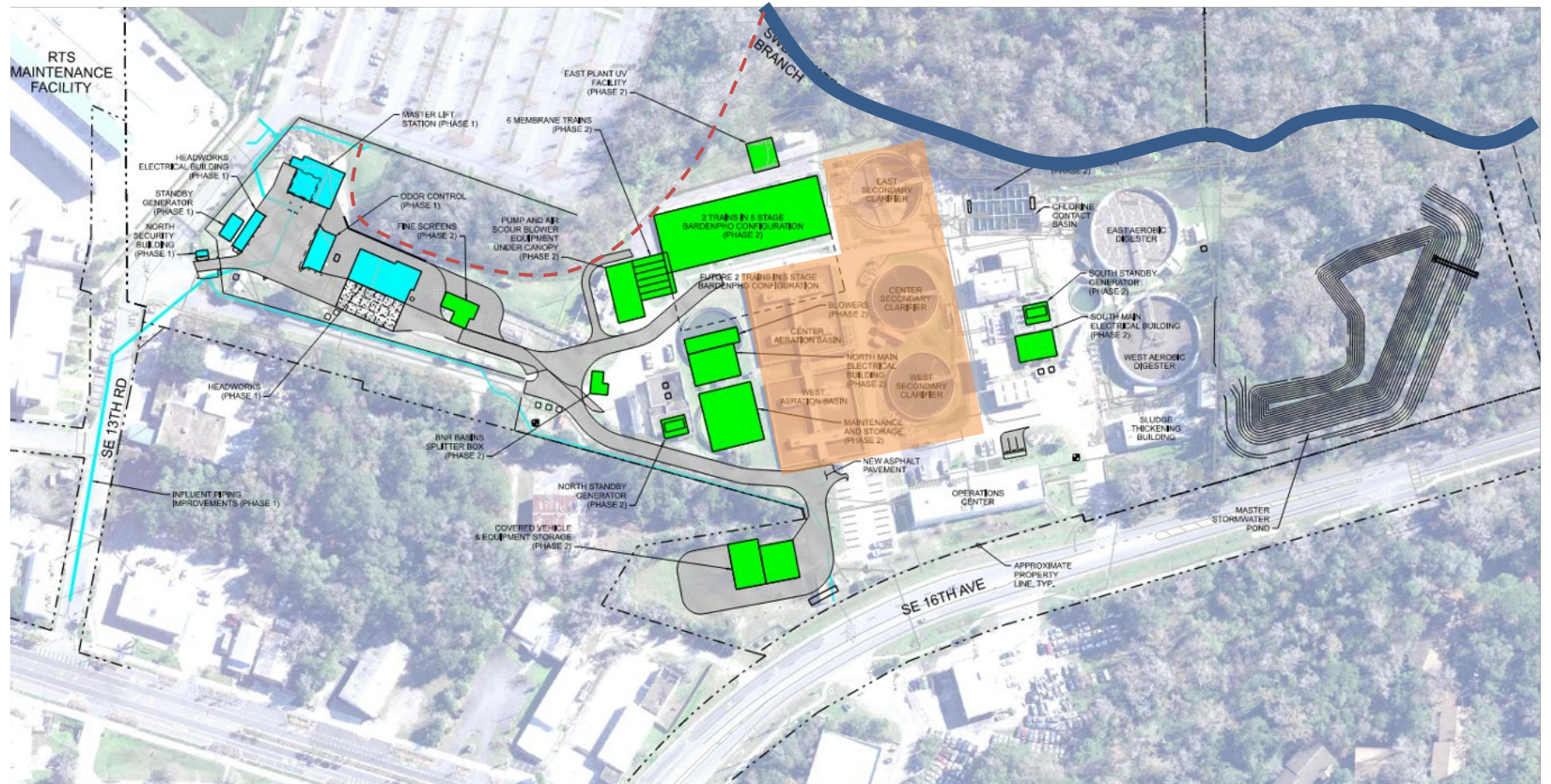
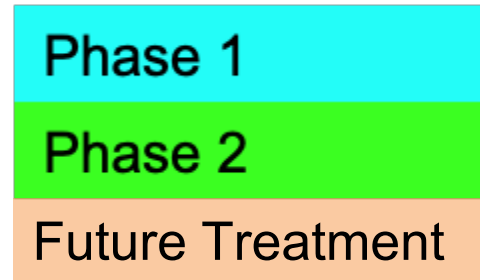


Capacity and Renewal Upgrades: Planning Phase (Hybrid)

Hybrid offers best solution to meet goals/future needs

- Optimal balance of performance and cost
- Meets capacity requirements for population growth
- Meets redundancy and reliability goals
- Beneficial use of existing 1990s equipment
- Introduces new MBR technology
- Meets future treatment needs
- Replaces 1967 concrete structures and equipment

Capacity and Renewal Upgrade: Planning Phase



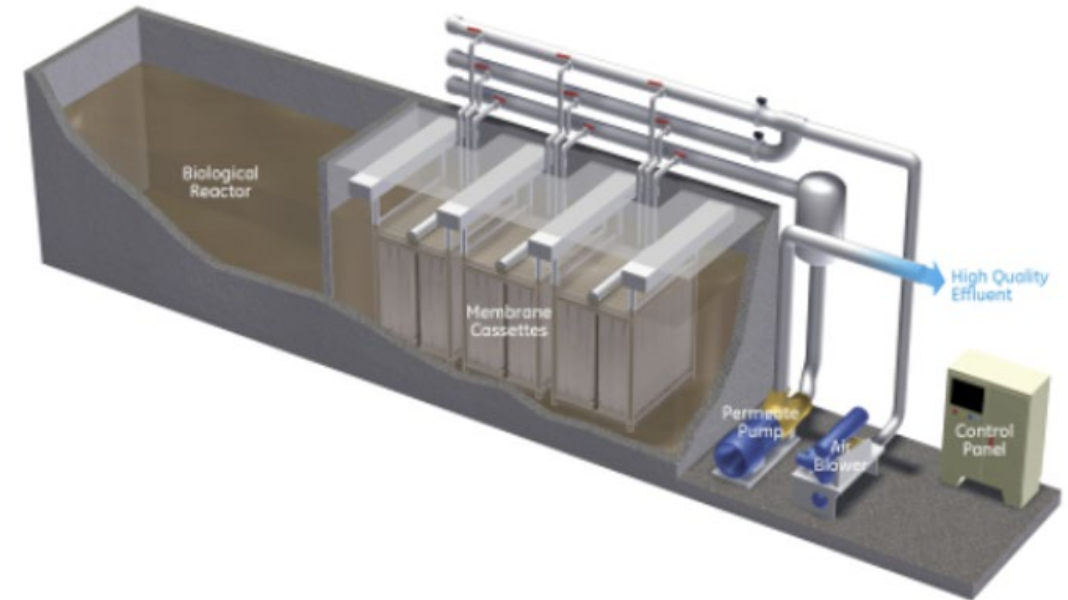
Capacity and Renewal Upgrade: Phase 1 Scope

- Sized for expansion from 7.5 to 10 MGD
- Gravity collection system upgrades
- Master lift station
- Screening
- Grit removal
- Odor control
- Electrical building and stand-by power
- Safety and security improvements



Capacity and Renewal Upgrade: Phase 2 Scope

- Membrane bioreactor (MBR) treatment basin
- MBR pumps/blowers
- UV disinfection for MBR
- Electrical buildings and stand-by power
- Stormwater treatment improvements
- Operational facility improvements
- Safety and security improvements



Capacity and Renewal Upgrade: Schedule

Planning Phase Complete – April 2022

Kicked off Design - May 2022

Phase 1 Final Design - December 2023

Phase 1 Construction March 2024 – June 2026

Phase 2 Design – August 2023 - July 2024

Phase 2 Construction Completion - TBD

Capacity and Renewal Upgrade: Inflationary Pressures

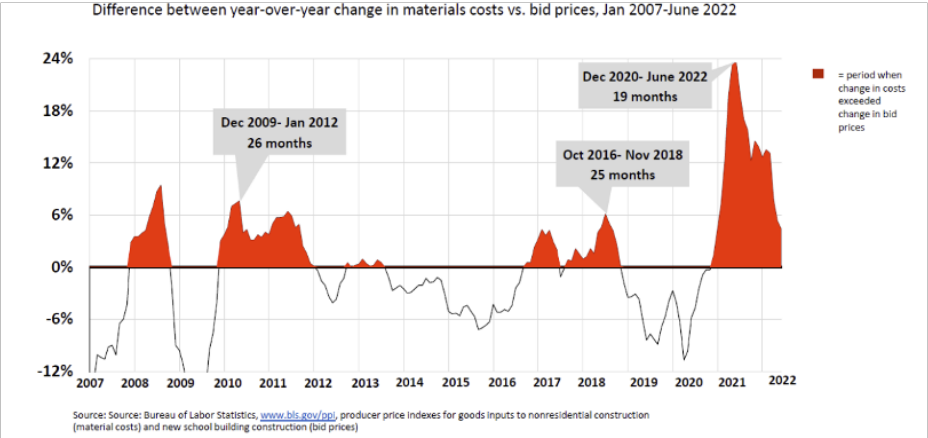


AGC
THE CONSTRUCTION
ASSOCIATION

JULY

2022

**CONSTRUCTION
INFLATION ALERT**



THE WALL STREET JOURNAL.
FRIEDMAN, NICHOLS & CO. 1821 - VOL. CXXV, NO. 10
\$5.00

What's News
Business & Finance
China's economy, food and...
in 2021...
in 2021...

Inflation Reaches 40-Year High Of 7.9%

THE WALL STREET JOURNAL.
THURSDAY, JULY 14, 2022 - VOL. CXXV, NO. 11
\$5.00

What's News
Business & Finance
U.S. consumer inflation...
in 2021...
in 2021...

Inflation Hurtles to Highest Since '81

Consumer price index for all urban consumers
12-month change ended in June

Consumer 39.9%

July 2022 8.0%

June 2022 7.9%

June 2021 0.9%

June 2020 0.1%

June 2019 0.2%

June 2018 0.1%

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Capacity and Renewal Upgrade: Funding

- Phases 1 & 2 included in 10-year capital improvement and debt-reduction plans
- Phase 2: Proceed with design, submit for grant funding, return for approval

	Goals Addressed	Description	GRU Share	Grant Funding	Est. Total Cost
Phase 1	Sustainability Reliability	Influent Piping Master Lift Station Headworks Odor Control	\$27.5M	\$22.5M	\$50M
Phase 2 (Conceptual)	Value to Customer Sustainability Reliability	Fine Screening Biological Treatment Clarification/Disinfection Other Site Improvements	TBD	TBD	\$100M- 110M
Total Investment			TBD	\$22.5M+TBD	\$160M

Capacity and Renewal Upgrade: Future

- Continue with design and construction of Phase 1 for \$50M
- Execute grant agreement for Phase 1, \$22.5M
- Pursue grant funding for Phase 2 (2023/2024)
- Complete design for Phase 2 (2024)
- Seek approval for additional contract value of Phase 2 (2024)

Capacity and Renewal Upgrade: Recommendation

Authorize the General Manager, or his designee, to execute a grant agreement with FDEP to accept \$22.5M in grant funding for Phase 1 of this project subject to form and legality.