IMPROVING LIVES. BUILDING COMMUNITY. to be the best utility in the nation

CAPITAL PROJECTS COMMITTEE

JEA Headquarters | 1st Floor | Room 120-A | 225 North Pearl Street, Jacksonville, FL 32202
August 12, 2024 | 10:00 - 12:00 pm
Members: John Baker (Chair), Rick Morales, and Dr. Zachary Faison, Jr. - All Board Members are Welcome

WELCOME

Meeting Called to Order Adoption of Agenda **(Action)**	John Baker, Chair
Safety Briefing	Raynetta Curry Marshall, Chief Operating Officer

COMMENTS / PRESENTATIONS

Comments from the Public (3 Minutes Each)	Public

FOR COMMITTEE CONSIDERATION

DELIVERING BUSINESS EXCELLENCE

Meeting Overview	Raynetta Curry Marshall, Chief Operating Officer
Arlington East Water Reclamation Facility Expansion Phase 2 - Construction Phase	Hai Vu, Vice President, Water/Wastewater Systems
Southside Integrated Piping System - Construction Phase **(Action)**	Elizabeth DiMeo, P.E., Senior Manager, Project Engineering & Construction
H2.O Program Overview and Purification Center - Construction Phase **(Action)**	Ryan Popko, Manager, Water/Wastewater Engineering
Northwest Water Reclamation Facility - Planning Phase	Raynetta Curry Marshall, Chief Operating Officer
Combined Cycle Update - Design Phase	Ricky Erixton, Vice President, Electric Systems Kevin Holbrooks, Director, Environmental Operations
Transmission Study Overview - Planning Phase	Ricky Erixton, Vice President, Electric Systems
Major Capital Projects List	Raynetta Curry Marshall, Chief Operating Officer

OTHER BUSINESS AND CLOSING CONSIDERATION

Old and Other New Business/Open Discussion
Announcements - Next Capital Projects Committee Meeting - November 7, 2024
Adjournment

SUPPLEMENTAL INFORMATION

Appendix A: Capital Projects Committee Meeting Minutes - May 14, 2024
Appendix B: Arlington East Water Reclamation Facility Expansion Phase 2 - Construction Phase
Appendix C: Southside Integrated Piping System Greenland Contract Amendment - Construction Phase
Appendix D: H2.O Program Overview and Contract Amendment - Construction Phase
Appendix E: Northwest Water Reclamation Facility - Planning Phase
Appendix F: Combined Cycle Update - Design Phase
Appendix G: Transmission Study Overview - Planning Phase
Appendix H: Major Capital Projects List


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CAPITAL PROJECTS COMMITTEE
AUGUST 12, 2024
IMPROVING LIVES...BUILDING COMMUNITY

Pearl Street Exit

Monroe Street Exit
Left of the American Flag

County Courthouse Lawn

Safety Briefing
Headquarters

In the event of an emergency, JEA Security will call 911 and coordinate any required evacuation

Emergency Evacuation Route: Exit building via Pearl Street main entrance/exit or Monroe Street exit to the left of the American flag

Assembly Point: Front of Duval County Clerk of Courts (NW corner of Adams St. & Clay St.)

Evacuation or Medical Assist: Notify JEA Security Officer

Hazard & Situational Awareness

Cell Phone & Computer Etiquette

Comments From The Public

Chair Baker

Improving Lives...Building Community

MEETING OVERVIEW

- Arlington East Water Reclamation Facility Expansion Phase 2 - Construction Phase
- Southside Integrated Piping System (SIPS) - Construction Phase (Action)
- H2.O Program Overview and Water Purification - Construction Phase (Action)
- Northwest Water Reclamation Facility - Planning Phase
- Combined Cycle Update - Design Phase
- Transmission Study Overview - Planning Phase
- Major Capital Projects List

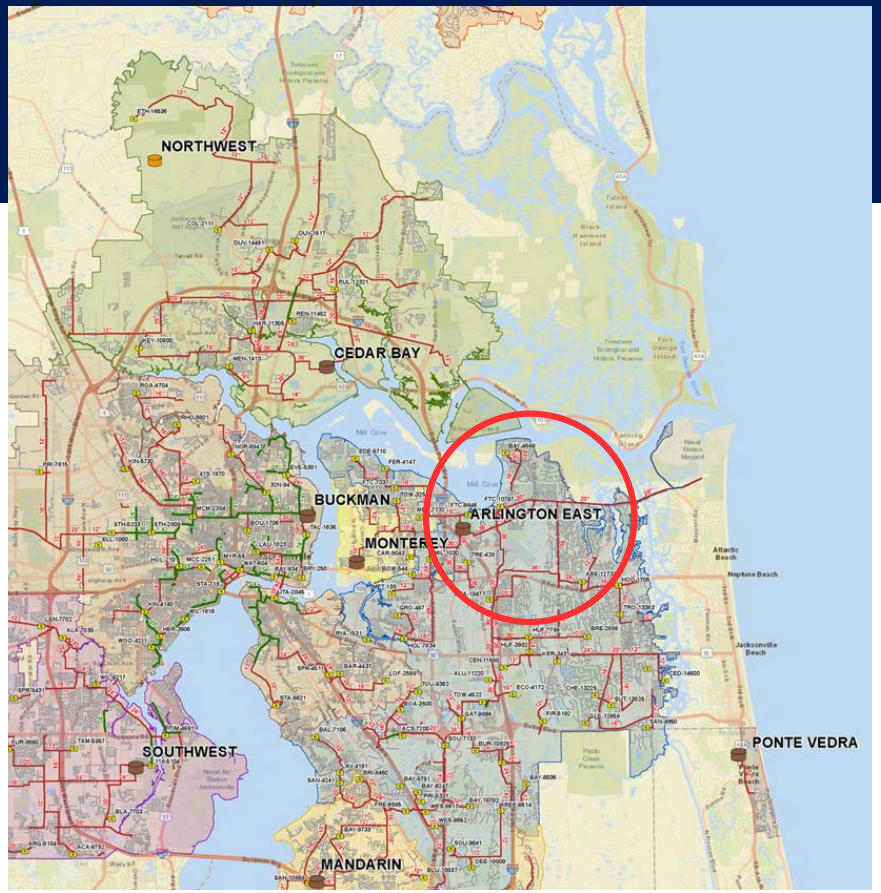
Arlington East WRF

Arlington East Water Reclamation Facility (WRF) Expansion Phase 2 - Construction Phase

Hai Vu, Vice President
Water Wastewater Systems

Arlington East WRF
Background

- Built in 1976
- Second largest WRF - Treating 20 million gallons per day (MGD)
- Will serve as the source of water for the H2.0 Purification Center
- Phase 1 expansion was completed for $19.5M from 2015 - 2020



Arlington East WRF
Phase 2 Upgrades

Upgrades:

- Influent Structure
- Aeration Basin, Primary Clarifier, and Blowers

Delivery Method: Design-Bid-Build

Designer: Hazen and Sawyer

Bid Date: January 2024

Reponses: 1 Bid Received from Wharton-Smith for $96,857,000
(20% higher than estimate)

May 14, 2024 Capital Projects Committee Feedback:

- Re-bid the project, extending the invitation to a broader audience to seek additional competition

Arlington East WRF - Three Bid Options

Follow-up to May 14, 2024 Capital Projects Committee Meeting

Option 1	Option 2	Option 3
Re-Bid the Project with Enhanced Marketing	Break the Project Into Two Projects and Bid Separately 1. Influent Structure 2. Aeration Basin & Blowers	Request For Proposal - Evaluated Bid

Arlington East WRF
Actions

Actions

Staff is pursuing both Options 1 (rebidding via IFB) and Option 3 (rebidding via Evaluated RFP)

- Issued Request for Information
- Benchmarked with other Florida utilities that have built WRF recently for bidders list, procurement methods and lessons learned
- Reached out to 12 large contractors
- Will hold informational meetings with individual contractors prior to advertising
- Will advertise the project with a longer response period: 2-3 months
  - Will publish solicitation to national project marketing sites such as DemandStar
  - All issues or questions from the previous solicitation will be addressed in the re-bid

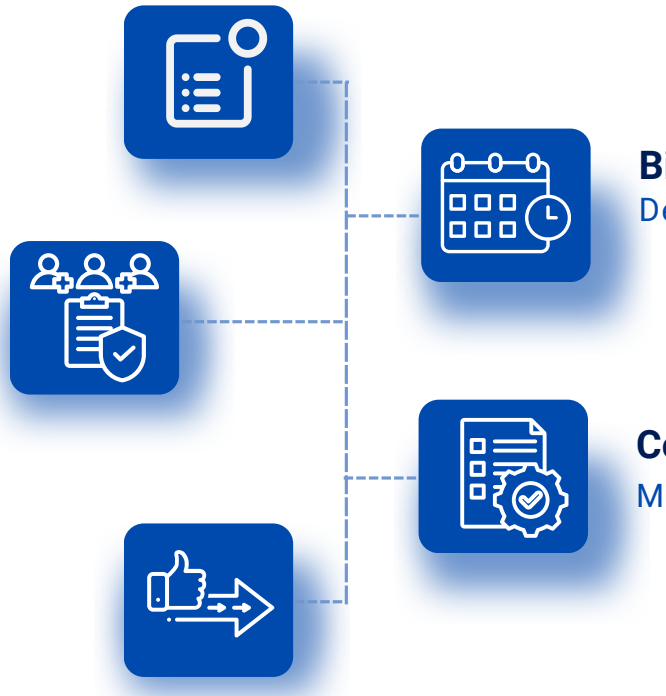
Arlington East WRF

Tentative Timeline

Advertisement
August/September 2024

Review & Approval by Committee
February 2025

Notice to Proceed
April 2025



Bids Due
December 2024

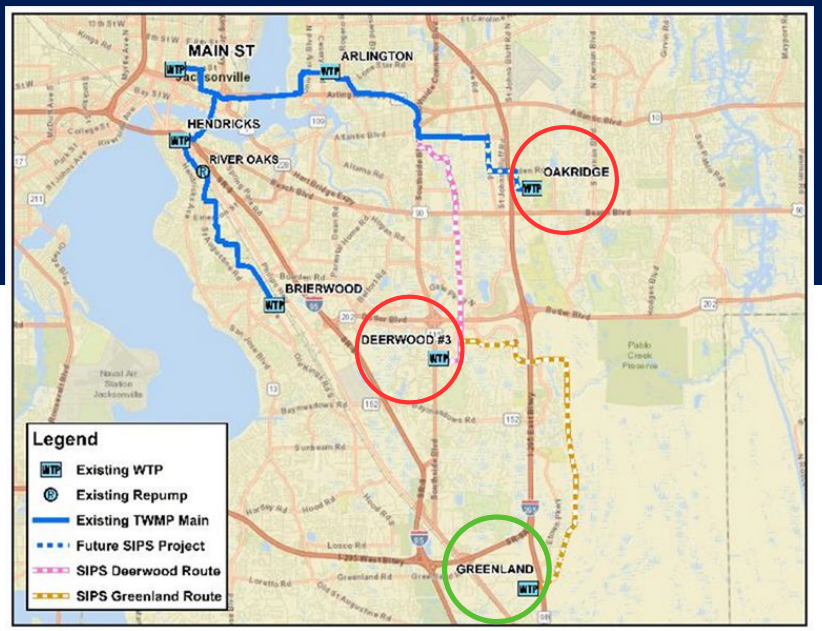
Contract Execution
March 2025

Southside Integrated Piping System (SIPS) - Construction Phase

Elizabeth DiMeo, P.E.
Senior Manager, Project Management

Action

SIPS Program
Overview



The Program will deliver raw water from the Main Street WTP (North Grid) to the South Grid to meet future water demands. Program consists of the following:

Deerwood WTP

- 35,000 linear feet of 30” water main, 3,900 linear feet of 24" raw water main, 3,500 linear feet of 6" water main, 225 linear feet of 4" water main
- Design-Bid-Build delivery method and total project budget $41.7M
- Scheduled to be in service October 2024

Greenland WTP

- 41,500 linear feet of 30” water main, 1.1-million-gallon ground storage tank, 1,200 linear feet of 24" force main, and 13,000 feet of 30" reclaim water main
- CMAR delivery method and total project budget $86.7M
- Project is 28% complete and scheduled to be in service in April 2026

Oakridge WTP

- 3,000 linear feet of 30” water main
- Total project budget $13.4M, Delivery Method TBD
- Project is forecasted to commence design FY28

Water Treatment Plant - WTP | Construction Manager At Risk - CMAR

SIPS Greenland WTP
Project Progress

Delivery Method: CMAR

CMAR: Garney Companies

Awarded: August 2022

Current Contract Amount: $53.6M

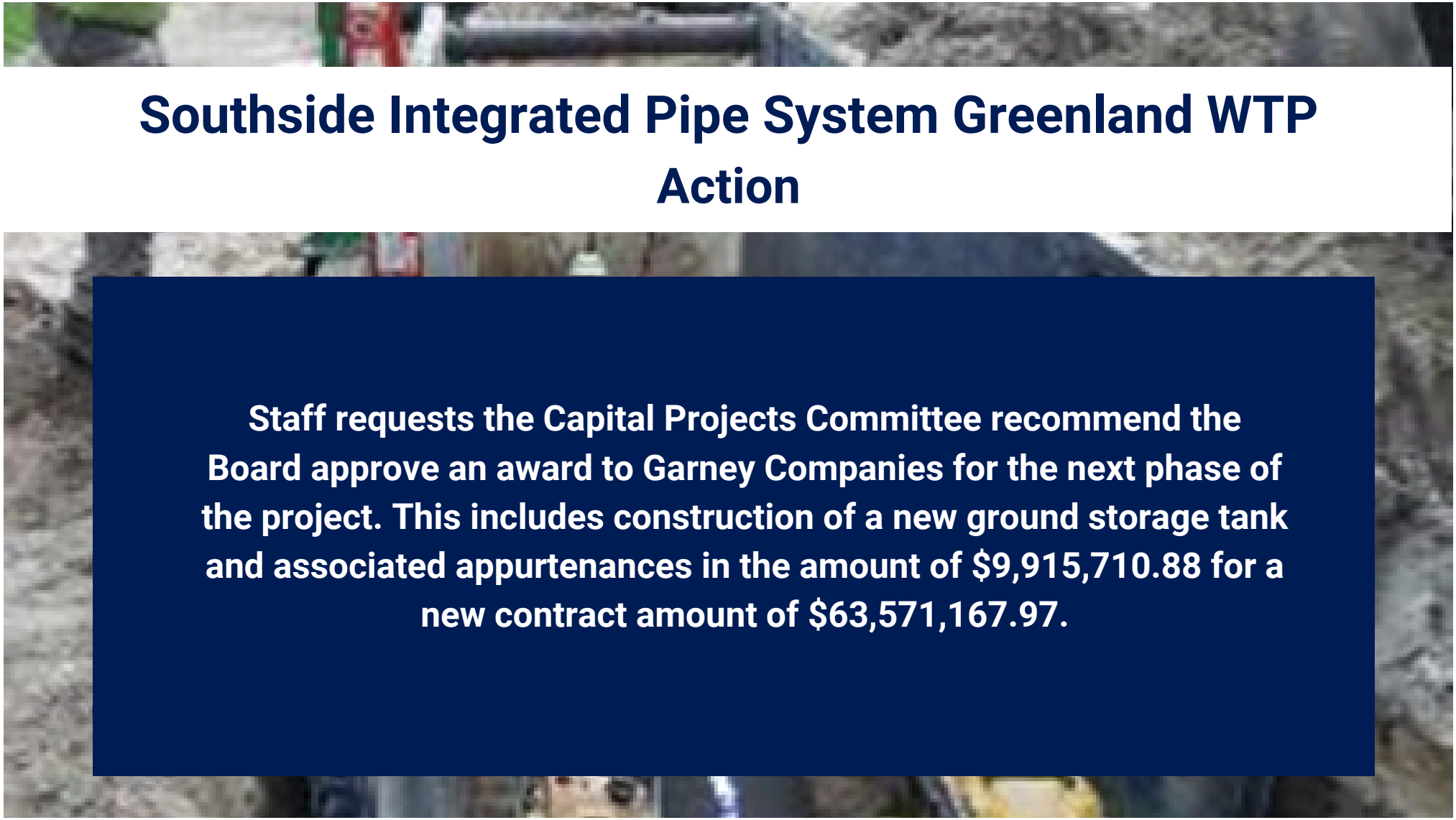
Work completed to date:
- 9,560 LF of 30” water main installed
- 1,190 LF of 24” force main installed

Construction Completion: 28%

Projected Final Completion: April 2026

Request: Approve $9,915,710.88 to construct the ground storage tank and associated appurtenances

Southside Integrated Pipe System Greenland WTP Action



Staff requests the Capital Projects Committee recommend the Board approve an award to Garney Companies for the next phase of the project. This includes construction of a new ground storage tank and associated appurtenances in the amount of $9,915,710.88 for a new contract amount of $63,571,167.97.

H2.O Program Overview and Purification Center - Construction Phase

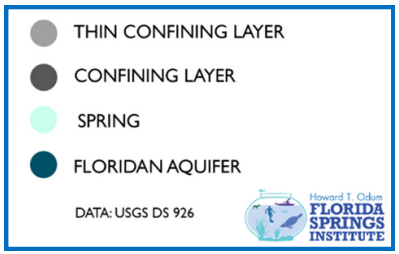
Ryan Popko, Manager, Water/Wastewater Engineering

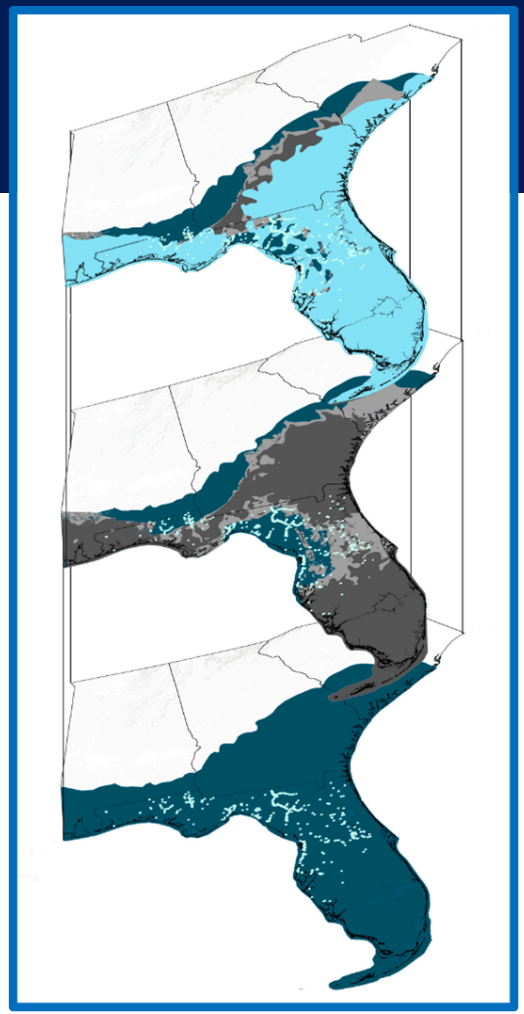
Action

Program Background

JEA Water Supply

- JEA's sole source of water supply is the Floridan aquifer
- The aquifer is a finite resource & demand growth is approaching the permitted withdrawal limit





Water Supply Sustainability Tools

- Water Conservation
- Reclaimed Water
- Water Purification

JEA's Water Purification Program

PLANNING FOR THE 3-PHASE MULTI-YEAR PROGRAM BEGAN IN 2014

2016-2019 — **PHASE I Pilot Testing**

- Technology Evaluation
- Ensure Protection of Public Health
- Communications Plan Development

2019-2025 — **PHASE II Demonstration**

- Optimize Performance
- Staff Training
- Visitor Center for Outreach & Education

TBD — **PHASE III Implementation**

- Full-scale
- Expandable as Demands Increase
- Aquifer Replenishment

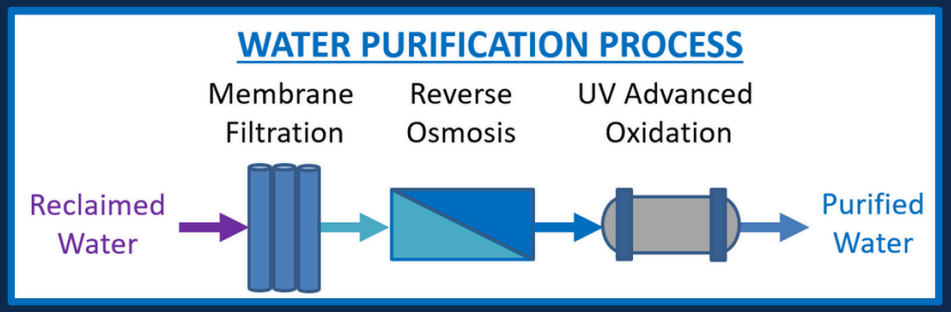
H2.0 Purification Program

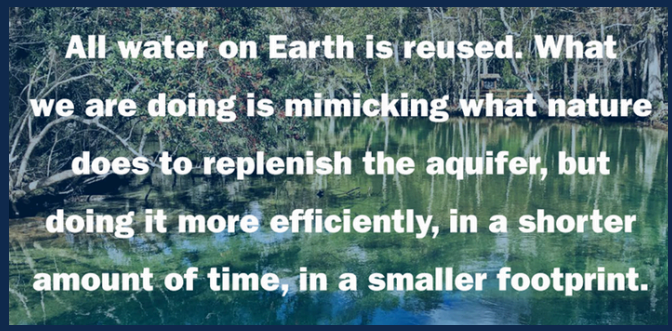
What is Water Purification?

- Purifies reclaimed water to drinking water quality so it can be used to replenish the aquifer
- Consists of a combination of established and industry-leading treatment methods
- Multi-barrier purification process ensures safety and produces water so pure that minerals need to be added in before use

Purification Center

- Project centrally located in JEA South Grid – Deerwood area
- 1 million gallon per day capacity
- Sizing allows JEA to train staff on full-scale equipment
- Separate room for pilot testing
- Visitor Center for public education





H2.O Purification Program

Benefits

- Most economical water supply option available
- Long-term water supply resiliency
- Increases the quantity and improves the quality of the aquifer supply
- Mitigates water supply scarcity for future generations
- Reduces the volume of water conveyed to the St. Johns River

H2.0 Purification Center
Project Progress






Delivery Method: Progressive Design-Build

Design/Build Team: Awarded to Haskell Company and Black & Veatch in October 2019

Board Approved Property Purchase: September 2021

Construction Status: 30% Complete

Final Completion Scheduled: October 2025

Current Contract Amount: $78.9M

Request: Approve $4,639,615 for a degasification & remineralization system, associated appurtenances and finishes

H2.O PURIFICATION CENTER

Action

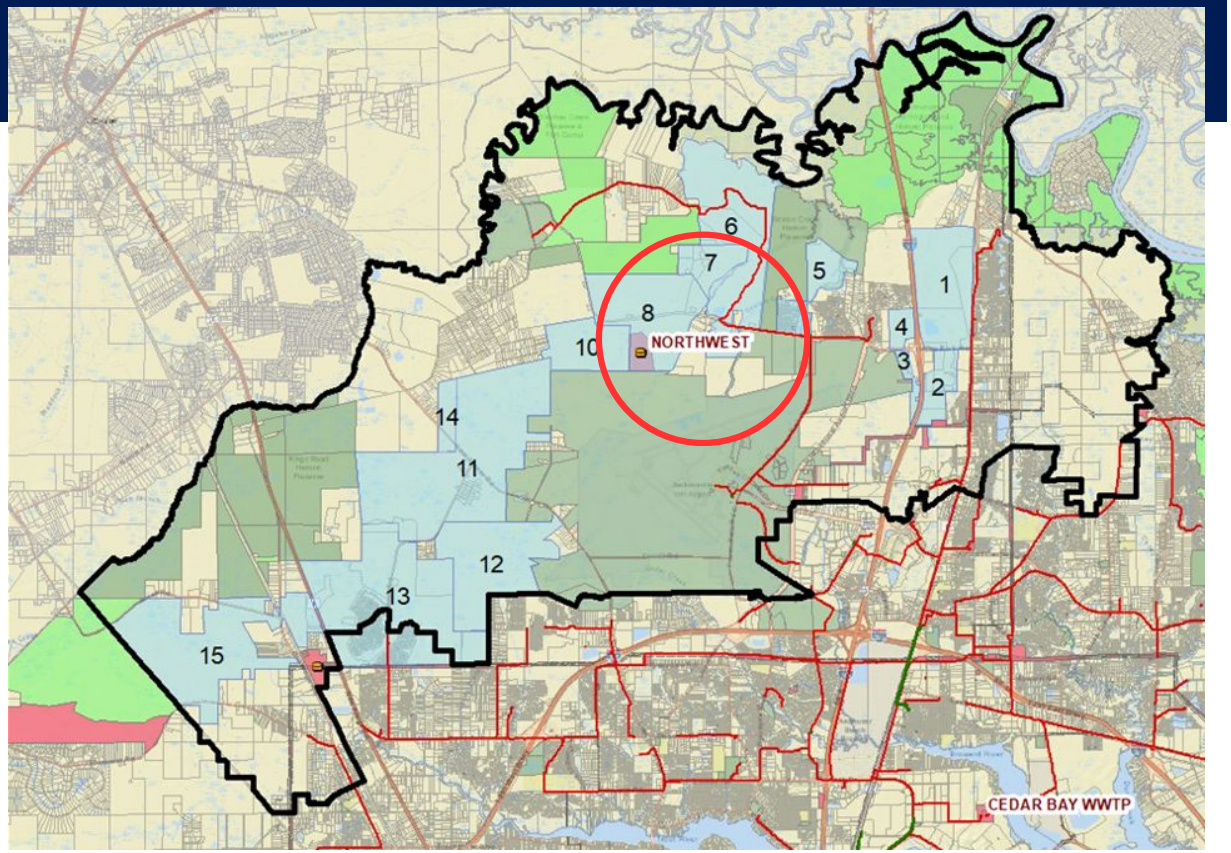
Staff is requesting the Capital Projects Committee recommend the Board approve an award to the Haskell Company for the H2.0 Purification Center. This award includes the construction of the planned and newly designed Degasification & Remineralization system, associated appurtenances, and finishes in the amount of $4,639,615 for a new contract amount of $83,506,772.37.

Northwest Water Reclamation Facility - Planning Phase

Raynetta Curry Marshall, Chief Operating Officer

Northwest WRF
Background

- Due to the continued growth in Duval County, the plant is needed to continue to meet the current flow projections
- Initial size of the facility - 2 MGD
- Planning Level Estimate - $120M
- Projected to be online by December 31, 2028
- Final build capacity - 9 MGD



Northwest WRF
Design Services Procurement Strategy

Engineer: Hazen and Sawyer

Design Services To Be Awarded in Three Phases

Phase 1

Preliminary Design for Short and Long Term Implementation
- Current Award Amount is $2,422,299

Phase 2

Detailed Design
- Construction delivery method to be determined

Phase 3

Post Design Services
- Construction request for information and specialty inspection support

Staff will bring this item back to the Committee in November/December 2025

Combined Cycle Update - Design Phase

Ricky Erixton, Vice President, Electric Systems

Kevin Holbrooks, Director, Environmental Operations

Brandy Branch Generating Station

COMBINED CYCLE UPDATE OUTLINE

- Plan Overview
- New Greenhouse Gas (GHG) Rules
- Market Test Considerations

Brandy Branch Generating Station

Significant Activities and Milestones

Determination of Need
Prepare testimony and exhibits demonstrating the need for the proposed generating unit subject to applicable statutory regulatory requirements

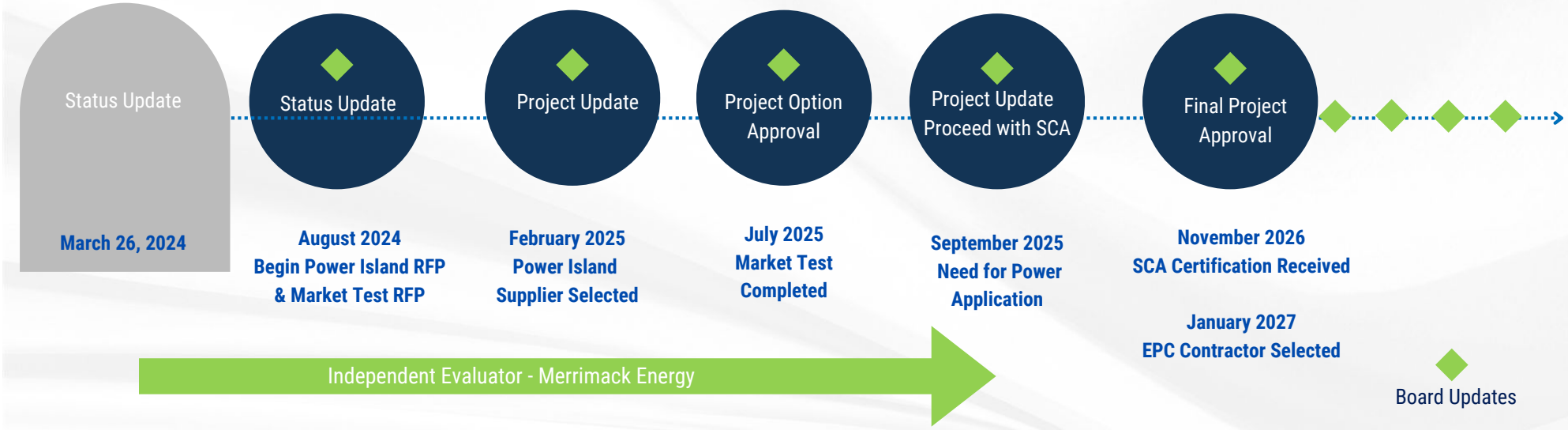
Market Test
Seek long-term capacity and energy resources by requesting proposals from the market

Site Certification Application (SCA)
Environmental permitting and other tasks for site certification of a new power plant

Power Island Selection
Select the best power island equipment for JEA's projected needs- self build

Engineer Procure Construct (EPC) Contractor Selection
Determining and selecting the best EPC contractor

Construction Execution
Mobilization of the EPC contractor through demobilization



Greenhouse Gas Rules

New Combined-Cycle Units

- Capacity factor limited to 40% beginning in 2032 if no carbon capture

New Simple-Cycle Units

- Capacity factor limited to 20%, but may be able to operate up to 40% at expense of operational and fuel flexibility

Existing Coal Units

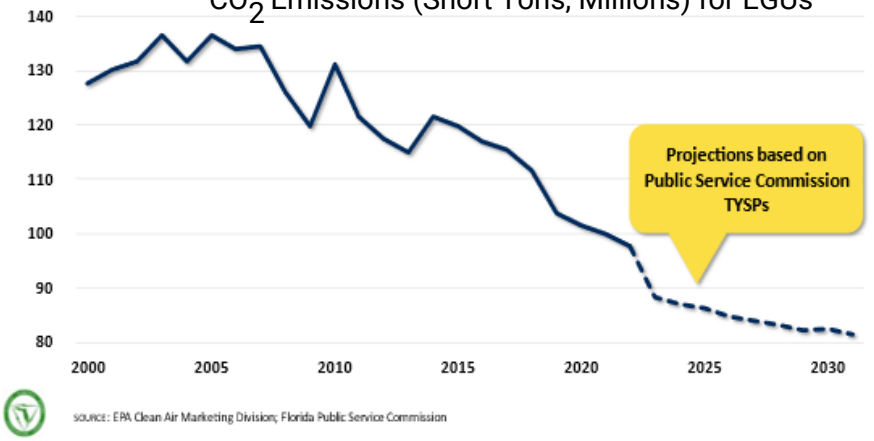
- Gas conversion before 2030, or carbon capture before 2032, needed to operate in 2039 and after
- Gas co-firing before 2030 needed to operate in 2032 and after, but retirement required before 2039

Other Considerations

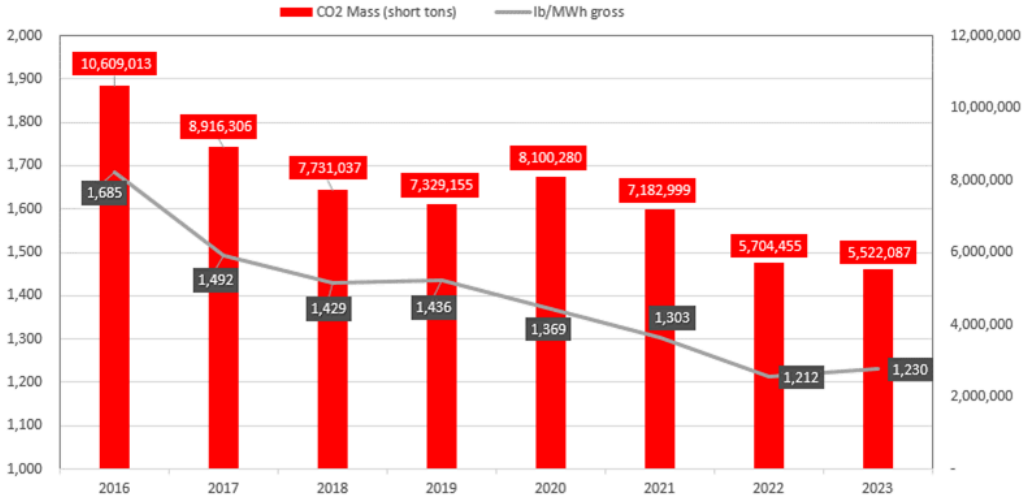
- Multiple legal challenges and stay requests have been filed by states, utilities, and industry groups

Florida's Electric Generating Units (EGU) Have Made Substantial Mass Reductions

CO_2 Emissions (Short Tons, Millions) for EGUs



JEA's Annual CO2 Mass Emissions and Rates



Greenhouse Gas Rules

Potential Impacts to JEA - State Implementation Plan Due May 2026

Existing Units

- Compliance date is January 2030 or later
- Impacts Northside Generating Station Units 1 and 2
  - Options include retirement in 2032 or conversion of one or both units to 40% gas cofiring to allow unit(s) to operate until 2039

New Units

- GHG New Source Performance Standards will be effective immediately for new units, including the upcoming Combined Cycle project
  - Will add additional costs and complexity to permitting and construction

Northside Generating Station

Integrated Resource Plan (IRP)
Accounting for the New GHG Rules

IRP Scenarios

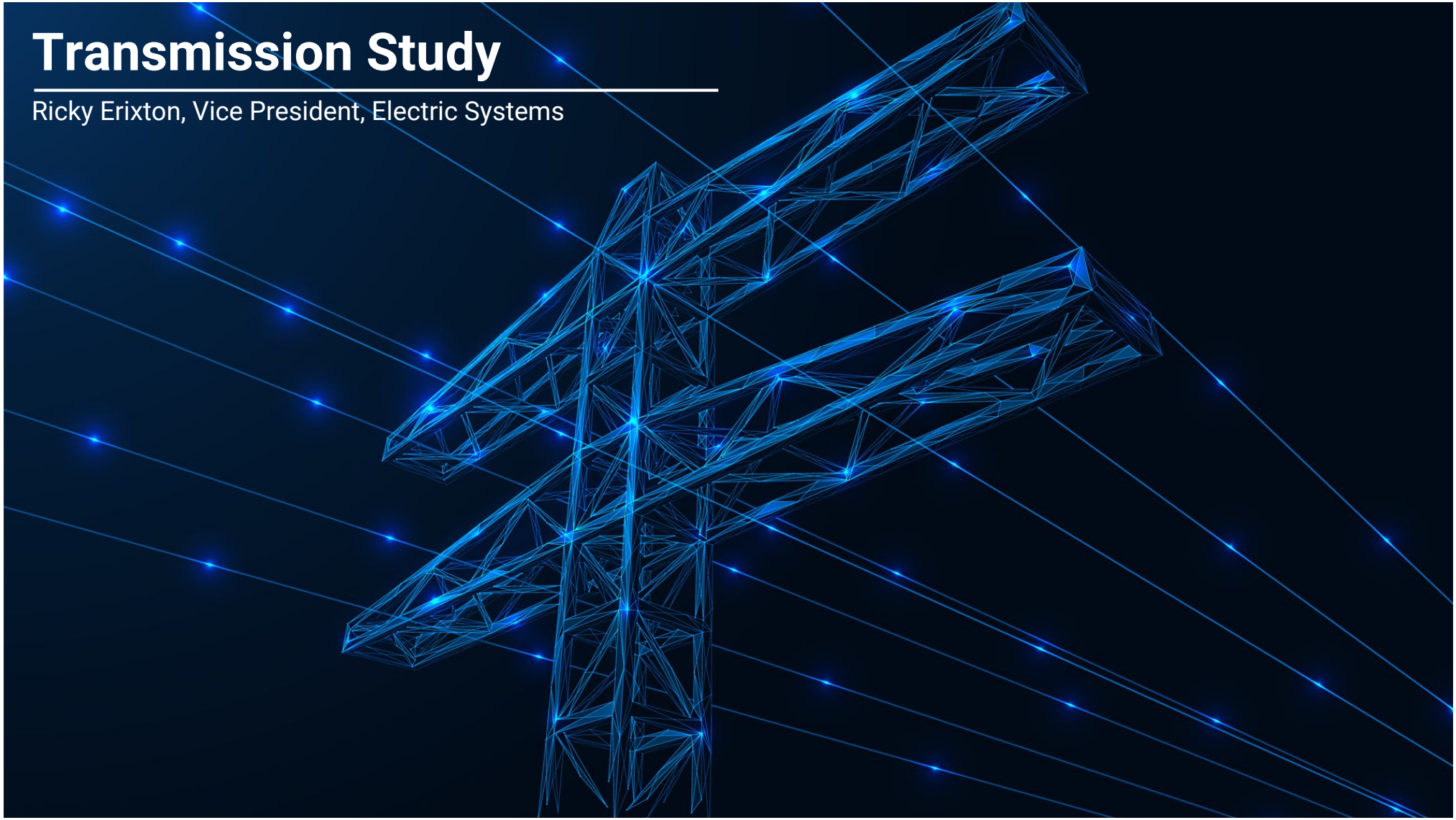
New GHG regulations incorporated into IRP scenarios and base case in preparation for the Market Test and the Public Service Commission (PSC) Need for Power process

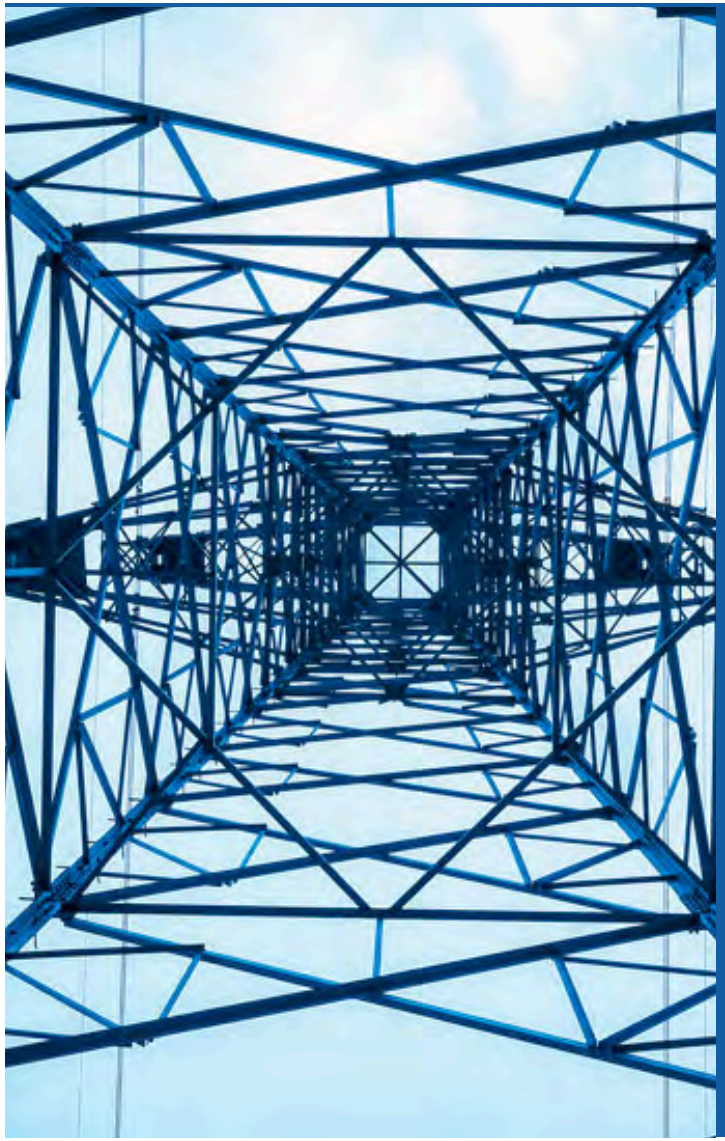
Modeling

Validate the need for a new resource or identified options
Perform Northeast Florida Carbon Sequestration Feasibility Study

Planning for Multiple Options

Planning for multiple options as part of the PSC Power Plant Siting Act and Florida Department of Environmental Protection Site Certification Applications


Transmission Study
Ricky Erixton, Vice President, Electric Systems



Transmission 2030+

Transmission System
Has finite power import capability

NERC Transmission Studies
Identified that projected future power purchases under transmission contingencies does not meet requirements

Transmission Lines in the Western Part of JEA
Will be heavily overloaded due to the significant increase in power import combined with future solar sites

Re-Building and New Transmission Lines
Have been recommended for 230 kV system reinforcement

69 kV System
Being studied for the impacts with the future generation scenarios as well as potential load growths

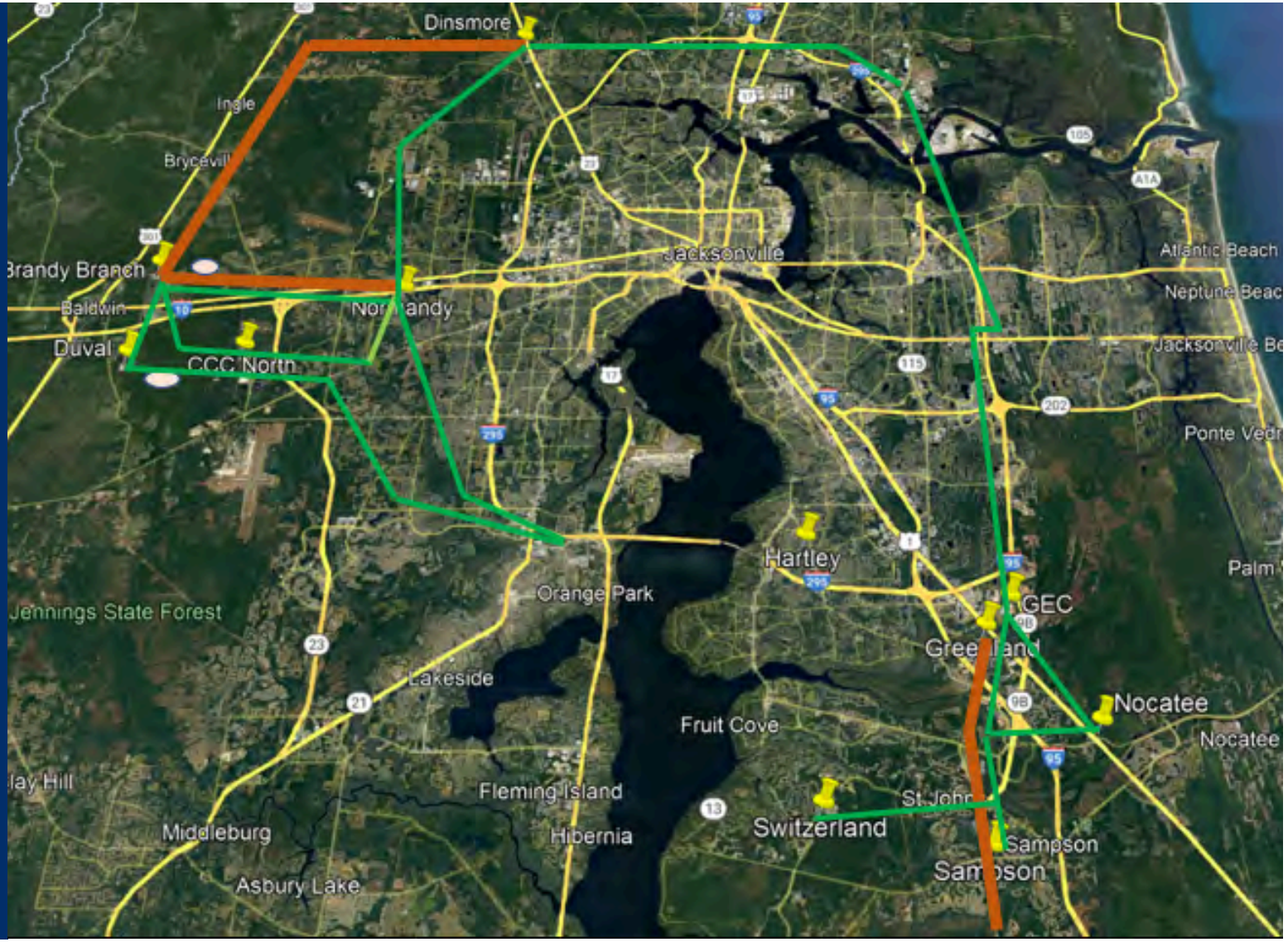
230 kV System
Recommended to reinforce system with re-building and new lines

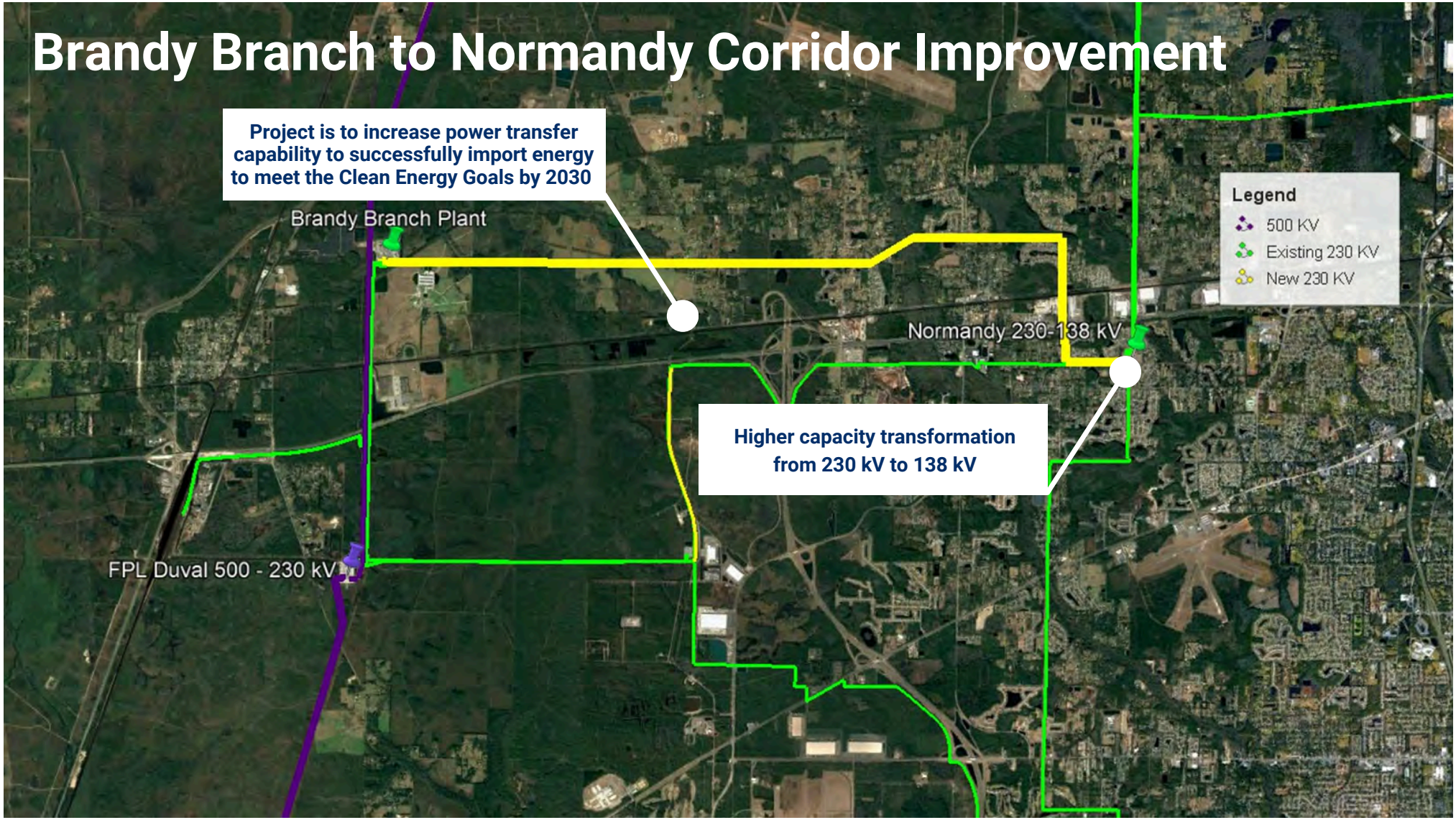
North American Electric Reliability Corporation (NERC)

Initial Planning Level Estimate Capital Cost

Project Group	Project Description	$(million)
1	**Brandy Branch (BB) to Normandy Corridor Improvement** Brandy Branch to Normandy 230 kV Corridor Width Addition Brandy Branch to Normandy 230 kV Transmission Line Circuit 941 and Circuit 936 Realignment Project (BB to SJRPP) West Jax T2 300 MVA Autotransformer Replacement Normandy T6 230-138 kV 500 MVA Autotransformer replacement	**$51M**
2	**Brandy Branch to Dinsmore** Brandy Branch to Dinsmore 230 kV New T-Line Corridor Addition Brandy Branch to Dinsmore 230 kV Transmission Line	**$84M**
3	**New 230 kV Tie Line in the Southeast** Greenland to CR-210 230 kV Corridor Width Addition Greenland to CR-210 (FPL Valley) 230 kV Transmission Tie Line	**$56M**
4	**Additional improvements in the southeast** Greenland T6 230-138 kV 300 MVA Autotransformer replacement Hartley T6 230-138 kV 300 MVA Autotransformer replacement	**$11M**
	Total (4 project groups)	**$202M**

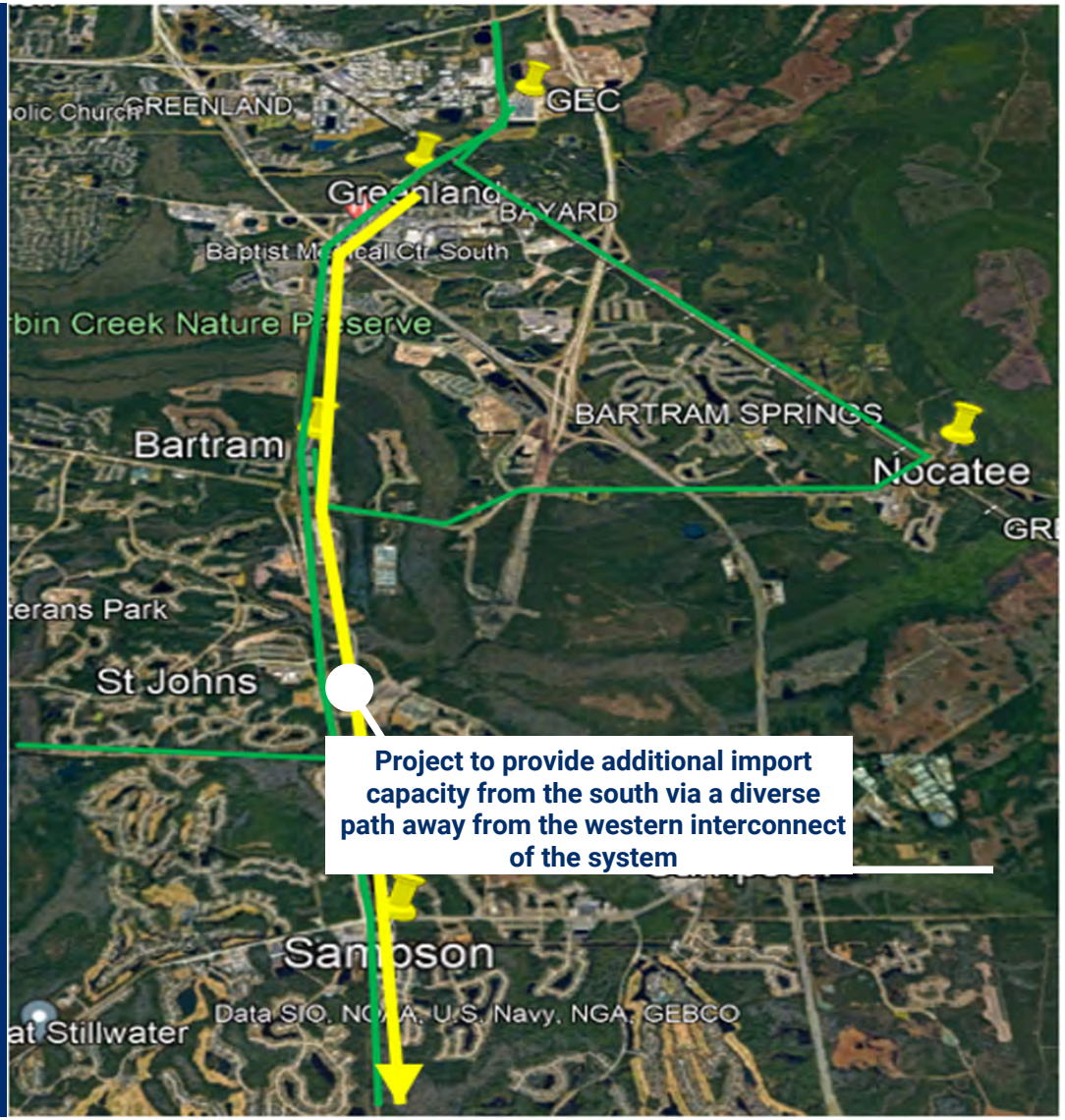
Planned Transmission Upgrades



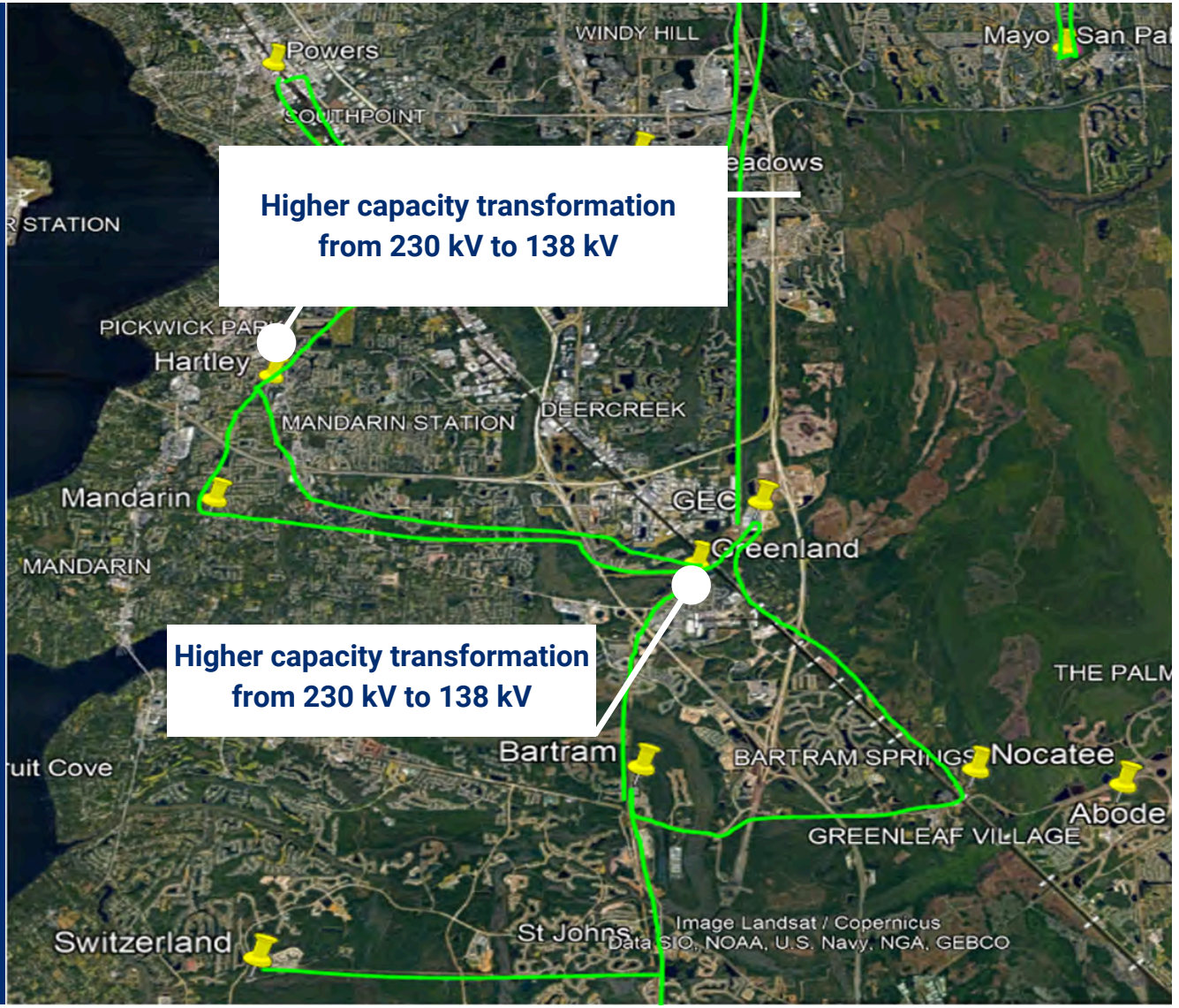

Brandy Branch to Normandy Corridor Improvement
Project is to increase power transfer capability to successfully import energy to meet the Clean Energy Goals by 2030
Brandy Branch Plant
Normandy 230-138 kV
Higher capacity transformation from 230 kV to 138 kV
FPL Duval 500 - 230 kV
Legend
500 KV
Existing 230 KV
New 230 KV

Brandy Branch to Dinsmore

New 230kv Tie Line in the South-East



Additional Improvements in the Southeast

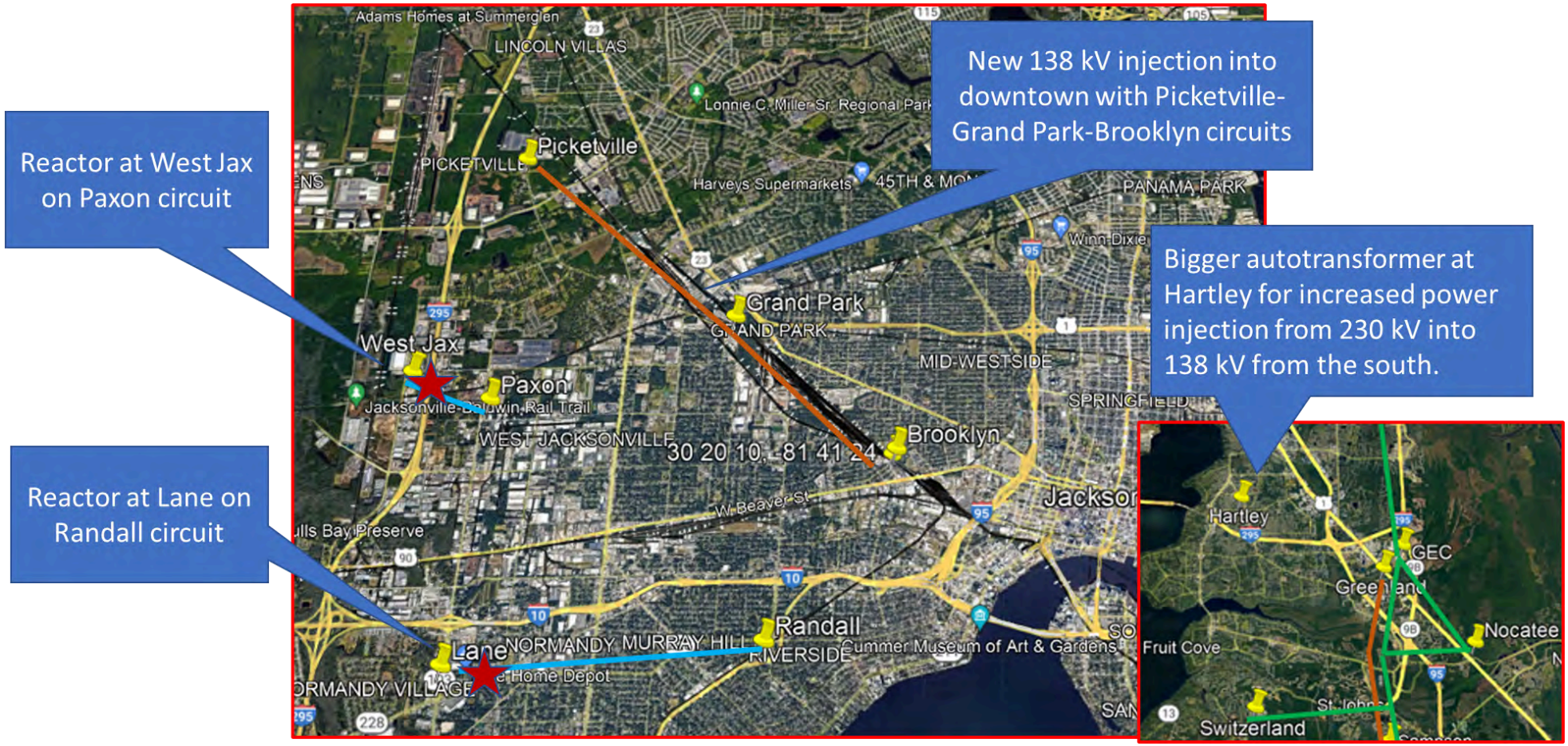


Yellow Pins = substations

Initial Planning Level Estimate Capital Cost - 69kV and 138kV System

Project Group	Project Description	$(million)
	Projects Required to Support Projected 69 kV and 138 kV System Load by 2030	
1	Lane - Randall Reactor West Jax - Paxon Reactor New Lines: Picketville - Grand Park 138 kV, Grand Park - Brooklyn 69 kV Substation Modifications: Brooklyn 69 KV Re-build Autotransformer Upgrades: Hartley Auto	**$48M**

Initial Planning Level Projects - 69kV and 138kV System



Major Capital Projects List

Raynetta Curry Marshall, Chief Operating Officer






Major Capital Projects

FY23-25

5 Electric Projects	20 Water Projects

Estimated Project Budgets

$954M	$2.83B

Major Capital Projects

FY23-25

5 SUBSTANTIALLY COMPLETE

10 CONSTRUCTION

14 DESIGN

1 PLANNED

Old and Other New Business Open Discussion

John Baker
Chair

Improving Lives...Building Community

Arlington East WRF


Announcements
Next Capital Projects Committee Meeting
November 7, 2024

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CAPITAL PROJECTS COMMITTEE

SUPPLEMENTAL INFORMATION

IMPROVING LIVES...BUILDING COMMUNITY

JEA CAPITAL PROJECTS COMMITTEE MINUTES
May 14, 2024

The Capital Projects Committee of the JEA Board met at 9:00 am on Tuesday, May 14, 2024 on the 1st Floor, 225 N Pearl Street, Jacksonville, Florida. The public was invited to attend this meeting in-person at the physical location and virtually via WebEx.

WELCOME

Meeting Called to Order – Attending the meeting virtually, Committee Chair John Baker called the meeting to order at 9:00 am. Also attending virtually were committee members Dr. Zachary Faison and Rick Morales. Board members General Joseph DiSalvo and Bobby Stein also attended the meeting virtually. A quorum of the committee was not physically present.

Others in attendance in-person were Vicky Cavey, Interim Managing Director/CEO; Kurt Wilson, Chief of Staff; Ted Phillips, Chief Financial Officer; Raynetta Curry Marshall, Chief Operating Officer; Laura Schepis, Chief External Affairs Officer; Hai Vu, Vice President, Water/Wastewater Systems; Pedro Melendez, Vice President, Planning, Engineering & Construction; Regina Ross, Chief Legal Officer, Office of General Counsel and Melissa Dalton, Manager, Board Services.

Adoption of the Agenda – The agenda was received for information.

Safety Briefing – Ms. Marshall provided a safety briefing.

Comments from the Public:

In-Person Public Comments:

Bud Para – St. Johns Riverkeeper, requested a status update from the Board on the Electric Integrated Resource Plan, natural gas combined cycle and JEA solar sites. Ms. Marshall provided a status update.

WebEx Public Comments – There were no on-line public comments.

FOR COMMITTEE CONSIDERATION

Capital Projects Delivery Process - Raynetta Curry Marshall, Chief Operating Officer, provided the committee with an overview of the capital projects delivery process to include project identification, funding, execution, and integration. This presentation was received for information.

Enhancement of Process Controls and Contracting for Capital Projects - Ted Phillips, Chief Financial Officer, spoke to the committee on ensuring the delegation of authority limits are not exceeded; revisions to the Construction Manager at Risk Contracting process; and improving the level of communication for large capital contracts. Discussions ensued with Board members on changing the limit to the delegation of authority to $50M for contract and agreements related to budgeted capital projects. Additionally, the request was made to hold quarterly Capital Projects Committee meetings. This presentation was received for information; however, this item will be presented at the June 25, 2024 Board meeting for action.

Buckman Water Reclamation Facility Upgrades - Raynetta Curry Marshall, Chief Operating Officer, provided the committee with a historical overview of the Buckman Water Reclamation Facility to include information about project upgrades. Committee Chair Baker requested a one-page document be drafted providing the return-on-investment breakdown. Mr. Stein requested a site visit for all Board

members. This presentation was received for information; however, this item will be presented at the May 21, 2024 Board meeting for action.

Arlington East Water Reclamation Facility Expansion - Phase 2 - Hai Vu, Vice President, Water/Wastewater Systems, provided the committee with an overview of the Arlington East Water Reclamation Facility expansion to include the influent structure and the aeration basin and blowers; Design-Bid-Build delivery method; and analysis of estimate versus bid. Board members held discussions and the committee requested staff re-bid the project, extending the invitation to a broader audience in order to seek additional competition. Ms. Marshall stated this item would be presented at a future Capital Projects Committee meeting. This presentation was received for information.

Easement Acquisitions - Electric Transmission & Water Transmission Projects - Raynetta Curry Marshall, Chief Operating Officer, provided the committee with an overview of two major projects needed to accommodate existing and future growth. Kim Wheeler, Vice President, Operations Support, highlighted the required water and electric easements; acquisition valuation; benefits and proposed solutions. Discussions ensued regarding costs for alternative routes. This presentation was received for information; however, this item will be presented at the May 21, 2024 Board meeting for action.

CLOSING CONSIDERATIONS

Old and Other New Business/Open Discussion - Committee Chair Baker thanked Mr. Phillips, Ms. Marshall, and staff for their hard work.

Announcements

Adjournment - With no further business coming before the Committee, Chair Baker declared the meeting adjourned at 10:57 am.

APPROVED BY:

_____
John Baker, Committee Chair

Date: _____

Submitted by:

Allison S Hickok

Allison S Hickok
Executive Staff Assistant

JEA Board Agenda

MEMORANDUM

Building Community®

Arlington East Water Reclamation Facility Expansion Phase 2 - Construction Phase

Board Meeting Date: August 27, 2024

Outcome: [X] INFORMATION ONLY [ ] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
Request the Board approve the rebidding of Arlington East WRF - Phase 2 project via Invitation for Bid, with expanded and targeted marketing efforts.

Consent Agenda Item: [ ] Yes [X] No

Presenter: Hai Vu, Vice President, Water & Wastewater Systems

Chief: Raynetta Curry Marshall, Chief Operating Officer

Strategic Focus Area: [ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [ ] EARNING CUSTOMER LOYALTY

Background Information & Analysis:

The Arlington East Water Reclamation Facility (WRF), built in 1976 and located at 1555 Millcoe Road, is JEA's second largest wastewater treatment facility. It currently treats about 20 million gallons of wastewater daily. It produces reclaimed water for irrigation, and its effluent will serve as the source water for the 1 MGD H2.0 Purification Center and the 6 MGD purified water facility.

To increase capacity and flexibility and ensure reliability and redundancy, JEA added a 5th secondary clarifier and upgraded 4 existing secondary clarifiers and associated appurtenances from 2015 to 2020. This work, which was Phase 1 of the Arlington East WRF expansion, was completed for $19.5 million.

Phase 2 of the plant expansion includes upgrades of the influent structure, aeration basin, primary clarifier, and blowers. The influent structure, including the screens, concrete structure, influent and effluent channels, and piping are experiencing severe deterioration due to high levels of hydrogen sulfide gas. The aeration basin, primary clarifier and blowers are undersized, making it difficult to meet nitrogen reduction during winter months and peak storm events. Phase 2 will completely replace the influent structure, add a new aeration basin and new blowers, and replace two primary clarifiers.

The design was completed by Hazen and was bid under Invitation for Bid (IFB) 1411464646 Arlington East WRF Expansion. The project was advertised in November 2023. In January 2024, JEA received one bid from Wharton-Smith in the amount of $96,857,000.00.

JEA Board Agenda

MEMORANDUM

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Arlington East Water Reclamation Facility Expansion Phase 2 - Construction Phase

Background Information & Analysis (cont'd):

The bid amount was approximately 20% higher than JEA's estimate $80,470,316. Subsequent reviews showed the estimates underestimated rising prices in materials and labor and failed to account for additional efforts required for sitework excavation, shoring, and dewatering. A review of the bid showed competitive pricing from subcontractors and material and equipment suppliers and was deemed to be reasonable.

On May 14, 2024, staff presented the project to the Capital Projects Committee, with the recommendation to award to Wharton-Smith. The Committee was concerned about the cost and singular bidder, and recommended staff to review options for rebidding and attracting more bidders.

Discussion

Three options were identified for rebidding:

1. Re-bid the project as is with enhanced marketing efforts
2. Break the project out into two projects and bid separately
3. Use different selection: Evaluated Request For Proposal for Construction Services

I. Re-bid the project as-is with enhanced marketing efforts

- Create a targeted advertisement plan to reach contractors, including those with local presence and in markets outside of Northeast Florida
- Hold a workshop or series of workshops with contractors to discuss the project and understand market challenges
- Hold site tours and open-house events at the facility to allow potential bidders to gather additional information about the project
- Extend solicitation duration to allow contractors plenty of time to bid

Risks include low participation by potential bidders, as experienced prior. Large contractors that can bond and perform this size and scope of work often do not participate in hard-bid solicitations. There is so much work currently available, they may simply bid elsewhere.

II. Break the project out into two projects and bid separately

The project can be separated into two projects and bid separately: Influent Structure and Aeration Basin & Blowers. This would allow smaller contractors to be competitive and have the bonding and labor capacity to complete the projects. The design engineer would need to revise drawings and specifications to develop separate bid packages.

Risks include increase in cost and duration due to increased efforts in project management, engineering, coordination, and construction, and loss of economies of scale.

JEA Board Agenda

MEMORANDUM

Building Community®

Arlington East Water Reclamation Facility Expansion Phase 2

Background Information & Analysis (cont'd):

III. Use different selection method: Evaluated RFP for Construction Services

Select a contractor based not only on price, but also qualifications, experience, and project approach. This option could encourage participation from larger contractors that otherwise would avoid design-bid-build projects.

Risks include increased duration and costs, due to extended selection process and potential of not selecting the lowest bid. These risks may be offset by selecting a qualified contractor with the best experience and approach who can save time and minimize change orders.

Actions

Option 1 (Re-bidding with enhanced marketing efforts) is expected to be the lowest overall cost and to incur the shortest schedule delay. Option 3 (Evaluated RFP) may attract contractors who might otherwise avoid hard bidding. Staff is pursuing both options and has performed the following:

1. Issued Requests for Information (RFI) on 06/26/24 to qualified contractors:
   - Informed JEA's intent to rebid project in Fall
   - Provided optional site visits on 7/17 and 7/25
     - Reviewed the project scope and design documents
     - Allowed contractors to visit site, talk to operations, and understand the unique challenges of the project
2. Asked the following questions:
   - Is your firm interested in bidding on this project? If not, what could JEA do to increase interest?
   - Do you have bonding, timing, manpower, or other constraints?
   - Are there any other issues or concerns not brought up anywhere else your firm would like to notify JEA about?
3. Benchmarked with 9 other Florida utilities that have built WRF recently for bidders lists, procurement methods and lessons learned.
4. Reached out to 12 large contractors for feedback

In addition, staff will perform the following:

1. Will hold informational meetings with individual contractors prior to advertising the IFB.
2. Will simplify bid form, per feedback from contractors
3. Will advertise the project with a longer response period: 2 – 3 months
   - Will publish solicitation to national project marketing platforms such as DemandStar
   - All issues or questions from the previous solicitation will be addressed in the rebid.

JEA Board Agenda

MEMORANDUM

Building Community®

Arlington East Water Reclamation Facility Expansion Phase 2

Background Information & Analysis (cont'd):

Tentative Dates:

Advertisement:	Fall 2024
Bids Due:	Winter 2024
Review & approval by Committee:	February 2025
Notice to Proceed:	Spring 2025

Financial Impact:

Capital cost of approximately $100 million for the construction of the Arlington East Water Reclamation Facility Expansion – Phase 2 project.

Committee/Board Meeting/Workshop & Date Presented:

Capital Projects Committee May 14, 2024

Appendix: *List appendix items provided*

Request for Information (RFI) 1411767246
Construction Services for the Arlington East WRF Expansion Phase 2

Request for Information (RFI) 1411767246

Construction Services for the Arlington East WRF Expansion Phase 2

RFI - Construction Services for the Arlington East WRF Expansion Phase 2

TABLE OF CONTENTS

RFI - Construction Services for the Arlington East WRF Expansion Phase 2

1 INTRODUCTION AND PURPOSE OF THE RFI

With this RFI we request information regarding your company's opinion on an upcoming construction solicitation of the expansion of the Arlington East Water Reclamation Facility (WRF). Information will be gathered from different companies to learn about possible updates to JEA's solicitation documents prior to the actual construction bid. **This RFI is for informational and planning purposes and is not to be construed as solicitation or a commitment to issue a solicitation.**

General

Article I, Section 24, Florida Constitution, guarantees every person access to all public records and Chapter 119, Florida Statutes, provide a broad definition of public records. JEA is a body politic, corporate, and subject to these laws and related statutes ("Florida's Public Records Laws"). All responses to this RFI are public records and available for public inspection unless specifically exempt by law.

IF A PROPOSER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTORS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

JEA
Attn: Public Records
225 N Pearl Street
Jacksonville, Florida 32202
Ph: 904-665-8606
publicrecords@jea.com

Redacted Submissions

If a Proposer believes that any portion of the documents, data or records submitted in response to this RFI are exempt from Florida's Public Records Law, Proposer must (1) clearly segregate and mark the specific sections of the document, data or records as "Confidential," (2) cite the specific Florida Statute or other legal authority for the asserted exemption, and (3) provide JEA with a separate redacted copy of its response (the "Redacted Copy"). The cover of the Redacted Copy shall contain JEA's title and number for this RFI and Respondent's name, and shall be clearly titled "Redacted Copy." Respondent should only redact those portions of records that Proposer claims are specifically exempt from disclosure under Florida's Public Records Laws. If Respondent fails to submit a redacted copy of information it claims is confidential, JEA is authorized to produce all documents, data and other records submitted to JEA in answer to a public records request for such information.

In the event of a request for public records to which documents that are marked as confidential are responsive, JEA will provide the Redacted Copy to the requestor. If a requestor asserts a right to any redacted information, JEA will notify Respondent that such an assertion has been made. It is Respondent's responsibility to respond to the requestor to assert that the information in question is exempt from disclosure under applicable law. If JEA becomes subject to a demand for discovery or disclosure of Respondent's redacted information under legal process, JEA shall give Respondent prompt notice of the demand prior to releasing the information (unless otherwise prohibited by applicable law.) Respondent shall be responsible for defending its determination that the redacted portions of its response are not subject to disclosure.

By submitting a response to this RFI, Respondent agrees to protect, defend and indemnify JEA from and against all claims, demands, actions, suits, damages, liabilities, losses, settlements, costs and expenses (including but not limited to reasonable attorney fees and costs) arising from or relating to Respondent's determination that the redacted portions of its response to this Solicitation are not subject to disclosure.

RFI - Construction Services for the Arlington East WRF Expansion Phase 2

2 BACKGROUND, SCOPE, AND SOLUTION OPTIONS

2.1 Background

JEA owns, operates and manages the electric system established by the City of Jacksonville, Florida in 1895. In June 1997, JEA also assumed operation of the water and sewer system previously managed by the City. JEA is Florida's largest municipally owned utility and the seventh largest municipal in the United States.

2.2 Scope of Work

The scope of work for this project includes, but is not limited to, construction of new headworks, electrical room, mechanical screening equipment, washing compactors, screenings discharge system, effluent splitter box, and a new booster pump station.

Detailed technical specifications and drawings are available in the appendices to this RFI.

3 GENERAL INSTRUCTIONS

Please note that this RFI is issued solely for the purpose of obtaining information. Nothing in this RFI shall be interpreted as a commitment on the part of JEA to enter into a contract with any respondent thereof to make any procurement. JEA reserves the right to invite any of the RFI respondents to do a follow up presentation as part of the RFI process.

3.1 Response Instructions

3.1.1 Response Submission

All responses to this RFI are due no later than 12:00 p.m. EST on July 30, 2024. Respondents should submit an electronic copy via the Zycus system or email their Response to Dan Kruck at krucdr@jea.com. All responses should include on the first page the official name of the firm or entity submitting the response. Please consecutively number all pages of the response.

3.1.2 Response Content

Respondents should include a response to any of the questions set forth under Question and Vendor Responses (Section 5) of this RFI that the Respondent has an opinion on. Respondents may also submit other suggestions than those asked concerning the upcoming solicitation.

3.1.3 Response Format

JEA requests that all responses be submitted in your own format (no JEA specified Form).

3.2 Contacts

3.2.1 Questions

Potential respondents who have questions regarding this RFI may submit them to Dan Kruck at krucdr@jea.com or through the Zycus system by July 23, 2024. Respondents may only make inquiries and request clarification concerning this RFI by written questions via e-mail. Responses to inquiries and clarification questions will be provided electronically to all interested parties.
Note: There will be no informational sessions associated with this RFI.

3.2.2 Contact Information

Please direct all communications, questions, and responses to the following contact:

Dan Kruck
JEA
225 N. Pearl St.
Jacksonville, FL 32202
E-mail: krucdr@jea.com

RFI - Construction Services for the Arlington East WRF Expansion Phase 2

3.3 Timeframes

3.3.1 RFI Timeline

RFI TIMELINE	
CALENDAR EVENT	**DATE/TIME**
RFI Issued	June 26, 2024
Optional Site Visit	July 17, 2024 @ 1:00 pm
Optional Site Visit	July 25, 2024 @ 1:00 pm
RFI Response Due	July 30, 2024 @ 12:00 pm

3.3.2 Tentative Solicitation Timeline

TENTATIVE SOLICITATION TIMELINE	
CALENDAR EVENT	**DATE**
Solicitation Posting and Release	August 22, 2024
Pre-Bid Meeting/Site Visit	September XX, 2024 (TBD)
Optional Site Visit	October XX, 2024 (TBD)
Solicitation End Date (Bids Due)	December 2024 (TBD)
Low Bid Review by JEA Board Capital Committee	January/February 2025 (Day TBD)
Contract approval by JEA Board	January/February 2025 (Day TBD)
Contract Execution	March 2025
PO Issued (to allow for material ordering)	March 2025
NTP Issued	April 2025

4 ADDITIONAL INFORMATION

4.1 Requests for Additional Information

JEA retains the right to request additional information from respondents.

4.2 Optional Site Visits

There will be two optional site visits during this RFI process. See section 3.3.1 above for the dates/times of the optional site visits. Personal Protective Equipment (PPE) will be required during the plant walkthrough portion of the optional site visits. Proper PPE for the walkthrough will be safety boots, hard hat, safety vest and eye protection. Hearing protection may be required in certain pump buildings.

- Location: Arlington East WRF – 1555 Millcoe Road, Jacksonville, FL 32211 – Conference Room

4.3 Cost Incurred

By submitting a response, respondents agree that any cost incurred in responding to this RFI, or in support of activities associated with this RFI, shall be the sole responsibility of respondent. JEA shall not be held responsible for any costs incurred by respondents in preparing their respective responses to this RFI.

4.4 Review Rights

Responses to this RFI may be reviewed and evaluated by any person(s) at the discretion of the JEA, including independent consultants retained now or in the future.

RFI - Construction Services for the Arlington East WRF Expansion Phase 2

4.5 Public Record

All responses to this RFI will be public record under the State of Florida's Sunshine Law regardless of confidentiality notices set forth on such writings to the contrary.

5 QUESTIONS AND VENDOR RESPONSES

See General Instructions in Section 3 for information on response format and submission. **Note:** Please describe any assumptions you make in answering these questions as part of each response.

5.1 Questions/Vendor Responses on Provided Files

5.1.1 General Questions

- Is your firm interested in bidding on this project? If not, what could JEA do to increase interest?
- Do you have bonding, timing, manpower, or other constraints?
- Are there any other issues or concerns not brought up anywhere else your firm would like to notify JEA about?

5.1.2 Solicitation File

Please provide any feedback your firm may have on any section of the solicitation that requires additional information, is not clear, or could possibly be updated. If, in your opinion, contract language (section 2) should be updated please provide specific red-lined language suggestions.

File

- 1411767246 Appendix A – Draft Solicitation

5.1.3 Technical Specification Files/Drawings

Please provide any feedback or questions on the technical specifications. Please note that JEA is intending to update the Technical Specifications and Drawings prior to the upcoming Bid to incorporate the answers to the previous solicitation addenda questions.

Files

- 1411767246 Appendix A - Technical Specifications Volume 1
- 1411767246 Appendix A - Technical Specifications Volume 2
- 1411767246 Appendix A - Drawings Volume 2
- 1411767246 Appendix A - Drawings Volume 3

5.1.4 Scheduling Requirements

Please provide any feedback or questions on the scheduling requirements for this project.

File

- 1411767246 Appendix A – CPM Scheduling Requirements.

5.1.5 Bid Forms

Please provide any feedback or questions concerning the Bid Forms, including the Bid Workbook. This upcoming contract will include the combination of two separate capital projects requiring a separate schedule of values for each project for accounting purposes. JEA welcomes any specific feedback on restructuring the Bid Workbook to be easier for contractors to work with, while still allowing JEA to properly evaluate bids and the separate project budgets.

Files

- 1411767246 Appendix B - Bid Forms
- 1411767246 Appendix B - Bid Workbook

JEA Board Agenda

MEMORANDUM

JEA Building Community®

Southside Integrated Piping System (SIPS) - Construction Phase

Board Meeting Date: August 27, 2024

Outcome: [ ] INFORMATION ONLY [X] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
Requesting the Board authorize a contract increase to Garney Companies for the SIPS Greenland Segment 3: Guaranteed Maximum Price (GMP) of $8,583,314 for Greenland Water Treatment Plant (WTP) ground storage tank, associated appurtenances, and $1,009,802.16 additional construction allowance for property access delays, for a new total contract amount of $63,248,573.25.

Consent Agenda Item: [ ] Yes [X] No

Presenter: Elizabeth DiMeo, PE, Senior Manager, Project Management

Chief: Raynetta Curry Marshall, Chief Operating Officer

Strategic Focus Area: [ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [ ] EARNING CUSTOMER LOYALTY

Background Information & Analysis:

The Southside Integrated Pipe System (SIPS) is an interconnected raw water transfer line that will convey water from the North grid to the South grid to meet future water demands in the South grid.

The SIPS program consists of three projects: SIPS Deerwood, SIPS Greenland, and SIPS Oakridge.

- SIPS Deerwood is finishing construction in service October 2024. This project consists of 35,000 linear feet of 30" water main, 3.900 linear feet of 24" raw water main, 3,500 linear feet of 6" water main, 225 linear feet of 4" water main and associated controls and connections to the existing Deerwood WTP.
- SIPS Greenland is under construction; approximately 28% complete. This project consists of 41,500 linear feet of 30" raw water main, a new 1.1 million gallon ground storage tank at the Greenland WTP, 1,200 linear feet of 24" force main and 13,000 linear feet of 30" reclaim water main. This project is expected to be complete in April 2026.
- SIPS Oakridge is a future planned project; forecasted to start design in FY28. This project consists of design and construction of 3,000 linear feet of 30" raw water main and associated controls and connections to the existing Oakridge WTP.
- Garney Companies was selected in August 2022 as the Construction Manager At Risk (CMAR) contractor for the SIPS Greenland project.

JEA Board Agenda

MEMORANDUM

Southside Integrated Piping System (SIPS) - Construction Phase

Background Information & Analysis:

Contract History:

- Original preconstruction contract awarded October 2022 for $625K.
- Early Material Purchase Package was awarded April 2023 for $8.1M to lock in pipe pricing and ensure availability.
- Early Material Purchase Package was awarded June 2023 for $800K to lock in pricing and ensure availability.
- Early work package amendment was executed December 2023 for $723K to start receiving material.
- Final Construction GMP was negotiated and awarded on Dec 2023 for $43.3M to complete construction for all pipeline work.

The requested award to Garney Companies for construction of Segment 3: Greenland WTP ground storage tank and associated appurtenances. This is the next phase of the project. The design was recently completed and Garney submitted a GMP for construction. The GMP was negotiated through an open-book process with Garney, and the final cost aligned with the project budget.

Financial Impact:

Overall Garney Contract value will increase by $9,915,710.88 from $53,655,457.09 to $63,571,167.97

Committee/Board Meeting/Workshop & Date Presented:
Include a timeline of all Board/Committee/Workshop dates this item has been presented in the past

N/A

Appendix: *List appendix items provided*

Resolution 2024-41 will be provided in the August 27, 2024 Board meeting materials.

JEA Board Agenda

MEMORANDUM

Building Community®

H2.0 Purification Program Overview

Board Meeting Date: August 27, 2024

Outcome: [X] INFORMATION ONLY [ ] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
N/A

Consent Agenda Item: [ ] Yes [X] No

Presenter:	Ryan Popko, Manager, Water/Wastewater Water Engineering
Chief:	Raynetta Curry Marshall, Chief Operating Officer
Strategic Focus Area:	[ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [X] EARNING CUSTOMER LOYALTY
Purpose of Agenda Item:	Provide a general overview of the H2.0 Purification Program related to subsequent Board authorization to increase contract value for the H2.0 Purification Center under construction.
Background Information & Analysis:	JEA's sole source of water supply is the aquifer. Since the aquifer is a finite resource, JEA began planning with the St. Johns Water Management District about additional supply beyond what the aquifer can provide. That led to JEA developing a 3-Phase Water Purification Program. Phase I pilot testing was completed in 2019 and JEA is currently in construction of Phase II – H2.0 Purification Center. Phase III consists of full-scale implementation. This program offers numerous benefits to our community and the environment, including aquifer protection and sustainability, long-term water supply resiliency, and it is the only option available that not only addresses a water supply need, but also directly reduces the volume of water discharged to the St. Johns River as required by Senate Bill 64.
Financial Impact:	Will be addressed in the subsequent agenda item

Committee/Board Meeting/Workshop & Date Presented:

Presented in the past few years as part of the Integrated Water Resources Plan, Senate Bill 64, and property purchase for the H2.0 Purification Center.

JEA Board Agenda

MEMORANDUM

H2.0 Purification Center - Construction Phase

Board Meeting Date: August 27, 2024

Outcome: [ ] INFORMATION ONLY [X] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
Staff is requesting the Capital Projects Committee recommend the Board approve an award to the Haskell Company for the H2.0 Purification Center. This award includes the construction of the planned and newly designed Degasification & Remineralization system, associated appurtenances, and finishes in the amount of $4,639,615 for a new contract amount of $83,506,772.37.

Consent Agenda Item: [ ] Yes [X] No

Presenter: Ryan Popko, Manager Water/Wastewater Engineering

Chief: Raynetta Curry Marshall, Chief Operating Officer

Strategic Focus Area: [ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [ ] EARNING CUSTOMER LOYALTY

Background Information & Analysis:

The Haskell Company and Black & Veatch were selected as the design-build team in 2020 to complete the design and construction of this full-scale purified water demonstration facility. The project is currently under construction; approximately 30% complete. Substantial completion, testing, and initial operation is scheduled for July 2025.

Contract History:

- Original preconstruction in February 2020 for $800,000
- Preconstruction amendment in October 2021 for $5.2M for design services
- Early Equipment Purchase Package amendment in January 2022 for $5.1M for long-lead equipment purchase
- Final Construction Guaranteed Maximum Price (GMP) was negotiated and awarded in August 2023 for $58.8M for the facility construction
- Change order for unsuitable soil conditions and well construction was negotiated and amended in March 2024 for $8.9M

The requested contract increase is for the purchase and installation of the Degasification & Remineralization system for the facility aquifer recharge well, associated appurtenances, and finishes. This scope was already identified and accounted for in the overall project budget. The design and construction costs are now developed to the point where the defined scope and costs can be included into the Haskell contract.

JEA Board Agenda

MEMORANDUM

Building Community®

H2.0 Purification Center - Construction Phase

Financial Impact:

Overall project budget will not increase. The Haskell Company contract value will increase by $4,639,615 from $78,867,157.37 to $83,506,772.37.

Committee/Board Meeting/Workshop & Date Presented:

Include a timeline of all Board/Committee/Workshop dates this item has been presented in the past

N/A

Appendix: *List appendix items provided*

Resolution # 2024-42 will be provided in the August 27, 2024 Board meeting materials.

JEA Board Agenda

MEMORANDUM

JEA Building Community®

Northwest Water Reclamation Facility - Design Phase

Board Meeting Date: August 27, 2024

Outcome: [X] INFORMATION ONLY [ ] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
N/A

Consent Agenda Item: [ ] Yes [X] No

Presenter: Raynetta Curry Marshall, Chief Operating Officer

Chief: Raynetta Curry Marshall, Chief Operating Officer

Strategic Focus Area: [ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [ ] EARNING CUSTOMER LOYALTY

Background Information & Analysis:

The initial water reclamation facility will be built to accommodate 2.0 MGD. Buildout is estimated at 9 MGD or 43,000 connections.

- Northwest WRF will serve ~2,300 connections when it goes into service in FY29.
- This facility will be similar in process and design to Greenland WRF.
- Effluent options are currently under evaluation, alternatives include public access reclaimed water, Aquifer recharge, rapid infiltration basins, Spray fields or deep well injection

Project Need:
1. Continued growth in Duval is the driver for the new Northwest WRF
2. To meet the flow projections in Duval County, the new Northwest WRF is required
3. The 2.0 MGD Northwest WRF will need to be online by December 31, 2028 to support this growth

The area north and west of the Jacksonville International Airport (JIA) has had steady development interest. This area is on the outer west edge of the planned District II Wastewater Basin and the downstream sewer infrastructure is not sized to accommodate the intensity of proposed development.

Financial Impact: Planning Level Estimate $120,000,000

Committee/Board Meeting/Workshop & Date Presented:
Include a timeline of all Board/Committee/Workshop dates this item has been presented in the past

N/A

Appendix: *List appendix items provided*

NA

JEA Board Agenda

MEMORANDUM

JEA Building Community®

Combined Cycle Update - Planning Phase

Board Meeting Date: August 27, 2024

Outcome: [X] INFORMATION ONLY [ ] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
N/A

Consent Agenda Item: [ ] Yes [X] No

Presenter: Pedro A Melendez, VP Planning, Engineering & Construction and Kevin Holbrooks, Director Environmental Operations

Chief: Raynetta Curry Marshall, Chief Operations Officer

Strategic Focus Area: [ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [ ] EARNING CUSTOMER LOYALTY

Background Information & Analysis:

The JEA 2023 Integrated Resource Plan (IRP) identified the need for a new Combined Cycle Unit by 2030 to meet long-term energy needs. The main objective of this agenda item is to update the Capital Projects Committee on the significant activities and milestones related to the plans for meeting the identified needs. In addition, the Committee will be provided with an assessment of the new greenhouse gas (GHG) rules and JEA's plan to account for the rules and potential impact to JEA.

To address long-term energy supply, JEA is prepared to commence a market test solicitation to obtain viable proposals. In tandem, JEA is developing a self-build comparable option and plans to initiate a power island solicitation to determine the best equipment (combustion turbine, steam turbine, and heat recovery steam generator) to competitively establish a project for evaluation. JEA has an experienced independent evaluator responsible for performing an evaluation of all the options along with other evaluators. These activities allow for a more appropriate determination of the power supply project options including risks, cost, and applicable regulator requirements to file a determination of need for a new resource. A presentation and associated documentation to review and provide approval of a project option after the Market test is completed is currently planned for July 2025.

JEA Board Agenda

MEMORANDUM

JEA Building Community®

Combined Cycle Update - Planning Phase

Background Information & Analysis:

New GHG rules were finalized in May 2024 with a State Implementation Plan (SIP) due in May 2026. With the rules in place, the Environmental Protection Agency (EPA) deadline for approval is July 2027. Multiple legal challenges and stay requests have been filed by states, utilities, and industry groups. GHG implementation Plan submittal is concurrent with the need for power determination process.

JEA is incorporating the new GHG rules in the evaluation of the options using the baseline IRP scenarios and validating the integrated resource portfolio and its implications. With the new regulations, JEA is planning for multiple options that may lead to re-affirming the need for a combined cycle unit by 2030, expansion of the plan with other future resources and/or additional scope and costs to meet regulatory requirements. In addition, JEA is conducting a carbon sequestration study to support the evaluation and decisions to meet the need for power to serve JEA's customers.

Current Capital planning level cost does not include GHG rules compliance.

Financial Impact: $825M without GHG rules

Committee/Board Meeting/Workshop & Date Presented:
Include a timeline of all Board/Committee/Workshop dates this item has been presented in the past

JEA Board Meeting - March 26, 2024

Appendix: *List appendix items provided*

N/A

JEA Board Agenda

MEMORANDUM

Building Community®

Transmission Study Overview - Planning Phase

Board Meeting Date: August 27, 2024

Outcome: [X] INFORMATION ONLY [ ] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
N/A

Consent Agenda Item: [ ] Yes [X] No

Presenter: Pedro A Melendez, VP Planning Engineering and Construction

Chief: Raynetta Curry Marshall, Chief Operation Officer

Strategic Focus Area: [ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [ ] EARNING CUSTOMER LOYALTY

Background Information & Analysis:

The 2023 Integrated Resource Plan (IRP) implementation plan includes the integration of new energy resources by 2030 into the JEA electric system. JEA conducted a transmission system study to determine upgrades necessary to ensure reliable delivery of electricity to customers. The study is in accordance with requirements established by the North American Reliability Corporation (NERC) for long-term transmission planning. Staff is sharing the results of this study and the identified group of projects.

JEA owns and operates 745 miles of transmission lines at 500kV, 230kV, 138kV and 69kV across the service territory. JEA interconnections with neighboring utilities include 500 kV transmission lines jointly owned with Florida Power & Light (FPL) that form the major electric interconnection between Florida and Georgia. There are also interconnections with Seminole Electric Cooperative, Inc., Beaches Energy Services, and Florida Public Utilities Company.

In accordance with NERC standards, the basis of the study is to ensure transmission system planning performance requirements are met and to develop an electric system that will operate reliably over a broad spectrum of system conditions and probable contingencies. The study sought to identify potential limit exceedances or consequential conditions that require mitigation with the most cost-effective projects or planned system configurations to be at or below the electric system rated capacity.

JEA Board Agenda

MEMORANDUM

Building Community®

Transmission Study Overview - Planning Phase

Background Information & Analysis:

The study focused on IRP resources portfolio and load forecast in 2030 to assess impacts to the JEA transmission system resulting from an increase in system imports necessary to achieve clean energy targets including the Northside 3 replacement with a new combined cycle. Most clean energy sources, such as solar photovoltaic (PV), must be sourced outside of the JEA transmission system.

Transmission lines in the western part of JEA (Brandy Branch/ Normandy area) will exceed limits for multiple contingency events due to the significant increase in power import (through Duval), combined with future solar sites located in the same area. Projects will also be needed in the southeast to provide additional import capacity from the south. Lastly, several transmission lines and substation projects are needed to increase the capability of delivering power to the downtown area.

These projects are at the early stages and should be in service by 2030.

Financial Impact: $250M

Committee/Board Meeting/Workshop & Date Presented:
Include a timeline of all Board/Committee/Workshop dates this item has been presented in the past

N/A

Appendix: *List appendix items provided*

N/A

JEA Board Agenda

MEMORANDUM

JEA Building Community®

Major Capital Projects List

Board Meeting Date: August 27, 2024

Outcome: [X] INFORMATION ONLY [ ] ACTION [ ] FUTURE BOARD CONSIDERATION

If Action, Provide a Recommended Motion:
N/A

Consent Agenda Item: [ ] Yes [X] No

Presenter: Raynetta Curry Marshall, Chief Operating Officer

Chief: Raynetta Curry Marshall, Chief Operating Officer

Strategic Focus Area: [ ] DEVELOPING AN UNBEATABLE TEAM [X] DELIVERING BUSINESS EXCELLENCE [ ] EARNING CUSTOMER LOYALTY

Background Information & Analysis:

The JEA Capital Improvement Plan (CIP) includes over 450 Water system and 400 electric system projects.

The three main categories of projects are Growth, Renewal & Replacement and Regulatory. Staff is providing a list of active projects with an Overall Project Budget greater than $25M along with the current project status. There are 25 projects on the list with 16 projecting over $50M in capital costs. Several of these projects have come to the Capital Projects Committee for information and/or action. Please refer to the Capital project list for additional details. Summary of the projects and current status is as follows:

- 5 Electric and 20 Water/WW major capital projects
  - 5 are substantially complete
  - 10 are under construction
  - 14 are in design
  - 1 is planned

The combined Electric and Water/WW projects cost is forecasted at $3.78B.

Financial Impact: Electric $954M and Water $2.83B

Committee/Board Meeting/Workshop & Date Presented:
Include a timeline of all Board/Committee/Workshop dates this item has been presented in the past

N/A

Appendix: *List appendix items provided*

Major Capital Projects List

Major Capital Projects

Projects with Overall Project Budget (OPB) ≥ $50 Million

Index No.	Project Status	Project Description	Total Proj. Expenses through FY23	FY24 Actuals YTD	FY24 Forecast	FY25 Forecast	Forecasted OPB Estimate	Service
084-11	Schematic Design	Advanced Class 1X1 Combined Cycle Addition	$62,255	$411,007	$1,737,745	$4,500,000	$825,300,000	Electric
711-56	Schematic Design	SWDE - Buckman WRF	$75,521	$473,823	$815,650	$1,027,000	$728,975,523	Water
711-26	Final Design	Buckman WRF - Biosolids Conversion - Process Facility with Dual Dryers	$26,512,743	$18,715,356	$29,963,895	$61,940,588	$301,592,643	Water
103-04	Schematic Design	Blacks Ford WRF - Expansion from 6 to 12 MGD	$1,654,176	$5,137,574	$8,944,721	$3,576,769	$210,626,141	Water
150-15W	Schematic Design	SWDE - Southwest WRF Purification Facility	$0	$237,448	$302,576	$850,000	$198,201,980	Water
135-18W	Schematic Design	SWDE - Arlington East Purification Facility	$0	$237,236	$302,236	$1,000,001	$193,123,966	Water
268-W3	Construction	Greenland WRF - 4.0 MGD	$106,291,957	$28,654,386	$36,026,688	$5,098,838	$147,417,483	Water
151-03W	Schematic Design	SWDE - Cedar Bay Purification Facility	$0	$303,902	$354,443	$250,000	$139,229,500	Water
870-08	Construction	Nassau Regional WRF - Expansion to 3 MGD	$58,018,798	$47,007,751	$62,987,077	$9,707,186	$133,320,195	Water
150-11	Construction	Southwest WRF - Expansion to 16 MGD	$66,207,011	$30,940,948	$39,398,175	$16,774,891	$132,928,196	Water
139-02	Planned	Northwest WRF - 2.0 MGD	$0	$43,728	$74,004	$5,773,116	$120,000,000	Water
135-19	Schematic Design	Arlington East WRF – Reclaimed Water and Disinfection System Upgrades	$17,397	$683,737	$1,500,000	$3,690,000	$102,471,000	Water
825-13	Construction	Water Purification Demonstration Facility	$11,091,884	$16,131,554	$29,029,974	$33,793,029	$76,176,482	Water
102-37	Construction	SIPS - Greenland - Southside Blvd - Deerwood 3 to Greenland - W	$11,643,602	$17,694,699	$22,452,670	$17,884,639	$60,626,039	Water
135-14	Final Design	Arlington East WRF Upgrades - Aeration Basin and Blowers	$1,905,436	$102,601	$178,598	$2,146,000	$56,119,083	Water
135-11	Final Design	Arlington East WRF Upgrades - Influent Structure	$2,408,207	$131,043	$244,289	$2,146,000	$54,490,242	Water

Projects with Overall Project Budget (OPB) < $50 Million

Index No.	Project Status	Project Description	Total Proj. Expenses through FY23	FY24 Actuals YTD	FY24 Forecast	FY25 Forecast	Forecasted OPB Estimate	Service
711-54	Final Design	Buckman WRF - Biosolids RAW Sludge Holding Tank Restoration	$1,447,857	$338,112	$776,539	$7,272,719	$41,865,021	Water
789-107	Schematic Design	North Jacksonville Area 138kV Transmission Loop	$4,896	$49,407	$743,928	$0	$40,362,278	Electric
131-04A	Construction	Monterey WRF Improvements - Phase 2	$1,364,990	$49,666	$600,325	$6,859,097	$39,745,563	Water
102-34	Construction	SIPS - Deerwood - Southside Blvd Intertie to Deerwood III WTP - New	$28,832,071	$7,121,135	$9,017,841	$150,000	$37,999,912	Water
789-139	Construction	RES - GEC to Mayo Sub 230kV - Transmission Corridor Acquisition	$70,868	$11,122,485	$11,165,000	$500,000	$30,740,556	Electric
789-144	Construction	RES - North Jacksonville Transmission Corridor Acquisition	$1,123,072	$92,694	$1,910,000	$14,944,286	$29,977,358	Electric
825-18	Schematic Design	North Grid THM Mitigation Project	$287,585	$83,783	$289,995	$880,795	$28,089,894	Water
146-07	Schematic Design	Ponte Vedra WRF - Improvements	$61,795	$762,595	$1,316,180	$552,248	$27,988,336	Water
207-16	Construction	Facilities - JEA Headquarters	$26,902,951	$335,504	$1,041,499	$0	$27,944,450	Electric

Legend
Project Substantially Completed
Capital Projects Committee Agenda Item (Past and/or Present)
Future Agenda Item

Notes: [1] FY24 Actuals are through 7/17/24