

# **Water/Wastewater System Capital Projects Workshop**

**June 29, 2017**



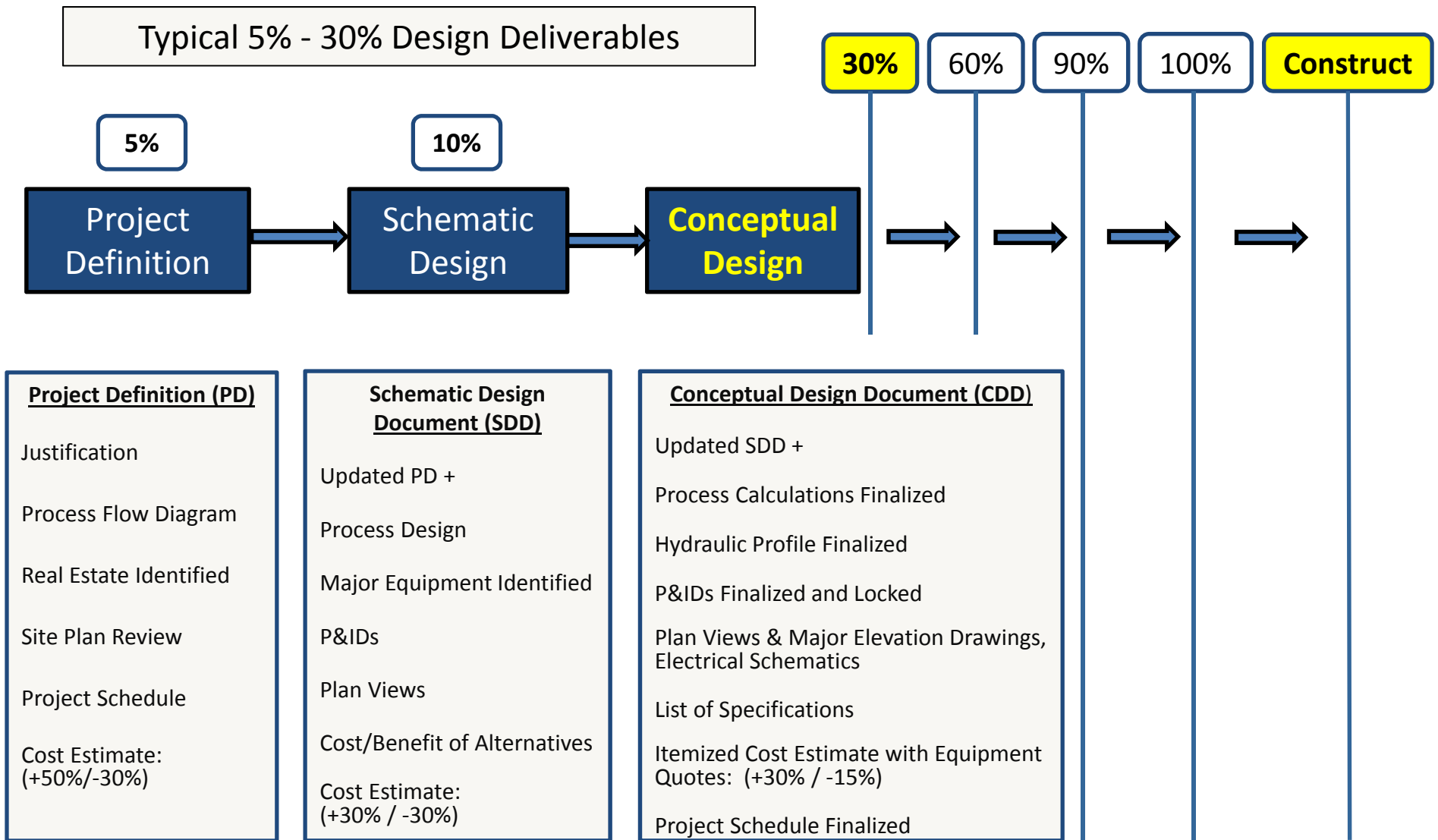
- ❑ Safety Briefing
- ❑ Welcome/Purpose: Brian Roche, VP/GM Water Wastewater Systems
- ❑ CAPEX Overview: Raynetta Marshall, Director Project Engineering & Construction
- ❑ Wastewater Treatment Projects: Bradley Collier, Manager Wastewater Plants
- ❑ Water Treatment Projects: Hai Vu, Manager Water Plants
- ❑ Delivery & Collection Projects: Beth DiMeo, Manager Delivery and Collection
- ❑ Contract Requirements: Bryan Dewberry, Manager Project Controls
- ❑ Closing Remarks/Questions: Raynetta Marshall

# Welcome and Purpose

- ❑ Delivery of \$1B W/WW Capital Program over the next 5 Years
  
- ❑ Enhance Communication
  - Engineering Consulting Firms
  - Construction Contractors
  - Jacksonville Small & Emerging Business
  
- ❑ Increase Number and Quality of Proposers/Bidders
  
- ❑ Alternative Project Delivery Methods for Select Projects
  
- ❑ Enterprise Asset Management (EAM)



# Water/Wastewater Engineering Standard Project Delivery Process



# Water/Wastewater 5-Year CAPEX

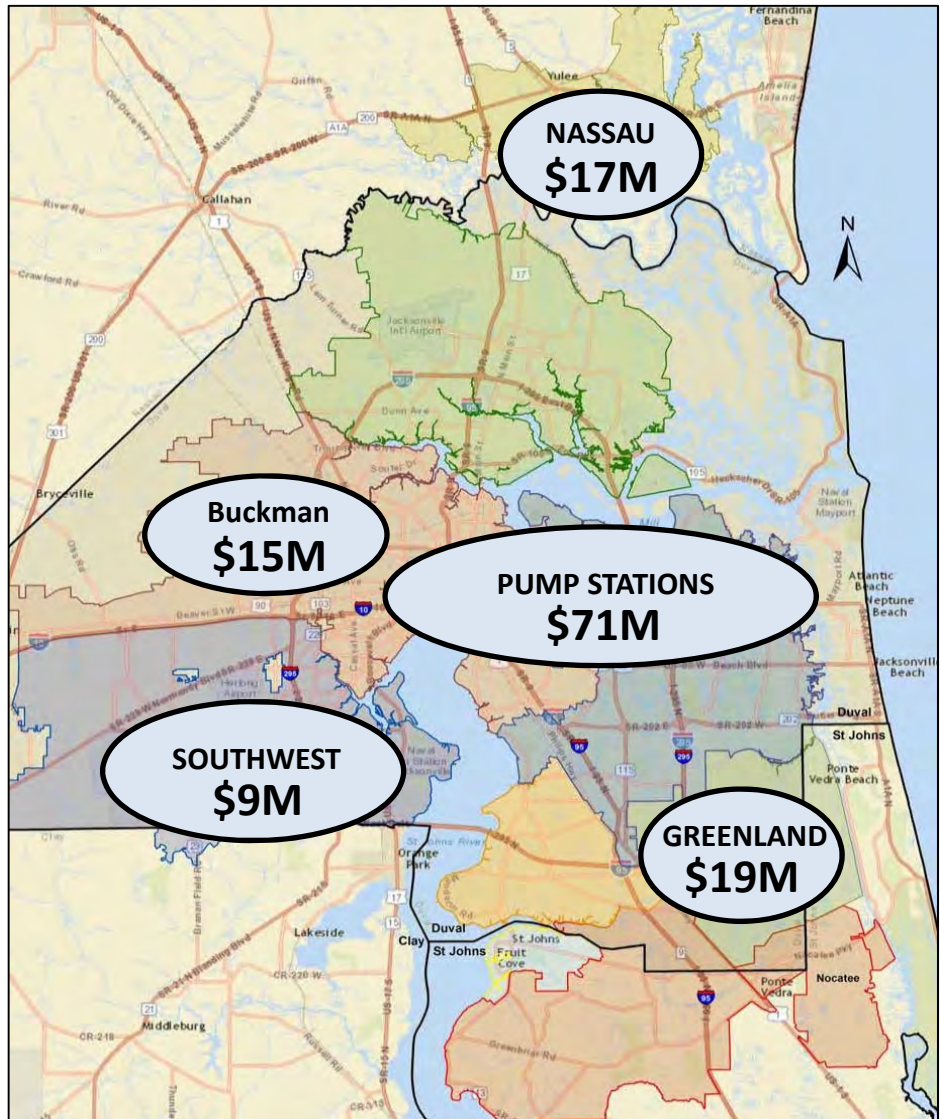
Asset Category	Manager	Draft Project List				
		FY17	FY18	FY19	FY20	FY21
Wastewater Treatment	Bradley Collier	\$67,251	\$54,275	\$60,209	\$54,487	\$77,964
Water Treatment	Hai Vu	\$31,560	\$32,558	\$45,224	\$23,470	\$9,353
Grid	Beth Dimeo	\$18,784	\$36,449	\$39,507	\$26,714	\$32,007
Interagency	Mickhael Sulayman	\$12,436	\$7,019	\$4,935	\$3,006	\$3,000
Development	Deanna Davis	\$7,115	\$5,988	\$7,455	\$3,650	\$4,680
O&M Plants/Pump Stations	Greg Peugh	\$27,079	\$21,202	\$19,871	\$21,165	\$19,340
O&M Grid	Ken Chascin	\$10,184	\$13,030	\$14,100	\$14,100	\$14,100
Large Diameter Program	Robert Cadle	\$3,659	\$7,123	\$7,598	\$14,676	\$12,053
O&M System Control	Mike Dvoroznak	\$412	\$150	\$150	\$150	\$150
Subtotal		\$178,480	\$177,794	\$199,049	\$161,418	\$172,647
Other (Fleet, Facilities, Meters, IT, etc.)		\$33,212	\$35,871	\$29,203	\$28,677	\$30,205
Total		\$211,692	\$213,664	\$228,252	\$190,095	\$202,852

June 2017 Forecast:	\$185,000	\$191,000
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# Wastewater Treatment CAPEX Highlights

(\$ in millions)	FY18	FY19	FY20	Total
Nassau Regional WRF	1	5	11	17
Buckman Biosolids Conversion	1	5	9	15
Bradley Rd PS	2	7	--	9
Pump Station Upgrades	12	22	7	41
Pump Station Reliability	7	7	7	21
Southwest WRF	1	3	5	9
Greenland WRF	1	3	15	19
<b>Subtotal</b>	<b>\$25</b>	<b>\$52</b>	<b>\$54</b>	<b>\$131</b>
<b>FY Total</b>	<b>\$61</b>	<b>\$67</b>	<b>\$62</b>	<b>\$190</b>



Blacks Ford WRF Expansion

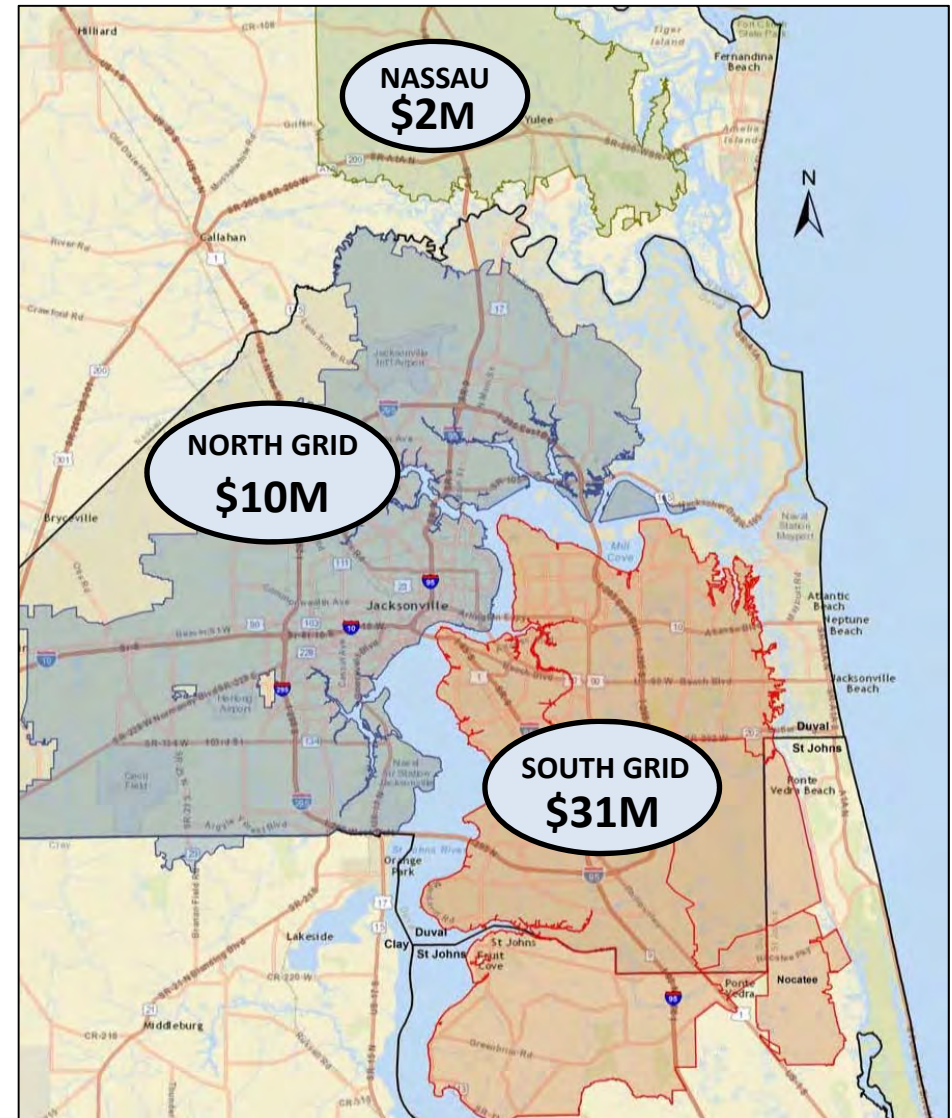


# Water Treatment CAPEX Highlights

(\$ in millions)	FY18	FY19	FY20	Total
Otter Run WTP R&R	2	--	--	2
Lakeshore WTP Reservoir Rehab	1	2	1	4
Westlake WTP Expansion	--	1	1	2
Cecil WTP HSPs/Tank	1	2	1	4
Rivertown WTP	1	6	6	13
Greenland WTP Expansion	1	2	2	5
Nocatee South RW Storage/PS	1	4	1	6
US 1 Booster Station	2	5	--	7
<b>Subtotal</b>	<b>\$9</b>	<b>\$22</b>	<b>\$12</b>	<b>\$43</b>
<b>FY Total</b>	<b>\$33</b>	<b>\$45</b>	<b>\$23</b>	<b>\$101</b>

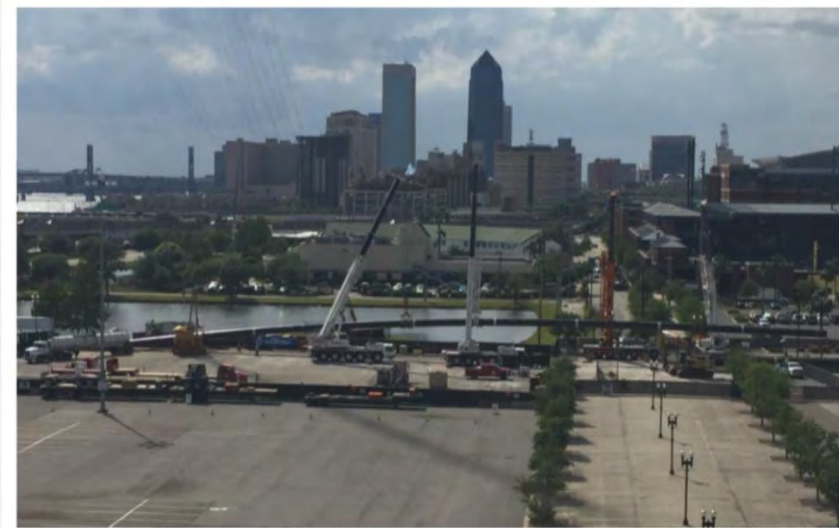


Greenland WTP Ozone Addition

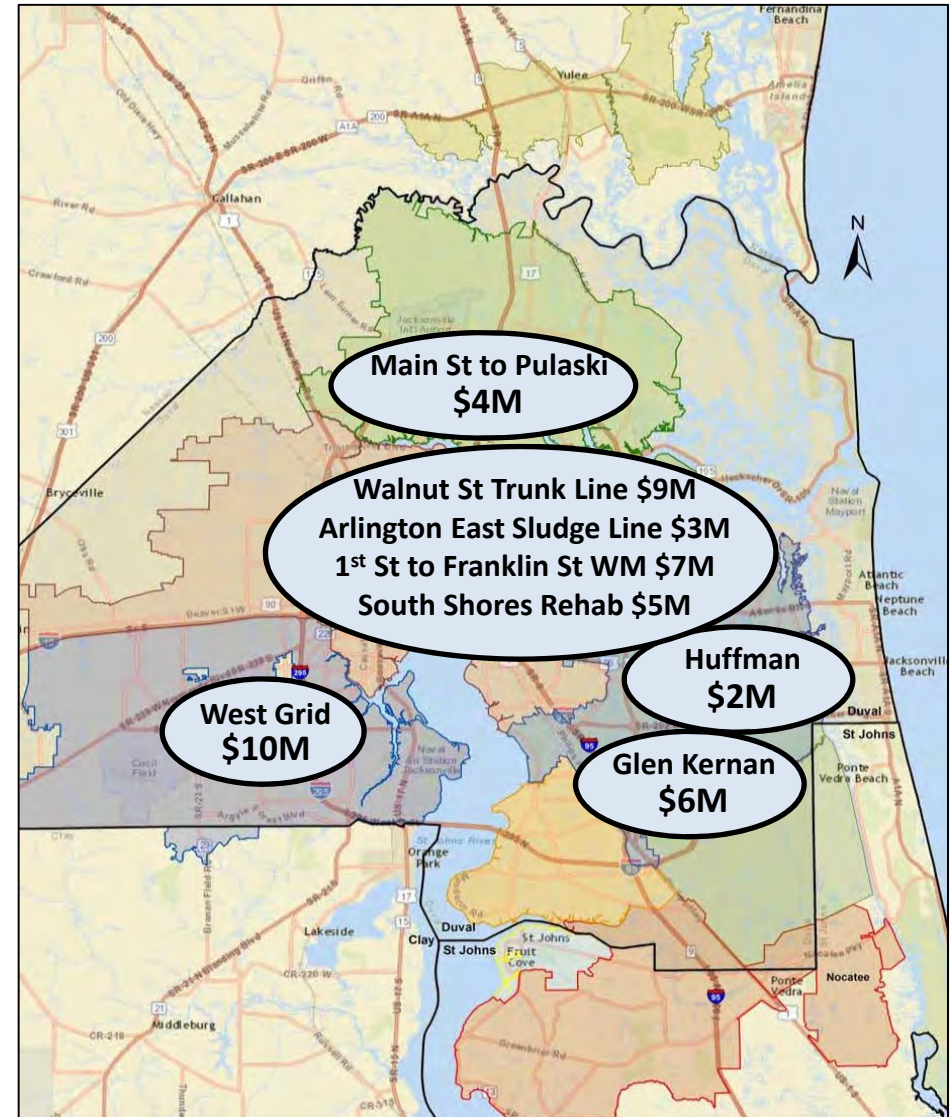


# Delivery & Collection CAPEX Highlights

(\$ in millions)	FY18	FY19	FY20	Total
DII – Main St to Pulaski FM	3	1	--	4
Walnut St Trunk Line	1	4	4	9
Arlington East Sludge Line	1	1	1	3
1 <sup>st</sup> St to Franklin St WM	1	5	1	7
South Shores Rehab	--	1	4	5
Huffman Blvd FM	2	--	--	2
West Grid FM and PS	1	9	--	10
Glen Kernan to T-Line RW	1	5	--	6
<b>Subtotal</b>	<b>\$10</b>	<b>\$26</b>	<b>\$10</b>	<b>\$46</b>
<b>FY Total</b>	<b>\$36</b>	<b>\$40</b>	<b>\$27</b>	<b>\$103</b>



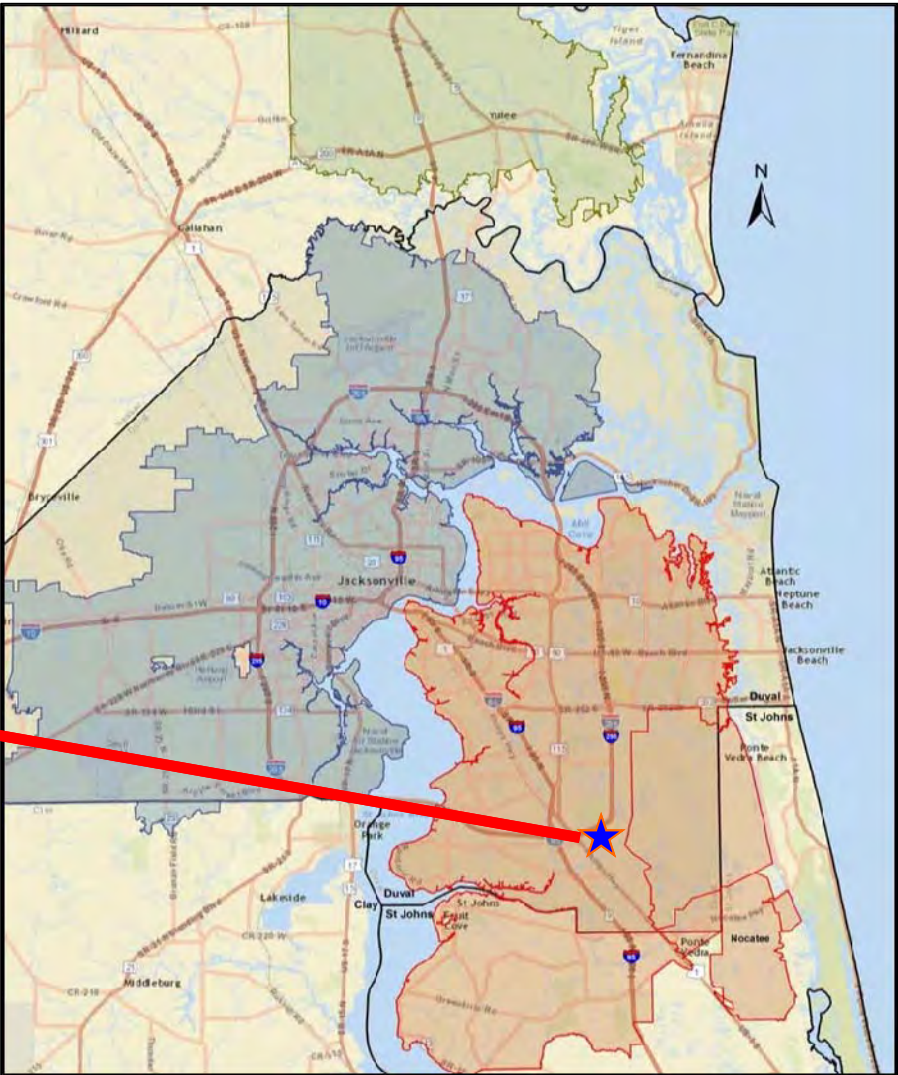
South Shores Sub-Aqueous FM Crossing





# Greenland 6 MGD WRF

Scope: New 6 MGD WRF to support projected growth.  
Status: RFP for Engineering Pending  
Budget: \$65,000,000  
Schedule: Design May 2018 – Jul 2019  
Construction Feb 2020 – Feb 2022



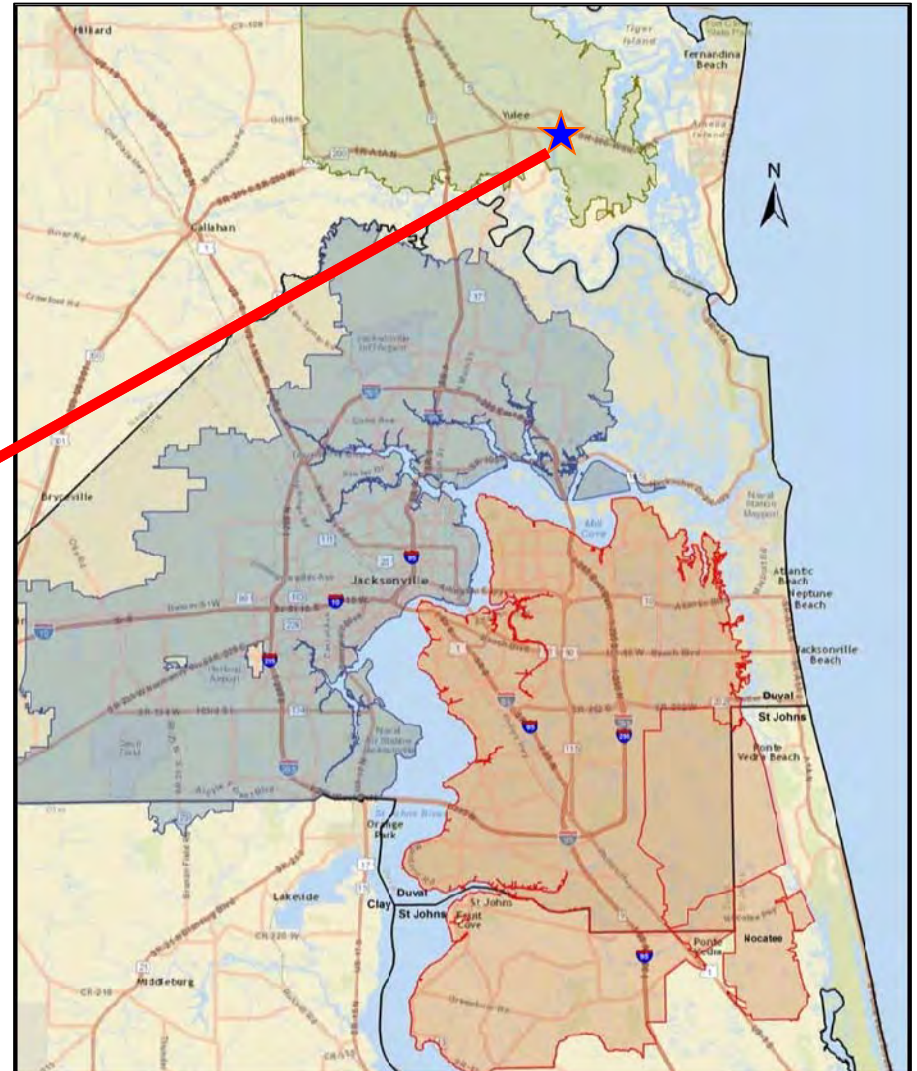
# Nassau Regional WRF Expansion

Scope: 4 MGD Expansion, Drainage Improvements, RIB Modification, Effluent Disposal and Wetlands

Status: RFP for Engineering Pending

Budget: \$46,700,000

Schedule: Design Oct 2017 – Dec 2018  
Construction Jul 2019 – Jul 2021



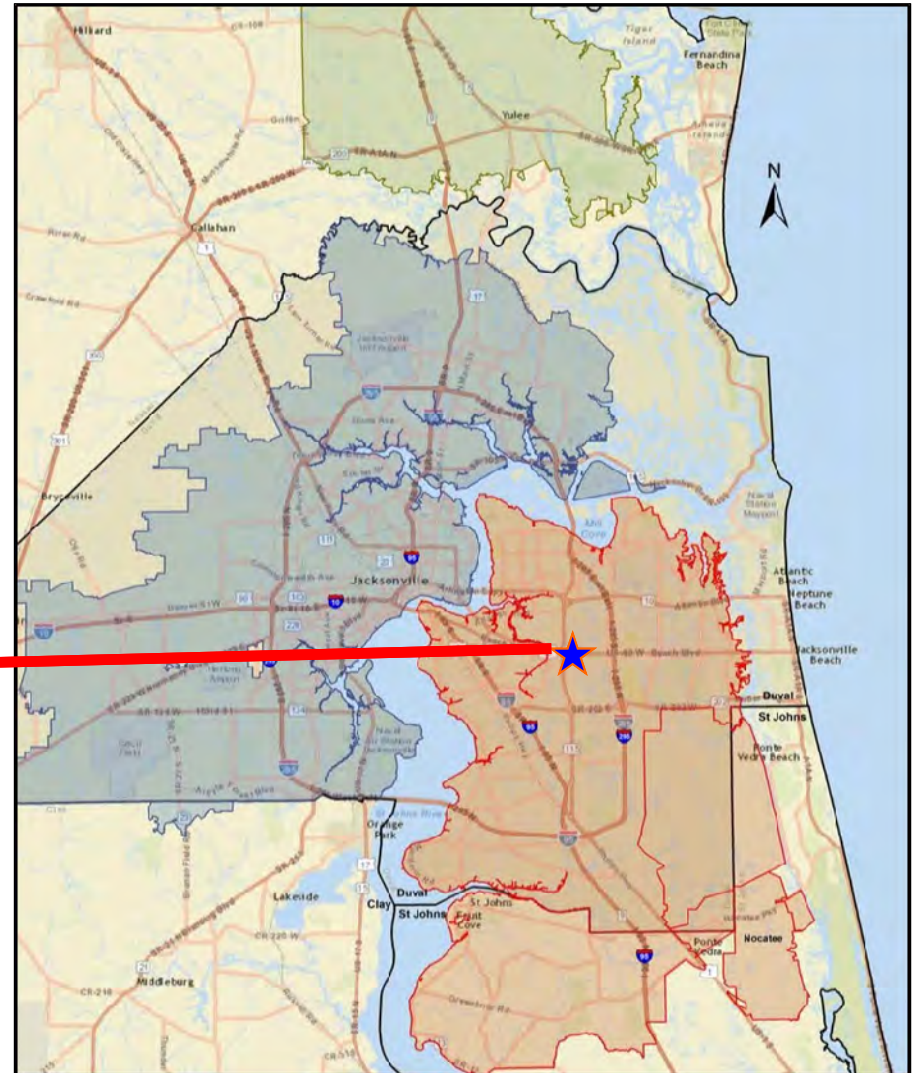
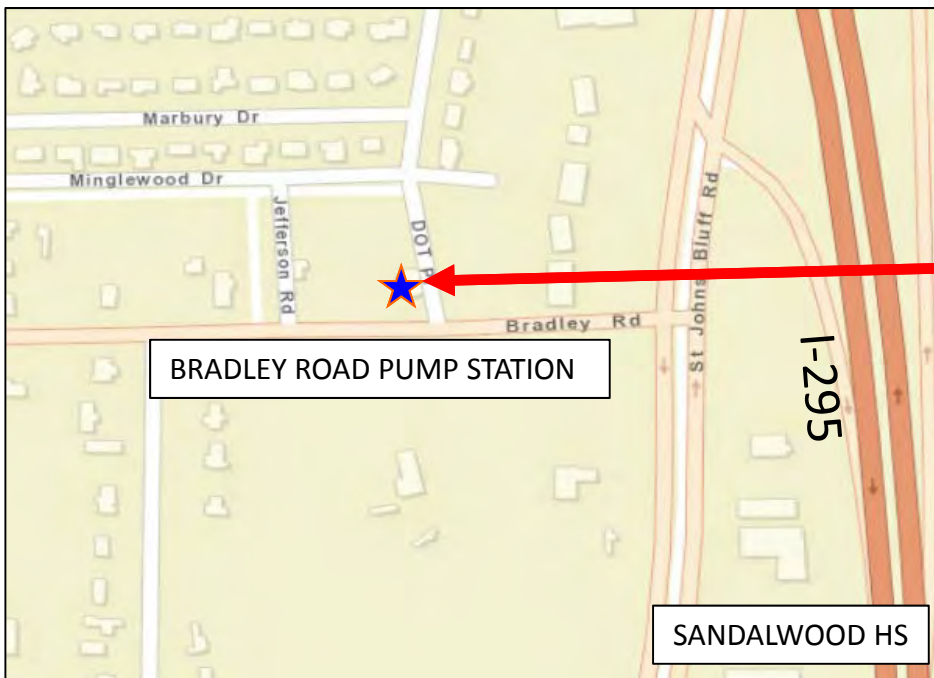
# Bradley Road Pump Station Improvements

Scope: New Booster PS; 6 pumps, 2 jockey pumps, MCC's, pre-engineered building and generator.

Status: IFB for Construction Pending

Budget: \$9,000,000

Schedule: Design Ongoing – Oct 2017  
Construction May 2018 – Aug 2019



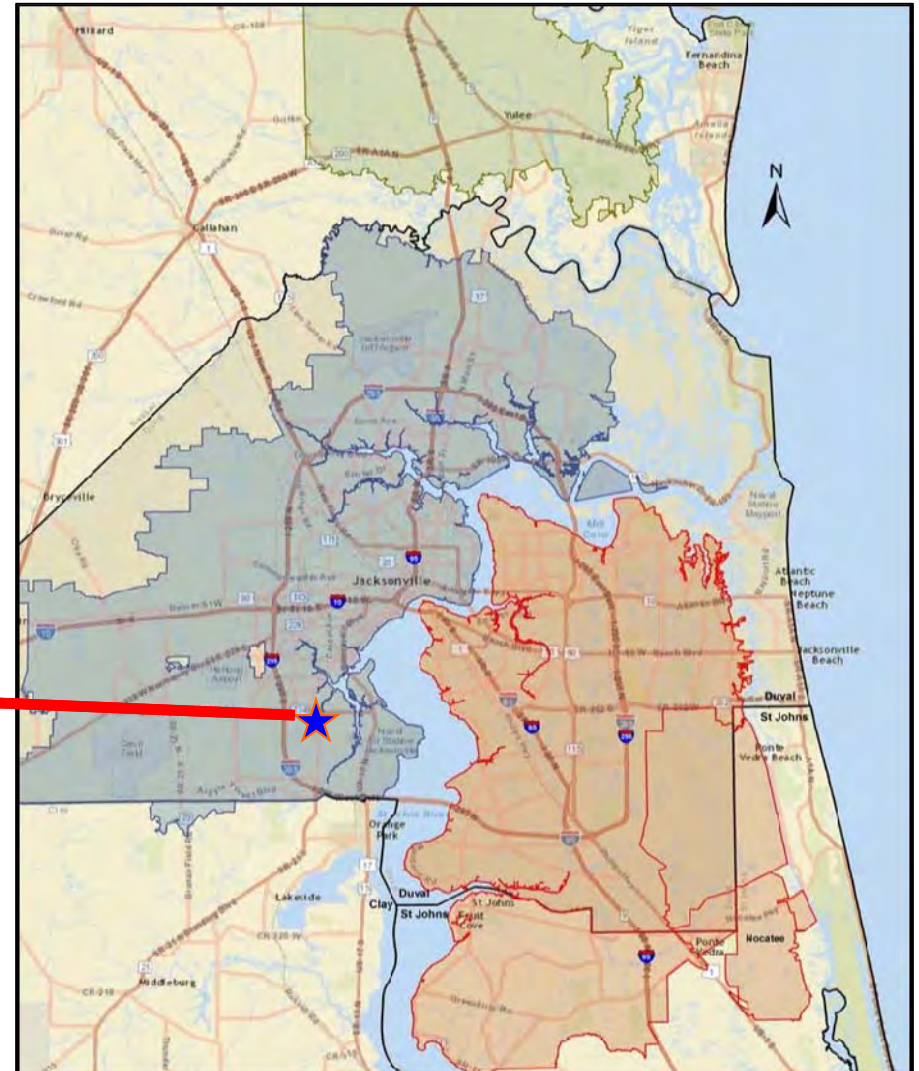
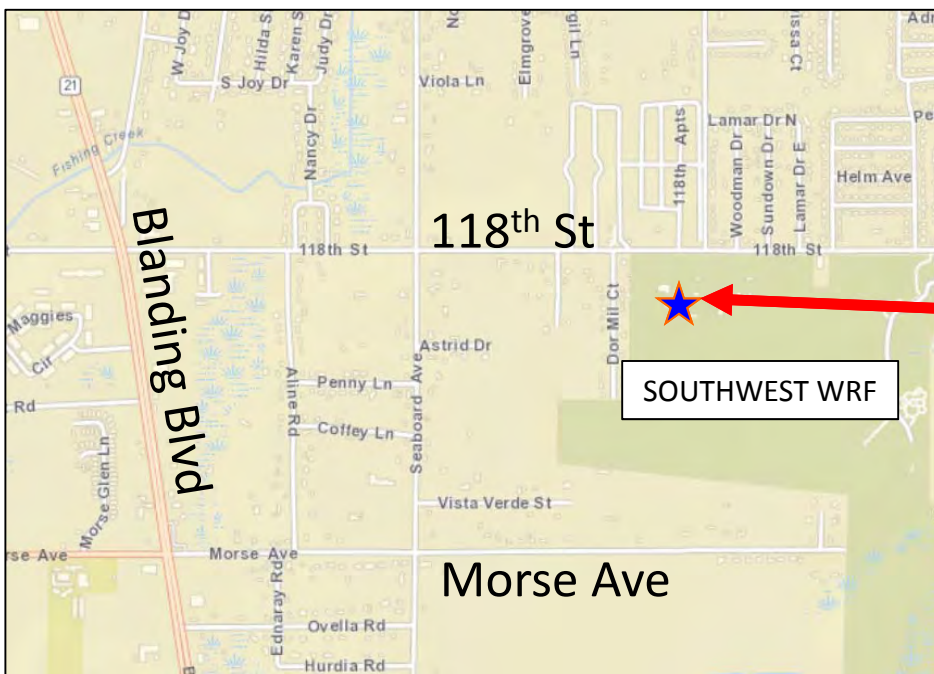
# Southwest WRF Expansion

Scope: Expansion from 14 to 18 MGD to support projected growth.

Status: RFP for Engineering Pending

Budget: \$32,000,000

Schedule: Design Apr 2018 – Jun 2019  
Construction Jan 2020 – Jan 2022



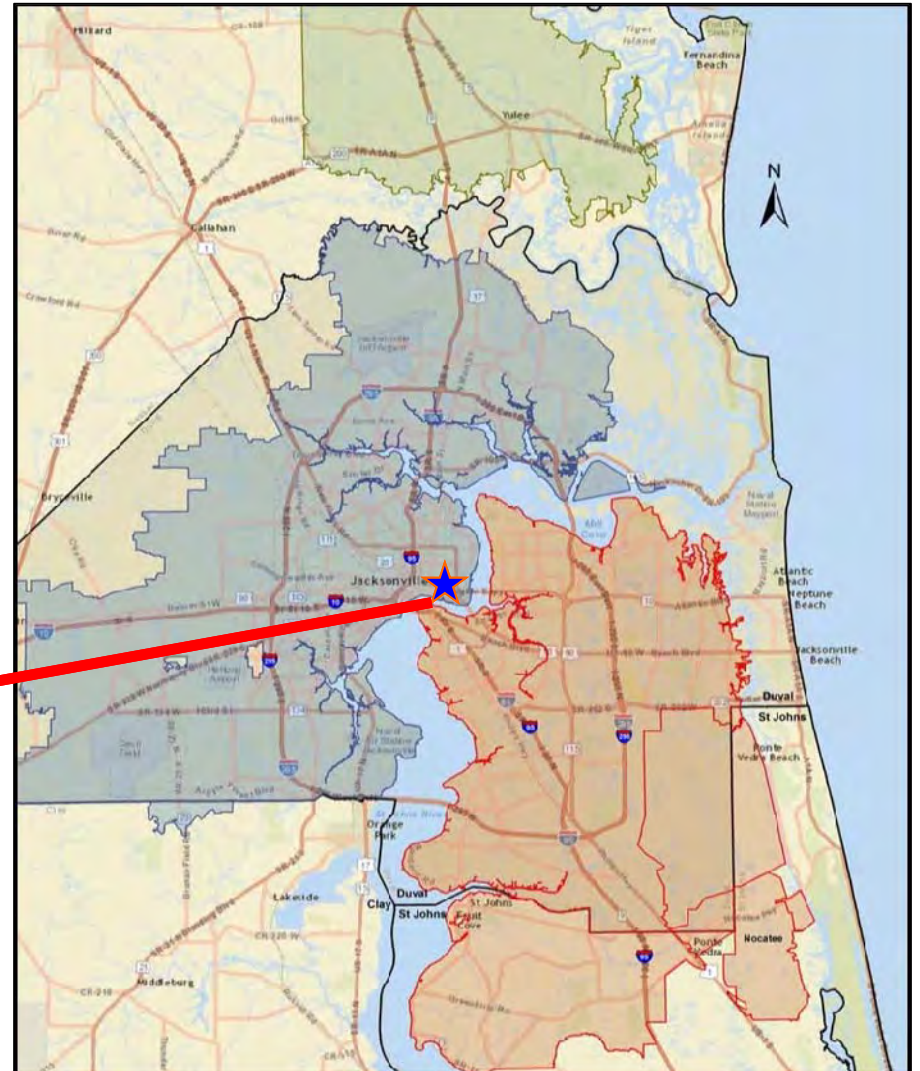
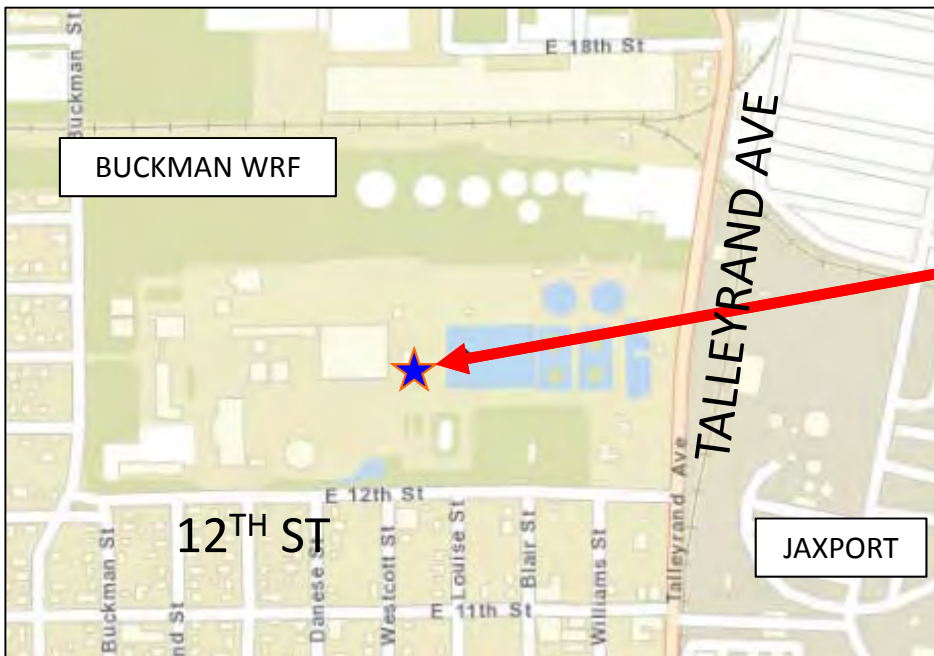
# Buckman WRF Biosolids Conversion

Scope: New Biosolids Processing Facility, Vacuum Truck Facility Expansion and E&I, O&M, and Pump Maint. Buildings.

Status: RFP for Engineering Pending

Budget: \$37,200,000

Schedule: Design Apr 2018 – Jun 2019  
Construction Jan 2020 – Feb 2022



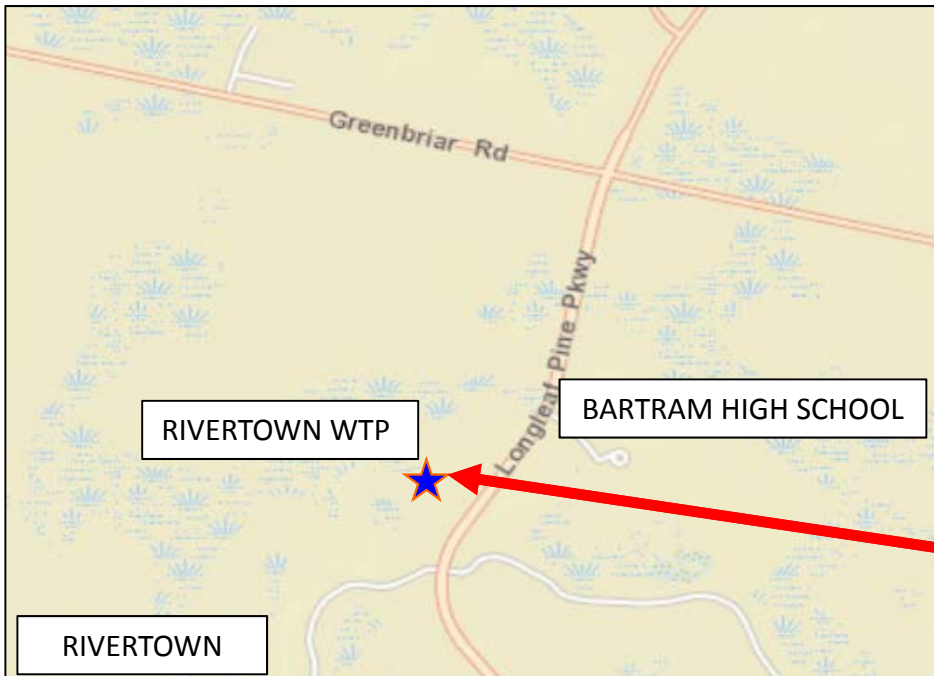
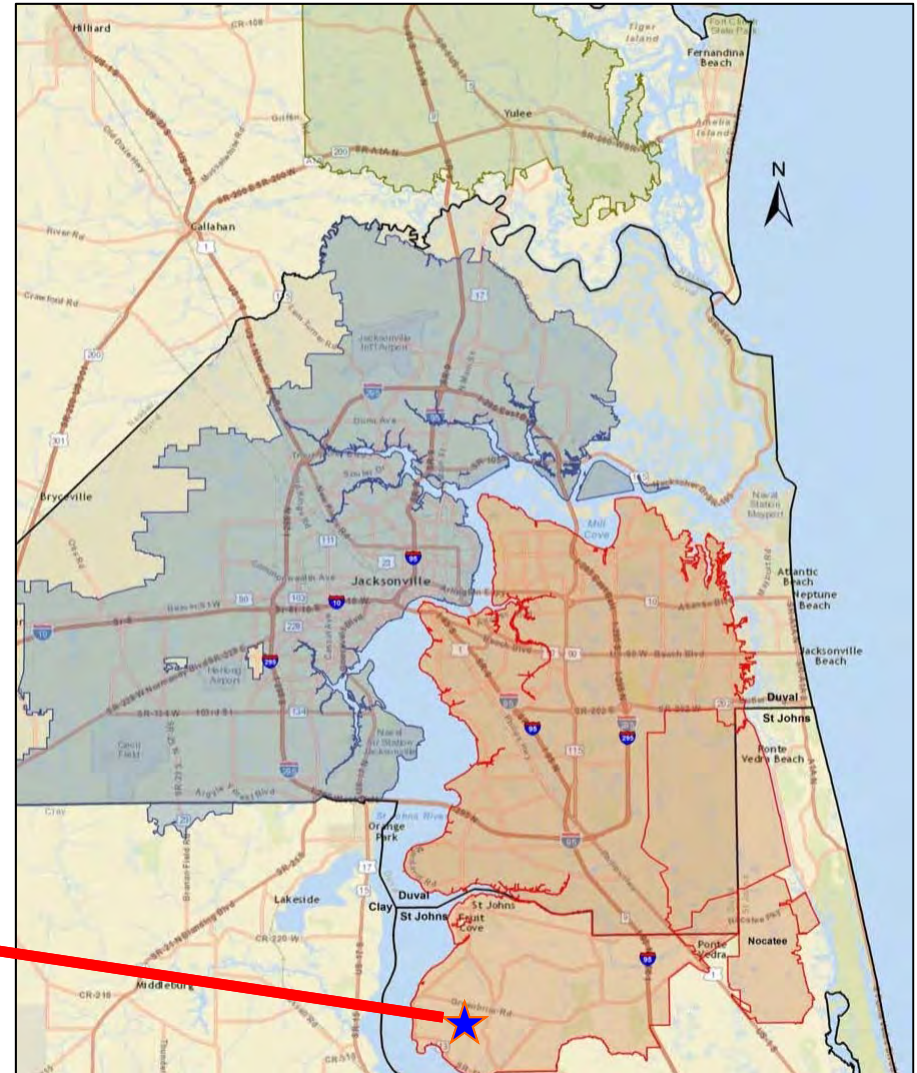
# Rivertown WTP

Scope: New 4.7 MGD MDD WTP with (1) 2 MG GST, (3) wells, (4) HSPs and potential H<sub>2</sub>S treatment

Status: RFP for Engineering Pending

Budget: \$14,000,000

Schedule: Design Jan 2018 – Oct 2018  
Construction Feb 2019 – Mar 2020



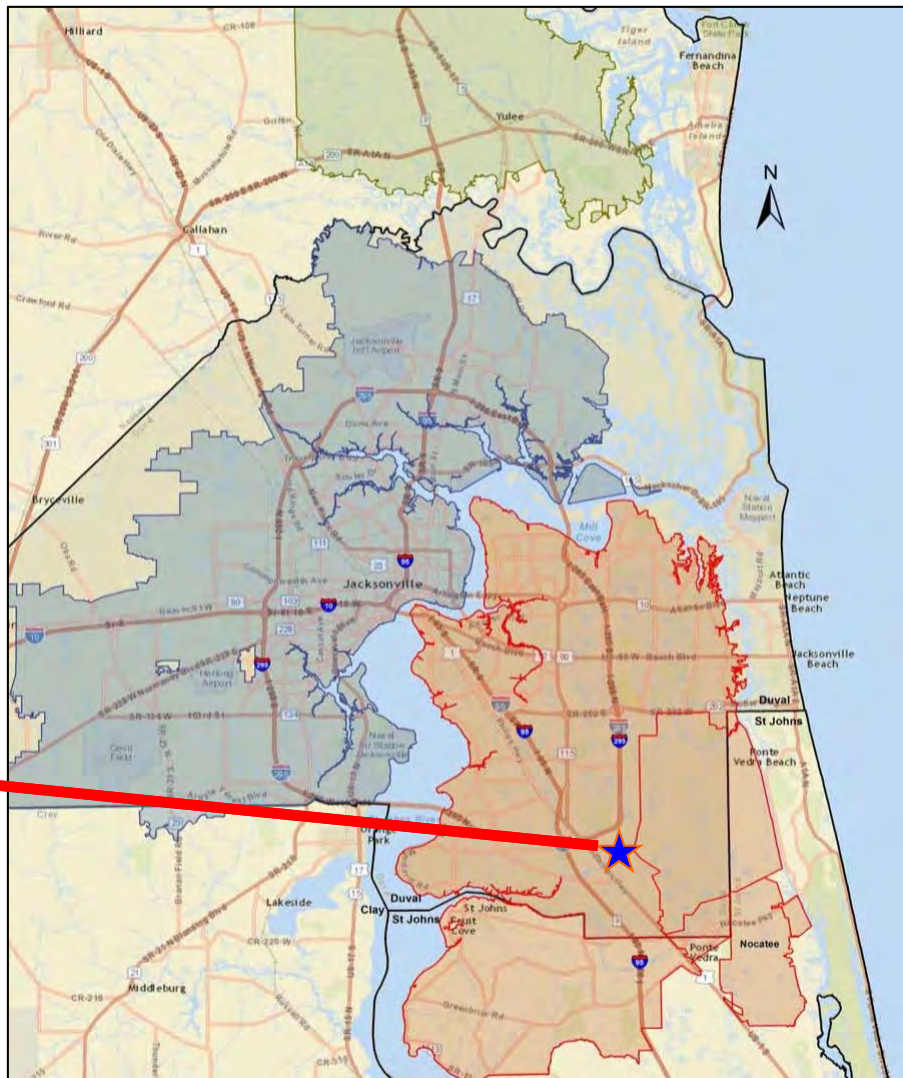
# Greenland WTP Expansion

Scope: Expansion of Greenland WTP by adding (1) MG GST, (1) well, (1) HSP

Status: RFP for Engineering Pending

Budget: \$5,000,000

Schedule: Design Jan 2018 – Sep 2018  
Construction Aug 2018 – Oct 2019



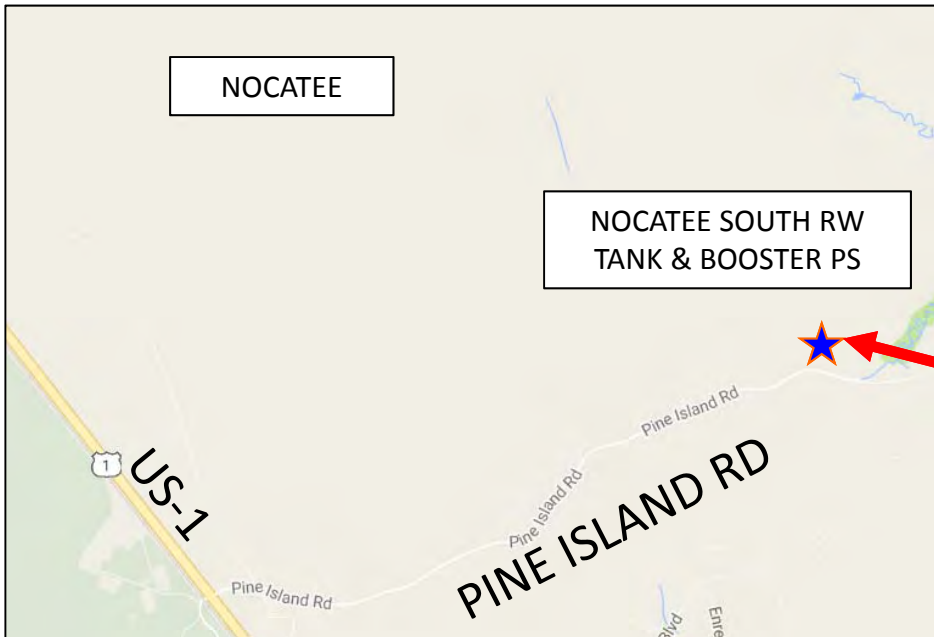
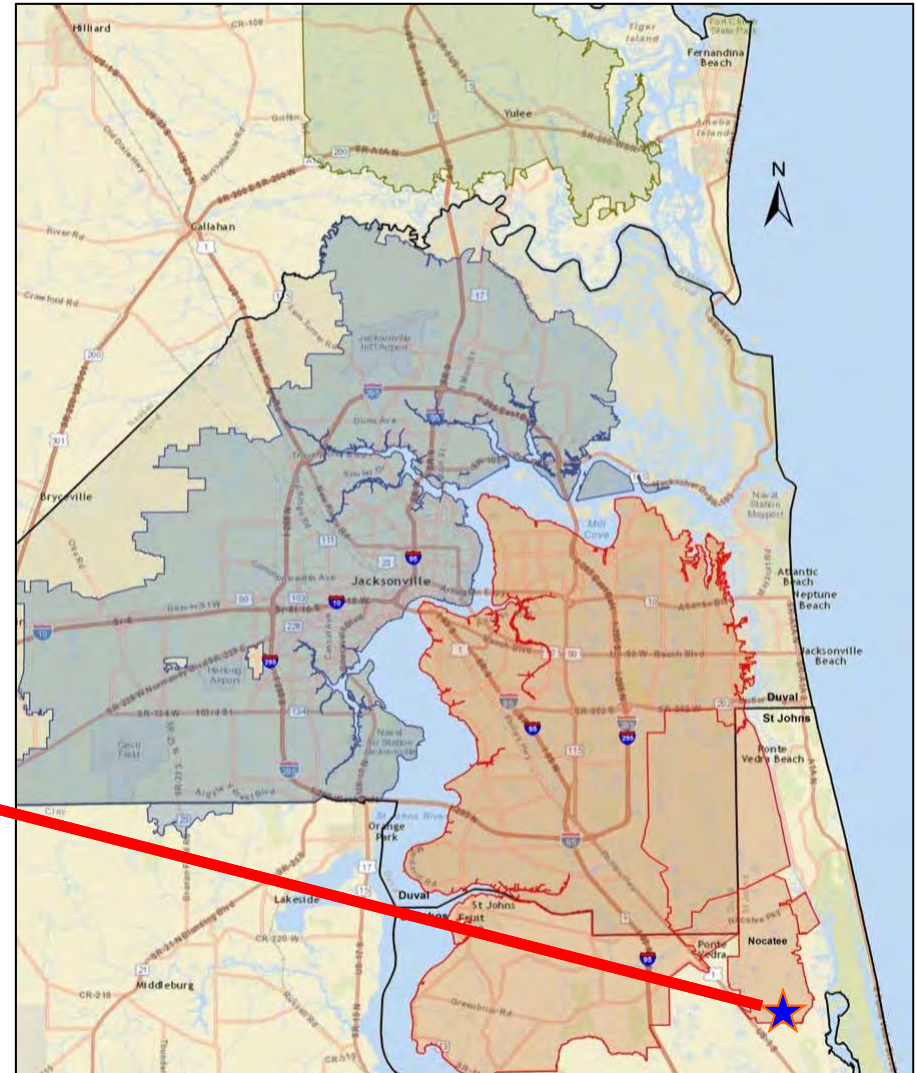
# Nocatee South RW Storage Tank & Booster PS

Scope: New booster PS and (1) 1 MG GST at Nocatee S.  
Increase pumping capacity to 10,000 GPM at Nocatee N.

Status: RFP for Engineering Pending

Budget: \$5,100,000

Schedule: Design May 2018 – Feb 2019  
Construction Jun 2019 – Mar 2020





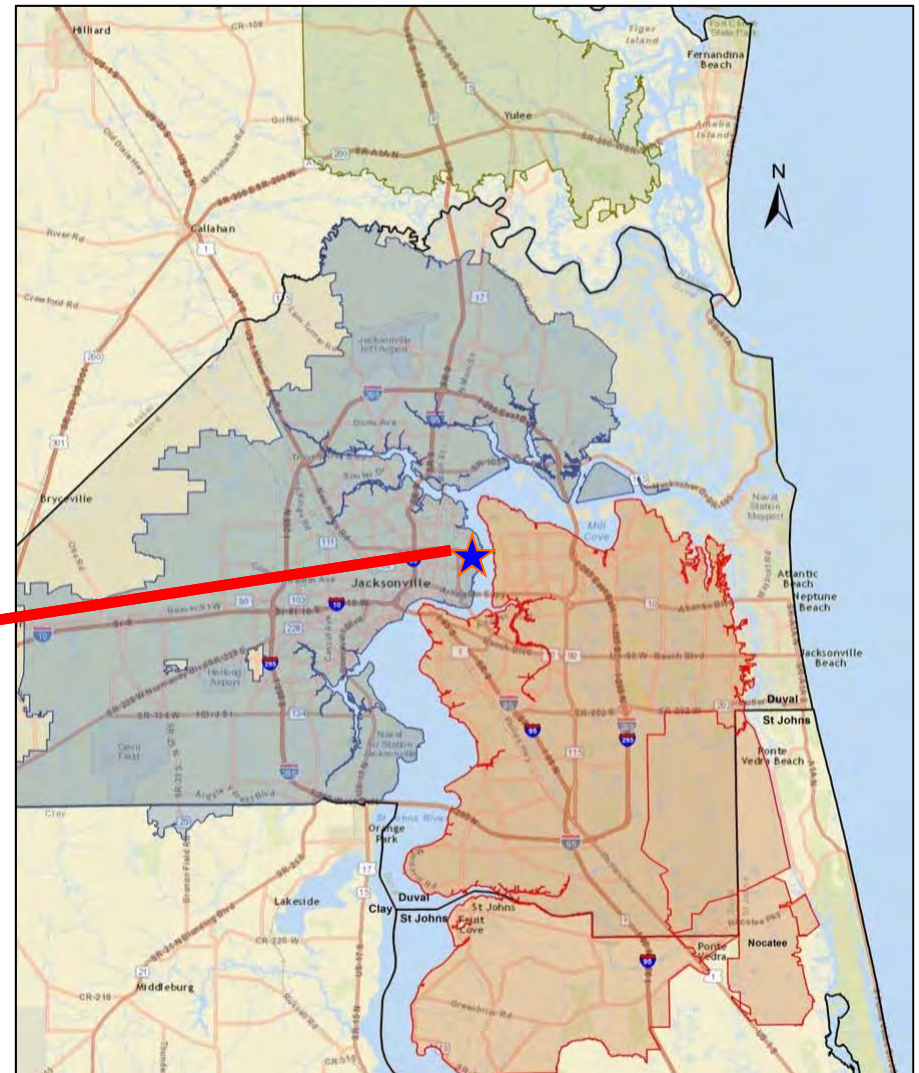
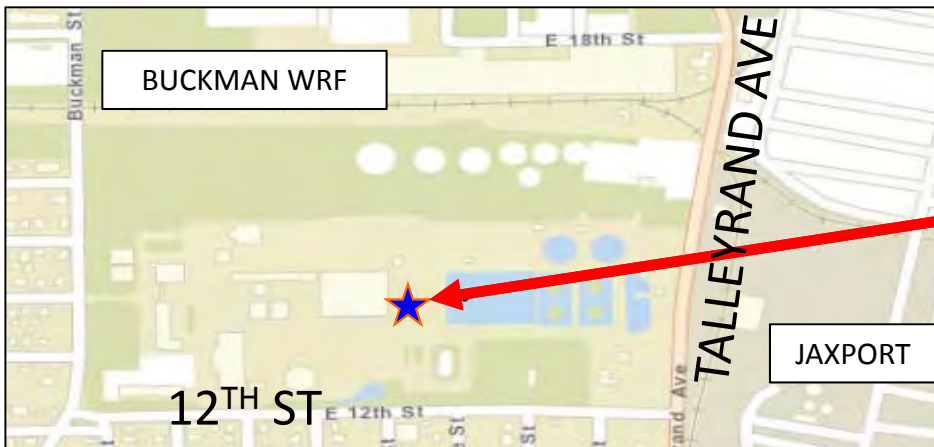
# Buckman WRF Blower System Improvements

Scope: Provide reliability and redundancy to existing turbo blower system

Status: Design Pending

Budget: \$4,000,000

Schedule: Design Sep 2017 – Sep 2018  
Construction Jan 2019 – Jan 2020



# West Grid - Lenox to Timuquana - FM Replacement and New Lenox PS

## Scope:

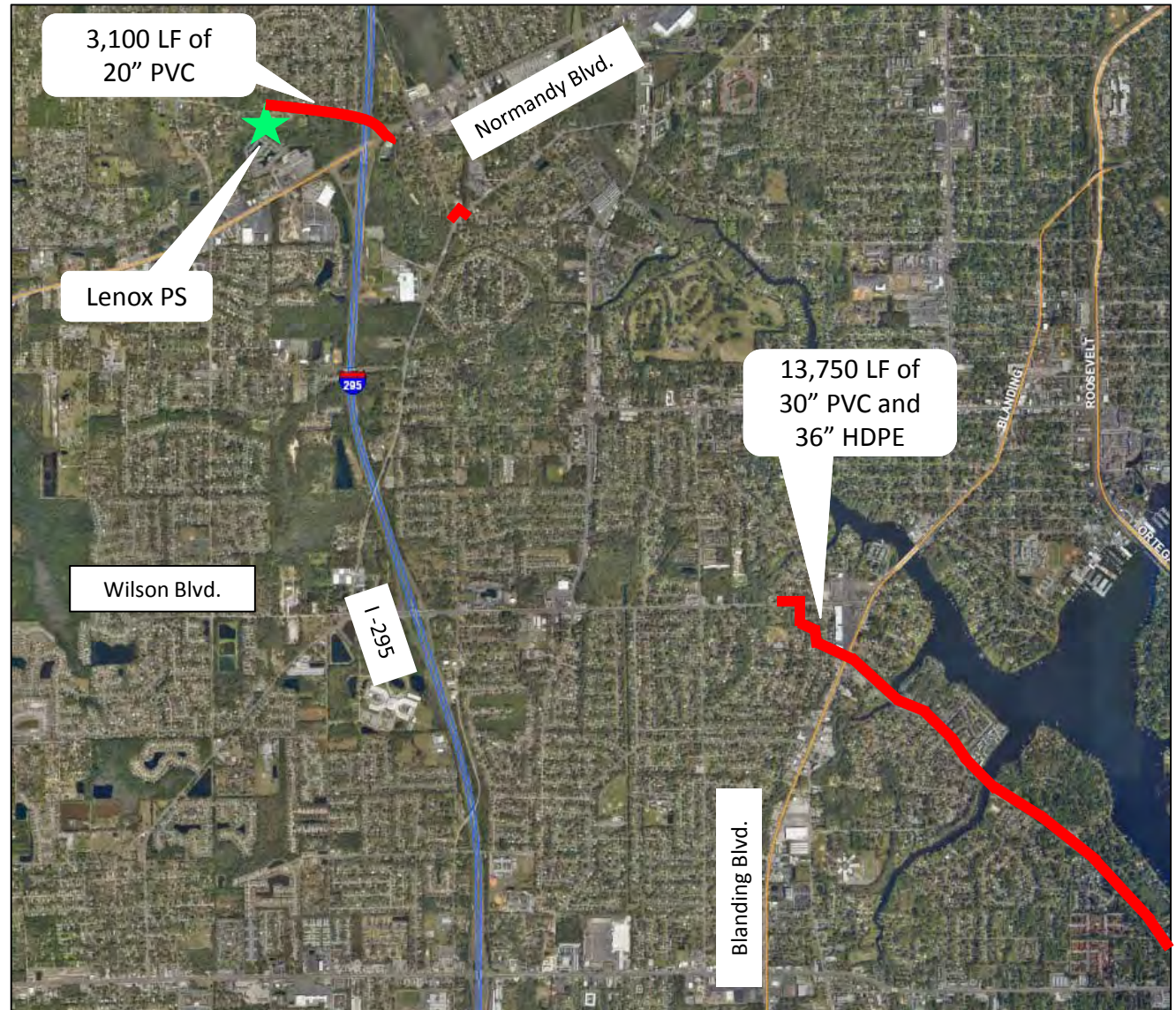
- New JEA Standard Triplex PS
- Demolition of existing Pump Station
- 13,750 LF 30" PVC and 36" HDPE Open Cut and HDD
- 3,100 LF 20" PVC open cut and trenchless method

Status: In Design

Budget: \$10,600,000

## Schedule:

Design Apr 2017– Apr 2018  
Construction Jul 2018 – Jul 2019



# DII - Main St to Pulaski Road FM

Scope: 9,510 LF of 20" DR25 PVC Force Main

Budget: \$3,600,000

Status: 90% Design

Schedule: Design Jul 2016 - Jul 2017  
Construction Nov 2017 - Jul 2018



# Walnut St Trunk Line Replacement

## Scope:

- Replacement of 1540 LF of 60" RCP w/ 42" Pipe
- Rehabilitation of 1025 LF of 60" RCP w/ 42" Pipe

Status: RFP for Engineering  
Pending

Budget: \$8,000,000

## Schedule:

Design Jan 2018 – July 2018  
Construction Nov 2018 – Nov 2019



# Huffman Blvd FM Replacement

Scope: 6,600 LF of 30" DR25 PVC by open cut method

Status: Bid Package Pending

Budget: \$2,500,000

Schedule:

Construction Oct 2017– May 2018



# Arlington East WRF Parallel Sludge Transfer Line

Scope:	3,200 LF 10" DR9 HDPE by Horizontal Directional Drill; Upgrade pumping equipment at Arlington East WRF if necessary	Budget:	\$3,100,000
Status:	RFP pending	Schedule:	Design Jan 2018 – Sept 2018 Construction Jan 2019 – Jun 2019



# Contract Requirements

- Invoicing
- Schedule Requirements
- Vendor Performance
- Jacksonville Small and Emerging Business



# Closing Remarks

