

# Index Number 417-81 – SR200 – William Burgess Blvd to Police Lodge Rd - Trans - RW

PREPARED FOR: JEA Capital Budget Planning

PREPARED BY: JEA Water/Wastewater System Planning (George Porter)

DATE: Revised 5/4/2020 (original 3/1/2018)

## Introduction

This Project Scope Statement (PSS) is prepared for the construction of a reclaimed water transmission main. This PSS identifies the project location, details the project needs, and lists potential design and construction considerations along with providing a preliminary cost estimate and project schedule.

## Project Description & Justification

East of I-95, two communities have been identified to use reclaimed water for irrigation. Three Rivers (JEA Availability No. 2016-1131) is a multi-phased development totaling 3,200 residential units (2400 single family, 800 multifamily), currently under construction. North of SR200 there is significant land available for future development that will be required to use reclaimed water. As of the writing of this PSS no plan or schedule has been established for this area. Figure 1 shows the location of the planned developments and the planned reclaimed water main.

## Scope

This project will continue west from where the JEA project index number 100-48 ends. A 16-inch diameter PVC reclaimed water main will be constructed for approximately 14,250 linear feet (LF) to the entrance of the Three Rivers development, which is approximately 4,800 LF east of Police Lodge Rd. The 16-inch diameter main will connect on both sides to the dry 16-inch diameter reclaimed water line that will be installed under SR200 and I-95 crossing (approximately 1,200 LF). A 16-inch diameter stub out to the west of the Three Rivers Development (western end of this project) is required for future extension. Refer to the Three Rivers construction drawings for a connection location. The JEA Development Group provided construction drawings for Three Rivers development (now called Tributary). Joint projects provided preliminary as-builts for SR200 FDOT widening project

## Capacity

Single family homes typically have the highest demand on the reclaimed water system. The maximum demand expected from the Three Rivers development is 8,000 gpm (2400 single family at 2.5 gpm per home) if all homes were to irrigate at the same time. If homes follow the recommended irrigation rules (even and odd numbered homes irrigating on different days of the week) demands would reduce to 4,000 gpm, which a 16-inch diameter reclaimed water main can support. Initially available capacity of the 16-inch diameter will not be an issue; however, as demands grow, storage and supplemental water will be needed not only to support the Three Rivers development but also future development west of I-95 along SR200. Storage and supplemental water will be scoped in the future as a separate project. The location of the future storage and repump facility has not yet been determined but may be identified during the design process. If the location is identified, two 16-inch diameter stub outs with valves in the direction of that facility may be added to this project.

Figure 1: SR200 Reclaimed Water Main



## Method of Construction

The methods of installation for the proposed reclaimed water main shall be by Design Bid Build in accordance with the latest edition of the JEA Water & Sewer Standards Manual.

## Special Crossings

Wetland impacts are not expected. Trenchless when necessary

## Land Ownership/Real Estate Issues

The need for temporary construction or permanent easements should be evaluated early in the design process to allow time for acquisition. All final easements and right-of-way issues will be coordinated by the design team and addressed during the project design phase.

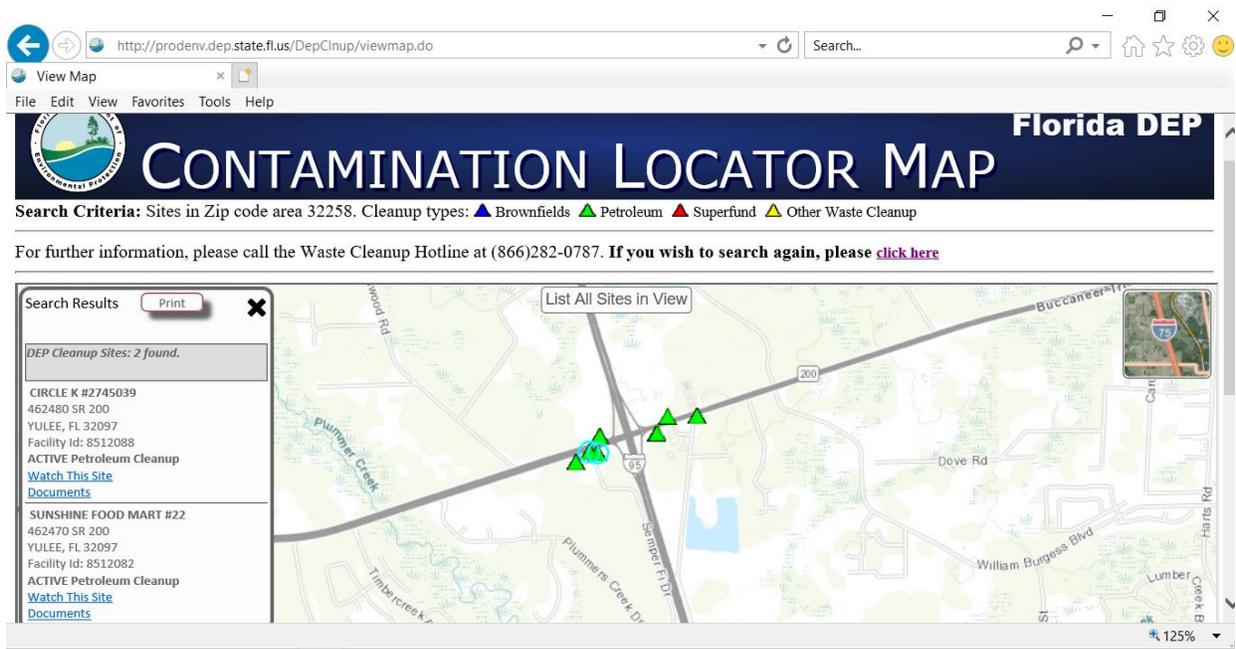
## Survey/Geotech/Environmental Requirements

Final design of the project should be based on field survey data including horizontal and vertical locations and identification of existing utilities, pavement, structures and drainage features within the project area limits. Right-of-way boundary limits and parcel ownership lines should be included on the survey as well as any easements. Any vegetation deemed 'protected' by the governing jurisdictions should also be surveyed. An environmental consultant should be engaged to determine the presence of jurisdictional wetlands and protected or listed species within the construction limits. Any wetland lines or significant habitat community limits should be flagged prior to survey commencement.

## Permit List

It is anticipated that permits will be required by Nassau County, Florida Department of Environmental Protection and FDOT for a utility permit. Other permits may be determined necessary during the design process and shall be obtained by the design team.

FDEP contamination locator website shows contamination on both sides of the I-95 SR200 intersection and groundwater and soil sampling might be required as well as industrial discharging permitting near these locations. It is anticipated that the piping will be ductile iron pipe material within the contaminated area.



## Risks

Disposal of effluent from Nassau Regional WRF is currently limited to a JEA wetland, RIBs at the WRF and two golf courses (APRICOT discharges). Wastewater flows have been increasing at a greater than average rate over the past couple years; this places a greater emphasis on alternative effluent disposal options, especially in the near term before the WRF expansion can be completed and while long term solutions are evaluated. Three Rivers will have reclaimed water connections waiting within the next year, completion of this project will help offset effluent to current permitted discharges.

### Project Schedule

Milestone	Project Request	10% Design	30% Design	60% Design	90% Design	100% Design	Bid
Project Start	8-Mar-18						
Design Start	18-Nov-20						
Design Finish	26-Aug-21						
Construction Start	19-Jan-22						
Substantial Completion	13-Jan-23						
Final Completion	23-Feb-23						