

Facilities Description

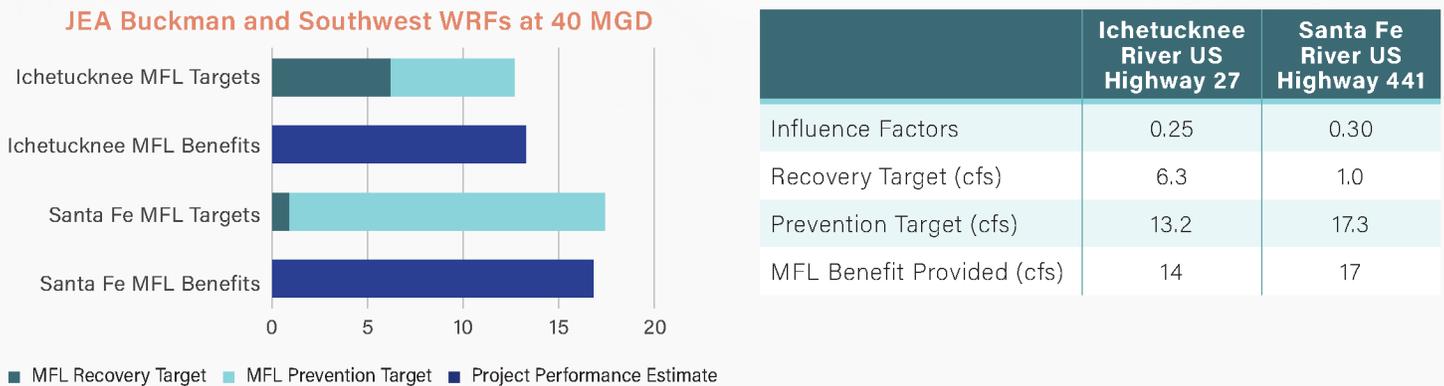
The following facilities have been identified as part of this project:

- For the higher range treatment scenario, purification facilities would be required to treat reclaimed water to drinking water standards. For the lower range treatment scenario, only pumping facilities will be provided at the WRFs to transport reclaimed water to the next stage of the process.
- Provide transmission mains from the Buckman and Southwest WRFs to the north side of the JEA-owned Peterson tract. Booster pump stations would be provided as necessary to convey flow the 25 miles from Buckman WRF to the Peterson tract and 20 miles from Southwest WRF to the Peterson tract.
- Provide a flow through treatment wetland on the Peterson tract. The terminal end of the wetland will be provided with a reservoir and pumping facility to transmit the reclaimed water to the next stage of the process.
- Provide transmission mains and booster pump stations as necessary to convey flow approximately 40 miles from the Peterson tract to selected recharge locations.
- Depending on selected recharge location geotechnical characteristics and land availability, RIBs, recharge wells, or a combination of both would be used to introduce reclaimed water to recharge the aquifer.

Project Benefits to the LSFIR MFLS

The benefits calculated for this project are based on representative NFSEG influence factors for the Ichetucknee and Santa Fe River gages within the target recharge area. A recharge efficiency of 90% was assumed for this project based on use of RIBs.

The graph below demonstrates the project's ability to address MFLs at the Santa Fe River US Highway 441 gage near High Springs and the Ichetucknee River gage near Highway 27 in Hildreth.



Notes:

Careful selection of recharge site(s) and methods could result in satisfaction of full MFL targets based on current WMD modeling.

Ancillary Benefits

- This project will assist JEA in meeting the intent of Florida SB64 to beneficially use reclaimed water.
- Utilization of the treatment wetland to lower nutrient concentrations prior to discharge addresses concerns for impaired water bodies near the discharge location. The Santa Fe River has an adopted Basin Management Action Plan (BMAP) for total nitrogen and dissolved oxygen, therefore the addition of high-quality water to the aquifer and ultimately Ichetucknee Springs and Santa Fe River will improve water quality for the impaired water body.
- The construction of treatment wetlands on the Peterson Tract could provide the opportunity for co-location of recreational benefits and/or environmental enhancements that could be utilized by the surrounding residents and native flora and fauna.