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FREQUENTLY ASKED QUESTIONS

Water First North Florida Project — At a Glance

- Restores flows to the Lower Santa Fe and Ichetucknee rivers and protects Outstanding Florida Springs.
- Uses highly treated reclaimed water, not untreated wastewater, as a sustainable supplemental source.
- Water directly entering the aquifer meets all state and federal drinking water standards through multiple treatment steps and safeguards.
- Helps meet future regional water demands while reducing reliance on groundwater.
- Funded through a regional partnership, with major contributions from utilities and water management districts.

With the Water First North Florida project, we're protecting springs and helping secure North Florida's water supply.



Scan the QR code to learn more.

BACKGROUND

Q: Why is the Water First North Florida project needed?

A: The Florida Department of Environmental Protection (DEP) and Suwannee River Water Management District (SRWMD) have proposed Minimum Flows and Levels (MFLs) for the Lower Santa Fe and Ichetucknee Rivers (LSFIR), which include several Outstanding Florida Springs. The proposed MFLs are not being met.

DEP, SRWMD and the St. Johns River Water Management District (SJRWMD) worked with four North Florida utilities to identify additional water sources to restore the LSFIR system and meet future water demands. The evaluation concluded that JEA's reclaimed water was the only reliable and economically feasible source with sufficient volume to support regional recovery of the rivers and aquifer system, making JEA a key regional partner.

Before the initiative, JEA planned to use some of its excess reclaimed water within its service area for local aquifer recharge and beneficial uses. However, by dedicating reclaimed water instead for the Water First North Florida project, full recovery of the LSFIR can be achieved to the benefit of all water users in the planning region and the natural system. The project will provide sufficient water to meet regional demands for at least the next 20 years.

WATER QUALITY CONCERNS: MICROPLASTICS, PHARMACEUTICALS, AND “FOREVER CHEMICALS”

Q: How will Water First North Florida address emerging contaminants?

A: JEA and SJRWMD began studying treatment technologies nearly a decade ago and completed a multi-year research program in 2019. JEA is also piloting a treatment train using ozone and treatment wetlands to evaluate real-world effectiveness of eliminating emerging contaminants in reclaimed water.

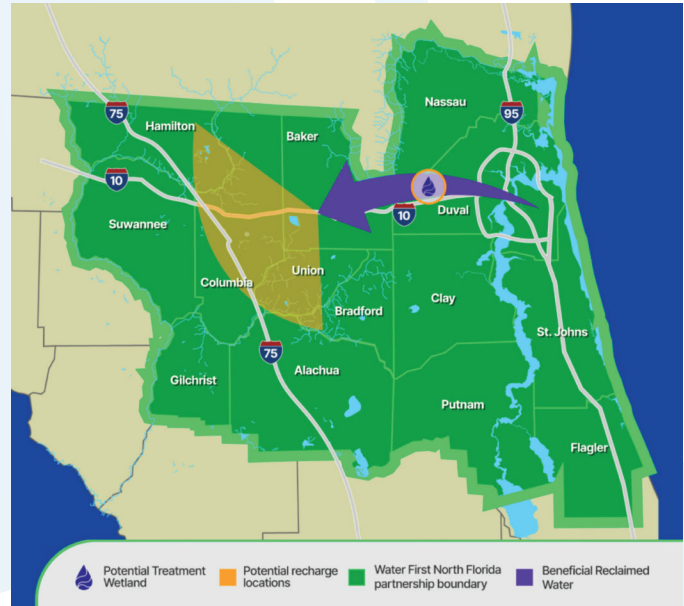
The results of this study will be used to inform the design of the Water First North Florida Project to ensure that any water that directly recharges the aquifer meets or exceeds state and federal drinking water standards.

RELIABILITY OF THE BUCKMAN WATER RECLAMATION FACILITY

Q: How will this project ensure that untreated water is not delivered to a treatment wetland or recharge site?

A: Water is highly treated to reclaimed water standards before leaving the water reuse facility. If those standards are not met, additional treatment would be applied before the water is transferred to the treatment wetland.

Once the water arrives at the treatment wetland, additional treatment will occur through natural bacteriological processes further reducing nutrients and improving water quality. If necessary, a final treatment step will occur after the water exits the treatment wetland to ensure compliance with all water quality standards, including drinking water standards, before direct



aquifer recharge occurs.

Multiple fail safes will be in place to ensure untreated water will not enter the transmission system serving the wetland or recharge sites. There is no scenario where untreated water could enter recharge sites.

PROJECT COSTS AND FUNDING

Q: Who pays?

A: JEA has committed up to \$400 million toward the project. SJRWMD is expected to contribute up to 25% (approximately \$125 million) as required by Florida Statutes (see section 373.805(4)(d), F.S.). Additional funding may come from other entities who elect to participate in the project.

Funding commitments for regional projects are typically memorialized through participation agreements when the project design is complete or near complete.

MEETING SPRINGS NITRATE LIMITS

Q: Will the project meet the spring nitrate target of 0.35 mg/L?

A: The project will be designed to meet or exceed all state and federal water quality standards, including nutrient loading requirements, for:

- Springs nitrate criterion;
- Total Maximum Daily Loads (TMDLs); and
- Basin Management Action Plans (BMAPs).

There are multiple proven methods to reduce nitrogen in reclaimed water. A pilot study is underway to optimize nitrogen and phosphorus reduction in the treatment wetland and inform final system design.

Examples of proven treatment wetland systems:

- Sweetwater Wetlands Park (Gainesville Regional Utilities): 125 acres of constructed wetlands.
 - Natural bacteriological processes reduce nitrogen and phosphorus, improving water quality. It also offers recreational opportunities to the community and visitors and provides a thriving habitat for over 260 species of birds.
- City of Lake City Wetlands: 121 acres of wetlands constructed to improve water quality before aquifer recharge.

GROUNDWATER CONSERVATION

Q: Why not rely solely on groundwater conservation?

A: Groundwater use has been relatively stable over the past 20 years due to water conservation and alternative water supply development. Water conservation will remain

a critical component to recover the LSFIR systems, but conservation alone cannot restore the flows and meet the MFLs.

Both the Suwannee and St. Johns River water management districts, as well as local governments, agricultural producers, utilities and homeowners, have made significant investments to conserve water for agriculture and residents and have been implementing projects to protect and preserve North Florida's water resources for more than a decade.

DESALINATION

Q: Could desalination replace this project?

A: Ocean desalination was evaluated by a consultant, but it was determined to be far more expensive and less effective than the proposed Water First North Florida project.

- Calculated cost estimates developed as part of the alternatives analysis:
 - ~\$3 billion to utilize seawater in lieu of reclaimed water from JEA to recharge the aquifer; up to ~\$12 billion to utilize seawater as a replacement for groundwater as a potable water source for the four largest utilities in the northern planning area of SJRWMD.

What this means for Residents

- Safe and reliable water supply for households and businesses.
- Protects springs and rivers that residents enjoy for recreation and tourism.
- Supports sustainable growth
- Efficient resource management by reducing long-term costs associated with water supply projects.

- Fully replacing northeast Florida's potable water would require producing 182 million gallons per day of fresh water. Requiring:
 - An intake capacity of 363 million gallons per day
 - Disposal of 182 million gallons per day of concentrate management (brine)
 - Reduces MFL impacts by only ~40% (it does not fully resolve the problem).
- Very high energy requirements, potentially requiring additional energy sources beyond current utility capacity, which could increase costs for consumers.
- Extensive modifications to existing water treatment and transmission systems would be needed.
- Notably, there are few seawater desalination plants in the U.S. (13 as of 2018 according to the Congressional Research Service), largely due to the costs for not just initial construction, but operation of these systems. The largest seawater desalination plant in the country is in California, producing just 50 million gallons of water a day.

PIPELINE CONSTRUCTION AND LANDOWNER IMPACTS

Q: Will the pipeline be installed on private land?

A: Transmission pipelines will be installed in public right-of-way whenever possible. If easements are required, they would be negotiated and purchased from landowners.

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