



2021

# WATER QUALITY REPORT

**JEA**<sup>®</sup>

Building Community

# We are pleased to present our 2021 Annual Water Quality Report



JEA takes its stewardship of our community's water supply very seriously and follows regulatory requirements meticulously. With this in mind, we are pleased to provide you with our 2021 Water Quality Report.

In this publication, you'll be able to review detailed information about JEA's water treatment systems, results from our water quality testing and learn about water conservation tips that can help you save money and further protect this critical natural resource.

The Floridan aquifer, our pristine groundwater source, provides exceptional quality water. In this report, you will find a comprehensive summary of JEA's drinking water quality results from the most recent sampling period. This represents approximately 45,000 tests done over the past year by our team of laboratory scientists and technicians.

We know the water we deliver to your home or business contributes significantly to your quality of life and that of our entire community. That's why we work hard to manage and maintain these water resources today, and for generations to come.

Don't hesitate to contact us with any follow up questions or concerns. We are here to serve you.

Sincerely,

Jay Stowe, JEA Managing Director & CEO



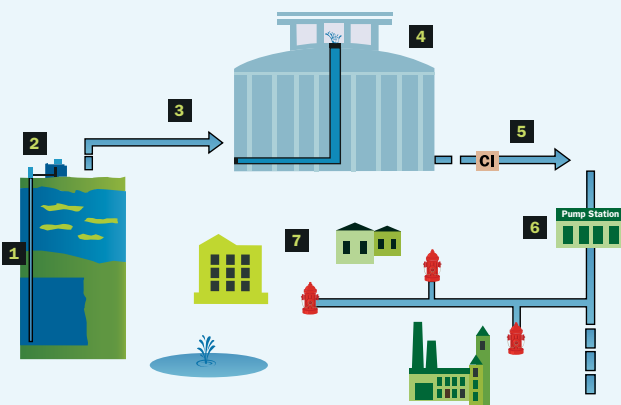
## Water Supply

Expansion of the Greenland Water Treatment Plant in southern Duval County was completed in 2021. With the addition of a new well, ground storage tank, service pump, auxiliary generator, and upgrades to the chemical feed systems, the plant is better able to serve the rapidly growing e-Town and Nocatee neighborhoods.

## FDEP Source Water Assessments

In 2021, the Florida Department of Environmental Protection performed Source Water Assessments to identify potential sources of contamination in the vicinity of JEA wells. Potential contamination sources include landfills, fuel storage tanks, dry cleaning facilities and wastewater disposal areas. Visit [fldep.dep.state.fl.us/swapp/](http://fldep.dep.state.fl.us/swapp/) to view assessment results online.

System	# of Potential Sources	Susceptibility Level
Major Grid	123	Low-Moderate
Mayport	2	Low
Lofton Oaks Grid	9	Low
Ponte Vedra Grid	2	Low
Ponce de Leon Grid	4	Low



**1. The Florida Aquifer** is the source of water in Northeast Florida. JEA utilizes this source to provide potable (drinking) water to our customers. The aquifer is a gigantic underground river that courses through limestone formations many hundreds of feet underground. **2. Deep Well Turbine Pumps** are used to draw the water from the aquifer and deliver it through **3. Well Headers** to the **4. Water Treatment Plant**. At the plant, the water is aerated and stored until there is demand for the water. As needed, the water is chlorinated and pumped into the system by the plant's service pumps. **5. Transmission Mains** carry the potable water throughout the many miles of service area and ultimately deliver the water through **6. Distribution Mains**, service connections, and water meters to our **customers**.

## Water System Process

The JEA drinking water system consists of wells, water treatment plants, the distribution grid of pipelines, and finally the customers' meters. We have over 130 wells that withdraw water from the Floridan aquifer, about 1,000 feet below land surface. The fresh, clean water is pumped from the well fields to one of 38 water treatment plants, where it then flows through an aerator to remove the sulfur (rotten egg) odor. The water leaves the reservoirs and is disinfected with chlorine per health regulations before it enters over 4,900 miles of water lines for distribution to our customers. Ozone is also utilized at two plants for sulfide removal and to improve taste and odors.



**JEA is committed to environmental stewardship by maximizing the use of available water resources.**

## Integrated Water Resource Planning

JEA customers do an excellent job of conserving water, but conservation alone will not ensure a sustainable water supply for generations to come. We cannot create “new” water, but we can purify and reuse water. All the water in our rivers, oceans and aquifers has been used before and will be used again.

Conservation and conventional reclaimed water are part of JEA’s integrated water resource portfolio, but additional water supply beyond the aquifer is needed to meet long-range projected demands. For that reason, in 2021, JEA completed a 50-year Integrated Water Resources Plan (IWRP). In addition to further conservation and expansion of traditional reclaimed water initiatives, the IWRP also recommends maximizing the use of available water resources with the implementation of water purification for groundwater replenishment. This option provides technical and financial advantages over other options including aquifer sustainability, expanded use of available reclaimed water, minimized discharge and increased resiliency.

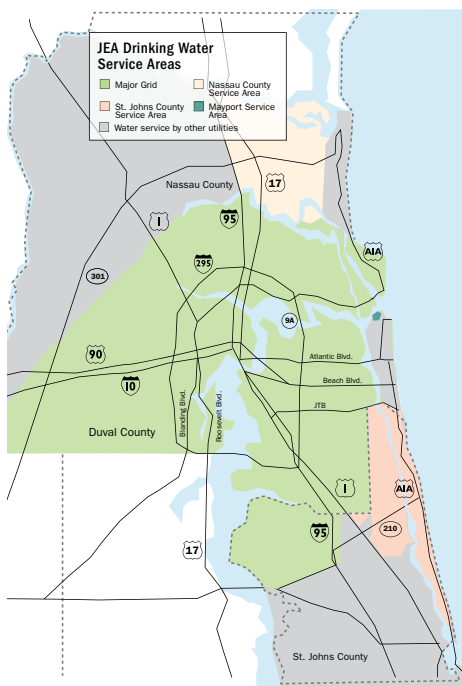
## H2.0 PURIFICATION

The H2.0 Purification Program began in 2016 with pilot testing two industry-leading purification technologies. The research was a cooperative effort with the St. Johns River Water Management District, focused on identifying sustainable water resources to support the needs of the State.

JEA is currently constructing a 1 million gallon per day (MGD) water purification demonstration facility. Initially the purified water will be blended into the reclaimed water system, but eventually it will be used for groundwater replenishment. The facility will include a visitor education center explaining the purification process, the importance of water conservation and how the water system works. With the H2.0 Purification Program, we continue our role as a leader in ensuring a safe, reliable, locally controlled water supply that is essential for healthy environments, robust economies, and a high quality of life.



**Project H2.0 treatment system technology involves ultrafiltration, low-pressure reverse osmosis and advanced oxidation.**



## Jacksonville’s Water Grid

JEA’s Major Grid provides water to most of Duval County and the northwest portion of St. Johns County. JEA also supplies water to Mayport, the Yulee and Wildlight areas of Nassau County, and from Ponte Vedra south to Vilano Beach along A1A. Additionally, along the Intracoastal Waterway in Palm Valley there is one small area that gets its water through an interconnection with the St. Johns County Utility Department. Our grid arrangements provide reliable water service backup as needed, particularly during emergencies or periods of routine plant maintenance shutdowns. For additional information, visit [jea.com/drinkingwater](http://jea.com/drinkingwater).

## Water Hardness Levels

Water is described as “hard” when it contains high levels of dissolved minerals—primarily calcium and magnesium. While these naturally occurring compounds can leave spots on dishes and windows (easily removed with white vinegar), they do not present a health risk. In fact, both calcium and magnesium are commonly taken as health supplements.

The table indicating the total hardness found in all JEA-serviced zip codes can be found at [jea.com/hardness](http://jea.com/hardness).



# Water Conservation Tips

Water conservation is an integral part of JEA's Total Water Management Plan.

It will help us ensure a sustainable supply of fresh water. Here are some simple and sensible conservation tips everyone can follow.



Connect with us on



For more information on JEA's water quality tests or to request a report, please contact us.

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**Online:** [jea.com/WQR2021](http://jea.com/WQR2021)

**By mail:** JEA Water Quality  
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**In person:** Printed copies are available at JEA's Downtown Customer Service Center and at every branch of the Jacksonville Public Library. JEA's board meetings are held on the third Tuesday of every month at JEA's downtown offices, located at 21 W. Church St., Jacksonville. The public is invited to attend.