JEA

Building Community

2024

WATER QUALITY REPORT

WELCOME

Did you know that JEA delivers more than 120 million gallons of water to our customers every day?

We do this in a way that is sustainable, transparent, and a reflection of our dedication to serving as a steward of our natural resources and the environment. We recieve 100 percent of that water from one of Florida's most treasured resources—the Floridan aquifer—and test more than 45,000 samples a year, as required by state and federal authorities to ensure that your water is both fresh and clean.

This 2024 Annual Water Quality Report provides insight into our water treatment systems, results from our water quality testing, updates on significant water quality-related projects, and answers frequently asked questions about your water supply.

At JEA, we take pride in our commitment to providing high-quality and reliable drinking water. Rest assured; we don't take this responsibility lightly.

Sincerely,
Vickie Cavey, Managing Director & CEO

FDEP Source Water Assessments

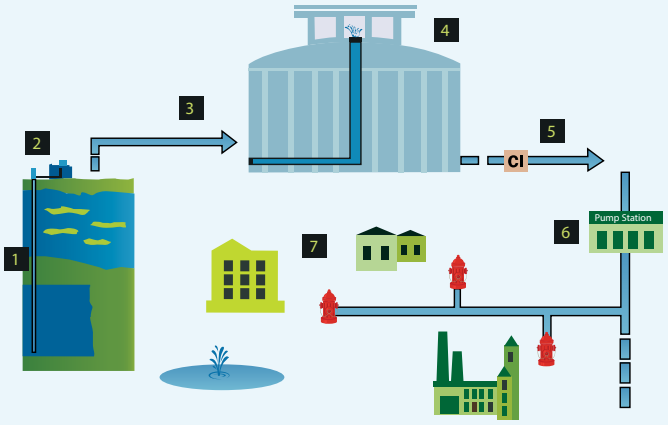
In 2024, the Florida Department of Environmental Protection performed Source Water Assessments to identify potential sources of contamination in the vicinity of JEA wells. Potential contamination sources include landfills, fuel storage tanks, dry cleaning facilities and wastewater disposal areas.

Visit prodapps.dep.state.fl.us/swapp/ to view assessment results online.

System	# of Potential Sources	Susceptibility Level
Major Grid	170	Low-Moderate
Mayport	2	Low
Lofton Oaks Grid	10	Low
Ponte Vedra Grid	2	Low
Ponce de Leon Grid	4	Low

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 39 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.



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 undeground 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.

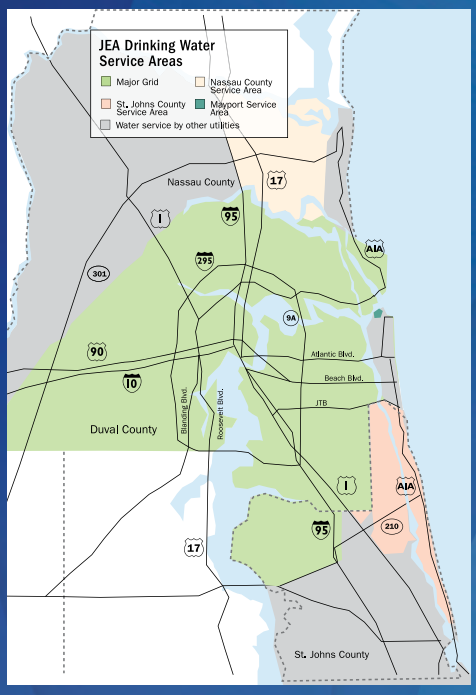
H2.0 Purification Program

The first of its kind in Florida under a new state rule regulating potable reuse, our H2.0 Purification Center—slated to open in late 2025—will showcase our water purification process, which is similar to how nature replenishes the Floridan aquifer through rainfall. It uses membrane and advanced oxidation technology to provide long-term sustainability to meet our future water needs.

The 1 million gallon per day facility will also include a visitor education center to engage the public and stakeholders in the process and operate as a training facility for JEA staff and industry leaders. Through this program, JEA maintains its leadership in ensuring the safe, reliable and locally-controlled water supply that is vital for healthy environments, robust economies and an enhanced quality of life.

Visit **jeaonewater.com** for more information.

The JEA H2.O® Purification Center



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**.

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**.

WATER QUALITY MONITORING RESULTS

System	Major Grid			Mayport			Lofton Oaks Grid			Ponce de Leon Grid			Ponte Vedra Grid			Palm Valley						
Contaminant & Unit of Measure	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Violation Y/N	MCLG or MRDLG	MCL or MRDL	Likely Sources of Contamination
Radioactive Contaminants																						
Alpha emitters (pCi/L)	ND	ND	ND	ND	ND	ND	ND	ND	ND	01/24-12/24	7.24	ND-7.24	ND	ND	ND	ND	ND	ND	N	0	15	Erosion of natural deposits
Radium 226+228 or combined radium (pCi/L)	05/23	2.41	ND-2.41	ND	ND	ND	05/23-05/24	1.91	ND-1.91	01/24-12/24	2.27	ND-2.27	ND	ND	ND	ND	ND	ND	N	0	5	Erosion of natural deposits
Inorganic Contaminants																						
Antimony (ppb)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	05/23	0.53	ND-0.53	ND	ND	ND	N	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	05/23	0.9	ND - 0.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	05/23	0.038	0.015-0.038	05/24	0.027	NA	05/23-05/24	0.033	0.030-0.033	05/24	0.0196	0.016-0.0196	05/23	0.037	0.021-0.037	05/23	0.023	0.021-0.023	N	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	05/23	0.893	ND-0.893	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	05/23	11	ND-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	N	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride (ppm)	05/23	1.06	ND-1.06	05/24	0.88	N/A	05/23-05/24	0.96	0.73-0.96	05/24	1.25	1.22-1.25	05/23	0.96	0.95-0.96	05/23	0.84	0.68-0.84	N	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at the optimum level of 0.7 ppm
Lead (point of entry) (ppb)	05/23	2.65	ND-2.65	ND	ND	ND	ND	ND	ND	05/24	0.1	ND-0.1	ND	ND	ND	ND	ND	ND	N	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen) (ppm)	05/24	0.09	ND-0.09	05/24	0.03	N/A	ND	ND	ND	05/24	0.04	ND-0.04	05/24	0.03	ND-0.03	ND	ND	ND	N	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	05/24	0.07	ND-0.07	ND	ND	ND	05/24-09/24	0.03	ND-0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	N	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	05/23	6.16	ND-6.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	05/23	3.61	ND-3.61	ND	ND	ND	N	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium (ppm)	05/23	126.43	8.18-126.43	05/24	13.074	N/A	05/23-05/24	27.10	21.12-27.10	05/24	67.30	35.84-67.30	05/23	71.56	21.89-71.56	05/23	25.0	21.0-25.0	N	N/A	160	Salt water intrusion, leaching from soil
Stage 1 Disinfectants and Disinfection Byproducts**																						
Chlorine (ppm)	01/24-12/24	1.06	0.21-3.5	01/24-12/24	0.71	0.22-1.46	01/24-12/24	0.93	0.21-1.99	01/24-12/24	0.73	0.21-1.35	01/24-12/24	0.87	0.21-1.89	01/24-12/24	1.18	0.30-1.94	N	4	4.0	Water additive used to control microbes
Stage 2 Disinfectants and Disinfection Byproducts**																						
Haloacetic Acids (five) (HAA5) (ppb)	01/24-12/24	27.60	5.9-31.96	04/24	18.27	N/A	01/24-12/24	21.14	10.02-22.37	01/24-12/24	14.02	5.1-36.85	07/24	11.15	10.13-11.15	10/24	13.50	13.40-13.50	N	N/A	60	By-product of drinking water disinfection
TTHM [Total Trihalomethanes] (ppb)	01/24-12/24	70.81	25.71-91.49*	04/24	60.54	N/A	01/24-12/24	63.27	31.80-72.79	01/24-12/24	64.31	18.6-83.36*	07/24	42.37	37.42-42.37	10/24	46.30	45.78-46.30	N	N/A	80	By-product of drinking water disinfection

* Although the MCL value was exceeded, the annual average results were below the MCL.
**Level Detected for Disinfectants and Disinfection Byproducts is the highest locational running annual average of monthly/quarterly averages if sampled monthly/quarterly, or the highest result if sampled annually.

Lead and Copper (Tap Water)																						
System	Major Grid			Mayport			Lofton Oaks Grid			Ponce de Leon Grid			Ponte Vedra Grid			Palm Valley						Likely Sources of Contamination
Contaminant & Unit of Measure	Sample Date	90th Percentile	# Exceeding AL	Sample Date	90th Percentile	# Exceeding AL	Sample Date	90th Percentile	# Exceeding AL	Sample Date	90th Percentile	# Exceeding AL	Sample Date	90th Percentile	# Exceeding AL	Sample Date	90th Percentile	# Exceeding AL	Violation Y/N	MCLG or MRDLG	AL (Action Level)	
Copper (ppm)	07/23	0.08	0 of 86	07/23-08/23	1.04	1 of 12	06/23-08/23	0.02	0 of 34	07/23	0.12	0 of 11	06/23-07/23	0.12	0 of 31	06/23-07/23	0.11	0 of 14	N	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	07/23	1.50	0 of 86	07/23-08/23	0.60	0 of 12	06/23-08/23	0.60	0 of 34	07/23	3.19	0 of 11	06/23-07/23	0.84	0 of 31	06/23-07/23	ND	0 of 14	N	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Secondary Contaminants																						
System	Major Grid			Mayport			Lofton Oaks Grid			Ponce de Leon Grid			Ponte Vedra Grid			Palm Valley						Likely Sources of Contamination
Contaminant & Unit of Measure	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Sample Date	Level Detected	Range of Results	Violation Y/N	MCLG or MRDLG	MCL or MRDL	
Chloride (ppm)	05/23-06/23	319	9.14-319	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	Y***	N/A	250	Natural occurrence from soil leaching
Odor (threshold odor number)	05/23-07/23	44.7	ND-44.7	05/24-07/24	10	ND-10	05/23-08/24	56.6	2.83-56.6	05/24-07/24	56.6	4-56.6	05/23-06/23	12.6	2.83-12.6	NR	NR	NR	Y***	N/A	3	Naturally occurring organics
Sulfate (ppm)	NR	NR	NR	NR	NR	NR	NR	NR	NR	05/24-07/24	278	162-278	NR	NR	NR	NR	NR	NR	Y***	N/A	250	Natural occurrence from soil leaching
Total Dissolved Solids (ppm)	05/23-06/23	864	153-864	NR	NR	NR	NR	NR	NR	05/24-07/24	666	543-666	05/23	640	401-640	NR	NR	NR	Y***	N/A	500	Natural occurrence from soil leaching

***Florida Source water is naturally high in dissolved minerals and some Secondary Contaminants exceeded the MCL. The concentration found in our water only affects the aesthetic quality (look, smell, taste) and is not associated with any adverse health effects. Note: St. Johns Forest WTP (Major Grid) has a FDEP waiver for Sulfate levels not to exceed 500 mg/L.

IMPORTANT INFORMATION

The Water Quality Report is provided to all customers of community water systems on an annual basis as required by the Environmental Protection Agency (EPA) under the 1996 Safe Drinking Water Act Amendments.

JEA routinely monitors for contaminants in your drinking water according to federal and state laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2024 Data obtained before January 1, 2024, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations. Out of more than 100 contaminants for which JEA routinely tests, only those that have been detected appear in the tables.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:
(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency's Safe Drinking Water Hotline 800-426-4791**.

TERMS & ABBREVIATIONS

In the table above, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've provided the following definitions:

Action Level (AL) –The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Maximum Contaminant Level (MCL) –The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG) –The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
Maximum residual disinfectant level (MRDL) –The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum residual disinfectant level goal (MRDLG) –The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Non-Detect (ND) – means not detected and indicates that the substance was not found by laboratory analysis.
Not Required (NR) – Secondary contaminants with sample results below the MCL are not required to be reported.
Parts per billion (ppb) or Micrograms per liter (µg/l) – one part by weight of analyte to 1 billion parts by weight of the water sample.
Parts per million (ppm) or Milligrams per liter (mg/l) – one part by weight of analyte to 1 million parts by weight of the water sample.
Picocurie per liter (pCi/L) – measure of the radioactivity in water.
Variances and Exemptions – State or EPA permission not to meet an MCL under certain conditions.

Note: MCLs are set at stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL for a lifetime to have a one-in-a-million chance of having the described effect.

UNREGULATED CONTAMINANT MONITORING

JEA has been monitoring for Unregulated Contaminants (UC) as part of a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence in drinking water of UC and whether or not these contaminants need to be regulated. At present, no health standards (for example, maximum contaminant levels) have been established for UC. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report, which are shown below. This round of UCMR sampling included 29 PFAS substances plus lithium. Only contaminants that were detected are reported. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule (UCMR), please visit **epa.gov/dwucmr** or call the Safe Drinking Water Hotline at **(800) 426-4791**.

Parameter	Grid	Sample Date	Average	Range of Results	Likely Source
Lithium (ppb)	Major	3/24	2.43	ND-14.0	Naturally occurring where groundwater interacts with saline water.
	Lofton Oaks	3/24	9.33	9.6-10.02	
PFPeA (ppb)	Major	3/24	0.0009	ND-0.0068	Consumer products including non-stick cookwear, water resistant fabrics, stain resistant coatings, food packaging, and personal care products.
PFPeS (ppb)		3/24	0.0006	ND-0.0052	

ADDITIONAL INFORMATION

Lead: We are required to periodically sample water from customer taps to determine lead and copper levels. EPA sets the lead action level at 15 ppb. For a water system to be in compliance, at least 90% of tap water samples must have lead levels below this limit. This report contains the 90th percentile and range of our most recent sampling. The individual results for each location sampled can be reviewed by requesting the information from JEA's Water Quality line at **904-665-4521** or **WaterQuality@jea.com**.

In accordance with EPA rules, JEA completed an initial inventory of all the water service lines in our territory. That inventory is available on our website at **jea.com/lcrr**. You can check your service line materials by entering your address into the map section. If the Private Side Material is listed as Unknown and you know what your line is made of, please follow the steps on that webpage to complete a self-verification.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. JEA is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact JEA's Water Quality line at **904-665-4521** or **WaterQuality@jea.com**. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at **epa.gov/safewater/lead.**

TTHM [Total Trihalomethanes]: The following samples during 2024 exceeded the TTHM MCL of 80 ppb. However, the system did not incur an MCL violation because all annual average results at all sites were below the MCL. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

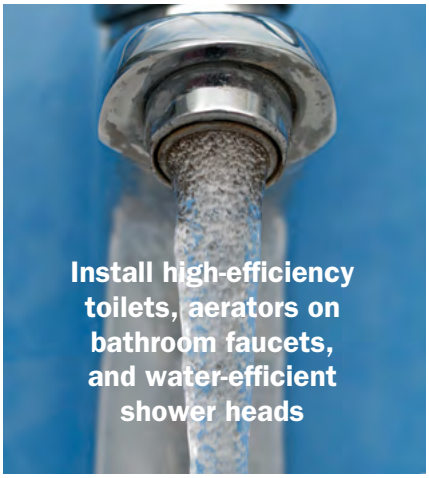
Major Grid: 6505 Greenfern Lane: 91.49 ppb (Jul)

Ponce de Leon Grid: 2371 S. Ponte Vedra Blvd.: 83.36 ppb (Jul)

IMMUNO-COMPROMISED PERSONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care providers about drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the **Safe Drinking Water Hotline 800-426-4791.**

JEA Water Conservation Tips

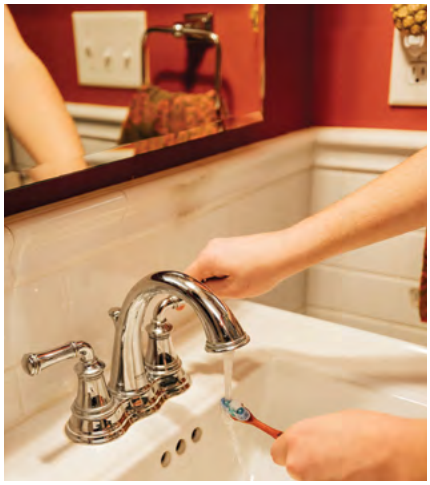


Install high-efficiency toilets, aerators on bathroom faucets, and water-efficient shower heads

Use dishwashers and washing machines with full loads only

Refrain from watering your home landscape when it rains

Plant drought-tolerant/ resistant plants and trees



Turn off water when brushing teeth or shaving

Fix leaks, including leaky toilets

Water your outdoor landscape earlier in the day when temperatures are cooler

Recycle indoor water to use on plants

Use a broom to clean driveways, patios, and sidewalks instead of water from a hose

Connect with us

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

Phone: (904) 665-6000
Email: WaterQuality@jea.com
Online: jea.com/WQR2024

By mail: JEA Water Quality
1002 N. Main St.
Jacksonville, FL 32206

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 8 times per year at JEA's downtown offices, located at 225 N. Pearl Street, Jacksonville. The schedule is available at jea.com. The public is invited to attend.