Issue Date: July 1, 2023

# WATER QUALITY REPORT

#### 2022 Annual Summary



WE ARE COMMITTED TO ENSURING THE QUALITY OF YOUR WATER

## **MESSAGE FROM THE GENERAL MANAGER**

I'm pleased to share with you the City of Tallahassee's 2022 Water Quality Report, which informs customers on the quality of water delivered to you by the City. Delivering a safe and dependable supply of drinking water is paramount for our community.

The City's drinking water is routinely analyzed for more than 80 components, and any contaminants detected are required to be reported. The components detected and shown in this report are well below the limits permitted by the Florida Department of Environmental Protection (FDEP), the U.S. Environmental Protection Agency (EPA) and the Florida Department of Health (FDOH).

Along with the data presented in this report this year, we are pleased to highlight the City's newly constructed, state-of-the-art Water Quality Laboratory, which opened in August 2022. The 8,000 square foot facility was designed to support staff and laboratory operations, which provide environmental analyses for the City's utility operations and compliance needs. This nationally accredited facility is certified to analyze over 300 chemical components for drinking water, non-potable (e.g., wastewater and stormwater) and solid samples.

For over 50 years, the City of Tallahassee has maintained water quality laboratories that have supported the operation of the City's wastewater treatment facilities. While the modern facility provides more sophisticated functions, originally these laboratories primarily supported the core permit compliance needs for the wastewater plants (biochemical oxygen demand, suspended solids and pH). Due to laboratory constraints at that time, all bacteriological analyses for both wastewater and drinking water were performed by the local health department laboratory.

In 1973, when the first expansion to the southwest wastewater treatment plant (the T.P. Smith Water Reclamation facility) began, a new and independent water quality laboratory was built to support both wastewater and drinking water operations. Through the decades, the water quality laboratory at the T.P. Smith facility has undergone multiple expansions.

Today, the City's Water Quality Laboratory is a nationally accredited facility that supports the drinking water and wastewater operations of the City, as well as the stormwater utility and electric utility for their environmental compliance. It provides public service throughout Leon County for water quality testing of customer household plumbing systems and private well water quality testing to make sure customers are informed about their drinking water quality. It also supports neighboring communities with their laboratory services for compliance during both daily operations and in times of emergencies. In total, the laboratory processes 8,000 to 10,000 samples annually.

The data you will find in this report and the images showcasing the qualified people and technical operations they perform, I believe, will assure you that the services we provide our customers meet a standard of excellence that can make us all proud.

Sincerely,

Steve Shafer

Steve Shafer, P.E. General Manager, Underground Utilities & Public Infrastructure



**STEVE SHAFER, P.E.** General Manager, Underground Utilities & Public Infrastructure

This report presents important information and water quality compliance data from January 1 to December 31, 2022 (unless noted otherwise). It shows that the City's drinking water continues to meet all state and federal drinking water requirements. Should you want to know more, please contact us directly or visit Talgov.com/WaterQuality.



# LABORATORY CERTIFICATION

The City of Tallahassee Water Quality Laboratory is certified to perform analyses on drinking water, wastewater, and solids, comprising over 300 analytes. The laboratory receives 8,000 to 10,000 samples per year.

The City of Tallahassee Water Quality Laboratory is nationally accredited through the FDOH by the National Environmental Laboratory Accreditation Certification program.

Through periodic proficiency testing and on-site assessments, certified laboratories must demonstrate that they have the capability to produce high quality testing results in the interests of protecting the health and environment of Florida's citizens.

The City Council passed an ordinance on July 11, 1907, declaring that "it is expedient for the City of Tallahassee to create, construct, and put in operation a water works plant."

1908



The City purchases the Tallahassee Water Works





The first elevated tank is constructed at Lafayette Park and holds 400,000 gallons





The oldest well still in production locally is drilled

1948



The City requires all new residential construction to include running water

1970



The City has two small laboratories for wastewater compliance

## **OUR LAB & PEOPLE**

Eight lab analysts and one laboratory technician work in the various laboratory areas, which include Physical, Metals, Nutrient, Microbiology, Volatile Organic Compounds (VOC), and Semi-Volatile Organic Compounds (SVOC) (including the extraction lab).



These analysts perform tests that are needed primarily for permit requirements and operational control of the drinking water system, wastewater treatment facility, electric power facilities, and stormwater management. Each analyst specializes in a work area that is their primary area of responsibility. Analysts are also trained to perform methods in a secondary or backup area to provide continued services when a primary analyst is not available. Additionally, all analysts are trained to perform essential test methods that must be performed during weekend and holiday shifts.



#### 2016



The City's UU&PI Department obtains ISO 14001 Environmental Management & Safety certification





"Best of the Best" Tap Water Tasting Contest (FSAWWA)

2019



The City's UU&PI Department obtains ISO 45001 Health & Safety certification



New Water Quality Laboratory begins operations



AMANDA LAWHON LABORATORY ANALYST II



SHANNON Satterwhite Laboratory analysti



CARION SMITH LABORATORY ANALYST II



CEDRIC SYKES Environmental Technician



DEVIN THORNTON LABORATORY ANALYST I



JORDAN WILLIAMS

























### **SOURCE & TREATMENT**

For more than 120 years, the City has provided our community with safe, reliable, high-quality drinking water.

Currently, the City of Tallahassee operates 27 deep wells drilled directly into the Floridan aquifer. Because of the excellent quality of our water source, only limited treatment is required. Each of the well sources are treated with chlorine for disinfection purposes and fluoride to improve dental health.

Six of the 27 wells use carbon filtration to remove certain chemicals found in the aquifer in those locations. One well (offline for 2022) provides Greensand filtration to remove naturally occurring iron and manganese from the source water, and another well provides treatment to sequester iron and manganese in the distribution system.

#### **SOURCE WATER ASSESSMENT & PROTECTION**

In 2022, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system.

The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 38 potential sources of contamination with low to moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at prodapps.dep.state.fl.us/swapp, or they can be obtained by contacting the City's Water Quality Laboratory at 850-891-1200.

#### **IN THE FUTURE**

It may be necessary to make improvements to your water system that will benefit all our customers. The costs of these improvements may be reflected in the rates, and adjustments may be necessary to address these improvements. Thank you for allowing us to continue providing your family with clean, quality water.



## **UNDERSTANDING SOURCE WATER QUALITY**

According to federal and state laws, rules, and regulations, the City of Tallahassee routinely monitors for more than 80 contaminants in our drinking water. Only those that are detected are shown in this report.

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 the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the Environmental Protection Agency (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 at 1-800-426-4791.

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.

City of Tallahassee drinking water has a typical Hardness value of 155 mg/L as calcium carbonate (CaCO<sub>3</sub>) or 9 grains per gallon, and a pH value of 7.5.





### **UNDERSTANDING OUR** WATER QUALITY DATA TABLE

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

- Maximum Contaminant Level or 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 or 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.
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
- Maximum Residual Disinfectant Level or 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 or 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.
- Not Detected (ND): Indicates that the substance was not found by laboratory analysis.
- Parts per billion (ppb) or Micrograms per liter (µg/I): 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.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 about drinking water from their health care providers. **EPA/Center for Disease Control (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 at** 1-800-426-4791.





The contaminants listed in the following tables are the only contaminants detected in our drinking water. The City of Tallahassee 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, 2022. Data obtained before January 1, 2022, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

Contaminant and Unit of Measuremer	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of I Results	MCLG	MCL	Likely Source of Contamination			
RADIOACTIVE CONTAMINANTS										
Alpha emitters (pCi/L	) 01/20 – 09/20	Ν	6.3	ND – 6.3	0	15	Erosion of natural deposits			
Radium 226 + 228 or combined radium (pCi/L)	09/17 01/20 – 09/20	N	0.99	ND – 0.99	0	5	Erosion of natural deposits			
Uranium (µg/L)	01/20 – 09/20	Ν	0.5	N/A	0	30	Erosion of natural deposits			
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL iolation Y/N [	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination			
INORGANIC CONTAM	INANTS									
Arsenic (ppb)	01/20 – 09/20	N	2.3	ND – 2.3	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes			
Barium (ppm)	01/20 – 09/20	N	0.018	0.006 – 0.018	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits			
Cadmium (ppb)	01/20 – 09/20	N	1.3	ND – 1.3	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints			
Fluoride (ppm)	01/20 – 09/20	Ν	0.97 (	).46 – 0.97	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive that promotes strong teeth when at the optimum level of 0.7 ppm			
Lead (point of entry) (ppb)	01/20 – 09/20	N	3	ND – 3	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder			
Nitrate (as Nitrogen) (ppm)	01/22 – 12/22	Ν	0.783	0.08 – 0.783	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits			
Sodium (ppm)	01/20 – 09/20	Ν	4.18 2	2.33 – 4.18	N/A	160	Saltwater intrusion, leaching from soil			
Contaminant and Unit of Measuremer	Dates of Sampling t (mo/yr)	MCL Violation Y/N	Level Detectec	Range of I Results	MCLG	MCL	Likely Source of Contamination			
VOLATILE ORGANIC CONTAMINANTS										
Tetrachloroethylene (ppb)	01/22 – 11/22	Ν	1.5	ND – 1.7	0	3	Discharge from factories and dry cleaners			

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL or MRDL Violation Y/N	Level Detected I (average)	Reculte	MCLG or MRDLG		Likely Source of Contamination				
STAGE 1 DISINFECTANTS / STAGE 2 DISINFECTION BY-PRODUCTS (D/DBP)											
Chlorine (ppm)	01/22 – 12/22	Ν	0.87	0.8 – 0.87	$\begin{array}{l} MRDLG \\ = 4.0 \end{array}$	MRDL = 4.0	Water additive used to control microbes				
Haloacetic Acids (HAA5) (ppb)	02/22 – 11/22	Ν	6.1	ND – 5.93	N/A	60	By-product of drinking water disinfection				
Total Trihalomethanes (TTHM) (ppb)	02/22 – 11/22	Ν	22.49	ND – 22.47	N/A	80	By-product of drinking water disinfection				
Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	AL Exceeded (Y/N)	90 <sup>th</sup> Percentile Result	No. of Sampling Site Exceeding the AL	<sup>es</sup> MCLC	AL (Action Level)	Likely Source of Contamination				
LEAD AND COPPER (TAP WATER) FROM RESIDENTIAL SOURCES											
Copper (tap water) (ppm)	07/20 – 09/20	Ν	0.47	0 out of 52	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits leaching from wood preservatives				
Lead (tap water) (ppb)	07/20 - 09/20	N	2.0	1 out of 52	0	15	Corrosion of household plumbing				

#### LEAD AND DRINKING WATER

(tap water) (ppb)

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Tallahassee is responsible for providing high-quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using tap water for drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at epa.gov/safewater/lead. If test results indicate elevated levels of lead within your home or business, consider using a point-of-use water filter that is certified to remove lead, and be sure to replace filters according to the manufacturer's recommendations. For more permanent water quality improvements, consider replacing old plumbing pipes, fixtures, and appliances made with modern lead-free materials. These updates can improve your in-home water quality, and they can also increase the value of your home.

systems; erosion of natural deposits

Brewer's interest: Calcium (43 mg/L), Magnesium (12 mg/L), Hardness (155 mg/L), and Alkalinity (143 mg/L)



City of Tallahassee Water Utility 4505 A Springhill Road Tallahassee, FL 32305 PRSRT STD U.S. Postage **PAID** Tallahassee, FL Permit No. 1

The City of Tallahassee is the largest single provider of municipal services in the region. To learn more about services provided, visit Talgov.com. If you have questions about the 2022 Water Quality Report or would like additional copies, please call 850-891-1200 or email WaterQualityReporting@Talgov.com. This report is designed to inform you about the quality of water and services we deliver to you every day.

