

CITY OF TALLAHASSEE

2020

WATER QUALITY REPORT



CITY OF
TALLAHASSEE







It Takes a Team!

The City's commitment to teamwork and service to our community is never more apparent than during challenging times. Through three hurricanes in the last four years and now a global pandemic, the City of Tallahassee continues its commitment to providing safe, reliable, high-quality drinking water.

While the entire community has been affected by the COVID-19 pandemic in one way or another, the reliable delivery of safe, high-quality drinking water that meets all compliance requirements continues to remain our top priority. In fact, the Underground Utilities & Public Infrastructure Department's mission of improving our environment and quality of life by providing safe, reliable and efficient utility services never stops. It's a 24/7/365 commitment!

The City is fortunate to have access to an abundant supply of pristine water from the Floridan aquifer. Resilience and redundancy are built into the City's drinking water infrastructure, which includes 27 deep water supply wells, eight elevated storage tanks, over 1,200 miles of distribution piping and 24/7 monitoring and control to provide a reliable infrastructure system that continually delivers high-quality drinking water to your home or business.

I would like to commend the City's team of professionals who operate the wells, repair the pipes, turn the valves, test the water and manage the projects to continually enhance the drinking water system day or night, rain or shine. This well-trained team has adapted to the challenges while continuing to provide excellent service to area residents. Thank you!

Raynetta Curry Marshall, P.E.

General Manager, Underground Utilities & Public Infrastructure
City of Tallahassee



Raynetta Curry Marshall, P.E.
UNDERGROUND UTILITIES & PUBLIC INFRASTRUCTURE
GENERAL MANAGER

I'm pleased to share with you the City of Tallahassee's 2020 Water Quality Report. This report presents important information and water quality compliance data from January 1 to December 31, 2019 (unless noted otherwise) and shows that the City's drinking water continues to meet all state and federal drinking water requirements.

City of Tallahassee
Your Own Utilities™



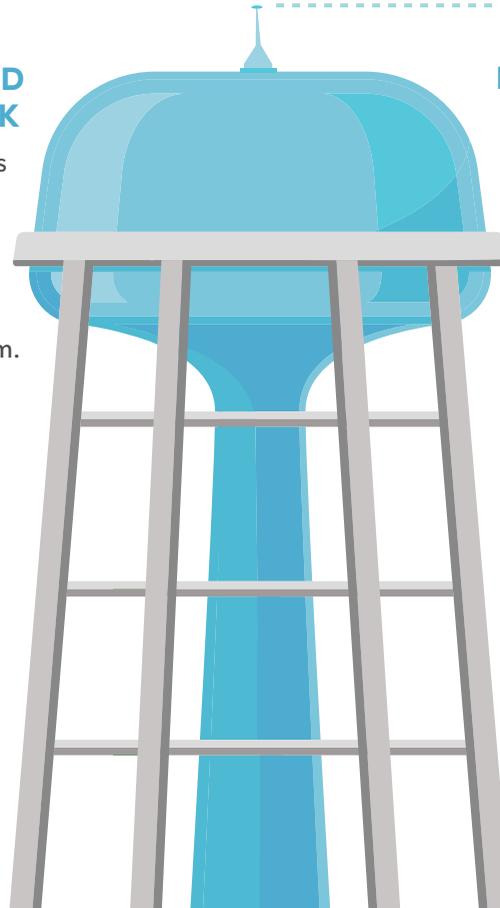
TALLAHASSEE'S DRINKING WATER UTILITY



The City leases space on top of the water tanks to cellular telephone networks for mounting network antennas. These leases help improve cell phone signals in our city without new antenna tower construction.

ELEVATED WATER TANK

Eight elevated water storage tanks provide adequate water volume to meet peak customer demands and fire protection. The height of water in the tanks controls the water system pressure in the distribution system.



After water is pumped from the aquifer, it's treated before being pumped into the distribution system. When residents turn on their tap, tall water storage tanks provide water pressure and volume, if needed, to deliver water into homes and businesses across the city. When water demand is low, (typically during the night,) water is pumped into each of Tallahassee's eight water towers.

MAINTAINING INFRASTRUCTURE

Licensed utility technicians perform routine maintenance and emergency repairs to the water distribution system. New construction is supervised by City inspectors to ensure both state and local regulations are followed.



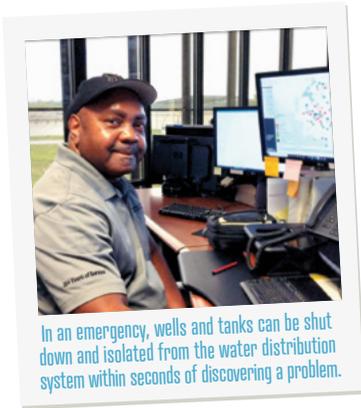
The 27 water supply wells provide redundancy and resiliency during power outages so that safe, reliable drinking water is continually delivered.



Our crew maintains over 1,200 miles of pipe and 29,000 valves throughout the distribution system.

FLORIDAN AQUIFER

Water is pumped from the Floridan aquifer at one of 27 water well/treatment plants throughout the City. Once treated, it flows directly into the water distribution system for delivery to customers. These wells and treatment plants are operated and maintained by Florida DEP Licensed Water Treatment Plant Operators.



In an emergency, wells and tanks can be shut down and isolated from the water distribution system within seconds of discovering a problem.

MONITORING SUPPLY & DISTRIBUTION

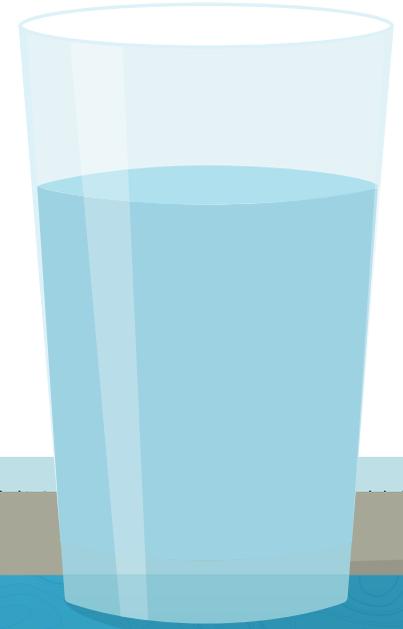


Licensed City staff provide constant (24/7) monitoring of the water supply and distribution system using a Supervisory Control and Data Acquisition (SCADA) system that relays continuous data to monitor and control the water supply wells and elevated storage tanks.

THE CITY OF TALLAHASSEE IS THE ONLY MUNICIPALITY TO HAVE WON THE STATE CONTEST FOR

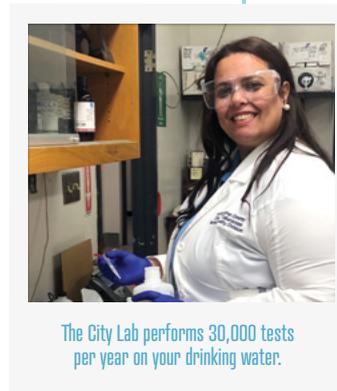
BEST TASTING WATER THREE TIMES

(Florida Section of the American Water Works Association)



COLLECTING & ANALYZING WATER SAMPLES

The City laboratory routinely collects and analyzes water samples to ensure the water provided to customers meets all state and federal drinking water standards. The laboratory is certified by the Florida Department of Health and National Environmental Laboratory Accreditation Program.



The City Lab performs 30,000 tests per year on your drinking water.



We're proud to give back by supporting organizations that support our community.

PART OF THE COMMUNITY

Our team includes licensed well operators and technicians, engineers, lab analysts, and administrative support staff who are proud to be an integral part of delivering safe, clean drinking water to our neighbors and residents across the community. But that's not the only way we support our community. We're proud to give back by supporting nonprofit organizations, including Habitat for Humanity, One Blood Drives, United Way, and Relay for Life just to name a few.



Source and Treatment

For more than 100 years, the City of Tallahassee has provided our community with clean, reliable and safe drinking water.

Where does our water come from?

Tallahassee sits on top of one of the largest and most abundant sources of groundwater in the world – the Floridan aquifer. The Floridan aquifer underlies all of Florida, as well as parts of Alabama, Georgia and South Carolina, covering an area of nearly 100,000 square miles. The Floridan aquifer system provides water for several large cities, including Savannah and Brunswick in Georgia and Jacksonville, Tallahassee, Orlando and St. Petersburg in Florida.

Currently, the City of Tallahassee operates 27 deep wells drilled directly into the Floridan aquifer. Because of the excellent quality of our water, only limited treatment is required. Each of the well sources are treated with chlorine for disinfection purposes and fluoride to improve dental health. During 2019, one of the 27 wells was out of service or offline for the entire year. Six wells provide carbon filtration to remove certain chemicals found in the aquifer in those locations. One well provides treatment to sequester naturally elevated levels of iron and manganese in the source water, and one well (offline for 2019) provides Greensand filtration for additional treatment.

Lead and Drinking Water

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 - 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 www.epa.gov/safewater/lead.

Source Water Assessment & Protection

In 2019, the Florida Department of Environmental Protection 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 forty-eight (48) potential sources of contamination with low to high susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.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

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements to your water system. The costs of these improvements may be reflected in the rate structure, and rate adjustments may be necessary to address these improvements.

Thank you for allowing us to continue providing your family with clean, quality water. To maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all our customers.



Monitoring & Quality

According to federal and state laws, rules and regulations, the City of Tallahassee routinely monitors for over 80 contaminants in our drinking water.

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 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.

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 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 1-800-426-4791.



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.
- **"ND"** means not detected and indicates that the substance was not found by laboratory analysis.
- **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.

LEAD AND COPPER (TAP WATER)							
Contaminant and Unit of Measurement	Dates of Sampling (Month/Year)	AL Exceeded (Y/N)	90 th Percentile Result	No. of Sampling Sites Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	06/17 - 09/17	N	0.5	0 out of 50	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	06/17 - 09/17	N	2.1	0 out of 50	0	15	Corrosion of household plumbing systems; erosion of natural deposits

TIP: Save money and the environment by using reusable water containers. Bottled water can cost at least 650 times more than tap water!

VOLATILE ORGANIC CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (Month/Year)	MCL Violation Y/N	Level Detected (Average)	Range of Results	MCLG	MCL	Likely Source of Contamination
Tetrachloroethylene (ppb)	06/18 - 10/19	N	0.995	ND - 1.2	0	3	Discharge from factories and dry cleaners

RADIOACTIVE CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (Month/Year)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	01/14 - 10/14, 09/17 & 07/19 - 10/19	N	6.6	ND - 6.6	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	01/14 - 10/14, 09/17 & 07/19 - 10/19	N	2.1	ND - 2.1	0	5	Erosion of natural deposits

STAGE 1 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (Month/Year)	MCL or MRDL Violation Y/N	Level Detected (Average)	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)	01/19 - 12/19	N	0.83	0.76 - 0.88	MRDLG = 4.0	MRDL = 4.0	Water additive used to control microbes



TIP: If you have been away for an extended period of time, run the faucets for several minutes to fill the lines with fresh water.



STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS

Contaminant and Unit of Measurement	Dates of Sampling (Month/Year)	MCL Violation (Y/N)	Level Detected (Average)	Range of Results	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	01/19 - 12/19	N	15.37	ND - 21.96	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	01/19 - 12/19	N	25.53	ND - 40.84	N/A	80	By-product of drinking water disinfection

INORGANIC CONTAMINANTS

Contaminant and Unit of Measurement	Dates of Sampling (Month/Year)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	01/17 - 09/17 & 07/19	N	0.017	0.005 - 0.017	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Cadmium (ppb)	01/17 - 09/17 & 07/19	N	1.0	ND - 1.0	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium (ppb)	01/17 - 09/17 & 07/19	N	2.0	ND - 2.0	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	01/17 - 09/17 & 07/19	N	0.87	0.17 - 0.87	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
Nitrate (as Nitrogen) (ppm)	03/19 - 11/19	N	0.695	0.08 - 0.695	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	01/17 - 09/17 & 07/19	N	4.25	1.66 - 4.25	N/A	160	Salt water intrusion, leaching from soil

The contaminants listed in the tables above 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, 2019. Data obtained before January 1, 2019 and presented in this report are from the most recent testing done in accordance with the laws, rules and regulations.

We are participating in a study to help the U.S. Environmental Protection Agency (EPA) determine the occurrence of unregulated contaminants (UC) in drinking water and whether these contaminants need to be regulated. We are required to publish the analytical results of our UC monitoring in our annual water quality report. All detections are shown on the table below, including two regulated contaminants (manganese and HAA5). If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at 1-800-426 4791.

UNREGULATED CONTAMINANTS				
Contaminant (Unit of Measurement = ppb)	Dates of Sampling (Month/Year)	Level Detected (Average)	Range of Results	Likely Source of Contamination
Manganese	06/19 - 08/19	1.37	0 - 22.0	Natural occurrence from soil leaching
HAA5	06/19 - 08/19	2.21	1.28 - 3.3	By-product of drinking water disinfection
HAA6Br	06/19 - 08/19	2.30	1.7 - 2.9	Unavailable
HAA9	06/19 - 08/19	3.87	2.42 - 5.32	Unavailable
Bromide	06/19 - 08/19	29.89	23.2 - 40.9	Unavailable

The City of Tallahassee is committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please feel free to call 850-891-1200.

Please DO NOT FLUSH your unused/unwanted medications down toilets or sink drains. More information is available at <http://www.dep.state.fl.us/waste/categories/medications/pages/disposal.htm>.



 **TIP:** Maintaining your water heater regularly can result in not only better performance, but also reduce odors in hot water.

City of Tallahassee

Your Own UtilitiesSM

City of Tallahassee Water Utility
4505 A Springhill Road
Tallahassee, FL 32305

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The City of Tallahassee is the largest single provider of municipal services in our community. To learn more about services provided, visit Talgov.com. If you have questions about the 2020 Water Quality Report, please call (850) 891-1200 or email WaterQualityReporting@Talgov.com. If you want to learn more, please attend any of our regularly scheduled City Commission meetings. Call (850) 891-1200 or visit Talgov.com for the schedule of Commission meeting dates and times.