

# ANNUAL WATER QUALITY REPORT

Reporting Year 2023



*Presented By*  
**City of Tavares Utilities  
Water Department**





## Our Commitment



**W**e are pleased to present to you this year's annual water quality report. This report is a snapshot of the most recent testing for water quality that was performed between January 1 and December 31, 2023. Included are details about your source of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

## Source Water Description

**O**ur system begins with a dependable groundwater source drawn from the Floridan Aquifer. The system is pumped from a source of six wells ranging from 223 to 850 feet. These wells are located at four water plant facilities throughout the city. The two main finished-water distribution facilities are equipped with aerators to remove hydrogen sulfide, a naturally occurring compound normally found in Florida aquifers. The system has a storage capacity of 2.5 million gallons, with a combined well pumping capacity of approximately 10,000 gallons per minute. The system is treated with chlorine and fluoride to ensure that quality residuals are maintained throughout the distribution system to meet regulatory compliance. The distribution system consists of more than 150 miles of piping, hydrants, and approximately 13,000 meter connections, which include potable, irrigation, and reclaimed water.



**“When the well is dry, we know the worth of water.”**

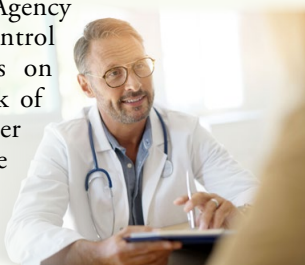
—Benjamin Franklin

## Source Water Assessment

**I**n 2023 the Department of Environmental Protection (FDEP) performed a source water assessment on the Tavares water system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are seven potential sources of contamination identified for this system, with low to high susceptibility levels. The latest assessment results are available on the FDEP Source Water Assessment and Protection Program website, <https://prodapps.dep.state.fl.us/swapp>, or they can be obtained from the City of Tavares Water Department by calling (352) 742-6222.

## Important Health Information

**S**ome 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by *cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## City Council Meetings

**T**he Tavares City Council meets the first and third Wednesday of each month at 4:00 p.m. Agendas may contain items pertaining to water quality, water treatment, and other water-related topics. You are invited to participate in this public forum and voice your concerns about your drinking water. Agendas can be obtained from the city clerk's office at 201 East Main Street by calling (352) 253-4546 or visiting [www.Tavares.org](http://www.Tavares.org).



## QUESTIONS?

We encourage you to share your thoughts with us on the information contained in this report. If you have any questions relating to the drinking water provided by the City of Tavares, please contact Christopher Abbott, Tavares Utility/Water Department Manager, at (352) 742-6222 or [cabbott@tavares.org](mailto:cabbott@tavares.org); or Terry Binkley, Lead Water Treatment Operator, at [tbinkley@tavares.org](mailto:tbinkley@tavares.org).





## Safeguard Your Drinking Water

**P**rotection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways: • Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source. • Pick up after your pets. • If you have your own septic system, properly maintain it to reduce leaching to water sources, or consider connecting to a public water system. • Dispose of chemicals properly; take used motor oil to a recycling center. • Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community. • Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

## Substances That Could Be in Water

**T**he 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:

**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**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.

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**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.

**Radioactive Contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. 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 U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Water Conservation Tips

**Y**ou can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It's not hard to conserve water. Here are a few tips:

- Automatic dishwashers use four to six gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

## Lead in Home Plumbing

**I**f 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. We are responsible for providing high-quality drinking water, but we 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 two minutes before using 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 (800) 426-4791 or [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).





## Water Treatment Process

The treatment process consists of a series of steps. First, raw water is drawn from our water source and sent to an aeration tank, which allows for oxidation of high iron levels and removal of hydrogen sulfide. Chlorine is then added for disinfection.

Chlorine is added again as a precaution against any bacteria that may still be present. (We carefully monitor the amount of chlorine, adding the lowest quantity necessary to protect the safety of your water without compromising taste.) Finally, fluoride (to prevent tooth decay) and a corrosion inhibitor (to protect distribution system pipes) are added before the water is pumped to sanitized underground reservoirs, water towers, and your home or business.

## — BY THE NUMBERS —



**5.1**  
TRILLION

The dollar value needed to keep water, wastewater, and stormwater systems in good repair.



**12**  
THOUSAND

The average amount in gallons of water used to produce one megawatt-hour of electricity.



**2**

How often in minutes a water main breaks.



**47.5**  
TRILLION

The amount in gallons of water used to meet U.S. electric power needs in 2020.



**1.7**  
TRILLION

The gallons of drinking water lost each year to faulty, aging, or leaky pipes.



**33**

The percentage of water sector employees who will be eligible to retire in 2033.

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

| RADIOACTIVE CONTAMINANTS   |                             |                        |                        |  |                 |                   |  |
|--|-----------------------------|------------------------|------------------------|--|-----------------|-------------------|--|
| CONTAMINANT AND UNIT OF MEASUREMENT  | DATE OF SAMPLING            | MCL VIOLATION (YES/NO) | LEVEL DETECTED         | RANGE OF RESULTS                       | MCLG            | MCL               | LIKELY SOURCE OF CONTAMINATION   |
| Alpha Emitters (pCi/L)   | 03/02/2023                  | No                     | 2.11                   | ND–2.11                                | 0               | 15                | Erosion of natural deposits  |
| PRIMARY REGULATED CONTAMINANTS   |                             |                        |                        |  |                 |                   |  |
| Inorganic Contaminants   |                             |                        |                        |  |                 |                   |  |
| CONTAMINANT AND UNIT OF MEASUREMENT  | DATES OF SAMPLING (MO./YR.) | MCL VIOLATION (YES/NO) | LEVEL DETECTED         | RANGE OF RESULTS                       | MCLG            | MCL               | LIKELY SOURCE OF CONTAMINATION   |
| Barium (ppm)   | 03/02/2023                  | No                     | 0.013                  | 0.001–0.013                            | 2               | 2                 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits   |
| Fluoride (ppm)   | 01/2023-12/2023             | No                     | 0.64                   | 0.11–0.64                              | 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 |
| Sodium (ppm)   | 03/02/2023                  | No                     | 5.7                    | 5.2–5.7                                | NA              | 160               | Saltwater intrusion; leaching from soil  |
| STAGE 1 DISINFECTANTS AND DISINFECTION BY-PRODUCTS                                     |                             |                        |                        |  |                 |                   |  |
| CONTAMINANT AND UNIT OF MEASUREMENT  | DATES OF SAMPLING (MO./YR.) | MCL VIOLATION (YES/NO) | LEVEL DETECTED         | RANGE OF RESULTS                       | MCLG OR [MRDLG] | MCL OR [MRDL]     | LIKELY SOURCE OF CONTAMINATION   |
| Chlorine (ppm)   | 01/2023-12/2023             | No                     | 0.6                    | 0.3–0.9                                | [4]             | [4.0]             | Water additive used to control microbes  |
| STAGE 2 DISINFECTANTS AND DISINFECTION BY-PRODUCTS                                     |                             |                        |                        |  |                 |                   |  |
| CONTAMINANT AND UNIT OF MEASUREMENT  | DATES OF SAMPLING (MO./YR.) | MCL VIOLATION (YES/NO) | LEVEL DETECTED         | RANGE OF RESULTS                       | MCLG            | MCL               | LIKELY SOURCE OF CONTAMINATION   |
| Haloacetic Acids (five) [HAA5]–Stage 2 (ppb)   | 01/2023 & 10/2023           | No                     | 7.4                    | 6.9–7.4                                | NA              | 60                | By-product of drinking water disinfection  |
| TTHM [total trihalomethanes]–Stage 2 (ppb)   | 01/2023 & 10/2023           | No                     | 38.6                   | 16.7–38.6                              | NA              | 80                | By-product of drinking water disinfection  |
| Lead and Copper (Tap water samples were collected from sites throughout the community) |                             |                        |                        |  |                 |                   |  |
| CONTAMINANT AND UNIT OF MEASUREMENT  | DATE OF SAMPLING            | AL EXCEEDANCE (YES/NO) | 90TH-PERCENTILE RESULT | NO. OF SAMPLING SITES EXCEEDING THE AL | MCLG            | AL (ACTION LEVEL) | LIKELY SOURCE OF CONTAMINATION   |
| Copper [tap water] (ppm)   | 06/07/2023                  | No                     | 0.15                   | 0                                      | 1.3             | 1.3               | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives   |
| Lead [tap water] (ppb)   | 06/07/2023                  | No                     | 0.8                    | 0                                      | 0               | 15                | Corrosion of household plumbing systems; erosion of natural deposits   |

## Definitions

**90th Percentile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL (Maximum Contaminant Level):** 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.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).