

The Water We Drink 2024

Annual Drinking Water Quality Report of the City of Titusville, Florida

Sources

Titusville's drinking water source is ground water from Florida's Surficial and Floridan Aquifers. Titusville also purchases treated water from the City of Cocoa. Less than 2% of drinking water was purchased from Cocoa.

Treatment

At the Mourning Dove Water Treatment Plant, the raw ground water undergoes a three-step treatment process: Coagulation, disinfection and filtration.

Coagulation: Lime and a coagulant are mixed with the raw water in the clarifier to reduce hardness and to remove any suspended solids.

Disinfection: Water exiting the clarifier is injected with chlorine for disinfection, carbon dioxide (CO₂) to stabilize pH, fluoride to promote dental health and ammonia. The ammonia combines with the chlorine to form chloramines. Chloramines reduce the taste and smell of chlorine in the finished water and helps to maintain disinfectant residual in the distribution system.

Filtration: The treated water then passes through rapid sand filters prior to storage.

We are pleased to report that our drinking water meets all federal and state requirements. Our water system had ZERO (0) violations for the year 2024.

During 2024 we treated an average of 4.464 Million Gallons per Day at the Mourning Dove Water Treatment Plant.

SWAPP

In 2024, the FDEP performed a Source Water Assessment about potential sources of contamination in the vicinity of our wells. It identified 11 unique potential contaminant sources. Susceptibility scores ranging from 3.33 to 25 and concern levels from low to moderate. Titusville's assessment results can be obtained from Titusville's Water Production Division, (321) 567-3855 or found on the FDEP's website <https://prodapps.dep.state.fl.us/swapp/>.

The City of Cocoa's source water assessment can be obtained from the City of Cocoa, (321) 433-8705 or email ddowns@cocoaf.org or at FDEP's website <https://prodapps.dep.state.fl.us/swapp/>.

Report Period

The City of Titusville 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, 2024 through 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.

As authorized and approved by the Environmental Protection Agency (EPA), the State of Florida has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Therefore, some of our data, though representative, is more than one year old.

Contact Information

This report is available online at titusville.com/CCR or through the department pages at www.titusville.com. For questions about this report or water quality, contact the Public Works Manager II - Water Production at (321) 567-3876. To request a copy by mail, call (321) 567-3865.

Additional information on drinking water is available from the EPA Safe Drinking Water Hotline (800) 426-4791.

Titusville City Council meetings are regularly held on the second and fourth Tuesday of each month at 6:30 p.m. in the City Hall Council Chamber. City Hall is located at 555 S. Washington Avenue, Titusville, Florida.

Sources of Drinking Water

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.

In order 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 at (800) 426-4791.

Vulnerable Population

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. The U. S. Environmental Protection Agency (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 (800) 426-4791.

Lead

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. The City of Titusville 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 City of Titusville Water Production at 321-567-3876. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

The Lead Service Line Inventory was completed and posted on the City website in 2024. Customers can access the lead service line inventory on the city website as follows <https://www.titusville.com/3043/Service-Line-Inventory>. All of our lead tap sampling data is available for review. Contact Water Production at 321-567-3876 if they would like to review the results.

Cryptosporidium Detection

Cocoa monitors for *Cryptosporidium*, a microbial parasite found in surface water throughout the United States.

Cocoa detected *Cryptosporidium* in its untreated surface water in two out of twenty-five samples tested from 2006 through 2008. Cocoa sampled Taylor Creek Reservoir for *Cryptosporidium* once a month from October, 2006 through October, 2008 in accordance with FDEP's Long Term 2 (LT2) Enhanced Surface Water Treatment Rule. Cocoa again tested per LT2 compliance from March, 2015 to March, 2017. Although filtration can remove *Cryptosporidium*, it does not guarantee 100 percent removal. To ensure the highest possible removal rate, Cocoa ozonates all surface water. Ozone is a powerful disinfectant that destroys *Cryptosporidium*.

Cryptosporidium may cause serious illness in immuno-compromised persons. These individuals should consult their health care provider. For further information on Cocoa's water quality, contact the City of Cocoa at (321) 433-8705.

Terms and Abbreviations

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

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Locational Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

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.

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.

N/A: Not applicable.

N/D: Means not detected and indicates that the substance was not found by laboratory analysis.

Parts per billion (ppb): One part by weight of analyte to 1 billion parts by weight of the water sample.

Parts per million (ppm): One part by weight of analyte to 1 million parts by weight of the water sample.

Inorganic Contaminants

Contaminant and Unit of Measurement	Dates of Sampling (mo/yr)	MCL Violation Y/N	Level Detected ¹	Range of Results	MCLG	MCL	Likely Source of Contamination
Arsenic (ppb)	02/2023	N	0.92	N/A	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	02/2023	N	0.004	N/A	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	02/2023	N	0.57	N/A	4	4	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)	02/2023	N	0.20	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	02/2023	N	0.092	N/A	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	02/2023	N	41.00	N/A	N/A	160	Salt water intrusion, leaching from soil

Stage 1 Disinfectants and Disinfection By-Products

Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL or MRDL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine & Chloramines (ppm) ²	2024 (Monthly)	N	2.9	0.4 - 4.9	MRDLG=4	MRDL=4.0	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products³

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	2024 (Quarterly)	N	35.86	3.40 - 47.65	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb) ⁴	2024 (Quarterly)	N	44.91	6.58 - 97.19	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	AL Exceeded Y/N	90th Percentile Result	No. of Sampling Sites Exceeding the AL	Range of Tap Sample Results	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	06/23 - 08/23	N	0.0684	0	0.002-0.112	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	06/23 - 08/23	N	3	0	1.4-4.1	0	15	Corrosion of household plumbing systems and service lines connecting buildings to water mains; erosion of natural deposits

Table Notes

¹Results in the *Level Detected* column for inorganic contaminants are the highest detected level at any sampling point.

²For Chlorine & Chloramines, the *Level Detected* is the highest running annual average (RAA), computed quarterly, of monthly averages of all samples collected. The *Range of Results* is the range of results of all individual samples collected during the past year.

³For Haloacetic Acids (HAA5) and Total Trihalomethanes (TTHM), *Level Detected* is the locational running annual average (LRAA). The *Range of Results* is the range of individual sample results (lowest to highest) for all monitoring locations.

⁴One sample during 2024 (6150 Barna Ave., March) had a Total Trihalomethanes result of 97.19 parts per billion (ppb), which exceeds the Maximum Contaminant Level (MCL) of 80 ppb. However, the system did not incur an MCL violation, because all annual average results at all sites were at or 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.

The City of Titusville 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. If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule (UCMR), please call the Safe Drinking Water Hotline at (800) 426-4791.

Contaminant and Unit of Measurement	Dates of Sampling (mo./yr.)	Level Detected (average)	Range of Results	Likely Source of Contamination
PFBS (ppb)	07/24, 12/24	0.0016	0.0012 - 0.0020	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
PFPeA (ppb)	07/24, 12/24	0.00155	0.0014 - 0.0017	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
PFOS (ppb)	07/24, 12/24	0.0045	0.0020 - 0.0070	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities
PFOA (ppb)	07/24, 12/24	0.0021	0.0020 - 0.0022	Discharge from manufacturing and industrial chemical facilities, use of certain consumer products, occupational exposures, and certain firefighting activities

Requirements for the Revised Coliform Rule

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that another potentially harmful waterborne pathogen may be present, or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct 1 Level 1 assessment. 1 Level 1 assessment was completed. In addition, we were required to take 2 corrective actions, and we completed 2 of these actions.