2023 Annual Drinking Water Quality Report

City of Starke

Florida Dept. of Environmental Protection Public Water System ID # 2040211

We're pleased to provide you with this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a dependable supply of quality 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.

Our water source is groundwater from three wells located in the community. The wells draw from the Floridan aquifer, one of the world's most protected drinking water sources, at depths of 520 feet, 600 feet, and 607 feet . Our water is chlorinated for disinfection purposes, and aerated for odor control.

In 2023, the Florida Department of Environmental Protection (DEP) 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 four potential sources of contamination identified for our system with low to moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program (SWAPP) website at: https://prodapps.dep.state.fl.us/swapp/Welcome/detailsByPublicOutreachDate/2040211/10012023.

If you have any questions about this report or concerning your water utility, please contact Starke City Hall at (904) 964-5027 during our normal business hours: Monday-Friday, 8am-5pm. We encourage our valued customers to be informed about their water utility.

The City of Starke routinely monitors for constituents 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, 2023 to December 31, 2023. Data obtained before January 1, 2023, and presented in this report are from the most recent testing performed in accordance with the laws, rules and regulations.

In the table below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we have 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.
- Level 1 Assessment – A study of a water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.
- Level 2 Assessment – A very detailed study of a water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in the water system on multiple occasions.
- 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 growth.
- 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 contamination.
- N/A – Not applicable.
- ND – Not detected; indicates that the substance was not found by laboratory analysis.
- Parts per million (ppm) or milligrams per Liter (mg/L) – one part of analyte (by weight) to 1 million parts of water sample (by weight).
- Parts per billion (ppb) or micrograms per Liter (µg/L) – one part of analyte (by weight) to 1 billion parts of water sample (by weight).
- Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Microbiological Contaminants

Contaminant	Unit of Measurement	Dates of Sampling (mo./yr.)	TT Violation Yes / No	Result	MCLG	TT	Likely Source of Contamination
Total Coliform Bacteria	P (present) / A (absent)	07/2023	Yes	Present	N/A	Level 2 TT	Naturally present in the environment

We sample monthly as required for microbiological contaminants in your drinking water. The dates of sampling included in the chart above are only the months of 2023 wherein a Treatment Technique violation occurred.

Inorganic Contaminants

Contaminant	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)	09/2023	No	0.013	0.010-0.013	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	(ppm)	09/2023	No	0.31	0.31-0.38	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories; water additive which promotes strong teeth when at optimum level of 0.7 ppm
Mercury	(ppb)	09/2023	No	0.00006	ND-0.00006	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Sodium	(ppm)	09/2023	No	15	N/A	N/A	160	Saltwater intrusion; leaching from soil

For Inorganic Contaminants, "Level Detected" is the highest level detected at any sampling point in 2023. "Range of Results" is the range of all individual samples collected in 2023.

Stage 1 Disinfectants

Disinfectant	Unit of Measurement	Dates of Sampling (mo./yr.)	MCL Violation Yes / No	Level Detected	Range of Results	MRDLG	MRDL	Likely Source of Contamination
Chlorine	(ppm)	Monthly 2023	No	1.05	0.20-2.0	4	4	Water additive used to control microbes.

For Chlorine, "Level Detected" is the highest Running Annual Average (RAA) that occurred in 2023, computed quarterly, of monthly averages of all samples collected. "Range of Results" is the range of all individual samples collected in 2023.

Stage 2 Disinfection By-Products

Contaminant	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) (HAA5s)	(ppb)	09/2023	No	13.65	7.88-13.65	N/A	60	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs)	(ppb)	09/2023	No	51.22	30.41-51.22	N/A	80	By-product of drinking water disinfection.

For HAA5s and TTHMs, "Level Detected" is the highest level detected at any sampling point in 2023. "Range of Results" is the range of all individual samples collected in 2023.

Lead and Copper (Tap Water)

Contaminant	Unit of Measurement	Dates of Sampling (mo./yr.)	AL Violation (Yes/No)	90th Percentile Result	No. of Samples Exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper	(ppm)	08/2022	No	0.14	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	(ppb)	08/2022	No	1.2	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

Bacteriological Sampling Public Notice

In February 2023, we failed to complete the required sampling for Total Coliform and therefore were in violation of monitoring and reporting requirements. Because we did not take the required number of samples, we do not know whether these contaminants were present in your drinking water, and we are unable to tell you whether your health was at risk during this time. The monitoring period was February 1 through February 28, 2023. We were required to take one raw water sample from each of our wells (3 total), and 8 distribution samples. We took zero well samples, and only 7 distribution samples. The adequate number of samples were collected for the following month on March 27, 2023.

Level 1 and Level 2 Assessments; Treatment Technique Violation

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. In 2023, we found coliforms, indicating the need to look for potential problems in our water treatment or distribution system through an Assessment. Assessments are conducted in order to identify and correct any problems that could potentially introduce contamination into a system.

During 2023, we were required to conduct one Level 1 Assessment for our water system. One Level 1 Assessment was completed. In addition, we were required to take one corrective action, as identified through the Assessment. We completed one of these actions.

Also during 2023, we were required to conduct three Level 2 Assessments for our water system. Two Level 2 Assessments were completed. In addition, we were required to take two corrective actions, as identified through the Assessments. We completed both of these actions.

After learning that we exceeded the Level 2 TT Trigger in July 2023, we failed to conduct a Level 2 Assessment in August 2023. As a result, our system incurred a Coliform Treatment Technique violation. To make up for missing this Assessment, a Level 2 Assessment was conducted in February 2024. No potential problems or required corrective actions were identified through the make up Assessment.

SOCs Public Notice

Our water system did not meet the requirements of a drinking water rule. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

During the 2023 monitoring period, we monitored for Synthetic Organic Contaminants (SOCs). As a large community water system, at each of our water plants we should have either taken two sets of SOCs, 60 or more days apart, or taken one set of SOCs and submitted an application to the Department of Environmental Protection to qualify for a reduced SOC monitoring waiver for the second set of SOCs. However, we only took one set of SOCs, and did not submit an application for a reduced SOC monitoring waiver. Therefore, we cannot be sure of the quality of your drinking water at that time.

Required Health Effects Statement: Some people who drink water containing SOCs could become seriously ill. Health effects language for individual contaminants can be obtained by visiting the EPA website at: https://www.epa.gov/ground-water-and-drinking-water/table-regulated-drinking-water-contaminants, or by contacting us at any of the numbers listed.

Make up samples were collected February 27, 2024 and April 16, 2024 for the missed second sets of SOCs. All make-up sample results returned undetected, meaning no SOCs were detected in our water this compliance period.

We do not believe that the missed testing and reporting had any adverse effect upon public health. Nevertheless, our system will strive to meet all future sampling and reporting requirements.

2022 CCR Public Notice

Due to administrative oversight during a busy part of the year, our office failed to publish City of Starke's 2022 Consumer Confidence Report (CCR) to customers by July 1, 2023, and failed to submit a Certification of Delivery form for the 2022 CCR by August 10, 2023, as required by the DEP. These violations had no impact on the quality of the water our customers received, and they posed no risk to public health. We have established a report tracking file to ensure that all reporting requirements are met in the future.

Lead in 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 Starke 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 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 or at http://www.epa.gov/safewater/lead.

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.

Possible Contaminants

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/arming.

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 U.S. 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.

Vulnerable Population Statement

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. U.S. Environmental Protection Agency/Center for Disease Control 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).

Closing Statement

The City of Starke would like 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. If you have any questions or concerns about the information provided, please feel free to call City Hall at **(904) 964-5027.**