2022 Annual Drinking Water Quality Report

City of Starke

PWS # 2040211

We are pleased to present to you this year's Annual Drinking 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 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. Our water sources are three groundwater wells that draw from the Floridan Aquifer. Our treatment process consists of aeration for hydrogen sulfide removal, fluoridation for dental health, and chlorination for disinfection purposes. We aim to provide the best quality of water to you, the customer, at the lowest possible cost.

If you have any questions about this report or concerning your water utility, please contact **City Hall** at **(904) 964-5027**. We encourage our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first and third Tuesdays of each month, at 5:30pm, in the commission room of City Hall, 209 N Thompson St, Starke, FL 32091.

2022 Source Water Assessment

In 2022, 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 two potential sources of contamination identified for this system, one with susceptibility levels ranging from low to moderate. The assessment results are available on the DEP Source Water Assessment and Protection Program (SWAPP) website at https://prodapps.dep.state.fl.us/swapp/.

Water Quality Test Results

This report shows our water quality results and what they mean.

The City of Starke 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, 2022 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 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 that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **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** (**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 contaminants.
- **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 contaminants.
- **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 by weight of analyte to 1 million parts by weight of the water sample.
- **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.

Inorganic Contaminants

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
Barium (ppm)	10/2022	N	0.012	0.011-0.012	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	10/2022	N	0.83	0.78-0.83	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
Mercury (ppb)	10/2022	N	0.053	0.031-0.053	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Sodium (ppm)	10/2022	N	14	14	N/A	160	Saltwater intrusion; leaching from soil
For Inorganic Contaminants, results in the "Level Detected" column are the highest detected level at any sampling point. "Range of Results" are the range of all individual samples collected within the sampling period.							

Stage 1 Disinfectants

Disinfectant and Unit of Measurement	Dates of sampling (mo/yr)	MRDL Violation Y/N	Level Detected	Range of Results	MRDLG	MRDL	Likely Source of Contamination
Chlorine (ppm)	Monthly 2022	N	1.11	0.78-1.40	4.0	4.0	Water additive used to control microbes
For Chlorine, results in the "Level Detected" column are the highest running annual average (RAA) that occurred in 2022, computed quarterly, of monthly averages of all samples collected. "Range of Results" are the range of all individual samples collected in 2022.							

Stage 2 Disinfection By-Products

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 (HAA5s) (ppb)	09/2022	N	2.57	ND-2.57	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHMs) (ppb)	09/2022	N	1.28	1.15-1.28	N/A	80	By-product of drinking water disinfection
For Stage 2 Disinfection By-Products, results in the "Level Detected" column are the highest detected level at any sampling point. "Range of Results" are the range of all individual samples collected within the sampling period.							

Lead and Copper (Tap Water)

Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	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)	08/2022	N	0.14	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/2022	N	1.2	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

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.

On March 11, 2020, the Department of Environmental Protection conducted a routine sanitary survey inspection and noted a significant deficiency with one of our ground storage tanks holding treated water. Specifically, the tank has three holes that are leaking water, and bio-growth has accumulated in those areas.

The City of Starke is currently requesting quotes to repair deficiencies and implement a long term tank maintenance program in our ground storage tanks and water tower. Starke Water department is waiting on approval from the City Council to make the necessary repairs. The plant operators are doing daily inspections of the tank to ensure our drinking water quality is safe for our customers.

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 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 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.

Future Expansion/Rate Adjustments

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 rate structure adjustments. We thank you for understanding.

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

We at 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 any of the numbers listed.