

## **2022 Annual Drinking Water Quality Report**

### **St. Johns County Utility CR 214 Mainland Water System**

We're pleased to present to you 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 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 is treated at two separate plants; the CR 214 Mainland Water Treatment Plant (WTP) and the Northwest Utilities WTP. The source for the CR 214 Mainland plant is ground water from eight wells ranging from 400 to 450 feet in depth that draw from the Floridan Aquifer. The source for the Northwest Utilities plant is also ground water and it comes from six wells ranging from 300 to 450 feet in depth that also draw from the Floridan Aquifer. For treatment, the CR 214 Mainland WTP uses Reverse Osmosis. The water is also aerated for odor control and chloraminated to ensure disinfection. The Northwest Utilities WTP uses aeration, chlorination and pH adjustment.

In 2022, the Department of Environmental Protection performed a Source Water Assessment on our system and a search of the data sources indicated two potential sources of contamination near our wells, both of which have low susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at [www.dep.state.fl.us/swapp](http://www.dep.state.fl.us/swapp)."

If you have any questions about this report or concerning your water utility, please contact Allen Klipstine at (904) 209-2748. We encourage our valued customers to be informed about their water utility. If you want to learn more or attend any of our regularly scheduled meetings, please contact us for dates and times.

St. Johns County Utility CR214 Mainland 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, 2022. Data obtained before January 1, 2022 and presented in this report are from the most recent testing done 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'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.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Level 1 Assessment: 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.

### TEST RESULTS TABLES

<b>Microbiological Contaminants</b>						
<b>Contaminant and Unit of Measurement</b>	<b>Dates of sampling (mo./yr.)</b>	<b>TT Violation</b>	<b>Results</b>	<b>MCLG</b>	<b>TT</b>	<b>Likely Source of Contamination</b>
Total Coliform Bacteria*	1/2022	Y	Positive	N/A	TT	Naturally present in the environment

\*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 one Level 1 assessment, which was completed. However, no corrective actions were needed.

<b>Radioactive Contaminants</b>							
<b>Contaminant and Unit of Measurement</b>	<b>Dates of sampling (mo./yr.)</b>	<b>MCL Violation Y/N</b>	<b>Level Detected</b>	<b>Range of Results</b>	<b>MCLG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
Alpha emitters (pCi/L)	2 & 6/2020	N	3.3	ND -3.3	0	15	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	2 & 6/2020	N	1.8	ND - 1.8	0	5	Erosion of natural deposits

<b>Inorganic Contaminants</b>							
<b>Contaminant and Unit of Measurement</b>	<b>Dates of sampling (mo./yr.)</b>	<b>MCL Violation Y/N</b>	<b>Level Detected</b>	<b>Range of Results</b>	<b>MCLG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
Barium (ppm)	2 & 6/2020	N	0.014	0.011-0.014	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium (ppb)	2 & 6/2020	N	0.1	ND-0.1	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride (ppm)	2 & 6/2020	N	0.63	0.40-0.63	4	4.0	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.2 ppm
Nickel (ppb)	2 & 6/2020	N	1.4	ND-1.4	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	1/2022	N	0.28	0.0445-0.0179	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)*	2 & 6/2020	N	110	28-110	N/A	160	Salt water intrusion, leaching from soil

\*Due to a slight sodium exceedance on a new well, St Johns County was required to do quarterly sampling for sodium in 2020. This however, did not affect the water quality you receive. This well is one of seven that is treated with reverse osmosis membranes and produces water with the sodium level listed in the table above. In 2020, however, the 3<sup>rd</sup> quarterly sodium sample was missed causing a sampling violation. Quarterly sodium sampling was resumed and completed in 2021.

<b>Stage 2 Disinfectant &amp; Disinfection By-Product (D/DBP) Parameters</b>							
<b>Contaminant and Unit of Measurement</b>	<b>Dates of sampling (mo./yr.)</b>	<b>MCL Violation Y/N</b>	<b>Level Detected</b>	<b>Range of Results</b>	<b>MCLG or MRDLG</b>	<b>MCL or MRDL</b>	<b>Likely Source of Contamination</b>
Chloramines (ppm)	1-12/2021	N	2.5	.6-3.9	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	5 & 8/2022	N	11.03	2.11– 32.76	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	5 & 8/2022	N	15.84	13.56– 19.11	N/A	80	By-product of drinking water disinfection

<b>Lead and Copper (Tap Water)*</b>							
<b>Contaminant and Unit of Measurement</b>	<b>Dates of sampling (mo/yr)</b>	<b>AL Exceeded (Y/N)</b>	<b>90th Percentile Result</b>	<b>No. of sampling sites exceeding the AL</b>	<b>MCLG</b>	<b>AL (Action Level)</b>	<b>Likely Source of Contamination</b>
Copper (tap water) (ppm)	9-2021	N	.053	0 of 32	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	9-2021	N	1.1	0 of 32	0	15	Corrosion of household plumbing systems; erosion of natural deposits

<b>Secondary Contaminants</b>							
<b>Contaminant and Unit of Measurement</b>	<b>Dates of sampling (mo./yr.)</b>	<b>MCL Violation Y/N</b>	<b>Level Detected</b>	<b>Range of Results</b>	<b>MCLG</b>	<b>MCL</b>	<b>Likely Source of Contamination</b>
Sulfate	2 & 6/2020	N	230*	190-230	N/A	250	Natural occurrence from soil leaching.
Total Dissolved Solids (ppm)	2 & 6/2020	Y	660*	530 - 660	N/A	500	Natural occurrence from soil leaching.

\* While the MCL level was exceeded for Total Dissolved Solids (TDS), it is a secondary contaminant, which relates to the aesthetic quality of the water, and is not health-related at the levels recorded.

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. St. Johns County Utility 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>.

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 1-800-426-4791.

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

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply, we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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/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).

We at St. Johns County Utility's CR 214 Mainland Water Treatment Plant work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.