

CITY OF BUNNELL

2021 Water Quality Report PWS# 2180134

We are pleased to present to you this year's 2021 Annual Water Quality Report for the Bunnell Water Plant PWS # 2180134. 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 five groundwater wells drawn from the Floridian Aquifer. The treatment process includes aeration to remove dissolved gases, polyphosphate for corrosion control, filtration for particle removal, chloramination for disinfection, ion exchange for dissolved organic carbon removal and softening.

If you have any questions about this report or concerning your water utility, please contact Nathan Randolph at 386-586-8059. 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 every other Monday at 7:00 pm at the Flagler County Government Services Building located at 1769 East Moody Blvd, Bunnell. This report will be mailed to customers only upon request and is also available at City Hall located at 604 Suite 6 East Moody Blvd upon request.

2021 Source Water Assessment

In 2021 the Department of Environmental Protection performed a Source Water Assessment on our system and search of the data sources indicated there are five potential sources of contamination identified for this system with low to high susceptibility levels. The assessment results are available on the DEP Source Water Assessment and Protection Program website at:

<http://www.dep.state.fl.us/swapp>

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

The Bunnell Water Plant 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, 2021**.

Data obtained **before** January 1, 2021 and presented in the report are from the most recent testing done in accordance with the laws, rules, and regulations. As authorized and approved by EPA, the State has reduced the 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. Some of our results [e.g. lead and copper], though representative, is more than one year old.

In the tables below, you may find unfamiliar terms and abbreviations. To help you better understand these terms we've 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.
- **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)	06 / 2021	N	0.011	0.011	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	06 / 2021	N	0.14	0.14	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

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
Nitrate (as Nitrogen) (ppm)	06 / 2021	N	0.057	0.057	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	06 / 2021	N	68.6	68.6	N/A	160	Saltwater intrusion, leaching from soil

Results in the Level Detected column for radioactive contaminants are the highest average at any of the sampling points or the highest detected level at any sampling point, depending on the sampling frequency.

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 and Chloramines (ppm)	01/2021 – 12/2021	N	3.49	1.00 - 4.04	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes

For chlorine, 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 the individual samples collected during the past year.

Stage 2 Disinfectants and 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 (HAA5) (ppb)	6/2021	N	8.8	8.7 - 8.8	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	6/2021	N	27.4	25.2 - 27.4	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)	90 th Percentile Result	No. of Sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	08/2019 – 09/2019	N	0.47	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	08/2019 – 09/2019	N	3.4	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

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 Bunnell Water Plant 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>.

Last year the state issued an order requiring our system to monitor for contaminant 1,2 – Dichloroethane, a Volatile Organic Contaminant, four times per year instead of triennially. We were in violation of special monitoring requirements by missing the January – March 2021 monitoring period and reporting date, but since then we have been in compliance. We do not believe that the missed testing and reporting has any adverse effect upon public health. Our system will strive to meet all future requirements.

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.

To ensure that the 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.

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 the Bunnell Water Plant 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.