



Emerald Coast Utilities Authority

2021 WATER QUALITY REPORT



Emerald Coast Utilities Authority

We are very pleased to provide you with this year's Annual Water Quality Report, and to report that our water meets all Federal and State requirements. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water.

Where Does My Water Come From?

In 2021, ECUA sourced water from 27 active wells distributed throughout our service area that pump water from the Sand-and-Gravel Aquifer. In general, ECUA customers receive water from the wells (two to five) located closest to their residence. ECUA wells are operated as separate treatment plants to allow for adjustment of water quality parameters for maximum operational efficiencies and compliance with regulatory standards.

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.

The Sand-and-Gravel Aquifer is a prolific, high-quality source of water for our community. Because it does not have a confining layer above it, virtually everything that falls on the ground has the potential to affect the quality of our water supply.

ECUA is well aware of this threat to our groundwater and over the years has worked with Escambia County and the City of Pensacola in strengthening their Wellhead Protection Ordinances.

There are Granular Activated Carbon (GAC) filters installed on thirteen (13) wells for iron or organic contamination removal. Basic treatment includes calcium hydroxide (lime) for pH adjustment; phosphoric acid for corrosion control in the distribution system and home plumbing; and chlorine for disinfection. Fluoride is added at select wells to help prevent tooth decay.

ECUA monitors your drinking water for total coliform bacteria on a regular basis. Total coliform bacteria are generally not harmful themselves, are naturally present in the environment, and typically serve as an indicator that other bacteria may be present.

This is a process that we take very seriously and implement carefully each month.

2021 FDEP Drinking Water Treatment Plant Award

Each year, the FDEP presents awards to drinking water and domestic wastewater facilities around the state that demonstrate excellence in operation, maintenance, innovative treatment, waste reduction and pollution prevention, recycling, or other special achievements. These awards recognize facilities that demonstrate a special commitment to excellence in management through dedicated professionalism. ECUA is proud to be a 2021 Drinking Water Treatment Plant Award Winner in the Large Community Water System category.





Questions?

If you have any questions about this report or concerning your water utility, please contact the ECUA Laboratory Supervisor at (850) 969-6629. We encourage our valued customers to be informed about their water utility. ECUA Board and Committee meetings are held in the boardroom of the ECUA Administration Building, 9255 Sturdevant St., Pensacola, FL 32514. For a complete schedule of meetings, please contact the Executive Assistant, Ms. Amanda Miller, at (850) 969-3302, or visit us on-line at www.ecua.fl.gov. The ECUA Water Quality Report for 2022 will be published by July 1, 2023.



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.

ECUA routinely monitors your drinking water according to Federal and State laws, rules and regulations, generally more frequently than the law prescribes.

We are proud to report that ECUA's drinking water was selected as the Best Tasting Water 5 times between 2005 and 2020 in the annual taste-test competition sponsored by Region IX of the Florida Section of the American Water Works Association. Region IX is comprised of all water utilities in Escambia, Santa Rosa, Okaloosa and Walton Counties.



2021 Water Quality Report

ECUA 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 Jan. 1 to Dec. 31, 2021. Data obtained before Jan. 1, 2021, and presented in this report is from the most recent testing done in accordance with the laws, rules, and regulations.



Definitions

We've provided the following definitions to help you better understand certain terms and abbreviations with which you might not be familiar.

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

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 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 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.

Not Detected (ND): Means not detected and indicates that the substance was not found by laboratory analysis.

Parts per million (ppm) or Milligrams per liter (mg/l): One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (µg/l): One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L): Picocuries per liter is a measure of the radioactivity in water, a quadrillionth of a curie per liter.



In 2021, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our water. Assessments are conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 40 potential sources of contamination identified for this system, with a low to high susceptibility level. ECUA's Wellhead Protection Program helps to protect the integrity of the ECUA water system. The assessment results are available on the FDEP Source Water Assessment and Protection Program (SWAPP) website at www.dep.state.fl.us/swapp, or they can be obtained by calling the ECUA's Water Quality Division at (850) 969-6629.

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.

2021 Drinking Water Quality Report System-Wide Test Results Table

The System-Wide Test Results table included in this report presents the results of compliance monitoring for the period of January 1 through December 31, 2020. As authorized and approved by EPA, the State 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. Some of our data, though representative, are more than one year old.

Radiological Contaminants							
Contaminant and unit of measurement	Sampling Dates (mo/yr)	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely source of contamination
Alpha emitters (pCi/L)	July 14 - July 20	No	6.3	ND - 6.3	0	15	Erosion of natural deposits
Radium 226+228 (pCi/L)	2017, '20, '21	No	4.83	ND - 4.83	0	5	Erosion of natural deposits
Uranium (ug/L)	Oct 20	No	2.2	2.2 - 2.2	0	30	Erosion of natural deposits
Inorganic Contaminants							
Arsenic (ppb)	Apr - Oct 20 & Jun 21	No	0.10	ND - 0.10	0	10	Orchards; runoff from glass and electronics production wastes
Barium (ppm)	Apr - Oct 20 & Jun 21	No	0.064	0.011 - 0.064	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	Apr - Oct 20 & Jun 21	No	0.40	ND - 0.40	4	4	Discharge from electrical, aerospace and defense industries
Cadmium (ppb)	Apr - Oct 20 & Jun 21	No	0.10	ND - 0.10	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries & paints
Chromium (ppb)	Apr - Oct 20 & Jun 21	No	0.70	ND - 0.70	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	Apr - Oct 20 & Jun 21	No	17	ND - 17	200	200	Discharge from steel/metal factories; discharge from plastic & fertilizer factories
Fluoride (ppm)	Apr - Oct 20 & Jun 21	No	0.74	ND - 0.74	4	4.0	Erosion of natural deposits; discharge from fertilizer & aluminum factories. Water additive which promotes strong teeth when maintained at optimum level of 0.7ppm
Lead (ppb)	Apr - Oct 20 & Jun 21	No	0.16	ND - 0.16	0	15	Residue from man-made pollution such as auto emissions & paint; lead pipe, casing & solder
Mercury (ppb)	Apr - Oct 20 & Jun 21	No	0.25	ND - 0.25	2	2	Erosion from natural deposits; discharge from refineries & factories; runoff from landfills; runoff from cropland
Nickel (ppb)	Apr - Oct 20 & Jun 21	No	1.4	0.38 - 1.4	n/a	100	Pollution from mining & refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	May - July 21	No	4.0	0.15 - 4.0	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppb)	Apr - Oct 20 & Jun 21	No	0.48	ND - 0.48	50	50	Discharge from petroleum & metal refineries; erosion of natural deposits
Sodium (ppm)	Apr - Oct 20 & Jun 21	No	9.2	2.6 - 9.2	n/a	160	Saltwater intrusion, leaching from soil

*Well-specific data tables are available by contacting the ECUA Lab Supervisor at (850) 969-6629.

Contaminants That May Be Present In Source Water Include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- 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.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

2021 Drinking Water Quality Report System-Wide Test Results Table

Volatile Organic Contaminants							
Contaminant and unit of measurement	Sampling Dates (mo/yr)	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely source of contamination
Trichloroethylene (ppb)	Feb - Oct 21	No	0.69	ND - 0.75	0	3	Discharge from industrial chemical factories
Tetrachloroethylene (ppb)	Feb - Oct 21	No	1.93	ND - 2.44	0	3	Discharge from factories and dry cleaners

STAGE 1 & 2 Disinfectants and DISINFECTION BY-PRODUCTS							
Disinfectant or Contaminant and Unit of Measurement	Dates of Sampling	MCL or MRDL Violation	Level Detected	Range of Results	MCLG (MRDLG)	MCL or (MRDL)	Likely source of contamination
Chlorine (ppm)	Jan - Dec 21	No	0.73 avg.	0.69 - 0.75	4.0 MRDLG	4.0 MRDL	Water additive used to control microbes
Total Trihalomethanes (ppb)	Jan - Dec 21	No	1.75 avg.	ND - 3.9	n/a	80/MCL	By-products of drinking water disinfection

Lead and Copper (Tap Water)							
Contaminant and unit of measurement	Dates of sampling	AL Violation Y/N	90th percentile	No. of sites exceeding the AL	MCLG	AL	Likely source of contamination
Copper (tap water) (ppm)	July - Aug 20	No	0.20	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

ECUA has been monitoring for Unregulated Contaminants (UC) as required by the Florida Department of Environmental Protection (FDEP). At present, no maximum contaminant levels have been established for UCs. We have included the analytical results of our UC monitoring in this annual water quality report.

Unregulated Contaminants*				
Contaminant and unit of measurement	Sampling Dates (mo/yr)	Level Detected	Range of Results	Likely source of contamination
PFOA (ppb)	Jan - Oct 21	0.0073 avg.	ND - 0.017	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps; U.S. manufacture of PFOS phased out in 2002; however, PFOS still generated incidentally
PFOS (ppb)	Jan - Oct 21	0.0035 avg.	ND - 0.0097	Used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishes, adhesives and photographic films

*Data reflective of quarterly sampling from a single source after treatment.

Precautionary Boil Water Notices (PBWN)

What are PBWNs and why do we issue them? Occasionally, drinking water distribution systems experience disruptions caused by main breaks, planned maintenance, or loss of pressure, which require the issuing of a PBWN. **The PBWN does not mean that contamination is present**, but is merely a precautionary measure until bacteriological sampling confirms that no contamination exists. ECUA makes every effort possible to keep our customers informed as to the quality of our water. The status of all PBWN's can be obtained any time of day by calling the ECUA SCADA office at (850) 969-3343 or online at www.ecua.fl.gov. Customers may also opt-in to the ECUA Notification System by registering through a link located on the homepage of the ECUA website.



Lead and Copper

The Lead and Copper samples collected and analyzed in 2020 showed the ECUA Water System to be in full compliance with the Lead and Copper Rule.

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 Emerald Coast Utilities Authority 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 two 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 www.epa.gov/safewater/lead.

2021 Table of System-Wide Averages*

Volatile Organic Compunds (VOC)	Regulatory MCL	Averaged Concentration
Trichloroethylene(ppb)	3	0.007
Tetrachloroethylene (ppb)	3	0.056

Inorganic Contaminants	Regulatory MCL	Averaged Concentration
Arsenic (ppb)	10	0.021
Barium (ppm)	2	0.027
Beryllium (ppb)	4	0.003
Cadmium (ppb)	5	0.009
Chromium (ppb)	100	0.203
Cyanide (ppb)	200	3.842
Fluoride (ppm)	4	0.432
Lead (ppb)	15	0.061
Mercury (ppb)	2	0.035
Nickel (ppb)	100	0.642
Nitrate (as Nitrogen) (ppm)	10	1.451
Selenium (ppb)	50	0.078
Sodium (ppm)	160	4.690

*Represents data from most recent sampling events since 2020.

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 persons, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC (Centers 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 at (800) 426-4791.

