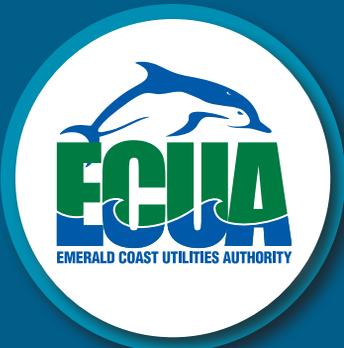


EMERALD COAST
UTILITIES AUTHORITY

2019 WATER
QUALITY
REPORT





WHERE DOES MY WATER COME FROM?

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.

ECUA has 28 active wells distributed throughout its 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 or place of business. Operating each well as a separate treatment plant, we adjust water quality parameters to maximize operational efficiencies and to comply with regulatory standards.

The sources of drinking water for both tap water and bottled water throughout our country 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. It also 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 the 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. ECUA adds Calcium Hydroxide (lime) for pH adjustment; Phosphoric Acid for corrosion control in the distribution system and home plumbing; and Chlorine for disinfection. Fluoride, added at select wells, helps prevent tooth decay.

ECUA monitors your drinking water for total coliform bacteria on a regular basis. Total coliform bacteria are typically 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.



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



In order to ensure the safety of tap water, EPA prescribes regulations that limit the amount of specific contaminants in water provided by public water systems. FDA (Food & Drug Administration) 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 (EPA) Safe Drinking Water Hotline at (800) 426-4791.



SOME SOURCE WATERS MAY CONTAIN CONTAMINANTS SUCH AS:

- Microbial contaminants such as viruses and bacteria, which may be present in nature or 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 compounds, 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.

As a permitted community water system, ECUA is required to collect samples and have them analyzed on a regular basis for compliance with the Safe Drinking Water Act (SDWA). ECUA collected all samples as required for the second quarter of the Stage II Disinfection Byproducts testing, which includes testing for haloacetic acids (HAA5), and provided the samples in a timely manner (less than 24 hours) to an independent laboratory, Test America, with whom ECUA contracted to perform the testing. Test America misplaced one set of the samples, and held the other samples too long before analyzing. Although the test result was similar to historic test result values and approximately 1/100th of the Maximum Contaminant Level (MCL), the result was not acceptable to the Florida Department of Environmental Protection (FDEP) because of the timing error (exceeded hold time) by Test America meant that health effects were unknown. Test America laboratory did not make ECUA aware of its error until 7/2/2019, two days after the end of the April – June 2019 compliance period. Although this incident was not an emergency and there was no threat to public health, our customers have a right to know what happened and what we did to correct this situation.

To reassure and document that the level of HAA5 remains very low, ECUA took follow-up samples on July 15, and received analytical results from a different independent laboratory on July 18. These results show the HAA5 levels to be in line with historic ECUA system averages and are far, far below the MCL. There were no concerns with the water quality test results and there was nothing our customers needed to do. ECUA also decided to discontinue use of Test America for testing services.



DEFINITIONS

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

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 (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.

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 (DG/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 2019, 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 46 potential sources of contamination identified for this system, with a low to high susceptibility level. 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.

2019 DRINKING WATER QUALITY 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, 2019. 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 (pCi/l)	4/17 - 9/17	No	6.6	0.19 - 6.6	0	15	Erosion of natural deposits
Radium 226+228 (pCi/l)	4/17 - 11/17	No	5.2	0.96 - 5.2	0	5	Erosion of natural deposits

INORGANIC CONTAMINANTS

Barium (ppm)	6/17 & 7/17	No	0.056	0.0092 - 0.056	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	6/17 & 7/17	No	0.8	ND - 0.8	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
Mercury (ppb)	6/17 & 7/17	No	0.1	ND - 0.1	2	2	Erosion from natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel (ppb)	6/17 & 7/17	No	1.1	ND - 1.1	n/a	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	8/19	No	4.0	0.2 - 4.0	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	6/17 & 7/17	No	9.3	2.7 - 9.3	n/a	160	Saltwater intrusion, leaching from soil

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	Jan-Dec 19	No	0.51 avg.	ND - 0.56	0	3	Discharge from industrial chemical factories
Tetrachloroethylene (ppb)	Jan-Dec 19	No	1.22 avg.	ND - 1.2	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 19	No	0.72 avg.	0.66 - 0.74	4.0 MRDLG	4.0 MRDL	Water additive used to control microbes
Haloacetic Acids 5 (ppb)	Jan-Dec 19	No	1.60 avg.	ND - ND	n/a	MCL/60	By-products of drinking water disinfection
Total Trihalomethanes (ppb)	Jan-Dec 19	No	1.35 avg.	ND - 3.1	n/a	MCL/80	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-Sept 17	No	0.25	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

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

2019 TABLE OF SYSTEM-WIDE AVERAGES

Concentrations shown in table below represent the average of 2017 or 2019 sampling results for ECUA's entire water system.

Volatile Organic Compounds (VOC)	Regulatory MCL	Averaged Concentration
Trichloroethylene (ppb)	3	0.041
Tetrachloroethylene (ppb)	3	0.048

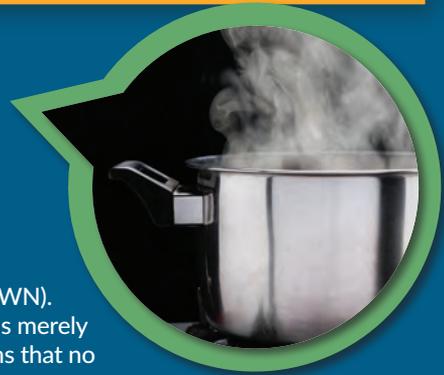
Inorganic Contaminants	Regulatory MCL	Averaged Concentration
Barium (ppm)*	2	0.028
Fluoride (ppm)*	4	0.49
Mercury (ppb)*	2	0.009
Nickel (ppb)*	100	0.043
Nitrate (as Nitrogen) (ppm)	10	1.57
Sodium (ppm)*	160	4.88

* Represents 2017 sample data



PRECAUTIONARY BOIL WATER NOTICES

What are Precautionary Boil Water Notices and Why Do We Issue Them? Occasionally, drinking water distribution systems experience disruptions caused by main breaks or planned maintenance, and when a loss of pressure may have occurred, require the issuance of a Precautionary Boil Water Notice, (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 PBWNs is available 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 going through the registration process through a link located on the homepage of the ECUA website.



LEAD AND COPPER

The Copper test results presented in this report were collected and analyzed in 2017. There was no presence of Lead detected in any of the sampling. The results reported 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 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 www.epa.gov/safewater/lead.

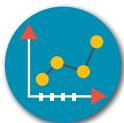


We are proud to report that ECUA's drinking water was selected as the Best Tasting Water 5 times between 2005 and 2018 in the annual taste-test competition sponsored by Region IX of the Florida Section of the American Water Works Association. Region IX is comprised of all water utilities in Escambia, Santa Rosa, Okaloosa and Walton Counties.

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.



We monitored for unregulated contaminants (UCs) in 2019 as part of a study to help the U.S.

Environmental Protection Agency (EPA) determine the occurrence in drinking water of UCs and whether or not these contaminants need to be formally regulated. At present, no health standards (for example, maximum contaminant levels) or likely sources have been established for UCs. However, we are required to publish the analytical results of our UC monitoring in our annual water quality report. All detections are shown on the table below, but if you would like a copy of all our 2019 UC data, contact ECUA at the number provided in this report.

If you would like more information on the EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

UNREGULATED CONTAMINANTS

Contaminant	Sampling Dates (mo/yr)	Level Detected (average) in ug/L	Range ug/L	Likely source of contamination
Manganese	4/19 - 10/19	12.5767	4.62-27.3	Unavailable
Bromide*	4/19 - 10/19	43.0500	20.5-65.6	Unavailable
PFOA	1/19 - 12/19	0.0050	ND-0.017	Fire response sites; Landfills
PFOS	1/19 - 12/19	0.0053	ND-0.019	Fire response sites; Landfills

*Taken at source water influent locations representing untreated water entering the water treatment plant.

QUESTIONS

If you have any questions about this report or concerning your water utility, please contact The ECUA Laboratory Supervisor at 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 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 2020 will be published by July 1, 2021.