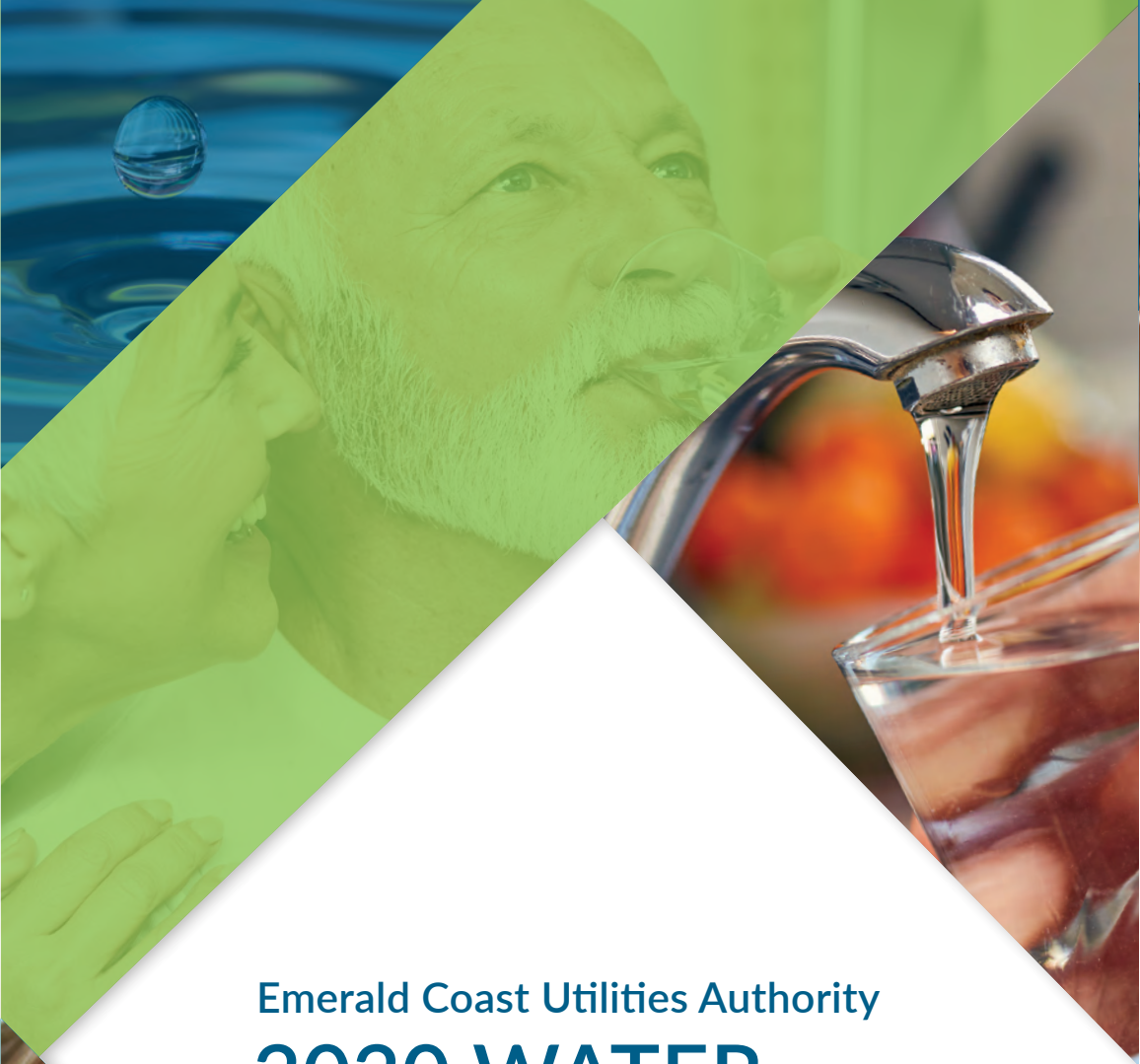


Emerald Coast Utilities Authority

# 2020 WATER QUALITY REPORT

ECUA
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?

ECUA has 26 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. 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.

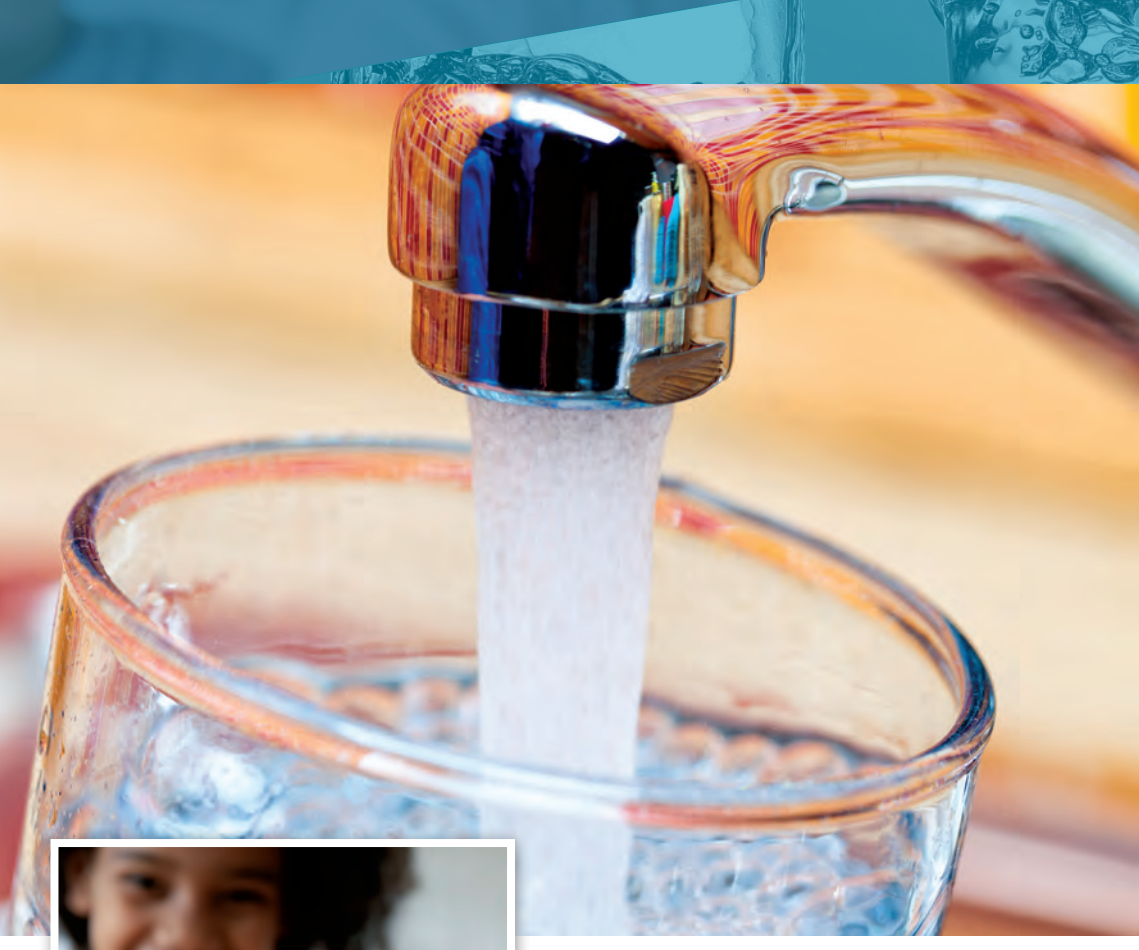
ECUA is well aware of this threat to groundwater and over the years has worked with Escambia County and the City of Pensacola in strengthening their wellhead protection ordinances.

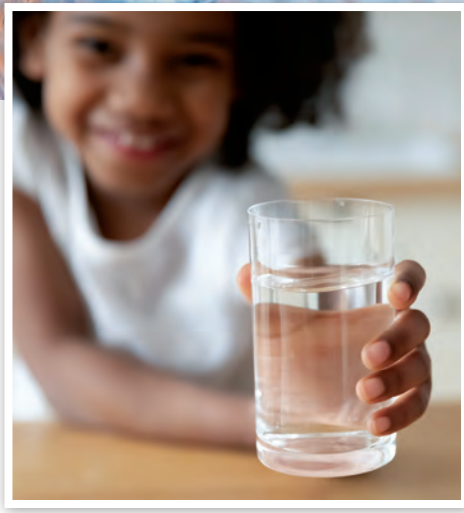
There are Granular Activated Carbon (GAC) filters installed on thirteen (13) wells for iron or organic contamination removal. Other additives include: calcium hydroxide (lime) for pH adjustment; phosphoric acid for corrosion control in the distribution system and home plumbing; and chlorine for disinfection. 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 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.

In 2020, 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 41 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.





In order to ensure the safety of tap water, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food & 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 (EPA) Safe Drinking Water Hotline at 1-800-426-4791.

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

BEST
BEST TASTING WATER

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.

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

## 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.

ECUA has been in contact with the Department of Environment Protection to correct various violations at the water system. One of these violations is the inadequate implementation of a Cross Connection Control (CCC) Program. A "cross-connection" is any potential or actual connection between the public water supply and a source of contamination or pollution. A Cross Connection Control Program is an organized, legally implemented and structured program to attempt to eliminate the hazards to the municipal potable water supply. We have adopted a CCC plan as required, and though our Backflow testing rate is improving, some Backflow assemblies still need testing.

## 2020 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, 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 emmiters (pCi/l) | July 14 - July 20 | No | 6.3 | ND - 6.3 | 0 | 15 | Erosion of natural deposits |
| Radium 226+228 (pCi/l) | Apr - Oct 20 | No** | 6.6 | ND - 6.6 | 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 | No | 0.10 | ND - 0.10 | 10 | 10 | Orchards; runoff from glass and electronics production wastes |
| Barium (ppm) | Apr - Oct 20 | 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 | No | 0.40 | ND - 0.40 | 4 | 4 | Discharge from electrical, aerospace and defense industries |
| Cadium (ppb) | Apr - Oct 20 | 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 | No | 0.70 | ND - 0.70 | 100 | 100 | Discharge from steel and pulp mills; erosion of natural deposits |
| Cyanide (ppb) | Apr - Oct 20 | No | 17 | ND - 17 | 200 | 200 | Discharge from steel/metal factories; discharge from plastic & fertilizer factories |
| Fluoride (ppm) | Apr - Oct 20 | 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 | 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 | 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 | No | 1.4 | 0.38 - 1.4 | n/a | 100 | Pollution from mining & refining operations. Natural occurrence in soil |
| Nitrate (as Nitrogen) (ppm) | Apr - Oct 20 | No | 3.9 | 0.28 - 3.9 | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits |
| Selenium (ppm) | Apr - Oct 20 | No | 0.48 | ND - 0.48 | 1 | 1 | Discharge from petroleum & metal refineries; erosion of natural deposits |
| Sodium (ppm) | Apr - Oct 20 | 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. **Compliance is based on an average of 4 calendar quarters.

## 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 2021 will be published by July 1, 2022.

## 2020 Drinking Water Quality 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 | Jan - Dec 20 | No | 0.68 | ND - 0.70 | 0 | 3 | Discharge from industrial chemical factories |
| Tetrachloroethylene (ppb) | Jan - Dec 20 | No | 1.08 | ND - 1.5 | 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 20 | No | 0.73 avg. | 0.70 - 0.75 | 4.0 MRDLG | 4.0 MRDL | Water additive used to control microbes |
| Total Trihalomethanes (ppb) | Jan - Dec 20 | No | 2.10 avg. | ND - 3.8 | 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 |

## Contaminants that may be present in source water include:

- 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 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.

## 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 issuing 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 all PBWNs 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 going through the registration process through a link located on the homepage of the ECUA website.

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 1-800-426-4791.**

## 2020 Table of System-Wide Averages

| Volatile Organic Compunds (VOC) | Regulatory MCL | Averaged Concentration |
|---|---|---|
| Trichloroethlyene (ppb) | 3 | 0.044 |
| Tetrachloroethylene (ppb) | 3 | 0.073 |

| Inorganic Contaminants | Regulatory MCL | Averaged Concentration |
|---|---|---|
| Arsenic (ppb) | 10 | 0.022 |
| Barium (ppm) | 2 | 0.028 |
| Beryllium (ppb) | 4 | 0.009 |
| Cadmium (ppb) | 5 | 0.017 |
| Chromium (ppb) | 100 | 0.177 |
| Cyanide (ppb) | 200 | 4.133 |
| Fluoride (ppm) | 4 | 0.450 |
| Lead (ppb) | 15 | 0.055 |
| Mercury (ppb) | 2 | 0.038 |
| Nickel (ppb) | 100 | 0.624 |
| Nitrate (as Nitrogen) (ppm) | 10 | 1.473 |
| Selenium (ppb) | 1 | 0.072 |
| Sodium (ppm) | 160 | 4.692 |

## Lead and Copper

The copper results presented in this report were collected and analyzed in 2020. 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.