

2018 Annual Drinking Water Quality Report NAS Pensacola Saufley Field

We're very pleased to provide you with this year's Annual Water Quality Report. 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?

The sources of drinking water 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.

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 by-products 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.

In order to ensure the safety of tap water, the EPA prescribes regulations, that limit the amount of certain contaminants in water provided by public water systems. 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.

Emerald Coast Utility Authority (ECUA) has 28 wells distributed throughout its service area that pump water from the Sand-and-Gravel Aquifer. In general, Saufley Field Water System customers receive water from ECUA wells closest to our system. As such, the water delivered to customers is usually a blend of water from more than one well. Each well is considered a separate treatment plant, where water quality parameters are adjusted to comply with operational efficiencies and to comply with regulatory standards.

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

Granular Activated Carbon (GAC) filters are installed on twelve (12) wells for iron or organic contamination removal. Calcium Hydroxide (lime) is added for pH adjustment; Phosphoric Acid is added for corrosion control in the distribution system, and Chlorine is added for disinfection. Fluoride is added at select wells and helps prevent tooth decay.

In 2018, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on ECUA's water. Assessments are conducted to provide information about any potential sources of contamination in the vicinity of their wells. There are 45 potential sources of contamination identified for this system, with a low to moderate 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 from ECUA's Water Quality Division at 850-969-6629.

Emerald Coast Utility Authority and the Naval Air Station Pensacola 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, 2018. Data obtained before January 1, 2018, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

If you have any questions about this report, please contact Joelle O'Daniel-Lopez (850)452-3131 x3027.

If you have any questions concerning the water that ECUA provides, please contact the ECUA Laboratory Manager at 969-6689. ECUA encourages their 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. Sharon T. Harrell, at (850) 969-3300, or visit us on-line at www.ecua.fl.gov. The ECUA Water Quality Report for 2018 will be published by July 1, 2019.

In the table 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 which, if exceeded, triggers treatment or other requirements that a water system must follow.

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.

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. MRDLG's 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 by weight of analyte to 1 million parts by weight of the water sample. 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 by weight of analyte to 1 billion parts by weight of the water sample. 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.

2018 CONTAMINANTS TABLE

Stage 2 Disinfectants and Disinfection By-Products*							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
TTHM [Total trihalomethanes] (ppb)*	July 18	No	5.20	N/A	N/A	80	By-products of drinking water disinfection
Chlorine (ppm) - Stage 1*	Jan-Dec 18	No	1.11	0.58-1.45	4.0 MRDLG	4.0 MRDL	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)*	July-18	No	2.56	N/A	N/A	60	By-product of drinking water disinfection

Lead and Copper (Tap Water)*							
Contaminant and Unit of Measurement	Dates of sampling	AL Exceeded	90th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)*	August 2018	No	0.19	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)*	August 2018	No	3.9	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

*Contaminant data marked with an asterisk are obtained from NAS Saufley Field only, all other contaminant data is from ECUA wells.

Radioactive Contaminants							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha (pCi/L)	July 14-Sept 17	No	7.1	0.19 – 7.1	0	15	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	July 14-Sept 17	No	5.2	0.96 – 5.2	0	5	Erosion of natural deposits

Inorganic Contaminants							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Barium (ppm)	June/July 17	No	0.056	0.0092 - 0.056	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	June/July 17	No	0.8	ND - 0.8	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
Nickel (ppb)	June/July 17	No	1.1	ND - 1.1	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	August 18	No	4.2	0.3 – 4.2	10	10	Runoff from fertilizer use: leaching from septic tanks, sewage: erosion of natural deposits
Mercury (ppb)	June/July 17	No	0.1	ND – 0.1	2	2	Erosion from natural deposits: discharge from refineries and factories; runoff from landfills; runoff from cropland
Sodium (ppm)	June/July 17	No	9.3	2.7 – 9.3	N/A	160	Salt water intrusion, leaching from soil

Volatile Organic Contaminants

Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Tetrachloroethylene (ppb)	Jan-Dec 18	No	1.19 avg.	ND – 1.24	0	3	Discharge from factories and dry cleaners
1-1 Dichloroethylene (ppb)	Jan-Dec 18	No	0.51 avg.	ND – 0.56	7	7	Discharge from industrial chemical factories

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. Saufley Field 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>.

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 at 1-800-426-4791.

2018 CCR Unregulated Contaminants (UCMR4) – ECUA DATA

Unregulated Contaminants				
Contaminant (Unit of Measurement = ppb)	Dates of sampling (mo/yr)	Level Detected (average)	Range	Likely Source of Contamination
Manganese	Apr 2018 & Oct 2018	8.7409	1.46 – 37.0	Unavailable
HAA5	Apr 2018 & Oct 2018	0.0682	ND – 0.300	Unavailable
HAA6Br	Apr 2018 & Oct 2018	0.0600	ND - 0.414	Unavailable
HAA9	Apr 2018 & Oct 2018	0.0696	ND – 0.414	Unavailable
Total Organic Carbon (TOC)**	Apr 2018 & Oct 2018	44.9057	ND - 1210	Unavailable
Bromide**	Apr 2018 & Oct 2018	35.5057	ND – 70.0	Unavailable

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

ECUA monitored for unregulated contaminants (UCs) in 2018 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 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 ECUA’s monitoring in our annual water quality report. All detections are shown on the table, but if you would like a copy of all ECUA’s 2018 UC data, contact ECUA at the ECUA’s Water Quality Division at 850-969-6629. 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.