

*2021 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.

In 2021, ECUA sourced water from 27 active wells distributed through its service area that pump water from the Sand-and-Gravel Aquifer. In general, Saufley Field Water System customers receive a blend of water from the ECUA wells (two to five) located closest to our system. 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.

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.

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.

In 2021, 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 43 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 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, 2021. Data obtained before January 1, 2021, 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) 452-2269.

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. Amanda Miller, at (850) 969-3302, or visit on-line at www.ecua.fl.gov. The ECUA Water Quality Report for 2022 will be published by July 1, 2023.

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.

2021 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
Chlorine (ppm) - Stage 1*	Jan-Dec 21	No	0.67	0.52 – 0.85	4.0 MRDLG	4.0 MRDL	Water additive used to control microbes

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)*	July 2021	No	0.35	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)*	July 2021	Yes	20**	2	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 2014-July 2020	No	6.3	ND – 6.3	0	15	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	2017, 2020, & 2021	No	4.83	ND – 4.83	0	5	Erosion of natural deposits
Uranium (ug/L)	Oct 2020	No	2.2	2.2 – 2.2	0	30	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
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	0.0011 – 0.064	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium (ppb)	Apr-Oct 2020 & Jun 21	No	0.40	ND – 0.40	4	4	Discharge from electrical, aerospace and defense industries
Cadmium (ppb)	Apr-Oct 2020 & 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 2020 & Jun 21	No	0.70	ND – 0.70	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Cyanide (ppb)	Apr-Oct 2020 & Jun 21	No	17	ND – 17	200	200	Discharge from steel/metal factories; discharge from plastic & fertilizer deposits
Fluoride (ppm)	Apr-Nov 2020	No	0.74	ND – 0.74	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
Lead (ppb)	Apr-Oct 2020 & 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 2020 & Jun 21	No	0.25	ND – 0.25	2	2	Erosion from natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel (ppb)	Apr-Oct 2020 & Jun 21	No	1.4	0.38 – 1.4	N/A	100	Pollution from mining and refining operations. Natural occurrence in soil
Nitrate (as Nitrogen) (ppm)	May-Jul 2021	No	4.0	0.15 – 4.0	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (ppm)	Apr-Oct 2020 & Jun 21	No	0.48	ND – 0.48	1	1	Discharge from petroleum & metal refineries; erosion of natural deposits
Sodium (ppm)	Apr-Oct 2020 & Jun 21	No	9.2	2.6 – 9.2	N/A	160	Saltwater 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
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

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 ECUA 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 done by ECUA from a single source after treatment

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>.

**We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. This includes monitoring for lead at customer's taps. In July 2021, lead levels at two of the ten taps sampled exceeded the action level (AL) of 15 ppb. The 90th percentile result and the number of sampling sites exceeding the AL is shown in the test results table. Because the 90th percentile result exceeded the AL, the system exceeded the AL. The AL exceeded was not a violation but rather a trigger for additional steps the system must take. Our system complied with, or is in the process of complying with, all required follow-up to this exceedance. This includes the attached public education notice that was distributed to all customers on September 23, 2021. Follow-up corrective actions that have been completed since then include testing our water quality parameters which were not above the EPA limits, as corrosive water can cause lead to leach from plumbing materials that contain lead. We are sampling for lead every six months so we can closely monitor the lead levels in our water system.

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.

SOME BUILDINGS ON BASE HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION

IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

Saufley Field Water System found elevated levels of lead in drinking water in some buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

What Happened? What is Being Done?

Saufley Field tests the drinking water for lead and copper every three years per a reduced monitoring plan. The reduced monitoring plan for Saufley Field required 10 facilities sample for lead. Two of the ten buildings (Building 839 and Building 809) sampled indicated lead above the action level of 15 parts per billion. The U.S. Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the facilities sampled (90th percentile value). The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

We are taking a number of steps to investigate the root cause and take corrective action. We will begin sampling for lead every six months so we can closely monitor the lead levels in our water system. Additionally, we tested water quality parameters to determine its corrosivity as corrosive water can cause lead to leach from plumbing materials that contain lead.

Saufley Field Water System does not have lead service lines nor water mains. Historically, Saufley Field has not exceeded lead action levels and we are investigating the root cause of the increased lead levels discovered in two of ten July 2021 sample results. Possible causes being investigated is low water usage on base due to increased teleworking to prevent the spread of COVID-19.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil, and some plumbing materials. In addition, lead can be found in certain types of pottery, pewter, brass fixtures, food, and cosmetics. Other sources include exposure in the workplace from certain hobbies (lead can be carried on clothing or shoes). Lead is found in some toys, some playground equipment, and some children's metal jewelry.

Brass faucets, fittings, and valves, including those advertised as "lead-free", may contribute lead to drinking water. The law currently establishes the definition for "lead-free" as the weighted average of 0.25% lead calculated across the wetted surfaces of a pipe, pipe fitting, plumbing fitting, and fixture and 0.2% lead for solder and flux. NSF International certifies plumbing products; consumers may wish to visit their website at www.nsf.org or call 800-NSF-MARK for information when choosing plumbing.

The source water to Saufley Field does not contain lead. Saufley Field Water System does not have lead in its service lines nor water mains. When water is in contact for several hours with pipes [or service lines] or plumbing that contains lead, the lead may enter the drinking water. Homes built before 1986 are more likely to have plumbing containing lead. New homes may also have lead; even "lead-free" plumbing may contain some lead.

EPA estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water.

Lead is not only found in drinking water; other sources of lead include paint, dust, and soil. Wash your children's hands and toys often, as they can come into contact with dirt and dust containing lead.

Steps to Reduce Your Exposure to Lead in Drinking Water

- 1. Run your water to flush out lead.** If water hasn't been used in several hours, run water for 15-30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking. This flushes lead-containing water from the pipes.
- 2. Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- 3. Do not boil water to remove lead.** Boiling water will not reduce lead.
- 4. Look for alternative sources or treatment of water.** You may want to consider purchasing a water filter or bottled water. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-MARK or www.nsf.org for information on performance standards for water filters. To help maximize water quality, be sure to maintain and replace a filter device in accordance with the manufacturer's recommendations.

5. **Test your water for lead.** If you think you may have elevated lead levels in your home drinking water, have it tested. Call the Safe Drinking Water Hotline at 800-426-4791 for more information. We will begin sampling for lead every six months so we can closely monitor the lead levels in our water system. Previous water quality information is available in our annual Consumer Confidence Reports, contact 850-452-2269 for water quality reports.
6. **Get your child's blood tested.** If you are concerned about exposure to lead, contact your local health department or health care provider to find out how you can get your child tested.
7. **Identify and replace plumbing fixtures containing lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free", may contribute to lead in your drinking water. The law currently establishes the definition for "lead-free" as the weighted average of 0.25% lead calculated across the wetted surfaces of a pipe, pipe fitting, plumbing fitting, and fixture and 0.2% lead for solder and flux. Visit the NSF International website at www.nsf.org to learn more about lead-containing plumbing fixtures.

For More Information

Call us at 850-452-2269. For more information on reducing lead exposure around your home/building and the health effects of lead, visit the United States Environmental Protection Agency's website at www.epa.gov/lead, visit the Florida Department of Environmental Protection's lead in drinking water website at <https://floridadep.gov/water/source-drinking-water/content/monitoring-lead-and-copper-florida-drinking-water>, or contact your health care provider.

Public Water System Name and State Water System ID: Saufley Field PWSID# 1170899

Distribution Date of Notice: September 23, 2021