

2021 Annual Drinking Water Quality Report
Naval Air Station Pensacola/Corry

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) 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.

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 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 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.

Our water source is ground water from ten (10) active wells. The wells draw from the Sand and Gravel Aquifer. Because of the excellent quality of our water, the only treatments applied are chlorine for disinfection purposes, fluoride for dental health purposes, orthophosphate for corrosion control, and caustic soda for pH adjustment. Granular Activated Carbon (GAC) filters are installed on ten (10) wells for organic contamination removal.

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.

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. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

“**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.

Picocurie per liter (pCi/L) - measure of the radioactivity in water.

2021 CONTAMINANTS TABLE

Radioactive Contaminants							
Contaminant and Unit of Measurement	Dates of sampling	MCL Violation	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Alpha emitters (pCi/L)	Mar-Jul 2014, Apr-Oct 2017, Mar 2018, Mar-Apr 2020	No	6.3	ND-6.3	0	15	Erosion of natural deposits
Radium 226 + 228 or combined radium (pCi/L)	Apr 2017, Mar-Sep 2018, Jun 2019, Mar-Jun 2020	No	3.16	ND-3.16	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)	Mar-Oct 2020	No	0.055	0.0084-0.054	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	Mar-Oct 2020	No	0.49	ND-0.49	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 0.7ppm
Lead (point of entry) (ppb)	Mar-Oct 2020	No	ND	ND	0	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen) (ppm)	May-Dec 2021	No	3.8	0.66-3.8	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite (as Nitrogen) (ppm)	May-Dec 2021	No	0.14	ND-0.14	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	Mar-Oct 2020	No	17.3	4.9-17.3	N/A	160	Salt water intrusion, leaching from soil

Stage 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 or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine (ppm)(Stage 1)	Jan-Dec 2021	No	0.86	0.74-0.95	MRDLG = 4	MRDL = 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5) (ppb)	Aug 2021	No	5.6	5.2-5.6	N/A	MCL = 60	By-product of drinking water disinfection
TTHM [Total trihalomethanes] (ppb)	Aug 2021	No	35.9	35.5-35.9	N/A	MCL = 80	By-product of drinking water disinfection

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)	Jun -Sep 2020	No	0.11	1 of 30	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	Jun-Sep 2020	No	0.9	0 of 30	0	15	Corrosion of household plumbing systems, erosion of natural deposits

Unregulated Contaminants				
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	Level Detected (average)	Range	Likely Source of Contamination
Dieldrin (ppb)	Jan – Dec 2021	0.00085	ND-0.013	Unknown
Perfluorobutanesulfonic acid (ppb)	Mar – Nov 2021	0.0030	0.00066-0.0072	Unknown
Perfluoroheptanoic acid (ppb)	Mar – Nov 2021	0.0017	ND-0.0051	Unknown
Perfluorohexanesulfonic acid (ppb)	Mar – Nov 2021	0.0097	0.00087-0.032	Unknown
Perfluorohexanoic acid (ppb)	Mar – Nov 2021	0.0061	0.0033-0.014	Unknown
Perfluorooctanesulfonic acid (PFOS) (ppb)	Mar – Nov 2021	0.003	ND-0.0088	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
Perfluorooctanoic acid (PFOA) (ppb)	Mar – Nov 2021	0.0034	ND-0.0096	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

What are per- and polyfluoroalkyl substances and where do they come from?

Per- and polyfluoroalkyl substances (PFAS) are a group of thousands of man-made chemicals. PFAS have been used in a variety of industries and consumer products around the globe, including in the United States, since the 1940s. PFAS have been used to make coatings and products that are used as oil and water repellents for carpets, clothing, paper packaging for food, and cookware. They are also contained in some foams (aqueous film-forming foam or AFFF) used for fighting petroleum fires at airfields and in industrial fire suppression processes because they rapidly extinguish fires, saving lives and protecting property. PFAS chemicals are persistent in the environment and some are persistent in the human body – meaning they do not break down and they can accumulate over time.

Is there a regulation for PFAS in drinking water?

There is currently no established federal water quality regulation for any PFAS compounds. In May 2016, the EPA established a health advisory (HA) level at 70 parts per trillion (ppt) for individual or combined concentrations of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Both chemicals are types of PFAS. Out of an abundance of caution for your safety, the Department of Defense's (DoD) PFAS testing and response actions go beyond EPA Safe Drinking Water Act requirements. In 2020 the DoD promulgated a policy to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every three years. The EPA's health advisory states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than 70 parts per trillion, water systems should quickly undertake additional sampling to assess the level, scope, and localized source of contamination to inform next steps.

Has Corry Station/NAS Pensacola tested its water for PFAS?

Yes. Quarterly samples of the completely treated drinking water were collected from the water treatment plant and analyzed for PFAS.

We are informing you that 6 of the 18 PFAS compounds covered by the sampling method were detected above the method reporting limit (MRL). PFOS and PFOA were below the EPA HA level. The results are provided in Table [Unregulated Contaminants]. As PFOS and PFOA were below the EPA HA, there is no immediate cause for concern, but we will continue to monitor the drinking water closely to ensure that remains the case.

The Copper results presented in this report were collected and analyzed in 2020 and there was no exceedance of the lead action level. The results reported showed the Naval Air Station/Corry 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. Naval Air Station Pensacola 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>.

In 2021, the Florida Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are eight (8) potential sources of contamination identified for this system with low to moderate susceptibility levels. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from Joelle O'Daniel-Lopez (850) 452-2269.

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 (800-426-4791).

If you have any questions about this report or concerning your water utility, please contact Joelle O'Daniel-Lopez (850) 452-2269. We encourage our valued customers to be informed about their water utility.