

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. PWD Mayport 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 order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

All 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.

Thank you for allowing us to continue providing you with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

For further information or questions concerning this report, please contact your PWD Mayport Environmental Branch, at (904) 270-6070. Additionally, Navy personnel who live off-base or in private residences can also contact PWD Mayport for general questions on water quality, or to determine whom to contact for information on the water utility servicing your area.

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).

2023
Annual Water Quality Report
Naval Station
Mayport



2023
Water Quality Report
NAVAL STATION MAYPORT

The Naval Facilities Engineering Systems Command (NAVFAC) Southeast, Public Works Department (PWD), Naval Station (NS) Mayport, Florida, is your water utility service provider. We are 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 has always been to provide you with a safe and dependable supply of drinking water. Our water source is three deep wells, which draw from the Floridan Aquifer. Treatment of your water supply includes aeration for odor control and disinfection through chlorination.

In 2023, the Florida Department of Environmental Protection (FDEP) performed a Source Water Assessment on our system. This assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are 16 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 <https://prodapps.dep.state.fl.us/swapp/>.

PWD Mayport routinely monitors for contaminants in your drinking water according to Federal and State laws and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period January 1 to December 31, 2023. Data obtained before January 1, 2023, and presented in this report are from the most recent testing done in accordance with the laws, rules, and regulations.

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:

- A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- B) 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.
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- D) 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.
- E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.



TEST RESULTS TABLE – NAVAL STATION MAYPORT

Radioactive Contaminants							
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Radium-226 + 228 or combined radium (pCi/L)	January 2023	N	0.5	N/A	0	5	Erosion of natural deposits

Inorganic Contaminants (Tested Triennially)							
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Nitrite (measured as Nitrogen) (ppm)	January 2023	N	0.27	N/A	1	1	Runoff from fertilizer use; leaching from septic tanks, erosion of natural deposits
Barium (ppm)	January 2023	N	0.026	N/A	N/A	2	Discharge of drilling wastes; discharge from metal refineries; ion of natural deposits
Fluoride (ppm)	January 2023	N	0.55	N/A	4	4	Erosion of natural deposits; promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Sodium (ppm)	January 2023	N	21	N/A	N/A	160	Salt water intrusion from natural soil deposits

Stage 1 Disinfectants and Disinfection By-Products							
During the past year, we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. No corrective actions were required.							
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG or MRDLG	MCL or MRDL	Likely Source of Contamination
Chlorine Residual (ppm)	Quarterly	N	1.19	0.26-1.19	4	4.0	Water additive used to control microbes

Stage 2 Disinfectants and Disinfection By-Products							
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	MCL Violation Y/N	Level Detected	Range of Results	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA5) (ppb)	Quarterly 2023	N	19.72	14.31-21.88	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	Quarterly 2023	N	66.79	49.94-71.23	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	Dates of sampling (mo/yr)	AL Exceeded Y/N	90 th Percentile Result	No. of sampling sites exceeding the AL	MCLG	AL (Action Level)	Likely Source of Contamination
Copper (tap water) (ppm)	July – August 2022	N	0.0748	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	July – August 2022	N	1.8	0	0	15	Corrosion of household plumbing systems; erosion of natural deposits

In the table to the left, you may find unfamiliar terms and abbreviations. To help you better understand these terms we have provided the following definitions:

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Maximum Contaminant Level – The “Maximum Allowed” (MCL) is 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 – The “Goal” (MCLG) is 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 Disinfection Level (MRDL) – The highest level of a disinfectant allowed in drinking water. 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.

Method Reporting Limit (MRL) – The smallest concentration of a chemical that can be reported by a laboratory.

Not Applicable (N/A) – No value limit or restriction has been applied to this particular parameter.

Non-Detects (ND) – Indicates that the substance was not found by laboratory analysis.

Parts per trillion (ppt) – One part per billion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per billion (ppb) – One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per million (ppm) – One part per million corresponds to one minute in two years or a single penny in \$10,000.

Picocuries per liter (pCi/L) – Picocuries per liter is a measure of the radioactivity in water.

What are the 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 U.S., 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) currently used for fighting petroleum fires at airfields and in industrial fire suppression processes. 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?

On April 10, 2024, the US EPA established MCLs for a subset of PFAS chemicals.

Compound	MCL
PFOA	4.0 parts per trillion (ppt) (also expressed as ng/L)
PFOS	4.0 ppt
PFHxS	10 ppt
PFNA	10 ppt
HFPO-DA (commonly known as GenX Chemicals)	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless)
	Hazard Index

EPA requires implementation of sampling in accordance with the new MCLs within three years of the publication date and implementation of any required treatment within five years. These limits did not apply for the 2023 calendar year because they had not been published. However, the DoD proactively promulgated policies to monitor drinking water for PFAS at all service owned and operated water systems at a minimum of every two years. The DoD policy states that if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than the 2016 EPA health advisory (HA) level of 70 ppt, water systems must take immediate action to reduce exposure to PFOS or PFAS. For levels less than 70 ppt but above the 4 ppt level (draft at the time of policy publication), DoD committed to planning for implementation of the levels once EPA’s published MCLs take effect.

Has Naval Station Mayport tested its water for PFAS?

Yes. In July 2023 samples were collected from point-of-entry at the Water Treatment Plant. We are informing you that one of the 29 PFAS compounds covered by the sampling method were detected above the method reporting limit (MRL).

Compound	Level Detected	MCL	MRL	AL
PFPeA	2.3 ppt	N/A	1.9 ppt	N/A

EPA does not have a HA or MCL for all of these compounds at this time. PFOA, PFOS, PFNA, PFHxS, PFBS, and Gen X were not detected. As the regulated chemicals were below the new MCLs, there is no immediate cause for concern, but we will continue to monitor the drinking water closely. Subsequent testing yielded all 29 PFAS compounds below MRL.