

2023 Drinking Water Consumer Confidence Report

Naval Air Station Patuxent River, Maryland

Public Water System Identification (PWSID) MD0180022

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Naval Air Station Patuxent River (NASPR) is pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) regulates Public Water Systems and the contaminants found in water through the implementation of the SDWA. The Maryland Department of the Environment (MDE) is responsible for the enforcement of the SDWA. MDE routinely conducts inspections and provides a yearly monitoring schedule for all public water systems. Monitoring schedules include the collection of monthly bacteria samples, annual nitrate samples, monitoring of chlorine disinfectant residuals, and other parameters sampled in multi-year intervals. In addition to the EPA and MDE, the NASPR Public Works Department conducts routine inspections and sampling to ensure the highest water quality is provided to the consumer.

Beginning April 1, 2024, NASPR has transferred ownership and operation of the drinking water distribution to Patuxent River Utility Services (PRUS), a subsidiary of American Systems Utilities Services (ASUS). NASPR Public Works Department and PRUS work in unison to ensure the water quality meets all Federal, State, and Navy requirements. PRUS contact information is available on the last page of this report.

Throughout the report, BLUE text reflects required information by the EPA or MDE.

Where does my water come from?

The NASPR water delivered to you is supplied from the Piney Point-Nanjemoy, Patapsco, and Aquia Aquifers, which are groundwater sources in St. Mary's County, Maryland. The recharge zone for these aquifers is a broad area approximately 25-75 miles north and northeast from our source. Your water is treated by chlorination, accomplished by injecting chlorine into the water supply. Chlorine kills bacteria and other microbes and prevents the spread of waterborne diseases. The water is chlorinated to ensure it is delivered safely to your building or residence.

Source Water

MDE's Water Supply Program has conducted a Source Water Assessment (SWA) for NASPR. The susceptibility analysis of this report is based on a review of the existing water quality data for each water system, the presence of potential sources of contamination in the individual assessment areas, well integrity, and aquifer characteristics. It was determined that the NASPR water supply is not susceptible to contaminants originating at the land surface due to the protected nature of the

confined aquifers. The wells pumping from the Aquia aquifer are susceptible to naturally occurring arsenic. The susceptibility of the water to radon-222, a naturally occurring element, will depend on the final MCL that is adopted for this contaminant. The Source Water Assessment is available at

https://mde.maryland.gov/programs/water/water_supply/Source_Water_Assessment_Program/Pages/sm.aspx.

Why are there contaminants in my drinking water?

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.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

Microbial contaminants: such as viruses and bacteria, that 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 storm water 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 storm water 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 storm water 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 that 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.

Important Health Information

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. The EPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

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 Patuxent River is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Environmental Division Director (contact information at end of report). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Water Quality Data

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA and MDE require us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table, you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below.

Term	Definition
ppm	milligrams per liter or parts per million - or one ounce in 7,350 gallons of water
ppb	micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water
pCi/L	Picocuries per liter (a measure of radioactivity)
NA	Not applicable
MCLG	Maximum Contaminant Level Goal: 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.
MCL	Maximum Contaminant Level: 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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDLG	Maximum Residual Disinfection Level Goal. 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.
MRDL	Maximum Residual Disinfectant Level. 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.
Average	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

2023 Water Quality Data:

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Highest Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	0.8	0.7	0.8	2023	No	Water additive used to control microbes.
Haloacetic Acids (HAA5) (ppb)	NA	60	2	0	2.5	2023	No	By-product of drinking water disinfection.
TTHMs [Total Trihalomethanes] (ppb)	NA	80	8	0	12.8	2023	No	By-product of drinking water disinfection.

Inorganic Contaminants								
Arsenic (ppb)	0	10	9	2	9.5	2023	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Fluoride (ppm)	4	4	0.6	0.42	0.6	2023	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Radioactive Contaminants								
Beta/photon Emitters (pCi/L)	0	50	6.2	0	6.2	2023	No	Decay of natural and man-made deposits
Combined Radium 226/228 (pCi/L)	0	5	0.6	0.6	0.6	10/22/20	No	Erosion of natural deposits

Contaminants	MCLG	AL	90 th Percentile	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source
Inorganic Contaminants							
Copper - action level at consumer taps (ppm)	1.3	1.3	0.059	2022	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead – action level at consumer taps (ppb)	0	15	< 2.0	2022	0	No	Corrosion of household plumbing systems; erosion of natural deposits.

Notice of Violations

NASPR received 2 monitoring violations for the 2023 calendar year. There is no immediate concern for the water quality at NASPR, no alternative water sources are necessary. Any concerns or questions consumers have regarding water quality and/or violations can be directed to the Environmental Division Director, contact information available on the last page of this report.

As required by MDE, the following information is provided for consumer awareness:

1. Total Trihalomethanes (TTHM) (June 1, 2023-August 31, 2023)

We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated. Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

This monitoring was due to unexpected lab equipment failure, the samples were collected on time, but unable to be analyzed in the given timeframe. The samples were analyzed when the lab equipment became functional, and the results were compliant with Federal, State, and Navy safe drinking water standards.

2. Lead and Copper Rule (Oct 1, 2022- Jan 11, 2023)

We failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated. The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials.

The monitoring violation was due to late sampling and reporting for Lead and Copper. Of the 30 required samples, 1 sample was collected and analyzed late. Once collected, the sample was analyzed and the result was compliant with Federal, State, and Navy safe drinking water standards.

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 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. Visit the EPA's website to learn these limits for PFAS at <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>. 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.

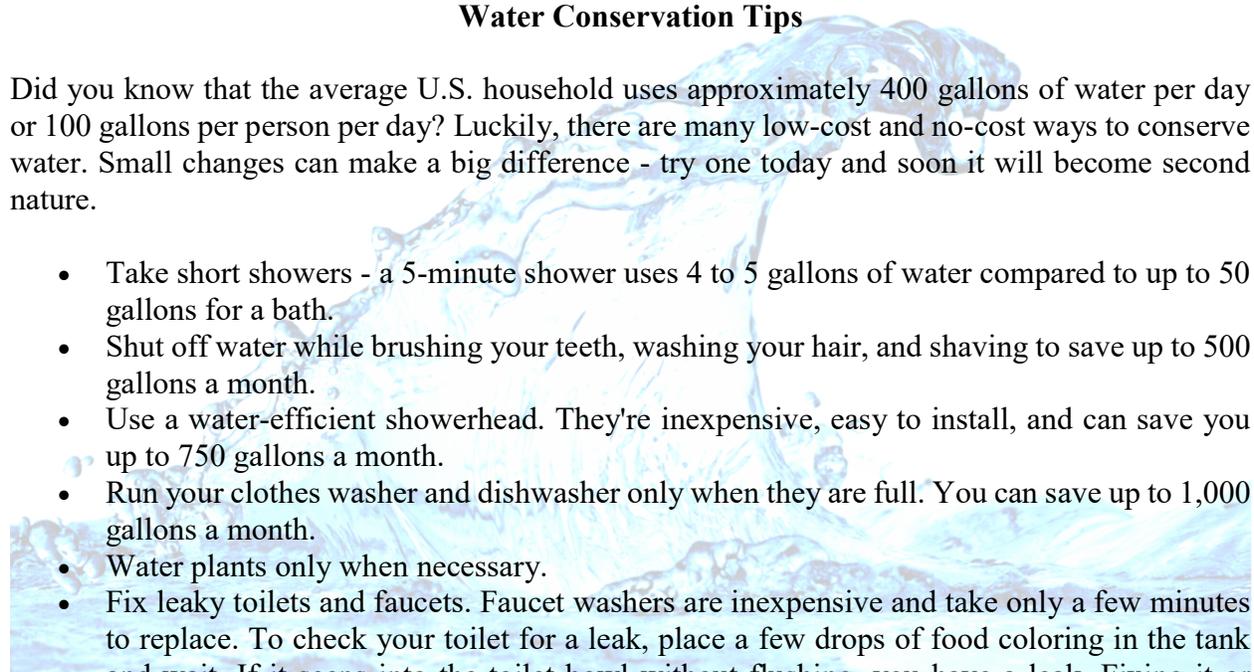
Has Naval Air station Patuxent River tested its water for PFAS in 2023?

Yes. In December, 2023, samples were collected from all points of entry within the distribution system. This included Wells 529, 532, 536, 574, 590, 617, 1633, and pump houses 525, 526, 527, and 528. Wells 583, 584, and 587 will be sampled this year.

We are pleased to report that drinking water testing results were below the Method Reporting Limit (MRL) for all 29 PFAS compounds covered by the sampling method, including PFOA and PFOS. This means that PFAS were not detected in your water system. In accordance with DoD policy, the water system will be resampled every two years for your continued protection.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

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- Take short showers - a 5-minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
 - Shut off water while brushing your teeth, washing your hair, and shaving to save up to 500 gallons a month.
 - Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
 - Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
 - Water plants only when necessary.
 - Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
 - Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
 - Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
 - Visit www.epa.gov/watersense for more information.

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use the EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain-stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people to "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

How can I get involved?

The NASPR works diligently to provide top quality drinking water to every tap. As residents, employees, and caretakers here, please help us protect our water sources. We welcome your suggestions to help maintain our high quality level of drinking water as well as to conserve water throughout the Installation. NASPR has initiated an Installation Drinking Water Committee (IDWC) that meets quarterly. If you have questions or concerns you would like added to the IDWCs agenda, please call or email the Naval Facilities Engineering Command, Public Works Department, Environmental Division Director where we can discuss and respond each quarter:

NASPR Environmental Division Director

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Maryland Department of the Environment

Water and Science Administration, *Water Supply Program*

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Phone:(410) 537-3729



DRINKING WATER SYSTEM CERTIFICATION

System Name: Patuxent Naval Air Station

System#: MD0180022

For Violation: Failure to Monitor and Report Quarterly for Stage 2 Disinfection Byproducts and Failure to Monitor for Lead and Copper

Monitoring Period: August 2023 DBP --- Oct 1, 2022- Jan 11, 2023 Lead and Copper

The public water system indicated above hereby affirms that public notice has been provided to consumers in accordance with the delivery, content, and format requirements and deadlines in [COMAR 26.04.01.20]. Indicate which delivery method(s) was/were used, and the date(s) below.

- Mailed or directly delivered to each customer. on June 26 - July 1, 2024 via email
- Other method(s) used to reach customers that would not normally be reached by mail or direct delivery (indicate method(s) CNIC Website URL attached in submittal). on June 26 - July 1, 2024
- Included in 2023 Consumer Confidence Report. on June 26 - July 1, 2024

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Signature of owner or operator

6/26/2024
Date

Submit via email to Gregory.Woodward@maryland.gov, or via postal mail to the address shown above. Include a copy of the completed public notice.