



# 2023 Annual **WATER QUALITY REPORT**

**Joint Base Lewis McChord - Lewis**  
WA Public Water System: 26050  
Federal PWS ID: WA5326050

**QUALITY. ONE MORE WAY  
WE KEEP LIFE FLOWING.**



**AMERICAN WATER**

**Military Services**

**WE KEEP LIFE FLOWING™**

# What is a Consumer Confidence Report (CCR)



**Each year, American Water Joint Base Lewis-McChord operated by American Water Military Services, produces a Water Quality Report. For more information about this report, please contact American Water Joint Base Lewis-McChord 253-366-9122.**

Once again, we proudly present our Annual Water Quality Report, also referred to as a Consumer Confidence Report (CCR). CCRs let consumers know what contaminants, if any, were detected in their drinking water as well as related potential health effects. CCRs also include details about where your water comes from and how it is treated. Additionally, they educate customers on what it takes to deliver safe drinking water and highlight the need to protect drinking water sources.

## **ATTENTION: Landlords and Apartment Owners**

**Please share a copy of this notice with your tenants. It includes important information about their drinking water quality.**

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## A message from American Water- Military Services Group's President



**Sean Wheatley**

President, American  
Water - Military Services  
Group

American Water's Military Services Group owns and operates water and wastewater utilities under the Utilities Privatization program and proudly provides water and wastewater services to military communities around the country, including yours. Our Company's Vision – "We Keep Life Flowing" - drives everything we do for you, our customers. To reinforce our vision and maintain your trust, it's important that we share with you information about our commitment to providing high-quality water service.

I am pleased to provide you with the 2023 Annual Water Quality Report with detailed information about the source and quality of your drinking water. We have prepared this report using the data from water quality testing conducted for your local water system from January through December 2023.

With equal importance, we place a strong focus on acting as stewards of our environment. In all the communities we serve, we work closely with the local directorates of public works, civil engineering squadrons, local environmental departments, and state regulatory agencies to protect environmental quality, educate customers on how to use water wisely, and ensure the high quality of your drinking water every day.

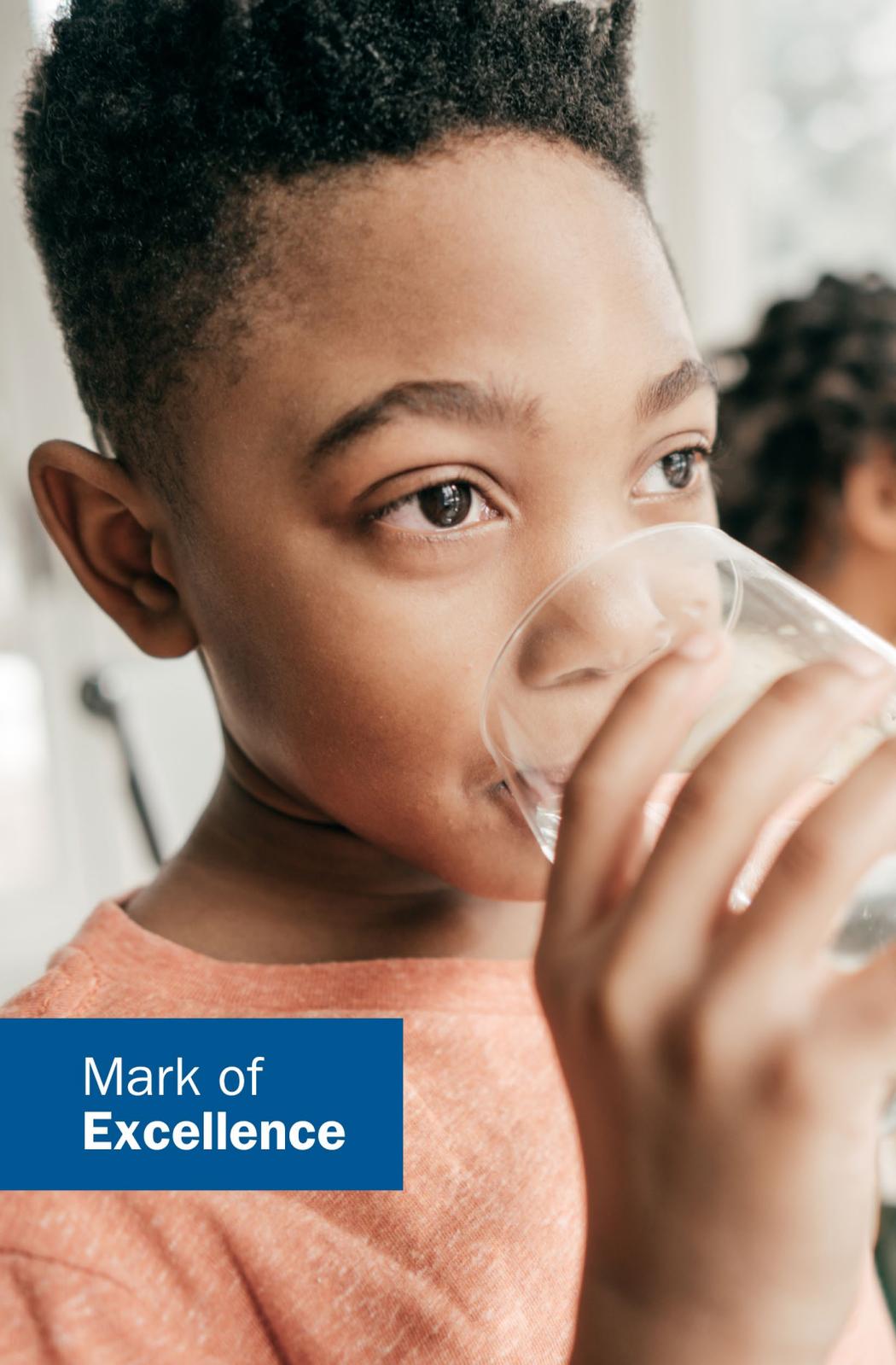
At American Water, our values – safety, trust, environmental leadership, teamwork, and high performance – mean more than simply making water available "on-demand". It means every employee working to deliver a key resource for public health, fire protection, mission assurance, the economy, and the overall quality of life we all enjoy. For more information or for additional copies of this report, visit us online at [www.amwater.com](http://www.amwater.com).

Sean Wheatley  
Military Services Group  
American Water



### **ATTENTION: Landlords and Apartment Owners**

**Please share a copy of this notice with your tenants. It includes important information about their drinking water quality.**



Mark of  
Excellence



### EVERY STEP OF THE WAY.

Our team monitors and tests your water at multiple points throughout our process of drawing it from its source, treating it to meet drinking water standards, and distributing it through our pipeline systems. **In fact, American Water performs over one million tests annually for about 100 regulated contaminants, nationwide.**



### EXPERTISE. RECOGNIZED AT THE HIGHEST LEVEL.

American Water is an expert in water quality testing, compliance and treatment and has established industry-leading water testing facilities. Our dedicated team of scientists and researchers are committed to finding solutions for water quality challenges and implementing new technologies. American Water is recognized as an industry leader in water quality and works cooperatively with the EPA so that drinking water standards and new regulations produce benefits for customers and public water suppliers. American Water has earned awards from the EPA's Partnership for Safe Water as well as awards for superior water quality from state regulators, industry organizations, individual communities, and government and environmental agencies.



### WATER QUALITY. DOWN TO A SCIENCE.

Our team also has access to American Water's Central Laboratory in Belleville, Illinois, which conducts sophisticated drinking water testing and analysis. American Water scientists refine testing procedures, innovate new methods, and set new standards for detecting potentially new contaminants—even before regulations are in place.



### MAINTAINING QUALITY FOR FUTURE GENERATIONS.

Just as American Water Military Services Group are investing in research and testing, we also understand the importance of investing in the infrastructure that provides high-quality water service to you.



# About Your Drinking Water Supply

## WHERE YOUR WATER COMES FROM

Joint Base Lewis-McChord (JBLM) began as Camp Lewis in 1917. At that time, Pierce County donated the land to the federal government for military use. According to the water rights claim, water was first appropriated from the Sequelitchew Spring in January 1978. We consider this the original water source for Camp Lewis, and the largest water producer for JBLM to this day. The progression of the spring as a source of drinking water is shown pictographically throughout this year's report. Drinking water produced from the spring and groundwater sources at JBLM are naturally filtered by alternating aquifers. Rainfall replenishes these aquifers located in the Pierce County, Clover/Chambers drainage basin. Today, the daytime population at JBLM exceeds 65,000 people. In addition to the Sequelitchew Spring, there are now an additional eight secondary groundwater sources that produce drinking water for the JBLM-Lewis Public Water System. These wells are used during peak demand periods and for emergency operations, as needed. Drinking water production wells for the JBLM-Lewis public water system are listed on the following page.

The Source Water Assessment Program (SWAP) evaluates potential threats to the safety of our water supplies by assessing sources of contamination. Additional information is provided in the form of assessment reports and GIS coverage and can be found at <https://fortress.wa.gov/doh/swap/index.html>.

JBLM-Lewis Public Water System primary and seasonal drinking water sources (springs and wells) have susceptibility ratings ranging from moderate to high. Historically, the higher susceptibility is associated with wells in closer proximity to trichloroethylene (TCE) contaminated groundwater. In the past, TCE a colorless solvent, was used primarily in industrial processes to remove grease from metal parts and in dry cleaning operations. In order to reduce TCE groundwater contamination in these areas, JBLM operates a groundwater remediation pump and treat system. There has been great success in containing the TCE plume(s) over time and reducing the threat of TCE contamination to the drinking water supplies. **JBLM continues to regularly monitor drinking water sources for TCE which has not been detected in the drinking water system since 2017.**



## QUICK FACTS ABOUT THE LEWIS SYSTEM

### Communities served:

Lewis Community

### Water source:

1 spring and 8 groundwater wells

### Disinfection treatment:

Spring and groundwater supplies are disinfected with chlorine to maintain water quality in the distribution system.

# About Your Drinking Water Supply

## Water System Source Information

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health. The water sources monitored by American Water for the JBLM-Lewis water system are listed in the table below.

**JBLM- Lewis (PWS 26050) Community Water System Source Information**

DOH Source	JBLM Well	Water Type	Source Type	Depth (ft)	Susceptibility Rating	Source Use	Treatment
S01	Sequalitchew Springs	GW	Well	0	High	Permanent	A, C, F
S06	Well 12A	GW	Well	17	High	Permanent	A, C, F
S08	Well 14	GW	Well	445	High	Seasonal	C, F
S09	Well 17	GW	Well	550	Moderate	Seasonal	C, F
S10	Well 13	GW	Well	275	High	Seasonal	C, F
S11	Well 12B	GW	Well	14	High	Permanent	A, C, F
S14	Well 20	GW	Well	605	High	Seasonal	C, F
S15	MAMC Well 4	GW	Well	292	High	Seasonal	C, F
S16	Railroad Ave Well 29	GW	Well	784	High	Permanent	C

**A = Aeration/Air Stripping, C= Chlorination/Hypochlorite, F=Fluoridation, GW = Groundwater**





# What are the Sources of Contaminants?

To provide tap water that is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. U.S. 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 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 (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, aquifers and/or groundwater. 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.

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

## CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER INCLUDE:

<b>Microbial Contaminants</b>	such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
<b>Inorganic Contaminants</b>	such as salts and metals, which can be naturally occurring or may result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
<b>Pesticides and Herbicides</b>	which may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
<b>Organic Chemical Contaminants</b>	including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also, come from gas stations, urban storm water runoff, and septic systems.
<b>Radioactive Contaminants</b>	which can be naturally occurring or may be the result of oil and gas production and mining activities.



# Protecting Your Drinking Water Supply

Protecting drinking water at its source is an important part of the process to treat and deliver high quality water. It takes a community effort to protect our shared water resources. This includes utilities, businesses, residents, government agencies and organizations. Everyone who lives, works, and plays in the area has a role and stake in clean water supplies.

## WHAT CAN YOU DO?

Quality drinking water starts upstream. Everyone can help maintain and improve drinking water supplies through the following actions:

- Properly dispose of pharmaceuticals, household chemicals, oils and paints. Materials can impact water ways if poured down the drain, flushed down the toilet, or dumped on the ground.
- Check for leaks from automobiles and heating fuel tanks. Clean up any spills using an absorbent material like cat litter. Sweep up the material and put it in a sealed bag in the trash.
- Clean up after your pets and limit the use of fertilizers and pesticides.
- Take part in watershed activities.

**Report any spills, illegal dumping or suspicious activity to Fort Leonard Wood American Water Military Services at 573-586-4181.**

## FOR MORE INFORMATION

To learn more about your water supply and local activities, visit us online at [www.amwater.com](http://www.amwater.com)

## WHAT ARE WE DOING?

Our priority is to provide reliable, quality drinking water service for customers. The source of supply is an important part of that mission. We work to understand and reduce potential risks to your drinking water supply. We have developed a Source Water Protection Plan under the Missouri Department of Natural Resources (MODNR). This is a voluntary program to identify and address potential threats to drinking water supplies. Stakeholder involvement is an important part of the program. We partner with DEP to host annual meetings to review progress on the plan with stakeholders. We also welcome input on the plan or local water supplies through our online feedback form.

**Here are a few of the efforts underway to protect our shared water resources:**



**Community Involvement:** We have a proactive public outreach program to help spread the word and get people involved. This includes school education, contests, and other community activities.



**Environmental Grant Program:** Each year, we fund projects that improve water resources in our local communities.



**Pharmaceutical Collection:** We sponsor drop box locations across the Commonwealth for residents to safely dispose of unwanted drugs for free. This helps keep pharmaceutical products from entering water supplies.



**Protect Our Watersheds Art Contest:** Open to fourth, fifth and sixth graders, the contest encourages students to use their artistic skills to express the importance of protecting our water resources.

# About Lead

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. American Water 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>.

## The most common source of lead in tap water is from the customer's plumbing and their service line.

Our water mains are not made of lead; however, the water service line that carries the water from the water main in the street to your home could be. Homeowners' service lines may be made of lead, copper, galvanized steel or plastic. You can assess your service line material where it enters your home, typically in your basement, crawl space or garage, near the inlet valve.

### MINIMIZING YOUR POTENTIAL EXPOSURE

You cannot see, smell or taste lead, and boiling water will not remove lead. Here are steps you can take to reduce your potential exposure if lead exists in your home plumbing.

### CHECK YOUR PLUMBING AND SERVICE LINE

If you live in an older home, consider having a licensed plumber check your plumbing for lead. If your service line is made of lead, and you're planning to replace it, be sure to contact us at 1-253-366-9122



**1. Flush your taps.** The longer the water lies dormant in your home's plumbing, the more lead it might contain. If the water in your faucet has gone unused for more than six hours, flush the tap with cold water for 30 seconds to two minutes before drinking or using it to cook. To conserve water, catch the running water and use it to water your plants.



**2. Use cold water for drinking and cooking.** Hot water has the potential to contain more lead than cold water. If hot water is needed for cooking, heat cold water on the stove or in the microwave.



**3. Routinely remove and clean all faucet aerators.**



**4. Look for the "Lead Free" label** when replacing or installing plumbing fixtures.



**5. Follow manufacturer's instructions for replacing water filters** in household appliances, such as refrigerators and ice makers, as well as home water treatment units and pitchers. Look for NSF 53 certified filters.



**6. Flush after plumbing changes.** Changes to your service line, meter, or interior plumbing may result in sediment, possibly containing lead, in your water supply. Remove the strainers from each faucet and run the water for 3 to 5 minutes.

# Important Information About **Drinking Water**

## **CHLORINE**

Water comes from a variety of sources, such as lakes and wells, which can be contaminated with germs that may make people sick. Germs can also contaminate water as it travels through miles of piping to get to a community. To prevent contamination with germs, Lewis adds Sodium Hypochlorite (chlorine) through the treatment process. Using or drinking water with small amounts of chlorine does not cause harmful health effects and provides protection against waterborne disease outbreaks.

During dialysis, large amounts of water are used to clean waste products out of a patient's blood. Dialysis centers must treat the water to remove all chemical disinfectants, including chlorine and chloramine, before the water can be used for dialysis. Home dialysis users should consult the machine manufacturer for instructions on how to properly treat their water before use.

Chlorine is toxic to fish, other aquatic animals, reptiles, and amphibians. Unlike humans and other household pets, these types of animals absorb water directly into the blood stream. Don't keep these animals in water that contains these disinfectants. Chlorine can be removed from water by letting it sit out for a few days or by buying a product at your local pet store that removes the chlorine. Ask your local pet store about methods of removing disinfectants from water for these pets.

## **FLUORIDE**

Fluoride is a naturally occurring substance. Fluoride is added to drinking water to reduce tooth decay. It can be present in drinking water from two sources:

- 1. By nature** when groundwater comes into contact with fluoride-containing minerals naturally present in the earth; or
- 2. By a water purveyor** through addition of fluoride to the water they are providing in the distribution system.

The Lewis Water system adds fluoride to the water leaving the residential treatment plant. The fluoride residual leaving the treatment plant is adjusted to achieve an optimal fluoride level of 0.7 parts per million (ppm). The range of Fluoride in Lewis's Water was 0.57 ppm to 0.84 ppm in 2023.

## **NITRATES**

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.



# Important Information About Drinking Water



## UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

The EPA created the Unregulated Contaminants Monitoring Rule (UCMR) to assist them in determining the occurrence of unregulated contaminants in drinking water and whether new regulations are warranted. The first Unregulated Contaminants Monitoring Rule (UCMR1) testing was completed in 2003 for a list of contaminants specified by the EPA. Unregulated contaminants are those for which the EPA has not established drinking water standards. UCMR2 testing was conducted between November 2008 and August 2009, and UCMR3 assessment monitoring was conducted between January 2013 and December 2016. The fourth list of contaminants to monitor as part of the UCMR was published by the EPA in December 2016. UCMR4 testing began in 2018 and was completed in 2020. The results from the UCMR monitoring are reported directly to the EPA. The results of this monitoring are incorporated in the data tables in this report as appropriate. For more information, contact our Customer Service Center at 210-965-8574.

In 2023, our water system is sampling for a series of unregulated contaminants as required by EPA's Unregulated Contaminant Monitoring Rule (UCMR). Unregulated contaminants are those that do not yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that we are performing this sampling and that these data will be available. If you are interested in examining the results, please contact Laura Marcasciano at (253) 366-9127 or [Laura.Marcasciano@amwater.com](mailto:Laura.Marcasciano@amwater.com).

More information on the UCMR process, which at this time includes monitoring for 29 PFAS analytes and lithium, is available at <https://www.epa.gov/dwucmr>.

## PFAS

Per- and polyfluoroalkyl substances (PFAS) are manufactured chemicals used in many household products including nonstick cookware (e.g., Teflon™), stain repellants (e.g., Scotchgard™), and waterproofing (e.g., GORE-TEX™). They are also used in industrial applications such as in firefighting foams and electronics production. There are thousands of PFAS chemicals, and they persist in the environment. Two well-known PFAS chemicals are perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). These were phased out of production in the United States and replaced by hexafluoropropylene oxide-dimer acid (commonly known as GenX), perfluorobutane sulfonic acid (PFBS) and others.

Beginning in 2016, American Water – Joint Base Lewis-McChord has performed voluntary sampling to better understand occurrence of certain PFAS in drinking water sources. This sampling allows us to be better prepared as U.S. EPA is currently developing drinking water standards for six PFAS chemicals – PFOA (4ppt), PFOS (4ppt) and GenX, PFBS, PFNA, and PFHxS as a group using a Hazard Index of 1. For more information on the proposed PFAS drinking water standards, please visit <https://www.epa.gov/pfas>.

The science and regulation of PFAS and other contaminants is always evolving, and American Water strives to be a leader in research and development. PFAS contamination is one of the most rapidly changing areas in the drinking water field. We have invested in our own independent research, as well as engaging with other experts in the field to understand PFAS occurrence in the environment. We are also actively assessing treatment technologies that can effectively remove PFAS from drinking water, because we believe that investment in research is critically important to addressing this issue.

In 2022, U.S. EPA set health advisory levels for four PFAS chemicals – PFOA (0.004 part per trillion (ppt)), PFOS (0.02 ppt), GenX (10 ppt), and PFBS (2,000 ppt). Based on current analytical methods, however, the health advisory levels for PFOA and PFOS are below the level of both detection (determining whether or not a substance is present) and quantitation (the ability to reliably determine how much of a substance is present). This means that it is possible for PFOA or PFOS to be present in drinking water at levels that exceed health advisories even if testing indicates no level of these chemicals. U.S. EPA is currently developing drinking water regulations for PFOA and PFOS that take these challenges into consideration and American Water will take appropriate actions to meet any new regulations. Finally, PFAS chemicals are unique, so two PFAS chemicals at the same level typically do not present the same risk. Therefore, you should not compare the results for one PFAS chemical against the results of another. For more information on PFAS, please visit <https://doh.wa.gov/community-and-environment/contaminants/pfas>.



# Water Quality Results

## **WATER QUALITY STATEMENT**

We are pleased to report that during calendar year 2023, the results of testing of your drinking water complied with all state and federal drinking water requirements.

For your information, we have compiled a list in the table below showing the testing of your drinking water during 2023. The Washington Department of Health allows us to monitor for some contaminants less than once per year because the concentration of the contaminants does not change frequently. Some of our data, though representative, are more than one year old.

## **OTHER INFORMATION**

The 2023 monitoring data was completed by American Water. Older data is a combination of American Water and Joint Base Lewis-McChord data. This data has been combined to provide you with a wholistic view of your drinking water.

# Definition of Terms

These are terms that may appear in your report.

**Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, that a water system must follow.

**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 has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**LRAA:** Locational Running Annual Average

**Maximum Contaminant Level (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. See also Secondary Maximum Contaminant Level (SMCL).

**Maximum Contaminant Level Goal (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 (MRDL):** The highest level of 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 (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.

**MFL:** Million fibers per liter.

**micromhos per centimeter ( $\mu\text{mhos/cm}$ ):** A measure of electrical conductance.

**NA:** Not applicable

**ND:** Not detected

**Nephelometric Turbidity Units (NTU):** Measurement of the clarity, or turbidity, of the water.

**pH:** A measurement of acidity, 7.0 being neutral.

**picocuries per liter (pCi/L):** Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

**parts per billion (ppb):** One part substance per billion parts water, or micrograms per liter.

**parts per million (ppm):** One part substance per million parts water, or milligrams per liter.

**parts per trillion (ppt):** One part substance per trillion parts water, or nanograms per liter.

**Secondary Maximum Contaminant Level (SMCL):** Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

**TON:** Threshold Odor Number

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**%:** Percent

## MEASUREMENTS

### Parts Per Million



in a 10 gallon fish tank

### Parts Per Billion



in a 10,000 gallon swimming pool

### Parts Per Trillion



in 35 junior size Olympic pools

# Water Quality Results

American Water Military Services Group conducts extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables. While most monitoring was conducted in 2023, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting the tables below, see the “Definition of Terms” on the previous page. Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information.

## HOW TO READ THIS TABLE (FROM LEFT TO RIGHT)

- Starting with **Substance (with units)**, read across.
- **Year Sampled** is usually in 2023, but may be a prior year.
- A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements.
- **MCLG/MRDLG** is the goal level for that substance (this may be lower than what is allowed).
- **MCL/MRDL/TT/Action Level** shows the highest level of substance (contaminant) allowed.
- **Highest, Lowest or Average Compliance Result** represents the measured amount detected.
- **Range** tells the highest and lowest amounts measured.
- **Typical Source** tells where the substance usually originates.

Some unregulated substances are measured, but maximum contaminant levels have not been established by the government. These contaminants are shown for your information.

**NOTE: Regulated contaminants not listed in this table were not found in the treated water supply.**

### LEAD AND COPPER MONITORING PROGRAM - At least 30 tap water samples collected at customers' taps every three years

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	No. of Premises Sampled	Premises Above Action Level	Typical Source
Lead (ppb)	2022	Yes	0	15	ND	31	0	Corrosion of household plumbing systems.
Copper (ppm)	2022	Yes	1.3	1.3	0.28	31	0	Corrosion of household plumbing systems.

### REVISED TOTAL COLIFORM RULE - At least 60 samples collected each month in the distribution system

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest Percentage of positive samples	Typical Source
Total Coliform <sup>1</sup>	2023	Yes	0	MCL = Less than 5% positive monthly samples	0%	Naturally present in the environment.
E. Coli <sup>2</sup>	2023	Yes	0	TT = No confirmed samples	0	Human and animal fecal waste.

NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator of the general bacteriological quality of the water. We are reporting the highest percentage of positive samples.

<sup>1</sup> The Treatment Technique for Total Coliforms requires that if the maximum percentage OR number of total coliform positive samples are exceeded a system assessment must be conducted, any sanitary defects identified, and corrective actions completed. Additional Level 1 Assessments or Level 2 Assessments are required depending on the circumstances.

<sup>2</sup> The Treatment Technique for E. Coli requires that for any total coliform positive routine sample with one or more total coliform positive check samples and an E. coli positive result for any of the samples a Level 2 Assessment must be conducted, any sanitary defects identified, and corrective actions completed. The E. Coli MCL is exceeded if routine and repeat samples are total coliform-positive and either is E. coli-positive, or the system fails to take repeat samples following an E. coli-positive routine sample, or the system fails to analyze total coliform-positive repeat samples for E. coli.

### DISINFECTION BYPRODUCTS - Collected in the Distribution System

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL	Highest LRAA	Range Detected	Typical Source
Total Trihalomethanes (TTHMs) (ppb)	2023	Yes	NA	80	5.65	3.23-3.65	By-product of drinking water disinfection.
Haloacetic Acids (HAAs) (ppb)	2023	Yes	NA	60	ND	ND	By-product of drinking water disinfection.

NOTE: Compliance is based on the running annual average at each location (LRAA). The Highest LRAA reflects the highest average at any location and the Range Detected reflects all samples used to calculate the running annual averages.

### DISINFECTANTS - Collected in the Distribution System

Substance (with units)	Year Sampled	Compliance Achieved	MRDLG	MRDL	Minimum Chlorine Residual <sup>3</sup>	Compliance Result <sup>4</sup>	Range Detected	Typical Source
Free Chlorine Residual (ppm)	2023	Yes	4	4	0.8	0.97	0.8-1.11	Water additive used to control microbes.

<sup>3</sup>Data represents the lowest residual entering the distribution system from our water treatment plant.

<sup>4</sup>Data represents the highest monthly average of chlorine residuals measured throughout our distribution system.

### OTHER REGULATED SUBSTANCES - Collected at the Well Sites or Treatment Plant

Substance (with units)	Year Sampled	Compliance Achieved	MCLG	MCL/SMCL	Highest Compliance Result	Range Detected	Typical Source
Arsenic (ppb)	2018	Yes	0	10	2.2	ND - 2.2	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Asbestos (MFL)	2019	Yes	7	7	0.12	0.12	Decay of asbestos cement water mains; Erosion of natural deposits;
Fluoride (ppm) <sup>5</sup>	2023	Yes	4	4	0.71	0.57-0.84	Water additive which promotes strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2023	Yes	10	10	1.06	ND - 1.06	Runoff from fertilizer use; industrial or domestic wastewater discharges; erosion of natural deposits.
Radium 228 (pci/L)	2023	Yes	0	5	0.61	0 to .61	Naturally occurring in the environment or as a result of industrial discharge or agricultural run off
Gross Alpha (pci/L)	2023	Yes	NA	15	0.08	ND-0.08	Naturally occurring in the environment or as a result of industrial discharge or agricultural run of

<sup>5</sup>Data reported is annual average

## PFAS MONITORING

Beginning in 2016, Joint Base Lewis McChord has performed voluntary sampling to better understand occurrence of PFAS levels in drinking water sources. This sampling allows us to understand how our water compares against the Washington State Board of Health's State Action Levels (SALs) that were established in late 2021. SALs for five PFAS were set to protect public health and if exceeded, requires additional monitoring, follow-up action, and public notification. Sampling also allows Joint Base Lewis McChord to be better prepared as U.S. EPA and Washington State Board of Health are currently developing water standards for PFOA and PFOS.

UNREGULATED PERFLUORINATED COMPOUNDS – Effluent, Treated Water					
Parameter	Year Sampled	Units	Average Result	Range Detected	Typical Source
Perfluorobutanesulfonic acid (PFBS)	2023	ppt	3.28	ND-5.6	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance
Perfluorooctanoic Acid (PFOA)	2023	ppt	3.1	ND-6.5	
Perfluorohexanesulfonic acid (PFHxS)	2023	ppt	5.75	ND-9	
Perfluorohexanoic acid (PFHxA)	2023	ppt	0.65	ND-2.7	
Perfluorooctanesulfonic Acid (PFOS)	2023	ppt	7	ND-11.6	

## UNREGULATED CONTAMINANT MONITORING RULE

Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is necessary. Every five years, the EPA issues a new list of no more than 30 unregulated contaminants to be monitored. If you are interested in examining the results, please contact Laura Marcasciano at 253-366-9127. The table below provides information on the unregulated contaminants that were detected in the water system under the current round of monitoring.

UNREGULATED CHEMICALS						
Parameter	Year Sampled	Average Amount Detected	Range Low-High	Proposed U.S. EPA MCL	Hazard Index Calculation	Typical Source
Perfluorooctanoic acid (PFOA)	2023	2.5 ppt	ND to 6.8 ppt	4.0 ppt	NA	Manufactured chemical(s); used in household goods for stain, grease, heat and water resistance.
Perfluorooctanesulfonic acid (PFOS)	2023	6.3 ppt	ND to 11.1 ppt	4.0 ppt	NA	
Perfluorobutanesulfonic acid (PFBS)	2023	3.2 ppt	ND to 5.3 ppt	1.0 Hazard Index (unitless)	ND to 9.7	
Perfluorohexane sulfonic acid (PFHxS)	2023	4.9 ppt	ND to 8.8 ppt			
Perfluoropentanoic Acid (PFPeA)	2023	0.3 ppt	ND to 3.1 ppt	NA	NA	

For more information on the U.S. EPA's proposed PFAS drinking water standards, including the Hazard Index, please visit <https://www.epa.gov/pfas>.

PFAS chemicals are unique, so two PFAS chemicals at the same level typically do not present the same risk. Therefore, you should not compare the results for one PFAS chemical against the results of another.

## Water Conservation

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- pet waste contains fecal bacteria that may enter drinking water sources during a rain or snow event
- 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 and 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



## Tested for, but Not Detected

- 11CI-PF30UdS
- 1,1,1-Trichloroethane
- 1,1,2-Trichloroethane
- 1,1-Dichloroethene
- 1,2,4-Trichlorobenzene
- 1,2-Dibromo-3-chloropropane
- 1,2-Dibromoethane (EDB)
- 1,2-Dichlorobenzene
- 1,2-Dichloroethane
- 1,2-Dichloropropane
- 1,4-Dichlorobenzene
- 2,4,5-T
- 2,4,5-TP (Silvex)
- 2,4-DB
- 3,5-Dichlorobenzoic Acid
- 3-Hydroxycarbofuran
- Acifluorfen
- Alachlor
- 9CI-PF30NS
- Aldicarb
- Aldicarb Sulfone
- Aldicarb Sulfoxide
- Aluminum - Total
- Antimony - Total
- Arochlor-1016
- Arochlor-1221
- Arochlor-1232
- Arochlor-1242
- Arochlor-1248
- Arochlor-1254
- Arochlor-1260
- Arsenic - Total
- Barium - Total
- Bentazon
- Benzene
- Benzo(a)pyrene
- Beryllium - Total
- Boron - Total
- Bromoform
- Cadmium - Total
- Carbaryl (Sevin)
- Carbofuran
- Carbon tetrachloride
- Chlorobenzene
- Chromium - Total
- cis-1,2-Dichloroethene
- Cobalt - Total
- Copper - Total
- Cyanide, Total
- Dacthal
- Dalapon
- Di(2-ethylhexyl)adipate
- Di(2-ethylhexyl)phthalate
- Dicamba
- Dichloroprop
- Dinoseb
- Diquat
- DONA
- Endothall
- Endrin
- Ethyl Benzene
- Gamma-BHC (Lindane)
- Glyphosate
- Heptachlor
- Heptachlor epoxide
- Hexachlorobenzene
- Hexachlorocyclopentadiene
- Iron - Total
- HFPO-DA
- Lead - Total
- Manganese - Total
- Mercury - Total
- Methiocarb
- Methomyl
- Methoxychlor
- Methyl tert-Butyl ether (MTBE)
- Methylene chloride
- Molybdenum - Total
- Monobromoacetic Acid
- Nickel - Total
- NtFOSAA
- Oxamyl (Vydate)
- Pentachlorophenol
- Perchlorate
- Perfluorodecanoic acid
- Perfluorododecanoic acid
- Perfluorononanoic acid
- Perfluorotetradecanoic acid
- Perfluorotridecanoic acid
- Perfluoroundecanoic acid
- Picloram
- Silver - Total
- Simazine (Princep)
- Styrene
- Technical Chlordane
- Tetrachloroethene (PCE)
- Thallium - Total
- Toluene
- Total PCBs
- Toxaphene
- trans-1,2-Dichloroethene
- Trichloroethene (TCE)
- Vinyl chloride
- Xylene (total)
- Zinc - Total



## About Us

**American Water (NYSE: AWK)** is the largest regulated water and wastewater utility company in the United States. With a history dating back to 1886, We Keep Life Flowing® by providing safe, clean, reliable and affordable drinking water and wastewater services to more than 14 million people with regulated operations in 14 states and on 18 military installations. American Water's 6,500 talented professionals leverage their significant expertise and the company's national size and scale to achieve excellent outcomes for the benefit of customers, employees, investors and other stakeholders.

**American Water's Military Services Group**, a subsidiary of American Water, owns, operates and maintains water and/or wastewater assets at 18 military installations. For more information, visit [amwater.com/militaryservices](http://amwater.com/militaryservices).



## MILITARY SERVICES SITE LOCATIONS

### ALABAMA

Fort Novosel

### CALIFORNIA

Vandenberg Space Force Base

### FLORIDA

Naval Station Mayport

### ILLINOIS

Scott Air Force Base

### KANSAS

Fort Leavenworth

### LOUISIANA

Fort Johnson

### MARYLAND

Fort Meade

### MISSOURI

Fort Leonard Wood

### NEW JERSEY

Picatinny Arsenal

### NEW YORK

U.S. Army Garrison West Point

### OHIO

Wright-Patterson Air Force Base

### OKLAHOMA

Fort Sill

### TEXAS

Fort Cavazos  
Joint Base San Antonio

### UTAH

Hill Air Force Base

### VIRGINIA

Fort Walker  
Fort Belvoir

### WASHINGTON

Joint Base Lewis-McChord

# How to Contact Us

If you have any questions about this report, your drinking water, or service, please contact American Water Military Services Group Joint Base Lewis McChord Monday to Friday, 7:30 a.m. to 4 p.m. at 253-366-9122



## WATER INFORMATION SOURCES

### American Water:

<https://www.amwater.com/corp/Products-Services/Military-Services/water-quality-reports>

### Washington Department of Health:

<https://doh.wa.gov/community-and-environment/drinking-water/office-drinking-water>

### United States Environmental Protection Agency (USEPA):

[www.epa.gov/safewater](http://www.epa.gov/safewater)

**Safe Drinking Water Hotline:** (800) 426-4791

**Centers for Disease Control and Prevention:** [www.cdc.gov](http://www.cdc.gov)

**American Water Works Association:** [www.awwa.org](http://www.awwa.org)

**Water Quality Association:** [www.wqa.org](http://www.wqa.org)

### National Library of Medicine/National Institute of Health:

[www.nlm.nih.gov/medlineplus/drinkingwater.html](http://www.nlm.nih.gov/medlineplus/drinkingwater.html)

- **Spanish (Español):** Este informe contiene información muy importante sobre la calidad de su agua potable. Tradúscalo o hable con alguien que lo entienda bien.
- **French (Français) :** Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Ntawm no yog daim ntawv tshaj qhia uas muaj cov ntaub ntawv tseem ceeb hais txog koj cov dej haus. Txhais nws, los sis tham nrog ib tus neeg uas nkag siab txog nws.

這是關於您的水質的十分重要的資訊。翻譯此資訊或和了解此資訊的人通話。

इस रिपोर्ट में आपके पीने के पानी के बारे में महत्वपूर्ण जानकारी है। इसका अनुवाद करें, या इसे समझने वाले किसी व्यक्ति से बात करें।

Этот отчет содержит важную информацию о Вашей питьевой воде. Переведите его или обратитесь к кому-либо, кто понимает ее.

Ang ulat na ito ay may taglay na mahalagang impormasyon tungkol sa inyong inuming tubig. Isalin ito sa ibang wika, o makipag-usap sa isang tao na naiintindihan ito.

Đây là thông tin rất quan trọng về chất lượng nước của quý vị. Xin quý vị dịch ra hoặc nhờ ai đó có thể hiểu được thông tin này.