

# **Fairchild Air Force Base**

## **2024**

### **Drinking Water Consumer Confidence Report (CCR)**



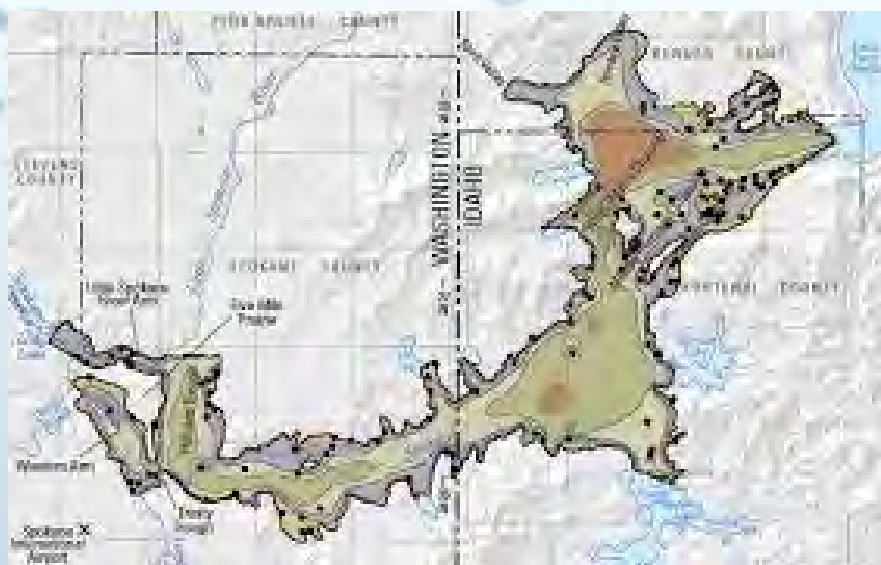
## What is a CCR?

A Consumer Confidence Report (CCR) is an annual summary required by the Environmental Protection Agency (EPA) and the Safe Drinking Water Act (SDWA), providing need-to-know information about the water quality of a given distribution system to its customers. Such information includes details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Mandated to be reported by July 1st for the **previous calendar year**, a CCR helps you make informed decisions about the water you drink. We are pleased to present the following 2024 Fairchild AFB CCR, outlining that your tap water meets all Environmental Protection Agency (EPA) and Washington Department of Health (DOH) drinking water standards. Such standards include testing for PFAS, microbiological contaminants, lead, copper, and many others.



## Where does my water come from?

Sources of drinking water can include rivers, lakes, streams, ponds, reservoirs, springs, and wells. The drinking water for Fairchild AFB specifically comes primarily from four groundwater wells, drawing water from the underground Spokane Valley Rathdrum Prairie and Hangman Creek Aquifers.





## **Do I need to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 (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.



## **Source water assessment:**

Twenty-four commercial and industrial locations were evaluated as potential contamination sources to the primary water source. Based on the evaluation, the main well-field's risk level is categorized as "low". Additionally, no commercial or industrial operations exist that would pose a risk to the water pumped from the auxiliary well field. If you require further information on the quality of our source water, a copy of the source water assessment, or wellhead protection plan, please contact 92d Civil Engineer Squadron, Operations Engineering (92 CES/CEOE) at (509)247-5839.

## **Why are there any contaminants at all in my drinking water?**

All drinking water, including bottled water, is reasonably expected to contain at least small amounts of some contaminants, but 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 Safe Drinking Water Hotline at 1(800)426-4791.

## **Auxiliary & Emergency Water Sources:**

### **Auxiliary Well's**

FAFB water primarily comes from a well field located off base and a secondary well located on FAFB when demand dictates. Water is disinfected with chlorine before being pumped into the distribution system for consumption. Water provided by the auxiliary source is contaminated with PFAS, remediation efforts are being prepared to negate exposure. See PFAS results on pg. 7 for more details.

### **Spokane Water System**

During water contingencies, Fairchild AFB can be supplied water by the City of Spokane through an interconnection or from the Auxiliary Well. For information on

their current Consumer Confidence Report, contact the City of Spokane Water Department at (509) 625-7800 or visit <https://my.spokanecity.org/publicworks/water/quality/>





## **A Few Words About Lead in Drinking Water:**

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. Fairchild AFB 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>

## **2024 Lead Service Line Inventory**

Fairchild AFB, in cooperation with the Air Force Civil Engineering Center and the US Army Corps of Engineers, conducted a lead service line inventory for the public water systems associated with Fairchild AFB and Joint Personnel Recovery Agency/White Bluff. The completed inventories determined that the distribution systems have no lead service lines or galvanized requiring replacement service lines. This determination was made using all the available, and approved, methods for the basis of material classification. The methods included historical records, installation date, service line size, and field inspections. With regards to the installation date, the use of lead service lines was banned in Washington in 1986. In accordance with DOH: <https://doh.wa.gov/community-and-environment/drinking-water/contaminants/lead/lead-and-copper-rule-revisions>

# Perfluoroalkyl and polyfluoroalkyl Substances (PFAS)

EPA, 40 CFR Parts 141 and 142, PFAS National Primary Drinking Water Regulation (NPDWR), Last Updated April 26th, 2024

They are a large class of thousands of synthetic chemicals that have been in use around the world since the 1940s. The ability for PFAS to withstand heat and repel water and stains makes them useful in a wide variety of consumer, commercial, and industrial products, and in the manufacturing of other products and chemicals.

When PFAS enters an organisms body it accumulates in the blood and tissues. Studies indicate that PFAS exposure above certain levels may result in adverse health effects, including developmental effects to fetuses during pregnancy or to breast- or formula-fed infants, increased risk for certain cancers, and negative immunological effects, among others.

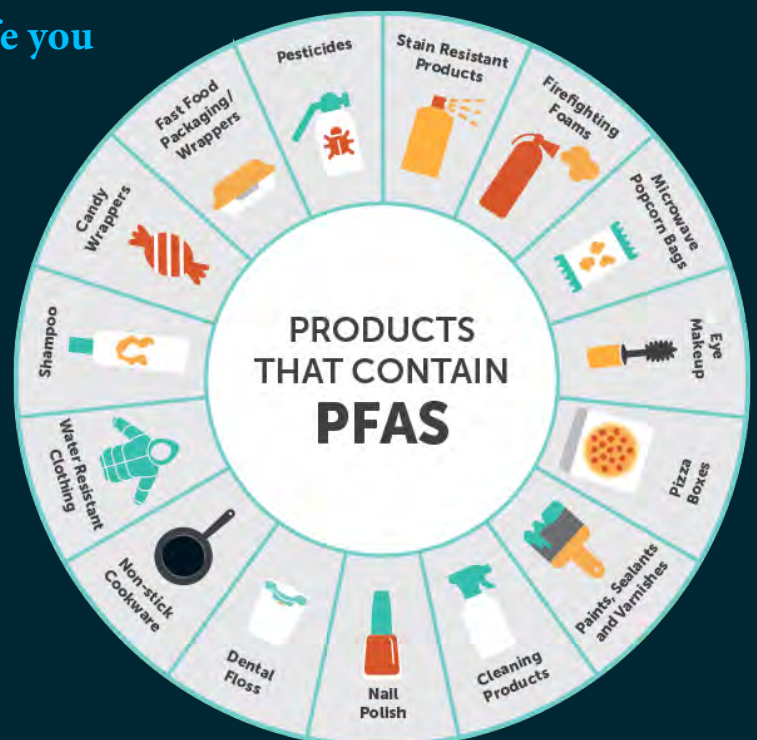
PFAS enters our water system by infiltrating our wells from contaminated run-off, which eventually seeps down into the soil and then enters our well aquifer. PFAS disintegrates in environmental pH level water sources from trash, various spills, and excess water from showers/sinks.

As of April 2024, the following Maximum Contamination Levels (MCL) were established and are not mandated until April 2029.

- Perfluorooctanoic acid (PFOA) MCL= 4 nanograms per liter or parts per trillion (ng/L or ppt)
- Perfluorooctane sulfonic acid (PFOS) MCL = 4.0 ng/L
- Perfluorohexane sulfonic acid (PFHxS) MCL = 10 ng/L
- Perfluorononanoic acid (PFNA) MCL = 10 ng/L
- Hexafluoropropylene oxide dimer acid (HFPO-DA) MCL = 10 ng/L

To limit the amount of PFAS in your life you can implement the below practices.

- ✓ Avoid products that contain stain/water resistant and nonstick coatings. Products labeled "fluoro" or "perfluoro". Note some products will say PFOA free and not PFAS free, must say both.
- ✓ Use a water filter compatible with PFAS filtration. For a filter that can remove PFAS, look for one with the code NSF/ANSI 53 (or NSF/ANSI 58 for reverse osmosis systems), followed by the manufacturer's claim that the product can remove PFAS. EPA approved filters: <https://www.epa.gov/water-research/identifying-drinking-water-filters-certified-reduce-pfas>
- ✓ Avoid using take-out containers or plastic food storage containers. Use glass containers instead.





## Water Conservation

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 even no-cost, ways to conserve water. Small changes can make a big difference; try one today and soon it will become second nature.

- 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.
- 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!



# Water Quality Data Table

Monitoring data below represents the water quality of the entire base water distribution system. \*Sample years coincide with monitoring frequencies established by the EPA, and while some samples are required on an annual basis, others may not be due for another 3+ years. Thus, the sample year denotes the most up-to-date data required for that specific contaminant.

Contaminants (units)	MCLG	MCL	Result	Sample Year	Violation		Typical Source
Inorganic Contaminants							
Nitrate [measured as Nitrogen] (ppm)	10	10	1.06	2024	No		Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Disinfection By-products							
Total Trihalome-thanes (ppb)	NA	80	0.58	2024	No		By-product of drinking water disinfection
Dibromochloro-methane (ppb)	0.06	80	ND	2024	No		By-product of drinking water disinfection
Bromoform (ppb)	NA	80	0.58	2024	No		By-product of drinking water disinfection
Added Substance							
Flouride (ppm)	4	4	0.48 -0.69	2024 (monthly)	No		Added to promote healthy teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories
Other							
Gross Alpha (pCi/L)	NA	15	<3.698	2024	No		Naturally occurring in soil and rocks, can dissolve into groundwater
General Pesticides (µg/L)	0	0.1 - 400	ND	2024	No		Runoff from agricultural fields, seepage through soil into groundwater
Herbicides (µg/L)	0	0.04 - 2	ND	2024	No		Runoff from agricultural fields, seepage through soil into groundwater
Contaminants (units)	MCLG	AL	Result	Sample Year	# samples over AL	Overall Exceeds AL	Typical Source
Halo-Acetic Acids (HAA5)	60	60	ND	2024	0	No	By-product of drinking water disinfection
Asbestos (µm)	7	7	0.117	2019*	0	No	Decay of asbestos cement water mains; Erosion of natural deposits

## Microbiological Contaminants

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems. Six base facilities are sampled monthly for both Microbiological Contaminants.

Contaminants (units)	MCL	Positives	Frequency	Typical Source
Total Coliform Bacteria (-/+)	1 Monthly Positive Sample	1/72 (year)	Monthly	Naturally present in the environment
Fecal Coliform & E. Coli (-/+)	0	0	Monthly	Human and animal fecal waste

## Lead and Copper Monitoring

As of 2024, Bioenvironmental Engineering Tested 20 facilities around Fairchild AFB for lead & copper as part of our routine 3 year sample requirement per EPA guidelines. Given that all samples were below the state MCL, the next sampling event for lead & copper is not scheduled until Summer 2027. This does not include base housing, contact the housing office to receive your home results. Housing can be contacted at (509) 244-6500.

Contaminants (units)	MCLG	MCL	90th Percentile	Sample Year	Violation	Typical Source
Lead (mg/L)	0	0.015	0.011	2024	No	Corrosion of plumbing systems; Erosion of natural deposits
Copper (mg/L)	1.3	1.3	0.29	2024	No	Corrosion of plumbing systems; Erosion of natural deposits; Leaching from wood preservation

## Per- and Polyfluoroalkyl Substances (PFAS)

1. PFAS are a category of man-made chemicals used in a variety of industrial and consumer products, including fire-fighting foams as well as coatings for products like carpets, clothing, food packaging, and cookware. Washington State enforces State Action Levels (SALs) for another specific PFAS contaminants: PFBS. These SALs identify the concentration in drinking water at or below which adverse health effects are not anticipated to occur over a lifetime of exposure.

2. In April 2024, the EPA published new federal Maximum Contaminant Level (MCL) for 5 specific PFAS compounds that will take effect in 2029. Although they do not apply to the sampling values reported in 2024, Fairchild wants to provide its consumers the opportunity to be as educated as possible about the rules surrounding the water they drink, and more information surrounding this new MCL can be found at [www.epa.gov/pfas](http://www.epa.gov/pfas). Ongoing semi-annual sampling and remediation is being done to proactively ensure that the base's drinking water continues to remain below currently pertinent contaminant levels.

3. The PFAS results listed below are for the main Fairchild Distribution System for contaminants that either have an associated SAL, or were above their respective Minimum Reporting Limits (MRL). For PFAS sampling results for Geographically Separated Units/Locations, please contact Bioenvironmental Engineering. As of March 2025, Course of action plans are being revised to filtrate PFAS from secondary well.

Contaminant (units)	MCL/SAL (ppt)	Treatment Plant Result (ppt)	Secondary Well Result (ppt)	Sample Year	Typical Source
Perfluorooctane sulfonic acid (PFOS) (ppt)	4	ND	5.9	2024	Industrial, consumer, fire retardant products
Perfluorooctanoic acid (PFOA) (ppt)	4	ND	ND	2024	
Perfluorohexane sulfonate (PFHxS) (ppt)	10	4.58	15	2024	
Perfluorononanoic acid (PFNA) (ppt)	10	ND	ND	2024	
Mixtures containing 2+ of PFHxS, PFNA, HFPO-DA, and PFBS (ppt)	collective 1	0.458	1.50152	2024	
Perfluorobutanesulfonic acid (PFBS) (ppt)	345 (SAL)	ND	3.04	2024	



A1C Ramanouskaya and A1C Martinez from the 92nd Bioenvironmental Engineering flight performing water sampling at a Geographically Separated Unit (GSU). Samples are taken and then transported to Anatek laboratory for analysis.



## Unit Descriptions

Term	Definition
NA	Not Applicable
ND	Not Detected
ppb	parts per billion, or micrograms per liter (µg/L)
ppm	parts per million, or milligrams per liter (mg/L)
ppt	parts per trillion, or nanograms per liter (ng/L)

## Important Drinking Water Definitions

Term	Definition
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.
HA	Health Advisory: The concentration in drinking water at or below which adverse health effects are not anticipated to occur over a lifetime of exposure.
(S)AL	(State) Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

## For more information please contact:

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- To view this report electronically, please visit the following URL on the Fairchild AFB website at: <https://www.fairchild.af.mil/Information/Environmental-Resources/>
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