



2023

# Annual Consumer Confidence Report on the Quality of Naval Radio Station Jim Creek



*This is an annual report on the quality of water delivered by the drinking water system at Naval Radio Station Jim Creek, Washington for the calendar year 2023. Presented in this report is information on the source of our water, its constituents, and the health risks associated with any contaminants. Please read on for a full explanation of the quality of our water.*

***Our water is safe to drink.***

## Drinking Water System Information

Base Location: Naval Radio Station Jim Creek, Washington

Number of Water Systems on this Base: 1

### List of Water Sources(s):

Source Number	Source Name	Water Type	Location	Active or Inactive	Treatment(s)	Reason for Treatment(s)
S02	AGB800 Bldg No 85 Well	Groundwater	Bldg No. 85	Active	Chlorination	Manganese

### Testing Frequency:

Contaminant	# of Samples Required	Testing Frequency	Testing Standard or Exemption?	Last Sample Date	Next Sample Due Date
Nitrate	1	Annually	Standard	08/15/2023	Oct 2024
Inorganic Contaminants	1	9 year	Waiver	04/16/2019	Apr 2028
Arsenic	1	3 year	Standard	05/18/2022	Apr 2025
Manganese	1	3 year	Standard	12/06/2023	Dec 2026
Volatile Organic Contaminants (VOCs)	1	6 year	Waiver	09/05/2018	Sep 2024
Herbicides	1	9 year	Waiver	09/05/2018	Sep 2027
Pesticides	0	-	Exempt	-	-
Soil Fumigants	0	-	Exempt	-	-
PFAS	1	3 year	Standard	10/31/2023	Oct 2026

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### Detected Compounds

Source Monitoring:

Contaminants	MCLG	MCL or SMCL	Water Reading	Sample Date	Level Exceeded?	Typical Sources of Contaminant
<b>Primary Contaminants</b>						
Nitrate (ppm)	10	10	ND	08/15/23	No	
Arsenic (ppb)	0	10	1.4	05/18/22	No	
Gross Alpha Activity (pCi/L)	0	15		-		
Radium-228 (pCi/L)	0	5		-		
Sodium (ppm)	20	None <sup>1</sup>		-		
Lead (ppb)	0	10		-		
<b>Secondary Contaminants</b>						
Manganese (ppb)	50	50	ND	12/6/23	No	
Iron (ppb)	300	300		-		
Chloride (ppm)	250	250		-		
Zinc (ppm)	5	5		-		
Conductivity (µS/cm)	700	700		-		

<sup>1</sup> Although no MCL is established for sodium, the EPA has established a recommended level of 20 ppm as a level of concern for those consumers who may be restricted for daily sodium intake in their diets.

Distribution System Monitoring:

Contaminants	MCLG	MCL <sup>1</sup>	Water Reading	Range		Sample Date	Level Exceeded?	Typical Sources of Contaminant
				Low	High			
<b>Volatile Organic Contaminants</b>								
Haloacetic Acids (HAA) (ppb)	N/A	60	ND	-	-	8/16/23	No	
Total Trihalomethane (TTHM) (ppb)	N/A	80	ND	-	-	8/16/23	No	
<b>Asbestos</b>								
Asbestos (million fibers / L)	0	7				-		

<sup>1</sup> Denotes the highest Locational Running Annual Average (LRAA) for the year.

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Contaminants	MCLG	AL	Water Reading (90 <sup>th</sup> %) <sup>1</sup>	Sample Date	Number of Samples Exceeding AL	Level Exceeded?	Typical Sources of Contaminant
<b>Inorganic Contaminants</b>							
Lead (ppb)	0	10	ND	7/21/21	0	No	
Copper (ppm)	0	1.3	0.012	7/21/21	0	No	

<sup>1</sup> This is the 90th% value from the most recent testing.

**Additional Tests and their Results:**

Contaminant	Detected?	Additional Information		
		Measured Amount	Exceeded Level?	Contaminant Source
Coliform	No	Absent	No	
Radon	-			
Cryptosporadium	-			
PFOA/PFAS	No	ND	No	

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### Definitions and Abbreviations

**AL** (Action Level):

The concentration of a contaminant, which, if exceeded, triggers treatment techniques or other requirements, which must be followed.

**Level Detected:**

Laboratory analytical result for a contaminant; this value is evaluated against an MCL or AL to determine compliance.

**LRAA** (Locational Running Annual Average):

The average of analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

**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 based on the best available treatment technology. Under the Safe Drinking Water Act, the EPA establishes these MCLs for compliance purposes.

**MCLG** (Maximum Contaminant Level Goal):

In drinking water, the level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**SMCL** (Secondary Maximum Contaminant Level):

These standards are developed primarily to protect the aesthetic qualities of drinking water but are not federally enforced. Exceeding an SMCL requires notification to the WA Department of Health.

**N/A:** Not Applicable.

**ND:** Not Detected. The compound was not detected above the Lab's Method Detection Limit.

**ppb:** 1 part per billion (equivalent to one penny in \$10,000,000).

**ppm:** 1 part per million (equivalent to one penny in \$10,000).

**pCi/L:** Pico-curies per liter. A measurement of radioactivity in water.

**µS/cm:** micro-Siemens per centimeter. A standard measurement of conductivity in water.

**Range:** Represents the lowest and highest analytical results of a reported contaminant.

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### Information from the Environmental Protection Agency (EPA)

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. Environmental Protection Agency/Centers for Disease Control 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).

#### 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. 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.

Compound	Final MCL (enforceable levels)
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

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

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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 Radio Station Jim Creek tested its water for PFAS in 2023?**

Yes. In October 2023 samples were collected at the wellhead located at Building 885 at Naval Radio Station Jim Creek.

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.

## Common Household Hazards

### *Chemical Spray Applicators*

The chemicals used on your lawn and garden can be toxic or fatal if ingested. These chemicals include pesticides, herbicides, and fertilizers. Even strong cleaning chemicals sprayed on cars, house siding, etc., may cause health problems if ingested.

### *Submerged Hoses*

Water held in pools, ponds or other vats open to the air and exposed to humans or animals may contain microbiological contaminants. Hoses submerged in buckets or containers can act as a conduit for contaminants under backflow conditions.

### *Underground Lawn Irrigation Systems*

Underground irrigation systems often have puddles of standing water around the ground-level sprinkler heads. The sprinkler heads **are not** designed to be drip-tight under backflow conditions. The puddles of water may contain microbiological contaminants, such as excrement from animals or chemical residue from fertilizer and herbicides sprayed on the lawn.



For further  
information  
contact your  
local water  
purveyor or the  
PNWS/AWWA  
Cross-Connection  
Control Committee  
through the  
PNWS office at  
(877) 767-2992  
or on the web at  
[www.pnws-awwa.org](http://www.pnws-awwa.org)

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Help protect your  
**Drinking Water**  
from  
**Contamination**

## **Household Hazards**



American Water Works Association  
Pacific Northwest Section

## How Contamination Occurs

Water normally flows in one direction, from the public water system through the customer's cold or hot water plumbing to a sink tap or other plumbing fixture. The plumbing fixture is the end of the potable water system and the start of the waste disposal system.

Under certain conditions water can flow in the reverse direction. This is known as **backflow**. Backflow occurs when a backsiphonage or backpressure condition is created in a water line.

**Backsiphonage** may occur due to a loss of pressure in the water distribution system during a high withdrawal of water for fire protection, a water main or plumbing system break, or a shutdown of a water main or plumbing system for repair. A reduction of pressure below atmospheric pressure creates a vacuum in the piping. If a hose bib was open and the hose was submerged in a wading pool during these conditions, the non-potable water in the pool would be siphoned into the house's plumbing and back into the public water system.

**Backpressure** may be created when a source of pressure, such as a pump, creates a pressure greater than that supplied from the distribution system. If a pump supplied from a non-potable source, such as a landscape pond, was accidentally connected to the plumbing system, the non-potable water could be pumped into the potable water supply.

## How to Prevent Contamination of Your Drinking Water

Protect your drinking water by taking the following precautions:

### **Don't:**

- Submerge hoses in buckets, pools, tubs, sinks, ponds, etc.
- Use spray attachments without a backflow prevention device.
- Connect waste pipes from water softeners or other treatment systems to the sewer, submerged drain pipe, etc.
- Use a hose to unplug blocked toilets, sewers, etc.

### **Do:**

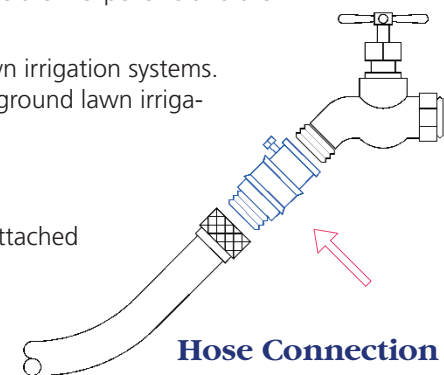
- ✓ Keep the ends of hoses clear of all possible contaminants.
- ✓ If not already equipped with an integral (built-in) vacuum breaker, buy and install hose bib type vacuum breakers on all threaded faucets around your home. These devices are inexpensive and are available at hardware stores and home improvement centers.
- ✓ Install an approved backflow prevention assembly on all underground lawn irrigation systems. Remember, a plumbing permit is required for the connection of an underground lawn irrigation system to your plumbing system.

## Hose Connection Vacuum Breaker

Hose connection vacuum breakers are specifically made for portable hoses attached to threaded faucets. Their purpose is to prevent the flow of contaminated water back into the drinking water. These devices screw directly to the faucet outlet. They can be used on a wide variety of installations, such as service sinks, hose faucets near a wading pool, laundry tub faucets, etc.

Some units are designed for manual draining for freezing conditions. Some are furnished with breakaway set screws as a tamper proof feature.

These device are not intended for operation under continuous pressure.



**Hose Connection Vacuum Breaker**

## Protection of the Water Purveyor's Distribution System

In general, the installation of plumbing in compliance with the plumbing code will provide adequate protection for your plumbing system from contamination.

However, the water purveyor may require (as a condition of service) the installation of a backflow prevention assembly on the water service to provide additional protection for the public water system. A backflow prevention assembly will normally be required where a single-family residence has special plumbing that increases the hazard above the normal level found in residential homes, or where a hazard survey cannot be completed.

To help determine if a backflow prevention assembly is required, the water purveyor may send residential customers a Cross Connection Control Survey Questionnaire. The water purveyor will evaluate the returned questionnaires to assess the risk of contamination to the public water system. Based on the results of the evaluation, the installation of backflow prevention assemblies may be required on services to some customers.