

## 2023 Consumer Confidence Report

### Water System Information

Water System Name:

- Report Date: [April 30, 2024](#)

Type of Water Source(s) in Use: [Surface Water \(SW\) and Ground Water \(GW\)](#)

Name and General Location of Source(s): [California Aqueduct delivered via the Westland's Water District \(WWD\) and Lemoore Naval Air Station Admin Well No. 7](#)

Drinking Water Source Assessment Information: Watershed sanitary surveys (WSS) for NAS – Lemoore were performed in 2018 and 2019 of water supply laterals that feed NASL. Findings from the 2018-2019 WSS revealed no structural changes had occurred to supply laterals serving NASL since the 2012 WSS update report. NASL remains committed to engaged in on-going dialogue with the Westland Water District and DDW to reduce and prevent hazards that may be associated with the watershed.

Time and Place of Regularly Scheduled Board Meetings for Public Participation: [N/A](#)

For More Information, Contact: [Installation Environmental Program Director: 559-998-4078.](#)

### About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2023 and may include earlier monitoring data.

### Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse [Naval Air Station Lemoore](#) a [\(559\) 998-4078](#).

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 [Naval Air Station Lemoore](#) 以获得中文的帮助: [\(559\) 998-4078](#).

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa [Naval Air Station Lemoore](#) o tumawag sa [\(559\) 998-4078](#) para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ [Naval Air Station Lemoore](#) tại [\(559\) 998-4078](#) để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau [Naval Air Station Lemoore](#) ntawm [\(559\) 998-4078](#) rau kev pab hauv lus Askiv.

Enclosure (1)

## Terms Used in This Report

Term	Definition
Health Advisory (HA)	EPA issued interim Health Advisories for PFOS and PFOA in 2022. However, these newer levels are below quantifiable limits (i.e., below detection levels). In March 2023, EPA announced a proposed National Primary Drinking Water Regulation (NPDWR) for six PFAS including PFOA, PFOS, PFNA, HFPO-DA (GenX Chemicals), PFHxS, and PFBS. The EPA anticipates finalizing the regulation after the public comment period in 2023 and water systems will have three years to comply with the new regulation.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
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 are set by the U.S. Environmental Protection Agency (U.S. EPA).
Maximum Residual Disinfectant Level (MRDL)	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.
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.
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (µg/L)
ppt	parts per trillion or nanograms per liter (ng/L)

Term	Definition
ppq	parts per quadrillion or picogram per liter (pg/L)
pCi/L	picocuries per liter (a measure of radiation)

## Sources of Drinking Water and Contaminants that May Be Present in Source 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.

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, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally occurring or be the result of oil and gas production and mining activities.

## Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

## About Your Drinking Water Quality

### Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 7 list the drinking water contaminants that were detected during the most recent sampling. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any

violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

**Table 1. Sampling Results Showing the Detection of Coliform Bacteria**

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	(2023) None - 0	None	N/A	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

**Table 2. Sampling Results Showing the Detection of Lead and Copper**

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	September 2023	30	0.92	None: (0)	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	September 2023	30	530	One: 1.4	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**Table 3. Sampling Results for Sodium and Hardness**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	4/4/2023	Surface Water: 16 Well: 250	16 - 250	None	None	Salt present in the water and is generally naturally occurring
		Surface Water: 62				Sum of polyvalent cations present in the water, generally

Hardness (ppm)	4/4/2023	Well: 160	62 - 160	None	None	magnesium and calcium, and are usually naturally occurring.
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**Table 4. Detection of Contaminants with a Primary Drinking Water Standard**

Chemical or Constituent & reporting units	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Chlorine (mg/L)	2023	2.27 average	1.71 – 2.82	[MRDL = 4.0 (as Cl <sub>2</sub> )]	[MRDLG = 4.0 (as Cl <sub>2</sub> )]	Disinfectant added during water treatment plant process.
Barium (µg/L)	4/4/2023 Annual	Surface Water: 43 Well: 20	20 - 43	1000	2000	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (mg/L)	4/4/2023 Annual	Surface Water: 0 Well: 0.27	0 – 0.27	2.0	1.0	Erosion of natural deposits; water additive that promotes strong teeth at low doses; discharge from fertilizer and aluminum factories
Nitrate (as nitrogen, N) (mg/L)	4/4/2023 Annual	Surface Water: 0.57 Well: 0.00	0 - 0.57	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrite (as N) (mg/L)	4/4/2023 Annual	Surface Water: 0.57 Well: 0.00	0 - 0.57	10	10	Runoff and leading from fertilizer use; leaching from septic tanks

						and sewage; erosion of natural deposits
TTHMs [Total Trihalomethanes] (µg/L)	2023 Quarterly	25.15 Average	19.4 – 38.5	80	N/A	Byproduct of drinking water disinfection
HAA5 [Sum of 5 Haloacetic Acids] (µg/L)	2023 Quarterly	6.9 Average	4.9 – 10.9	60	N/A	Byproduct of drinking water disinfection

**Table 5. Detection of Contaminants with a Secondary Drinking Water Standard.**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detection	SMCL	PHG (MCL G)	Typical Source of Contaminant
Aluminum (µg/L)	4/5/2022	Surface Water: 24 Well: 23	23 - 24	1000	600	Erosion of natural deposits; residual from some surface water treatment processes.
Chloride (mg/L)	4/4/2023 Annual	Surface Water: 17 Well: 140	17 -140	250	-	Runoff/leaching from natural deposits; seawater influence.
Color (Units)	4/4/2023 Annual	Surface Water: 75 Well: 15	15 - 75	15	-	Naturally occurring organic materials.
Iron (mg/L)	4/4/2023 Annual	Surface Water: 1.8 Well: .068	.068 – 1.80	0.3	-	Leaching from natural deposits; industrial wastes.
Manganese (µg/L)	4/5/2022 Annual	Surface Water: 6.6 Well: 4.8	24 - 160	50	-	Leaching from natural deposits.
Specific Conductivity (umhos/cm)	4/4/2023 Annual	Surface Water: 160 Well: 1100	160 - 1100	900	-	Substances that form ions when in water; seawater influence.
Sulfate (mg/L)	4/4/2023 Annual	Surface Water: 20 Well: 420	20 - 420	250		Runoff/leaching from natural deposits; industrial influence
Total Dissolved Solids (mg/L)	4/4/2023 Annual	Surface Water: 140 Well: 910	140 - 910	500		Runoff/leaching from natural deposits

**Additional General Information on Drinking Water**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

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. U.S. 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 (1-800-426-4791).

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. Naval Air Station – Lemoore 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. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] 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 (1-800-426-4791) or at <http://www.epa.gov/lead>.

**Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement**

There were no MCL, MRDL, AL, TT or monitoring and reporting requirements at Naval Air Station Lemoore during the 2023 calendar year.

**Table 6. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
N/A				

**For Water Systems Providing Groundwater as a Source of Drinking Water**

**Table 7. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples**

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
<i>E. coli</i>	(2023) Zero		0	(0)	Human and animal fecal waste
Enterococci	(2023) Zero		TT	N/A	Human and animal fecal waste
Coliphage	(2023) Zero		TT	N/A	Human and animal fecal waste

**Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT**

**Table 8. Violation of Groundwater TT**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
May 25, 2023	NAS Lemoore's Well #7 has been out of service as of May 25, 2023 when the well underwent a contractor scoping evaluation for evaluation and repair assessment.	Out of service for 13 months and still ongoing.	NASL – UEM is awaiting funding approval for final repair.	Although the well is approved for use by permit issued by the State Water Resources Control Board, well #7 has never been used for active public water supply.
April 4, 2023	Well #7 sample results for Sulfate, Total Dissolved Solids (TDS), and conductivity all exceeded	Sulfate: 420 mg/L exceeded the 250 mg/L MCL.	Well #7 was taken off-line within 30 days after the testing and has been out of service since that time.	



	secondary standards for each.	TDS: 910 mg/L exceeded the 500 mg/L MCL. Conductivity: 1100 umhos/cm Exceeded the 900 MCL	Regular testing will resume once the well is brought back into service.	
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**For Systems Providing Surface Water as a Source of Drinking Water**

**Table 9. Sampling Results Showing Treatment of Surface Water Sources**

Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Conventional Treatment
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 0.5 NTU for more than eight consecutive hours. 3 – Not exceed 1.0 NTU at any time.
Lowest monthly percentage samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	March 29, 2023: NTU: 0.115 instantaneous for no more than 4 consecutive hours.
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

**CY2023 Consumer Confidence Report (CCR) Language Regarding PFAS**

**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.

Analyte	PFAS Compound	Final MCLG	Final MCL (enforceable levels)
Perfluorooctanoic Acid	PFOA	Zero	4.0 parts per trillion (ppt) (also expressed as ng/L)
Perfluorooctane sulfonic acid	PFOS	Zero	4.0 ppt
Perfluorohexane sulfonic acid	PFHxS	10 ppt	10 ppt
Perfluorononanoic acid	PFNA	10 ppt	10 ppt
Hexafluoropropylene oxide dimer acid	HFPO – DA (GenX)	10 ppt	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS		1 (unitless) Hazard Index	1 (unitless) Hazard Index

EPA requires implementation of sampling in accordance with the new MCLs within three years of the publication date and implementation of any required treatment within five years.

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

**Has Naval Air Station Lemoore tested its water for PFAS in 2023?**

Yes. In October 2023 samples were collected from the Water Treatment Plant.

**PFAS Detected but below the new PFAS MCLs**

We are informing you that 2 of 29 PFAS compounds covered by the sampling method were detected above the method reporting level (MRL). The results are provided in Table 1 below. EPA does not have an HA or MCL for all of these compounds at this time. PFOA, PFOS, PFNA, PFBS, and GenX were not detected. As the regulated chemicals were below the new MCLs, there is no immediate cause for concern, but we will continue to monitor the drinking water closely.

**Table 1-1. PFAS Compounds Detected – NAS Lemoore WTP Effluent**

Analyte	PFAS Compound	Site	Units	Result (ppt) (10/27/2023)
Perfluoropentanoic acid	PFPeA	WTP Effluent	ng/L	1.1
Perfluoro-n-butanoic acid	PFBA	WTP Effluent	ng/L	2.4

Enclosure (1)