

2024 Consumer Confidence Report

Water System Information

Water System Name: USMC Nebo (Barstow)

Report Date: June 30, 2025

Type of Water Source(s) in Use: Nebo Main Base: Supplied by Golden State Water Co. (GSWC), Barstow CA.

Name and General Location of Source(s): Purchased Water from Barstow - Treated, Building S-48, Nebo Main Base: Supplied by Golden State Water Co., Barstow CA

Drinking Water Source Assessment Information: Wellhead Assessment March 2002 a copy can be attained at the Environmental Division Building 196 Nebo Main Base

Time and Place of Regularly Scheduled Board Meetings for Public Participation: Meetings on Water Quality issues will be held on request of the Commanding Officer. These meetings are mandatory for all employees. For emergency drinking water issues call the trouble desk at 760-577-6220.

For More Information, Contact: Malvis Campbell III at 760-577-6982

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, 2024 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 USMC Nebo (Barstow) a 760-577-6982 para asistirlo en español.

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 USMC Nebo (Barstow) 以获得中文的帮助: 760-577-6982.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa USMC Nebo (Barstow) o tumawag sa 760-577-6982 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 USMC Nebo (Barstow) tại 760-577-6982 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 USMC Nebo (Barstow) ntawm 760-577-6982 rau kev pab hauv lus Askiv.

Terms Used in This Report

Term	Definition
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 <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
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, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. 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. Additional information regarding the violation is provided later in this report.

*Any violation of an MCL or AL is asterisked. Additional information regarding the violation is provided later in this report.

** Analytical results from GSWC

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	(2024) [0]	[0]	(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

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2022	10	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	2022	10	0.43	0	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	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)**	2024	80	66 – 100	n/a	n/a	Salt present in the water and is generally naturally occurring
Hardness (ppm)**	2023	270	230 – 340	n/a	n/a	Sum of polyvalent cations present in the water (generally magnesium and calcium), which are usually naturally occurring

Table 4. Detection of Contaminants with a Primary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Gross Alpha Particle Activity (pCi/L)**	2023	5.3	ND – 11	15	n/a	Erosion of natural deposits
Uranium (pCi/L)**	2024	4.4	1.5 – 8.3	20	.43	Erosion of natural deposits
Arsenic (ppb)**	2023	2.2	ND – 3.2	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Barium (ppm)**	2023	0.11	ND – 0.14	1.0	2.0	Discharge of oil drilling waste and from metal refineries; Erosion of Natural Deposits
Chlorine (Cl ₂) (ppm)**	2024	1.5	0.3 – 2.2	4.0	4.0	Drinking water disinfectant added for treatment

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Fluoride (ppm)**	2023	0.37	0.30 – 0.49	2.0	1.0	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acid (HAA5) (ppb)	2024	5.0	2.9 – 7.1	60	n/a	Byproduct of drinking water disinfection
Nickel (ppb) **	2023	ND	ND	100	12	Erosion of natural deposits; discharge from metal factories
Nitrate (as Nitrogen) (ppm)**	2024	3.1	0.75 – 7.8	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes (TTHMs) (ppb)	2024	30.2	18.5 – 41.9	80	n/a	By-product of drinking water disinfection

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

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Alkalinity (ppm) **	2023	160	130 – 200	n/a	n/a	
Calcium (ppm) **	2023	86	70 – 110	n/a	n/a	
Chloride (ppm) **	2023	97	79 – 120	500	n/a	Runoff/leaching from natural deposits; seawater influence
Magnesium (ppm) **	2023	16	12 – 19	n/a	n/a	
Iron (ppb)**	2023	ND	ND – 100	300	n/a	Leaching from natural deposits; industrial wastes
Odor – Threshold (units)**	2023	ND	ND – 1.7	3	n/a	Naturally-occurring organic materials
pH (pH units) **	2023	7.7	7.5 – 7.9	n/a	n/a	
Potassium (ppm) **	2023	3.2	2.7 – 3.9	n/a	n/a	
Specific Conductance (uS/cm) **	2023	890	760 – 1000	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm) **	2023	140	110 – 170	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm) **	2023	540	460 – 630	1000	n/a	Runoff/leaching from natural deposits
Turbidity (NTU)**	2023	ND	ND – 0.14	5	n/a	Soil runoff
Manganese (µg/L)	2024	ND	ND	50	n/a	

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	Health Effects
PFBA (ppt)	2024	ND	ND – 2.7	n/a	See statements below
PFBS (ppt)	2024	ND	ND – 2.1	n/a	See statements below
PFHxA (ppt)	2024	2.9	2.2 – 3.5	n/a	See statements below
PFHxS (ppt)	2024	3.7	2.8 – 4.5	10 (ppt)	See statements below
PFOA (ppt)	2024	3.6	2.9 – 3.9	4 (ppt)	See statements below
PFOS (ppt)	2024	3.3	3.1 – 3.6	4 (ppt)	See statements below
PFPeA (ppt)	2024	2.1	ND – 3.2	n/a	See statements below

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 are found in many consumer products, as well as in industrial products, like certain firefighting agents called aqueous film forming foam (AFFF). PFAS is also found in essential use applications such as in microelectronics, batteries, and medical equipment. 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 26, 2024, the United States Environmental Protection Agency (EPA) published a National Primary Drinking Water Regulation (NPDWR) final rule on drinking water standards for six PFAS under the Safe Drinking Water Act (SDWA). The rule establishes the following maximum contaminant levels (MCLs):

- perfluorooctane sulfonic acid (PFOS) = 4 ppt
- perfluorooctanoic acid (PFOA) = 4 ppt
- hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX) = 10 ppt
- perfluorononanoic acid (PFNA) = 10 ppt
- perfluorohexane sulfonic acid (PFHxS) = 10 ppt

- HI MCL for PFHxS, PFNA, perfluorobutane sulfonic acid (PFBS), and GenX = 1 (unitless).

Under the NPDWR, regulated public water systems (PWS) are required to complete initial monitoring by April 26, 2027. Beginning April 26, 2027, regulated PWSs will conduct ongoing compliance monitoring in accordance with the frequency dictated by the rule and as determined by the initial compliance monitoring results. Regulated PWSs must demonstrate compliance with the Maximum Contaminant Levels (MCLs) by April 26, 2029.

In order to provide safe drinking water to all Department of Defense (DoD) personnel, OSD policy extends this requirement to all DoD systems which provide drinking water for human consumption, regardless of size of the drinking water system. In addition to the six regulated compounds, DoD-owned systems are required by DoD policy to monitor for all 25 compounds detected when using EPA Method 533. Protecting the health of our personnel, their families, and the communities in which we serve is a priority for the Department. DoD is committed to complying with requirements of the NPDWR and the continued provision of safe drinking water to those that work and live on DoD installations.

Has Marine Corps Logistics Base Barstow tested its water for PFAS in 2024?

Yes. In January, April, July, and October samples were collected from Nebo Main: one source water sample at the GSWC point of connection (Nebo-GS) and one finished water sample at Building S-48.

We are informing you that 5 of the 25 PFAS covered by the sampling method were detected in your water system. The results are provided in Table 6. EPA does not have an MCL for all these compounds at this time. PFOA, PFOS, PFHxA, PFHxS, and Gen X were detected.

What is next?

Marine Corps Logistics Base Barstow will continue to monitor for PFAS in accordance with the EPA regulation and DoD policy. Once required initial monitoring information is available, we will calculate the Running Annual Averages (RAA) for the regulated PFAS and will compare those numbers to the MCL and Hazard Index (HI) trigger levels. This will determine what our continuing monitoring requirements will be beginning in 2027, and if needed, we will plan operational or infrastructure changes to ensure our water complies with the PFAS MCLs and HI by April 2029 in accordance with the SDWA.

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-Specific Language: 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. Marine Corps Logistics Base Barstow 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>.