

# 2022 Consumer Confidence Report

Water System Name: **Marine Corps Logistics Base  
NEBO 3610701**

Report Date: June 2023

*We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of both Golden State Water Company (GSWC) and our monitoring programs for the period of January 1 - December 31, 2022 and may include earlier monitoring data.*

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

Type of water source(s) in use: NEBO Main Base: Supplied by Golden State Water Co., Barstow Ca.

Name & general location of source(s): 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: MCLB S-F Department  
Environmental Division  
Compliance Branch

Phone: (760) 577-6982

## TERMS USED IN THIS REPORT

**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 (USEPA).

**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.

**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.

**Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**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.

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

**Variations and Exemptions:** State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

<p><b>MFL:</b> million fibers per liter</p>	<p><b>ppm:</b> parts per million or milligrams per liter (mg/L)</p> <p><b>ppb:</b> parts per billion or micrograms per liter (µg/L)</p> <p><b>ppt:</b> parts per trillion or nanograms per liter (ng/L)</p> <p><b>ppq:</b> parts per quadrillion or picogram per liter (pg/L)</p> <p><b>pCi/L:</b> picocuries per liter (a measure of radiation)</p> <p><b>µS/cm:</b> one millionth of a Siemen per centimeter (a measure of conductivity)</p>
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**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 storm water 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 storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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.

**In order to ensure that tap water is safe to drink**, the USEPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

**Tables 1, 2, 3, 4, 5, 7, and 8 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.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA					
Microbiological Contaminants (complete if bacteria detected)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or <i>E. coli</i>	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or <i>E. coli</i>	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER							
Lead and Copper (complete if lead or copper detected in the last sample set)	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)	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

The 2017 amendment to domestic water supply permits require K-12 schools to be tested for lead. MCLB Nebo Annex does not contain K-12 schools, therefore does not require this testing.  
 In 2021 Lead and Copper sampling was performed in October, which is outside of the required monitoring window between June and September. A monitoring violation resulted; however **NO EXCEEDANCES** were observed. The lead and copper sampling was conducted again in 2022 and the results are presented in Table 2.

**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) **	2020	N/A	62 - 76	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm) **	2020	N/A	170 - 290	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

\*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 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) **	2020	(0)	ND – 11	15	(0)	Erosion of Natural Deposits
Uranium (pCi/L) **	2018	.43	1.9 - 5.1	20	0.43	Erosion of Natural Deposits
Arsenic (ppb) **	2022	2.6	2.1 – 3.4	10	0.004	Erosion of Natural Deposits; runoff from orchards; glass and electronics production wastes.
Barium (ppm) **	2020	ND	ND - 0.13	1	1	Discharge of oil drilling waste and from metal refineries; Erosion of Natural Deposits
Chlorine [CL2] (ppm)	2022	1.5	0.5 – 2.2	[MRDL=4] (as Cl2)	[MRDL=4] (as Cl2)	Drinking water disinfectant added for treatment
Fluoride (ppm) **	2020	0.42	0.33 - 0.55	2.0	1	Erosion of Natural Deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Total Haloacetic Acid (HAA5) (ppb)	2022	6.5	4.9 - 8.1	60	n/a	By-product of drinking water disinfection
Nickel (ppb) **	2022	ND	ND - 10	100	12	Erosion of natural deposits; discharge from metal factories
Nitrate as Nitrogen (ppm)**	2022	3.9	.83 – 7.7	10 (as N)	10 (as N)	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Total Trihalomethanes (TTHMs) (ppb)	2022	28.5	22 – 35	80	n/a	By-product of drinking water disinfection

\*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 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Alkalinity (ppm) **	2020	140	120 - 170	n/a	n/a	
Calcium (ppm) **	2020	71	54 - 91	n/a	n/a	
Chloride (ppm) **	2020	83	71 - 100	500	n/a	Runoff/leaching from natural deposits; seawater influence
Magnesium (ppm) **	2020	13	9.5-16	n/a	n/a	
Iron	2020	ND	ND-100	300	n/a	Leaching from natural deposits; industrial wastes
Odor – Threshold (units)	2020	ND	ND - 1.7	3	n/a	Naturally-occurring organic materials
pH (pH units)	2021	7.6	7.5 - 7.8	n/a	n/a	
Potassium (ppm) **	2020	2.9	2.4 - 3.3	n/a	n/a	
Specific Conductance (µS/cm) **	2020	770	660 - 880	1600	n/a	Substances that form ions when in water; seawater influence
Sulfate (ppm) **	2020	120	97 - 170	500	n/a	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm) **	2020	500	420 - 570	1000	n/a	Runoff/leaching from natural deposits
Turbidity (units)	2021	0.35	0.10 – 1.0	5	n/a	Soil runoff

\*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 6 – DETECTION OF UNREGULATED CONTAMINANTS**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Typical Source of Contaminant
Manganese	2022	ND	ND-2.3	n/a	
PFOS (ppt)	2022	ND	ND	70	See statements below
PFOA (ppt)	2022	2.5	ND-2.5	70	See statements below

### What are per- and polyfluoroalkyl substances and where do they come from?

Per- and Polyfluoroalkyl substances (PFAS) refers to a large class of substances, which includes perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). DoD's use of PFAS started in the 1970s, with the introduction of aqueous film forming foam (AFFF) for aircraft fuel fire-fighting purposes. AFFF is mission critical because it quickly extinguishes petroleum-based fires, thus minimizing loss of life. DoD is one of many users of AFFF, with other major users including commercial airports, the oil and gas industry, and local fire departments. PFAS are also present in many industrial and consumer products because they increase a product's resistance to heat, stains, water and grease. As such, they are not uniquely attributable to DoD activities.

### Is there a regulation for PFAS in drinking water? 1

There is currently no federal drinking water standard or regulation for PFAS. In May 2016, the EPA established drinking water health advisory levels at 70 parts per trillion (ppt) for perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), individually or combined. Both PFOS and PFOA are types of PFAS.

While not a requirement under the Safe Drinking Water Act, DoD proactively issued a policy to monitor drinking water for 18 PFAS at all DoD-owned and operated water systems at a minimum of every three years.

The EPA recommends if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than 70 parts per trillion, water systems should quickly undertake additional sampling to assess the level, scope, and localized source of contamination to inform next steps.

**Has MCLBB Nebo tested its water for PFAS?**

Yes. In February, August, November, and December 2022 samples were collected from the Nebo Drinking Water Facility building S-48.

We are informing you that two of the 18 PFAS compounds covered by the sampling method were detected at or above the method reporting limit (MRL). PFOS and PFOA, the two compounds included in the EPA lifetime HA, were below the EPA lifetime HA level. PFOS was not detected at or above the MRL. The results are provided in Table 6. Consistent with the EPA lifetime HA, since PFOS and PFOA are below the EPA HA levels, no adverse health impacts are expected over a lifetime of drinking this water. In accordance with DoD policy, MCLBB Nebo will collect quarterly samples for the 18 PFAS for one year and then every two years thereafter as long as the results are below the MRL.

**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 USEPA’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. USEPA/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).

Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant’s blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider

Lead-Specific Language for Community Water Systems: 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. Golden State Water Company 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>.

**Summary Information for Violation of the Monitoring and Reporting Requirement**

TABLE 7 – VIOLATION OF MONITORING REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language