

2024

Consumer Confidence Report

**Barstow-Daggett
Army Heliport, CA
PWD ID# 3610708**



2024 Barstow-Dagget Army Heliport Water Quality

Fort Irwin would like to present a brief summary and water quality report for Barstow-Dagget Army Heliports water system. From January 1 to December 31, 2024, the installation conducted routine water monitoring in full compliance with federal and state regulations. Over the year, more than 402 tests were performed on 77 different contaminants, confirming that the water met all U.S. EPA and California State drinking water health standards. Due to the stability of certain contaminant levels, the state permits less frequent monitoring for specific substances. While some data in the report is more than a year old, it remains representative of current water quality conditions.

It is important that the customers be informed about the water quality on the installation.

MUY IMPORTANTE

Este informe contiene informacion muy importante sobre su agua potable.

Traduzcalo 'o hable con alguien que lo entienda bien.

If you have questions concerning this report contact:

Environmental Division
P.O. Box 105085
Fort Irwin, CA 92310-5085
Phone: 760-380-3737



Table of Contents	Page #
Introduction	2
Table of Contents	3
General Information on Drinking Water	4
Terms Used in This Report	4
Fort Irwin Water Source	5
Water Conservation	5
Report Water Leaks	5
Cross Connection Program	5
Source of Contaminants	5
2024 Monitoring Results	6
➤ Table 1: Microbial Monitoring	6
➤ Table 2: Lead and Copper	6
Regulated and Non-Regulated Contaminants.....	6
➤ Table 3: Regulated Contaminates.....	7
➤ Table 4: Non-Regulated Contaminants.....	8
➤ Table 5: Regulated Secondary Maximum Contaminants.....	8

General Information on Drinking Water

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (SWRCB) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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.

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. To understand the risk of possible health effects described for regulated contaminants, a person would have to drink 2 liters of water every day at the Maximum Contamination Level (MCL) during a lifetime, to have a one-in-a-million chance of having the described health issues.

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) have guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants.

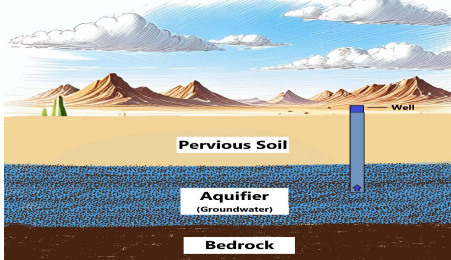
Guidelines are available from the Safe Drinking Water Hotline (1-800-426-4791) or at their web site www.epa.gov/safewater/.

Terms Used in This Report

- **Disinfection Byproducts** - Results from adding chlorine to the water to kill or suppress bacteria and other harmful organics. When chlorine is added it reacts with the organic material forming byproducts that the USEPA and CA DDW believe are harmful.
- **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. MCLG's are set by the U.S. Environmental Protection Agency (USEPA).
- **Non-Detects (ND)** - Laboratory analysis indicates that the constituent is not present at or above the minimum detection limit for the analytical method.
- **Nephelometric Turbidity Unit (NTU)** -Nephelometric turbidity units are a measure of the clarity of water. Turbidity in excess of NTU is just barely noticeable to the average person.
- **Parts per billion (ppb) or Micrograms per liter (µg/L)** - One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Parts per million (ppm) or Milligrams per liter (mg/L)** - One part per million corresponds to one minute in two years, or a single penny in \$10,000.
- **Picocuries per liter (pCi/L)** - a measure of radiation.
- **Primary Drinking Water Standards (PDWS)**-MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting 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 which a water system must follow.
- **Secondary Maximum Contamination Levels (SMCL)** - guidelines for aesthetic considerations in drinking water such as taste, color and odor. Contaminates with a SMCL do not present a health risk.

Water Source

The Barstow-Daggett Army Heliport (BDAH) receives its water from groundwater sourced from an aquifer located beneath the surrounding area of the airfield. The water is drawn from a single dedicated well. To maintain high water quality and safety, the extracted groundwater undergoes treatment using sodium hypochlorite and a monitored chlorination system. In 2024, BDAH pumped approximately 1.6 million gallons of water from the aquifer, providing a daily water supply to approximately 125 customers.



Water Conservation

Water conservation is essential for sustaining operations at BDAH. Without a reliable water supply, BDAH would be unable to support the Army's mission effectively. By taking proactive steps to conserve water, we can extend the existing supply, reduce unnecessary waste, and minimize environmental impact. See suggestions below:



Shorten your shower time. Cut back your shower time to five minutes, and this will save on water and energy.



Don't pre-rinse your dishes. Most new dishwashers do not require pre-rinsing.



Only wash full loads of laundry. Full loads of laundry use less water and conserves energy.



Turn the water off. Turn faucets off while in the process of brushing teeth, shaving or when water is not needed.

Report Water Leaks

If you have a water leak, or notice a water problem, please call the appropriate numbers for Fort Irwin/BDAH to report it:

High Desert Support Services (HDSS)
1-760-386-3539

Cross Connection Program

Fort Irwins' Cross Connection Program provides a level of certainty that the water in BDAH is protected from back flow of contaminated water. You can help protect the public water supply and ensure safe drinking water by taking steps to control cross connections (physical connection between drinkable water and a non- drinkable unsafe liquid or gas), and prevent the possibility of backflow (water flowing opposite to its intended direction). To find out more about how you can help prevent cross connections please contact DPW-Environmental at 1-760-380-3737.

Source of Contaminants

Source 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:

- **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.
- **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **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, and septic systems.
- **Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

2024 Monitoring Results

The monitoring results provide an overview of Barstow-Dagget Army Heliport (BDAH) quality and current conditions. The following tables represent the drinking water quality supplied today.

Microbial Monitoring

Bi-weekly microbial monitoring at BDAH ensures the safety and quality of the drinking water. This process uses coliform bacteria as a key indicator for microbial contaminants due to its widespread presence in the environment, resilience compared to other bacteria, and ease of detection. The results from these tests are compiled in Table 1.

Table 1: Microbial Monitoring						
Analyte	Unit	Drinking Water		Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
		Highest Number of Positive Results	Number of Months Exceeding (MCL)			
Total Coliform Bacteria	Positive Samples per Month	1	0	More than 1 Positive Sample in a Month	1	Naturally Present in the Environment

Table 1 Analyte Notes:

Total coliform were sampled with "Present" result on 03/06/2024. The positive result was an anomaly likely caused by faucet contamination. There were no positives in the follow-up confirmation sampling.

Lead and Copper

BDAH conducts lead and copper testing at selected taps throughout its water system to assess the water's corrosiveness. These elements can leach from plumbing inside buildings, particularly in older infrastructure. The results of this monitoring are documented in Table 2, where the 90th percentile level should be compared to the Action Level to determine whether concentrations remain within safe regulatory limits.

Table 2: Lead and Copper Monitoring							
Analyte	Unit	Drinking Water			Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
		Sites Tested	Sites Exceeding the AL	90 % Level*			
Lead (Pb)	µg/L	5	0	1.4	AL** = 15	2	Internal corrosion of household water plumbing systems
Copper (Cu)	mg/L	5	0	0.22	AL** = 1.3	0.17	

Table 2 Analyte Notes:

*90% or more of the monitoring results were below this result.

**AL or regulatory action level is set by the California DDW. If exceeded, preventive treatment is required, equivalent to a MCL.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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>.

Regulated and Non-regulated Contaminants

BDAH tests regulated contaminants in its drinking water to ensure compliance with the standards set by the state and EPA. Beyond required testing we also test for unregulated contaminants to provide the best water possible. The results of this monitoring are documented on Tables 3 - 5 on the next pages. When reviewing the tables pay attention to the Maximum Contaminant Level (MCL) column and range detection column for comparing.

Table 3: Regulated Contaminants						
Analyte	Unit	Range Detected	Average	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
EPA and State Regulated						
Barium (Ba) Sampled from Source Water	mg/L	ND ²²	ND ²²	1	1	Discharge of oil drilling wastes & metal refineries; erosion of natural deposits
Boron (B)* No MCL, State Notification Level (NL)	µg/L	150 – 170 ¹³	161.7 ¹³	N/A	1000 (NL)	Erosion of natural deposits
Chromium (Cr), Total Sampled from Source Water	µg/L	ND ²²	ND ²²	50	100	Discharge from steel and pulp mills Erosion of natural deposits
Chromium VI; Hexavalent Chromium(Cr), Sampled from Source Water	µg/L	5.6 – 5.8	5.7	10	0.02	Erosion of natural deposits
Fluoride (F)**	mg/L	0.45 – 0.52	0.5	2.0	1	Erosion of natural occurring deposits; water additive that promotes strong teeth;
Gross Alpha Sampled from Source Water	pCi/L	9.42 ²²	9.42 ²²	15	0	Erosion of the naturally occurring deposits
Haloacetic Acids (HAA5)	µg/L	ND ²²	ND ²²	60	N/A	Disinfection byproducts
Dibromoacetic Acid	µg/L	ND ²²	ND ²²	" "	N/A	Part of HAA5
Dichloroacetic Acid	µg/L	1.8 ²²	1.8 ²²	" "	N/A	Part of HAA5
Monobromoacetic Acid	µg/L	ND ²²	ND ²²	" "	N/A	Part of HAA5
Monochloroacetic Acid	µg/L	ND ²²	ND ²²	" "	N/A	Part of HAA5
Trichloroacetic Acid	µg/L	ND ²²	ND ²²	" "	N/A	Part of HAA5
Nitrate (NO₃) as N	mg/L	0.26	0.26	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewer systems;
Total Trihalomethanes (TTHM)	µg/L	21 ²²	21 ²²	80	N/A	Byproduct of drinking water disinfection
Bromodi- chloromethane	µg/L	8 ²²	8 ²²	" "	N/A	Part of TTHM
Bromoform	µg/L	2.3 ²²	2.3 ²²	" "	N/A	Part of TTHM
Chloroform	µg/L	4.6 ²²	4.6 ²²	" "	N/A	Part of TTHM
Dibromo- chloromethane	µg/L	6.2 ²²	6.2 ²²	" "	50	Part of TTHM
Uranium***	pCi/L	6.58 ²²	6.58 ²²	20	0.43	Erosion of natural deposits

Table 3 Analyte Notes:

Italicized numbers indicate the year the data is from i.e. (¹³for 2013, for ²²2022).

* The babies of some pregnant women who drink water containing boron in excess of the notification level may have an increased risk of developmental effects, based on studies in laboratory animals.

** Some people who drink water containing fluoride in excess of the Federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the State MCL of 2 mg/L may get mottled teeth.

*** Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.

Table 4: Non-regulated Contaminants						
Analyte	Unit	Range Detected	Average	Maximum Contaminant Level (MCL)	Maximum Contaminant Level Goal (MCLG)	Source of Contamination
Water Quality Non-Regulated						
Alkalinity, Total	mg/L of CaCO ₃	110 – 140	120	N/A	N/A	Erosion of the naturally occurring deposits
Bicarbonate (HCO₃)	mg/L as CaCO ₃	140 – 160	152.5	N/A	N/A	Part of Alkalinity
Carbonate (CO₃)	mg/L of CaCO ₃	ND	ND	N/A	N/A	Part of Alkalinity
Calcium (Ca)	mg/L	35 - 45	38.3	N/A	N/A	Erosion of the naturally occurring deposits
Hardness, Total	mg/L of CaCO ₃	110 – 140	120	N/A	N/A	The sum of polyvalent cations present, generally magnesium and calcium. The cations are usually naturally occurring.
Magnesium (Mg)	mg/L	5.4 – 7.1	6.0	N/A	N/A	Erosion of the naturally occurring deposits
Potassium (K)	mg/L	2 ¹⁹	2 ¹⁹	N/A	N/A	Erosion of the naturally occurring deposits

Table 4 Analyte Notes:

Italicized numbers indicate the year the data is from i.e. (¹⁹ for 2019).

Table 5: Regulated Secondary Maximum Contaminants						
Analyte	Unit	Range Detected	Average	Secondary Maximum Contaminant Level (SMCL)	PHGs and MCLGs	Source of Contamination
Water Quality (Regulated, SMCLs)						
Chloride (Cl)	mg/L	21 ¹⁶	21 ¹⁶	250	N/A	Erosion of the naturally occurring deposits
Sodium (Na)	mg/L	52 ¹⁹	52 ¹⁹	N/A	N/A	"Sodium" refers to the salt present and is generally naturally occurring.
Specific Conductance	µS/cm	460 ¹⁶	460 ¹⁶	1600	N/A	Substances that form ions when in water
Sulfate (SO₄)	mg/L	36 ¹⁶	36 ¹⁶	250	N/A	Erosion of the naturally occurring deposits
Total Dissolved Solids	mg/L	270 – 330	285	500	N/A	Runoff/leaching from natural deposits
Turbidity	NTU	0.12 – 0.22	0.2	5	N/A	Soil Runoff

Table 5 Analyte Notes:

Italicized numbers indicate the year the data is from i.e. (¹⁶ for 2016, ¹⁹ for 2019).

Secondary Maximum Contaminates do not have PHGs or MCLGs, because secondary MCLs are set to protect the aesthetics of water. PHGs and MCLGs are based on health concerns.

For more information contact:

Environmental Division
P.O. Box 105085
Fort Irwin, CA 92310-5058
Phone: 760-380-3737