

## 2023 Consumer Confidence Report

### Water System Information

Water System Name: Beale Air Force Base (CA5810700)

Report Date: 13 May 2024

Type of Water Source(s) in Use: Groundwater

Name and General Location of Source(s): Beale AFB groundwater originates from the Sierra Nevada Mountain range. Beale AFB has seven deep-water wells that draw water from an underground aquifer.

Drinking Water Source Assessment Information: The California Department of Public Health (CDPH) completed an assessment of our drinking water source in April 2001. In addition, in October 2005, Earth Tech Inc. prepared a "Drinking Water Source Assessment and Protection Plan/Wellhead Protection Plan" for Beale AFB. This assessment is For Official Use Only (FOUO). The Drinking Water Source Assessment Program required permitted sources to be evaluated for susceptibility to various potential contaminating activities. This evaluation was performed for all the base's seven well water sources in operation at that time. The evaluation indicated that the operation of a military installation ranks the highest among the potential contaminating activities.

Time and Place of Regularly Scheduled Board Meetings for Public Participation: Beale AFB holds semi-annual Drinking Water Working Group meetings in the Bioenvironmental Engineering office.

For More Information, Contact: Beale AFB Bioenvironmental Engineering Flight (530) 634-2045 from 0700-1600 Monday through Friday.

### 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 Beale Air Force Base a 6604 B Street Bldg. 26180, Beale AFB, CA 95903 or 530-634-2045 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 [Beale Air Force Base] 以获得中文的帮助: 6604 B Street Bldg. 26180, Beale AFB, CA 95903 or 530-634-2045.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa 6604 B Street Bldg. 26180, Beale AFB, CA 95903 o tumawag sa 530-634-2045 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 Beale Air Force Base tại 6604 B Street Bldg. 26180, Beale AFB, CA 95903 or 530-634-2045 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 Beale Air Force Base ntawm 6604 B Street Bldg. 26180, Beale AFB, CA 95903 or 530-634-2045 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.

Term	Definition
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 ( $\mu\text{g/L}$ )
ppt	parts per trillion or nanograms per liter (ng/L)
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 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. 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>	0	N/A	(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)	August 2021	20	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	August 2021	20	0.061	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**

Beale AFB is not required to monitor for sodium and hardness for treated water. Monitoring is conducted for raw (untreated) water at each of the wells every 9 years, there have been no MCL exceedances for either constituent.

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Fluoride (naturally occurring) (mg/L) <sup>1</sup>	2023	0.1	<0.1-0.1	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Chlorine (mg/L)	2023	1.13	0.74-1.13	4	4	Drinking water disinfectant added for treatment
TTHMs [Total Trihalomethanes] (µg/L)	August 2023	18	18	80	N/A	Byproduct of drinking water disinfection
HAA5 [Haloacetic Acids] (µg/L)	August 2023	13	13	60	N/A	Byproduct of drinking water disinfection

<sup>1</sup> Our water system treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of 0.6-1.2 mg/L with an optimum dose of 0.7 mg/L. Our monitoring showed that the fluoride levels in the treated water ranged from 0.7-0.9 mg/L with an average of 0.77 mg/L. Information about fluoridation, oral health, and current issues is available from:

[http://www.swrcb.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.shtml](http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml).

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

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	Typical Source of Contaminant
Iron (µg/L)	2023	100	100	300	Leaching from natural deposits; industrial wastes
Manganese (µg/L)	2023	30	20-30	50	Leaching from natural deposits

**Table 6. Detection of Unregulated Contaminants**

If an effort to ensure the safest water possible, the U.S. Air Force has required the monitoring for additional contaminants not required by State regulations. Below are the results:

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
Perfluorooctanoic Acid (PFOA)	March 2021	ND	N/A	70 ppt	PFOS and PFOA are man-made compounds often used to make carpets, fabrics for furniture, clothing, paper packaging for food, firefighting foam and items resistant to water, grease, fire, and stains.
Perfluorooctanesulfonic Acid (PFOS)	March 2021	ND	N/A	70 ppt	

### 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. Beale AFB 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 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

**Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement**

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
None	N/A	N/A	N/A	N/A

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

**Table 8. 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>	0	0	0	(0)	Human and animal fecal waste
Enterococci	0	0	TT	N/A	Human and animal fecal waste
Coliphage	0	0	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

**Special Notice of Fecal Indicator-Positive Groundwater Source Sample:** Beale AFB did not have any special notices for positive fecal indicator in groundwater samples in 2023.

**Special Notice for Uncorrected Significant Deficiencies:** Beale AFB did not have any special notices for uncorrected significant deficiencies in 2023.

**Table 9. Violation of Groundwater TT**

<b>Violation</b>	<b>Explanation</b>	<b>Duration</b>	<b>Actions Taken to Correct Violation</b>	<b>Health Effects Language</b>
None	N/A	N/A	N/A	N/A

**Summary Information for Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements**

If a water system is required to comply with a Level 1 or Level 2 assessment requirement that is not due to an *E. coli* MCL violation, include the following information below [22 CCR section 64481(n)(1)].

**Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation**

During the past year we were required to conduct one Level 1 assessment and one Level 1 assessment was completed. This assessment was completed in response to a sampling error that resulted in two samples being positive for total coliform within a 30-day period. Follow-up sampling for total coliform was negative and there were no potential health impacts. In addition, we were required to take one corrective action and we completed this action as required.