



**DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 412TH TEST WING (AFMC)  
EDWARDS AIR FORCE BASE, CALIFORNIA**

5 July 2023

2d Lt Hi Phan  
412th Operational Medical Readiness Squadron  
Bioenvironmental Engineering Flight  
55 North Wolfe Avenue  
Edwards Air Force Base, California 93524

Mr. Jaswinder Dhaliwal  
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California Water Boards  
Southern California Drinking Water Field Operations Branch  
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Mr. Dhaliwal,

Attached is the 2022 Consumer Confidence Submission Report for Edwards AFB Main Base, PWS ID 1510701.

If you have any questions or require additional information, please call me or the Bioenvironmental Engineering office at (661) 277-3272.

Sincerely,

Hi C Phan, 2d Lt, USAF  
OIC, Environmental Health

## APPENDIX B: eCCR Certification Form (Suggested Format)

### Consumer Confidence Report Certification Form

*(To be submitted with a copy of the CCR)*

Water System Name: Edwards Air Force Base

Water System Number: CA1510701

The water system named above hereby certifies that its Consumer Confidence Report was distributed on 26 June 2020 to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the State Water Resources Control Board, Division of Drinking Water (DDW).

Certified by: Name: 2d Lieutenant Hi Phan

Signature: \_\_\_\_\_

Title: Environmental Health OIC

Phone Number: ( 661 ) 277 - 3272 Date: 29 June 2023

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*To summarize report delivery used and good-faith efforts taken, please complete this page by checking all items that apply and fill-in where appropriate:*

- ☐ CCR was distributed by mail or other direct delivery methods (attach description of other direct delivery methods used).
- ☒ CCR was distributed using electronic delivery methods described in the Guidance for Electronic Delivery of the Consumer Confidence Report (water systems utilizing electronic delivery methods must complete the second page).
- ☒ "Good faith" efforts were used to reach non-bill paying consumers. Those efforts included the following methods:
  - ☒ Posting the CCR at the following URLs:  
<https://www.edwards.af.mil/Portals/50/mainbasewaterreport.pdf>
  - ☐ Mailing the CCR to postal patrons within the service area (attach zip codes used)
  - ☒ Advertising the availability of the CCR in news media (attach copy of press release)
  - ☐ Publication of the CCR in a local newspaper of general circulation (attach a copy of the published notice, including name of newspaper and date published)
  - ☒ Posted the CCR in public places (attach a list of locations)
  - ☒ Delivery of multiple copies of CCR to single-billed addresses serving several persons, such as apartments, businesses, and schools
  - ☐ Delivery to community organizations (attach a list of organizations)
  - ☒ Publication of the CCR in the electronic city newsletter or electronic community newsletter or listserv (attach a copy of the article or notice)
  - ☐ Electronic announcement of CCR availability via social media outlets (attach list of social media outlets utilized)
  - ☐ Other (attach a list of other methods used)
- ☐ For systems serving at least 100,000 persons: Posted CCR on a publicly-accessible internet site at the following URL: www.\_\_\_\_\_
- ☐ For privately-owned utilities: Delivered the CCR to the California Public Utilities Commission

## Consumer Confidence Report Electronic Delivery Certification

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*Water systems utilizing electronic distribution methods for CCR delivery must complete this page by checking all items that apply and fill-in where appropriate.*

- ☒ Water system mailed a notification that the CCR is available and provides a direct URL to the CCR on a publicly available website where it can be viewed (attach a copy of the mailed CCR notification). URL: <https://www.edwards.af.mil/Portals/50/mainbasewaterreport.pdf>
- ☐ Water system emailed a notification that the CCR is available and provides a direct URL to the CCR on a publicly available site on the Internet where it can be viewed (attach a copy of the emailed CCR notification). URL:
- ☐ Water system emailed the CCR as an electronic file email attachment.
- ☐ Water system emailed the CCR text and tables inserted or embedded into the body of an email, not as an attachment (attach a copy of the emailed CCR).
- ☐ *Requires prior DDW review and approval.* Water system utilized other electronic delivery method that meets the direct delivery requirement.

*Provide a brief description of the water system's electronic delivery procedures and include how the water system ensures delivery to customers unable to receive electronic delivery.*

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Edwards AFB Public Affairs employs a digital app called The Tower along with a companion website to disseminate weekly newsletters. All military and/or non-military members living or working on Edwards AFB have access to The Tower. A push notification was issued when the CCRs became available. See attached for a screen print of the newsletter where the CCRs were linked.

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The Public Affairs office will include the CCRs on three (3) cycles of the newsletter and a push notification will be issued each time. Afterwards, they will still be included on Edwards AFB Environmental page. URL: <https://www.edwards.af.mil/about/environment/>

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In an attempt to reach all residents (to include spouses without access to military email addresses) an electronic copy of the CCR was sent to the directors of the privatized on-base housing company for further distribution. The housing directors emailed all residents on 29 June 2023 to distribute the CCR. See attached copy of the email.

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All emails and notifications included the name/contact information for the Point-of-Contact if residents would like to obtain a paper copy of the CCR.

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*This form is provided as a convenience and may be used to meet the certification requirement of  
section 64483(c) of the California Code of Regulations.*



# Edwards Air Force Base California



## 2022 Water Quality Report

2022 Monitoring Results for Edwards AFB – Main Base (Public Water System ID: CA1510701)  
Prepared By: 412th Test Wing – Bioenvironmental Engineering Flight

### Annual Consumer Report

We feel it is important that our consumers know about where our water comes from, what it contains, and how it compares to requirements set by regulatory agencies. This report is a snapshot of last year's water quality.

**Last year, monitoring and reporting requirements were not met for annual nitrate sampling on Main Base. However, our tap water met or exceeded all other U.S. Environmental Protection Agency (USEPA) and state drinking water health requirements. See page 6 for more information regarding nitrate**

Through regular monitoring, any contaminants found were verified to be within regulatory standards. The detected amounts and the associated standards, are included in the tables published within this report.

### Where Does Our Water Come From?

The EAFB Drinking Water System draws water from two sources:

- Antelope Valley East Kern (AVEK) Water Agency
- On-base groundwater wells

EAFB receives a majority of our water supply from the Antelope Valley East Kern (AVEK) Water Agency. The water received from the AVEK is supplied to EAFB in finished drinking water quality form. The AVEK supply is primarily from the California aqueduct, a surface water source that currently has 12 Wells as of 2018. AVEK's alternative supply is State Water Project water, which has been stored in the aquifer at various underground storage facilities (i.e. "water banks"). This water is extracted as local groundwater for water quality purposes or as supply during drought. As a water wholesaler, the AVEK Water Agency published their 2022 Water Quality Report earlier this year, which is located at <https://www.avek.org/2022-annual-water-quality-report-kern-county-system>

Additionally, water provided from AVEK is mixed with water supplied from on-base wells. In 2022, groundwater was supplied from two installation wells. One was used in combination with the AVEK supply to feed the main drinking water distribution system. The other well was used to feed a small section of the West Base area. All wells are located within the base boundaries, primarily near South and West Base areas. These wells are fed by the Antelope Valley Aquifer.



## Treatment Process

Our water is treated with chlorine, which is a disinfectant that kills dangerous bacteria and other microorganisms that may be in the water. The 412th Civil Engineering Squadron monitors the disinfectant levels on a daily basis.



*Pictured above: A technician from the 412th Operational Medical Readiness Squadron, Bioenvironmental Engineering Flight, conducting routine water testing at locations spanning the water distribution system. Water samples are collected, tested by a certified laboratory, and results are submitted to the State Water Resources Control Board to demonstrate compliance with all requirements and regulations.*

## Source Water Assessment

The 412th Civil Engineering (CE) Squadron completed our Source Water Assessment on 18 June 2003 and it is on file in the CE Water & Gas office (661-277-5000). This assessment looks at possible contamination sources that may affect the base water supply. Possible contaminating activities for the wells surveyed in this assessment include nearby abandoned wells, storm drainage discharge, above ground water storage tanks, and nearby roads. The health risks from these activities are diminished through weekly monitoring of the potable water system.

AVEK also maintains a Source Water Assessment for the water they distribute. This is a federal requirement, and lists the Physical Barrier Effectiveness, Inventory of Possible Contaminating Activities, Vulnerability Ranking, Assessment Map, Assessment Summary, and Public Notification procedures. A copy of these assessments may be viewed at Antelope Valley-East Kern Water Agency, 6500 West Avenue N, Palmdale, CA 93551.

## What Is In 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (1-800-426-4791).

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.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (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. The State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

## Consumption Note for Susceptible Individuals

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).

## **Water Quality Data Table**

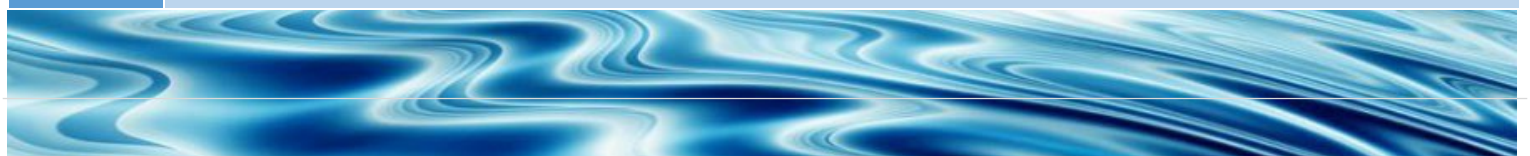
All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. Additionally, some naturally occurring minerals provide benefits by improving the taste of drinking water and providing nutritional value at low levels.

To ensure that tap water is safe to drink, the USEPA prescribes regulations which limit the concentration of contaminants in water provided by public water systems. The tables on the following pages list all the drinking water contaminants that were detected during the 2022 calendar year of this report or are the most recent detected level within the past 9 years. Many more contaminants were tested than listed on the following tables; but we only report those that were detected in our water with the exception of Lead. Lead level is required regardless of whether it is detected. The USEPA and state allow us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently, or because the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, is more than one year old.

In these tables you may find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided their definitions below.

### ***Important Terms Used***

| <b>Term</b>  | <b>Definition</b>   |
|--------------|---|
| <b>AL</b>    | Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.   |
| <b>LRAA</b>  | Locational Running Annual Average: Annual running average at a single sampling site.  |
| <b>HAA5</b>  | Sum of Five Regulated HAAs, i.e., Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Dibromoacetic Acid, and Trichloroacetic Acid  |
| <b>MCL</b>   | Maximum Contaminant Level: The highest concentration of a contaminant that is allowed in drinking water. Primary MCLs are enforceable and 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. |
| <b>MCLG</b>  | Maximum Contaminant Level Goal: The concentration of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable. They are set by the U.S. Environmental Protection Agency.  |
| <b>mg/L</b>  | Mg/L: Milligrams per Liter (ppm)  |
| <b>N/A</b>   | Not Applicable  |
| <b>ND</b>    | Not Detected  |
| <b>pCi/L</b> | pCi/L: picocuries per liter (a measure of radioactivity)  |
| <b>PDWS</b>  | Primary Drinking Water Standards: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.  |
| <b>PHG</b>   | Public Health Goal: 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.  |
| <b>ppb</b>   | ppb: parts per billion, or micrograms per liter (µg/L)  |
| <b>ppm</b>   | ppm: parts per million, or milligrams per liter (mg/L)  |
| <b>SDWS</b>  | Secondary Drinking Water Standards: 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.   |
| <b>TTHM</b>  | Total Trihalomethanes, or Sum of Four Regulated THMs, i.e., Chloroform, Bromodichloromethane, Dibromochloromethane, and Bromoform   |
| <b>µs/cm</b> | µs/cm: micro Siemens per centimeter (a measure of conductivity of a solution)   |
| <b>µg/L</b>  | µ/L: Micrograms per Liter (ppb)   |



# Water Quality Data Table

| Contaminant                                      | MCL   |            |                                 | AVEK <sup>1</sup>               | EAFB Wells         |                 | Distribution System <sup>2</sup>   |                                | Months in Violation |                  | Major Sources in Drinking Water   |
|--|---|------------|---------------------------------|---------------------------------|--------------------|-----------------|------------------------------------|--------------------------------|---------------------|------------------|---|
| Microbiological Contaminants (PDWS) <sup>3</sup> |   |            |                                 |                                 |                    |                 |                                    |                                |                     |                  |   |
| Total Coliform                                   | 5% positive or 2 consecutive positive samples |            |                                 | 0                               | 0                  |                 | 3                                  |                                | 0                   |                  | Naturally present in the environment  |
| E. coli  | 1 positive sample                             |            |                                 | 0                               | 0                  |                 | 0                                  |                                | 0                   |                  | Human or animal fecal waste   |
| Contaminant                                      | MCL   | PHG        | AVEK Plant Average <sup>1</sup> | AVEK Wells Average <sup>1</sup> | EAFB Wells Average | EAFB Well Range | Blended Average Range <sup>4</sup> | West Base Average <sup>5</sup> | Sample Date         | Violation        | Major Sources in Drinking Water   |
| Arsenic (PDWS)                                   |   |            |                                 |                                 |                    |                 |                                    |                                |                     |                  |   |
| Arsenic (µg/L)                                   | 10  | 0.004      | 3.6                             | 5.2                             | 7.64               | 2.0-16          | 2.7-8.7                            | 1.73                           | 2022                | No               | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes  |
| Contaminant                                      | MCL   | PHG        | AVEK Plant Average              | AVEK Wells Average              | EAFB Average       | EAFB Well Range |                                    | West Base Well Average         | Sample Date         | Violation        | Major Sources in Drinking Water   |
| Inorganic Compound (PDWS)                        |   |            |                                 |                                 |                    |                 |                                    |                                |                     |                  |   |
| Aluminum (µg/L)                                  | 1000  | 600        | 130                             | ND                              | ND                 | ND              |                                    | ND                             | 2022                | No               | Erosion of natural deposits; residue from some surface water treatment processes  |
| Barium   | 1000  | 2000       | 58                              | ND                              | ND                 | ND              |                                    | 31                             | 2022                | No               | Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits  |
| Total Chromium (µg/L)                            | 10  | MCLG = 100 | 5.1                             | ND                              | 5.16               | ND-31           |                                    | ND                             | 2022                | No               | Discharge from steel and pulp mills and chrome plating; erosion of natural deposits   |
| Hexavalent Chromium <sup>6</sup> (µg/L)          | 10  | 0.02       | 5.8                             | 2.9                             | 6.07               | ND              |                                    | ND                             | 2021                | No               | Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits |
| Fluoride (mg/L)                                  | 2   | 1          | 0.28                            | 0.15                            | 0.32               | 0.3-0.76        |                                    | 0.76                           | 2022                | No               | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories  |
| Nitrate (mg/L)                                   | 10  | 10         | 2.5                             | 2.6                             | 0.2                | ND-0.95         |                                    | 0.95                           | 2022                | Yes <sup>7</sup> | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits   |

1. AVEK data, including AVEK Plant Average and AVEK Wells Average, were obtained from 2022 & 2021 Kern County Annual Water Quality Report. Some contaminants are not required to be tested every year, thus these data were obtained from 2021 report.
2. Distribution System refers to sampling that are taken at final point of delivery to end user through out the base.
3. In 2022, we have 3 total samples that tested positive for bacteria. These samples were taken in July, September and October. Repeat sampling concluded that the results were indicated as negative, no sites which initially tested positive for total coliform bacteria tested positive for E.coli bacteria thus they are not considered as violations. Our assessment indicates that weather conditions like extensive rainfall, stagnant water or error in sampling protocol may have affected the sampling results.
4. Blended water is the water delivered to the end user. Because of the high levels of arsenic in the wells, EAFB is on an approved plan by the State Water Resources Control Board to blend with AVEK water. The blending ratio fluctuate seasonally, however in recent years AVEK water has been most of the water used. Water quality compliance is reported based on blended water results.
5. Water provided to area around West Base is supply by a different source from the rest of Main Base, thus we have separate those sampling data to better represent West Base water quality.
6. There is currently no MCL or sampling requirement for hexavalent chromium. The previous MCL of 0.010 mg/L (10 ppb) was withdrawn on September 11, 2017. Our last sampling of hexavalent chromium was from 2014.
7. Nitrate sampling is required every year at the water source. In 2022 we sampled five out of six wells, results ranging from ND to 0.95 mg/L. However, we failed to sample for Nitrate at one well, resulting in a citation and a Tier 3 violation.

<<< Table Continues on Next Page >>>



# Water Quality Data Table Continue

| Contaminant  | MCL                         | PHG | AVEK Plant Average | AVEK Wells Average | EAFB Average | EAFB Range                        | West Base Average      | Sample Date | Violation | Major Sources in Drinking Water   |
|--|-----------------------------|-----|--------------------|--------------------|--------------|-----------------------------------|------------------------|-------------|-----------|---|
| <b>Disinfectants &amp; Disinfection By Products<sup>8</sup> (PDWS)</b> |                             |     |                    |                    |              |                                   |                        |             |           |   |
| Total Trihalomethanes (µg/L)   | LRAA: 80                    |     | 20                 | NA                 | #29.8        | #17-43.25                         | NA                     | 2022        | No        | Byproduct of drinking water disinfection  |
| Haloacetic Acids (µg/L)  | LRAA: 60                    |     | 2.1                | NA                 | #3.9         | #1.55-4.6                         | NA                     | 2022        | No        | Byproduct of drinking water disinfection  |
| <b>Lead and Copper<sup>9</sup> (PDWS)</b>                              |                             |     |                    |                    |              |                                   |                        |             |           |   |
| Lead (µg/L)  | AL=90% of bldgs. <15        | 0.2 | ND                 | ND                 | ND           | 10 sites sampled; 0 sites over AL | N/A                    | 2021        | No        | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (mg/L)  | AL=90% of bldgs. <1.3       | 0.3 | ND                 | ND                 | 0.1          | 10 sites sampled; 0 sites over AL | N/A                    | 2021        | No        | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives               |
| <b>Radioactive Contaminants (PDWS)</b>                                 |                             |     |                    |                    |              |                                   |                        |             |           |   |
| Gross Alpha (pCi/L)  | 15                          | 0.2 | N/A                | 5.3                | ND           | ND                                | ND                     | 2022        | No        | Erosion of natural deposits   |
| Combined Uranium (pCi/L)   | 20                          | 0.3 | 3.5                | N/A                | ND           | ND                                | ND                     | 2022        | No        | Erosion of natural deposits   |
| Tritium (pCi/L)  | 20000                       | 400 | N/A                | 5.9                | ND           | ND                                | ND                     | 2022        | No        | Decay of natural and man-made deposits  |
| Contaminant  | Secondary MCL <sup>10</sup> |     | AVEK Plant Average | AVEK Wells Average | EAFB Average | EAFB Well Range                   | West Base Well Average | Sample Date | Violation | Major Sources in Drinking Water   |
| <b>Secondary Standard Contaminants (SDWS)</b>                          |                             |     |                    |                    |              |                                   |                        |             |           |   |
| Alkalinity Bicarbonate (mg/L)  | N/A                         |     | 50                 | ND                 | 123          | 110-140                           | 140                    | 2022        | No        | Erosion of minerals and natural carbonate deposits  |
| Calcium (mg/L)   | N/A                         |     | 74                 | 70                 | 30.5         | 18-67                             | 31                     | 2022        | No        | Leaching from natural deposits  |
| Chloride (mg/L)  | 250                         |     | 47                 | 5                  | 49.9         | 5.4-180                           | 72                     | 2022        | No        | Runoff/leaching from natural deposits; seawater influence   |
| Hardness Total as CaCO <sub>3</sub> (mg/L)                             | N/A                         |     | 140                | 220                | 88           | 54-180                            | 94                     | 2022        | No        | The sum of polyvalent cations present in the water, generally naturally occurring magnesium and calcium                       |
| Iron (µg/L)  | 300                         |     | ND                 | 135                | 125          | ND-260                            | 150                    | 2022        | No        | Leaching from natural deposits; industrial wastes   |
| Magnesium (mg/L)   | N/A                         |     | 8.3                | 8.5                | 2.6          | 1.8-3.7                           | 3.6                    | 2022        | No        | Erosion of minerals and natural deposits  |
| Manganese (µg/L)   | 50                          |     | ND                 | ND                 | 2.1          | ND-13                             | ND                     | 2022        | No        | Erosion of minerals and natural deposits; steel production and mining.  |
| Sodium (mg/L)  | N/A                         |     | 15                 | 43                 | 82.2         | 42-140                            | 120                    | 2022        | No        | Leaching from natural deposits  |
| Specific Conductance (µs/cm)   | 1                           |     | 500                | 650                | 523          | 320-960                           | 730                    | 2022        | No        | Substances that form ions when in water; seawater influence   |
| Sulfate (mg/L)   | 500                         |     | 53                 | 56                 | 82           | 53-140                            | 140                    | 2022        | No        | Runoff/leaching from natural deposits; industrial wastes  |
| TDS (m/L)  | 1000                        |     | 290                | 390                | 336.6        | 200-590                           | 490                    | 2022        | No        | Runoff/leaching from natural deposits; industrial wastes  |

8. Disinfection Byproduct (DBPs), which includes Trihalomethanes and Haloacetic Acids. They are formed when disinfectant like chlorine is used to control microbial pathogens combine with naturally occurring materials found in source water. #. Indicating the LRAA at sampling locations.

9. Lead and Copper is regulated by ensuring the 90th percentile of sample result in under the AL. In this case, all of our test for Lead came back as ND but we are still require to report them. Sampling is conducted every 3 years. The most recent samples are from August 2021. High Priority Tap were sampled at Desert High School in 2022 with no Lead detected.

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



### **Additional Information Regarding Nitrate**

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the calendar year 2022, we did not monitor for nitrate from Well S-10; therefore, cannot be sure of the quality of your drinking water during that time.

Nitrates can be found in drinking water supplies. Their presence in groundwater is generally associated with septic systems, confined animal feeding operations or fertilizer use. These sources of nitrate contamination are more associated with rural settings and are often subjects of drinking water source protection programs.

### **Additional Information Regarding Total Coliforms**

Coliforms are bacteria that are naturally present in the environment and are used as an indicator the other, potentially-harmful bacteria may be present. If coliforms were found in more samples than allowed, this is a warning of potential problems.

### **Additional Information Regarding Fecal Coliform and E. coli**

Fecal coliform and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms.

### **Common Water Quality Observations**

The 412th Bioenvironmental Engineering Flight and 412th Civil Engineering Squadron make every effort to ensure the water provided to EAFB is safe for consumption and the installation is notified should water quality deteriorate.

Some locations may experience brown or rusty water coming from their faucets; more often in older buildings or houses. This is usually caused by a higher concentration of minerals in the water. This does not mean that the water is not safe. Any brown or rusty water that does not run clear after running faucets for several minutes should be reported to housing or facility maintenance.

Another common occurrence is white cloudy water. This is due to more oxygen in the water and most often noticed during colder months. Any cloudy water that does not clear up after sitting for a couple minutes should be reported to facility or housing maintenance.



## **Additional Information Regarding Lead**

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. 412th Bioenvironmental Engineering Flight and 412th Civil Engineering Squadron are 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 (800-426-4791) or at <http://www.epa.gov/lead>.

In addition to the 30 housing sites sampled for lead in 2021, the Bioenvironmental Engineering flight sampled the Edwards AFB's Child Development Center and School Age Program in 2006. All water fixtures where sampled, and all samples met federal limits. In June and July of 2016, additional sampling was conducted for new water fixtures; again all samples met federal limits.

## **Additional Information Regarding Fluoride**

The EAFB and AVEK water systems contain naturally occurring fluoride. Neither EAFB nor AVEK add additional fluoride to the water system due to State requirements and the scope/size of the EAFB water distribution system. The natural level of fluoride present in the water system is below the maximum contamination limit (MCL) of 2.0 parts per million (ppm).

In 2015, the U.S. Department of Health and Human Services released a Public Health Service recommendation of 0.7 ppm as the optimal fluoride level in drinking water to prevent tooth decay. Your local dentist or pediatrician can prescribe daily fluoride brushing, tablets, or drops for you and your children to ensure you receive enough fluoride.

## **Tips for Protecting Your Water**

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- Dispose of chemicals properly; take used motor oil to a recycling center.

## **Additional Information Regarding Arsenic**

While your drinking water meets federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

**For more information regarding this report, please contact either:**

- 412th Operational Medical Readiness Squadron – Bioenvironmental Engineering Flight (661-277-3272)
- 412th Test Wing – Public Affairs (661-277-1454)







ENVIRONMENT



Supporting the Edwards Air Force Base Mission Through Sound Environmental Stewardship

At Edwards Air Force Base, the mission and the environment go hand-in-hand. The unique physical environment is what makes the desert such an ideal place for flight-test activities. Helping the flight testers maintain access to air, land and water for testing and other operations, while not upsetting the delicate balance of the desert ecosystem, is the mission of the 412th Civil Engineer Group Environmental Management Division (412 CEG/CEV).

GENERAL INFORMATION

Water Quality Reports – 2022 Annual CCRs

The Bioenvironmental Engineering Flight is pleased to present the Edwards Air Force Base and Air Force Research Laboratory (AFRL) 2022 Annual Water Quality Reports. We feel it is important our customers know about where our water comes from, what it contains, and how it compares to requirements set by regulatory agencies. This report is a snapshot of last year’s water quality.

[Main base click here](#)

Last year, monitoring and reporting requirements were not met for annual nitrate sampling on Main Base. However, our tap water met or exceeded all other U.S. Environmental Protection Agency (USEPA) and state drinking water health requirements.

[AFRL click here](#)

Last year, our tap water met or exceeded all U.S. Environmental Protection Agency (USEPA) and state drinking water health requirements.

If you would like a paper copy of the 2022 Consumer Confidence Report mailed to you, please call 661-277-3272 or email [hi.c.phan.mil@health.mil](mailto:hi.c.phan.mil@health.mil)

[Edwards Air Force Base Environmental Commitment Statement \(Click To View The ECS\)](#)

To effectively accomplish its mission, Environmental Management has adopted an approach that provides expert services in all areas of environmental support. Appropriate personnel are consulted during the planning and implementation stages of all test programs and construction projects on Edwards.

Three main areas of environmental service and support are provided through the Environmental Management office at Edwards. They include:

**Compliance:** Manages air quality, water quality, hazardous material, hazardous and universal waste, aboveground and underground storage tanks, and special programs (polychlorinated biphenyls, asbestos, and lead-based paint). Assists base organizations with the selection, design and installation of low emissions equipment, as well as applying for and maintaining permits. The goal of compliance is to meet and satisfy all applicable environmental laws, statutes and regulations. Compliance also develops processes to minimize the use of hazardous material, minimize generation of hazardous waste, reduce solid waste going to the landfill and promote reuse and recycling programs.

**Conservation:** Provides environmental analysis for test programs and construction projects. Also manages the protection and preservation of natural resources and cultural and historic sites on Edwards.

412 CEG/CEV also works closely with our environmental restoration colleagues from the Air Force Civil Engineer Center Installation Support Team (AFCEC/CZOW), who share our office space.

[412 CEG/CEV Restoration Office](#) Manages hazardous waste cleanup efforts at Edwards AFB. Under the

ENV. ON FACEBOOK

ENGAGE ON

PUBLICATIONS

- [April 2022 Report to Stakeholders](#)
- [January 2022 Report to Stakeholders](#)
- [Integrated Natural Resources Management Plan 32-7064](#)
- [September 2021 MMRP Fact Sheet](#)
- [November 2020 RAB Fact Sheet](#)
- [November 2019 RAB Meeting Minutes](#)
- [May 2019 RAB Meeting Minutes](#)
- [RAB Bylaws](#)
- [RAB Charter](#)
- [ERP Community Involvement Plan](#) (March 2014)

INFORMATION

Published data and documents relating to the Environmental Restoration Program are available for public review.

**Edwards AFB Library**  
5 West Yeager Boulevard  
Edwards AFB, CA 93524  
(661) 275-2665

**Wanda Kirk Branch Library**  
3611 Rosamond Boulevard  
Rosamond, CA 93560  
(661) 256-3236

**Lancaster Public Library**  
601 West Lancaster Boulevard  
Lancaster, CA 93534  
(661) 948-5029

ENV. PUBLIC AFFAIRS

412 TW/PA  
305 East Popson Avenue



the full record, you may contact Gary Hatch, 412th Test Wing Public Affairs, at (661) 277-8707 or by e-mailing [412tw.pae@us.af.mil](mailto:412tw.pae@us.af.mil). You may also view Administrative Record documents online at <https://ar.afcec-cloud.af.mil/Search.aspx> (select "Edwards AFB" under the Installation List). Two publications the public may find useful are the Environmental Restoration Community Involvement Plan and the bimonthly Report to Stakeholders newsletter. Links to both documents can be found under the **"Publications"** tab on this site.

Edwards environmental experts actively work with regulatory agencies and the community in a spirit of cooperation and commitment to ensure the base accomplishes its mission without harming the environment.

For more information, please visit the following web locations:

- [Facebook](#)
- [YouTube](#)

Environmental Management is located at:  
Building 3735  
120 N. Rosamond Blvd., Suite A  
Edwards AFB, CA 93524

If you have any questions, please contact us at (661) 277-1401.

### RESTORATION ADVISORY BOARD

The Restoration Advisory Board is the primary voice of the public and base workers in the Environmental Restoration Program. This group of volunteers acts as an information conduit between neighboring and base communities and the officials responsible for investigating and remediating environmental contamination at Edwards AFB.

Board members represent communities and work areas from both on- and off-base at semiannual meetings, which are open to the public. At the meetings, members review current investigations and remedial efforts, as well as learn about proposed plans for future remedial efforts. However, their most important task is bringing public concerns to the Air Force. Those with concerns may contact any member with a question or issue. More information can be found on the RAB's Facebook page at [www.facebook.com/RAB.Edwards](http://www.facebook.com/RAB.Edwards).

#### Next RAB Meeting

Date: May 18, 2023  
Time: 5:30 p.m.  
Location: 10400 Heather Ave., California City, CA 93505

### QUICK LINKS



### CAREERS



### GET SOCIAL WITH US



Official United States Air Force Website



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THE TOWER

**NOTE: All announcements must be submitted online and will run for up to three distributions. Please resubmit items for an extended run. Go to the Updates Portal at: <https://centerapps.area52.afnoapps.usaf.mil/PublicAnnouncements/> (Copy and Paste in a CAC-enabled device)**



Edwards Air Force Base's Weekly Newsletter!

OFFICIAL NOTICES

|   |
|---|
| CLOSURES  |
| VOLUNTEERS  |
| SUPPORT   |
| HELPING AGENCIES  |
| MANDATORY <div><p><b><u>Water Quality Reports – 2022 Annual CCRs</u></b></p><p>The Bioenvironmental Engineering Flight is pleased to present the Edwards Air Force Base and Air Force Research Laboratory (AFRL) 2022 Annual Water Quality Reports. We feel it is important our customers know about where our water comes from, what it contains, and how it compares to requirements set by regulatory agencies. This report is a snapshot of last year’s water quality.</p><p><a href="#">Main base click here</a></p><p>Last year, monitoring and reporting requirements were not met for annual nitrate sampling on Main Base. However, our tap water met or exceeded all other U.S. Environmental Protection Agency (USEPA) and state drinking water health requirements.</p><p><a href="#">AFRL click here</a></p><p>Last year, our tap water met or exceeded all U.S. Environmental Protection Agency (USEPA) and state drinking water health requirements.</p><p>If you would like a paper copy of the 2022 Consumer Confidence Report mailed to</p></div> |
| OBSERVANCE  |
| ON BASE   |
| TOWN HALL   |
| NON-FEDERALLY ENDORSED  |
| LEGAL CORNER  |
| TOWN HALL Q & A'S   |
| OUR PEOPLE  |



EDWARDS AIR FORCE BASE THE CENTER OF THE AEROSPACE TESTING UNIVERSE

|                           |
|---------------------------|
| HIRING FAIRS              |
| SPORTS                    |
| CEREMONIES                |
| OBSERVANCE                |
| MISCELLANEOUS             |
| NON FEDERAL ENTITY EVENTS |
| ON THIS DAY               |

LEAVE SHARING

|                   |
|-------------------|
| DONATION REQUESTS |
| AFMC WIDE VLTP    |

VAN POOLS

|               |
|---------------|
| PALMDALE      |
| LANCASTER     |
| BAKERSFIELD   |
| VICTORVILLE   |
| RIDGECREST    |
| SANTA CLARITA |

RETIREMENTS/ FAREWELLS

|             |
|-------------|
| RETIREMENTS |
| FAREWELLS   |

MEMORIALS

|           |
|-----------|
| AIR FORCE |
|-----------|

QUICK LINKS



CAREERS



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**From:** [Brandy Kephart](#)  
**To:** [Phan, Hi C 2d LT USAF \(USA\)](#)  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] FW: Edwards - Edwards Water Quality Report  
**Date:** Thursday, June 29, 2023 1:23:19 PM

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Hello 2<sup>nd</sup> Lt Phan,

Please find the email below as proof, that the Water Quality Report was sent out to all the residents.

Respectfully,

**Brandy Kephart** | Operations Director  
main: (661) 385-6060 direct: (661) 385-6071

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**From:** Edwards <noreply@realpage.com>  
**Sent:** Thursday, June 29, 2023 12:27 PM  
**To:** Brandy Kephart <Brandy.Kephart@themayroad.com>  
**Subject:** Edwards - Edwards Water Quality Report

**CAUTION: This email message originated from outside the organization. Do not click on links or open attachments unless you recognize the sender and know the content is safe.**

## EDWARDS - EDWARDS WATER QUALITY REPORT

**From:** Shelly Andalia (Leasing & Resident Manager)

**Date:** June 29, 2023, 12:26 pm

**Subject:** Edwards Water Quality Report

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### Water Quality Reports

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 [Binder1.pdf](#)

To reply to this message, [follow this link](#)

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## **List of Public Locations of CCR Distribution**

*Most locations either posted the physical copy on a public bulletin or provided link access via display screens in public places.*

- Joshua Tree Dining Facility
  - Medical Clinic
  - Club Muroc
- Consolidated Support Facility
  - Dental Clinic
  - Base Library
- Flight Medicine Annex
  - Fitness Center
- Oasis Community Center
  - AFRL Dining Facility