

Volcano Community

Services District

2022

ANNUAL

WATER QUALITY

REPORT

2022 Consumer Confidence Report

Water System Name: Volcano Community Services District Report Date: May 15, 2023

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, 2022 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse Volcano Consumer Confidence Report | PO Box 72 Volcano, CA 95689| (775) 771-8768 para asistirlo en español.

Type of water source(s) in use: Cleveland Tunnel and Groundwater

Name & general location of source(s): Wells on Location

Drinking Water Source Assessment information: In 2002 assessment conducted by Amador County Environmental Health.
Copy can be obtained by contacting ACEH at (209) 223-6439.

Time and place of regularly scheduled board meetings for public participation: Regular scheduled Board Meetings are held
The first Monday of each even month at Armory Hall, Volcano, CA at 7 pm as posted at the website <https://www.volcanocsd.org/>

For more information, contact: Nick Lawson Phone: (209) 304-7628 or
Sharon Owens Phone: (775) 771-8768

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 (U.S. EPA).

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.

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.

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: Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

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 *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

ND: not detectable at testing limit

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (µg/L)

ppt: parts per trillion or nanograms per liter (ng/L)

ppq: parts per quadrillion or picogram per liter (pg/L)

pCi/L: picocuries per liter (a measure of radiation)

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. 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.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. 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 (complete if bacteria detected) | Highest No. of Detections | No. of Months in Violation | MCL | MCLG | Typical Source of Bacteria |
| Total Coliform Bacteria (State Total Coliform Rule) | (In a month) 0 | 0 | 1 positive monthly sample | 0 | Naturally present in the environment |
| Fecal Coliform or <i>E. coli</i> (State Total Coliform Rule) | (In the year) 0 | 0 | A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or <i>E. coli</i> positive | | Human and animal fecal waste |
| <i>E. coli</i> (Federal Revised Total Coliform Rule) | (In the year) 0 | 0 | (a) | 0 | Human and animal fecal waste |

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

| TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER | | | | | | | | |
|---|----------------------------|--------------------------|--|------------------------|-----|-----|---|---|
| Lead and Copper (complete if lead or copper detected in the last sample set) | Sample Date | No. of Samples Collected | 90 th Percentile Level Detected | No. Sites Exceeding AL | AL | PHG | No. of Schools Requesting Lead Sampling | Typical Source of Contaminant |
| Lead (ppb) | 09/20/2019 thru 09/27/2019 | 5 | ND | None | 15 | 0.2 | ---- | Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits |
| Copper (ppm) | 09/20/2019 thru 09/27/2019 | 5 | 0.38 | None | 1.3 | 0.3 | Not applicable | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | MCL | PHG (MCLG) | Typical Source of Contaminant |
|--|----------------------------------|----------------|---------------------|------|------------|--|
| Sodium (ppm) | (Cleveland Tunnel) 03/30/2020 | 7.6 | ----- | None | None | Salt present in the water and is generally naturally occurring |
| | (Well #1) 12/27/2022 | 19 | ----- | None | None | |
| | (Well #2) 12/27/2022 | 10 | ----- | None | None | |
| Hardness (ppm) | (Cleveland Tunnel) 03/30/2020 | 71 | ----- | None | None | Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring |
| | (Well #1) 12/27/2022 | 188 | ----- | None | None | |
| | (Well #2) 12/27/2022 | 174 | ----- | None | None | |

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 (mg/L) | (Well #1) 12/27/2022 | 0.12 | ----- | 2.0 | 1 | Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories |
| | (Well #2) 12/27/2022 | 0.13 | ----- | | | |
| Gross Alpha Particle Activity (pCi/L) | 02/22/2022 | 10.2 ± 2.07 | ND – 4.4 | 15 | (0) | Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. |
| Radium 228 | 08/09/2022 | 0.320 ± 0.917 | ----- | 5 | N/A | |
| Total Radium | 08/09/2022 | 0.300 ± 0.111 | ----- | 5 | N/A | |
| Nitrate (as Nitrogen, N) mg/L | (Cleveland Tunnel) 04/21/2022 | 0.66 | ----- | 10 | 10 | Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women. |
| | (Well #1) 12/27/2022 | 0.63 | | | | |
| | (Well #2) 12/27/2022 | ND | | | | |

Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors

| | | | | | | |
|---|----------------------|------|-----------|------------------------------------|-----------------------------------|--|
| Chlorine (mg/L) | Sampled Monthly 2022 | 0.72 | 0.6 – 0.9 | [MRDL = 4.0 (as Cl ₂)] | [MRDLG = 4 (as Cl ₂)] | Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort. |
| TTHMs (Total Trihalomethanes) (ug/L) | 08/29/2022 | ND | ----- | 80 | N/A | Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer. |
| HAA5 (Sum of 5 Haloacetic Acids) (ug/L) | 08/29/2022 | ND | ----- | 60 | N/A | Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. |

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 | PHG (MCLG) | Typical Source of Contaminant |
|--|-------------------------------------|---------------------|------------------------|-------|---------------|---|
| Color (Units) | 12/27/2022 | Well #1 5 Units | ----- | NA | NA | Naturally- occurring organic materials |
| | | Well #2 50 Units | ----- | | | |
| *Iron (ug/L) (Finished Water) | Monthly 2022 | 484 | ND - 2800 | 300 | NA | Leaching from natural deposits; industrial wastes |
| *Manganese (ug/L) (Finished Water) | Monthly 2022 | 34 | ND - 320 | 50 | NA | Leaching from natural deposits |
| *Turbidity (NTU) (Finished Water) | Monthly 2022 | 3.9 | <0.01 – 13 | 5 | NA | Soil runoff |
| Odor – Threshold (T.O.N.) | 12/27/2022 | ND | ----- | 3 | NA | Naturally-occurring organic compounds |
| Total Dissolved Solids [TDS] (mg/L) | (Cleveland Tunnel) 03/30/2020 | 160 | ----- | 1,000 | NA | Runoff/leaching from natural deposits |
| | (Well #1) 11/24/2020 | 290 | | | | |
| | (Well #2) 07/06/2021 | 240 | | | | |
| Specific Conductance (µS/cm) | (Cleveland Tunnel) 03/30/2020 | 180 | ----- | 1,600 | NA | Substances that form ions when in water; seawater influence |
| | 06/29/2020 | 190 | | | | |
| | (Well #1) 12/27/2022 | 440 | | | | |
| | (Well #2) 07/06/2021 | 420 | | | | |
| Chloride (mg/L) | (Cleveland Tunnel) 03/30/2020 | 2.7 | ----- | 500 | NA | Runoff/leaching from natural deposits; seawater influence |
| | (Well #1) 12/27/2022 | 27 | | | | |
| | (Well #2) 07/06/2021 | 26 | | | | |
| Sulfate (mg/L) | (Cleveland Tunnel) 03/30/2020 | 2.2 | ----- | 500 | NA | Runoff/leaching from natural deposits; seawater influence |
| | (Well #1) 12/27/2022 | 9.2 | | | | |
| | (Well #2) 07/06/2021 | 13 | | | | |

TABLE 6 – DETECTION OF UNREGULATED CONTAMINANTS

| Chemical or Constituent (and reporting units) | Sample Date | Level Detected | Range of Detections | Notification Level | Health Effects Language |
|--|-------------|----------------|------------------------|--------------------|-------------------------|
| Not Required | ----- | ----- | ----- | NA | ----- |

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. **Volcano Community Services District** 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>.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791).

**Summary Information for Violation of a MCL, MRDL, AL, TT,
or Monitoring and Reporting Requirement**

| VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT | | | | |
|--|--|---|---|---|
| Violation | Explanation | Duration | Actions Taken to Correct the Violation | Health Effects Language |
| Iron | Exceeding Secondary Drinking Water MCLs | One-time detection on 01/21/2021 at 1600 ug/L | Monitoring Monthly | Aesthetic Concerns |
| Manganese | Exceeding Secondary Drinking Water MCLs | One time detection on 12/20/2022 at 320 ug/L | Monitoring Monthly | Aesthetic Concerns |
| Color | Aesthetic | Detected on 07/21/2022, 12/28/2022, & 12/20/2022 at 20 Color Units | Monitoring Monthly | Aesthetic Concerns |
| Lead | We are required to monitor your drinking water for specific contaminants on a regular basis. | During 2022 we did not complete all monitoring for lead and copper therefore cannot be sure of the quality of your drinking water at that time. | Results of regular monitoring are an indication of whether or not your drinking water meets health standards. | Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure. |

| VIOLATION OF A MCL, MRDL, AL, TT, OR MONITORING AND REPORTING REQUIREMENT (Cont.) | | | | |
|---|--|---|---|---|
| Copper | We are required to monitor your drinking water for specific contaminants on a regular basis. | During 2022 we did not complete all monitoring for lead and copper therefore cannot be sure of the quality of your drinking water at that time. | Results of regular monitoring are an indication of whether or not your drinking water meets health standards. | Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. |

For Water Systems Providing Groundwater as a Source of Drinking Water

| TABLE 7 – 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> | (In the year) None | Sampled Monthly | 0 | (0) | Human and animal fecal waste |

**Summary Information for Fecal Indicator-Positive Groundwater Source Samples,
Uncorrected Significant Deficiencies, or Groundwater TT**

| SPECIAL NOTICE OF FECAL INDICATOR-POSITIVE GROUNDWATER SOURCE SAMPLE | | | | |
|--|-------------|----------|---|----------------------------|
| None | | | | |
| | | | | |
| SPECIAL NOTICE FOR UNCORRECTED SIGNIFICANT DEFICIENCIES | | | | |
| None | | | | |
| | | | | |
| VIOLATION OF GROUNDWATER TT | | | | |
| TT Violation | Explanation | Duration | Actions Taken to Correct the Violation | Health Effects Language |
| None | ----- | ----- | ----- | ----- |
| None | ----- | ----- | ----- | ----- |

Summary Information for Operating Under a Variance or Exemption

Iron have been found at levels that exceed the respective secondary MCLs in our source well. These secondary MCLs are set to protect you against unpleasant aesthetic effects such as color, taste, odor and the staining of plumbing fixtures (e.g., tubs and sinks), and clothing while washing. The high iron, manganese and color levels are due to leaching of natural deposits. Manganese exposures resulted in neurological effects. High levels of manganese in people have been shown to result in adverse effects to the nervous system.

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

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

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were **not required** to conduct any Level 1 assessment(s). **None** of the Level 1 assessment(s) were completed. In addition, we were **not required** to take corrective actions and we completed **none** of these actions.

During the past year **none** of the Level 2 assessments were required to be completed for our water system. **None** of the Level 2 assessments were completed. In addition, we were **not** required to take corrective actions and we completed **none** of these actions.

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

We were **not** required to complete a Level 2 assessment because we found **no** *E. coli* in our water system. In addition, we were **not** required to take corrective actions and we completed **none** of these actions.

Report prepared 05-15-2023 by Alpha Analytical Laboratories, Inc., using *CCR Guidance for Water Suppliers* available at, http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/CCR.html, employing due diligence with instructions given. Data contained in this report are based on the analytical results generated by Alpha Analytical Laboratories and its subcontract laboratories.