Volcano Community Services District

2021 ANNUAL WATER QUALITY REPORT

2021 Consumer Confidence Report

Water System Name: **Volcano Community Services District** Report Date: April 3, 2022

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows results of our monitoring for the period of January 1 to December 31, 2021 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.

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.

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 *E. coli* (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 *E. coli* positive		Human and animal fecal waste
E. coli (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	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	09/17/2016 thru 09/22/2016	5	ND	None	15	0.2	----	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	09/17/2016 thru 09/22/2016	5	ND	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) 11/24/2020 Well #1	14	—	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) 11/24/2020	317	—	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)	03/30/2020	0.11	—	2.0	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	04/01/2015	2.2	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.
Nitrate (as Nitrogen, N) mg/L	(Cleveland Tunnel) 06/28/2021	0.63	—	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) 12/21/2021	ND				
	(Well #2) 12/21/2021	ND				
Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors						
Chlorine (mg/L)	Sampled Monthly 2021	0.79	0.55 – 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)	08/30/2021	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)	08/30/2021	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
*Iron (ug/L) (Finished Water)	Monthly 2021	1600	ND - 1600	300	NA	Leaching from natural deposits; industrial wastes
*Manganese (ug/L) (Finished Water)	Monthly 2021	570	ND - 570	50	NA	Leaching from natural deposits

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD (CONTINUED)

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Turbidity (NTU)	January through June 2021	0.68	ND – 4.1	5	NA	Soil runoff
Odor – Threshold (T.O.N.)	07/06/2021	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	----			
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 06/29/2020	180 190	----	1,600	NA	Substances that form ions when in water; seawater influence
	(Well #1) 03/30/2020 11/24/2020	450 430				
	(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) 11/24/2020	12				
	(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) 11/24/2020	7.8				
	(Well #2) 07/06/2021	13				
	(Well #1) 11/24/2020	7.8				

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 so 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 fro 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	February through December 2021 None Detected	Aesthetic Concerns
Manganese	Exceeding Secondary Drinking Water MCLs	One time detection on 01/21/2021 at 570 ug/L	February through December 2021 None Detected	Aesthetic Concerns

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**
E. coli	(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 04-03-2022 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.

Alpha Analytical Laboratories, Inc. email: clientservices@alpha-labs.com
Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

17 May 2022

Enclosed are the results of analyses for samples received by the laboratory on . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alpha Analytical Laboratories, Inc. email: clientservices@alpha-labs.com
Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

Project Manager:		
Project:		Reported:
Project Number:		

Bay Area: 262 Rickenbacker Circle | Livermore, CA 94551 | T: 925-828-6226 | F: 925-828-6309 | ELAP# 2728
Central Valley: 9090 Union Park Way Suite 113 | Elk Grove, CA 95624 | T: 916-686-5190 | F: 916-686-5192 | ELAP# 2922
North Bay: 110 Liberty Street | Petaluma, CA 94952 | T: 707-769-3128 | F: 707-769-8093 | ELAP# 2303
San Diego: 2722 Loker Avenue West Suite A | Carlsbad, CA 92010 | T: 760-930-2555 | F: 760-930-2510 | ELAP# 3055

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received

Alpha Analytical Laboratories, Inc. email: clientservices@alpha-labs.com
Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

Project Manager:		
Project:		Reported:
Project Number:		

Result	Units	Reporting Limit	Dilution	Batch	Prepared	Analyzed	ELAP#	Method	Note

Alpha Analytical Laboratories, Inc. email: clientservices@alpha-labs.com
Corporate: 208 Mason Street | Ukiah, CA 95482 | T: 707-468-0401 | F: 707-468-5267 | ELAP# 1551

Project Manager:		
Project:		Reported:
Project Number:		

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Non-accredited analytes are reported only when ELAP accreditation for a requested analyte method pair is not available. For a list of accredited analytes, view our certificates at the Company link on our website at www.alpha-labs.com or contact your Project Manager directly.

Alpha Analytical Laboratories Inc.
www.alpha-labs.com
WATERS, SEDIMENTS, SOLIDS

Corporate Laboratory (1551)
208 Mason Street, Ukiah CA 95482
707.468.0401 (phone)
707.468.5267 (fax)
clientservices@alpha-labs.com

North Bay Laboratory (2303)
110 Liberty Street, Petaluma CA 94952

Bay Area Laboratory (2728)
262 Rickenbacker Circle, Livermore CA 94551

Central Valley Laboratory (2922)
9090 Union Park Way #113, Elk Grove CA 95624

San Diego Service Center
2722 Loker Ave West, Ste A, Carlsbad CA 92010

Chain of Custody - Work Order

Reports and Invoices delivered by email in PDF format

Lab No 22E1228 Pg ____ of ____

Signature below authorizes work under terms stated on reverse side.

Report to	Invoice to (if different)	Project Information
Company: Volcano CSD	Contact:	Project ID: CCR
Attn: George Barnes	Email address:	Project No:
Address:	Address:	PO Number:
Phone/Fax: 209-256-4701	Phone/Fax:	
Email Address: georgeanddonna@reagan.com		

Field Sampler - Printed Name & Signature:

Sample Identification	Sampling Date	Sampling Time	Container: 40ml VOA Vial	Container: Plastic	Container: Glass	Container: Sleeve	Container: Other	Preservative: HCl	Preservative: HNO3	Preservative: H2SO4	Preservative: Other	Preservative: None	Matrix: Drinking Water	Matrix: Wastewater	Matrix: Soil	Matrix: Other	Total Number of Containers per Sample ID	CCR Report Annual
CCR Report	5-9-22	—															0	x

Analysis Request

TAT
- Standard 10 days ○
- RUSH: 5 days ○ / 48 hours ○ / Other: ____days ○ / Preapproval required

TEMP °C
- Ukiah
- Livermore
- Elk Grove
- Petaluma
- Carlsbad

Notes / DDW Source Codes

Relinquished by	Received by	Date	Time
K Jantz	K Jantz	5-9-22	—

DDW Write On EDT Transmission? ○ Yes ○ No

State System Number: _____

If "Y" please enter the Source Number(s) in the column above

CA Geotracker EDF Report? ○ Yes ○ No

Global ID: Sampling Company Log Code:

EDF to (Email Address)

Travel and Site Time: Mileage: Misc. Supplies: