2020 Consumer Confidence Report

Water System Name: **CalEnergy (Vulcan Power Plant) #1300638** Report Date: 06/17/2021

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, 2020 and may include earlier monitoring data.

Type of water source(s) in use: Surface Water and Potable Bulk Hauled Water

Name & general location of source(s): East Highline Canal & VAIL LAT 4 - GATE 416A

Listed results are from raw source water, except the TTHM's, HAA5's, Copper and Lead Rule are from treated water.

Drinking Water Source Assessment information: Assessment conducted by ICPHD in May 2003. Please contact Environmental Services for a copy of the DWSA. Water not used for drinking.

Time and place of regularly scheduled board meetings for public participation: Not Applicable

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Term	Definition
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
Maximum Contaminant Level Goal (MCLG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).
Maximum Residual Disinfectant Level (MRDL)	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG)	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (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)

Sources of Drinking Water and Contaminants that May Be Present in Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 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	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (State Total Coliform Rule)	0	0	1 positive monthly sample [(a)]	0	Naturally present in the environment
Fecal Coliform or *E. coli* (State Total Coliform Rule)	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	0	Human and animal fecal waste
E. coli (Federal Revised Total Coliform Rule)	0	0	(a)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL
(b) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Table 2. Sampling Results Showing the Detection of Lead and Copper

Lead and Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ug/L)	8/14/19	5	ND	0	15	0.2	Not Applicable	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/L)	8/14/19	5	61	0	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 Location	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (mg/L)	East Highline Canal	10/23/20	120	N/A	None	None	Salt present in the water and is generally naturally occurring
	Vail Lat 4-Gate 416A	10/23/20	120	N/A			
Hardness (mg/L)	East Highline Canal	10/23/20	330	N/A	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
	Vail Lat 4-Gate 416A	10/23/20	310	N/A			

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

Inorganic Contaminants

Chemical or Constituent (and reporting units)	Sample Location	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Aluminum (ug/L)	Pre-Treatment	4 quarterly samples in 2020	787.5	170-1400	1000	600	Erosion of natural deposits: residue from some surface water treatment process
	Post-Treatment	4 quarterly samples in 2020	<50	<50			
	East Highline Canal	4 quarterly samples in 2020	385	110-600			
	Vail Lat4-Gate 416A	4 quarterly samples in 2020	877.5	510-1300			
Arsenic (ug/L)	East Highline Canal	10/23/20	2.5	N/A	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production waste
	Vail Lat 4-Gate 416A	10/23/20	2.6	N/A			
Barium (ug/L)	East Highline Canal	10/23/20	130	N/A	1000	2000	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits
	Vail Lat 4-Gate 416A	11/02/20	130	N/A			
Fluoride (mg/L)	East Highline Canal	10/23/20	0.37	N/A	2.0	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
	Vail Lat 4-Gate 416A	10/23/20	0.41	N/A			

Synthetic Organic Contaminants

Diethylhexylphthlalate (ug/L)	East Highline Canal	10/23/20	ND	N/A	4	12	Discharge from rubber and chemical factories; inert ingredient in pesticides
	Vail Lat 4-Gate 416A	10/23/20	ND	N/A			

Volatile Organic Compound Contaminants

Toluene (ug/l)	East Highline Canal	10/23/20	ND	N/A	150	150	Discharge from petroleum and chemical factories; underground gas tank leaks
	Vail Lat 4-Gate 416A	4 quarterly samples in 2020	ND	ND			
Dichloromethane (ug/L)	East Highline Canal	10/23/20	ND	N/A	5	4	Discharge from pharmaceutical and chemical factories; insecticide
	Vail Lat 4-Gate 416A	2 quarterly samples in 2020	ND	ND			

Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
TTHM's (Total Trihalomethanes) (ug/L)	8/12/20	6.9	4.4-9.4	80	N/A	Byproduct of drinking water disinfection
Haloacetic Acid (ug/L)	8/12/20	ND	ND	60	N/A	By-product of drinking water disinfection
Sparkletts TTHM's (Total Trihalomethanes) (ug/L)	8/12/20	1.8	N/A	80	N/A	Byproduct of drinking water disinfection
Sparkletts Haloacetic Acid (ug/L)	8/12/20	ND	N/A	60	N/A	By-product of drinking water disinfection

Radioactive Contaminants

Gross Alpha (pCi/L)	10/24/19	3.2	+-0.83-0.74	15	0	Erosion of natural deposits
Uranium (pCi/L)	10/24/19	2.7	0	20	0.43	Erosion of natural deposits

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

Chemical or Constituent (and reporting units)	Sampling Location	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ug/L)	East Highline Canal	4 quarterly samples in 2020	385	110-600	1000	600	Erosion of natural deposits: residue from some surface water treatment process
	Vail Lat4-Gate 416A	4 quarterly samples in 2020	365.25	50-1300			
Color (Units)	East Highline Canal	10/23/20	20	N/A	15	N/A	Naturally- occurring organic materials
	Vail Lat4-Gate 416A	10/23/20	25	N/A			
Iron (ug/L)	East Highline Canal	4 quarterly samples in 2020	435	170-660	300	N/A	Leaching from natural deposits; industrial wastes
	Vail Lat4-Gate 416A	4 quarterly samples in 2020	872.5	550-1300			
Odor-Threshold (Ton)	East Highline Canal	10/23/20	1	N/A	3	N/A	Naturally- occurring organic materials
	Vail Lat4-Gate 416A	10/23/20	1	N/A			
Turbidity (Units)	East Highline Canal	10/23/20	21	N/A	5	N/A	Soil runoff
	Vail Lat4-Gate 416A	10/23/20	28	N/A			
Total Dissolved Solids (TDS) (mg/L)	East Highline Canal	10/23/20	650	N/A	1000	N/A	Runoff/leaching from natural deposits
	Vail Lat4-Gate 416A	10/23/20	680	N/A			
Specific Conductance (uS/cm)	East Highline Canal	10/23/20	1100	N/A	1600	N/A	Substances that form ions when in water; seawater influence
	Vail Lat4-Gate 416A	10/23/20	1100	N/A			
Chloride (mg/L)	East Highline Canal	10/23/20	120	N/A	500	N/A	Substances that form ions when in water; seawater influence
	Vail Lat4-Gate 416A	10/23/20	120	N/A			
Manganese (ug/L)	East Highline Canal	10/23/20	25	N/A	50	N/A	Leaching from natural deposits
	Vail Lat4-Gate 416A	4 quarterly samples in 2020	25.5	0-49			
Sulfate (mg/L)	East Highline Canal	10/23/20	280	N/A	500	N/A	Runoff/leaching from natural deposits; industrial wastes
	Vail Lat4-Gate 416A	10/23/20	290	N/A			
Zinc (ug/L)	East Highline Canal	10/23/20	150	N/A	5000	N/A	Runoff/leaching from natural deposits; industrial wastes
	Vail Lat4-Gate 416A	10/23/20	ND	N/A			

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sampling Location	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects Language
Vanadium (ug/L)	East Highline Canal	10/23/20	4.3	N/A	50	Vanadium exposures resulted in developmental and reproductive effects in rats.
	Vail Lat4-Gate 416A	10/23/20	ND	N/A		
Boron (ug/L)	East Highline Canal	10/23/20	190	N/A	1000	Boron exposures resulted in decreased fetal weight (developmental effects) in newborn rats
	Vail Lat4-Gate 416A	10/23/20	190	N/A		

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. **Calenergy (Vulcan Power plant) #1300638** 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. [Optional: 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.

Additional Special Language for Nitrate, Arsenic, Lead, Radon, and *Cryptosporidium*: [Enter Additional Information Described in Instructions for SWS CCR Document]

Federal Revised Total Coliform Rule (RTCR): [Enter Additional Information Described in Instructions for SWS CCR Document]

Joint Monitoring Program (JMP) data indicated secondary MCLs for aluminum, iron and turbidity were exceeded in 2020. The primary MCL was exceeded or met for aluminum respectively.

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

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

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

For Systems Providing Surface Water as a Source of Drinking Water

Table 8. Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique [a] (Type of approved filtration technology used)	Desal DK-5 Membranes
Turbidity Performance Standards [b] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	93.75%
Highest single turbidity measurement during the year	1.00 NTU (Turbidity discrete data points are related to cleaning/maintenance of equipment)
Number of violations of any surface water treatment requirements	0

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Summary Information for Violation of a Surface Water TT

Table 9. Violation of Surface Water TT

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