



2024 Consumer Confidence Report – Valley of Enchantment MWC (CA3610051)

A Message from the General Manager

Valley of Enchantment Mutual Water Company is pleased to present the 2024 Consumer Confidence Report (CCR), also known as your Annual Water Quality Report. This report provides information on where your water comes from, what it contains, and how it compares to state and federal standards. At Valley of Enchantment Mutual Water Company (VOE), delivering safe, high-quality drinking water is our top priority and we are proud to report that during 2024, as in past years, your tap water met all U.S. Environmental Protection Agency (EPA) and State drinking water health standards. There were no violations of maximum contaminant levels or other water quality standards in 2024. If you have any questions about this report or your water, please contact our office at (909) 338-2310. Thank you for trusting us with your water needs.

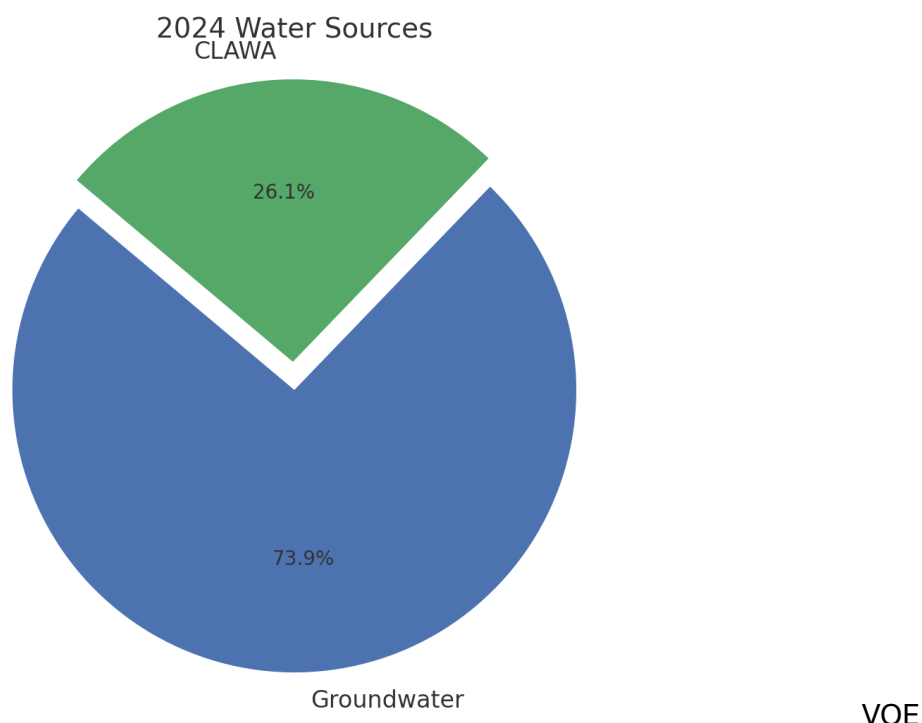
Brent Frey

General Manager, VOE

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse con Valley of Enchantment Mutual Water Company al (909) 338-2310 para asistirlo en español.

Our Water Sources in 2024

VOE relies on local groundwater wells and imported surface water to supply our community. In 2024, approximately 73.9% of our water was pumped from district groundwater wells, and about 26.1% was purchased treated surface water from the Crestline-Lake Arrowhead Water Agency (CLAWA).



VOE operates several groundwater wells in the Valley of Enchantment area to draw from underground aquifers. We also purchase surface water from CLAWA, which originates in Silverwood Lake, a reservoir of the State Water Project. CLAWA treats this lake water at a treatment plant near Silverwood Lake's south shore before delivering it to VOE's system. All sources are disinfected with chlorine for pathogen control. The mix of sources can vary seasonally, but the pie chart above shows the approximate annual proportion. This blend of mountain groundwater and imported surface water helps ensure a reliable supply for our customers.

Source Water Assessment and Protection

A Source Water Assessment for our water sources was completed in 2007. The assessment examined the vulnerability of our 21 wells to contamination and found that, overall, our groundwater is most vulnerable to contaminants originating from stormwater runoff and naturally occurring minerals in local geology. No man-made contaminants were detected in our wells at concerning levels, but naturally occurring radionuclides (like uranium and gross alpha particle emitters) are present in the local rock and can leach into groundwater. The imported CLAWA surface water is vulnerable to contaminants along its journey (from the Sacramento-San Joaquin

Delta to Silverwood Lake) and within its watershed, such as microbial contaminants from wildlife and human activity. However, treatment and protective measures are in place – CLAWA uses a multi-barrier treatment process including filtration and disinfection, and VOE's wells are monitored regularly.

You can help protect our sources by avoiding improper disposal of chemicals, and conserving water. A copy of the complete source water assessment can be reviewed on the State Water Resources Control Board (SWRCB) website at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/DWSAP.html. We remain committed to source water protection to ensure safe drinking water for our community.



Our Balboa 3 Tank site after a winter snowstorm.



Foggy spring morning along one of our well roads

Important Definitions and Abbreviations

Understanding the following terms will help you interpret the water quality data in this report:

- **Maximum Contaminant Level (MCL):** The highest level of a contaminant allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as feasible, and are enforceable health standards. Secondary MCLs (in the Aesthetic Standards) are set to protect odor, taste, and appearance of 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. EPA.
- **Public Health Goal (PHG):** A health-based goal set by CalEPA's Office of Environmental Health Hazard Assessment. It is the level of a contaminant below which there is no known or expected risk to health. PHGs are not enforceable, but they provide guidance for setting MCLs.
- **Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant (such as chlorine) allowed in drinking water. MRDLs ensure that disinfection is effective while limiting health risks from the disinfectant itself.
- **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 using disinfectants to control microbes.

- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in water. For example, filtration is a treatment technique for removing turbidity (cloudiness). (No treatment technique violations occurred in 2024.)
- **Action Level (AL):** A concentration of a contaminant which, if exceeded at the consumer's tap (90th percentile value), triggers treatment or other requirements that a water system must follow. (Action Levels apply to lead and copper sampling at household taps.)
- **ND:** "Non-Detect" – the contaminant was not detected above the detection limit for reporting (DLR).
- **N/A:** Not applicable or not required.
- **Units:** ppm = parts per million (or milligrams per liter, mg/L); ppb = parts per billion (or micrograms per liter, µg/L); pCi/L = picocuries per liter (a measure of radioactivity); NTU = Nephelometric Turbidity Units (cloudiness of water).

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.

Water Quality Data – 2024 Results

The tables below list all drinking water contaminants detected in 2024. We routinely test for dozens of regulated and unregulated contaminants throughout the year. Hundreds of contaminants that were tested for but not detected are not listed. (A complete list of all tests is available upon request.) The presence of contaminants in the water does not necessarily indicate that the water poses a health risk – for context, we include regulatory standards and health goals for each substance.

Unless otherwise noted, the data represent tests conducted from January 1 through December 31, 2024. Results for VOE’s groundwater wells and CLAWA’s surface water are reported separately where applicable. In the case of disinfection byproducts, the results represent our distribution system (which would reflect contributions from both sources).

Primary Standards – Regulated for Health Protection

Radiological Contaminants (tested in groundwater sources)

Contaminant (units)	MCL	PHG (MCLG)	VOE Groundwater Wells – Range (Avg)	CLAWA Treated Surface Water – Range (Avg)	Typical Sources
Gross Alpha Particle Activity * (pCi/L)	15	0 (NA)	ND – 22.5 (avg 3.5)	ND – ND (ND)	Erosion of natural deposits
Uranium ** (pCi/L)	20	0.43	ND – 18.0 (avg 2.1)	ND – ND (ND)	Erosion of natural deposits
Combined Radium 226/228 (pCi/L)	5	0.05	ND – 1.0 (ND)	Not detected	Erosion of natural deposits

Footnotes:

- *Gross Alpha: One well (“Rialto Vert”) had a single sample result above the 15 pCi/L MCL, but the running annual average remained below the MCL, so no violation occurred. Gross alpha activity is from naturally occurring radioactive minerals. Water from this well is always blended with other sources before entering the system, ensuring delivered water meets all regulatory requirements.*
- *Uranium: The same well showed uranium above the 20 pCi/L MCL in a 2024 sample. No violation occurred because the annual average was below the MCL (the high result was an outlier). Water from this well is always blended with other sources prior to distribution.*

Inorganic Chemicals (tested in groundwater and surface water sources)

Contaminant (units)	MCL	PHG	VOE Groundwater Wells – Range (Avg)	CLAWA Surface Water – Range (Avg)	Typical Sources
Arsenic (ppb)	10	0.004	ND – 3 (≈1)	ND – ND (ND)	Erosion of natural deposits; past orchard runoff
Nitrate (as Nitrogen, ppm)	10	10	ND – 5.8 (≈2.8)	0.0 – 0.62 (0.21)	Runoff from fertilizer use; leaching from septic tanks; natural erosion

Note: Nitrate in drinking water at levels above 10 ppm is a health risk for infants (can cause “blue baby” syndrome). All nitrate results in 2024 were well below the 10 ppm MCL.

(No other regulated inorganic contaminants were detected above their reporting limits in 2024. For example, fluoride was not added to our water and was only found at trace levels far below the MCL.)

Disinfectant Residual and Disinfection Byproducts (tested in distribution system)

Contaminant (units)	MCL (or MRDL)	PHG (or MRDLG)	VOE System Result (Range or Highest)	Typical Sources
Chlorine (as Cl ₂ , ppm) – disinfectant	MRDL 4.0	MRDLG 4	0.2 – 1.2 (avg 0.6)	Drinking water disinfectant added for treatment
Total Trihalomethanes (TTHM, ppb)	80 (LRAA)	N/A	10 – 60 (highest LRAA 35)	By-product of drinking water chlorination
Haloacetic Acids (HAA5, ppb)	60 (LRAA)	N/A	ND – 8 (highest LRAA 4)	By-product of drinking water disinfection

Notes: TTHM and HAA5 values are reported as Locational Running Annual Averages (LRAAs), per regulations. In 2024, all sites in our system were below the MCLs for TTHM and HAA5. The highest TTHM LRAA (35 ppb) was under half the MCL of 80 ppb. We continue to optimize our treatment and storage to minimize disinfection byproducts while ensuring effective disinfection.

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	Range of Results	AL PHG	Typical Source of Contaminant
Lead (ppb)	September 2023	10	5	0	ND – 5	15 0.2	Corrosion of household

Lead and Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	Range of Results	AL PHG	Typical Source of Contaminant
Copper (ppm)	September 2023	10	0.36	0	ND – 0.36	1.3 0.3	plumbing (older fixtures and solder); erosion of natural deposits Corrosion of household plumbing (pipes and faucets); erosion of natural deposits; leaching from wood preservatives

Lead and Copper Results: In the most recent monitoring (10 homes tested in September 2023), no homes exceeded the lead or copper action levels. The 90th percentile lead level was 5 ppb, well below the 15 ppb AL, and the 90th percentile copper level was 0.36 ppm, far below the 1.3 ppm AL. These results indicate that our corrosion control measures are effective and our water is not aggressively leaching metals from pipes. (Lead and copper are not present in the source water; any lead/copper in tap samples usually comes from customers' internal plumbing fixtures.)

Lead Service Line Inventory: In compliance with the 2022 Revised Lead and Copper Rule, VOE conducted a detailed inventory of all service lines in our distribution system. We verified that all 811 service connections in our system are served by lines made of copper, galvanized steel, or plastic – no lead service lines were found. If your home plumbing contains lead solder or older fixtures, you can further minimize any potential lead exposure by flushing your tap for 30 seconds to 2 minutes after water has been sitting stagnant, especially before using water for drinking or cooking.

Important Lead Information: Lead in drinking water is primarily from materials and components associated with home plumbing – e.g. older pipes, lead solder, and brass fixtures. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. When your water has been sitting for several hours, flushing your tap as described above can reduce the potential for lead exposure. If you are concerned about lead in your tap 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 EPA's Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Secondary (Aesthetic) Standards – (Non-health-related guidelines)

These contaminants affect water appearance, taste, or odor. They do not pose a health risk at the MCL levels and are regulated for aesthetic considerations.

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

Contaminant (units)	Secondary MCL	VOE Wells – Range (Avg)	CLAWA Water – Range (Avg)	Typical Sources
Chloride (ppm)	500	8 – 30 (15)	41 – 74 (57)	Runoff/leaching from natural deposits; seawater influence (not locally applicable)
Sulfate (ppm)	500	5 – 18 (10)	28 – 49 (41)	Runoff/leaching from natural deposits; industrial wastes (trace in region)
Total Dissolved Solids (ppm)	1,000	150 – 320 (210)	160 – 300 (227)	Runoff/leaching from natural deposits
Turbidity (NTU)	5	0.1 – 16 (2.3)	0.11 – 0.57 (0.16)	Soil runoff (naturally very low in ground water; filtration removes turbidity in surface water)
Iron (ppb)	300	ND – 100 (ND)	ND	Leaching from natural deposits; iron pipe corrosion (aesthetic staining)
Manganese (ppb)	50	ND – 20 (ND)	ND	Leaching from natural deposits (can cause discoloration)
Odor (threshold odor number)	3	1 -1 (1)	1 – 1 (1)	Naturally occurring organic materials

Turbidity Note: A single reading of 16 NTU occurred at Rialto Well #6 during startup after over a year of inactivity. No violation was issued, and water was not served to customers until turbidity returned to acceptable levels.

Notes: All aesthetic parameters in VOE water were within acceptable ranges in 2024. For example, our average hardness and mineral content result in water that is moderately hard but not excessively so. Occasional slight discoloration or sediment can occur if mineral sediment in pipes is disturbed; if you notice persistent issues, please contact us.

Table 6: Detection of Per- and Polyfluoroalkyl Substances (PFAS) in Groundwater – 2024

Contaminant (units)	NL (ppt)	RL (ppt)	VOE Groundwater Wells – Range (Avg)	CLAWA Surface Water – Range (Avg)	Typical Sources
PFOS (Perfluorooctanesulfonic acid)	6.5	40	ND – 7.1 (7.1)	ND	Discharges from industrial and manufacturing facilities; legacy use in firefighting foams

Notes: PFAS sampling was performed at 19 wells in 2024. Only the Balboa Well showed a detection. The result (7.1 ppt for PFOS) exceeded the Notification Level but remained well below the Response Level. The well was kept in service with ongoing monitoring and reported to the Division of Drinking Water.

Per- and Polyfluoroalkyl Substances (PFAS) are a group of man-made chemicals used in a wide range of consumer and industrial products, including non-stick cookware, stain-resistant fabrics, food packaging, and firefighting foams. These compounds are persistent in the environment and the human body. In 2024, Valley of Enchantment Mutual Water Company sampled 19 groundwater wells for PFAS. Only **Balboa Well** had a detection, where **PFOS was found at 7.1 parts per trillion (ppt) — above the Notification Level (6.5 ppt) but well below the Response Level (40 ppt)**. The well remains in service under enhanced monitoring. No PFAS were detected in any other wells or in the purchased surface water from CLAWA.

Health Effects Statement (required):

Some people who drink water containing PFAS in excess of the response level may experience liver effects; the increased risk of high cholesterol, thyroid disorders, and reduced immune response; and may be at increased risk of cancer. These chemicals can also impact fetal development during pregnancy and may affect the growth, learning, and behavior of infants and older children.

For more information, visit: www.waterboards.ca.gov/pfas

Other Water Quality Information

The following additional parameters are not regulated by enforceable standards but are provided for your information, as they affect water quality characteristics:

Parameter	VOE Wells – Range (Avg)	CLAWA Water – Range (Avg)	Notes
Hardness (as CaCO ₃ , mg/L)	60 – 120 (avg ~90)	75 – 100 (88)	Indicates mineral content; “moderately hard.” Hard water can cause minor scale buildup; use of water softeners is optional.
Sodium (mg/L)	20 – 60 (avg ~40)	42 – 61 (51)	Naturally occurring salt content in water. No drinking water limit, but can affect taste for sensitive individuals.
pH (standard units)	7.0 – 8.2 (avg ~7.6)	7.8 – 8.5 (8.1)	Measure of water acidity/basicity. Optimal range is 6.5 – 8.5. Our water is slightly alkaline, which helps reduce pipe corrosion.

Microbiological Water Quality

We monitor the distribution system for bacterial contamination every month. In 2024, all monthly tests for coliform bacteria were negative – no coliforms or E. coli were detected in any routine or repeat sample. We collected a total of 60 bacteriological samples (5 per month) from around the system, and 0 tested positive for coliform. No microbiological MCL violations occurred. This indicates our source protection, disinfection, and distribution system maintenance are effective at preventing bacterial contamination.

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

There were no violations of a MCL, MRDL, AL, TT, or monitoring and reporting requirement in 2024.

For Water Systems Providing Groundwater as a Source of Drinking Water

No fecal indicator-positive groundwater source samples were detected in 2024.

No uncorrected significant deficiencies or violations of a groundwater TT occurred in 2024.

For Systems Providing Surface Water as a Source of Drinking Water

Table 10: Sampling Results Showing Treatment of Surface Water Sources

| Treatment Technique (a) (Type of approved filtration technology used) | Conventional Treatment with multimedia pressure filters | | 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 0.3 NTU in 95% of measurements in a month.

2 – Not exceed 1.0 NTU for more than eight consecutive hours.

3 – Not exceed 5.0 NTU at any time. || Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1 | 100% || Highest single turbidity measurement during the year | 0.57 || 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

There were no violations of a surface water TT in 2024.

Summary Information for Operating Under a Variance or Exemption

VOE did not operate under a variance or exemption in 2024.

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

No Level 1 or Level 2 assessments were required in 2024.

Public Participation and Contact Information

Board Meetings: We encourage our customers to stay informed about our water company. VOE's Board of Directors meets at 4:00 PM on the 3rd Monday of each month at the company office (22999 Waters Drive, Crestline, CA 92325). Customers are welcome to attend. If you wish to present an issue or formally participate in a meeting, please submit a request or application at least two weeks in advance so it can be placed on the agenda. Meeting agendas are posted at the office and on our website prior to each meeting.

Water System Contact: For any questions about this report or your water service, please contact Valley of Enchantment MWC at (909) 338-2310 or visit our office at 22999 Waters Drive, Crestline. Our staff can provide additional information on water quality results, conservation tips, and how to get involved. You can also find more information on our official website (voewater.com).

This 2024 Water Quality Report will be posted on the VOE website and is available in print at our office for any customers who wish to obtain a hard copy. We thank you for taking the time to read this report. By understanding the quality of your drinking water and the efforts we take to ensure its safety, you become our partner in protecting our water resources.

