Yucaipa Valley Water District

2023

Annual Water Quality Report

Published June 2024

Nitrate Water Quality Update

On July 26, 2023, the Yucaipa Valley Water District received Citation No. 05-27-23C-009 from the State Water Resources Control Board, Division of Drinking Water, for nitrate-related violations in Well No. 12. The citation addressed an exceedance of nitrate levels detected in 2021.

Samples collected from Well No. 12 on April 12 and April 29, 2021, showed nitrate concentrations of 11 mg/L and 9.3 mg/L, respectively. Although the second sample was below the Maximum Contaminant Level (MCL) of 10 mg/L, the average of the two samples (10.15 mg/L) exceeded the MCL. It's worth noting that Well No. 12 contributed only about 2% of the district's drinking water supply in 2021.

In response to this situation, the Yucaipa Valley Water District took immediate action:

- Public notification was issued to inform residents about the nitrate issue.
- All groundwater wells with nitrate concentrations exceeding 80% of the MCL were disconnected from the water supply system.
- This operational change significantly reduced the weighted average nitrate concentration in the drinking water supply to less than 2.5 mg/L.

To ensure ongoing water quality, the District now conducts monthly laboratory tests for nitrates at all water supply sources. These proactive measures demonstrate YVWD's commitment to maintaining high-quality drinking water throughout its system and protecting public health.

2023 Annual Drinking Water Quality

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 (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the number of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

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 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).

The Yucaipa Valley Water District continuously works to provide new ways to ensure our residential and business customers have a reliable water supply at a reasonable price. We are firmly committed to maintaining high quality water for you, our customers.

This annual water quality report details the water quality of Yucaipa Valley Water District water. Information on bottled water's quality is rarely published, but you may be able to obtain it by contacting the producer. Yucaipa Valley Water District urges you to research and determine what is the best fit for you.

In 2023, the Yucaipa Valley Water District met all drinking water quality standards based on over 1,500 water samples collected throughout the calendar year and reported by independent laboratories to the Division of Drinking Water and USEPA. The Division of Drinking Water allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some data is more than one year old and is representative of long-term water quality. The following tables list all of the drinking water contaminants that were detected in 2020–2023.

In 2023, the Yucaipa Valley Water District met all drinking water quality standards based on over 1,500 water samples collected throughout the calendar year and reported by independent laboratories to the Division of Drinking and USEPA.

In this Annual Drinking Water Quality Report, we summarize the extensive certified third-party laboratory data and test results to inform our customers of the exceptionally high quality drinking water we provide. If you have any questions, or would like more information, please contact Mike Kostelecky, Operations Manager directly at (909) 790-9208, extension 2.

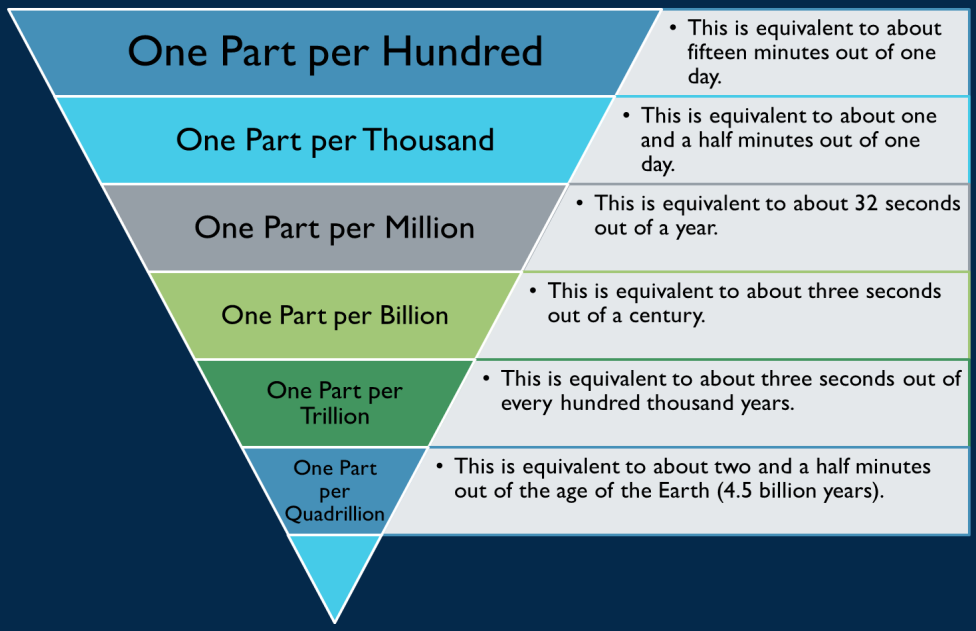
A source water assessment was completed by the San Bernardino Valley Conservation District and the Yucaipa Valley Water District in November 2002. A copy of the complete assessment may be viewed at the Yucaipa Valley Water District or the State Water Resource Control Board (SWRCB) Division of Drinking Water, San Bernardino District office, 464 West 4th Street, Suite 437, San Bernardino, California 92401. You may request a summary of the assessment by contacting the SWRCB District Engineer at (909) 383-4328.

As always, the public is invited and encouraged to participate at the workshops and board meetings. Regular board meetings are conducted on the first and third Tuesday of every month at 4:00 p.m. A complete schedule of all meetings and workshops is available on our website at www.yvwd.us.

The water quality data reported to the Yucaipa Valley Water District by independent laboratories use different units of measurement to quantify the amount of chemicals in our water supply. The units of measurement vary based on regulatory requirements and the sophisticated laboratory methods used to determine the chemistry of water samples.

To measure small levels of chemicals in water samples, laboratories use units of parts per million (ppm) or parts per billion (ppb). To better understand these units of measurement, consider that one part per million (ppm) is equal to 32 seconds in one year and one part per billion (ppb) is equal to three seconds in a century. Laboratory equipment is continuing to evolve that will soon make it possible to find chemicals in the part per quadrillion (ppq) range.

Using advanced laboratory methods and equipment, we are able to reliably find trace levels of chemicals in almost any sample of water. At the end of the water quality data tables, we provide a list of chemicals that were not found at levels above the detection limits of the advanced laboratory equipment used by independent laboratory testing facilities.



Drinking Water Standards for 2023

INORGANIC CONTAMINANTS								
Chemical	**MCL**	**PHG (MCLG)**	**Average Level Detected**	**Units of Measure**	**Range of Detection**	**Violation (Yes/No)**	**Sample Date**	**Likely Source of Contamination**
Arsenic	10	0.004	0.004	ppb	ND - 7.3	No	2023	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	1,000	2,000	0.003	ppb	ND - 100	No	2023	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Hexavalent Chromium (Cr+6)	N/A	0.02	1.6	ppb	ND - 7.5	No	2023	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Fluoride	2	1	0.2	ppm	ND - 0.8	No	2023	Erosion of natural deposits, discharge from fertilizer and aluminum factories
Nitrate	10	10	2.2	ppm	ND - 10	Yes See Page 2 for more information	2023	Runoff of leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Drinking Water Standards for 2023

DISINFECTION BYPRODUCTS, DISINFECTION RESIDUALS, AND DISINFECTION BYPRODUCT PRECURSORS								
Chemical	**MCL**	**PHG (MCLG)**	**Average Level Detected**	**Units of Measure**	**Range of Detection**	**Violation (Yes/No)**	**Sample Date**	**Likely Source of Contamination**
Total Trihalomethanes* (TTHM)	RAA = 80	N/A	38.8	ppb	ND - 93.9	No	2023	Byproduct of drinking water disinfection
Haloacetic Acids* (HAA5)	LRAA = 60	N/A	7.8	ppb	ND - 18.6	No	2023	Byproduct of drinking water disinfection
Chlorine	MRDL= 4.0 mg/L	MRDL= 4.0 mg/L	1	ppm	0.20 - 2.11	No	2023	Drinking water disinfectant
Dibromochloromethane	N/A	0.1	14.1	ppb	ND - 38.1	No	2023	Byproduct of drinking water disinfection
Bromodichloromethane	N/A	0.06	10.9	ppb	ND - 29.3	No	2023	Byproduct of drinking water disinfection
Chloroform	N/A	0.4	7.7	ppb	ND - 24.3	No	2023	Byproduct of drinking water disinfection
Bromoform	N/A	0.5	6.1	ppb	ND - 28.8	No	2023	Byproduct of drinking water disinfection
Dibromoacetic Acid	N/A	N/A	3.4	ppb	ND - 12.5	No	2023	Byproduct of drinking water disinfection
Dichloroacetic Acid	N/A	N/A	2.7	ppb	ND - 7.3	No	2023	Byproduct of drinking water disinfection
Trichloroacetic Acid	N/A	N/A	1.6	ppb	ND - 4.8	No	2023	Byproduct of drinking water disinfection
Total Organic Carbon	N/A	N/A	0.56	ppm	ND - 2.3	No	2023	Various natural and manmade sources

* TTHM and HAA5 are sampled quarterly and results are calculated based on a locational running annual average per State Water Resources Control Board.

Revised Total Coliform Rule

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements . These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

Drinking Water Standards for 2023

RADIOACTIVE CONTAMINANTS

Chemical	MCL	PHG (MCLG)	Average Level Detected	Units of Measure	Range of Detection	Violation (Yes/No)	Sample Date	Likely Source of Contamination
Gross Alpha Particle Activity (when Gros Alpha particle activity exceeds 5.0 pCi/L, then analyze for Uranium	15	N/A	0.3	pCi/l	ND - 3.6	No	2023	Decay of natural and man made deposits
Uranium‡	20	N/A	1.5	pCi/l	ND - 2.9	No	2023	Decay of natural and man made deposits

‡If Uranium exceeds 20 pCi/L, then monitor for four quarters. If the average of four quarters is <20 pCi/l, then you are in uranium compliance, but must calculate gross alpha minus uranium Counting Error (CE) pCi/L. If the result is less than 15 pCi/L, then you are in Gross Alpha MCL compliance

MICROBIOLOGICAL CONTAMINANTS

Chemical	MCL	PHG (MCLG)	Average Level Detected	Units of Measure	Range of Detection	Violation (Yes/No)	Sample Date	Likely Source of Contamination
Total Coliform Bacteria (Total Coliform Rule)	<5% Positive Samples per Month	0	0	Present (P) or Absent (A)	ND	No	2023	Naturally present in the environment
Fecal Coliform and E. Coli	See Note Below	0	0	Present (P) or Absent (A)	ND	No	2023	Human / animal waste

The MCL for fecal coliform and E. coli involves a routine sample and a repeat sample detecting total coliform and either sample also detects fecal coliform or E. coli.

VOLATILE AND SEMI-VOLATILE CONTAMINANTS

Chemical	MCL	PHG (MCLG)	Average Level Detected	Units of Measure	Range of Detection	Violation (Yes/No)	Sample Date	Likely Source of Contamination
1,1 Dichloroethylene	6	100	0.004	ppb	ND - 0.51	No	2023	Discharge from industrial chemical factories

THE CONTAMINANTS BELOW WERE SAMPLED BUT NOT DETECTED

1, 2, 4- Trichlorobenzene; 1,1- Dichloroethane (1,1-DCA); 1,1,1-Trichloroethane (1,1,1-TCA); 1,1,2 Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,1,2-Trichloro-1,2,2- trifluoroethane; 1,1-Dichloroethylene (1,1-DCE); 1,2- Dichlorobenzene (o-DCB); 1,2,3, Trichloropropane; 1,2,4-Trichlorobenzene; 1,2-Dichloropropane; 1,4-Dichlorobenzene (p-DCB); 2,4,5-TP, 2,4-D; Bentazon; Acrylamide; Alachlor; Aluminum; Antimony; Asbestos; Atrazine; Benzene; Benzo(a)pyrene; Beryllium; Bromate; Cadmium; Carb Benzene; Carbofuran; Carbon Tetrachloride; Chloramines; Chlordane; Chlorine Dioxide; Chlorite; cis-1,2-Dichloroethylene (c-1,2-DCE); cis-1,3-Dichloropropene; Combined Radium, Cyanide; Dalapon; Di (2-ethylhexyl) Adipate; Di(2-ethylhexyl) Phthalate; Dibromochloropropane; Dichloromethane (Methylene Chloride); Dinoseb; Dioxin; Diquat; Endothall; Endrin; Epichlorohydrin; Ethyl Benzene; Ethylene Dibromide; Glyphosate; Gross Beta Particle Activity; Heptachlor Epoxide; Heptachlor; Hexachlorobenzene; Hexachlorocyclopentadiene; Hydroxide; Lindane; m,p-Xylene; MBAS, Mercury; Methoxychlor; Methoxychlor; Methyl tert-Butyl Ether; Molinate; Monochlorobenzene (Chlorobenzene); Nickel, Nitrite; Oxamyl; o-Xylene; PCBs; Pentachlorophenol; Perchlorate; PFAS; PFOS; Picloram; Polychlorinated Biphenyl; Selenium; Silver; Simazine; Strontium-90; Styrene; Tetrachloroethylene; Thallium; Thiobencarb; Toluene; Total 1,3-Dichloropropene; Total Chromium; Total Xylenes (m,p & o); Toxaphene; trans-1,2- Dichloroethylene (t-1,2-DCE); trans-1,3-Dichloropropene; Trichloroethylene (TCE); Trichlorofluormethane; Trichlorofluoromethane (FREON11) ; Tritium; Vinyl Chloride

Drinking Water Standards for 2023

COPPER AND LEAD									
Chemical	**Action Level**	**Sites Above Action Level**	**PHG (MCLG)**	**Units of Measure**	**Number of Samples Taken**	**90th Percentile**	**Sample Date**	**Violation (Yes/No)**	**Likely Source of Contamination**
Copper	1,300	0	300	ppb	60	140	2023	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits; leaching from wood preservatives
Lead	15	0	0.2	ppb	60 Plus 10 schools tested	ND	2023	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

SECONDARY CONTAMINANTS								
Chemical	**MCL**	**DLR**	**Average Level Detected**	**Units of Measure**	**Range of Detection**	**Violation (Yes/No)**	**Sample Date**	**Likely Source of Contamination**
Chloride	500	1	40.2	ppm	6.2 - 52	No	2023	Runoff/leaching from natural deposits
Color	15	3	0.2	units	ND - 7.5	No	2023	Naturally-occurring organic materials
Iron	300	100	6.8	ppb	ND - 1,350	No	2023	Leaching from natural deposits; industrial wastes
Sulfate	500	0.5	39.3	ppm	8.8 - 70	No	2023	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	1,000	5	235	ppm	190 - 390	No	2023	Runoff/leaching from natural deposits
Turbidity	5	0.1	1.1	NTU	ND - 3.7	No	2023	Soil runoff
Odor	3	1	1	TON	1	No	2023	Naturally-occurring organic materials
Specific Conductance	1,600	2	432	µS/cm	330 - 640	No	2023	Substances that form ions when in water; seawater influence
Manganese	50	20	0.001	ppb	ND - 52	No	2023	Leaching from natural deposits

Drinking Water Standards for 2023

UNREGULATED GENERAL MINERAL ANALYSIS							
Chemical	**Recommended Limit**	**Average Level Detected**	**Units of Measure**	**Range of Detection**	**Violation (Yes/No)**	**Sample Date**	**Likely Source of Contamination**
Calcium	200	41.9	ppm	29 - 75	No	2023	Runoff/leaching from natural deposits
Sodium	200	35.6	ppm	13 - 44	No	2023	Runoff/leaching from natural deposits
Potassium	100	2.6	ppm	ND - 3.3	No	2023	Runoff/leaching from natural deposits
Magnesium	N/A	10.3	ppm	4.9 - 22	No	2023	Runoff/leaching from natural deposits
Alkalinity	500	115.6	ppm	72 - 240	No	2023	Runoff/leaching from natural deposits
Total Hardness	N/A	140.1	ppm	99 - 270	No	2023	Runoff/leaching from natural deposits
Boron	1,000	78.7	ppb	ND - 160	No	2023	Erosion of natural deposits
Vanadium	15	6.4	ppb	ND - 28	No	2023	Erosion of natural deposits
pH	6.5 - 8.5	7.9	pH Units	7.3 - 8.2	No	2023	Physical property
Bicarbonate	1,000	98	ppm	88 - 290	No	2023	Runoff/leaching from natural deposits

Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

SURFACE WATER TURBIDITY		
Clarity	**Oak Glen Surface Water Filtration Facility (Multi-Stage Media Filter)**	**Yucaipa Valley Regional Water Filtration Facility (Microfiltration and Nanofiltration)**
Percentage of Total Drinking Water Supply Treated at Each Water Purification Facility 6	0.00%	49.19%
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	Not Applicable	100%
Highest single turbidity measurement during the year	Not Applicable	0.038
Number of violations of any surface water treatment requirements.	Zero	Zero

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and to monitor the effectiveness of our filtration system. High turbidity can hinder the effectiveness of disinfectants.

Drinking Water Standards for 2023

UNREGULATED CONTAMINANT MONITORING								
Chemical	**MCL**	**PHG (MCLG)**	**Average Level Detected**	**Units of Measure**	**Range of Detection**	**Violation (Yes/No)**	**Sample Date**	**Likely Source of Contamination**
Perfluorobutanesulfonic Acid (PFBS)	N/A	N/A	0.0001	ppt	ND - 8.9	No	2023	Industrial chemical factory discharges; runoff or leaching from landfills; used in fire-retardant foams and various industrial processes
Perfluorohexanoic Acid (PFHxA)	N/A	N/A	0.0001	ppt	ND - 7.1	No	2023	Industrial chemical factory discharges; runoff or leaching from landfills; used in fire-retardant foams and various
Perfluorooctanoic Acid (PFOA)	4	0.007	0.0001	ppt	ND - 4.2	No	2023	Industrial chemical factory discharges; runoff or leaching from landfills; used in fire-retardant foams and various industrial processes
Perfluoropentanoic Acid (PFPeA)	N/A	N/A	0.41	ppt	ND - 8.9	No	2023	Industrial chemical factory discharges; runoff or leaching from landfills; used in fire-retardant foams and various

Notes and Additional Information

Disinfection By-Product Notes:

* TTHM and HAA5 are sampled quarterly, and results are calculated based on a locational running annual average per State Water Resources Control Board.

Radioactive Notes:

‡ If Uranium exceeds 20 pCi/L, then monitor for four quarters. If the average of four quarters is <20, then you are in uranium compliance, but must calculate gross alpha minus uranium Counting Error (CE) pCi/L. If the result is less than 15 pCi/L, then you are in Gross Alpha MCL compliance.

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1. **About Arsenic** - While your drinking water meets the 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.
2. **About Trihalomethanes** - Compliance with the MCL for Total Trihalomethanes and Haloacetic Acids is based on an annual running average of four quarterly samples for each site. Results presented are for 2021 only. Both quarterly and annual running averages are below the MCLs.
3. **About Nitrate** - Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.
4. **About Uranium** - The District has some sources of drinking water that contain small amounts of Uranium. These levels are well below the MCL. Some people who drink water containing levels of radium and uranium in excess of the MCL over many years have an increased risk of getting cancer.
5. **Water Source Percentages** - The Yucaipa Valley Water District obtained 50.8% of our drinking water from local groundwater sources and 49.2% from imported surface water sources. The percentages illustrated in the pie chart on the following page are different from the percentages above due to the addition of recycled water as part of the District's total annual water resource portfolio.
6. **Lead and Copper** - 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. Yucaipa Valley Water 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 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 USEPA Safe Drinking Water Hotline (1-800-426-4791).
7. **About Coliform** - 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 assessments to identify problems and to correct any problems that were found during these assessments.

Terms Used In This Report

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 US Environmental Protection Agency.

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 Contaminant Level (MCL) The highest level of a contaminant or chemical 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 Residual Disinfectant Level (MRDL) The level of a disinfectant added for water treatment that may not be exceeded at a consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG) The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the US Environmental Protection Agency.

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 MCLs.

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

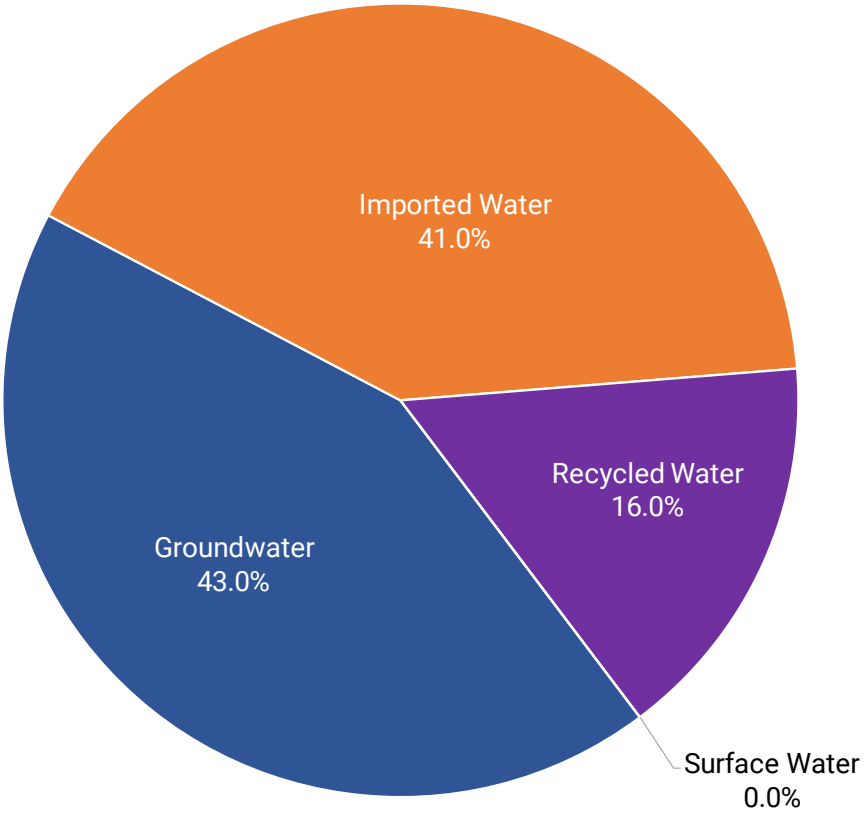
Regulatory Action Level (AL) The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Non-Detected (ND) A constituent that is not detected at a testing limit.

Units of Measurement

mg/L (ppm)	milligrams per liter, or parts per million
µg/L (ppb)	micrograms per liter, or parts per billion
ng/L (ppt)	nanograms per liter, or parts per trillion
pCi/L	picocuries per liter, a measure of radiation
NTU	Nephelometric Turbidity Units, a measure of the cloudiness of a liquid

2023 Water Resource Portfolio



Recycled Water Use in the Yucaipa Valley

The use of recycled water makes our community unique. Other parts of the arid southwestern United States usually implement 15 percent water conservation goals during periods of drought. The recycled water program implemented by the District offsets over 15 percent of our total water demand each and every year. By using recycled water to irrigate our parks and schools, our community is able to maintain a healthy quality of life with access to these outdoor amenities during droughts and not having to limit water usage for outdoor sports and activity venues.

Dual-plumbed homes enable YVWD to save even more water than ever before

While most of YVWD's recycled water is used to irrigate schools, parks and golf courses, a portion of the recycled water is used for newly constructed homes which have two water meters - one for drinking water and a second meter for recycled water to provide landscape irrigation.

The Yucaipa Valley Water District is one of the few water providers that has implemented the concept of dual-plumbed homes where new homes use recycled water for front yard and back yard irrigation. This reduces the demand for drinking water by 75 to 80 percent per house. As a result, every four to five new homes that are constructed as dual-plumbed homes consume as much as a single typical home.

Recycled Water Quality

Chemical	Units of Measure	Average Level Detected
Alkalinity	ppm	100
Aluminum	ppb	ND
Ammonia	ppm	0.24
Barium	ppb	ND
Benzene	ppb	ND
Bicarbonate	ppm	130
Biochemical Oxygen Demand	ppm	2.5
Boron	ppb	230
Bromoform	ppb	ND
Cadmium	ppb	0.07
Calcium	ppm	20
Carbonate	ppm	ND
Cobalt	ppb	ND
Copper	ppb	1.6
Fluoride	ppm	0.22
Iron	ppm	12
Magnesium	ppb	5.1
Manganese	ppb	9
Nitrate-N	ppm	2.6
Nitrite	ppm	0.01
Sodium	ppm	60
Total Dissolved Solids	ppm	254
Total Inorganic Nitrogen	ppm	3.9
Total Organic Carbon (TOC)	ppm	3.1
Zinc	ppb	15

Recycled Water Quality

The use of recycled water is prevalent throughout the service area of the Yucaipa Valley Water District. As we continue to expand the use of recycled water, we often receive inquires about the quality of the recycled water from customers interested to better understand how the recycled water quality meets the needs of their crops and other vegetation.

The Yucaipa Valley Water District is one of a few wastewater treatment agencies that relies on reverse osmosis membranes to treat our recycled water. This treatment process produces exceptionally pure recycled water that is very similar to the quality of drinking water. Just like our drinking water quality, there are numerous chemicals that are not detected in the recycled water supply. The table below provides information that is typically used by landscape professionals to better plan for the use of recycled water.