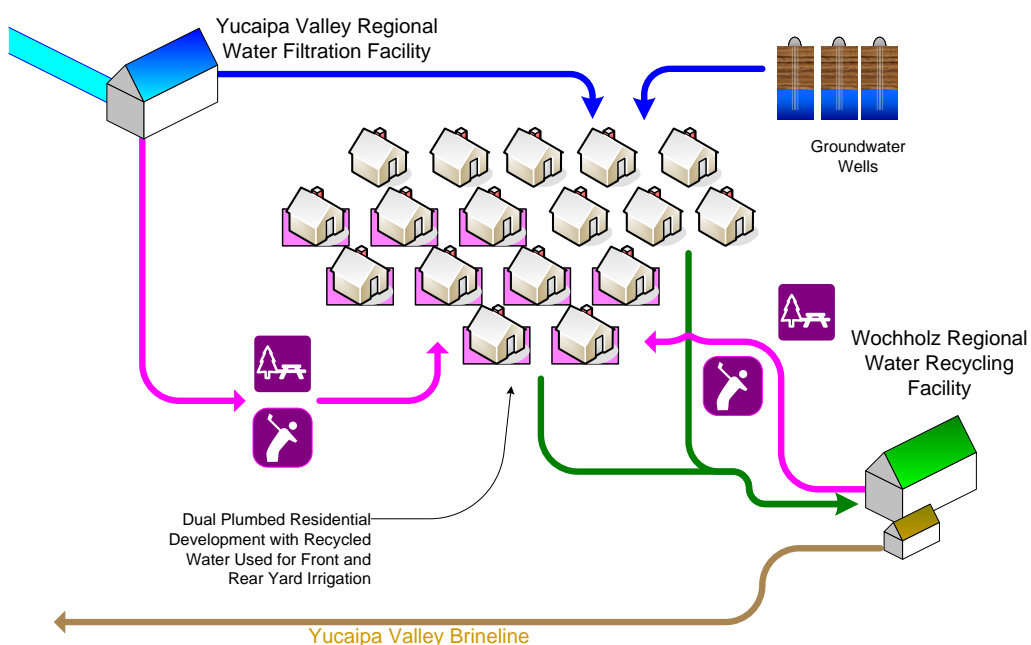


Water Management Strategy Provides a Foundation for a Long-Term Sustainable Water Supply

Over the past several years, the Yucaipa Valley Water District has taken a series of proactive steps to preserve and protect our water resources. The illustration to the right shows a simple overview of how the District is able to integrate infrastructure for our key services: the drinking water system (blue); the sewer system (green); the recycled water system (purple); and the salt removal system (brown).



By carefully managing our water resources, the Yucaipa Valley Water District has been able to store billions of gallons of high quality water in our local groundwater basin.

This additional water supply is used to protect our community from water shortages and long-term droughts.

Learn More About Our Water Resources



The Yucaipa Valley Water District operates technologically advanced water and sewer treatment systems. These facilities rely on state-of-the-art processes and a series of physical barriers to ensure the quality of water delivered to your home and business is safe and pure.

We would like the opportunity to share our state-of-the-art drinking water purification facility and sewer treatment facilities with our customers, schools, and organizations.

If you are interested in joining us for a tour, please contact Jennifer Ares, Water Resource Manager at (909) 790-3301 for more information.

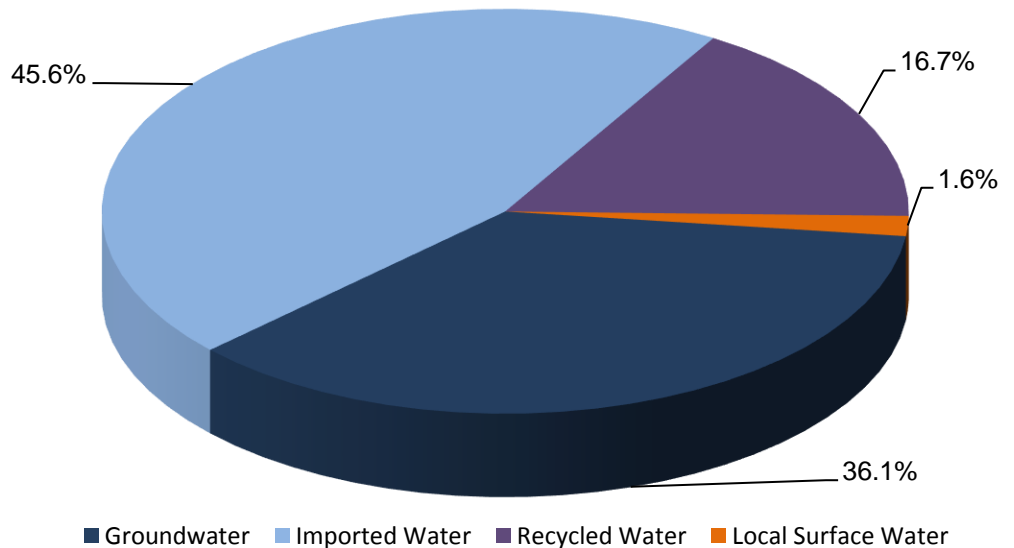
A Diversified Water Resource Portfolio

Yucaipa Valley Water District continues to develop a robust portfolio of water resources.

In the early 2000's, ninety-five percent (95%) of the District's water supply was from groundwater sources and the remaining five percent (5%) was from local surface water sources.

Infrastructure investments by the community have improved the flexibility and redundancy of the water system. The District carefully manages our local groundwater water supplies with

imported water from water sources outside of the District. By balancing different water supply sources, the water supply for our community is more sustainable and reliable to droughts and shortages.



While increasing our reliance on imported water sources, the Yucaipa Valley Water District is also maximizing the use of recycled water throughout the community for irrigation of parks, schools and golf courses. Additionally, the Wochholz Regional Water Recycling Facility is capable of producing high quality recycled water for the irrigation of schools, parks and golf courses. This source of recycled water will become available in the near future to further drought-proof our community.

In the future, the District will be adding two water meters to every new home on large lots. One water meter will be used for drinking water in the home, and a second recycled water meter connected to a separate pipeline system that provides recycled water for the irrigation of front and rear yards. The implementation of this plan is expected to reduce the amount of drinking water demands for new homes by over 50%.

Did you know...

As water becomes an increasingly precious commodity, the Yucaipa Valley Water District is stepping up its recycling efforts by adding resources from the sewer treatment plant to increase our supply of recycled water. Our community benefits from the high quality and reliable recycled water supplies produced from both the Yucaipa Valley Regional Water Filtration Facility and the Wochholz Regional Water Recycling Facility.

In 2016, the District sold over 690 million gallons of recycled water, setting a new record over previous years. Our top six recycled water customers include:

- Yucaipa Valley Golf Club
- City of Yucaipa - Community Park on Oak Glen Road
- Yucaipa Calimesa Joint Unified School District - Mesa View Middle School
- City of Yucaipa - 7th Street Park
- City of Yucaipa - 13th Street Sports Complex
- Yucaipa Calimesa Joint Unified School District - Competitive Edge Charter Academy

The success of the District's recycled water system would not be possible without the cooperation and assistance of our recycled water customers. Keep an eye out for more purple signage and fire hydrants throughout the community as we continue to expand the use of recycled water.

2016 Drinking Water Quality

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.

The sources of drinking water, both bottled water and tap water, generally originates from rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land and 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 untreated water supplies may include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which 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, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

The U.S. Environmental Protection Agency (US EPA) and the State Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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 drinking water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the US EPA's Safe Drinking Water Hotline (1-800-426-4791).

Additional source water assessments conducted by the District and the Department found that the Yucaipa Valley Water District is well managed, maintained and operated.

In this report, we summarize the extensive certified third-party laboratory data and test results in a simple manner 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 Kostecky, Operations Manager directly at (909) 790-9208, extension 2.

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 6:00 p.m. A complete schedule of all meetings and workshops is available on our website at www.yvwd.dst.ca.us.



Terms Used in this Report

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 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 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: 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 milligrams per liter, or parts per million
- ug/l micrograms per liter, or parts per billion
- ng/l 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

Drinking Water Quality Data for 2016

In 2016, the Yucaipa Valley Water District met all drinking water quality standards collected throughout the calendar year based on water samples and reported by independent laboratories to the Department of Drinking Water and EPA. The Department 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 provided below is more than one-year-old and is representative of long-term water quality. The following tables list all the drinking water contaminants that were detected in 2016.

Este informe contiene información muy importante sobre su agua potable.
Tradúzcalo ó hable con alguien que lo entienda bien.

Sampling Results Showing the Detection of Coliform Bacteria					
Microbiological Constituents	Highest Number of Detections	Number of Months in Violation	Highest Level Allowed (MCL)	Ideal Public Health Goal PHG (MCLG)	Typical Sources of Bacteria
Total Coliform Bacteria	In a month: 2 of 2.9% of total samples collected annually	0.00%	No more than 5% of monthly samples are positive	0	Naturally present in the environment and is used as an indicator that other potentially harmful bacteria may be present
Fecal Coliform	In a year: 0	0	A routine sample and a repeat sample detect total Coliform and either sample also detects fecal Coliform or E. coli	0	Human and animal fecal waste

Sampling Results Showing the Detection of Contaminants with a Primary Drinking Water Standard

Chemical or Constituent	Average Level Detected	Range of Detections	Highest Level Allowed (MCL or MRDL)	Ideal Public Health Goal (MCLG or MRDLG)	Typical Sources of Contamination
1,1 Dichloroethylene (DCE)	0.022 µg/L	ND - 1.0 µg/l	6.0 µg/l	10 µg/l	Discharge from industrial chemical factories
Alpha Activity, Gross	8.2 pCi/l	ND - 12 pCi/l	15 pCi/l	N/A	Erosion of natural deposits. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Aluminum ¹	ND	ND	1 mg/L	0.6 mg/L	Erosion of natural deposits; residual from some surface water treatment processes
Arsenic ²	2.14 µg/L	ND - 11 µg/l	10 µg/L	0.004 µg/L	Erosion of natural deposits; runoff from orchards, glass and electronics production waste
Chlorine residual (as Cl₂) RAA	1.19 mg/l	0.99 - 1.68 mg/l	4 mg/l	4 mg/L	A running annual average of drinking water disinfectant added for treatment
Chromium, Total ²	ND	ND	50 µg/L	100 µg/L	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride	0.23 mg/l	ND - 0.92 mg/l	2.0 mg/l	1 mg/L	Erosion of natural deposits, discharge from fertilizer and aluminum factories
Haloacetic Acids (HAA5) ³	7.3 µg/L	0 – 17.8 µg/L	60 µg/L	N/A	By-product of drinking water chlorination
Hexavalent Chromium (Cr⁺⁶) ²	1.19 µg/l	ND – 6.2 µg/l	10 µg/l	0.02 µg/l	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Nitrate (as N) ⁴	5.06 mg/l	ND – 34 mg/l	10 mg/l	10 mg/l	Runoff from fertilizer use, leaching from septic tanks and sewage; erosion of natural deposits
Radium 228 ⁵	0.08 pCi/l	0 - 0.40 pCi/l	5 pCi/l	0.019 pCi/L	Erosion of natural deposits
Selenium	ND	ND	50 µg/L	30 µg/L	Erosion of natural deposits; runoff from livestock lots (feed additive)
Total Trihalomethanes (TTHM) ³	39 µg/L	3.5 – 97.5 µg/L	80 µg/L	N/A	By-product of drinking water chlorination
Uranium ⁵	2.16 pCi/l	ND - 3.9 pCi/l	20 pCi/l	0.43 pCi/L	Erosion of natural deposits

**Sampling Results Showing the Detection of Contaminants
with a Secondary Drinking Water Standard**

Chemical or Constituent	Average Level Detected	Range of Detections	Consumer Acceptance Contaminant Levels	Ideal Goal Public Health Goal (MCLG or MRDLG)	Typical Sources of Contamination
Chloride	40.6 mg/l	7.7 - 71 mg/l	500 mg/l	None	Stormwater runoff, leaching from natural deposits
Color	5.5 Units	ND - 10 Units	15 Units	None	Naturally-occurring organic materials
Iron	ND	ND	300 ug/l	None	Leaching from natural deposits; industrial wastes
Manganese	14.2 µg/L	ND - 26 µg/L	50 µg/l	None	Leaching from natural deposits
Sulfate	25 mg/l	16 - 56 mg/l	500 mg/l	None	Stormwater runoff, leaching from natural deposits
Total Dissolved Solids	243 mg/l	120 - 550 mg/l	1,000 mg/l	None	Stormwater runoff, leaching from natural deposits
Total Hardness	121 mg/l	74 - 390 mg/l	No Standard	None	A typical indicator of the mineral content in the water supply
Turbidity	0.71 NTU	ND – 1.3 NTU	5.0 NTU	N/A	Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system and our distribution system

Sampling Results Showing the Detection of Lead and Copper

Lead and Copper	Number of Samples Collected	90th Percentile Level Detected	Number of Sites Exceeding Action Level (AL)	Regulatory Action Level / Public Health Goal	Typical Sources of Contaminant
Lead (µg/l)	28	<5 µg/L	0	15 µg/L / 0 µg/L	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (mg/l)	28	0.16 µg/L	0	1.3 µg/L / 0.30 µg/L	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

Sampling Results for Certain Inorganic Minerals

Chemical or Constituent	Flow-Weighted Average Level Detected	Range of Detections	Consumer Acceptance Contaminant Levels	Ideal Goal Public Health Goal (MCLG or MRDLG)	Typical Sources of Contamination
Calcium	31.8 mg/l	15 - 96 mg/l	No Standard	None	Naturally-occurring mineral in ground and surface water
Magnesium	10.1 mg/l	4.5 - 37 mg/l	No Standard	None	Naturally-occurring mineral in ground and surface water
Potassium	2.2 mg/l	0.0 - 5.9 mg/l	No Standard	None	Naturally-occurring mineral in ground and surface water
Sodium	35.5 mg/l	13 - 45 mg/l	No Standard	None	Naturally-occurring mineral in ground and surface water

	Oak Glen Surface Water Filtration Facility (Multi-Stage Garnet Media Filter)	Yucaipa Valley Regional Water Filtration Facility (Microfiltration)
Percentage of Total Drinking Water Supply Treated at Each Water Purification Facility ⁶	1.97%	54.69%
Turbidity Performance Standards (that must be met through the water treatment process)	Turbidity of filtered water must: <ul style="list-style-type: none"> • Be ≤ 0.3 NTU in 95% of measurements in a month • Not exceed 1 NTU for more than eight consecutive hours • Not exceed 1 NTU at any time 	Turbidity of filtered water must: <ul style="list-style-type: none"> • Be ≤ 0.1 NTU in 95% of measurements in a month • Not exceed 1 NTU for more than eight consecutive hours • Not exceed 1 NTU at any time
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%	100%
Highest single turbidity measurement during the year	0.13 NTU	0.031 NTU
Number of violations of any surface water treatment requirements.	Zero	Zero

Notes and Additional Information

- 1. About Aluminum.** A secondary MCL for aluminum is 200 µg/l. This standard is based on aesthetics.
- 2. About Arsenic and Chromium.** While your drinking water meets the current standard for arsenic and chromium, a small portion of our water does contain low levels. The standard balances the current understanding of arsenic's and chromium's possible health effects against the costs of removing them from drinking water. USEPA continues to research the health effects of low levels of arsenic, which is linked to cancer in humans at high concentrations as well as other health effects such as skin damage and circulatory problems; total chromium which is suspected of causing allergic dermatitis after many years of exposure; and hexavalent chromium which is also linked to cancer. The Environmental Protection Agency has adopted a revised MCL of 10 µg/L for arsenic and hexavalent chromium (10 ppb) and 50 µg/L for total chromium. The Ideal Public Health Goal for hexavalent chromium has been adopted at 0.02 µg/L; the PHG for total chromium was withdrawn and an MCLG of 100 µg/L has been adopted.
- 3. 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 2015 only. Both quarterly and annual running averages are below the MCLs and include the highest running annual average and the range of individual samples.
- 4. About Nitrate.** The District did not serve drinking water above 10 mg/l which has shown to be 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 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.
- 5. About Radium and Uranium.** The MCL listed is for Radium-226 plus Radium-228 combined concentration. PHG is for radium-228 only. The District has some sources of drinking water that contain small amounts of Radium 228 and 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.
- 6. Water Source Percentages.** The Yucaipa Valley Water District obtained 1.6% of our drinking water from local surface water sources and 45.6% of our drinking water from the State Water Project. The percentages illustrated on the second page of this report are different then the percentages shown above due to the addition of recycled water as part of the District's total water resource portfolio.
- 7. Lead and Copper:** 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 US EPA Safe Drinking Water Hotline at (800) 426-4791. 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 for on-site 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.

8. **Lead and Copper Monitoring Violation:** On February 27, 2017, the Yucaipa Valley Water District was issued Citation No. 05-13-17C-006 for collecting 28 lead and copper samples instead of the minimum 30 lead and copper samples required in Section 64675(b) of Title 22, CCR. The samples collected all had lead and copper levels less than the Regulatory Action Level and Public Health Goal as described in the data table above. This summer we will be collecting samples from additional sampling sites to ensure a minimum of 30 sample results will be collected. Additionally, the Yucaipa Valley Water District has coordinated a lead sampling program with the Yucaipa Calimesa Joint Unified School District to sample drinking water fountains at schools served by the Yucaipa Valley Water District. If you have any questions regarding this violation, please contact Mike Kostelecky at (909) 790-9208 x2.
9. **Groundwater Rule Notice of Violation:** On May 25, 2016, the Yucaipa Valley Water District recorded a positive coliform sample at a site on Mustard Seed Drive. The following day, the Yucaipa Valley Water District collected additional water quality samples at the original sample site, a sample site upstream, and a sample site downstream of the original positive location. All three samples were absent for total and E.coli coliform. In 2011, the Yucaipa Valley Water District acknowledged that each of the 20 groundwater wells will be sampled for Coliform when only one coliform-positive result is observed. The Yucaipa Valley Water District has submitted an updated sampling plan that will require additional samples are collected from those groundwater that are representative of the drinking water samples collected.

Tours of the Wochholz Regional Water Recycling Facility

In order to meet water quality requirements established by the Regional Water Quality Control Board, the Yucaipa Valley Water District operates an impressive state-of-the-art recycled water facility that produces exceptionally pure recycled water. The water purification system used for the final treatment steps at the sewer treatment plant is nearly identical to the microfiltration membranes and nanofiltration membranes used at the drinking water facility.

The District staff always enjoys an opportunity to share the important infrastructure entrusted to us with members of the community. If you would like a tour of this facility, please contact the District office at (909) 797-5117.

