Yucaipa Valley Water District

2020

Annual Water Quality Report

No "Forever Chemicals" Detected in Our Drinking Water

As part of our regular water quality monitoring program, the District tests for PFAS, the so-called "forever chemicals" that have contaminated some water supplies around the country.

Per- and polyfluoroalkyl substances (PFAS) are a large group of human-made substances that have been used extensively in surface coating and protectant formulations and are resistant to heat, water, and oil.

No PFAS have been detected in the District's drinking water.

2020 Drinking Water Quality

All our drinking water comes from similar sources, either from sources we can see, such as rivers, lakes, and aqueducts, or from sources we can't see, such as underground aquifers. Whether water travels through a pipe to your home or comes packaged in a bottle, its safety and quality are of paramount importance.

Water sources are highly regulated by government agencies, which set limits on the allowable amounts of certain contaminants. The U.S. Environmental Protection Agency (EPA) and the California State Water Resources Control Board, Division of Drinking Water set standards for public water suppliers such as Yucaipa Valley Water District. In contrast, standards for bottled water are set by the U.S. Food and Drug Administration (FDA).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. As water travels over the surface of the land and through the ground, it dissolves naturally-occurring minerals and can pick up substances that occur as a result 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 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 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 presence of contaminants does not necessarily indicate that the drinking water poses a health risk. However, some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk to infections.

These people should seek advice about drinking water from their health care providers. USEPA/ 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 at (800) 426-4791 or www.epa.gov/safewater.

This 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 2020, 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 2015–2020.

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

Drinking Water Standards for 2020

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	2.2	ppb	ND - 7.4	No	2020	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium	1	2	0.5	ppm	ND - 110	No	2020	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Hexavalent Chromium (Cr+6)	50	0.02	1.1	ppb	ND - 7.5	No	2020	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Fluoride	2	1	0.24	ppm	ND - 0.7	No	2020	Erosion of natural deposits, discharge from fertilizer and aluminum factories
Nickel	100	12	1.2	ppb	ND - 19	No	2020	Erosion of natural deposits; discharge from metal factories
Nitrate	10	10	2.2	ppm	ND - 10	No	2020	Runoff of leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

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)	80	N/A	47.5	ppb	24.4 - 71.2	No	2020	Byproduct of drinking water disinfection
Haloacetic Acids* (HAA5)	60	N/A	8.8	ppb	ND - 12.4	No	2020	Byproduct of drinking water disinfection
Chlorine	MRDL= 4.0 mg/L	MRDL= 4.0 mg/L	1.11	ppm	ND - 2.11	No	2020	Drinking water disinfectant
Dibromohloromethane	N/A	0.1	0.1	ppb	ND - 2.1	No	2020	Byproduct of drinking water disinfection
Bromodichloromethane	N/A	0.06	0.1	ppb	ND - 2.5	No	2020	Byproduct of drinking water disinfection
Chloroform	N/A	0.4	0.2	ppb	ND - 4.5	No	2020	Byproduct of drinking water disinfection

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

Drinking Water Standards for 2020

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	0.2	pCi/l	ND - 6.6	No	2020	Decay of natural and man made deposits
Uranium‡	20	N/A	1.6	pCi/l	ND - 2.5	No	2020	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 SAMPLED IN 2020								
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	2	Present (P) or Absent (A)	ND	No	2020	Naturally present in the environment
Fecal Coliform and E. Coli	>1% Positive Samples per Month	0	0	Present (P) or Absent (A)	ND	No	2020	Human / animal waste

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**
Tetrachloroethylene	5	0.06	0.02	ppb	ND - 0.6	No	2020	Discharge from factories, dry cleaners, and auto shops
1,1 Dichloroethylene	6	10	0.005	ppb	ND - 0.5	No	2020	Discharge from industrial chemical factories

CONTAMINANTS BELOW WERE SAMPLED BUT NOT DETECTED

Aluminum; Antimony; Beryllium; Cadmium; Total Chromium; Cyanide; Mercury; Perchlorate; Selenium; Silver; Total Organic Carbon; Thallium; Hydroxide; Vinyl Chloride; Trichlorofluoromethane (FREON11) ; 1,1-Dichloroethylene (1,1-DCE); 1,1,2-Trichloro-1,2,2-trifluoroethane; Dichloromethane (Methylene Chloride); trans-1,2-Dichloroethylene (t-1,2-DCE); Methyl tert-Butyl Ether; 1,1-Dichoroethane (1,1-DCA); cis-1,2-Dichloroethylene (c-1,2-DCE); Carbon Tetrachloride; 1,1,1-Trichloroethane (1,1,1-TCA); Benzene; 1,2-Dichlorothane (1,2-DCA); Trichloroethylene (TCE); 1,2-Dichloropropane; Toluene; Monochlorobenzene (Chlorobenzene); Ethyl Benzene; m,p-Xylene; cis-1,3-Dichloropropene; o-Xylene; trans-1,3-Dichloropropene; Styrene; 1,1,2,2-Tetrachloroethane; 1,4-Dichlorobenzene (p-DCB); 1,2-Dichlorobenzene (o-DCB); 1,2,4-Trichlorobenzene; Total 1,3-Dichloropropene; Total Xylenes (m,p & o); 1,2,3, Trichloropropane; PFAS; PFOS; Nitrite; Ethylene Dibromide; Dibromochloropropane; Chlordane; Endrin; Heptachlo; Heptachlor Epoxide; Hexachlorobenzene; Hexachlorocyclopentadiene; Lindane; Methoxychlor; Polychlorinated Biphenyl; Toxaphene; 2,4,5-TP, 2,4-D; Bentazon; Dalapon; Dinoseb; Pentachlorophenol; Picloram; Bromoform; Benzene

Drinking Water Standards for 2020

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	0.3	ppb	60	0.3	2020	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	< 0.0081	2020	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	N/A	36.7	ppm	6.6 - 6.9	No	2020	Runoff/leaching from natural deposits
Color	15	N/A	5.4	units	ND - 10	No	2020	Naturally-occurring organic materials
Iron	300	100	17.1	ppb	ND - 4,100	No	2020	Leaching from natural deposits; industrial wastes
Sulfate	500	0.5	31.1	ppm	9 - 7.6	No	2020	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	1,000	N/A	274.8	ppm	200 - 390	No	2020	Runoff/leaching from natural deposits
Turbidity	5	0.1	0.9	NTU	ND - 9	No	2020	Soil runoff
Odor	3	1	1	TON	1 - 2	No	2020	Naturally-occurring organic materials
Specific Conductance	1,600	N/A	458.8	µS/cm	340 - 360	No	2020	Substances that form ions when in water; seawater influence
Zinc	5,000	50	72.63	ppb	ND - 130	No	2020	Runoff/leaching from natural deposits; industrial wastes
Copper	1,000	50	ND	ppb	ND - 130	No	2020	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Manganese	50	20	0.4	ppb	ND - 130	No	2020	Leaching from natural deposits

Drinking Water Standards for 2020

UNREGULATED GENERAL MINERAL ANALYSIS							
Chemical	Recommended Limit	Detection Level	Units of Measure	Range of Detection	Violation (Yes/No)	Sample Date	Likely Source of Contamination
Calcium	200	37.1	ppm	23 - 76	No	2020	Runoff/leaching from natural deposits
Sodium	200	40.2	ppm	15 - 40	No	2020	Runoff/leaching from natural deposits
Potassium	100	2.5	ppm	ND - 6.2	No	2020	Runoff/leaching from natural deposits
Magnesium	N/A	10.3	ppm	4.8 - 26	No	2020	Runoff/leaching from natural deposits
Alkalinity	500	120.3	ppm	84 - 240	No	2020	Runoff/leaching from natural deposits
Total Hardness	N/A	135.3	ppm	96 - 290	No	2020	Runoff/leaching from natural deposits
Boron	NL = 1,000	80.4	ppb	ND - 150	No	2020	Erosion of natural deposits
Vanadium	NL = 50	5.3	ppb	ND - 22	No	2020	Erosion of natural deposits
pH	6.5 - 8.5	7.97	pH Units	6.9 - 9.25	No	2020	Physical property
Bicarbonate	N/A	145.5	ppm	99 - 290	No	2020	Runoff/leaching from natural deposits

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	2.10%	48.86%
Turbidity Performance Standards (b) (that must be met through the water treatment process)	Turbidity of filtered water must: 1. Be ≤ 0.3 NTU in 95% of measurements in a month. 2. Not exceed 1 NTU for more than eight consecutive hours 3. Not exceed 1 NTU at any time	Turbidity of filtered water must: 1. Be ≤ 0.1 NTU in 95% of measurements in a month. 2. Not exceed 1 NTU for more than eight consecutive hours. 3. Not exceed 1NTU at any time
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%	100%
Highest single turbidity measurement during the year	0.074	0.053
Number of violations of any surface water treatment requirements.	Zero	Zero

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 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 50 µg/L 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 2019 only. Both quarterly and annual running averages are below the MCLs.

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 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.

6. **Water Source Percentages**

   The Yucaipa Valley Water District obtained 1.3% of our drinking water from local surface water sources, 29.9% from imported surface water sources, and 52.4.2% from local groundwater sources. The percentages illustrated on the back of this report are different from the percentages 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 USEPA Safe Drinking Water Hotline (1-800-426-4791).

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

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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).

PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES (PFAS): With statewide concern regarding the potential contamination of drinking water supplies by PFAS, the SWRCB issued mandates for sampling of sources likely to be impacted. PFAS is a substance linked to the manufacturing and use of many daily products like Teflon, waterproofing and fast-food packaging. In contrast to other contaminants, PFAS is considered the forever chemical due to its long chain bond. Although this contaminant is persistent, effective treatment methods have been identified and approved for drinking water. Like other agencies, the District completed initial sampling for these contaminants. After completing four quarters of samples, all results were non-detect for PFAS. More information is available at https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS.html.