

ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2020



Presented By
Walnut Valley Water District



Quality First

We are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the highest-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users.

Thank you for allowing us the opportunity to serve you.

Substances That Could Be in 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.

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 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. 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.

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 can 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, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

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



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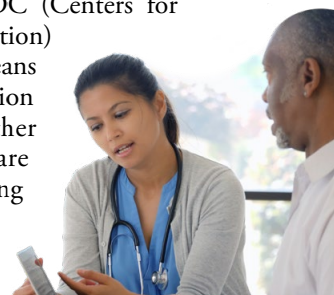
Where Does My Water Come From?

The District is dependent on surface water that is imported into Southern California by the Metropolitan Water District of Southern California (MWD). MWD imports and treats surface water transported through two major conveyance systems: the 242-mile-long Colorado River Aqueduct and the 444-mile-long State Water Project (SWP). Water transported via the Colorado River Aqueduct originates in the Colorado River basin states,

and water transported by the SWP conveyance system originates in the Sacramento-San Joaquin Delta. MWD treats this water at its Weymouth Filtration plant in the City of La Verne. The water is then purchased by the District through our designated wholesale water agency, Three Valleys Municipal Water District (TVMWD). The District also receives SWP water treated by TVMWD at their Miramar Water Treatment Plant in Claremont.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 <http://water.epa.gov/drink/hotline>.



Safeguard Your Drinking Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides – they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources, or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community.
- Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Source Water Assessment

The Colorado River Watershed Sanitary Survey was last completed in December 2016. The next Colorado River Watershed Sanitary Survey will be completed by December 31, 2021. The SWP Watershed Sanitary Survey was last completed in June 2017. The next SWP Watershed Sanitary Survey will be completed by June 30, 2022. Colorado River supplies are considered to be most vulnerable to recreation, urban and stormwater runoff, increasing urbanization in the watershed, and wastewater. SWP supplies are considered to be most vulnerable to urban and stormwater runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting MWD at (213) 217-6000.

Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Benefits of Chlorination

Disinfection, a chemical process used to control disease-causing microorganisms by killing or inactivating them, is unquestionably the most important step in drinking water treatment. By far, the most common method of disinfection in North America is chlorination.

Before communities began routinely treating drinking water with chlorine (starting with Chicago and Jersey City in 1908), cholera, typhoid fever, dysentery, and hepatitis A killed thousands of U.S. residents annually. Drinking water chlorination and filtration have helped to virtually eliminate these diseases in the U.S. Significant strides in public health are directly linked to the adoption of drinking water chlorination. In fact, the filtration of drinking water plus the use of chlorine is probably the most significant public health advancement in human history.

How chlorination works:

Potent Germicide Reduction in the level of many disease-causing microorganisms in drinking water to almost immeasurable levels.

Taste and Odor Reduction of many disagreeable tastes and odors like foul-smelling algae secretions, sulfides, and decaying vegetation.

Biological Growth Elimination of slime bacteria, molds, and algae that commonly grow in water supply reservoirs, on the walls of water mains, and in storage tanks.

Chemical Removal of hydrogen sulfide (which has a rotten egg odor), ammonia, and other nitrogenous compounds that have unpleasant tastes and hinder disinfection. It also helps to remove iron and manganese from raw water.



Regulated Substances													
			Walnut Valley Water District			The Metropolitan Water District of Southern California		Three Valleys Municipal Water District (Miramar Plant Effluent)		Three Valleys Municipal Water District (Groundwater)			
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Violation	Typical Source
Aluminum (ppb)	2020	200	NS	NA	NA	149	80–210	ND	NA	ND	NA	No	Residue from water treatment process; runoff and leaching from natural deposits
Barium (ppb)	2020	1,000	2,000	NA	NA	105	NA	ND	NA	ND	NA	No	Oil and metal refineries discharge; natural deposits erosion
Bromate (ppb)	2020	10	0.1	NA	NA	2.0	ND–4.2	NA	NA	NA	NA	No	By-product of drinking water ozonation
Chloramines (ppm)	2020	[4.0 (as Cl2)]	[4 (as Cl2)]	2.31	1.90–2.58	2.4	1.4–3.0	2.73	NA	NR	NA	No	Drinking water disinfectant added for treatment
Combined Radium (pCi/L)	2020	5	(0)	NA	NA	ND	NA	ND	NA	0.148 ¹	NA	No	Erosion of natural deposits
Dibromochloropropane [DBCP] (ppt)	2020	200	1.7	NA	NA	ND	NA	ND	NA	0.029	NA	No	Banned nematicide that may still be present in soils due to runoff/ leaching
Fluoride (ppm)	2020	2.0	1	NA	NA	0.7	0.6–0.8	0.055	ND–0.11	0.47	0.38–0.56	No	Runoff and leaching from natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Beta Particle Activity (pCi/L)	2020	50 ²	(0)	NA	NA	4	ND–6	2.49	NA	NR	NA	No	Decay of natural and human-made deposits
Haloacetic Acids (ppb)	2020	60	NA	9.45	1.34–13.8	6.2	3.3–7.3	13.8	7.56–22.6	NR	NA	No	By-product of drinking water disinfection
Nitrate [as nitrogen] (ppm)	2020	10	10	NA	NA	ND	NA	0.285	ND–0.57	2.57	2.2–2.8	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Strontium-90 (pCi/L)	2020	8	0.35	NA	NA	ND	NA	0.16	NA	NR	NA	No	Decay of natural and human-made deposits
TTHMs [Total Trihalomethanes] (ppb)	2020	80	NA	28.03	20.9–31.9	24	20–26	48.16	39.7–58	NR	NA	No	By-product of drinking water disinfection
Tritium (pCi/L)	2020	20,000	400	NA	NA	ND	NA	424	NA	NR	NA	No	Decay of natural and human-made deposits
Turbidity (NTU)	2020	TT	NA	NA	NA	0.04	NA	0.073	NA	0.790	NA	No	Soil runoff
Uranium (pCi/L)	2020	20	0.43	NA	NA	2	1–3	ND ³	NA	2.4 ⁴	NA	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2018	1.3	0.3	0.099	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2018	15	0.2	4	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

UNREGULATED AND OTHER SUBSTANCES ⁵

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	The Metropolitan Water District of Southern California		Three Valleys Municipal Water District (Miramar Plant Effluent)		Three Valleys Municipal Water District (Groundwater)		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Alkalinity [CaCO ₃] (ppm)	2020	118	118–119	80.6	68–88	160	NA	Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate
Boron (ppb)	2020	130	NA	180	150–220	80	ND–160	Runoff/leaching from natural deposits; industrial wastes
Calcium Carbonate Precipitation Potential [CCPP, as CaCO ₃] (ppm)	2020	7.4	3.3–9.9	NR	NA	NR	NA	Elemental balance in water; affected by temperature, other factors
Calcium (ppm)	2020	65	NA	22	21–23	56	55–57	Runoff/leaching from natural deposits
Chlorate (ppb)	2020	76	NA	NR	NA	NR	NA	By-product of drinking water chlorination; industrial processes
Corrosivity (as Aggressiveness Index)	2020	12.4	NA	12.26	NA	NR	NA	Elemental balance in water; affected by temperature, other factors
Corrosivity (as Saturation Index)	2020	0.56	0.48–0.65	0.36	NA	NR	NA	Elemental balance in water; affected by temperature, other factors
Hardness, Total [as CaCO ₃] (ppm)	2020	262	256–268	97	NA	175	170–180	Runoff/leaching from natural deposits; sum of polyvalent cations, generally magnesium and calcium present in the water
Magnesium (ppm)	2020	26	25–26	9.35	7.7–11	8.55	8.4–8.7	Runoff/leaching from natural deposits
pH (units)	2020	8.1	NA	8.43	8.2–8.6	8.5	8.0–8.1	Naturally occurring
Potassium (ppm)	2020	4.6	4.5–4.6	2.2	2.0–2.4	1.55	1.4–1.7	Salt present in the water; naturally occurring
Sodium (ppm)	2020	95	93–97	49	48–50	18	13–23	Salt present in the water; naturally occurring
Total Dissolved Solids, Calculated [TDS] (ppm)	2020	565	450–599	250	NA	260	NA	Runoff/leaching from natural deposits
Total Organic Carbon [TOC] (ppm)	2020	2.4	2.1–2.6	2.1	1.8–2.6	ND	NA	Various natural and human-made sources; TOC is a precursor for the formation of disinfection by-products

SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	Walnut Valley Water District		The Metropolitan Water District of Southern California		Three Valleys Municipal Water District (Miramar Plant Effluent)		Three Valleys Municipal Water District (Groundwater)		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Aluminum (ppb)	2020	200	NS	NA	NA	149	80–210	ND	NA	ND	NA	No	Residue from water treatment process; runoff and leaching from natural deposits
Chloride (ppm)	2020	500	NS	NA	NA	93	NA	62	NA	6.45	5.8–7.1	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2020	15	NS	1	NA	1	NA	2.5	ND–5.0	ND	NA	No	Naturally occurring organic materials
Odor, Threshold (TON)	2020	3	NS	NA	NA	2	NA	1.5	1–2	1	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2020	1,600	NS	NA	NA	966	963–968	430	420–440	416.67	390–450	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2020	500	NS	NA	NA	213	211–215	36.5	32–41	24.5	21–28	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2020	1,000	NS	NA	NA	590	587–593	250	NA	250	240–260	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2020	5	NS	0.100	NA	ND	NA	ND	NA	ND	NA	No	Soil runoff

¹ Sampled in 2016.

² The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.

³ Sampled in 2018.

⁴ Sampled in 2017.

⁵ Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

Definitions

90th %ile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NR: Not required

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.

PHG (Public Health Goal): 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 EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

TON (Threshold Odor Number): A measure of odor in water.

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

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

Community Participation

The District's Board Meetings are typically scheduled, unless otherwise noted, for 5:00 p.m. on the third Monday of each month. The Board Meetings are open to the public, and anyone who is interested in the operations and business of the District is encouraged to attend. For more information on the District Board Meetings, please visit our website at www.wvwd.com.

Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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 at (800) 426-4791 or at www.epa.gov/safewater/lead.

The Benefits of Fluoridation

Our water system treats your water by adding fluoride to the naturally occurring level to help prevent dental caries in consumers. State regulations require the fluoride levels in the treated water be maintained within a range of 0.6 mg/L to 1.2 mg/L ppm. Information about fluoridation, oral health, and current issues is available from http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml.

Drinking Water & COVID-19

WVWD is committed to providing clean, safe and reliable drinking water to customers throughout our service area. Coronavirus (COVID-19) has no impact on the quality or supply of the drinking water supplied to your community. Your tap water is safe to drink and meets all state and federal standards.

What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water is needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water is used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water is required to produce one quart of milk, and 4,200 gallons of water is required to produce two pounds of beef.

According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet, twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.watercalculator.org.



QUESTIONS?

For more information about this report, or for any questions relating to the quality of your drinking water, please contact Ty Maddux, Production and Storage Lead, at tmaddux@wvwd.com or (909) 595-7554, ext. 321.

For any other questions, please call our Customer Service Department at (909) 595-7554 or email us at cservice@wvwd.com.