

## Annual Water Quality Report

Reporting Year 2021

Presented By: Walnut Valley Water District

### Quality and Reliability

Walnut Valley Water District is proud to present its annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water. The District continuously invests in new treatment technologies, system upgrades, and training, to ensure that reliable, high-quality tap water is always delivered to you and your family.

### Water Conservation Tips

You can play a role in conserving water and save money by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. Here are a few tips:

Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. 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.

### 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 interested in the operations and business of the District is encouraged to attend. For more information on the District's Board Meetings, please visit our website at [www.wvwd.com](http://www.wvwd.com).

### Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those 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> or <https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-information>.

### 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 that the fluoride levels in the treated water be maintained within a range of 0.6 mg/L to 1.2 mg/L. Information about fluoridation, oral health, and current issues is available from [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html).

### Source Water Assessment

The Colorado River Watershed Sanitary Survey 2020 update was completed on April 1, 2022. The SWP Watershed Sanitary Survey was last completed in June 2017. The next SWP Watershed Sanitary Survey was 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.

## 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 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 protections 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 can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

**Radioactive Contaminants**, which 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.

## Table Talk

Get the most out of the Testing Results data table with this simple suggestion. In less than a minute, you will know all there is to know about your water:

For each substance listed, compare the value in the Amount Detected column against the value in the MCL (or AL, SMCL) column. If the Amount Detected value is smaller, your water meets the health and safety standards set for the substance.

### Other Table Information Worth Noting

Verify that there were no violations of the state and/or federal standards in the Violation column. If there was a violation, you will see a detailed description of the event in this report.

If there is an ND or a less-than symbol (<), that means that the substance was not detected (i.e., below the detectable limits of the testing equipment).

The Range column displays the lowest and highest sample readings. If there is an NA showing, that means only a single sample was taken to test for the substance (assuming there is a reported value in the Amount Detected column).

If there is sufficient evidence to indicate from where the substance originates, it will be listed under Typical Source.

## 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 fresh water 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 are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are 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 your water footprint, go to [www.watercalculator.org](http://www.watercalculator.org).

## 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 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 at (800) 426-4791 or at <https://www.epa.gov/lead>.

## By The Numbers

The number of Americans who receive water from a public water system. 300 million

The number of miles of drinking water distribution mains in the U.S. 1 million

The number of gallons of water produced daily by public water systems in the U.S. 34 billion

The amount of money spent annually on maintaining the public water infrastructure in the U.S. 135 billion

The number of active public water systems in the U.S. 151 thousand.

## 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 that, 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.

Test Results

We are pleased to report that your drinking water meets or exceeds all Federal and State requirements.

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 show only 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 often 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.

**REGULATED SUBSTANCES**

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	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		
<b>Barium</b> (ppm)	2021	1	2	NA	NA	0.11	NA	ND	NA	NA	NA	No	Oil and metal refineries discharge; natural deposits erosion
<b>Bromate</b> (ppb)	2021	10	0.1	NA	NA	ND	ND–7	NR	NA	NA	NA	No	By-product of drinking water ozonation
<b>Chloramines</b> (ppm)	2021	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	2.59	2.39–2.72	2.4	1.4–2.9	2.63	2.62–2.64	NR	NA	No	Drinking water disinfectant added for treatment
<b>Combined Radium</b> (pCi/L)	2021	5	(0)	NA	NA	ND	NA	ND <sup>1</sup>	NA	0.148 <sup>2</sup>	NA	No	Erosion of natural deposits
<b>Fluoride</b> (ppm)	2021	2.0	1	NA	NA	0.7	0.6–0.9	0.11	NA	NA	NA	No	Runoff and leaching from natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Gross Beta Particle Activity<sup>3</sup></b> (pCi/L)	2021	50	(0)	NA	NA	5	4–6	3.82	3.35–4.29	NR	NA	No	Decay of natural and man-made deposits
<b>HAA5 [Sum of 5 Haloacetic Acids]–Stage 2</b> (ppb)	2021	60	NA	13.34	5.10–22.40	5.4	1.5–6.1	12.19	6.8–20.9	NR	NA	No	By-product of drinking water disinfection
<b>Nitrate [as nitrogen]</b> (ppm)	2021	10	10	NA	NA	ND	NA	0.43	0.42–0.44	2.51	2.2–2.9	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
<b>Radium 226</b> (pCi/L)	2021	NA	0.05	NA	NA	ND	NA	0.88	NA	0.147 <sup>2</sup>	NA	No	Erosion of natural deposits
<b>Radium 228</b> (pCi/L)	2021	NA	0.019	NA	NA	ND	ND–1	0	NA	0.001 <sup>2</sup>	NA	No	Erosion of natural deposits
<b>Strontium-90</b> (pCi/L)	2021	8	0.35	NA	NA	ND	NA	0.560	NA	NR	NA	No	Decay of natural and man-made deposits
<b>TTHMs [Total Trihalomethanes]–Stage 2</b> (ppb)	2021	80	NA	35.05	19.50–43.40	30	26–35	37.61	25.40–54.30	NR	NA	No	By-product of drinking water disinfection
<b>Tritium</b> (pCi/L)	2021	20,000	400	NA	NA	ND	NA	293	NA	NR	NA	No	Decay of natural and man-made deposits
<b>Turbidity</b> (NTU)	2021	TT	NA	NA	NA	0.03	NA	0.06	NA	0.57	NA	No	Soil runoff
<b>Uranium</b> (pCi/L)	2021	20	0.43	NA	NA	2	1–3	ND <sup>4</sup>	NA	2.2	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
<b>Copper</b> (ppm)	2021	1.3	0.3	0.099	0/30	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
<b>Lead</b> (ppb)	2021	15	0.2	4	0/30	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

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)		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
<b>Aluminum</b> (ppb)	2021	200	600	NA	NA	148	ND–240	ND	NA	No	Residue from water treatment process; runoff and leaching from natural deposits
<b>Chloride</b> (ppm)	2021	500	NS	NA	NA	96	95–97	94	NA	No	Runoff/leaching from natural deposits; seawater influence
<b>Color</b> (Units)	2021	15	NS	0.100	NA	1	NA	ND	NA	No	Naturally occurring organic materials
<b>Odor–Threshold</b> (TON)	2021	3	NS	NA	NA	1	NA	1	NA	No	Naturally occurring organic materials
<b>Specific Conductance</b> (µS/cm)	2021	1,600	NS	NA	NA	964	962–965	560	NA	No	Substances that form ions when in water; seawater influence
<b>Sulfate</b> (ppm)	2021	500	NS	NA	NA	219	217–221	40	NA	No	Runoff/leaching from natural deposits; industrial wastes
<b>Total Dissolved Solids</b> (ppm)	2021	1,000	NS	NA	NA	604	599–609	310	NA	No	Runoff/leaching from natural deposits
<b>Turbidity</b> (NTU)	2021	5	NS	0.100	NA	ND	NA	ND	NA	No	Soil runoff

UNREGULATED SUBSTANCES <sup>6</sup>

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	
<b>Boron</b> (ppb)	2021	130	NA	200	190–210	80 <sup>5</sup>	ND–160 <sup>5</sup>	Runoff/leaching from natural deposits; industrial wastes
<b>Hardness, Total [as CaCO<sub>3</sub>]</b> (ppm)	2021	272	270–273	110	NA	NA	NA	Runoff/leaching from natural deposits; sum of polyvalent cations; generally, magnesium and calcium present in the water
<b>Sodium</b> (ppm)	2021	98	95–101	73	NA	NA	NA	Salt present in the water; naturally occurring

**OTHER SUBSTANCES <sup>6</sup>**

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	
<b>Alkalinity, Total (as CaCO<sub>3</sub>)</b> (ppm)	2021	126	123–128	88	85–89	NA	NA	Runoff/leaching of natural deposits; carbonate, bicarbonate, hydroxide, and occasionally borate, silicate, and phosphate
<b>Calcium Carbonate Precipitation Potential (CCPP) (as CaCO<sub>3</sub>)</b> (ppm)	2021	8.3	2.4–11	NA	NA	NA	NA	A measure of the balance between pH and calcium carbonate saturation in the water
<b>Calcium</b> (ppm)	2021	67	64–70	26	24–28	NA	NA	Runoff/leaching from natural deposits
<b>Chlorate</b> (ppb)	2021	55	NA	ND	NA	NR	NA	By-product of drinking water chlorination; industrial processes
<b>Corrosivity (as Aggressiveness Index)</b>	2021	12.4	12.4–12.5	12.23	12.22–12.25	NR	NA	A measure of the balance between pH and calcium carbonate saturation in the water
<b>Corrosivity (as Saturation Index)</b>	2021	0.56	0.52–0.61	0.41	0.39–0.43	NR	NA	A measure of the balance between pH and calcium carbonate saturation in the water
<b>Magnesium</b> (ppm)	2021	26	25–26	12	NA	NA	NA	Runoff/leaching from natural deposits
<b>N-Nitrosodimethylamine (NDMA)</b> (ppt)	2021	ND	NA	0	0–3	NR	NA	By-product of drinking water chlorination; industrial processes
<b>Potassium</b> (ppm)	2021	4.6	4.4–4.7	2.85	2.7–3.0	NA	NA	Salt present in the water; naturally occurring
<b>Total Dissolved Solids, Calculated (TDS)</b> (ppm)	2021	567	400–604	304	260–340	357	322.75–446.5	Runoff/leaching from natural deposits
<b>Total Organic Carbon [TOC]</b> (ppm)	2021	2.4	1.8–2.5	1.33	1.26–1.39	NR	NA	Various natural and man-made sources; a precursor for the formation of disinfection by-products
<b>pH</b> (Units)	2021	8.1	NA	8.5	NA	7.71	NA	NA

<sup>1</sup>Sampled in 2015; due in 2022

<sup>2</sup>Sampled in 2016; due in 2028

<sup>3</sup>The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.

<sup>4</sup>Sampled in 2018; due in 2023

<sup>5</sup>Sampled in 2020; due in 2023.

<sup>6</sup>Unregulated contaminant monitoring helps the U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

**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. Water transported by the State Water Project conveyance system originates in the Sacramento-San Joaquin Delta. MWD treats this water at its F.E. Weymouth Water Treatment 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 its Miramar Water Treatment Plant in Claremont.

**Questions?**

For more information about this report, or any questions related to the quality of your drinking water, please contact Gabe Gaytan, Pump Operator II, at GGaytan@wvwd.com or (909) 595-7554, ext. 342.

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