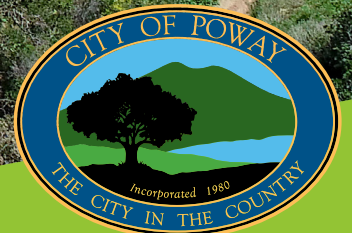


CITY OF POWAY

Water Quality Report

REPORTING FOR CALENDAR YEAR 2021



This annual water quality report explains how drinking water provided by the City of Poway meets or exceeds all state and federal water quality standards for your drinking water. We conduct approximately 65,000 tests annually on the drinking water quality; many of the tests go beyond what is required by regulations. This report includes results of water quality tests performed between January 1, and December 31, 2021. It also includes notes, background information and definitions helpful for interpreting the data, as well as an explanation of where your water comes from.

The City of Poway routinely monitors the water supplies for a range of elements that could potentially impact the quality of your water. If a potential problem is detected, our water treatment personnel take measures to restore the quality of the water.

The City of Poway is committed in continuing investments for planned replacements and upgrades to our water treatment and distribution systems. With the goal of increasing the reliability of drinking water for our customers now and generations to come, the City of Poway is undertaking the largest capital improvement program (CIP) in the city's 40-year history. The CIP will include replacing the 10 million gallon clearwell (water storage reservoir) at the water treatment plant and obtaining a new San Diego County Water Authority (SDCWA) treated water connection.

Learn more about these projects at poway.org/water-projects. For additional information on the water quality testing results in this report, please call Jesse Bartlett-May, Water Treatment Plant Manager at the City of Poway Lester J. Berglund Water Treatment Plant at (858) 668-4751.

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



Two 1.4MG temporary storage tanks, located at the Lake Poway ballfield, will be used while the clearwell at the water treatment plant is replaced.

SURFACE WATER SOURCES

The City of Poway relies on two surface water sources: water that is imported from the San Diego County Water Authority and local rainfall captured by Lake Poway. The imported water comprises the majority of the water needs of the community, accounting for 99.5% of the raw water supply.

The raw water is received from the Northern California Aqueduct and Colorado River Systems. These sources of water are pumped to the Lester J. Berglund Water Treatment Plant and to Lake Poway for storage.

THE TREATMENT PROCESS

To ensure a safe drinking water supply, the raw water undergoes a series of treatment processes including: coagulation, flocculation, sedimentation, filtration, taste/odor control, corrosion control, and disinfection.

These treatment processes ensure that water of the highest quality is available to all our customers.

Coagulation, Flocculation & Sedimentation



Chlorine & Chloramines



Filtration



Storage



THE DISINFECTION PROCESS

The City of Poway employs two methods of disinfection. The first, chlorine, effectively eliminates water-borne diseases from the public water supply. The second, chloramines, a combination of chlorine and ammonia, further improves the quality of our water supply and reduces the formation of disinfection byproducts. This disinfection process chemically deactivates and physically removes bacteria, viruses and other contaminants. There is no evidence that the virus COVID-19 is transmitted through treated water.

WATER QUALITY MONITORING

The State Water Resources Control Board (SWRCB) is responsible for enforcing Drinking Water Quality Regulations, as set forth by the United States Environmental Protection Agency (USEPA).

The USEPA regulations are composed of primary and secondary standards: Primary standards relate to the protection of public health. These standards specify limits for substances in water that may be harmful to humans if consumed in excess of those limits.

Secondary standards relate to aesthetic qualities of water such as taste, odor, or clarity. These standards specify limits for substances that may influence consumer acceptance of the water.

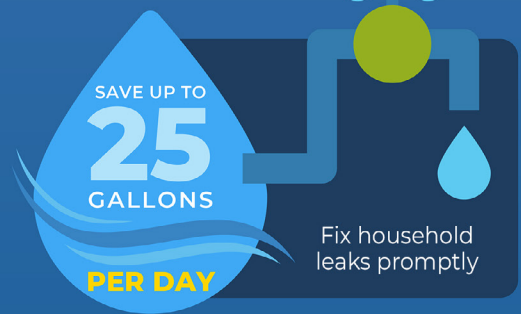


Everyday Ways to Save

Reducing household water use is simple.
Here's how much you can save!



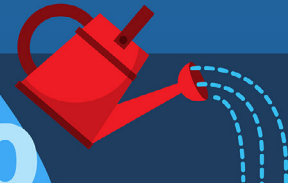
Water plants in the early morning or evening to reduce evaporation



Fix household leaks promptly



Install a smart sprinkler controller that adjusts watering based on weather, soil type and shade



Reduce outdoor watering by one day per week



Check sprinkler system for leaks, overspray and broken sprinkler heads



Wash only full loads of laundry and dishes

ABBREVIATIONS:

AL = Action Level
NA = Not Applicable
NC = Not Collected
ND = None Detected
NL = Notification Level
NS = No Standard
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
ppb = parts per billion (ug/L)

ppm = parts per million (mg/L)
TT = Treatment Technique
TON = Threshold Odor Number
umhos/cm = micromhos/centimeter
CFU/mL = Colony-Forming Units per Milliliter

FOOTNOTES TO TABLE:

(a) **TURBIDITY:** A measure of the cloudiness of water; indicates effectiveness of the filtration system. Must be less than 0.3 NTU in 95% of monthly readings, and always less than 5.0 NTU.

(b) **SWRCB** considers 50 pCi/L to be the level of concern for beta particles.

(c) **MICROBIOLOGICAL:** No more than 5.0% of monthly samples may be total coliform-positive. Two consecutive positives, one being E. coli, is a violation. No MCL violations occurred in 2021.

(d) The average is based on a single sample.

(e) **TTHM**, **HAA**, and **Chlorine Residual** averages are for the highest running annual average (RAA) for 2021. RAA is the average of the four most recent quarters' results.

(f) **Lead** and **Copper** testing is performed on a Triennial basis. These results are based on the 2019 sampling. The next sampling is due in 2022.

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 run-off, 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 run-off, and residential uses.
- Radioactive contaminants, that can be naturally occurring or a result of oil and gas production and mining activities.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and may also

come from gas stations, urban stormwater run-off, agricultural application, and septic systems.

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 compounds associated with service lines and home plumbing. The City of Poway is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

DEFINITIONS AND NOTES:

Maximum Contaminant Level (MCL): 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 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 U.S. 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.

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

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.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Locational Running Annual Averages (LRAA): The highest of all locations collected (LRAA) for 2021.



Poway treats an average of 8 million gallons per day, close to 3 billion gallons per year

CITY OF POWAY ANNUAL WATER QUALITY REPORT 2021

PWSID # CA3710015

PARAMETER	UNITS	STATE MCL [MRDL]	PHG (MCLG) [MRDLG]	TREATMENT PLANT EFFLUENT		DISTRIBUTION SYSTEM		LAKE POWAY WATER		IMPORTED WATER		SOURCES OF CONTAMINATION IN DRINKING WATER
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
PRIMARY STANDARDS- Mandatory Health Related Standards Established by the State of California, State Water Resources Control Board - Division of Drinking Water.												
CLARITY												
Turbidity (a)	NTU	0.3 (TT)	NA	Highest Reading = 0.06		0.160	<0.1 - 1.80	N/A	NA	NA	NA	Soil runoff
	%	95	NA	% < 0.3: 100%		NA	NA	NA	NA	NA	NA	
INORGANIC CHEMICALS												
Aluminum	ppm	1	0.6	0.126	0.0591-0.234	NA	NA	<0.02	<0.02	0.052	0.052	Residue from treatment processes
Arsenic	ppb	10	0.004	NA	NA	NA	NA	2.47	2.47	2.1	2.1	Erosion of natural deposits
Fluoride (naturally-occurring)	ppm	2.0	1	NA	NA	NA	NA	ND<0.300	ND<0.300	0.3	0.3	Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	NA	NA	<0.40	<0.40 - 0.692	<0.40	<0.40	ND	ND	Run-off & leaching from fertilizer use
RADIOACTIVITY												
Gross Alpha	pCi/L	15	(0)	NA	NA	NA	NA	2.16±1.72	2.16±1.72	ND	ND - 3.0	Erosion of natural deposits
Gross Beta (b)	pCi/L	50	(0)	NA	NA	NA	NA	2.75±1.23	2.75±1.23	ND	ND - 1	Decay of natural deposits
Uranium	pCi/L	20	0.43	NA	NA	NA	NA	1.61	1.61	1.9	1.4 - 2.6	Erosion of natural deposits
MICROBIOLOGICAL												
Total Coliform Bacteria	(c)	5.0%	(0)	0.00%	<1	Highest % positive = 0%		950	52 - 2420	NA	NA	Naturally present in environment
E. coli	(c)	(c)	(0)	# positives = 0		# positives = 0		5.27	ND - 22	NA	NA	Human and animal fecal waste
Heterotrophic Plate Count (HPC)	CFU/mL	TT	NA	0.08	ND - 4	11.9	ND - 50	NA	NA	NA	NA	Naturally present in environment
DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS												
Total Trihalomethanes (TTHM's) (d)	ppb	80	NA	NA	NA	50	26.7 - 54.1	NA	NA	NA	NA	By-product of drinking water disinfection
Haloacetic acids (HAA5) (d)	ppb	60	NA	NA	NA	23.0	13.0 - 35.5	NA	NA	NA	NA	By-product of drinking water disinfection
Chlorine Residual as Chloramine (e)	ppm	[4]	[4]	NA	NA	3.15	1.38 - 3.60	NA	NA	NA	NA	Disinfectant added for treatment
SECONDARY STANDARDS- Aesthetic Standards Established by the State of California, State Water Resources Control Board - Division of Drinking Water.												
Aluminum	ppb	200	NA	126	59.1 - 234	NA	NA	<20	<20	ND	ND	Residue from treatment processes
Chloride	ppm	500	NA	NA	NA	NA	NA	95.4	95	88	84 - 92	Runoff / leaching of natural deposits
Color	units	15	NA	NA	NA	0.200	<1 - 2	7	7	4	3 - 5	Naturally occurring organic materials
Odor Threshold	TON	3	NA	NA	NA	<1	<1	<1	<1	6	6	Naturally occurring organic materials
Specific Conductance	umhos/cm	1600	NA	NA	NA	NA	NA	891	891	890	852- 927	Substances that form ions in water
Sulfate	ppm	500	NA	NA	NA	NA	NA	168	168	186	170 - 203	Runoff / leaching of natural deposits
Total Dissolved Solids	ppm	1000	NA	NA	NA	NA	NA	532	532	560	508 - 611	Runoff / leaching of natural deposits
Turbidity	NTU	5	NA	0.03	0.02 - 0.18	<0.1	0.18	0.18	<1	0.7	<0.1	Soil runoff
UNREGULATED CONTAMINANTS - May become regulated in the future												
Boron	ppb	NA	NL=1000	NA	NA	NA	NA	133	NA	140	140	Erosion of natural deposits
Vanadium	ppb	NA	NL=50	NA	NA	NA	NA	3.28	NA	ND	ND	Erosion of natural deposits
OTHER PARAMETERS												
Alkalinity	ppm	NA	NA	NA	NA	NA	NA	114	NA	128	125 - 131	Runoff / leaching of natural deposits
Calcium	ppm	NA	NA	NA	NA	NA	NA	45.1	NA	64	59 - 69	Runoff / leaching of natural deposits
Hardness as Calcium Carbonate	ppm	NA	NA	NA	NA	NA	NA	207	NA	258	242 - 273	Leaching from natural deposits
Magnesium	ppm	NA	NA	NA	NA	NA	NA	20.4	NA	24	22 - 25	Runoff / leaching of natural deposits
Potassium	ppm	NA	NA	NA	NA	NA	NA	4.51	NA	4.2	4.3	Leaching from natural deposits
Sodium	ppm	NA	NA	NA	NA	NA	NA	76.2	NA	86	81 - 91	Runoff / leaching of natural deposits
Total Organic Carbon	ppm	TT	NA	NA	NA	NA	NA	3.72	3.19 - 4.04	3.1	2.9 - 3.2	Natural and manmade deposits
LEAD AND COPPER RULE (f)												
Copper	ppm	AL=1.3	0.3	NA	NA	0.060	0.005 - 0.319	0.0026	NA			Internal corrosion of household plumbing systems
Lead	ppb	AL=15	0.2	NA	NA	10.2	<1 - 78	<1	NA			

ADDITIONAL PUBLIC INFORMATION:

In accordance with the mandate of the Safe Drinking Water Act (SDWA), the California State Water Resources Control Board (SWRCB) has developed the Drinking Water Source Assessment and Protection (DWSAP) Program to evaluate watershed vulnerability to potential contamination sources. The City of Poway completed its Watershed Sanitary Survey (WSS) update in December 2020. The WSS includes an updated assessment of potential contamination sources and source protection activities. The 2020 WSS can be viewed upon request from the Poway City Clerk's Office, (858) 668-4530.

METROPOLITAN WATER DISTRICT (MWD) SOURCE WATER ASSESSMENT:

MWD of Southern California completed its source water assessments - watershed sanitary surveys of the Colorado River in December 2016, and the State Water Project in 2017. Colorado River supplies are considered to be most vulnerable to recreation, urban/stormwater run-off, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered to be most vulnerable to urban/stormwater run-off, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (800) 354-4420.

UNREPORTED WATER QUALITY PARAMETERS:

Only "detected" parameters are included in this report, as required by the State. Over 75 additional water quality parameters were investigated, and not detected at the detection limits required by the State of California.

LEAD AND COPPER RULE:

Mandated by the EPA effective in 1992, the Rule monitors for lead and copper contamination after the water has left the distribution system. Water is collected from selected representative household faucets every three years. The most recent sampling was in 2019. The next sampling is due in 2022.

METHYL TERT-BUTYL ETHER (MTBE):

Not detected in Poway water supply. MTBE has been found in some groundwater wells in California. The source is most likely from leaking underground gasoline storage tanks. Poway relies on surface water sources which are less vulnerable to MTBE contamination.

OPPORTUNITY FOR PUBLIC PARTICIPATION:

The City welcomes you and encourages your continued interest and involvement in the City's decision-making process.

The City Council meets on the 1st and 3rd Tuesday of each month at 7:00 P.M. in the Council Chambers at City Hall, located at 13325 Civic Center Drive.

INFORMATIVE WEB SITES:

EPA Drinking Water Website : <http://water.epa.gov/drink/index.cfm>

EPA Drinking Water Website : <https://www.epa.gov/dwreginfo/drinking-water-regulations>

State Water Resources Control Board : http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/NotificationLevels.html

IMPORTANT PHONE NUMBERS:

City of Poway Water Treatment Plant.....(858) 668-4751

EPA Safe Drinking Water Hotline.....(800) 426-4791

SWRCB, Office of Drinking Water(916) 341-5254

REQUIRED HEALTH INFORMATION

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).

