



ANNUAL WATER QUALITY REPORT

Reporting Year 2023



Presented By
**Ramona Municipal
Water District**

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



PWS ID#: 3710019



Our Commitment

We are pleased to present to you this year's annual water quality report. This report is a snapshot of last year's water quality covering all testing performed between January 1 and December 31, 2023. Included are details about your sources of water, what it contains, and how it compares to standards set by regulatory agencies. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water and providing you with this information because informed customers are our best allies.

Where Does My Water Come From?

The San Diego County Water Authority (CWA) purchases water from the Metropolitan Water District of Southern California (MWD). This water is a blend of surface water from the Colorado River and runoff from the Northern California Sierra Nevada Mountains. It is treated at the Twin Oaks Valley Treatment Plant, located in San Diego County, and the MWD Lake Skinner Filtration Plant, located in Riverside County. The Carlsbad Desalination Plant provides San Diego County with a locally controlled, drought-proof supply of high-quality water. The Ramona Municipal Water District also purchases water from the City of Poway periodically.

“When the well is dry, we know the worth of water.”

—Benjamin Franklin

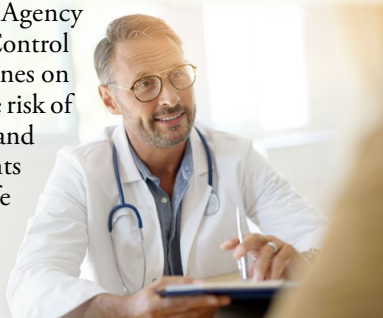
Source Water Assessment

The Colorado River Watershed Sanitary Survey 2020 Update was submitted to the Division of Drinking Water (DDW) in April 2022. The State Water Project Watershed Sanitary Survey 2021 Update was submitted to DDW in June 2022.

State Water Project supplies are considered to be most vulnerable to urban or stormwater runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting MWD at (213) 217-6000.

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. Environmental Protection Agency (EPA)/Centers for Disease Control and Prevention (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 water.epa.gov/drink/hotline.



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 to 1.2 parts per million (ppm), with an optimum dose of 0.7 ppm.

Our monitoring showed that the fluoride levels in the treated water ranged from 0.6 to 0.8 ppm, with an average of 0.67 ppm. Information about fluoridation, oral health, and current issues is available from waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html.

Public Meetings

You are invited to attend our district board meetings. We meet the second Tuesday of each month at 6:00 p.m. at the Ramona Community Center, 434 Aqua Lane.

Board of Directors:

Jim Hickle, President, Division II
Jeff Lawler, Vice President, Division I
Jim Piva, Secretary, Division III
Gary Hurst, Treasurer, Division V
Jacob Zoria, Director, Division IV
Erica Wolski, General Manager



Level 1 Assessment

Coliforms are bacteria that are naturally present in the environment and used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct an assessment to identify and correct problems.

During the past year, we were required to conduct one Level 1 assessment. One Level 1 assessment was completed. In addition, we were required to take four corrective actions, and we completed three of these actions. One action is ongoing.

QUESTIONS? For more information about this report, or for any questions relating to your drinking water, please call Sarah Yorba, Water Quality Lab Analyst, at (760) 789-1330.

What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air-conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection. For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.



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. EPA and the State Water Resources Control Board (SWRCB) 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;

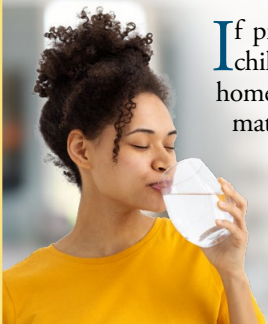
Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

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.

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 www.epa.gov/safewater/lead.



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 four to six 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.

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 and the use of chlorine are probably the most significant public health advancements in human history.

How chlorination works:

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

Taste and Odor Reduction of many disagreeable tastes and odors from 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.



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.

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

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.

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

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 fifth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR5) program by performing additional tests on our drinking water. UCMR5 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 to determine if it 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.

REGULATED SUBSTANCES									
				Ramona Municipal Water District		Metropolitan Water District Skinner Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2023	10	0.004	NA	NA	ND	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2023	1	2	NA	NA	ND ¹	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Bromate (ppb)	2023	10	0.1	NA	NA	ND	ND–2.6	No	By-product of drinking water disinfection
Chloramines (ppm)	2023	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	1.88	0.19–2.79	NA	NA	No	Drinking water disinfectant added for treatment
Coliform Assessment and/or Corrective Action Violations (positive samples)	2023	TT	NA	5	ND–5	NA	NA	No	NA
Fluoride (ppm)	2023	2.0	1	NA	NA	0.7	0.6–0.8	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2023	15	(0)	NA	NA	ND	ND–4	No	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2023	50 ²	(0)	NA	NA	ND	ND–8	No	Decay of natural and human-made deposits
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2023	60	NA	1.425 ³	ND–4.0	NA	NA	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2023	NS ⁴	0.02	NA	NA	ND	NA	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrogen] (ppm)	2023	10	10	NA	NA	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2023	80	NA	17.5 ³	6.4–21	NA	NA	No	By-product of drinking water disinfection
Turbidity (NTU)	2023	TT	NA	NA	NA	0.07	NA	No	Soil runoff
Uranium (pCi/L)	2023	20	0.43	NA	NA	2	ND–3	No	Erosion of natural deposits

REGULATED SUBSTANCES

				San Diego County Water Authority	Carlsbad Desalination Plant				
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2023	10	0.004	2.1 ¹	NA	ND	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2023	1	2	ND	58.5–91.3	ND	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Bromate (ppb)	2023	10	0.1	ND	ND–7.4	NA	NA	No	By-product of drinking water disinfection
Chloramines (ppm)	2023	[4.0 (as Cl ₂)]	[4 (as Cl ₂)]	NA	NA	NA	NA	No	Drinking water disinfectant added for treatment
Coliform Assessment and/or Corrective Action Violations (positive samples)	2023	TT	NA	NA	NA	NA	NA	No	NA
Fluoride (ppm)	2023	2.0	1	0.6	0.6–0.63	0.696	0.6–0.799	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2023	15	(0)	NA	NA	ND	NA	No	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	2023	50 ²	(0)	NA	NA	ND	NA	No	Decay of natural and human-made deposits
HAA5 [sum of 5 haloacetic acids]–Stage 2 (ppb)	2023	60	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2023	NS ⁴	0.02	0.08	ND–0.18	ND	NA	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrogen] (ppm)	2023	10	10	ND	NA	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2023	80	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection
Turbidity (NTU)	2023	TT	NA	0.019	NA	0.08	NA	No	Soil runoff
Uranium (pCi/L)	2023	20	0.43	NA	NA	ND	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)	2022	1.3	0.3	0.180	0/32	No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2022	15	0.2	2.2	0/32	No	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits



SECONDARY SUBSTANCES

				Ramona Municipal Water District		Metropolitan Water District Skinner Plant		San Diego County Water Authority		Carlsbad Desalination Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2023	500	NS	NA	NA	91	72–110	100 ¹	NA	75	35–98	No	Runoff/leaching from natural deposits; seawater influence
Color (units)	2023	15	NS	NA	NA	1	NA	1	ND–5	ND	NA	No	Naturally occurring organic materials
Odor, Threshold (TON)	2023	3	NS	NA	NA	2	NA	ND	NA	ND	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)	2023	1,600	NS	NA	NA	852	664–1,040	ND ¹	NA	405.4	225.5–506.4	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2023	500	NS	NA	NA	174	113–236	166	122–210	13.5	13–15	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2023	1,000	NS	NA	NA	536	401–670	570 ¹	NA	216	122–318	No	Runoff/leaching from natural deposits

UNREGULATED SUBSTANCES ⁵

		Ramona Municipal Water District		Metropolitan Water District Skinner Plant		San Diego County Water Authority		Carlsbad Desalination Plant			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE	
Alkalinity (ppm)	2023	NA	NA	108	92–125	NA	NA	63	46–87	NA	
Boron (ppb)	2023	NA	NA	130	NA	140 ¹	NA	0.62	0.39–0.90	NA	
Calcium (ppm)	2023	NA	NA	56	39–72	61 ¹	NA	22.55	17.48–55.2	NA	
Chlorate (ppb)	2023	NA	NA	17	NA	336	270–420	NA	NA	NA	
Corrosivity [as aggressiveness] (units)	2023	NA	NA	12.5	NA	NA	NA	10.58	10.3–11.2	NA	
Corrosivity [as saturation] (units)	2023	NA	NA	0.68	0.62–0.75	NA	NA	0.28	0.04–0.62	NA	
Hardness (ppm)	2023	NA	NA	228	165–291	NA	NA	56.12	43.7–79.6	NA	
Lithium (ppb)	2023	21.7	10–36	30	18–43	NA	NA	NA	NA	Naturally-occurring; used in electrochemical cells, batteries, and organic synthesis and pharmaceuticals	
Magnesium (ppm)	2023	NA	NA	21	15–27	24 ¹	NA	1.1	0.9–1.1	NA	
N-Nitrosodimethylamine [NDMA] (ppt)	2023	NA	NA	3.2	NA	ND	NA	NA	NA	NA	
Potassium (ppm)	2023	NA	NA	4.2	3.6–4.8	4.8 ¹	NA	44.976	ND–389	NA	
Sodium (ppm)	2023	NA	NA	86	69–103	99 ¹	NA	55.35	40.1–61	NA	
TOC (ppm)	2023	NA	NA	2.6	2.3–3.0	2.2	2.0–2.5	NA	NA	NA	

¹Single sample taken.

²The SWRCB considers 50 pCi/L to be the level of concern for beta particles.

³Highest locational running annual average.

⁴There is currently no MCL for hexavalent chromium. The previous MCL of 10 ppb was withdrawn on September 11, 2017.

⁵Unregulated contaminant monitoring helps U.S. EPA and the SWRCB determine where certain contaminants occur and whether the contaminants need to be regulated.