

# ANNUAL WATER QUALITY REPORT

Reporting Year 2022



*Presented By*  
**Ramona Municipal  
Water District**

Este reporte contiene información muy importante sobre su agua potable. Tradúzcalo con alguien que lo entienda bien. Si tiene alguna pregunta llame (760) 789-1330.

PWS ID#: 3710019



## Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2022. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users. Please remember that we are always available should you ever have any questions or concerns about your water.

## 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 (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.



## 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 (U.S. 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 <http://water.epa.gov/drink/hotline>.

## 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](http://www.epa.gov/safewater/lead).

**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.

## FOG (Fats, Oils, and Grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

### NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a wastebasket.

### ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container, such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products, including nonbiodegradable wipes.

## Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water.
- Monitoring and inspecting machinery, meters, gauges, and operating conditions.
- Conducting tests and inspections on water and evaluating the results.
- Maintaining optimal water chemistry.
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Documenting and reporting test results and system operations to regulatory agencies.
- Serving our community through customer support, education, and outreach.

So the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

## Source Water Assessment

The Colorado River Watershed Sanitary Survey 2020 Update was submitted to the California 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/stormwater runoff, wildlife, agriculture, recreation, and wastewater. A copy of the assessment can be obtained by contacting MWD at (213) 217-6000.

## Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council (NRDC), bottled water is not necessarily cleaner or safer than most tap water. In fact, about 40 percent of bottled water is actually just tap water, according to government estimates.

The Food and Drug Administration (FDA) is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that's packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you'd pay for bottled water. For a detailed discussion on the NRDC study results, check out its website at <https://go.ggl/Jxb6xG>.

## 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 0.5 to 0.8 ppm, with an average of 0.7 ppm. Information about fluoridation, oral health, and current issues is available from [http://www.swrcb.ca.gov/drinking\\_water/certlic/drinkingwater/Fluoridation.shtml](http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml).

## 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 purchases water from the City of Poway periodically.



## 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

## Tip Top Tap

The most common signs that your faucet or sink is affecting the quality of your drinking water are discolored water, sink or faucet stains, a buildup of particles, unusual odors or tastes, and a reduced flow of water. The solutions to these problems may be in your hands.

### Kitchen Sink and Drain

Handwashing, soap scum buildup, and the handling of raw meats and vegetables can contaminate your sink. Clogged drains can lead to unclean sinks and backed-up water in which bacteria (i.e., pink or black slime growth) can grow and contaminate the sink area and faucet, causing a rotten egg odor. Disinfect and clean the sink and drain area regularly and flush with hot water.

### Faucets, Screens, and Aerators

Chemicals and bacteria can splash and accumulate on the faucet screen and aerator, which are located on the tip of faucets and can collect particles like sediment and minerals, resulting in a decreased flow from the faucet. Clean and disinfect the aerators or screens on a regular basis.

Check with your plumber if you find particles in the faucet screen, as they could be pieces of plastic from the hot water heater dip tube. Faucet gaskets can break down and cause black, oily slime. If you find this slime, replace the faucet gasket with a higher-quality product. White scaling or hard deposits on faucets and showerheads may be caused by water with high levels of calcium carbonate. Clean these fixtures with vinegar or use water softening to reduce the calcium carbonate levels for the hot water system.

### Water Filtration/Treatment Devices

A smell of rotten eggs can be a sign of bacteria on the filters or in the treatment system. The system can also become clogged over time, so regular filter replacement is important. (Remember to replace your refrigerator filter!)

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. The water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water. 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.

REGULATED SUBSTANCES													
				Ramona Municipal Water District		Metropolitan Water District Skinner Plant		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	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Arsenic</b> (ppb)	2022	10	0.004	NA	NA	ND	NA	2.3 <sup>1</sup>	NA	ND	NA	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
<b>Barium</b> (ppm)	2022	1	2	NA	NA	ND <sup>1</sup>	NA	ND <sup>1</sup>	NA	ND	NA	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
<b>Bromate</b> (ppb)	2022	10	0.1	NA	NA	1.2	ND–5.5	3	1.6–5.8	NA	NA	No	By-product of drinking water disinfection
<b>Chloramines</b> (ppm)	2022	[4.0 (as Cl <sub>2</sub> )]	[4 (as Cl <sub>2</sub> )]	2.03	0.30–3.4	NA	NA	NA	NA	NA	NA	No	Drinking water disinfectant added for treatment
<b><i>E. coli</i> [State Revised Total Coliform Rule]</b> (# positive samples)	2022	0	(0)	0	NA	NA	NA	NA	NA	NA	NA	No	Human and animal fecal waste
<b>Fluoride</b> (ppm)	2022	2.0	1	NA	NA	0.7	0.6–0.8	0.6	0.5–0.7	0.667	ND–0.797	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
<b>Gross Alpha Particle Activity</b> (pCi/L)	2022	15	(0)	NA	NA	ND	ND–3	ND	ND–4	ND	NA	No	Erosion of natural deposits
<b>Gross Beta Particle Activity</b> (pCi/L)	2022	50 <sup>2</sup>	(0)	NA	NA	7	5–8	5	4.9–5.1	ND	NA	No	Decay of natural and human-made deposits
<b>HAA5 [sum of 5 haloacetic acids]–Stage 2</b> (ppb)	2022	60	NA	2.55 <sup>3</sup>	ND–4.7	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection
<b>Hexavalent Chromium</b> (ppb)	2022	NS <sup>4</sup>	0.02	NA	NA	ND	NA	0.11	0.03–0.22	ND	NA	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits

				Ramona Municipal Water District		Metropolitan Water District Skinner Plant		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	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Nitrate [as nitrogen] (ppm)		2022	10	10	NA	NA	ND	NA	ND	ND-0.4	ND	NA	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrite [as nitrogen] (ppm)		2022	1	1	NA	NA	ND	NA	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)		2022	80	NA	19.55 <sup>3</sup>	3.9-31.0	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection
Turbidity (NTU)		2022	TT	NA	NA	NA	0.05 <sup>5</sup>	NA-0.05	0.029 <sup>6</sup>	0.005-0.029	0.05 <sup>6</sup>	- 0.05	No	Soil runoff
Uranium (pCi/L)		2022	20	0.43	NA	NA	ND	ND-2	ND <sup>1</sup>	NA	ND	NA	No	Erosion of natural deposits
Tap water samples were collected for lead and copper analyses from sample sites throughout the community														
			Ramona Municipal Water District			Metropolitan Water District Skinner Plant		San Diego County Water Authority		Carlsbad Desalination Plant				
SUBSTANCE (UNIT OF MEASURE)		YEAR SAMPLED	AL	PHG (MCLG)	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)		2022	1.3	0.3	0.180	0/32	NA	NA	NA	NA	NA	NA	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	NA	NA	NA	NA	NA	NA	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)		2022	500	NS	NA	NA	102	98-106	110 <sup>1</sup>	NA	90	20-119	No	Runoff/leaching from natural deposits; seawater influence
Color (units)		2022	15	NS	NA	NA	2	1-2	ND	NA	ND	NA	No	Naturally occurring organic materials
Odor, Threshold (TON)		2022	3	NS	NA	NA	1	1-1	ND	NA	ND	NA	No	Naturally occurring organic materials
Specific Conductance (µS/cm)		2022	1,600	NS	NA	NA	987	944-1,030	980 <sup>1</sup>	NA	400.17 <sup>7</sup>	345.40-484.58 <sup>7</sup>	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)		2022	500	NS	NA	NA	218	206-229	217	210-220	13.5	13-15	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)		2022	1,000	NS	NA	NA	621	591-651	610 <sup>1</sup>	NA	210.66	138-285	No	Runoff/leaching from natural deposits

## UNREGULATED SUBSTANCES<sup>8</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Ramona Municipal Water District		Metropolitan Water District Skinner Plant		San Diego County Water Authority		Carlsbad Desalination Plant		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Alkalinity (ppm)	2022	NA	NA	124	119–128	130 <sup>1</sup>	NA	61	46–87	NA
Boron (ppb)	2022	NA	NA	130	NA	130 <sup>1</sup>	NA	0.62	0.47–0.91	NA
Calcium (ppm)	2022	NA	NA	67	63–71	68	67–68	20.69	16.76–30.44	NA
Chlorate (ppb)	2022	NA	NA	NA	NA	336	250–440	NA	NA	NA
Corrosivity [as aggressiveness] (units)	2022	NA	NA	12.4	12.4–12.5	13 <sup>1</sup>	NA	10.53	10.34–11.24	NA
Corrosivity [as saturation] (units)	2022	NA	NA	0.66	0.58–0.75	0.82 <sup>1</sup>	NA	0.23	0.04–0.59	NA
Hardness (ppm)	2022	NA	NA	272	263–282	270 <sup>1</sup>	NA	51.74	41.9–76.3	NA
Magnesium (ppm)	2022	NA	NA	25	24–26	25	25–25	1.26	0.95–1.6	NA
N-Nitrosodimethylamine [NDMA] (ppt)	2022	NA	NA	4.4	NA	NA	NA	NA	NA	NA
Potassium (ppm)	2022	NA	NA	4.6	4.4–4.8	4.8	4.7–4.8	6.811	ND–31.015	NA
Sodium (ppm)	2022	NA	NA	100	96–103	98 <sup>1</sup>	NA	58.9	52.7–64.6	NA
TOC (ppm)	2022	NA	NA	2.5	2.3–2.6	2.4	1.3–3.3	NA	NA	NA

<sup>1</sup>Single sample taken.

<sup>2</sup>The State Board considers 50 pCi/L to be the level of concern for beta particles.

<sup>3</sup>Highest locational running annual average.

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

<sup>5</sup>100% of samples were at or below 0.3 NTU.

<sup>6</sup>100% of samples were at or below 0.1 NTU.

<sup>7</sup>Sampled in 2018.

<sup>8</sup>Unregulated contaminant monitoring helps U.S. EPA and the State Board to 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.

**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.