



Annual Water Quality Information 2022 Consumer Confidence Report *Issued July 2023*

INSIDE THIS ISSUE

- FAQs, Mission, Values & Map ... Page 2
- Routine Inspection Page 3
- Certified Operators Page 3
- Contact Information Page 3
- Water Quality /Contaminants ... Page 4
- Terms & Abbreviations..... Page 5
- Water Quality Tables Page 6/7



ADDITIONAL RESOURCES

- MWD website:** www.mwdh2o.com
- EPA website:** www.epa.gov.
- SWRCB website :** www.waterboards.ca.gov
- RMWD website :** www.rainbowmwd.com
- SDCWA website :** www.sdcwa.org

WHERE DOES MY WATER COME FROM?

RMWD purchases 100% of its treated water through our current wholesaler, the San Diego County Water Authority (SDCWA). SDCWA receives most of its water from Metropolitan Water District of Southern California (MWD). The District receives imported water from SDCWA and MWD using a complex system of aqueducts and pipes. The vast majority of RMWD water comes from the Skinner Treatment plant operated by MWD in Riverside County.

SDCWA also treats water at the Twin Oaks Water Treatment Plant (TOWTP) which is located south of the RMWD service area. The TOWTP also receives a portion of its water from the Claude “Bud” Lewis Desal Plant. During unusual periods of low demand in San Diego County, blended water is distributed to the southern end of RMWD. Please refer to the Standards Table on pages 6-7 for more information.

FREQUENTLY ASKED QUESTIONS

Does RMWD have hard or soft water?

During the past year, RMWD’S water hardness averaged 272 milligrams per liter (mg/L) (equal to 15.9 grains per gallon, 1 grain = 17.1 mg/L). This is considered “very hard” water.

What about fluoride?

The Robert A. Skinner Filtration Plant treats water from the Colorado River and from the SWP. The Skinner Plant adjusts the fluoride levels in the water to an optimal level recommended by the CDC for oral health and uses chloramine for final disinfection.

To obtain more information about fluoridation, please visit the State Board’s Fluoridation website below:

www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation

Who regulates drinking water quality?

The USEPA establishes and enforces national drinking water standards. In California, enforcement of drinking water standards falls under the SWRCB-DDW.

OUR MISSION

To provide our customers reliable, high-quality water and water reclamation service in a fiscally sustainable manner.

CORE VALUES

Integrity, Professionalism, Responsibility, Teamwork, and Innovation



WATER QUALITY MONITORING

This brochure is to provide you with water quality information compiled during 2022. Details about where your water comes from, what it contains, and how it compares to Federal and State standards are included. RMWD routinely monitors the distribution system for drinking water constituents of concern. Last year, in addition to dozens of other water quality tests, we conducted 312 tests for total coliform bacteria. The State Water Resources Control Board - Division of Drinking Water (SWRCB-DDW) requires that at most 5% of the monthly water samples may test positive for total coliform. RMWD vigilantly safeguards its water supplies. Once again, we proudly report that our system never violated a maximum contaminant level, or any other water quality standard for the entire year.

STORAGE FACILITY INSPECTIONS

RMWD's water storage and distribution system includes over 331 miles of pipeline, 12 closed steel tanks, and 1 concrete tank as well as 3 covered reservoirs. RMWD completed weekly tank and reservoir inspections as part of its routine preventative maintenance plan. A third-party inspection firm inspects each tank annually for safety and water quality compliance. Every 2-5 years, each tank is taken offline to receive a detailed interior inspection, undergo a full interior cleaning, and receive repairs as needed.

The water contains a mixture of chlorine and ammonia, which creates a strong disinfectant known as chloramines. Chloramine residuals are constantly monitored, and when applicable, RMWD injects small amounts of chlorine into the water at facilities throughout RMWD. However, certain portions of the distribution system convert from chloramine to free chlorine based on specific operating conditions. If a water quality problem occurs, RMWD is prepared to take remedial action as outlined in an Operational Plan approved by the SWRCB-DDW.

SOURCE WATER ASSESSMENT

In 2016, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm runoff, increasing urbanization in the watershed, and wastewater. State Project Water supplies are considered most vulnerable to urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater. Source water protection is crucial for the environment and California residents by ensuring safe drinking water. A copy of the complete assessment can be obtained on the MWD website at www.mwdh2o.com, or by calling: (800) 225-5693.

CERTIFIED OPERATORS

The District's water system operators are certified in water distribution and treatment. Water system operator competency is critical for protecting public health and maintaining safe, optimal, and reliable distribution facility operations. SWRCB-DDW guidelines ensure operators have the operational skills, knowledge, experience, education and training to operate a water system. Once water system operators are trained and certified, they must recertify every 3 years through continued education to ensure competency. The requirements issued by SWRCB-DDW will provide baseline standards for efficient and effective State Water Operator Certification programs.

This report contains important information about your drinking water. Please contact Steve Coffey at 760-728-1178 with any questions.

Este informe contiene información muy importante sobre su agua para beber.

Favor de comunicarse RWMD at 3707 Old Hwy 395, Fallbrook, CA 92028. Para asistirlo en español.

For details about our monthly Board and Committee meeting go to www.rainbowmwd.com/meetings. Attendance is available in-person or virtually.

Why are there contaminants in my drinking water?

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at: (800) 426-4791 or look for it on the EPA's website at: www.epa.gov/safewater.com. 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. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria which 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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Coliform bacteria** are a commonly used indicator of sanitary quality of foods and water.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

What about lead in my drinking water?

If present, elevated lead levels 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. RMWD is responsible for providing high-quality drinking water but cannot control the variety of materials used in privately owned 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. As part of the USEPA Lead & Copper Rule, every three (3) years, RMWD is required to collect samples based on population and service connections within the distribution system. If you are concerned about lead, you should 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) 225-5693 or at: www.epa.gov/safewater/lead. California Assembly Bill 746 requires community water systems to test lead levels by July 1, 2019 in drinking water at all California public, K-12 school sites that were constructed before January 1, 2010.



Do I need to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA and Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at: (800) 426-4791. When ingested by humans, they may result in a variety of gastrointestinal symptoms including diarrhea, nausea and fever. MWD has tested for crypto in its treated water supplies for years. Since 1997, this organism has not been detected in either MWD's source water or treated water.

Terms & Abbreviations

In this table, you will find many terms and abbreviations you may not be familiar with. To help you better understand these terms we've provided the following definitions:

AL – *Regulatory Action Level*: The concentration level of a contaminant, which if exceeded triggers treatment or other requirements, which 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 public health goals (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG – *Maximum Contaminant Level Goal*: The maximum level of a contaminant where there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

mg/L or ppm – Milligrams per liter (mg/L) or Parts per million (ppm) *1 part per million = 1 drop in 10 gallons.*

MRDL – *Maximum Residual Disinfectant Level*: The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap.

MRDLG – *Maximum Residual Disinfectant Level Goal*: The level of disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

NA – *Not applicable.*

ND – *None Detected*: Laboratory analysis indicates that the constituent is not present.

NL – *Notification Level*: Notification levels are health based advisory levels established by CDPH

NRA – *No running average*

NTU – *Nephelometric Turbidity Units*: A measure of the cloudiness of the water.

pCi/L – *PicoCuries per liter*: A measure of radioactivity.

PHG – *Public Health Goal*: The level of contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Agency.

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

TON – Threshold odor number

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

Umho/cm – Micromhos per centimeter (a measure of a substance's ability to convey electricity).

uS/cm – MicroSeimen per centimeter.

ug/L or ppb – Micrograms per liter (ug/L) or Parts per billion (ppb). *1 part per billion is = 1 drop in 10,000 gallons.*

(a) Data shown are annual averages and ranges.

(b) Total coliform MCLs: For a water system collecting fewer than 40 samples per month, no more than 1 of the monthly samples may be total coliform positive.

(c) Calculated from the locational running annual average of quarterly samples.

(d) The Federal and State requirements for exceeding the action levels may include installing corrosion control treatment, collecting water quality parameter samples, or replacing lead service lines.

(e) The turbidity performance standards regulated by a treatment technique shall be less than or equal to 0.3 NTU in 95% of the measurements at Skinner WTP and less than or equal to 0.1 NTU in 95% of the measurements at the CDP and TOVWTP. Turbidity is the measure of the cloudiness of the water and is an indicator of treatment performance.

Through our monitoring and testing we learned some contaminants were detected. However, the EPA has determined that your water meets all drinking water health standards at these levels (c).

PRIMARY STANDARDS – MANDATORY HEALTH-RELATED STANDARDS

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
MICROBIOLOGICAL					
Total Coliform Bacteria (b)	0 in the year	0	No more than 2 positive monthly samples	0	Naturally present in the environment
Fecal Coliform or E. coli	0 in the year	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

INORGANIC COMPOUNDS – SAMPLED IN HOME TAPS IN 2021 (sampled every 3 years)

Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of Samples Collected	90th Percentile Level Detected	No. of Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Copper (d) (ppm)	30	.28	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits
Lead (d) (ppb)	30	0	0	15	0.2	Internal corrosion of household water plumbing systems; Discharges from industrial manufacturers, erosion of natural deposits

SPECIAL LEAD & COPPER MONITORING DUE TO NEW SOURCE AS REQUIRED BY SWRCB

Lead and Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of Samples Collected	90th Percentile Level Detected	No. of Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Copper (d) (ppm)	0	0	0	0	0	Internal corrosion of household plumbing systems; erosion of natural deposits
Lead (d) (ppb)	0	0	0	0	0	Internal corrosion of household water plumbing systems; Discharges from industrial manufacturers, erosion of natural deposits

INORGANIC COMPOUNDS – CONTINUED

	SKINNER WTP		TWIN OAKS WTP		CARLSBAD DESAL PLANT		MCL [MRDL]	MCLG [MRDLG]	Major Sources in Drinking Water.
	Average	Range	Average	Range	Average	Range			
Aluminum (ppb)	113	ND-230	0.07	ND-0.022	ND	ND	1000	600	Natural deposits erosion; residue from water treatment process
Arsenic (ppb)	ND	ND	Single Sample 2.3	NA	ND	ND	10	0.004	Natural deposits erosion; glass and electronics production waste
Barium (ppb)	ND	ND	ND	ND	ND	ND	2000	2000	Oil and metal refineries discharge; natural deposits erosion
Fluoride (ppm)	0.7	0.6-0.8	0.6	0.5-0.7	0.667	ND-0.797	2.0	1	Water additive that promotes strong teeth; erosion of natural deposits

CLARITY

	% <0.3	Highest	% <0.1	Highest	% <0.1	Highest	MCL [MRDL]	(MCLG) [MRDLG]	Major Sources in Drinking Water
Combined Filter (NTU)	NA	0.05	0.017	0.005-0.029	NA	0.05	TT	N/A	Soil runoff
Effluent Turbidity (%)	100%	NA	100%	NA	100%	NA	95 (e)	N/A	Soil runoff

PRIMARY STANDARDS – MANDATORY HEALTH-RELATED STANDARDS (Continued)

DETECTION OF CONTAMINENTS WITH A PRIMARY STANDARD									
Parameter (a)	Average	Range	MCL [MRDL]	(MCLG) [MRDLG]	Major Sources in Drinking Water				
Haloacetic Acids (HAA5) (c)(ppb)	6.47	0-28	60	NA	By-product of drinking water chlorination				
TTHM (c)(ppb) [Total trihalomethanes]	25.7	13-60	80	NA	By-product of drinking water chlorination				
Total Chlorine Residual (ppm)	2.02	1.55-2.58	[4]	[4]	Drinking water disinfectant added for treatment				

RADIONUCLIDE (pCi/L)

	SKINNER WTP		TWIN OAKS WTP		CARLSBAD DESAL PLANT		MCL [MRDL]	(MCLG) [MRDLG]	Major Sources in Drinking Water.
	Average	Range	Average	Range	Average	Range			
Gross Alpha Particle Activity (pCi/L)	ND	ND-3	ND	ND-4	ND	ND	15	(o)	Erosion of natural deposits.
Gross Beta Particle Activity (pCi/L)	7	5-8	5	4.9-5.1	ND	ND	50	(o)	Decay of natural and man-made deposits
Uranium (pCi/L)	2	ND-2	ND	ND	ND	ND	20	0.43	Erosion of natural deposits

SECONDARY STANDARDS - AESTHETICS STANDARDS

Aluminum (ppb)	113	ND-230	74	ND-220	ND	ND	1000	600	Natural deposits erosion; residue from water treatment process
Chloride (ppm)	102	98-106	110	110-110	90	20-119	500	NA	Runoff/leaching from natural deposits; Seawater influence
Color (units)	2	1-2	ND	ND	ND	ND	ND	ND	Naturally occurring organic materials
Iron (ppm)	ND	ND	ND	ND	ND	ND	ND	ND	Leaching from natural deposits; industrial waste
Odor Threshold (TON)	1	1	ND	ND	ND	ND	ND	ND	Naturally occurring organic materials
Specific Conductance (uS/cm)	987	944-1030	Single Sample 980	NA	400.77	345.40-484.58	1600	NA	Substances that form ions when in water; seawater influence
Sulfate (ppm)	218	206-229	Single Sample 217	210-220	13.5	13-15	500	NA	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (TDS) (ppm)*	621	591-651	Single Sample 610	NA	210.66	138-285	1000	NA	Runoff/leaching from natural deposits.

ADDITIONAL PARAMETERS

Hardness (ppm)	272	263-282	Single sample 270	NA	51.74	41.9-76.3	NA	NA	Leaching from natural deposits
Sodium (ppm)	100	96-103	Single sample 98	98-98	58.9	52.7-64.6	NA	NA	Runoff/leaching from natural deposits; Seawater influence
Boron (ppm), (ppb)	130	130	Single sample 130	NA	0.62	0.47-0.91	NA	NL=1	Leaching from natural deposits

*Only a small portion of the RMWD southern service are receive the lower TDS values shown in this table and only when specific hydraulic conditions are present. RMWD cannot independently control TDS values.