2023

ANNUAL WATER QUALITY REPORT

RAINBOW
MUNICIPAL WATER DISTRICT

CONSUMER CONFIDENCE REPORT
ISSUED JUNE 2024

RAINBOWMWD.CA.GOV

2023

ANNUAL WATER QUALITY REPORT

In this issue

Water Resources

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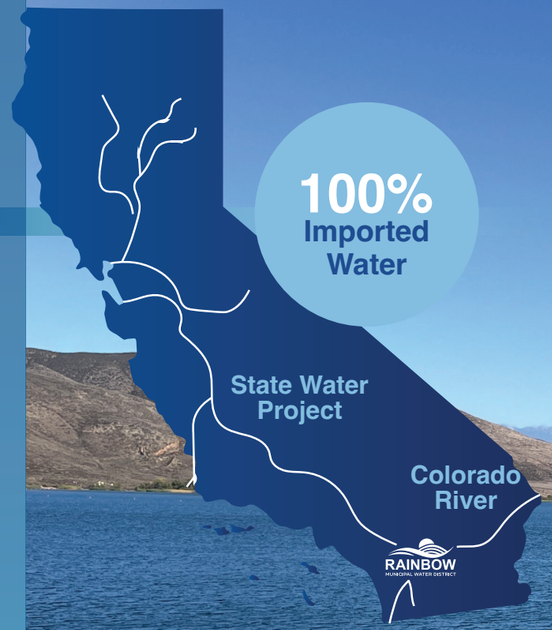
U.S. Environmental Protection Agency
epa.gov/ccr
Safe Drinking Water Hotline
(800) 426-4791

State Water Resources Control Board
waterboards.ca.gov
(866) 792-4977



Where Does My Water Come From?

Water Sources

Rainbow Municipal Water District (Rainbow Water) purchases 100% of its treated water from the San Diego County Water Authority (SDCWA). SDCWA purchases most of its water from the Metropolitan Water District of Southern California (Metropolitan). Rainbow Water receives imported water from SDCWA and Metropolitan Water using a complex system of aqueducts and pipes.

Water is sourced from the Metropolitan Water District from the Northern Sierra Mountains through the State Water Project, and the Rocky Mountains through the Colorado River Aqueduct. The majority of Rainbow Water's water supply is imported from the Robert A. Skinner Treatment Plant in Temecula, Riverside County.

SDCWA also treats water at the Twin Oaks Water Treatment Plant (Twin Oaks), located south of the Rainbow Water service area. Twin Oaks also receives a portion of its water from the Claude "Bud" Lewis Carlsbad Desalination Plant During unusual periods of low demand, blended water is distributed to the southern end of Rainbow Water.

Please refer to the Consumer Confidence Report for more information.

Pictured: Robert A. Skinner Treatment Plant overlooking Lake Skinner in Riverside County.

View the Report Online

The Water Quality Report is now available in English and Spanish. Please view the report electronically by scanning the code below or visit **rainbowmwd.ca.gov/ccr**

Spanish Water Quality Report

Este informe contiene informacion muy importante sobre la calidad de su agua beber. Para espanol scanea el código o visita **rainbowmwd.ca.gov/ccr**

Frequently Asked Questions

Does Rainbow Water have hard or soft water?

During the past year, Rainbow Water has reported a average water hardness of 228 milligrams per liter (mg/L) (equal to 13.3 grains per gallon, 1 grain = 17.1 mg/L). This reported level is considered "hard" water.

What about fluoride?

The Robert A. Skinner Filtration Plant treats water from the Colorado River and from the State Water Project. 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 scan the code to view the State Water Resources Control Board website.

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. The Agency set MCL's for various compounds in water to provide safe drinking water supplies.

About Your Drinking Water

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 the EPA's Safe Drinking Water website: **epa.gov**

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, radio-active 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 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 occur- ring or be the result of oil and gas production and mining activities.

What about lead in my drinking water?

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. Rainbow Water 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 years Rainbow Water is required to collect samples based on population and service connections within the distribution system. If you are concerned about lead in your water, you may request to have your water tested by calling Rainbow Water Customer Service. 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: **epa.gov/safewater/lead.** California Assembly Bill 746 has required community water systems to test lead levels in drinking water since 2019 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: (800) 426-4791. When ingested by humans, they may result in a variety of gastrointestinal symptoms including diarrhea, nausea and fever. Metropolitan has tested for cryptosporidium in treated water supplies for decades, and the organism has not been detected Metropolitan's source water or treated water since 1997.

About the Annual Water Quality Report

Water Quality Monitoring

This report provides water quality information compiled during 2023, with details about where your water comes from, what it contains, and how it compares to Federal and State standards. Rainbow Water routinely monitors the distribution system for drinking water constituents of concern. Last year, in addition to dozens of other water quality tests, Rainbow Water conducted 312 tests for total coliform bacteria. The State Water Resources Control Board - Division of Drinking Water (SWRCB-DDW) requires that no more than 5% of the water samples collected per month may test positive for total coliform. Rainbow Water was in compliance for the entire year.

Storage Facility Inspections

Rainbow Water's water storage and distribution system includes over 344 miles of pipeline, 12 closed steel tanks, one concrete tank and three covered reservoirs. Weekly tank and reservoir inspections were completed by Rainbow Water as part of its routine preventative maintenance plan. Yearly tank is inspections are conducted for safety and sanitation compliance by a third-party inspection firm. Every two years, each tank is taken offline to receive a detailed interior inspection, undergo a robust 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, small amounts of chlorine is injected into the water throughout Rainbow Water facilities. However, certain portions of the distribution system convert from chloramine to free chlorine based on specific operating conditions. Should a water quality problem occur, Rainbow Water is prepared to take remedial action as set forth in an Operational Plan approved by the SWRCB-DDW.

Source Water Assessment

In 2011, Metropolitan completed the source water assessment of the 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 regarded as the most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. Source water protection is not only important for the environment, but also for California residents by ensuring safe drinking water. A copy of the assessment can be obtained on the Metropolitan website at **mwdh2o.com**, or by calling: (800) 225-5693.

Certified Operators

Rainbow Water's water system operators are certified in both water distribution and water treatment. Water system operator competency is critical for the protection of public health and the maintenance of safe, optimal and reliable operations of water treatment and distribution facilities. SWRCB-DDW guidelines ensure that operators have the operational skills, knowledge, experience, education and training required to operate a water system. Once water system operators are initially trained and certified, they are required to 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.

Pictured: Gomez Tank in the Rainbow Water service area.

Consumer Confidence Report

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)	1 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				

Lead & Copper (Completed if detected of lead or copper in last sample set)	No. of Samples Collected	90th Percentile Level Detected	No. of Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
INORGANIC COMPOUNDS – SAMPLED IN HOME TAPS IN 2018 (sampled every 3 years)						
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						
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

	Skinner WTP		Twin Oaks WTP		Carlsbad Desal Plant				
	Average	Range	Average	Range	Average	Range	MCL [MRDL]	MCLG [MRDLG]	Major Sources in Drinking Water
INORGANIC COMPOUNDS									
Aluminum (ppb)	113	ND-230	ND	ND-0.17	ND	ND	1,000	600	Natural deposits erosion; residue from water treatment process
Arsenic (ppb)	ND	ND	Single Sample 2.1	NA	ND	ND	10	0.004	Natural deposits erosion; glass and electronics production waste
Barium (ppb)	116	116	ND	58.5-91.3	ND	ND	1,000	2,000	Oil and metal refineries discharge: natural deposits erosion
Fluoride (ppm)	0.7	0.6-0.8	0.6	0.6-0.63	0.696	0.6-0.799	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)	100%	0.07	0.019	0.013-0.081	NA	0.08	TT	NA	Soil runoff
Effluent Turbidity (%)	100%	0.07	100%	NA	100%	NA	95 (a)	NA	Soil runoff

Glossary Terms and abbreviations used in the tables above.

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.

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).

Parameter (a)	Average	Range	MCL [MRDL]	(MCLG) [MRDLG]	Major Sources in Drinking Water
DETECTION OF CONTAMINANTS WITH A PRIMARY STANDARD					
Haloacetic Acids (HAA5) (c)(ppb)	10.83	0-39	60	NA	By-product of drinking water chlorination
TTHM (c)(ppb) [Total trihalomethanes]	37	20-73	80	NA	By-product of drinking water chlorination
Total Chlorine Residual (ppm)	2.02	1.61-2.58	[4]	[4]	Drinking water disinfectant added for treatment

	Skinner WTP		Twin Oaks WTP		Carlsbad Desal Plant				
	Average	Range	Average	Range	Average	Range	MCL [MRDL]	MCLG [MRDLG]	Major Sources in Drinking Water
RADIONUCLIDE (pCi/L)									
Gross Alpha Particle Activity (pCi/L)	ND	ND-4	ND	ND-4	ND	ND	15	(0)	Erosion of natural deposits
Gross Beta Particle Activity (pCi/L)	ND	ND-8	5	4.9-5.1	ND	ND	50	(0)	Decay of natural and man-made deposits
Uranium (pCi/L)	2	ND-3	ND	ND	ND	ND	20	0.43	Erosion of natural deposits
SECONDARY STANDARDS - AESTHETICS STANDARDS									
Aluminum (ppb)	113	ND-230	ND	ND-0.17	ND	ND	200	600	Natural deposits erosion; residue from water treatment process
Chloride (ppm)	91	72-110	100	100	75	35-98	500	NA	Runoff/leaching from natural deposits; Seawater influence
Color (units)	1	1	1	1	ND	ND	15	NA	Naturally occurring organic materials
Iron (ppm)	ND	ND	ND	ND	ND	ND	300	ND	Leaching from natural deposits; industrial waste
Odor Threshold (TON)	2	2	ND	ND	ND	ND	3	ND	Naturally occurring organic materials
Specific Conductance (uS/cm)	852	664-1040	Single Sample 980	NA	405.4	225.5-506.4	1,600	NA	Substances that form ions when in water; seawater influence
Sulfate (ppm)	174	113-236	166	122-210	13.5	13-15	500	NA	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (TDS) (ppm)	536	401-670	Single Sample 570	NA	216	122-318	1,000	NA	Runoff/leaching from natural deposits
ADDITIONAL PARAMETERS									
Hardness (ppm)	228	165-291	Single Sample	NA	56.12	43.7-79.6	NA	NA	Leaching from natural deposits
Sodium (ppm)	86	69-103	99	NA	55.35	40.1-61	NA	NA	Runoff/leaching from natural deposits; Seawater influence
Boron (ppb)	130	130	Single Sample 140	NA	0.62	0.39-0.90	NA	NL=1	Leaching from natural deposits

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.

About Your Local Water Agency

Founded in 1953, Rainbow Water treats and delivers water to over 8,800 water customers and 3,260 sewer customers within an 82-square mile service area. As a small government agency, Rainbow Water works tirelessly to maintain service 24 hours a day and 365 days per year.

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.

Stay Connected

Have you recently moved or changed your phone number? The Customer Service team is available to update your contact informationto ensure you receive monthly invoices, newsletters, and service updates. Learn more about payment plans, bill payments, and rate options by calling (760) 728-1178.

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