

ANNUAL WATER QUALITY REPORT

Reporting Year 2024

Presented By



This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información importante sobre su agua potable. Traducirlo, o hablar con alguien que lo entienda.

Your 2025 Water Quality Report

Since 1990, California public water utilities have been providing an annual Water Quality Report to their customers. This year's report covers drinking water quality testing and reporting for 2024. Trabuco Canyon Water District (TCWD) vigilantly safeguards its water supply, and as in years past, the water delivered to your home meets the quality standards required by federal and state regulatory agencies. The U.S. Environmental Protection Agency (U.S. EPA) and the State Water

Resources Control Board (SWRCB), Division of Drinking Water (DDW) are the agencies responsible for establishing and enforcing drinking water quality standards. TCWD and other regional water suppliers frequently go beyond what is required by testing for unregulated chemicals that may have known health risks but do not have drinking water standards. Unregulated chemical monitoring helps U.S. EPA and DDW determine where certain chemicals occur and whether new standards need to be established for those chemicals to protect public health.

Through drinking water quality testing programs carried out by TCWD, your drinking water is constantly monitored from source to tap for constituents that are both regulated and unregulated. The state allows water agencies to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative, is more than a year old.

Quality Water is Our Priority

Turn the tap and the water flows, as if by magic. Or so it seems. The reality is considerably different. Delivering high-quality drinking water to our customers is a scientific and engineering feat that requires considerable effort and talent to ensure the water is always there, always safe to drink. Because tap water is highly regulated by state and federal laws, water treatment and distribution operators must be licensed and are required to complete on-the-job training and technical education before becoming certified by the state.

Our licensed water professionals have an understanding of a wide range of subjects, including mathematics, biology, chemistry, physics, and engineering. 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;
- Documenting and reporting test results and system operations to regulatory agencies; and
- 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 every drop.

Sources of Supply

TCWD has a variety of water supply sources, including imported wholesale and treated surface water and local groundwater. TCWD's Dimension Water Treatment Plant treats primarily imported water from the Colorado River. TCWD also receives imported, treated water from the Metropolitan Water District of Southern California (MWDSC) or the Baker Water Treatment Plant, which uses water from MWDSC and the Santiago Reservoir (Irvine Lake). MWDSC's imported water sources are the Colorado River and the State Water Project, which draws water from the Sacramento–San Joaquin River Delta.

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 can be particularly at risk from infections. These people should seek advice about drinking water from their health-care providers. U.S. EPA/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).



We Invite You to Learn More About Your Water's Quality

For information about this report, or your water quality in general, please contact Fernando Paludi, General Manager, at (949) 858-0277. The TCWD Board of Directors meets the third Wednesday of each month at 6:00 p.m. at the administration building, 32003 Dove Canyon Drive. The public is encouraged to attend. TCWD encourages its customers to visit tcwd.ca.gov. For more information about the health effects of the contaminants listed in the tables, call the U.S. EPA hotline at (800) 426-4791.

Source Water Assessment

Imported (MWDSC) Water Assessment

Every five years, water purveyors are required by DDW to examine possible sources of drinking water contamination in their State Water Project and Colorado River source waters. The most recent surveys for MWDSC's source waters are the Colorado River Watershed Sanitary Survey—2020 Update and the State Water Project Watershed Sanitary Survey—2021 Update. Water from the Colorado River is considered to be most vulnerable to contamination from recreation, urban/stormwater runoff, increasing urbanization in the watershed, and wastewater. Water supplies from Northern California's State Water Project are most vulnerable to contamination from urban/stormwater runoff, wildlife, agriculture, recreation, and wastewater.

U.S. EPA also requires water purveyors to complete a source water assessment (SWA) that uses information collected in the watershed sanitary surveys. MWDSC completed its SWA in December 2002. The most recent SWA for Santiago Reservoir was completed in 2001. The SWA is used to evaluate the vulnerability of water sources to contamination and helps determine whether more protective measures are needed. A copy of the most recent summary of the Watershed Sanitary Surveys or the SWA can be found at tcwd.ca.gov or by calling the district at (949) 858-0277.

Baker Water Treatment Plant

The Baker Water Treatment Plant receives untreated surface water from MWDSC and Santiago Reservoir. The surface water assessment of Santiago Reservoir is provided by Serrano Water District, which also uses this source. The most recent sanitary survey for Santiago Reservoir was updated in 2019. Water supplies from Santiago Reservoir are most vulnerable to septic systems and wildfires. The SWA for Santiago Reservoir was completed in April 2001. The assessment was conducted for the Serrano Water District by Boyle Engineering Corporation with assistance from the Serrano Water District staff. A copy of the complete assessment may be viewed at the Irvine Ranch Water District (IRWD) Water Quality Department, 3512 Michelson Drive, Irvine. You may request a summary of the assessment by writing to District Secretary, Irvine Ranch Water District, 15600 Sand Canyon Avenue, Irvine, CA 92618.

Groundwater Assessment

An assessment of the drinking water sources for TCWD was completed in 2011. The water sources are considered most vulnerable to contaminants associated with historic gas stations, septic systems, agricultural/irrigation wells, above- and belowground storage tanks, and mining activities. There have been no contaminants detected in TCWD's water associated with these activities. The only detections of contaminants are associated with naturally occurring salts and radiochemicals and low-level organics. A copy of the complete assessment may be viewed at TCWD. You may request a summary of the assessment by contacting the district secretary at (949) 858-0277.



About Lead in Tap Water

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and home plumbing. TCWD is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter certified by an American National Standards Institute-accredited certifier to reduce lead is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure it is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling does not remove lead from water.

Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, or doing laundry or a load of dishes. If you have a lead or galvanized service line requiring replacement, you may need to flush your pipes for a longer period. If you are concerned about lead and wish to have your water tested, contact TCWD at (949) 858-0277. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at epa.gov/safewater/lead.

Lead Service Line Inventory

To address lead in drinking water, public water systems were required to develop and maintain an inventory of service line materials by October 16, 2024. Developing an inventory and identifying the location of lead service lines (LSL) is the first step for beginning LSL replacement and protecting public health. The lead service line inventory may be found at tcwd.ca.gov/district-services/domestic-water/revised-lead-and-copper-rule-lcrr. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

Cross-Connection Control Management Plan

In cooperation with the State Water Resources Control Board Division of Drinking Water, TCWD's major goal is to ensure the distribution of a safe and potable water supply to all domestic water users. In order for TCWD to achieve this goal, a Cross-Connection Control Management Plan (CCCMP) is being developed with an effective date of July 1, 2025. TCWD's CCCMP was developed pursuant to the requirements set forth in the Cross-Connection Control Policy Handbook (CCCPH) which replaced State of California Administrative Code Title 17, Sections §7583 through §7605 and applies to all State of California Public Water Systems, as defined in California's Health and Safety Code (CHSC, section 116275(h)).

2024 Trabuco Canyon Water District Drinking Water Quality

For more information about the health effects of the listed contaminants in the following tables, call the U.S. EPA hotline at (800) 426-4791.

2024 TRABUCO CANYON WATER DISTRICT DISTRIBUTION SYSTEM WATER QUALITY

	MCL (MRDL/ MRDLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Disinfection Byproducts					
Total Trihalomethanes (ppb)	80	45	12 - 64	No	Byproducts of Chlorine Disinfection
Haloacetic Acids (ppb)	60	14	ND - 20	No	Byproducts of Chlorine Disinfection
Chlorine Residual (ppm)	(4 / 4)	0.85	0.3 - 2.3	No	Disinfectant Added for Treatment
Aesthetic Quality					
Color (color units)	15*	1	ND - 1	No	Erosion of Natural Deposits
Odor (threshold odor number)	3*	1	ND - 1	No	Erosion of Natural Deposits
Turbidity (ntu)	5*	0.2	ND - 0.5	No	Erosion of Natural Deposits

Four locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids – per State Water Resources Control Board Guidelines, average amount shall be reported as the highest of the locational running annual average values for the year; sixteen locations are tested monthly for color, odor and turbidity.

MRDL = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal;

*Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

LEAD AND COPPER ACTION LEVELS AT RESIDENTIAL TAPS

	ACTION LEVEL (AL)	PUBLIC HEALTH GOAL	90TH PERCENTILE VALUE	SITES EXCEEDING AL / NUMBER OF SITES	AL VIOLATION?	TYPICAL SOURCE IN DRINKING WATER
Lead (ppb)	15	0.2	ND	0/35	No	Corrosion of Household Plumbing
Copper (ppm)	1.3	0.3	0.18	0/35	No	Corrosion of Household Plumbing

Every three years, at least 30 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2024. Lead was not detected in any sample. Copper was detected in 21 samples; none exceeded the regulatory action level. A regulatory action level is the concentration of a constituent, if exceeded triggers treatment or other requirements that a water system must follow.

UNREGULATED CHEMICALS REQUIRING MONITORING IN THE DISTRIBUTION SYSTEM

CHEMICAL	NOTIFICATION LEVEL	PHG	AVERAGE AMOUNT	RANGE OF DETECTIONS	MOST RECENT SAMPLING DATE
Haloacetic Acids (HAA5) (ppb)	n/a	n/a	10.5	4.27 - 17.6	2020
Haloacetic Acids (HAA6Br) (ppb)	n/a	n/a	9.34	3.65 - 16.8	2020
Haloacetic Acids (HAA9) (ppb)	n/a	n/a	18.5	7.25 - 31	2020



2024 TRABUCO CANYON WATER DISTRICT TRABUCO CREEK WELLS FACILITY

CONSTITUENT	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	MOST RECENT SAMPLING DATE	TYPICAL SOURCE OF CONTAMINATION
Inorganic Constituents							
Nitrate (ppm as N)	10	10	1.3	1.3	No	2024	Fertilizers, Septic Tanks
Nitrate+Nitrite (ppm as N)	10	10	1.3	1.3	No	2024	Fertilizers, Septic Tanks
Secondary Standards*							
Chloride (ppm)	500*	n/a	16	16	No	2024	Erosion of Natural Deposits
Specific Conductance ($\mu\text{mho}/\text{cm}$)	1,600*	n/a	620	620	No	2024	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	150	150	No	2024	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	430	430	No	2024	Erosion of Natural Deposits
Unregulated Constituents							
Bicarbonate (ppm)	Not Regulated	n/a	230	230	n/a	2024	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	83	83	n/a	2024	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	19	19	n/a	2024	Erosion of Natural Deposits
pH (pH units)	Not Regulated	n/a	7.2	7.2	n/a	2024	Erosion of Natural Deposits
Sodium (ppm)	Not Regulated	n/a	26	26	n/a	2024	Erosion of Natural Deposits
Total Alkalinity (ppm as CaCO_3)	Not Regulated	n/a	180	180	n/a	2024	Erosion of Natural Deposits
Total Hardness (ppm as CaCO_3)	Not Regulated	n/a	287	287	n/a	2024	Erosion of Natural Deposits
Total Hardness (grains per gallon)	Not Regulated	n/a	17	17	n/a	2024	Erosion of Natural Deposits
Total Hardness (grains/gal)	Not Regulated	n/a	17	17	n/a	2024	Erosion of Natural Deposits

ppb = parts-per-billion; **ppm** = parts-per-million; **ntu** = nephelometric turbidity units; **ND** = not detected; **n/a** = not applicable; **MCL** = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal; **$\mu\text{mho}/\text{cm}$** = micromho per centimeter;

*Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

	TREATMENT TECHNIQUE	TURBIDITY MEASUREMENTS	TT VIOLATION?	MOST RECENT SAMPLING DATE	TYPICAL SOURCE IN DRINKING WATER
Turbidity - combined filter effluent					
1) Highest single turbidity measurement	5 NTU	0.32	No	2024	Soil Runoff
2) Percentage of samples less than 0.2 NTU	95%	100%	No	2024	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Trabuco Canyon Water District's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique." A treatment technique is a required process intended to reduce the level of constituents in drinking water that are difficult and sometimes impossible to measure directly. **NTU** = nephelometric turbidity units

UNREGULATED CHEMICALS REQUIRING MONITORING

CHEMICAL	NOTIFICATION LEVEL	PHG	AVERAGE AMOUNT	RANGE OF DETECTIONS	MOST RECENT SAMPLING DATE
Bromide (ppm)	n/a	n/a	0.033	0.032 - 0.033	2020

Drinking Water Definitions

What are water quality standards?

Drinking water standards established by U.S. EPA and DDW set limits for substances that may affect consumer health or aesthetic qualities of drinking water. The tables in this report show the following types of water quality standards:

- 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.
- 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.
- Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- Primary drinking water standard:** MCLs for contaminants that affect health, along with their monitoring and reporting requirements and water treatment requirements.
- Regulatory action level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

What is a water quality goal?

In addition to mandatory water quality standards, U.S. EPA and DDW have set voluntary water quality goals for some contaminants. Water quality goals are often set at such low levels that they are not achievable in practice and are not directly measurable. Nevertheless, these goals provide useful guideposts and direction for water management practices. The tables in this report include three types of water quality goals:

- 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 U.S. EPA.
- 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.
- 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 EPA.

How are contaminants measured?

Water is sampled and tested throughout the year. Contaminants are measured in:

- Parts per million (ppm) or milligrams per liter (mg/L)
- Parts per billion (ppb) or micrograms per liter ($\mu\text{g}/\text{L}$)
- Parts per trillion (ppt) or nanograms per liter (ng/L)

2024 TRABUCO CANYON WATER DISTRICT DIMENSION WATER TREATMENT PLANT

CONSTITUENT	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	MOST RECENT SAMPLING DATE	TYPICAL SOURCE IN DRINKING WATER
Radiologicals							
Alpha Radiation (pCi/L)	15	(0)	3.1	3.1	No	2017	Erosion of Natural Deposits
Uranium (pCi/L)	20	0.43	3.5	3.5	No	2017	Erosion of Natural Deposits
Inorganic Constituents							
Aluminum (ppm)	1	0.6	0.11	0.11	No	2024	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.13	0.13	No	2024	Erosion of Natural Deposits
Fluoride (ppm) naturally-occurring	2	1	0.31	0.31	No	2024	Erosion of Natural Deposits
Secondary Standards*							
Aluminum (ppb)	200*	600	110	110	No	2024	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	120	120	No	2024	Leaching from Natural Deposits
Specific Conductance (μmho/cm)	1,600*	n/a	1,100	1,100	No	2024	Ions in Water
Sulfate (ppm)	500*	n/a	260	260	No	2024	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	680	680	No	2024	Runoff or Leaching from Natural Deposits
Unregulated Constituents							
Calcium (ppm)	Not Regulated	n/a	72.1	72.1	n/a	2024	Runoff or Leaching from Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	27.4	27.4	n/a	2024	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	7.74	7.74	n/a	2024	Hydrogen Ion Concentrations
Sodium (ppm)	Not Regulated	n/a	110	110	n/a	2024	Runoff or Leaching from Natural Deposits
Total Alkalinity (ppm as CaCO ₃)	Not Regulated	n/a	160	160	n/a	2024	Runoff or Leaching from Natural Deposits
Total Hardness (ppm as CaCO ₃)	Not Regulated	n/a	293	293	n/a	2024	Runoff or Leaching from Natural Deposits
Total Hardness (grains/gal)	Not Regulated	n/a	17	17	n/a	2024	Runoff or Leaching from Natural Deposits

ppb = parts-per-billion; **ppm** = parts-per-million; **pCi/L** = picoCuries per liter; **ntu** = nephelometric turbidity units; **ND** = not detected; **n/a** = not applicable; **MCL** = Maximum Contaminant Level; **(MCLG)** = federal MCL Goal; **PHG** = California Public Health Goal;

*Constituent is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

	TREATMENT TECHNIQUE	TURBIDITY MEASUREMENTS	TT VIOLATION?	MOST RECENT SAMPLING DATE	TYPICAL SOURCE IN DRINKING WATER
Turbidity - combined filter effluent					
1) Highest single turbidity measurement (NTU)	1	0.21	No	2024	Soil Runoff
2) Percentage of samples less than 0.2 NTU	95%	100%	No	2024	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Trabuco Canyon Water District's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique." A treatment technique is a required process intended to reduce the level of constituents in drinking water that are difficult and sometimes impossible to measure directly. **NTU** = nephelometric turbidity units

UNREGULATED CHEMICALS REQUIRING MONITORING

CHEMICAL	NOTIFICATION LEVEL	PHG	AVERAGE AMOUNT	RANGE OF DETECTIONS	MOST RECENT SAMPLING DATE
Bromide (ppm)	n/a	n/a	0.034	0.03 - 0.038	2020
Lithium (ppb)	n/a	n/a	52	44 - 60	2023
Manganese (ppb)**	SMCL = 50	n/a	ND	ND - 0.58	2020
Total Organic Carbon (Unfiltered)(ppm)	n/a	n/a	2.8	2.6 - 3	2020

SMCL = Secondary MCL.

** Manganese is regulated with a secondary standard of 50 ppb but was not detected, based on the detection limit for purposes of reporting of 20 ppb. Manganese was included as part of the unregulated chemicals requiring monitoring.

2024 METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA TREATED SURFACE WATER

CHEMICAL	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	TYPICAL SOURCE OF CHEMICAL
Radiologicals - Tested in 2023 and 2024						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND - 5	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	4	ND - 5	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	1	ND - 3	No	Erosion of Natural Deposits
Inorganic Chemicals - Tested in 2024						
Aluminum (ppm)	1	0.6	ND	ND - 0.11	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.124	0.124	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	ND	ND - 1.6	No	Byproduct of Drinking Water Ozonation
Fluoride (ppm)	2	1	0.7	0.6 - 0.8	No	Water Additive for Dental Health
Secondary Standards* - Tested in 2024						
Aluminum (ppb)	200*	600	ND	ND - 110	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	104	93 - 116	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	2	1 - 2	No	Naturally-occurring Organic Materials
Odor (threshold odor number)	3*	n/a	1	1	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	979	888 - 1,070	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	224	196 - 253	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	621	556 - 686	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals - Tested in 2024						
Alkalinity, total as CaCO₃ (ppm)	Not Regulated	n/a	114	105 - 123	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL=1	n/a	0.14	0.14	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	68	58 - 78	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO₃ (ppm)	Not Regulated	n/a	270	235 - 305	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gal)	Not Regulated	n/a	16	14 - 18	n/a	Runoff or Leaching from Natural Deposits
Lithium (ppb)	Not Regulated	n/a	40	32 - 47	n/a	Various Natural and Man-made Sources
Magnesium (ppm)	Not Regulated	n/a	26	22 - 29	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.2	8.2	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.9	4.4 - 5.4	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	103	90 - 116	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	2 - 2.5	n/a	Various Natural and Man-made Sources

ppb = parts per billion; ppm = parts per million; pCi/L = picoCuries per liter; µmho/cm = micromhos per centimeter; ND = not detected; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; NL = Notification Level; n/a = not applicable; TT = treatment technique; * Chemical is regulated by a secondary standard.

METROPOLITAN WATER DISTRICT DIEMER FILTRATION PLANT	TREATMENT TECHNIQUE	TURBIDITY MEASUREMENTS	TT VIOLATION?	TYPICAL SOURCE OF CHEMICAL
Turbidity - combined filter effluent				
1) Highest single turbidity measurement (NTU)	0.3	0.06	No	Soil Runoff
2) Percentage of samples less than or equal to 0.3 NTU	95%	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly.

NTU = nephelometric turbidity units

2024 BAKER WATER TREATMENT PLANT

CHEMICAL	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	TYPICAL SOURCE OF CHEMICAL
Radiologicals - Tested in 2024						
Gross Alpha Particle Activity (pCi/L)	15	MCLG = 0	3.8	3.8	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	MCLG = 0	4.6	4.6	No	Decay of Natural and Man-made Deposits
Uranium (pCi/L)	20	0.43	2.2	2.2	No	Erosion of Natural Deposits
Inorganic Chemicals - Tested in 2024						
Arsenic (ppb)	10	0.004	2	2 - 2.27	No	Erosion of Natural Deposits
Barium (ppm)	1	2	0.129	0.113 - 0.141	No	Refinery Discharge, Erosion of Natural Deposits
Chlorine Dioxide (ppb)	MRDL = 800	MRDLG = 800	98.5	ND - 680	No	Drinking Water Disinfectant Added for Treatment
Chlorite (ppm)	1.0	0.05	ND	ND - 0.09	No	Byproduct of Drinking Water Chlorination
Fluoride (ppm)	2.0	1	0.35	0.31 - 0.38	No	Erosion of Natural Deposits; Water Additive for Dental Health
Secondary Standards* - Tested in 2024						
Chloride (ppm)	500*	n/a	112	98.4 - 119	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	ND	ND - 8	No	Naturally-occurring Organic Materials
Manganese (ppb)	50*	n/a	1.44	ND - 47	No	Leaching from Natural Deposits
Odor (threshold odor number)	3*	n/a	2	ND - 4	No	Naturally-occurring Organic Materials
Specific Conductance (μmho/cm)	1,600*	n/a	1,065	1,008 - 1,126	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	237	228 - 243	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	642	588 - 712	No	Runoff or Leaching from Natural Deposits
Turbidity (ntu)	5*	n/a	ND	ND - 0.3	No	Soil Runoff
Unregulated Chemicals - Tested in 2024						
Alkalinity, total as CaCO₃ (ppm)	Not Regulated	n/a	124	115 - 144	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.138	0.127 - 0.153	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	72.7	67.2 - 79.5	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO₃ (ppm)	Not Regulated	n/a	295	281 - 313	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO₃ (grains/gallon)	Not Regulated	n/a	17	16 - 18	n/a	Runoff or Leaching from Natural Deposits
Lithium (ppb)	Not Regulated	n/a	65.7	64.2 - 67.2	n/a	Various Natural and Man-made Sources
Magnesium (ppm)	Not Regulated	n/a	27.9	26.2 - 29.8	n/a	Runoff or Leaching from Natural Deposits
pH (pH unit)	Not Regulated	n/a	7.9	7.4 - 8.6	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	5.9	4.83 - 21.2	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	105	90.3 - 114	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	1.9	1.9	n/a	Various Natural and Man-made Sources

ppb = parts per billion; **ppm** = parts per million; **pCi/L** = picoCuries per liter; **μmho/cm** = micromhos per centimeter; **NTU** = nephelometric turbidity units; **MCL** = Maximum Contaminant Level; **PHG** = California Public Health Goal; **MCLG** = federal MCL Goal; **MRDL** = Maximum Residual Disinfectant Level; **MRDLG** = Maximum Residual Disinfectant Level Goal; **NL** = Notification Level; **n/a** = not applicable; **TT** = treatment technique;

* Chemical is regulated by a secondary standard.

IRVINE RANCH WATER DISTRICT BAKER WATER TREATMENT PLANT	TREATMENT TECHNIQUE	TURBIDITY MEASUREMENTS	TT VIOLATION?	TYPICAL SOURCE IN DRINKING WATER
Turbidity - combined filter effluent				
1) Highest single turbidity measurement (NTU)	0.1	0.043	No	Soil Runoff
2) Percentage of samples less than or equal to 0.3 NTU	95%	100%	No	Soil Runoff

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in the treated water is a good indicator of effective filtration. Filtration is called a "treatment technique" (TT). A treatment technique is a required process intended to reduce the level of chemicals in drinking water that are difficult and sometimes impossible to measure directly. NTU = nephelometric turbidity units

Drinking Water Fluoridation

Fluoride has been added to U.S. drinking water supplies since 1945 to help prevent tooth decay. As of today, the majority of public water suppliers in the country, including the MWDSC, fluoridate their water. MWDSC began adding fluoride in December 2007, complying with all provisions of California's fluoridation system requirements. Fluoride levels in drinking water are regulated in California and limited to a maximum of 2 parts per million (ppm). Some local ground-water supplies naturally contain fluoride, but they are not supplemented with additional fluoride.

Additional Information

For more details on water fluoridation, please visit:

- **U.S. Centers for Disease Control and Prevention (CDC):** cdc.gov/fluoridation or (800) 232-4636
- **State Water Resources Control Board, Division of Drinking Water:** waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.html
- **American Dental Association:** ada.org
- **American Water Works Association:** [awwa.org](http://www.awwa.org)

For specific inquiries about MWDSC's fluoridation program, please contact MWDSC directly at (800) 225-5693.

Cryptosporidium

Cryptosporidium is a microscopic organism that originates from animal and human waste and may be present in surface water. When ingested, it can cause diarrhea, fever, and other gastrointestinal symptoms. In 2024, the MWDSC tested for Cryptosporidium and did not detect its presence in any water after it had been treated. If Cryptosporidium is ever detected in drinking water, it is effectively removed through a combination of sedimentation, filtration, and disinfection.

The U.S. EPA and the Centers for Disease Control and Prevention (CDC) provide guidelines on how to reduce the risk of infection from Cryptosporidium and other microbial contaminants. For more information, contact the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791 or visit epa.gov/safewater.

Drinking Water Contaminants

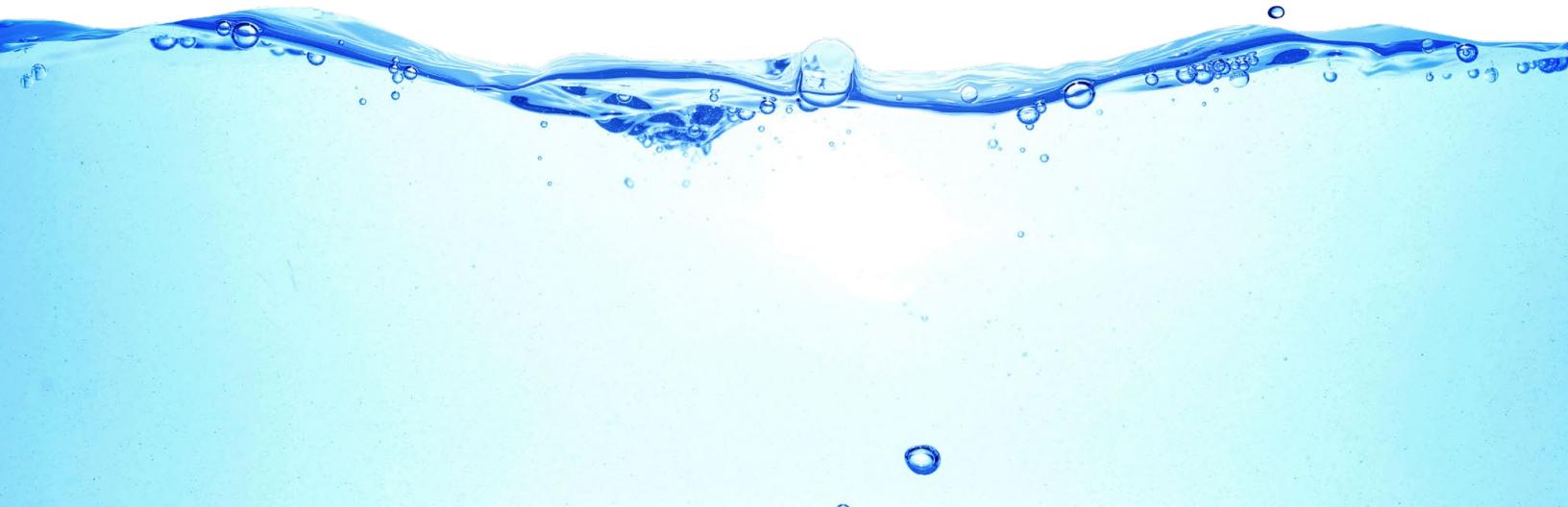
The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick 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 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, that are by-products of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants that can be naturally occurring or the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the U.S. EPA and SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. 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. 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).



Disinfectants and Disinfection By-Products in Drinking Water

Disinfection of drinking water was one of the greatest public health advancements of the 20th century, significantly reducing the spread of waterborne diseases caused by bacteria and viruses. Today chlorine and chloramines are commonly used disinfectants to ensure safe drinking water.

How Disinfection Works

- Chlorine is added at the water source (groundwater wells or treatment plants) to kill harmful microorganisms.
- Residual chlorine remains in the distribution system to prevent bacterial growth in the pipes that carry water to homes and businesses.
- Chloramines, a combination of chlorine and ammonia, are also used as a disinfectant and help reduce certain by-products.

Disinfection By-Products and Regulations

While effective, chlorine and chloramines can react with naturally occurring materials in water, forming disinfection by-products (DBPs), which may pose health risks. The most common DBPs are trihalomethanes (THMs) and haloacetic acids (HAAs).

To protect public health, the U.S. EPA regulates DBPs under the Safe Drinking Water Act:

- In 1979 the U.S. EPA set the maximum allowable total THM level at 100 parts per billion (ppb).
- In 2002 the Stage 1 Disinfectants/Disinfection Byproducts Rule lowered the limit to 80 ppb and added HAAs to the list of regulated chemicals.
- In 2006 the Stage 2 Disinfectants/Disinfection Byproducts Rule introduced further monitoring and control measures.
- Full compliance began in 2012.

Your drinking water meets or exceeds all state and federal standards, with rigorous monitoring in place. We regularly test for DBPs and adjust treatment methods to maintain a safe balance between disinfection and by-product control.

Important Considerations

- **Fish and aquatic pets:** Chloramines can be toxic to fish and should be removed from water used in aquariums.
- **Kidney dialysis patients:** Chloramines must be filtered from water used in dialysis treatment—consult your health-care provider.

For more information on water quality and regulations, visit:

- **U.S. EPA water regulations:** epa.gov/sdwa
- **SWRCB:** waterboards.ca.gov

Your drinking water is treated, tested, and monitored to ensure it remains safe and reliable for you and your community.



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