Annual Water Quality Report

Reporting Period: January-December 2025

Bradt Reservoir aerial

SOUTH COAST WATER DISTRICT
Partnering With The Community

JOINT REGIONAL WATER SUPPLY SYSTEM

Joint Regional Water Supply System

Joint Regional Water Supply System's water quality is equal to or better than what is required to safeguard public health.

Your Water Quality Report

Since 1990, California public water utilities have provided an annual Water Quality Report to their customers. This year's report covers water quality results for 2025. Joint Regional Water Supply System (JRWSS) under the contracted operation of the South Coast Water District (SCWD) vigilantly safeguards your water supply. As in years past, the water delivered to your home or business meets the quality standards required by the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (SWRCB), Division of Drinking Water (DDW). The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than a year old.

About Joint Regional Water Supply System

The Joint Regional Water Supply System (JRWSS) is valuable to our region's water supply reliability. The JRWSS is comprised of a series of conveyance pipelines spanning approximately 40 miles providing potable drinking water from Metropolitan Water District's Diemer Filtration Plant in Yorba Linda. The JRWSS actively provides water to six member agencies in South Orange County serving communities from Irvine to San Clemente, including three retail customers located in Northerly San Diego County. The JRWSS system also includes two water storage facilities in San Clemente: the Palisades Dam/Roy A. Bradt Reservoir and the F.M. Schlegel Reservoir. Collectively, these facilities comprise the JRWSS.

JRWSS includes:

Six Member Agencies

- Irvine Ranch Water District
- El Toro Water District
- Moulton Niguel Water District
- South Coast Water District
- City of San Clemente
- Santa Margarita Water District

Three customers in North San Diego County

- California State Parks
- Camp Pendleton Marine Corps Base
- Southern California Edison San Onofre Nuclear Generating Station (SONGS)

40 Miles of Transmission Main Pipelines serving South Orange County and North San Diego County – 60″ to 6″ Pipes

Bradt Reservoir (48 MG) and Schlegel Reservoir (12 MG)

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).

Watching over JRWSS headquarters

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

For further information about this report, or about your water quality in general, please contact Jason Shim at (949) 499-4555, ext. 3129. The South Coast Water District Board of Directors holds regular meetings on the second and fourth Thursday of the month at 5 p.m. at the District Administrative Office, 31592 West Street, Laguna Beach, California 92651. You are welcome and encouraged to attend the regular Board meetings in person or virtually. Please visit SCWD.org/Board for agendas, archived meetings, and to learn more about our Board.

/SouthCoastWD @SouthCoastWater

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.

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, and always safe to drink. Because tap water is highly regulated by state and federal laws, water treatment and distribution operators must be licensed.

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.

About Lead in Tap Water

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. South Coast Water District is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact South Coast Water District at (949) 499-4555. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

Sources of Supply

One hundred percent of water we need in our service area is imported treated surface water from Northern California and the Colorado River. Additional potable water can be added to our supply through the local Groundwater Recovery Facility (GRF, operated by SCWD), which extracts water from the San Juan Basin and converts it to potable water using reverse osmosis technology and also from Irvine Ranch Water District's Baker Water Treatment facility via the south county pipeline.

Investing in Future Supply Sources

Over the next decade, the District is taking decisive action to reduce our reliance on imported water supplies, which face growing uncertainty due to climate change, prolonged drought, and increasing statewide demand. The Doheny Ocean Desalination Project is central to this effort.

The Doheny project will provide a new locally controlled, drought-proof drinking water supply — not just for our District, but for partner communities in South Orange County. Unlike imported water supplies that travel hundreds of miles through aging infrastructure and are vulnerable to drought and regulatory uncertainty, ocean desalination produces water from an inexhaustible local source. This regional benefit means greater water supply reliability for the thousands of residents and businesses that call South Orange County home.

Imported water will remain an important part of California's water supply for years to come, but building local resilience is essential to securing our future. Developing a regional drought-proof supply here in South Orange County is a responsible and forward-looking investment in our community's long-term water security.

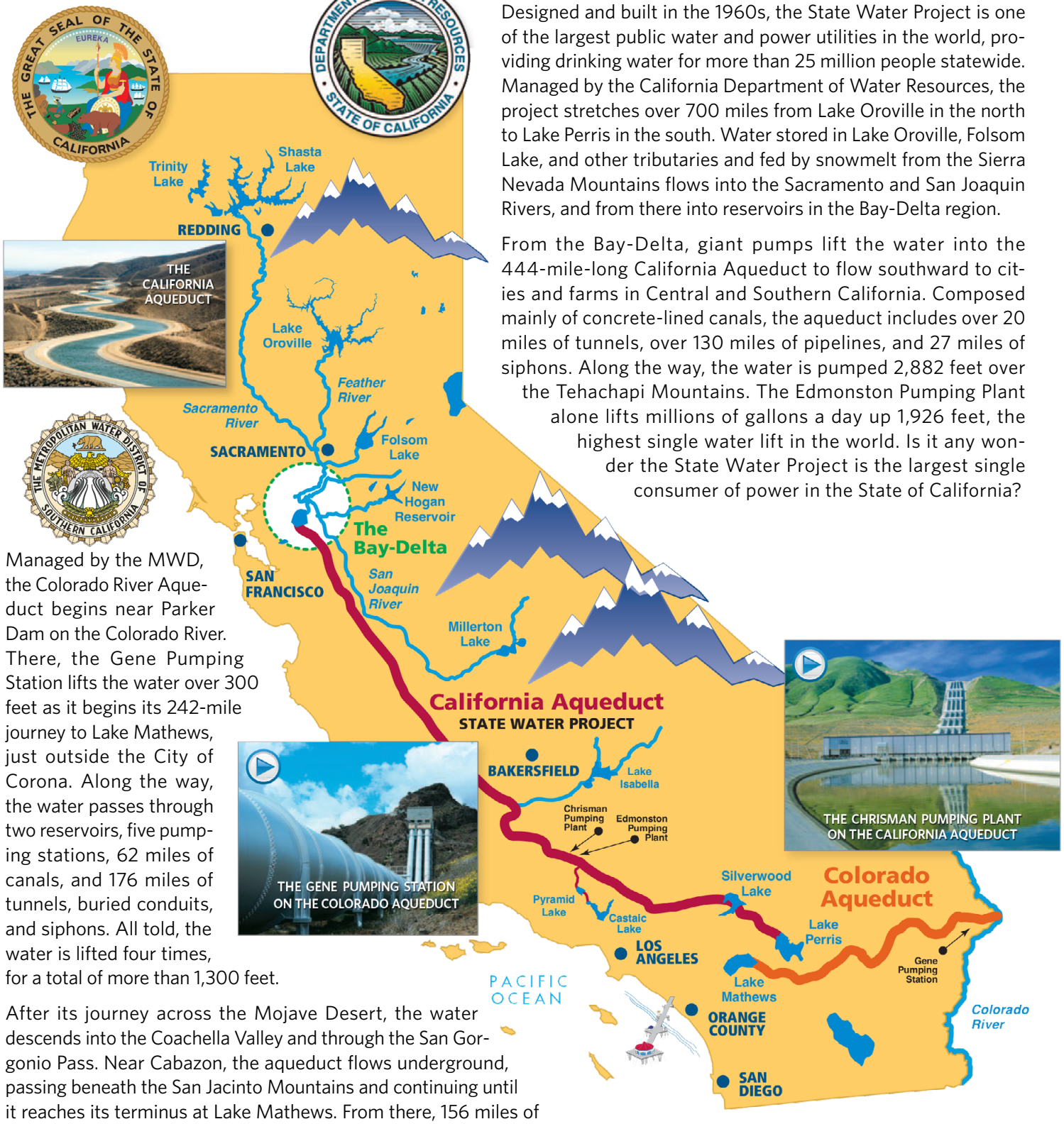
Lead Service Line Inventory

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. Joint Regional Water Supply System has determined it has no lead or galvanized service lines requiring replacement in its distribution system. This includes any privately or customer-owned service lines. Please contact us if you would like more information about the inventory or any lead sampling that has been done.

Where Does Our Water Comes From? And How Does it Get to Us?

Have you ever wondered where your water comes from? Here in the South Coast Water District/Joint Regional Supply System, our water is drawn from local groundwater supplies and blended with water imported from Northern California and the Colorado River. Water from Northern California travels to us through a complex delivery system known as the California State Water Project. Designed and built in the 1960s, the State Water Project is one of the largest public water and power utilities in the world, providing drinking water for more than 25 million people statewide. Managed by the California Department of Water Resources, the project stretches over 700 miles from Lake Oroville in the north to Lake Perris in the south. Water stored in Lake Oroville, Folsom Lake, and other tributaries and fed by snowmelt from the Sierra Nevada Mountains flows into the Sacramento and San Joaquin Rivers, and from there into reservoirs in the Bay-Delta region.

From the Bay-Delta, giant pumps lift the water into the 444-mile-long California Aqueduct to flow southward to cities and farms in Central and Southern California. Composed mainly of concrete-lined canals, the aqueduct includes over 20 miles of tunnels, over 130 miles of pipelines, and 27 miles of siphons. Along the way, the water is pumped 2,882 feet over the Tehachapi Mountains. The Edmonston Pumping Plant alone lifts millions of gallons a day up 1,926 feet, the highest single water lift in the world. Is it any wonder the State Water Project is the largest single consumer of power in the State of California?



Managed by the MWD, the Colorado River Aqueduct begins near Parker Dam on the Colorado River. There, the Gene Pumping Station lifts the water over 300 feet as it begins its 242-mile journey to Lake Mathews, just outside the City of Corona. Along the way, the water passes through two reservoirs, five pumping stations, 62 miles of canals, and 176 miles of tunnels, buried conduits, and siphons. All told, the water is lifted four times, for a total of more than 1,300 feet.

After its journey across the Mojave Desert, the water descends into the Coachella Valley and through the San Gorgonio Pass. Near Cabazon, the aqueduct flows underground, passing beneath the San Jacinto Mountains and continuing until it reaches its terminus at Lake Mathews. From there, 156 miles of distribution lines, along with eight more tunnels and five drinking water treatment plants, deliver treated water throughout Southern California.

Make Water Conservation a California Way of Life.

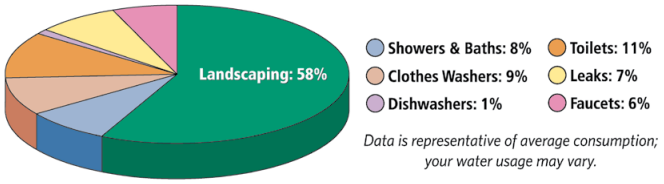
Water conservation is the California way. There are lots of simple ways to reduce the amount of water that we use at home, both inside and outside.

These resources can help you conserve water:

- Water Smart Gardening provides resources and inspiration for a water-saving, California-friendly landscape
- Estimate your water use with the Water Calculator
- Save water and money with these rebates
- Learn about non-functional turf compliance and replacement—what qualifies, deadlines, and how to transition to water-efficient landscaping.
- If you're a business or commercial property owner please reach out to our Conservation Team to learn more about Recycled Water Conversion opportunities.

Where Do We Use Water the Most?

Outdoor watering of lawns and gardens makes up approximately 60 percent of home water use. By reducing your outdoor water use by either cutting back on irrigation or planting more drought-tolerant landscaping, you can dramatically reduce your overall water use. Save the most where you use the most—make your outdoor use efficient.



Data is representative of average consumption; your water usage may vary.

Water Conservation Is Always a Priority

Southern California has an arid climate, and wise water use needs to become a part of everyone's daily life. Simple water-saving acts like the ones listed here can save countless gallons of water every day.

- Soak pots and pans instead of letting water run while you scrub them clean. This saves water and makes the job easier.
- Keep a pitcher of drinking water in the refrigerator. This can save gallons of water every day, and it's always cold!
- Plug the sink instead of running water to rinse your razor. This can save upward of 300 gallons of water a month.
- Use a broom instead of a hose to clean off sidewalks and driveways. It takes very little time to sweep, and the water savings quickly add up.
- Check your sprinkler system for leaks, overspray, and broken sprinkler heads, and repair promptly. This can save countless gallons each time you water.
- Water plants in the early morning. It reduces evaporation and ensures deeper watering.
- Check your toilets for leaks, and make sure to close showers and faucets properly. This can save countless gallons of water.

Source Water Assessment

Imported (MWD) Water Assessment

Every five years, MWD is required by DDW to examine possible sources of drinking water contamination in its State Water Project and Colorado River source waters. The most recent surveys for MWD's source waters are the Colorado River Watershed Sanitary Survey—2022 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. MWD 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 SWAs can be found on the South Coast Water District website at scwd.org or by calling (949) 499-4555, ext. 1.

Baker Water Treatment Plant

The Baker Water Treatment Plant receives untreated surface water from MWD 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 2025. 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 South Coast Water District's groundwater source was completed in June 2007. This local water source is considered most vulnerable to contamination from gas stations, dry cleaners, and a wastewater treatment plant in the general area. South Coast Water District carefully tests its well water to ensure that the water is safe and in compliance with all drinking water standards. A copy of the complete groundwater source assessment can be obtained by calling (949) 499-4555, ext. 1.

Hard vs. Soft Water

"Hard" water contains higher levels of naturally occurring minerals, primarily calcium and magnesium. These minerals are not harmful to human health and can even contribute beneficial nutrients. However, hard water can cause scale buildup in pipes, appliances, and fixtures. "Soft" water has lower mineral content and allows soap to lather more easily. It also helps extend the life of water heaters, washing machines, and plumbing fixtures. Hardness levels vary widely depending on local geology and groundwater conditions. Some households choose to install water softeners to reduce scaling and improve appliance efficiency. It is important to note that water hardness is a quality issue, not a safety concern. Both hard and soft water supplied by public water systems meet all health-based drinking water standards.

2025 South Coast Water District/Joint Regional Supply System 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.

2025 SOUTH COAST WATER DISTRICT DISTRIBUTION SYSTEM WATER QUALITY

	MCL (MRDL/ MRDLG)	AVERAGE	RANGE OF DETECTIONS	MCL VIOLATION	TYPICAL SOURCE OF CONTAMINANT
Disinfection Byproducts					
Chlorine Residual (ppm)	(4 / 4)	2.04	0.09 - 3.0	No	Disinfectant Added for Treatment
Haloacetic Acids (ppb)	60	15	2.8 - 18	No	Byproducts of Chlorine Disinfection
Total Trihalomethanes (ppb)	80	50	24 - 55	No	Byproducts of Chlorine Disinfection
Aesthetic Quality					
Color (color units)	15*	1	1	No	Erosion of Natural Deposits
Turbidity (ntu)	5*	.18	ND -.85	No	Erosion of Natural Deposits
Odor (threshold odor number)	3*	1	1	No	Erosion of Natural Deposits

Eight locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; nine locations are tested weekly for color, odor, and turbidity. MRDL = Maximum Residual Disinfectant Level; MRDLG = Maximum Residual Disinfectant Level Goal; ntu = nephelometric turbidity units.
*Contaminant 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	RANGE	SITES EXCEEDING AL / NUMBER OF SITES	AL VIOLATION?	TYPICAL SOURCE OF CONTAMINANT
Copper (ppm)	1.3	0.3	0.081	ND - 0.35	0 out of 10	No	Corrosion of Household Plumbing
Lead (ppb)	15	0.2	5.9	ND - 7.5	0 out of 10	No	Corrosion of Household Plumbing

In the Joint Regional Water Supply System service area, the most recent lead and copper at-the-tap samples were collected at 10 residences in 2024. Lead was detected in 2 homes and copper was detected in 2; but none of the samples for lead and copper exceeded the Action Level (AL). The regulatory Action Level is the concentration of a contaminant which if exceeded triggers treatment or other requirements that a water system must follow.

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 (µg/L)
- Parts per trillion (ppt) or nanograms per liter (ng/L)

2025 GROUNDWATER RECOVERY FACILITY WATER QUALITY

CHEMICAL	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	MOST RECENT SAMPLING DATE	TYPICAL SOURCE OF CONTAMINATION
Inorganic Contaminants							
Arsenic (ppb)	10	0.004	ND	ND - 2.8	No	2025	Erosion of Natural Deposits
Fluoride (ppm)	2	1	0.24	0.24	No	2025	Erosion of Natural Deposits
Nitrate (ppm as N)	10	10	0.95	0.95	No	2025	Fertilizers, Septic Tanks
Secondary Standards*							
Chloride (ppm)	500*	n/a	108	93 - 116	No	2025	Erosion of Natural Deposits
Color (color units)	15*	n/a	1	1	No	2025	Erosion of Natural Deposits
Odor (threshold odor number)	3*	n/a	1	1	No	2025	Erosion of Natural Deposits
Specific Conductance (µmho/cm)	1,600*	n/a	765	765	No	2025	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	496	478 - 508	No	2025	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	159	119 - 170	No	2025	Erosion of Natural Deposits
Turbidity (ntu)	5*	n/a	0.09	0.09	No	2025	Erosion of Natural Deposits
Unregulated Contaminants							
Alkalinity (ppm as CaCO3)	Not Regulated	n/a	58	52 - 65	n/a	2025	Erosion of Natural Deposits
Magnesium (ppm)	Not Regulated	n/a	20	20	n/a	2025	Erosion of Natural Deposits
Calcium (ppm)	Not Regulated	n/a	52	46 - 68	n/a	2025	Erosion of Natural Deposits
pH (pH unit)	Not Regulated	n/a	8.2	8.0 - 8.3	n/a	2025	Acidity, hydrogen ions
Sodium (ppm)	Not Regulated	n/a	62	62	n/a	2025	Erosion of Natural Deposits
Total Hardness, as CaCO3 (ppm)	Not Regulated	n/a	207	200 - 214	n/a	2025	Erosion of Natural Deposits

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; n/a = not applicable; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal; µmho/cm = micromho per centimeter
*Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

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 run-off, 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 the 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).

2025 METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA TREATED SURFACE WATER

CHEMICAL	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	TYPICAL SOURCE IN DRINKING WATER
Radiologicals - Tested in 2023 and 2025						
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND	ND - 5	No	Erosion of Natural Deposits
Gross Beta Particle Activity (pCi/L)	50	(0)	ND	ND - 6	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 2025						
Aluminum (ppm)	1	0.6	0.058	ND - 0.082	No	Treatment Process Residue, Natural Deposits
Barium (ppm)	1	2	0.13	0.13	No	Refinery Discharge, Erosion of Natural Deposits
Bromate (ppb)	10	0.1	2.4	ND - 8.4	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 2025						
Aluminum (ppb)	200*	600	58	ND - 82	No	Treatment Process Residue, Natural Deposits
Chloride (ppm)	500*	n/a	92	84 - 99	No	Runoff or Leaching from Natural Deposits
Color (color units)	15*	n/a	1	1	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	873	759 - 987	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	182	146 - 218	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	545	465 - 625	No	Runoff or Leaching from Natural Deposits
Unregulated Chemicals - Tested in 2025						
Alkalinity, total as CaCO3 (ppm)	Not Regulated	n/a	108	93 - 122	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL=1	n/a	0.13	0.13	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	56	44 - 68	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO3 (ppm)	Not Regulated	n/a	236	191 - 280	n/a	Runoff or Leaching from Natural Deposits
Hardness, total (grains/gal)	Not Regulated	n/a	14	11 - 16	n/a	Runoff or Leaching from Natural Deposits
Lithium (ppb)	Not Regulated	n/a	35	28 - 42	n/a	Various Natural and Man-made Sources
Magnesium (ppm)	Not Regulated	n/a	22	19 - 25	n/a	Runoff or Leaching from Natural Deposits
pH (pH units)	Not Regulated	n/a	8.3	8.2 - 8.3	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	4.3	3.8 - 4.8	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	88	78 - 97	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.4	1.6 - 2.6	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 IN DRINKING WATER
Turbidity - combined filter effluent				
1) Highest single turbidity measurement (NTU)	0.3	0.05	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

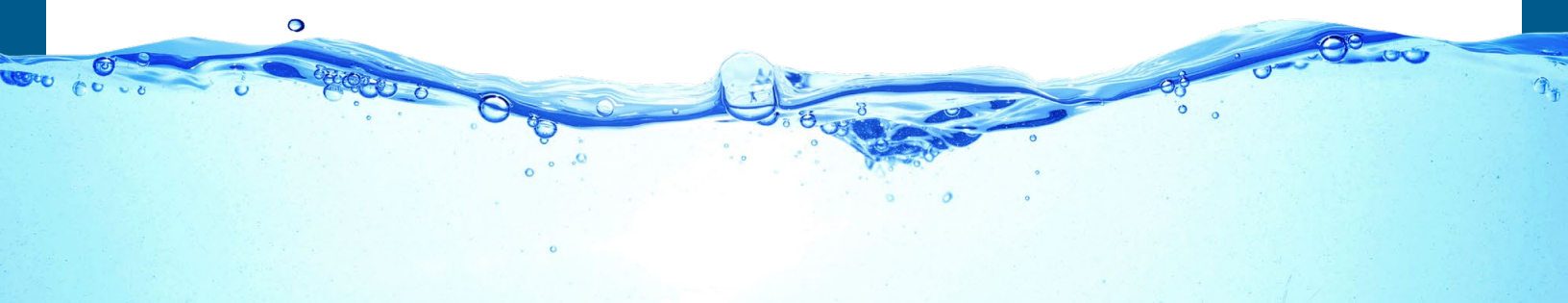
2025 IRVINE RANCH WATER DISTRICT - BAKER WATER TREATMENT PLANT

CHEMICAL	MCL	PHG (MCLG)	AVERAGE AMOUNT	RANGE OF DETECTIONS	MCL VIOLATION?	TYPICAL SOURCE OF CHEMICAL
Radiologicals - Tested in 2025						
Uranium (pCi/L)	20	0.43	1.9	1.9	No	Erosion of Natural Deposits
Inorganic Chemicals - Tested in 2025						
Arsenic (ppb)	10	0.004	ND	ND - 2.2	No	Erosion of Natural Deposits
Barium (ppm)	1	2	0.129	0.119 - 0.141	No	Refinery Discharge, Erosion of Natural Deposits
Fluoride (ppm)	2.0	1	0.33	0.27 - 0.37	No	Erosion of Natural Deposits; Water Additive for Dental Health
Secondary Standards* - Tested in 2025						
Chloride (ppm)	500*	n/a	109	108 - 110	No	Runoff or Leaching from Natural Deposits
Odor (threshold odor number)	3*	n/a	1	ND - 3	No	Naturally-occurring Organic Materials
Specific Conductance (µmho/cm)	1,600*	n/a	1,049	1,030 - 1,068	No	Substances that Form Ions in Water
Sulfate (ppm)	500*	n/a	219	217 - 221	No	Runoff or Leaching from Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	625	560 - 682	No	Runoff or Leaching from Natural Deposits
Turbidity (ntu)	5*	n/a	0.25	ND - 7**	No	Soil Runoff
Unregulated Chemicals - Tested in 2025						
Alkalinity, total as CaCO3 (ppm)	Not Regulated	n/a	119	106 - 129	n/a	Runoff or Leaching from Natural Deposits
Boron (ppm)	NL = 1	n/a	0.143	0.13 - 0.186	n/a	Runoff or Leaching from Natural Deposits
Calcium (ppm)	Not Regulated	n/a	73	65 - 81.3	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO3 (ppm)	Not Regulated	n/a	293	269 - 322	n/a	Runoff or Leaching from Natural Deposits
Hardness, total as CaCO3 (grains/gallon)	Not Regulated	n/a	17	16 - 19	n/a	Runoff or Leaching from Natural Deposits
Lithum (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	26.9	26 - 28.8	n/a	Runoff or Leaching from Natural Deposits
pH (pH unit)	Not Regulated	n/a	7.6	7 - 8	n/a	Hydrogen Ion Concentration
Potassium (ppm)	Not Regulated	n/a	5.4	4.9 - 6	n/a	Runoff or Leaching from Natural Deposits
Sodium (ppm)	Not Regulated	n/a	101	96.9 - 106	n/a	Runoff or Leaching from Natural Deposits
Total Organic Carbon (ppm)	TT	n/a	2.9	2.9	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.
** On January 21, 2025, a higher than normal (7 NTU) grab sample result was reported. This value is inconsistent with the continuous online analyzer which showed a reading of 0.0259 NTU at the same time that the grab sample was taken. The available evidence suggests that the higher than normal grab sample was not a valid representation of the water quality produced by the plant at the time. No other result above 0.1 NTU was reported throughout the year.

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	0.030	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



Microplastics

What we know today

Microplastics are tiny pieces of plastic that are now detectable at very small levels. They're considered an emerging issue. Researchers and regulators are actively studying potential health effects and evaluating whether future regulations are needed.

What California is doing

California has adopted a formal definition, standardized test methods, and a multi-year monitoring program for microplastics in drinking water. Monitoring is rolling out in phases, with source-water monitoring first and treated-water monitoring to follow. Large regional agencies, like Metropolitan Water District (MWD), which supplies most of SCWD's water, are preparing and participating in this first-of-its-kind effort, including establishing dedicated laboratory capacity for microplastics.

Are there limits or standards right now?

At this time, there are no health-based regulatory limits for microplastics in drinking water at the state or federal level. Agencies are collecting data now to better understand where microplastics occur, in what amounts, and what that could mean for public health before any standards are set.

How SCWD's treatment helps

SCWD's Groundwater Recovery Facility (GRF) uses reverse osmosis (RO) - a highly effective water filtration process that uses high pressure to force water through a permeable membrane removing about 98.6% of microplastics and providing an added layer of treatment and confidence.

Do we test for microplastics?

Not routinely today. SCWD's lab does not currently have the specialized capability to test for microplastics, and testing would require sending samples to an outside laboratory (for water treated through the GRF and/or from MWD).

PFAS Advisory

Per- and polyfluoroalkyl substances (PFAS) are a group of human-made chemicals that have been used in various consumer products since the 1940s due to their resistance to heat, water, oils, and stains. These chemicals are prevalent in the environment and have been detected in water supplies nationwide. Studies suggest that exposure to certain PFAS may pose health risks. The U.S. EPA and DDW have established health-based advisories for PFAS. If PFAS levels exceed these guidelines, water agencies must notify their governing bodies and take necessary actions, such as removing affected sources from service or implementing treatment solutions.

To address PFAS contamination, water providers have conducted testing and taken proactive steps to ensure safe drinking water.

Regulatory actions: The U.S. EPA announced final National Primary Drinking Water Regulations for six PFAS in April 2024. Public water systems are required to monitor these substances, with full compliance expected by 2029.

For more details on PFAS regulations and water safety, visit:

- California State Water Resources Control Board, Division of Drinking Water: waterboards.ca.gov/pfas
- Orange County Water District: ocwd.com/what-we-do/water-quality/pfas
- U.S. EPA: epa.gov/pfas

Drinking Water Fluoridation

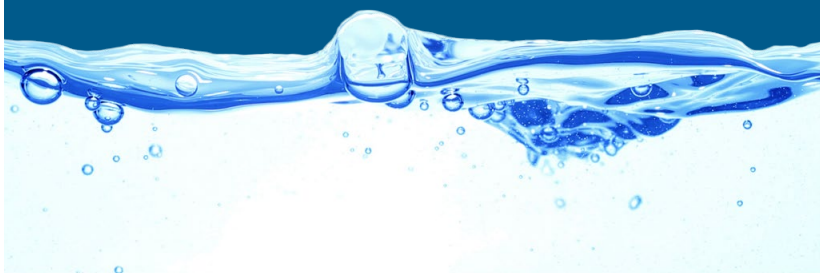
Fluoride has been added to U.S. drinking water supplies since 1945 to help prevent tooth decay. As of today, the majority of public water suppliers in the country, including the MWD, fluoridate their water. MWD began adding fluoride in December 2007, complying with all provisions of California's fluoridation system requirements. Fluoride levels in drinking water are regulated in California and limited to a maximum of 2 parts per million (ppm). Some local groundwater 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

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



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.

Where Can You Learn More?

There's a wealth of information on the internet about drinking water quality and water issues in general. Some good sites to begin your research are:

- Metropolitan Water District of Southern California: mwdh2o.com
- California Department of Water Resources: water.ca.gov
- The Water Education Foundation: watereducation.org

To learn more about water conservation and rebate information:

- bewaterwise.com
- ocwatersmart.com

And to see the aqueducts in action, check out these two videos:

- Wings Over Water: youtu.be/8A1v1Rr2neU
- Wings Over Metropolitan's Colorado River Aqueduct: youtu.be/KipMQh5t0f4

Cross Connections

In cooperation with the DDW, SCWD/JRWSS's major goal is to ensure the distribution of a safe potable water supply to all domestic water users. For the SCWD/JRWSS's to achieve this goal, a Cross-Connection Control Management Plan (CCCMP) is being developed with an effective date of July 1, 2025. The CCCMP was developed pursuant to the requirements set forth in the Cross-Connection Control Policy Handbook (CCCPH), which replaced California Administrative Code title 17, sections 7583 through 7605 and applies to all California public water systems, as defined in California's Health and Safety Code (CHSC, section 116275(h)).

SOUTH COAST WATER DISTRICT
Partnering With The Community

JOINT REGIONAL WATER SUPPLY SYSTEM

The Joint Regional Water Supply System is contract-operated by the South Coast Water District.

851 Calle Agua • San Clemente, CA 92673

SCWD.org/JRWSS