

Required information for lead

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. The Carlsbad Municipal 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 the Carlsbad Municipal Water District at 442-339-2722. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at www.epa.gov/safewater/lead.

Water conservation

Carlsbad encourages residents and businesses to continue making water conservation a way of life. With water being a precious and limited resource, Carlsbad is doing our part by making water conservation and the efficient use of water a major priority. Even the simplest changes to daily routines make a difference.

Visit www.carlsbadca.gov/conservation for programs, incentives, water rules, and more tips and resources.

Indoor

- Take short showers or fill the bathtub halfway
- Turn water off when brushing teeth or shaving
- Wash only full loads of clothes
- Fix leaks (toilets, faucets, etc.)
- Install high-efficiency fixtures

Outdoor

- Install drip-irrigation
- Adjust sprinklers to reduce water lost from overspray onto impervious surfaces
- Water during cool parts of the day to reduce evaporation
- Install a smart irrigation controller
- Convert to a native landscape
- Repair broken sprinkler heads and/or irrigation lines (do not irrigate until repair is made)

How to contact us

This report covers testing for contaminants in 2025. For questions or concerns regarding the quality of Carlsbad's drinking water, contact the Carlsbad Municipal Water District at 442-339-2722 or email water@carlsbadca.gov.

Meetings of the Carlsbad Municipal Water District Board of Directors are held in conjunction with the Carlsbad City Council on an as-needed basis on Tuesday evenings. Agendas may be obtained at www.carlsbadca.gov or Carlsbad City Hall, 1200 Carlsbad Village Drive. Comments regarding drinking water are always welcome by the district's Board of Directors.

This report can be downloaded from www.carlsbadca.gov/water-quality-report

Carlsbad Municipal Water District
5950 El Camino Real, Carlsbad, CA 92008
Hours: Monday through Friday, 8 a.m. to 5 p.m.
442-339-2722 • water@carlsbadca.gov

Additional sources for water quality information:

San Diego County Water Authority
858-522-6600 • www.sdcwa.org

Metropolitan Water District of Southern California
800-225-5693 • www.mwdh2o.com

State Water Resources Control Board
Division of Drinking Water & Environmental Management
619-525-4159 • www.waterboards.ca.gov

U.S. Environmental Protection Agency
Office of Ground Water & Drinking Water
Safe Drinking Water Hotline: 800-426-4791 • www.epa.gov/watersense/state-water-facts

CMWD has met all 2025 federal and state drinking water standards.
A subsidiary district of the City of Carlsbad

2025 Water Quality Report

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

Water provided by the Carlsbad Municipal Water District meets all 2025 state and federal drinking water standards. This report provides detailed water quality test results and more information about where the district's water comes from.

Where our water comes from

The Carlsbad Municipal Water District currently imports 82% of its drinking water. The water supply begins hundreds of miles away as rain or melted snow that flows into rivers. The two main water sources are the Colorado River, where the water is transported through the Colorado River Aqueduct, and Northern California, where water moves through the California Aqueduct (also known as the State Water Project).

Water from these sources is treated by the Metropolitan Water District of Southern California at its Lake Skinner Treatment Plant in Riverside County and by the San Diego County Water Authority. After rigorous treatment, the water travels through pipelines owned by the San Diego County Water Authority and is then purchased and distributed by the Carlsbad Municipal Water District to its customers.

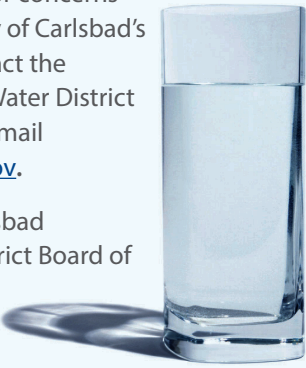
The Claude "Bud" Lewis Carlsbad Desalination Plant produces 18% of Carlsbad's water through the San Diego County Water Authority, which delivers desalinated seawater to the Water Authority's aqueduct system.

What's in your water before it's treated?

Both tap and bottled drinking water come from oceans, rivers, lakes, streams, ponds, 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, picks 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 can come from wastewater treatment plants, septic systems, agricultural livestock operations and wildlife
- Pesticides and herbicides that can 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 byproducts of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming
- Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities



2025 Carlsbad Water Quality Analysis

Parameter	Units	State or Federal MCL [MRDL]	PHG (MCLG) [MRDL]	State DLR	Range Average	Skinner Plant Effluent	Twin Oaks Plant	CMWD System Samples	Carlsbad Desal Plant	Major Sources in Drinking Water
Percent State Project Water	%	NA	NA	NA	Range	0-64	NA	NA	NA	
					Average	NA	NA	NA	NA	
PRIMARY STANDARDS--Mandatory Health-Related Standards										
CLARITY										
Combined Filter	NTU	0.1	NA	NA	Highest	0.07	0.01-0.10	NA	0.06	Soil runoff
Effluent Turbidity(a)	NTU	0.1	NA	NA	Average	NA	0.02	NA	NA	
	%	95(a)	NA	NA	% ≤ 0.1	100%	100%	NA	100.0%	
MICROBIOLOGICAL										
Total Coliform Bacteria (b)	%	5.0	MCLG=0	NA	Range	ND	ND	NA	0	Naturally present in the environment
					Average	ND	ND	NA	ND	
E. coli (c)	NA	TT	MCLG=0	NA	Positive sample	NA	ND	ND	ND	Human and animal fecal waste
INORGANIC CHEMICALS										
Arsenic	ppb	10	0.004	2	Range	ND	NA	NA	ND	Natural deposits erosion, glass and electronics, production wastes
					Average	ND	NA	NA	ND	
2024 Copper Samples (e)	ppm	AL = 1.3	0.3	0.05	No.>AL	NA	NA	0	ND	Internal corrosion of household pipes, natural deposits erosion;30 samples required, 34 samples taken, next set of samples to be taken in 2027
					90%ile	NA	ND	0.19	ND	
Fluoride (d)	Control Range					NA	0.6-1.2	NA	NA	
	Optimal Fluoride Level					NA	0.7	NA	NA	
Treatment-related Fluoride	ppm	2.0	1	0.1	Range	0.6-0.8	0.2-0.7	NA	0.57-0.87	Erosion of natural deposits water additive that promotes strong teeth
2024 Lead Samples (e)	ppb	AL = 15	0.2	5	No.>AL	0	0	0	0	House pipes internal corrosion, erosion of natural deposits; 30 samples required, 34 samples taken, next set of samples to be taken in 2027
					90%ile	ND	ND	1.3	ND	
Nitrate	ppm	10	10	0.4	Range	ND	ND	NA	ND	Runoff and leaching from fertilizer use, septic tank and sewage, natural deposits erosion
					Average	ND	ND	NA	ND	
RADIOLOGICALS										
Uranium	pCi/L	20	0.43	1	Range	ND-3	1.7-2.8	NA	ND	Erosion of natural deposits
					Average	2	2.3	NA	ND	
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCT PRECURSORS (o)										
Total Trihalomethanes (f) (TTHM)	ppb	80	NA	1.0	Range	13-46	26-46	7.4-52.0	ND	By-product of drinking water chlorination
					Highest LRAA	30	46	29	ND	
Haloacetic Acids (HAA5) (f)	ppb	60	NA	1.0	Range	1.4-18	4.2-19.2	0-21	ND	By-product of drinking water chlorination
					Highest LRAA	9.4	19.2	10.0	ND	
Total Chlorine Residual	ppm	[4.0]	[4.0]	NA	Range	NA	2.0-3.9	0.20-3.19	2.81-3.48	Drinking water disinfectant added for treatment
					Highest RAA	NA	3.0	2.14	3.17	
Bromate (g)	ppb	10	0.1	1.0	Range	ND-8.3	ND-13	NA	NA	By-product of drinking water ozonation
					Highest RAA	1.8	5.0	NA	NA	
SECONDARY STANDARDS--Aesthetic Standards										
Chloride	ppm	500	NA	NA	Range	87-91	NA	NA	59-110	Runoff leaching from natural deposits, seawater influence
					Sample	89	NA	NA	85	
Color	Units	15	NA	NA	Range	1	ND-1	NA	ND	Naturally-occurring organic materials
					Average	1	ND	NA	ND	
Odor Threshold	TON	3	NA	1	Range	ND	ND	NA	ND	Naturally-occurring organic materials
					Average	NA	ND	NA	ND	
Specific Conductance	µS/cm	1600	NA	NA	Range	824-847	NA	NA	235.1-530.9	Substances that form ions in water seawater influence
					Average	836	840	NA	442.90	
Sulfate	ppm	500	NA	0.5	Range	164-171	100-160	NA	12.0-15.0	Runoff leaching from natural deposits, industrial wastes
					Average	168	146	NA	13.5	
Total Dissolved Solids (TDS)	ppm	1000	NA	NA	Range	501-513	250-490	NA	105-310	Runoff leaching from natural deposits, seawater influence
					Average	507	337	NA	239	
OTHER PARAMETERS										
CHEMICAL										
Alkalinity	ppm	NA	NA	NA	Range	105-108	120	NA	46-83	
					Average	106	120	NA	62	
Boron	ppb	NL=1,000	NA	100	Range	130	NA	NA	0.51-0.92	Runoff leaching from natural deposits, industrial wastes
					Average		NA	NA	0.69	
Calcium	ppm	NA	NA	NA	Range	54-55	NA	NA	17.4-68.5	
					Sample	54	NA	NA	24.30	
Chlorate	ppb	NL=800	NA	20	Range	ND	220-460	NA	NA	By-product of drinking water chlorination, industrial processes
					Average		303	NA	NA	
Chromium VI (h)	ppb	10	0.02	1	Range	ND	ND-0.37	NA	ND	Runoff leaching from natural deposits, discharge from industrial waste factories
					Average		0.24	NA	ND	
Corrosivity (i) (as Aggressiveness Index)	AI	NA	NA	NA	Range	12.3	NA	NA	NA	Elemental balance in water, affected by temperature, other factors
					Average		NA	NA	NA	
Corrosivity (j) (as Saturation Index)	SI	NA	NA	NA	Range	0.48-0.57	NA	NA	0.07-0.59	Elemental balance in water affected by temperature, other factors
					Average	0.52	NA	NA	0.34	
Hardness	ppm	NA	NA	NA	Range	228-232	NA	NA	54.4-69.0	
					Average	230	NA	NA	60.50	
Magnesium	ppm	NA	NA	NA	Range	21	NA	NA	1.2-1.7	
					Sample	21	NA	NA	1.4	
pH	pH	NA	NA	NA	Range	NA	7.4-9.0	NA	8.32-8.63	
					Average	8.2	8.5	NA	8.51	
Potassium	ppm	NA	NA	NA	Range	4.2-4.4	NA	NA	0.0-49.51	
					Average	4.3	NA	NA	31.24	
Sodium	ppm	NA	NA	NA	Range	83-87	NA	NA	47.8-62.1	
					Average	85	NA	NA	57.40	
TOC	ppm	TT	NA	0.30	Range	2.0-2.8	1.8-2.3	NA	NA	Various natural and man-made sources
					Average	2.6	2.1	NA	NA	
N-Nitrosodimethylamine (NDMA)	ppt	NL = 10	3	2	Range	ND	ND	NA	NA	By-product of drinking water
					Average	NA	ND	NA	NA	
FIFTH UNREGULATED CONTAMINANT MONITORING RULE										
Lithium, Total	ug/L	NA	9 ug/L	NA	Range	26-30	NA	10-52.5	NA	Naturally occurring metal in groundwater, used in battery manufacture
					Average	28	NA	26.2	NA	
Per and Polyfluorinated Alkyl Substances (PFAS) (k)	ppt	4 ppt–10 ppt	0.007 ppt	4 ppt–10 ppt	Range	ND	ND	ND	ND	Industrial chemical factory discharges, runoff/leaching from landfills, used in fire-retarding foams and various industrial processes
					Average	ND	ND	ND	ND	

How to read this report

As you read the water quality tables in this report, compare the level of contaminants found in the Skinner Plant, Twin Oaks Valley Plant and Desal plant and the Carlsbad Municipal Water District system samples columns with the standards set for them in the Maximum Contaminant Levels (MCL) and Public Health Goals (PHG) columns. The Carlsbad Municipal Water District met all drinking water standards in 2025.

The following are key terms to help you understand the standards used to measure drinking water safety.

Maximum Contaminant Level (MCL) are the highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the Public Health Goals or Maximum Containment Level Goal as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. These are set by the U.S. Environmental Protection Agency.

Public Health Goal (PHG) are the level of a contaminant in drinking water below which there is no known or expected risk to health. These are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL) is the highest level of a disinfectant

Abbreviations

AI	Aggressiveness Index
AL	Action Level
CDPH	California Department of Public Health
CFE	Combined Filter Effluent
CFU	Colony-Forming Units
DBP	Disinfection By-Products
DLR	Detection Limits for purposes of Reporting
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MFL	Million Fibers per Liter
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
N	Nitrogen
NA	Not Applicable
ND	Not Detected
NL	Notification Level
NTU	Nephelometric Turbidity Units
pCi/L	picoCuries per Liter
PHG	Public Health Goal
ppb	parts per billion or micrograms per liter (µg/L)
ppm	parts per million or milligrams per liter (mg/L)
ppq	parts per quadrillion or picograms per liter (pg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
RAA	Running Annual Average; highest RAA is the highest of all Running Annual Averages calculated as average of all the samples collected within a 12-month period
SI	Saturation Index (Langelier)
TOC	Total Organic Carbon
TON	Threshold Odor Number
TT	Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water
µS/cm	microSiemen per centimeter; or micromho per centimeter (µmho/cm)

Footnotes

- a) (Skinner) As a Primary Standard, the turbidity levels of the filtered water were < 0.3 NTU in 100% of the online measurements taken each month and did not exceed 1 NTU for more than one hour.

The turbidity levels for grab samples at these locations were in compliance with the Secondary Standard. (Twin Oaks) The turbidity level from the CFE of the membranes shall be < 0.1 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU at any time. Turbidity, a measure of the cloudiness of water, is an indicator of treatment performance.
- b) Total coliform MCLs: No more than 5% of the monthly samples may be total coliform positive. Compliance is based on the combined distribution system sampling. In 2025, 1,560 samples were analyzed with no positive samples. The MCL was not violated.

allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) is the level of a drinking water disinfectant below which there is no known or expected risk to health. These goals do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standard (PDWS) are maximum contaminant levels and maximum residual disinfectant levels for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

This report can be downloaded from www.carlsbadca.gov/water-quality-report.



- c) E. coli MCL: The occurrence of two consecutive total coliform-positive samples, one of which contains E. coli, constitutes an acute MCL violation. The MCL was not violated.
- d) Skinner and Twin Oaks were in compliance with all provisions of the state's fluoridation system requirements.
- e) Lead and copper are regulated by action levels under the Lead and Copper Rule, which requires water samples to be collected at the consumers' tap. If action levels are exceeded in more than 10% of the samples, water systems must take steps to reduce these contaminants.
- f) Twin Oaks/Skinner met all provisions of the Stage 2 Disinfectants/ Disinfection By-Products (D/DBP) Rule. Compliance was based on Locational RAA. Average and range for the treatment plant effluent were taken from daily and monthly samples for TTHM and HAA5.
- g) Twin Oaks running annual average was calculated from quarterly results of monthly and daily samples.
- h) Chromium VI reporting level is ND, which is below the state DLR of 1 ppb.
- i) AI <10.0 = Highly aggressive and very corrosive water AI >12.0 = Non-aggressive water AI (0.14 – 13.0) = Moderately aggressive water
- j) Positive SI index = non-corros