City of Del Mar – 2023 Annual Drinking Water Quality Report 1

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This report is a snapshot of the quality of the water the City of San Diego provided to the City of Del Mar during calendar year 2023. We test the drinking water quality for many constituents as required by state and federal regulations. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

Where does my water come from?

The City of Del Mar purchases untreated water from the San Diego County Water Authority (sdcwa.org), which purchases water from multiple sources⁽¹⁾, including the Metropolitan Water District of Southern California (mwdh2o.com). The City of San Diego treats the water for the City of Del Mar at the Miramar Water Treatment Plant. The treated water is pumped to and stored in the City's four potable water reservoirs.

Source Water

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 storm water 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 storm water 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 storm water runoff, agricultural application, and septic systems.
- Radioactive contaminants that can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California also establish limits for contaminants in bottled water that provide the same protection for public health. In 2023 as in past years, your tap water not only met, but parameters were less than all U.S. Environment Protection Agency and State of California regulatory limits for drinking water health standards.

Lead and Copper

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and

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. EPA/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (1-800-426-4791). During calendar year 2023, the water supply to each of the City's purveyor water treatment plants was monitored for Cryptosporidium and Giardia, and neither was detected.

Lead and Copper (cont'd)

components associated with service lines and home plumbing. City of Del Mar is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at www.epa.gov/lead or from the Safe Drinking Water Hotline at (1-800-426-4791).

Lead and copper enter drinking water primarily through plumbing materials. Exposure to lead and copper may cause health problems ranging from stomach distress to brain damage. In 1991, the EPA published the Lead and Copper Rule to control lead and copper in drinking water. The rule requires the City to monitor drinking water at customer taps. If lead concentrations exceed an Action Level (AL) of 15 ppb, or copper concentrations exceed an AL of 1.3 ppm in more than 10 percent of taps sampled, i.e. the 90th percentile, the City would be required to undertake a number of additional actions to inform the public and control corrosion.

In 2021, 20 customers (plus 'the Winston School') provided a total of 22 samples from their taps to the City of Del Mar for Lead and Copper analysis. The results of these tests are presented here, and in the tables, hereunder. Two (2) of the 20 sites had a result above the AL for Copper. Because less than 10 percent of our results were above the AL for Lead and Copper, no additional actions are required.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of material's used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791).

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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 US EPA's Safe Drinking Water Hotline at 800-426-4791. For a list of action levels, visit the website of the SWRCB-DDW State Water Resources Control Board Division of Drinking Water at www.waterboards.ca.gov

How to Read the Tables

The tables below list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these cantaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

These tables summarize monitoring from 2023. with exceptions (see table footnotes). SWRCB mandates monitoring radioactive contaminants every three years. The lead and copper testing was conducted in June 2021, and is monitored every three years. The levels of these contaminants are not expected to vary significantly

Definition of Terms

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Location-based Running Annual Average (LRAA): The average of the most recent four quarters of monitoring performed at a distinct location in the distribution system. LRAAs are calculated quarterly using twelve months of data and may include values obtained in previous Calendar Year 2021.

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 or technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs are set by the U.S. EPA.

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 microbrial contaminents..

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or exceeded risk to health. MRDLGs do no reflect the benefits of the use of disinfectants to control mircobial contaminants.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected health risk. PHGs are set by the California EPA.

Primary Drinking Water Standard (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring, reporting, and water treatment

Abbreviations

A: Absent

CA SMCL: California Secondary Maximum Contaminant

SWRCB-DDW: California State Water Resources Control

Board - Division of Drinking Water

CSD MDL: City of San Diego Water Quality Laboratory

Method Detection Limit: Lowest quantifable concentration of a measured analyte detectable by the laboratory.

CU: Color Units

DLR: Detection Limit for Reporting

gr/Gal: Grains per Gallon

ml: Milliliter

MWD: Metropolitan Water District of Southern California

N/A: Not Applicable

ND: Not detected at tesing limit

NTU: Nephelometric Turbidity Units

OU: Odor Units

pCi/L: Picocuries per Liter (a measure of radiation)

ppb: Parts per billion or micrograms per liter (µg/L)

ppm: Parts per million or milligrams per liter (mg/L)

TT (Treatment Technique): a required process intended to reduce the level of a contaminant in drinking water

μS/CM: Micro-siemens/cm < Less than > Greater than

	TABLE 1 – DETECTED REGULATED CCR CONTAMINANTS WITH PRIMARY MCLs PRIMARY STANDARDS (MANDATORY HEALTH RELATED STANDARDS)											
CHEMICAL PARAMETERS				DDW	DDW CITY OF SAN DIEGO - MIRAMAR TREATMENT PLANT							
CHEMICAL PARAMETERS	UNITS	MCL	PHG	DLR	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER					
Aluminum	ppm	1.0	0.6	0.05	ND	ND-ND	Erosion of natural deposits; residue from some surface water treatment processes					
Arsenic	ppb	10.0	0.004	2	ND	ND - 3	Erosion of natural deposits, glass and electronics production waste					
Barium	ppm	1.0	2	0.1	0.1	ND - 0.1	Erosion of natural deposits; discharges of oil drilling wastes					
Fluoride (naturally occurring)	ppm	2.0	1	0.1	0.3	0.2 - 0.4	Erosion of natural deposits					
Fluoride (treatment-related)*	ppm	2.0	1	0.1	0.6	0.3 - 0.8	Water additive that promotes strong teeth					
Nitrate (as N)	ppm	10	10	0.4	ND	ND - ND	Erosion of natural deposits; runoff and leaching from fertilizer use					

*Optimal Fluoride Level as established by US Dept. of Health and Human Services and State Water Resources Control Board is 0.7 ppm.

	Primary Standards (Mandatory Health Related Standards) - RADIOACTIVE CONTAMINANTS											
RADIOACTIVE PARAMETERS			PHG	DDW	CITY OF SAN DIEGO - MIRAMAR TREATMENT PLANT^							
	UNITS	MCL	(MCLG)	DLR	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER					
Gross Alpha Particle Activity	pCi/L	15	(0)	3	ND	Single Sample	Erosion of natural deposits					
Gross Beta Particle Activity	pCi/L	50*	(0)	4	ND	Single Sample	Decay of natural and man-made deposits					
Radium 228	pCi/L		0.019	1	ND	Single Sample	Erosion of natural deposits					
Uranium	pCi/L	20	0.43	1	1.6	Single Sample	Erosion of natural deposits					

^{*}The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.

^Miramar Treatment Plant - Radium 228 data from 2017

Milatrial Treatment Flant Radian 220 data from 2017												
CITY OF DEL MAR - DISTRIBUTION SYSTEM AVERAGE												
MICROBIOLOGICAL	Systems that collect <40 samples/month No more than 1 positive monthly sample No. of Months PHG											
MICROBIOLOGICAL	Amount Detected	in Violation	(MCLG)	MAJOR SOURCES IN DRINKING WATER								
Total Coliform Bacteria /100ml	Highest number of positives in any month 0	0	0	Naturally present in the environment								
Fecal Coliform and E.coli/100ml	Total number of positives in the year	0	0	Human and animal fecal waste								

LEAD AND COPPER RULE										
CITY OF DEL MAR - SAMPLES TAKEN AT THE TAP OF 20 DIFFERENT SAMPLE SITES + 2 extra independent sample at 'The Winston School' (all in JUNE 2021)										
LEAD AND COPPER STUDY		ACTION		DDW	90th PERCENTILE					
	UNITS	LEVEL	PHG	DLR	CONCENTRATION	Exceeding AL	MAJOR SOURCES IN DRINKING WATER			
						Ū				
Copper	ppm	1.300	0.3	0.05	0.569		Internal corrosion of household plumbing systems			

Note: Monitoring mandated every three years. City of Del Mar most recent monitoring conducted in June 2021, from 20 water service connections (home addresses).

Two (2) extra Lead and Copper test performed at the only school ('The Winston School') at 215 9th Street in the City of Del Mar. Results were also below Action Level (A.L.)

TA	TABLE 2 DETECTED REGULATED CCR PARAMETERS WITH SECONDARY MCLs (AESTHETICS STANDARDS)											
		CA	CSD		MIRAMAR TREATMENT PLANT EFFLUENT CONCENTRATION							
	UNITS	SMCL	MDL (DLR)	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER						
Aluminum	ppm	200	0.05	ND	ND - ND	Erosion of natural deposits; residue from some surface water treatment						
Chloride	ppm	500	0.5	104	82.0 - 132	Runoff/leaching from natural deposits; seawater influence						
Color	CU	15	1	ND	ND - 1	Naturally occurring organic materials						
Odor - Threshold	OU	3	1	ND	ND - 1	Naturally occurring organic materials						
Specific Conductance	µS/cm	1600	N/A	817	672 - 967	Substances that form ions when in water; seawater influence						
Sulfate	ppm	500	0.5	184	122 - 240	Runoff/leaching from natural deposits; industrial wastes						
Total Dissolved Solids	ppm	1000	(10)	529	392 - 641	Runoff/leaching from natural deposits						

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TABLE	TABLE 2 DETECTED REGULATED CCR PARAMETERS WITH SECONDARY MCLs (AESTHETICS STANDARDS) continued										
Distribution System Results (Secondary M SMCL (MCLG) CSD CITY OF DEL MAR - DISTRIBUTION SYSTEM AVERAGE											
	UNITS	[MRDL]	[MRDLG]	MDL/(DLR)	AVERAGE	RANGE**	MAJOR SOURCES IN DRINKING WATER				
Color, Visual	CU	15		1	0.56	ND - 1	Naturally occuring organic materials.				
Odor	OU (Ton)	3		(1)	ND	ND - 1	Naturally occuring organic materials.				
Turbidity	NTU	5		0.1	0.11	0 - 0.20	Soil runoff				

	TABLE 3 DETECTED UNREGULATED CCR PARAMETERS REQUIRING MONITORING											
		NOTIFICATION DDW			MIRAMAR TREATMENT PLANT EFFLUENT CONCENTRATION							
	UNITS	LEVEL		DLR (PHG)	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER					
Boron	ppm	1		0.1	0.1	0.1 - 0.1						
N-Nitrosodimethylamine (NDMA)	ppt	10		(3)	N/A	N/A						
Chromium, hexavalent (CrVI)	ppb	-		(0.02)*	0.06	Single Sample						

^{*} The DLR of 1 ppb and the MCL of 10 ppb for Chromium VI were repealed in 2017. The value listed here is the PHG for Chromium VI.

TABLE 4 – D	TABLE 4 – DETECTED DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCT PRECURSORS											
Treatment Plant Effluent		MCL		DDW	MIRAMAR TREATMENT PLANT EFFLUENT CONCENTRATION							
	UNITS	[MRDL]	PHG	DLR	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER					
Bromate*	ppb	10	0.1	5.0/1.0	ND	ND - ND	By-product of drinking water disinfection					
Chlorate	ppb	NL=800	PPB	20	N/A	N/A	By-product of drinking water disinfection					
Chlorite	ppm	1	0.05	0.02	N/A	N/A	By-product of drinking water disinfection					
Total Organic Carbon [TOC]*	ppm	TT	N/A	0.3	2.5	2.2 - 3.3	Various natural and manmade sources					

^{*}TOC is a precursor for the formation of disinfection byproducts

Distribution System Results		MCL	PHG	CSD	CITY OF DEL MAR - DISTRIBUTION SYSTEM AVERAGE					
	UNITS	[MRDL]	[MRDLG]	DLR	AVERAGE	RANGE**	MAJOR SOURCES IN DRINKING WATER			
Disinfectant Residual	ppm	[4.0]^	[4]	0.1	1.83	.25 - 2.82	Drinking water disinfectant added for treatment			
[Chloramines as Cl2]										
Haloacetic Acids [HAA5]	ppb	60*	N/A		Max LRAA = 9	3.8 - 10.7	By-product of drinking water disinfection			
Total Trihalomethanes [TTHMs]	ppb	80*	N/A		Max LRAA = 27	15.6 – 32.3	By-product of drinking water chlorination			

NOTES: * Total Trihalomethane and HAA5 compliance is based on quarterly Locational Running Annual Average (LRAA)

^{**} Ranges and average are based upon individual 2021-Q4 and 2023 sample results. ^Compliance is determined by Distribution System Running Annual Average.

	TABLE 5 – ADDITIONAL CONSTITUENTS - SODIUM, TOTAL HARDNESS, AND TURBIDITY											
			PHG	CSD		MIRA	MAR TREATMENT PLANT EFFLUENT CONCENTRATION					
	UNITS	MCL	(MCLG)	MDL	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER					
Sodium	ppm	N/A	N/A	20	85.2	64.7 - 107	Naturally present in the environment					
Total Hardness	ppm	N/A	N/A	10	232	175 - 295	Naturally present in the environment					
Total Hardness	gr/Gal	N/A	N/A	0.6	13.6	10.2 - 17.2	Naturally present in the environment					
Alkalinity - Total as CaCO3	ppm	N/A	N/A	20	109	91.3 - 130						
рН	рН	N/A	N/A	N/A	8.16	7.57 - 8.54						
Turbidity	NTU	TT= 1 NTU	N/A		Max. Level found	= 0.07 NTU	Soil runoff					
Turbidity	NTU	TT=95% of samples ≤ 0.3 NTU	N/A		100% of samples ≤ 0.3 NTU		Soil runoff					

	TABLE 6 – DETECTED UNREGULATED PARAMETERS REQUIRING MONITORING										
	UCMR4										
			MRL		MIRAMAR TREATMENT PLANT EFFLUENT CONCENTRATION						
UCMR5 PARAMETERS ¹	UNITS				AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER				
Lithium	ppb		9		49.5	33.0 - 65.0					

¹Note: UCMR5 City of San Diego samples were collected in 2023.

SOURCE WATER ASSESSMENT:

(1) 2020 Watershed Sanitary Survey containing information about the City of San Diego's source water was completed March 1, 2021, and is available at: https://www.sandiego.gov/public-utilities/water-quality/watersheds/sanitary-survey (as: https://www.sandiego.gov/sites/default/files/2020_wss_final.pdf)
The source water is vulnerable to potential sources of contamination, such as stormwater runoff, Sanitary Sewer Overflows (SSOs), (leaking) underground storage tanks.
More specific information can be found in the City of San Diego 2020 Watershed Sanitary Survey, in: https://www.sandiego.gov/sites/default/files/2020_wss_final.pdf
Chapter 4 - Potential Contaminant Sources within the Local Source Water System (pages 67-93)

Additional tables and information about the water quality can also viewed via https://www.sandiego.gov/public-utilities/water-quality/water-quality-reports

Viewing the Meeting and Access to Agenda Materials: Members of the public can watch the meeting live on the City's website at: http://delmar.12milesout.com/Video/Live and on Spectrum TV Ch. 24 (AT&T Ch. 99) starting at 4:30 PM. Agenda materials and communications from the public on agenda items, "Red Dots", are available on City's website at: http://www.delmar.ca.us/AgendaCenter



City of Del Mar - Public Works Department 2240 Jimmy Durante Boulevard, Del Mar, CA 92014 T: (858) 755-3294 | F: (858) 481-0254 | E: PublicWorks@delmar.ca.us



This report is also available online at City's website at: http://www.delmar.ca.us/ccr2023