City of Del Mar - 2020 Annual Drinking Water Quality Report

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 2020. 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. Environmental Protection Agency (EPA.gov) and the State Water Resources Control Board – Division of Drinking Water (SWRCB-DDW) at waterboards.ca.gov, prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

In 2020, as in past years, your tap water not only met, but 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 components associated with service lines and home plumbing.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 2020, 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)

The 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at https://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 2018, 22 customers (plus 'the Winston School') provided 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. Only one (1) of the 22 sites had a result above the AL for Lead. 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 materials 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).

Lead and Copper Rule monitoring must be conducted every three years - our next study will be conducted in June 2021.

Este informe contiene información muy importante sobre la calidad de su agua de beber.
Favor de comunicarse City of Del Mar – Public Works, a (858) 755-3294, para asistirlo en español.

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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 USEPA United States Environmental Protection Agency'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: http://www.waterboards.ca.gov

How to Read the Tables

The tables below list contaminants which 1) SWRCB-DDW requires the City to monitor, and 2) SWRCB regulates with associated primary [health] or secondary [aesthetic], or no established standards. During 2020, these contaminants were detected at or above the SWRCB's Detection Limits for Purposes of Reporting during the reporting year.

These tables summarize monitoring from 2020, with exceptions (see table footnotes). SWRCB mandates monitoring radioactive contaminants every three years. The lead and copper testing was conducted in June 2018, and is monitored every three years. The levels of these contaminants are not expected to vary significantly from year to year.

Definition of Terms

Action Level (AL): The concentration of a contaminant that, 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 CY 2019.

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 level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected health risk. MRDLGs are set by the U.S. EPA.

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 requirements.

Abbreviations

A: Absent
CA SMCL: California Secondary Maximum Contaminant Level
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 (less than DLR, where applicable)
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) – [1 ppb = 0.001 ppm]
ppm: Parts per million or milligrams per liter (mg/L) – [1 ppm = 1,000 ppb]
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	UNITS	MCL	PHG	DDW DLR	CITY OF SAN DIEGO - MIRAMAR TREATMENT PLANT		
					AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER
Fluoride (naturally occurring)	ppm	2.0	1	0.1	0.2	0.1 - 0.4	Erosion of natural deposits
Fluoride (treatment-related)*	ppm	2.0	1	0.1	0.4	0.1 - 0.7	Water additive that promotes strong teeth

*Note: Optimal Fluoride Level as established by US Dept. of Health and Human Services and California Waterboards Division of Drinking Water is 0.7 ppm.

Primary Standards (Mandatory Health Related Standards) - RADIOACTIVE CONTAMINANTS

RADIOACTIVE PARAMETERS	UNITS	MCL	PHG (MCLG)	DDW DLR	CITY OF SAN DIEGO - MIRAMAR TREATMENT PLANT^		
					AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER
Gross Alpha Particle Activity	pCi/L	15	(0)	3	3	Single Sample	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50*	(0)	4	5	Single Sample	Decay of natural and man-made deposits
Uranium	pCi/L	20	0.43	1	1	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 - Uranium 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	
Contaminant	UNITS	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	0	Human and animal fecal waste

City of Del Mar performed 6 water quality tests per month. All 72 representative samples tested negative for presence of Coliform bacteria. This means that NO bacteriological contamination was found in the potable water samples of the City of Del Mar, during Calendar Year 2020. It was/is therefor safe for consumption.

LEAD AND COPPER RULE

CITY OF DEL MAR - SAMPLES TAKEN AT THE TAP OF 22 DIFFERENT SAMPLE SITES + 1 extra independent sample at 'The Winston School' (all in JUNE 2018)

LEAD AND COPPER STUDY	UNITS	ACTION LEVEL	PHG	DDW DLR	90th PERCENTILE CONCENTRATION	Exceeding AL	MAJOR SOURCES IN DRINKING WATER
Copper	ppm	1.300	0.3	0.05	0.614	0	Internal corrosion of household plumbing systems
Lead	ppb	15	0.2	5	2.92	1	Internal corrosion of household plumbing systems

Note: Monitoring mandated every three years. City of Del Mar most recent monitoring conducted in June 2018, from 22 water service connections (home addresses).
One (1) 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.)

TABLE 2 -- DETECTED REGULATED CCR PARAMETERS WITH SECONDARY MCLs (AESTHETICS STANDARDS)

	UNITS	CA SMCL	CSD MDL (DLR)	MIRAMAR TREATMENT PLANT EFFLUENT CONCENTRATION		
				AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER
Chloride	ppm	500	0.5	93.9	80.5 - 103	Runoff/leaching from natural deposits; seawater influence
Color	CU	15	1	ND	ND - 1	Naturally occurring organic materials
Specific Conductance	µS/cm	1600	N/A	777	563 - 923	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	(0.5)	144	72.8 - 202	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids	ppm	1000	10	477	352 - 564	Runoff/leaching from natural deposits

Distribution System Results (Secondary MCL)	UNITS	SMCL [MRDL]	(MCLG) [MRDLG]	CSD MDL/(DLR)	CITY OF DEL MAR - DISTRIBUTION SYSTEM AVERAGE		
					AVERAGE	RANGE**	MAJOR SOURCES IN DRINKING WATER
Color, Visual	Color Units	15	----	1	<1	ND - <1	Naturally occuring organic materials.
Odor	OU (Ton)	3	----	(1)	<1	ND - <1	Naturally occuring organic materials.
Turbidity	NTU	5	----	0.1	0.16	ND - 0.25	Soil runoff

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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	--
Chromium, hexavalent (CrVI)	ppb	-	(0.02)*	0.05	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 – 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
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	2.7	2.0 - 4.2	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 [Chloramines as Cl2]	ppm	[4.0]^	[4]	0.1	1.81	0.41 – 3.00	Drinking water disinfectant added for treatment
HaloAcetic Acids [HAA5]	ppb	60*	N/A	----	Max LRAA = 15	11.9 – 16.8	By-product of drinking water disinfection
Total TriHaloMethanes [TTHMs]	ppb	80*	N/A	----	Max LRAA = 47	29.0 – 49.1	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 2019-Q4 and 2020 sample results. ^Compliance is determined by Distribution System Running Annual Average.

TABLE 5 – ADDITIONAL CONSTITUENTS - SODIUM, TOTAL HARDNESS, AND TURBIDITY

			PHG	CSD	MIRAMAR TREATMENT PLANT EFFLUENT CONCENTRATION		
	UNITS	MCL	(MCLG)	MDL	AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER
Sodium	ppm	N/A	N/A	20	81.8	62.5 - 90.3	Naturally present in the environment
Total Hardness	ppm	N/A	N/A	10	218	127 - 277	Naturally present in the environment
Total Hardness	gr/Gal	N/A	N/A	0.6	12.7	7.42 - 16.2	Naturally present in the environment
Alkalinity - Total as CaCO3	ppm	N/A	N/A	20	112	83.2 - 139	
pH	pH	N/A	N/A	N/A	8.2	7.59 - 8.61	
Turbidity	NTU	TT= 1 NTU	N/A	---	Max. Level found = 0.10 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		
UCMR4 PARAMETERS[1]	UNITS		(MDL)		AVERAGE	RANGE	MAJOR SOURCES IN DRINKING WATER
Bromide*	ppm	----	(0.02)	----	0.06	0.04 - 0.11	
Manganese	ppb	----	0.4	----	0.9	0.6 - 1.2	Leaching from natural deposits
Total Organic Carbon [TOC]*	ppm	----	(1)	----	2.7	2.6 - 2.9	

[1]Note: UCMR4 (Fourth Unregulated Contaminant Monitoring Rule) Public water systems (PWS) City of San Diego samples were collected in 2018.

* As measured in untreated plant influent

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

The public is invited to discuss water quality related items during the regularly scheduled City Council Meetings, held the first and third Mondays of the month from 4:30 PM at Civic Center, 1050 Camino del Mar, in Del Mar. Council meetings are occasionally held on the second Mondays and/or special meetings called.
Pursuant to the State of California Executive Order N-25-20, and in the interest of public health, the City of Del Mar is temporarily taking actions to mitigate the COVID-19 pandemic by holding City Council Meetings electronically or by teleconference. The Town Hall will not be open to the public for this meeting.
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 Cable TV Spectrum 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 and the agenda materials are available at the Del Mar Library during their limited hours of operation. 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

We, the Experienced Professional Staff of the Public Works Department take ownership of the Operation and Maintenance of the City of Del Mar's Infrastructure.
With our Customer's needs in mind We deliver this 24/7 service in a Prompt, Courteous and Efficient Manner.
Streets · Landscape · Water · Stormdrains · Wastewater · Signs · Facilities · Parks

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