

This report contains important information about your drinking water. If the report is not available in your native language, we encourage you to identify someone who understands it and can translate it for you.



Spanish
Este reporte contiene información importante sobre la calidad del agua en su comunidad. Copias en español de este reporte están disponibles si llama al (619) 515-3500. También encontrará este reporte por medio del internet en www.sandiego.gov/water.

Chinese
此份有關你的食水報告,內有重要資料和訊息,請找他人為你翻譯及解釋清楚。

Korean
이 안내는 매우 중요합니다. 본인을 위해 번역인을 사용하십시오.

Japanese
この情報は重要です。翻訳を依頼してください。

Farsi
اطلاعات مهمی را جمع به آب آشامیدنی است. اگر نتوانید خواندن این اطلاعات را از زبان انگلیسی این اطلاعات به شما بخوانید لطفاً از کسی که می‌تواند زبان فارسی را بخواند یا از یک مترجم فارسی ترجمه کنید.

Laotian
ລາຍງານນີ້ມີຂໍ້ມູນສຳຄັນກ່ຽວກັບນ້ຳປະທານສະຖານ. ຈົ່ງໃຫ້ຄົນທີ່ມີຄວາມຮູ້ພາສາລາວ, ຫຼືພາສາໄທສຳນືກມາບໍລິບັນທຶກໃຫ້ທ່ານໃຈເຈດີ.

Russian
Данный рапорт содержит важную информацию о вашей питьевой воде. Переведите его или проконсультируйтесь с тем, кто его понимает.

Tagalog
Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

Vietnamese
Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

SAN DIEGANS WASTE NO WATER



Annual Drinking Water Quality Report 2011

THE CITY OF SAN DIEGO
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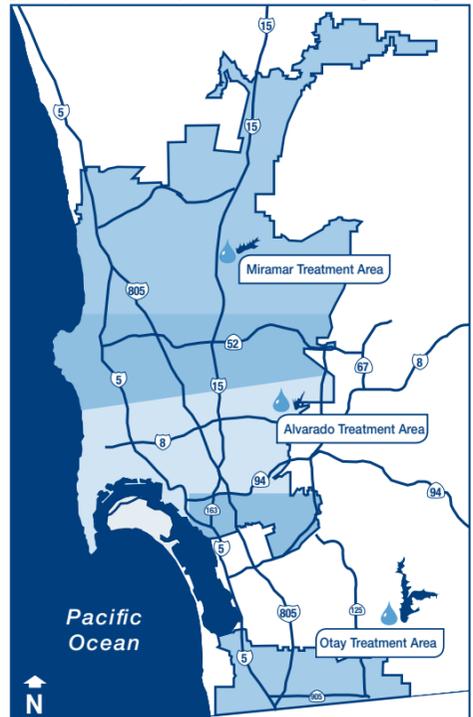


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The City of San Diego's Drinking Water Quality Report

includes details about where your water comes from, what it contains, and how it compares to state standards. In 2011, as in years past, your tap water met all state and federal drinking water health standards (primary standards for treating and monitoring water). The City of San Diego Public Utilities Department vigilantly safeguards our water supplies and once again, we are proud to report that our system has never violated a maximum contaminant level or any other water quality standard. This report is a snapshot of last year's water quality.

The City imports approximately 85% to 90% of its water from the Metropolitan Water District of Southern California (MWD) via the San Diego County Water Authority. Our water supply is a blend from the Colorado River, State Water Project (Northern California), and local sources. The City treats the water at three treatment plants: Alvarado, Miramar and Otay. Which plant you receive your water from depends upon



where you live (see map). A relatively small amount of treated water is also imported from MWD.

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 (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health. The 2010 Watershed Sanitary Survey, which contains information on the City's watersheds, is available at: www.sandiego.gov/water/operations/environment/wssurvey.shtml

Your Dollars at Work

The Public Utilities Department recognizes the importance of its responsibility with the money you pay for water service. Water is an expensive resource that must be transported and properly treated to make sure it is safe and healthful. It is also vitally important to the health and well-being of San Diego that we safely collect, treat and dispose of nearly 180 million gallons of sewage every day. The City of San Diego has very complex water system, and the Public Utilities Department continues to look for ways to reduce costs and improve efficiency, including streamlining services and consistently reviewing our processes to make sure we are doing the best job possible. For more information, see the Your Dollars at Work web page at www.sandiego.gov/publicutilities/dollarsatwork.shtml

Water Fluoridation

In February 2011, the City of San Diego's water treatment plants began state-mandated fluoridation. In 2008, the San Diego City Council accepted an offer of funding from the First 5 Commission of San Diego County for the purpose of fluoridating the City's public water supply. The funding covers the full capital improvements costs and up to two years of operating and maintenance expenses necessary to implement fluoridation. For more information, visit www.sandiego.gov/water/quality/fluoridation.shtml.

4/12 Printed on recycled paper containing 30% post-consumer waste. This information is available in alternative formats upon request.

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. USEPA/Centers for Disease Control (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). During calendar year 2011, the water supply to each of the City's water treatment plants was monitored for Cryptosporidium and Giardia, and neither was detected.

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. The City 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 2 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 from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead

How to Contact Us	Information Web Sites
Emergency Hotline 619-515-3525	City of San Diego www.sandiego.gov/water
General Information 619-515-3500	County Water Authority..... www.sdcwa.org
Water Quality Lab 619-668-3232	Metropolitan Water District www.mwdh2o.org
Capital Improvements Projects 619-533-4207	State Public Health www.cdph.ca.gov
City Lakes Recreation 619-465-3474	Think Blue www.thinkblue.org
Speakers Bureau..... 619-533-6638	U.S. EPA www.epa.gov/safewater
Storm Water Pollution Prevention 619-235-1000	Water Emergency..... www.sandiego.gov/wateremergency
Water-Use Violations 619-515-3500	Watering Calculator.... http://apps.sandiego.gov/landcalc
Department email water@sandiego.gov	Be Water Wise (MWD) www.bewaterwise.com

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. Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 800-426-4791. For a list of action levels, visit the California Department of Public Health (CDPH) web site at www.cdph.ca.gov.

How to Read the Tables

The tables below list contaminants which 1) CDPH requires the City to monitor, 2) CDPH regulates with associated primary [health] or secondary [aesthetic], or no established standards. During 2011, these contaminants were detected at or above the CDPH's Detection Limits for Purposes of Reporting during the reporting year.

These tables summarize monitoring from January – December 2011 with two exceptions (see table footnotes). CDPH mandates monitoring radioactive contaminants every three years. The Lead and Copper Rule was conducted in 2011, 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.

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. MCLs 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 and reporting requirements, and water treatment requirements.

Abbreviations

- A: absent
- CA SMCL: California secondary maximum contaminant level
- CDPH: California Department of Public Health
- CSD MDL (City of San Diego Water Quality Lab method detection limit): lowest quantifiable concentration of a measured analyte detectable by the lab
- 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
- 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 CONTAMINANTS													
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						MWD Skinner		TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Fluoride naturally occurring	ppm	2	1	0.1	0.2	0.1 – 0.3	0.2	0.2 – 0.2	0.3	0.2 – 0.5	0.2	0.1 – 0.3	Erosion of natural deposits
Fluoride Treatment Related	ppm	2	1	0.1	0.7	0.3 – 0.8	0.7	0.4 – 0.8	0.7	0.6 – 0.7	0.8	0.7 – 0.9	Fluoride added at treatment plants

Primary Standards (Mandatory Health Related Standards) – RADIOACTIVE CONTAMINANTS													
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						MWD Skinner		TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Gross Alpha Particle Activity	pCi/L	15	0	3	ND	ND	n/a	n/a	n/a	n/a	ND	ND – 3	Erosion of natural deposits
Gross Beta Particle Activity	pCi/L	50	0	4	ND	ND	ND	ND	ND	ND	ND	ND – 5	Decay of natural and manmade deposits
Uranium	pCi/L	20	0.43	1	1.6	1.6	1.6	1.6	2.1	2.1	1	ND – 2	Erosion of natural deposits

Note: Regulations require monitoring every three years. Most recent monitoring: 2009 for Miramar and Otay, 2011 for Alvarado, and 2011 for MWD Skinner.

Primary Standards (Mandatory Health Related Standards) - MICROBIOLOGICAL CONTAMINANTS													
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	DISTRIBUTION SYSTEM						MWD Skinner		TYPICAL SOURCE OF CONTAMINANTS
					AVERAGE			RANGE			AVERAGE	RANGE	
Total Coliform Bacteria	/100ml	< 5% Positive	0	A	0.1%			0 – 0.20%			0.00%	0.0 – 0.1%	Naturally present in the environment

* Based on monthly percentages of positive total coliform samples.

SODIUM, TOTAL HARDNESS, AND TURBIDITY													
CONTAMINANT	UNITS	MCL	PHG (MCLG)	MDL	TREATMENT PLANT EFFLUENT CONCENTRATION						MWD Skinner		TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Sodium	ppm	n/a	n/a	20	72.6	59 – 87.2	70.8	55.2 – 88.0	96.3	73.3 – 115	64	54 – 74	Naturally present in the environment
Total Hardness	ppm	n/a	n/a	10	184	150 – 226	182	144 – 240	223	186 – 261	160	100 – 220	Naturally present in the environment
Total Hardness	gr/Gal	n/a	n/a	0.6	10.8	8.8 – 13.2	10.6	8.4 – 14.0	13	10.9 – 15.3	9.4	5.8 – 12.9	Naturally present in the environment
Turbidity	NTU		n/a		% ≤ 0.3 NTU		% ≤ 0.3 NTU		% ≤ 0.3 NTU		% ≤ 0.3 NTU		Soil runoff
					TT = 95% of samples < 0.3NTU		100%		100%		100%		

Primary Standards (Mandatory Health Related Standards) – AT THE TAP CONTAMINANTS – LEAD AND COPPER RULE													
CONTAMINANT	UNITS	ACTION LEVEL	PHG (MCLG)	CDPH DLR	SAMPLES TAKEN AT THE TAP						TYPICAL SOURCE OF CONTAMINANTS		
					90th PERCENTILE CONCENTRATION	NUMBER		AVERAGE	RANGE				
						SAMPLING SITES	EXCEEDING AL						
Copper	ppm	1.3	0.3	0.050	0.309	50		0				Internal corrosion of household plumbing systems	
Lead	ppb	15	0.2	5	ND	50		3				Internal corrosion of household plumbing systems	

Note: Monitoring mandated every three years. Most recent monitoring conducted in 2011.

TABLE 2 – DETECTED REGULATED CCR CONTAMINANTS WITH SECONDARY MCLs

CONTAMINANT	UNITS	CA SMCL	CSD MDL	TREATMENT PLANT CONCENTRATION						MWD SKINNER		TYPICAL SOURCE OF CONTAMINANTS
				ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Chloride	ppm	500	0.5	87.4	76.6 – 105	83.3	66.1 – 103	131	93.8 – 154	72	62 – 83	Runoff/leaching from natural deposits; seawater influence
Color	CU	15	1	2	1 – 3	2	1 – 3	2	1 – 3	1	1 – 1	Naturally-occurring organic materials.
Manganese	ppb	50	20*	ND	ND – 37.5	ND	ND – ND	ND	ND – ND	ND	ND – ND	Leaching from natural deposits
Odor-Threshold	OU	3	1	ND	ND – 1	ND	ND – 1	1	1 – 1	9	3 – 24	Naturally-occurring organic materials
Specific Conductance	µS/cm	1,600	n/a	684	545 – 815	676	549 – 839	866	699 – 1,000	630	390 – 840	Substances that form ions when in water; seawater influence.
Sulfate	ppm	500	0.5	111	77.2 – 146	119	78.6 – 164	129	102 – 155	110	178 – 150	Runoff/leaching from natural deposits; seawater influence
Total Dissolved Solids	ppm	1,000	10	418	324 – 527	413	323 – 514	538	442 – 635	380	300 – 460	Runoff/leaching from natural deposits
Zinc	ppm	5,000	50*	ND	ND – ND	ND	ND – 66	ND	ND – ND	ND	ND – ND	Runoff/leaching from natural deposits

Odor-Threshold note for MWD Skinner - MWD utilizes a flavor-profile analysis (FPA) method and found the FPA samples from this location acceptable. *CDPH DLR.

TABLE 3 – DETECTED UNREGULATED CCR CONTAMINANTS REQUIRING MONITORING

CONTAMINANT	UNITS	ACTION LEVEL	CDPH DLR	TREATMENT PLANT CONCENTRATION							
				ALVARADO		MIRAMAR		OTAY		MWD SKINNER	
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
Boron	ppb	1,000	100	105	105 – 106	114	106 – 122	121	105 – 131	130	130 – 130

TABLE 4 – DETECTED DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUAL AND DISINFECTION BY-PRODUCT PRECURSORS

Treatment Plant Effluent													
CONTAMINANT	UNITS	MCL MRDL	MCLG MRDLG	CDPH DLR	TREATMENT PLANT CONCENTRATION						TYPICAL SOURCE OF CONTAMINANTS		
					ALVARADO		MIRAMAR		OTAY			MWD SKINNER	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		AVERAGE	RANGE
Bromate*	ppb	10	0.1	5	ND	ND – 5.8	ND	ND – ND	n/a	n/a	5.2***	ND – 12	By-product of drinking water disinfection
Chlorate**	ppb	n/a	n/a	20	n/a	n/a	n/a	n/a	181	ND – 379	50	50 – 50	By-product of drinking water disinfection
Chlorite**	ppm	1	0.05	0.02	n/a	n/a	n/a	n/a	0.302	ND – 0.559			By-product of drinking water disinfection
Total Organic Carbon [TOC]	ppm	TT	n/a	0.3	2.93	1.91 – 3.99	2.46	2.05 – 3.86	3.61	1.92 – 5.1	2.2***	1.8 – 2.7	Various natural and manmade sources

* Required for Alvarado, Miramar and Skinner. **Required for Otay. Not required for Alvarado and Miramar. ***Highest Running Annual Average.

Distribution System Results													
CONTAMINANT	UNITS	MCL MRDL	MCLG MRDLG	CDPH DLR	TREATMENT PLANT CONCENTRATION						TYPICAL SOURCE OF CONTAMINANTS		
					ALVARADO		MIRAMAR		OTAY		MWD SKINNER		
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Chlorite	ppm	1	0.05	----	*Distribution system average = 0.165						RANGE ****	0.078 – 0.221	By-product of drinking water disinfection
Disinfectant Residual [Chloramines]	ppm	4**	4	----	Distribution system average = 2.13						RANGE ****	0.1 – 3.6	Drinking water disinfection added for treatment
Haloacetic acids [HAA5]	ppb	60*	n/a	----	*** Highest running average = 15.1						RANGE ****	5.85 – 22.4	By-product of drinking water disinfection
Total Trihalomethanes [THMs]	ppb	80*	n/a	----	*** Highest running average = 63.8						RANGE ****	24.3 – 84.3	By-product of drinking water chlorination

NOTES: * Chlorite is present only in the Southern section of the distribution system. ** Compliance is determined by the distribution system running annual average. ***Total Trihalomethane and HAA5 compliance is based on system wide Running Annual Average. ****Ranges are based upon single sample results.