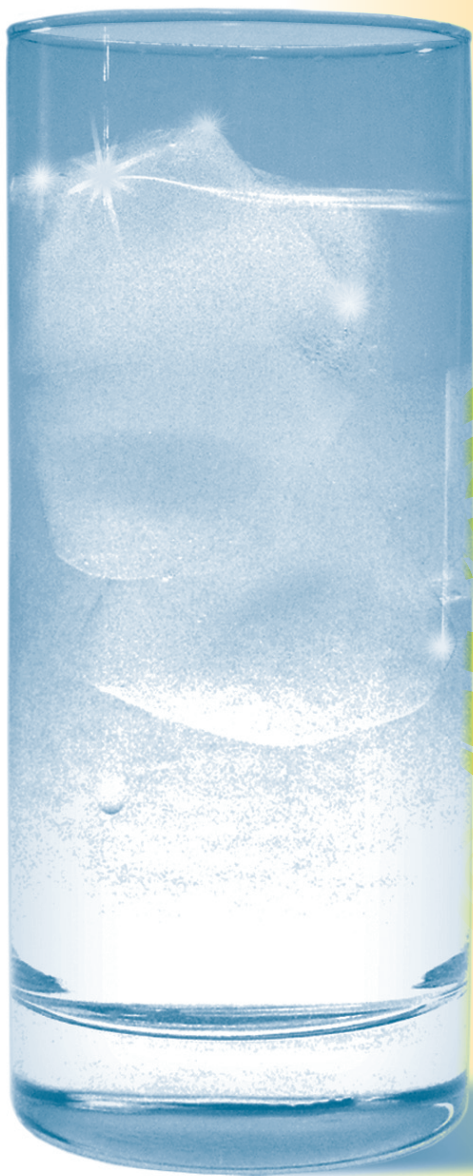


# 2010 Annual Drinking Water Quality Report



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](http://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.

## Farsi

اطلاعات مهمی را در مورد کیفیت آب آشامیدنی شما در دسترس است. اگر نمی‌توانید این اطلاعات را به زبان انگلیسی این اطلاعات را به شما بخوانید لطفاً کسی که می‌تواند به فارسی برگرداند تا مطالب را برای شما به فارسی ترجمه کند.

## Japanese

この情報は重要です。翻訳を依頼してください。

## Laotian

ລາຍງານນີ້ມີຄວາມສຳຄັນຕໍ່ກັບນັກປະທຸຂອງທ່ານ. ຈົ່ງໃຫ້ຄົນອື່ນຊ່ວຍເຫຼືອໃຫ້ທ່ານ, ທີ່ສາມາດເຂົ້າເຖິງຂໍ້ມູນນີ້ໄດ້ໃນພາສາຂອງທ່ານ.

## 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.



THE CITY OF SAN DIEGO  
Public Utilities Department  
Water Operations Branch  
Public Information Office  
2797 Caminito Chollas, MS 43  
San Diego, CA 92105-5097



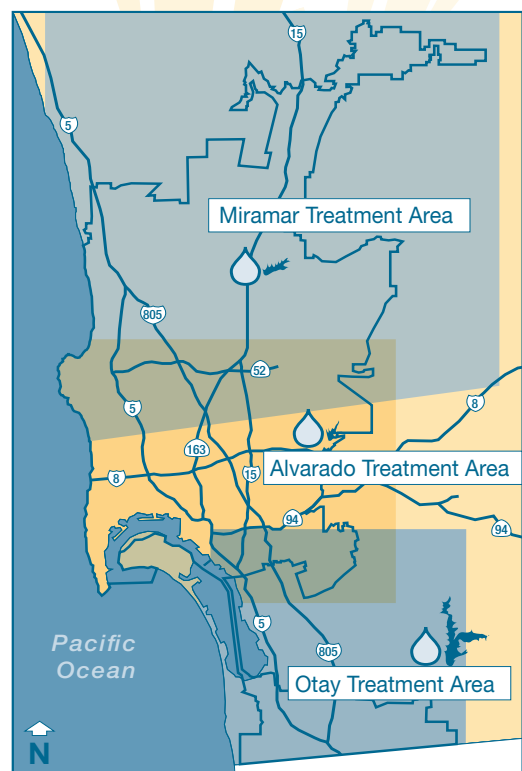
**SAN DIEGANS WASTE NO WATER**

PRSR STD  
U.S. POSTAGE  
PAID  
PERMIT NO. 134  
SAN DIEGO, CA

## The City of San Diego's Drinking Water Quality Report

includes details about our water, what it contains, and other important information about the water we provide to our customers. The drinking water provided by the City of San Diego is safe and meets all federal and state water health standards (primary standards for treating and monitoring water).

The City imports approximately 85-90% of our 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 (Department) 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.

## San Diegans Waste No Water

While our short-term water outlook is good, wasting water is never an option. San Diego imports up to 85% of its water from Northern California and the Colorado River Basin and our wholesalers tell us that the price of this water will continue to rise. Wise water use has become a permanent part of the San Diego lifestyle. Rain or shine, indoors and outdoors, all day and every day "San Diegans Waste No Water." For more information on current water-waste restrictions and ways to save money and water, visit [WasteNoWater.org](http://WasteNoWater.org) or call 619-515-3500.

## Water Fluoridation

In 2010, the City of San Diego imported fluoridated water from the San Diego County Water Authority serving approximately 10-15% of San Diego's population. The water produced by the City's water treatment plants in 2010 was not fluoridated. In February 2011, the City of San Diego's water treatment plants began state mandated fluoridation. In 2008, the 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](http://www.sandiego.gov/water/quality/fluoridation.shtml).

## 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).

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](http://www.epa.gov/safewater/lead).

How to Contact Us	Information Web Sites
Emergency Hotline ..... 619-515-3525	City of San Diego ..... <a href="http://www.sandiego.gov">www.sandiego.gov</a>
General Information ..... 619-515-3500	County Water Authority..... <a href="http://www.sdcwa.org">www.sdcwa.org</a>
Water Quality Lab ..... 619-668-3232	Metropolitan Water District ..... <a href="http://www.mwdh2o.org">www.mwdh2o.org</a>
Capital Improvements Projects ..... 619-533-4679	State Public Health ..... <a href="http://www.cdph.ca.gov">www.cdph.ca.gov</a>
City Reservoirs Recreation ..... 619-465-3474	Think Blue ..... <a href="http://www.thinkblue.org">www.thinkblue.org</a>
Speakers Bureau ..... 619-533-6638	U.S. EPA ..... <a href="http://www.epa.gov/safewater">www.epa.gov/safewater</a>
Storm Water Pollution Prevention ..... 619-235-1000	Water Emergency..... <a href="http://www.sandiego.gov/wateremergency">www.sandiego.gov/wateremergency</a>
Water-Use Violations ..... 619-515-3500	Watering Calculator.... <a href="http://apps.sandiego.gov/landcalc">http://apps.sandiego.gov/landcalc</a>
Department email ..... <a href="mailto:water@sandiego.gov">water@sandiego.gov</a>	Be Water Wise (MWD) ..... <a href="http://www.bewaterwise.com">www.bewaterwise.com</a>



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](http://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 2010, 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 2010 with two exceptions (see table footnotes). CDPH mandates monitoring radioactive contaminants every three years. The Lead and Copper Rule monitoring was conducted in 2008, 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)	CA DPH DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						MWD Skinner		TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Barium	ppm	1	2	0.1	ND	ND – ND	ND	ND – 0.115	ND	ND – ND	ND	ND – 0.120	Erosion of natural deposits
Fluoride naturally occurring	ppm	2	1	0.1	0.25	0.18 – 0.40	0.25	0.18 – 0.37	0.27	0.20 – 0.35	NA	NA	Erosion of natural deposits
Fluoride Treatment Related	ppm	2	1	0.1	Not added	Not added	Not added	Not added	Not added	Not added	0.8	0.6 – 1.0	MWD added Fluoride in 2010.

Primary Standards (Mandatory Health Related Standards) – RADIOACTIVE CONTAMINANTS													
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CA DPH DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						MWD Skinner		TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Gross Beta Particle Activity	pCi/L	50	0	4	ND	ND	ND	ND	ND	ND	ND	ND – 8.8	Decay of natural and manmade deposits
Uranium	pCi/L	20	0.43	1	2.41	2.41	1.6	1.6	2.12	2.12	2.5	2.3 – 2.7	Erosion of natural deposits

Note: Monitoring required every three years. Most recent monitoring: 2009 for Alvarado, Miramar, Otay; and 2008 for MWD Skinner.

Primary Standards (Mandatory Health Related Standards) - MICROBIOLOGICAL CONTAMINANTS												
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CA DPH DLR	DISTRIBUTION SYSTEM				MWD Skinner		TYPICAL SOURCE OF CONTAMINANTS	
					AVERAGE		RANGE*		AVERAGE	RANGE		
					0.6%		0 – 3.8%					0.00% 0.0 – 0.2%
Total Coliform Bacteria	/100ml	< 5% Positive	0	A							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	na	na	20	88.8	79.8 – 97.5	87.2	80.0 – 96.7	101	79.2 – 115	91*	80 – 100	Naturally present in the environment
Total Hardness	ppm	na	na	20	241	199 – 276	247	206 – 284	252	221 – 270	260*	190 – 300	Naturally present in the environment
Total Hardness	gr/Gal	na	na	1.2	14.1	11.6 – 16.1	14.4	12.0 – 16.6	14.7	12.9 – 15.8	15.2*	11.1 – 17.5	Naturally present in the environment
Turbidity	NTU		na		% ≤ 0.3 NTU		% ≤ 0.3 NTU		% ≤ 0.3 NTU		% ≤ 0.3 NTU		Soil runoff
TT = 95% of samples ≤ 0.3 NTU					100%		100%		100%		100%		

\*Based on Highest Running Annual Average

Primary Standards (Mandatory Health Related Standards) – AT THE TAP CONTAMINANTS – LEAD AND COPPER RULE												
CONTAMINANT	UNITS	ACTION LIMIT	PHG (MCLG)	CA DPH DLR	SAMPLES TAKEN AT THE TAP			TYPICAL SOURCE OF CONTAMINANTS				
					90th PERCENTILE CONCENTRATION	NUMBER						
						SAMPLING SITES	EXCEEDING AL					
Copper	ppm	1.3	0.3	0.050	0.444	57	0	Internal corrosion of household plumbing systems				
Lead	ppb	15	0.2	5	9.0	57	2	Internal corrosion of household plumbing systems				

Note: Monitoring mandated every three years. Most recent monitoring conducted in 2008.

**TABLE 2 – DETECTED REGULATED CCR CONTAMINANTS WITH SECONDARY MCLs**

CONTAMINANT	UNITS	CA SMCL	CA DHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						MWD SKINNER		TYPICAL SOURCE OF CONTAMINANTS
				ALVARADO		MIRAMAR		OTAY		AVERAGE	RANGE	
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE			
Chloride	ppm	500	0.5	100	94.4 – 108	94.9	86.0 – 101	127	97.2 – 150	96	88 – 98	Runoff/leaching from natural deposits; seawater influence
Color	CU	15	1	ND	ND – 2	1	ND – 2	ND	ND – 2	1	1	Naturally-occurring organic materials.
Odor-Threshold	OU	3	1	ND	ND – 1.4	ND	ND – 2	1	1 – 1.4	25	19 – 35	Naturally-occurring organic materials
Specific Conductance	µS/cm	1,600	n/a	883	795 – 984	883	777 – 997	963	804 – 1,020	940	720 – 1,000	Substances that form ions when in water; seawater influence.
Sulfate	ppm	500	0.5	176	141 – 235	192	147 – 242	173	145 – 212	210	160 – 240	Runoff/leaching from natural deposits; seawater influence
Total Dissolved Solids	ppm	1,000	10	569	496 – 711	563	476 – 625	601	527 – 655	560	480 – 610	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.

**TABLE 3 – DETECTED UNREGULATED CCR CONTAMINANTS REQUIRING MONITORING**

CONTAMINANT	UNITS	ACTION LEVEL	CA DHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION							
				ALVARADO		MIRAMAR		OTAY		MWD SKINNER	
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
Boron	ppb	1,000	100	129	107 – 149	133	103 – 155	146	133 – 152	120	120 – 130

\*Boron averages are based on the Highest Running Annual Average.

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

Treatment Plant Effluent													
CONTAMINANT	UNITS	MCL MRDL	MCLG MRDLG	CA DHS DLR	TREATMENT PLANT EFFLUENT CONCENTRATION						TYPICAL SOURCE OF CONTAMINANTS		
					ALVARADO		MIRAMAR		OTAY			MWD SKINNER	
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE		AVERAGE	RANGE
Total Organic Carbon [TOC]	ppm	TT	n/a	0.3	2.76	2.06 – 3.86	2.33	1.57 – 2.63	2.95	1.82 – 3.92	2.1	1.8 – 2.3	Various natural and manmade sources
Distribution System Results													
Disinfectant Residual [Chloramines]	ppm	4	4	----	Distribution system average = 2.17				RANGE **	0.1 – 5.3			Drinking water disinfectant added for treatment
Haloacetic acids [HAA5]	ppb	60*	n/a	----	* Highest running average = 15.4				RANGE **	6.82 – 28.7			By-product of drinking water disinfection
Total Trihalomethanes [TTHMs]	ppb	80*	n/a	----	* Highest running average = 60.3				RANGE **	22.4 – 105			By-product of drinking water chlorination

NOTES: \* Total Trihalomethane and HAA5 compliance is based on system wide Running Annual Average.

\*\* Ranges are based upon single sample results.