THE CITY OF SAN DIEGO

2009 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 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. Tambien encontrará este reporte por medio del internet en www.sandiego.gov/water.

Af-Somali
Ribootkani wuxuu xanbaar sanyahay warbixino muhiim ah oo ku saabsam biyaha aad cabtaan. Hadii aadan fahmeynin, Fadlan ribootka hala turjumo ama kala hadal ruux ku fahansiiya.

Tagalog
Mahalaga ang impormasyong ito. Mangyaring ipasalin ito.

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.

Arabic

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

NO TI WASTE
NO WATER TO WASTE

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

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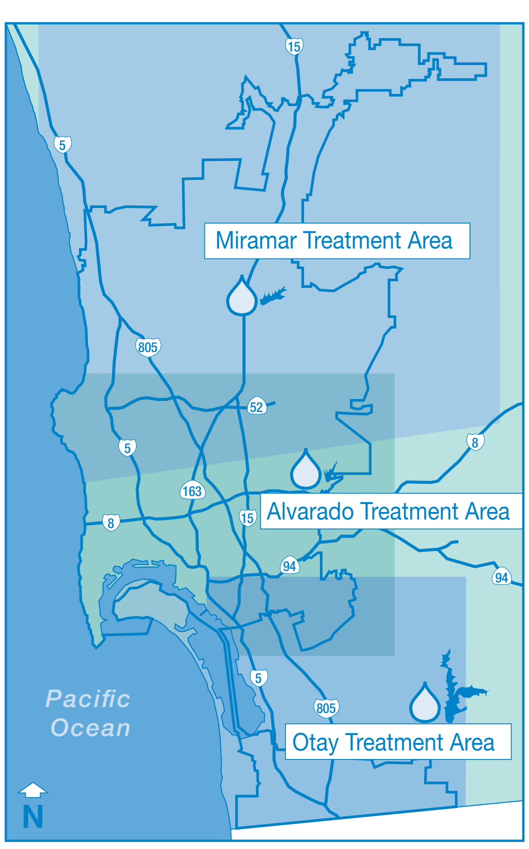
The City of San Diego's Drinking Water Quality Report

includes details about our water sources, what they contain, 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 its water from the Metropolitan Water District of Southern California via the San Diego County Water Authority. Our water is a blend from the Colorado River, State Water Project, and local sources.



Contaminants

The sources of drinking water (both tap 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 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, which 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, which 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, which can be naturally-occurring or be the result of oil and gas production and mining activities.

To ensure tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State regulations also establish limits for contaminants in bottled water that must provide the same protection to public health.

Fluoridation

Approximately 10% of the water imported to San Diego is fluoridated treated water. Because this is only a small portion of the City water supply, not all areas of the City currently receive fluoridated water. Due to seasonal demands and operational changes, fluoride levels will vary throughout the system over time. 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 Commission's offer of up to $3,927,016 is for full funding of the capital costs and up to two years of operating and maintenance expenses necessary to implement fluoridation at each of the City's three water treatment plants. As a result of state law and the availability of funding, the City is required to begin fluoridating its public water supply by late 2010. For more information, visit 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 people, such as those with cancer who are undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk. These people and/or their caregivers should seek advice from their health care providers about drinking water. The EPA guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline at 800-426-4791. During calendar year 2009, the water supply to each of the City's water treatment plants was monitored for *Cryptosporidium* and *Giardia*, and neither was detected.

Mandatory Water Conservation

San Diego is continuing to experience water supply restrictions. Environmental stresses stemming from multiple years of drought to court-ordered pumping restrictions continue to reduce the amount of water that can be delivered to our region. Since San Diego imports 85 – 90% of its water, these conditions put considerable stress on the City's water system. Because of this, and the threat of further limitations on our water supplies, the City of San Diego has declared a Level 2-Drought Alert. All customers have restrictions on how they can use water. For more information, visit the City's Water Conservation web page at www.sandiego.gov/water/conservation or call 619-515-3500.

How to Contact Us

Emergency Hotline	619-515-3525
General Information	619-515-3500
Water Quality Lab	619-668-3232
Capital Improvements Projects	619-533-4679
City Lakes Recreation	619-465-3474
Speakers Bureau	619-533-6638
Storm Water Pollution Prevention	619-235-1000
Water-Use Violations	619-515-3500
Department email	water@sandiego.gov

Information Web Sites

City of San Diego	www.sandiego.gov
County Water Authority	www.sdcwa.org
Metropolitan Water District	www.mwdh20.org
State Public Health	www.cdph.ca.gov
Think Blue	www.thinkblue.org
U.S. EPA	www.epa.gov/safewater
Water Emergency	www.sandiego.gov/wateremergency
Watering Calculator	http://apps.sandiego.gov/landcalc
Be Water Wise (MWD)	www.bewaterwise.com

6/10 *Printed on recycled paper containing 30% post-consumer waste. This information is available in alternative formats upon request.*

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. For more information regarding contaminants and potential health effects, call the U.S. Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 800-426-4791 or visit the agency's web site at www.epa.gov/safewater/hfacts.html for information regarding contaminants and potential health effects. For a list of action levels, visit the CDPH web site at www.cdph.ca.gov.

How to Read the Tables

The tables below list contaminants which 1) The California Department of Public Health (CDPH) requires the City to monitor, 2) CDPH regulates with associated primary [health] or secondary [aesthetic], or no established standards. During 2009, these contaminants were detected at or above the CDPH's Detection Limits for Reporting.

These tables summarize monitoring from January – December 2009 with two exceptions (see table footnotes). CDPH mandates monitoring radioactive contaminants every nine years. Monitoring based on the Lead and Copper Rule was conducted in 2008, and is performed 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.

MCL (maximum contaminant level): 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.

MCL G (MCL goal): The level of a contaminant in drinking water, below which there is no known or expected health risk. MCLs are set by the EPA.

MRDL (maximum residual disinfectant level): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

MRDLG (maximum residual disinfectant level goal): 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.

PHG (public health goal): 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
MCL: Maximum contaminant level
ml: milliliter
n/a: not applicable
ND: not detected
NTU: nephelonmetric 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]
ppt: parts per trillion or nanograms per liter (ng/L) – [1 ppt = 0.001 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

					TREATMENT PLANT EFFLUENT CONCENTRATION								
					ALVARADO		MIRAMAR		OTAY		MWD Skinner		
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	TYPICAL SOURCE OF CONTAMINANTS
Barium	ppm	1	2	0.1	ND	ND – 0.10	0.11	0.11 – 0.12	ND	ND – ND	ND	ND – 0.11	Erosion of natural deposits
Fluoride naturally occurring	ppm	2	1	0.1	0.22	0.18 – 0.26	0.23	0.19 – 0.28	0.24	0.19 – 0.30	NA	NA	Erosion of natural deposits
Fluoride Treatment Related	ppm	2.0	1.0	0.1	Not added	Not added	Not added	Not added	Not added	Not added	0.8	0.7 – 1.3	MWD added Fluoride in 2008.

Note: Fluoride service map by address located at: http://www.sandiego.gov/water/quality/fluoridation.shtml

Primary Standards (Mandatory Health Related Standards) – RADIOACTIVE CONTAMINANTS

					TREATMENT PLANT EFFLUENT CONCENTRATION								
					ALVARADO		MIRAMAR		OTAY		MWD Skinner		
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	TYPICAL SOURCE OF CONTAMINANTS
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

					DISTRIBUTION SYSTEM		MWD Skinner		
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	AVERAGE	RANGE	AVERAGE	RANGE	TYPICAL SOURCE OF CONTAMINANTS
Total Coliform Bacteria	/100ml	< 5% Positive	0	A	0.12%	0 – 0.40%	0.00%	0.0 – 0.2%	Human and animal waste

SODIUM, TOTAL HARDNESS, AND TURBIDITY

					DISTRIBUTION SYSTEM						MWD Skinner		
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CSD MDL	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	TYPICAL SOURCE OF CONTAMINANTS
Sodium	ppm	na	na	5	90.1	84 – 99.4	91.5	85.3 – 98.4	99	86.9 – 111	93	78 – 100	Naturally present in the environment
Total Hardness	ppm	na	na	2	257	229 – 298	269	234 – 325	264	251 – 276	270	190 – 300	Naturally present in the environment
Total Hardness	gr/Gal	na	na	0.12	15	13.4 – 17.4	15.7	13.7 – 19.0	15.4	14.7 – 16.1	15.8	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 <0.3NTU				100%		100%		100%		100%		

Primary Standards (Mandatory Health Related Standards) – AT THE TAP CONTAMINANTS – LEAD AND COPPER RULE

					SAMPLES TAKEN AT THE TAP				
						NUMBER			
CONTAMINANT	UNITS	ACTION LEVEL	PHG (MCLG)	CDPH DLR	90th PERCENTILE CONCENTRATION	SAMPLING SITES	EXCEEDING AL		TYPICAL SOURCE OF CONTAMINANTS
Copper	ppm	1.3	0.17	0.050	0.444	57	0		Internal corrosion of household plumbing systems
Lead	ppb	15	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

				TREATMENT PLANT CONCENTRATION								
				ALVARADO		MIRAMAR		OTAY		MWD SKINNER		
CONTAMINANT	UNITS	CA SMCL	CSD MDL	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	TYPICAL SOURCE OF CONTAMINANTS
Chloride	ppm	500	0.5	102	95.7 – 108	99.7	95.8 – 107	126	113 – 150	97	93 – 100	Runoff/leaching from natural deposits; seawater influence
Color	CU	15	1	ND	ND – 2	ND	ND – 1	ND	ND – 1	2	1 – 2	Naturally-occuring organic materials.
Odor-Threshold	OU	3	1	1	ND – 1	ND	ND – 1.4	1	ND – 1.4	18	12 – 24	Naturally-occuring organic materials
Specific Conductance	µS/cm	1,600	n/a	912	823 – 1,050	902	657 – 1,090	958	866 – 1,060	960	760 – 1,100	Substances that form ions when in water; seawater influence.
Sulfate	ppm	500	0.5	182	151 – 227	210	185 – 235	184	153 – 206	220	130 – 250	Runoff/leaching from natural deposits; seawater influence
Total Dissolved Solids	ppm	1,000	10	562	506 – 632	596	510 – 757	597	539 – 644	580	440 – 640	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

				TREATMENT PLANT CONCENTRATION							
				ALVARADO		MIRAMAR		OTAY		MWD SKINNER	
CONTAMINANT	UNITS	ACTION LEVEL	CDPH DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE
Boron	ppb	1,000	100	131	107 – 143	137	129 – 148	151	141 – 164	140	130 – 140
N-nitrosodimethylamine [NDMA]	ppt	n/a	2	ND	ND – 2	ND	ND – ND	ND	ND – ND	ND	ND – 2

*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

					TREATMENT PLANT CONCENTRATION								
					ALVARADO		MIRAMAR		OTAY		MWD SKINNER		
CONTAMINANT	UNITS	MCL MRDL	MCLG MRDLG	CDPH DLR	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	TYPICAL SOURCE OF CONTAMINANTS
Total Organic Carbon [TOC]	ppm	n/a	n/a	0.3	2.97	2.15 – 4.62	2.50	2.27 – 2.76	3.74	2.26 – 5.08	2.2	1.8 – 2.3	Various natural and manmade sources

Distribution System Results

Disinfectant Residual [Chloramines]	ppm	4	4	----	Distribution system average = 2.16	RANGE **	2.03 – 2.32		Drinking water disinfectant added for treatment
Haloacetic acids [HAA5]	ppb	60*	n/a	----	* Highest running average = 16.8	RANGE **	6.12 – 32.6		By-product of drinking water disinfection
Total Trihalomethanes [TTHMs]	ppb	80*	n/a	----	* Highest running average = 67.3	RANGE **	26.5 – 82.8		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.