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THE CITY OF SAN DIEGO
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THE CITY OF SAN DIEGO

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. También 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 fahansiya.

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
هذا التقرير يحتوي على معلومات مهمة تتعلق بمياه الشفة (أو الشرب). نرجو التأكيد، لو تكلم مع شخص يستطيع ان يلمهم التقرير.

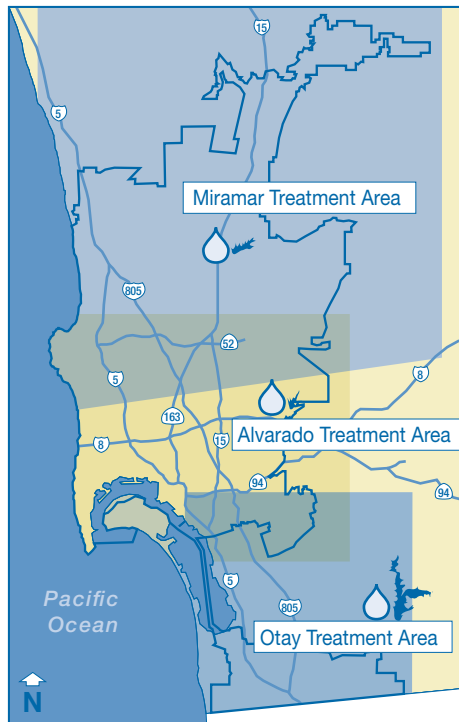
Vietnamese
Chi tiết này thật quan trọng. Xin nhờ người dịch cho quý vị.

NO TIME TO WASTE NO WATER TO WASTE

WATER USE RESTRICTIONS HAVE BEGUN JUNE 1, 2009

The City of San Diego 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 water provided by the City of San Diego meets all Federal and State drinking water health standards (primary standards for treating and monitoring water). The City imports approximately 85 - 90% of its water from the Metropolitan Water District (MWD) of Southern California via the San Diego County Water Authority (CWA).



Fluoridation

California law requires water agencies with more than 10,000 water service connections (which includes the City of San Diego) to fluoridate their drinking water supplies. However, a public water system is exempt from fluoridating until sufficient outside funding is available. In June 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

Level 2 Drought Alert Declared

The City Council has declared a Level 2 Drought Alert Condition for the City of San Diego. The Level 2 declaration means that all City Water Department customers will be required to adhere to mandatory water use restrictions beginning June 1, 2009. These include watering no more than three days per week, between the hours of 6 pm and 10 am, for a maximum of ten minutes per irrigation station. A complete list of mandatory water use restrictions and conditions included in the Level 2 Drought Alert Condition, as well as information about how to request a variance from the new requirements and conditions, can be found at the City Water Department website (www.sandiego.gov/water) or by calling 619-515-3500.

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 May 2010.

Currently, the City does not fluoridate its water. However, the City does receive fluoridated water from the Metropolitan Water District of Southern California through the San Diego County Water Authority. The City water supply consists of approximately 9% of imported treated water. Because this is only a small portion of the City water supply, not all areas of the City currently receive fluoridated water. In addition, due to seasonal demands and operational changes, fluoride levels will vary throughout the system over time. For more information, log onto www.sandiego.gov/water/quality/fluoridation.shtml.

Contaminants

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 stormwater 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 stormwater 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 stormwater 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 State 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 must provide the same protection for public health.

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 2008, the water supply to each of the water treatment plants was monitored for *Cryptosporidium* and *Giardia*, and neither were detected.

Quagga Mussels

Non-native quagga mussels are now in several City reservoirs. The mussels can:

- Affect the taste and odor of drinking water
- Clog pipes and machinery
- Alter ecosystems
- Reduce fish populations

Learn how you can help control the spread of quagga mussels by visiting www.sandiego.gov/water/recreation/quaggamussels.shtml.

How to Contact Us

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

Information Web Sites

City of San Diego Water	www.sandiego.gov/water
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	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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

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. Contaminants were detected at or above the CDPH's Detection Limits for Purposes of Reporting (DLR) during the reporting year. The presence of these contaminants in the drinking water does not necessarily indicate that the water poses a health risk. Contact the U.S. Environmental Protection Agency (EPA) at 800-426-4791 or visit the agency's website at www.epa.gov/safewater/hfacts.html for information regarding contaminants and potential health effects. Contact the CDPH website at www.cdph.ca.gov for list of action levels.

These tables summarize monitoring from Jan. - Dec. 2008 with two exceptions (see table footnotes). CDPH mandates monitoring radioactive contaminants every nine years. The Lead and Copper Rule 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.

Definitions 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.

MCLG (maximum contaminant level goal): The level of a contaminant in drinking water below, which there is no known or expected health risk. MCLGs 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 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:** 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 CONTAMINANTS WITH PRIMARY MCLs

Primary Standards (Mandatory Health Related Standards) – CHEMICAL CONTAMINANTS													
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	TREATMENT PLANT CONCENTRATION								TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		MWD SKINNER		
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Barium	ppm	1	2	0.1	ND	ND – .11	0.11	ND – .12	ND	ND – ND	0.11	ND – .12	Erosion of natural deposits
Fluoride Naturally Occurring	ppm	2	1	0.1	0.24	0.17 – 0.29	0.25	0.21 – 0.29	0.27	0.20 – 0.33	0.3	0.2 – 0.3	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 – 1.0	MWD added Fluoride in 2008
Nitrate (as Nitrate)	ppm	45	45	2	ND	ND – 2.42	ND	ND – 2.44	ND	ND – ND	ND	ND – 2.2	Runoff and leaching from fire damaged watershed; erosion of natural deposits

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

Primary Standards (Mandatory Health Related Standards) – RADIOACTIVE CONTAMINANTS

Primary Standards (Mandatory Health Related Standards) – RADIOACTIVE CONTAMINANTS													
CONTAMINANT	UNITS	MCL	PHG (MCLG)	CDPH DLR	TREATMENT PLANT CONCENTRATION								TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		MWD SKINNER		
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Gross Beta Particle Activity	pCi/L	50	0	4	ND	ND – 4.75	ND	ND	ND	ND	ND	ND – 8.8	Decay of natural and manmade deposits
Uranium	pCi/L	20	0.43	1	ND	ND – 2.83	ND	ND – 2.85	ND	ND – 2.54	2.5	2.3 – 2.7	Erosion of natural deposits

Note: Monitoring required every five years. Most recent monitoring: 2006 for Alvarado, Miramar, Otay; and 2008 for MWD Skinner.

Primary Standards (Mandatory Health Related Standards) - MICROBIOLOGICAL CONTAMINANTS

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	
					0.17%			0 – 0.40%			0.10%	0.0 – 0.8%	
Total Coliform Bacteria	/100ml	< 5% Positive	0	A	0.17%			0 – 0.40%			0.10%	0.0 – 0.8%	Naturally present in the environment

SODIUM, TOTAL HARDNESS, AND TURBIDITY

CONTAMINANT	UNITS	MCL	PHG (MCLG)	CSD MDL	TREATMENT PLANT CONCENTRATION								TYPICAL SOURCE OF CONTAMINANTS
					ALVARADO		MIRAMAR		OTAY		MWD SKINNER		
					AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Sodium	ppm	n/a	n/a	5	86.9	81.4 – 93.5	86.7	79.8 – 92.4	92.6	85.7 – 102	89	83 – 94	Naturally present in the environment
Total Hardness	ppm	n/a	n/a	2	231	209 – 245	241	217 – 269	234	217 – 257	247	222 – 273	Naturally present in the environment
Total Hardness	gr/Gal	n/a	n/a	0.12	13.5	12.2 – 14.3	14.1	12.7 – 15.7	13.7	12.7 – 15.0	14.4	13.0 – 16.0	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 < 0.3 NTU					100%		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		
						SAMPLING SITES	EXCEEDING AL	
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 required every three years. Most recent monitoring conducted in 2008.

TABLE 2 – DETECTED REGULATED CONTAMINANTS WITH SECONDARY MCLs

CONTAMINANT	UNITS	CA SMCL	CSD MDL	TREATMENT PLANT CONCENTRATION								TYPICAL SOURCE OF CONTAMINANTS
				ALVARADO		MIRAMAR		OTAY		MWD SKINNER		
				AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	
Aluminum	ppm	200	10	ND	ND – 60.4	ND	ND – ND	ND	ND – ND	ND	ND – ND	Erosion of natural deposits
Chloride	ppm	500	0.5	96.4	83.2 – 110	95.9	87.0 – 102	112	95.6 – 127	96	92 – 99	Runoff/leaching from natural deposits; seawater influence
Color	CU	15	1	ND	ND – 2	ND	ND – ND	ND	ND – 2	2	2 – 2	Naturally-occurring organic materials
Odor – Threshold	OU	3	1	1	ND – 1	ND	ND – ND	ND	ND – 1.4	17	7 – 29	Naturally-occurring organic materials
Specific Conductance	µS/cm	1,600	n/a	928	834 – 1,090	926	854 – 1,030	958	893 – 1,040	913	857 – 971	Substances that form ions when in water; seawater influence
Sulfate	ppm	500	0.5	172	146 – 206	192	159 – 218	167	149 – 196	195	173 – 221	Runoff/leaching from natural deposits; seawater influence
Total Dissolved Solids	ppm	1,000	10	530	493 – 569	541	460 – 601	545	492 – 589	542	502 – 590	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 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	144	127 – 164	128	110 – 147	146	138 – 161	140	120 – 150

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	
Total Organic Carbon [TOC]	ppm	n/a	n/a	0.3	2.80	2.04 – 3.73	2.25	2.14 – 2.38	3.38	1.73 – 4.25	2.2	1.9 – 2.5	Various natural and manmade sources

Distribution System Results													
Disinfectant Residual [Chloramines]	ppm	4	4	----	Distribution system average = 2.04				RANGE **	ND – 3.3			Drinking water disinfectant added for treatment
Haloacetic acids [HAA5]	ppb	60*	n/a	----	* Highest running average = 17.8				RANGE **	8.6 – 27.4			By-product of drinking water disinfection
Total Trihalomethanes [TTHMs]	ppb	80*	n/a	----	* Highest running average = 57.7				RANGE **	34.9 – 87.9			By-product of drinking water chlorination

NOTES: * TTHMs and HAA5 compliance is based on system wide Running Annual Average. ** Ranges are based upon single sample results.