City of Oceanside
Water Quality Report | **2011**

We are pleased to report that your drinking water meets or exceeds all state and federal health standards for water quality.

*Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Llame **760-435-5948** para más información.*

Dear Oceanside Water Customer,

I am happy to report that water delivered to City of Oceanside homes and businesses met all 2011 state and federal water quality standards for drinking water. Throughout the year, your water is routinely tested for about 90 different substances to ensure that it is of the highest quality. This report provides detailed water quality test results and explains where Oceanside's drinking water comes from.

In an effort to ensure that we continue to meet the high quality standards for the water we deliver and to guarantee that the city has adequate water supplies for future generations, the City is constructing and rehabilitating infrastructure at our water treatment, storage and distribution facilities. There are also plans to expand the local supplies here in Oceanside and reduce our reliance on imported water from the Metropolitan Water District.

*The city is committed to providing safe drinking water to Oceanside. If you would like to view the report on the city's website, visit **www.ci.oceanside.ca.us**. For more information about your water, please call Mark Hammond at **760-435-5948**.*

Sincerely,

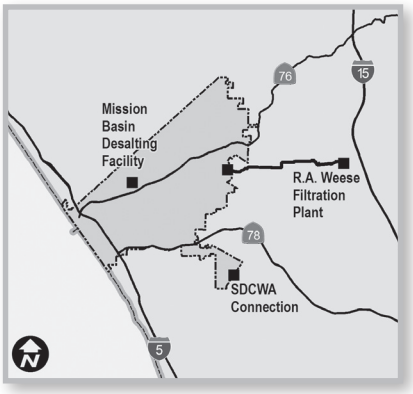
Mayor Jim Wood

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 **800-426-4791**.

Water Sources

The City of Oceanside (City) has three sources of drinking water. The primary source is imported water that is purchased untreated from the San Diego County Water Authority (SDCWA). This raw water is then treated at Oceanside's Robert A. Weese (R.A. Weese) water treatment plant. This facility filters and disinfects surface water from lakes and rivers, supplying about 60% of the drinking water used by the people of Oceanside. The second source is Oceanside's Mission Basin Desalting Facility (MBDF). This facility treats brackish groundwater from wells located in the San Luis Rey River valley. The groundwater is purified by reverse osmosis and then disinfected. The MBDF supplies about 15% of the drinking water used in Oceanside. The third source is treated drinking water purchased directly from the SDCWA. About 25% of the treated water used by the City is purchased from the SDCWA.



Approximately 85% of the water we use in Oceanside is imported from hundreds of miles away. This is "surface water" from rivers and streams in Northern California and the Colorado River Basin. The Metropolitan Water District (MWD) imports this water to Southern California via a 242-mile-long aqueduct that carries Colorado River water from Lake Havasu, and a 444-mile-long aqueduct bringing water from the Sacramento-San Joaquin Delta. Both aqueducts terminate in Lake Skinner in Riverside County, where these waters are combined. The SDCWA purchases this imported water from MWD and distributes it to water agencies throughout San Diego County, including the City of Oceanside.

Source Water Assessment

In December 2002, MWD completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to contamination from recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A summary of the assessment can be obtained by contacting MWD at **213-217-6850**.

Ground Water Assessment

An assessment of the current groundwater sources for the City was completed in February 2002. The sources are considered most vulnerable to contamination from the following activities: sewer collections and/or agricultural/irrigation wells. A copy of the complete assessment is available at the City of Oceanside Water Utilities Department office at 300 North Coast Highway in Oceanside. You may request a summary of the assessment by contacting Mark Hammond at **760-435-5948**.

The Oceanside Utilities Commission meets bi-monthly in the City Council Chambers, 300 North Coast Highway. The public is welcome to participate in these meetings. For more information, please call **760-435-5800**.

Fluoride

Oceanside has three sources of water: raw water that is treated at the R.A. Weese filtration plant, groundwater that is treated at the MBDF and treated water purchased from the SDCWA. Oceanside does not add fluoride during treatment at R.A. Weese or the MBDF, the fluoride found in these raw water sources is naturally occurring at 0.2 ppm. The third source is imported treated water from the SDCWA. Only the imported treated water has added fluoride. The area south of Oceanside Blvd. usually receives this fluoridated water with an average concentration of 0.6 ppm. The water delivered to all other areas in the City usually has an average fluoride level of 0.2 ppm. However, when the City's treatment plants are not operating at full capacity, some or all of the water supply for Oceanside can contain added fluoride up to 0.9 ppm.

Lead

Drinking water is tested for lead every three years and was last tested in 2009. Samples were collected inside 54 private homes and at the entry points to the water distribution system. There was no lead detected in the water entering the distribution system but some of the homes had very small amounts of lead detected. None of homes exceeded the Action Level (15 ppb) for lead. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Oceanside is responsible for providing high quality drinking water, but cannot control the variety of materials used in home 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 at **800-426-4791** or at **www.epa.gov/safewater/lead**.

Contaminants in Drinking Water

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. In order to ensure that tap water is safe to drink, the USEPA and the CA Department of Public Health (CDPH) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline **800-426-4791** or at **www.epa.gov/safewater**.

Contaminants in Source Water

The sources of tap water and bottled water include rivers, lakes, streams, springs and wells. Water, as it travels over the surface or through the ground, can pick up or dissolve natural minerals or substances from human or animal activities. Contaminants that may be found in source water include the following:

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, which 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.

Terms & Abbreviations

AL - Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements.

CFU/mL - Colony Forming Unit per milliliter A measure of the amount of all types of bacterial found in the water.

DLR - Detection Limit for purposes of Reporting The lowest level that can be reliably detected and quantified.

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 and technologically feasible. Secondary MCLs are set to control the odor, taste and appearance.

MCLG - Maximum Contaminant Level Goal The level of a contaminant in drinking water below which there is no known or expected risk to health.

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 risk to health.

NA - Not Applicable or not specified

ND - Not Detected

NL - Notification Level Health based advisory level for chemicals that lack MCLs.

NTU - Nephelometric Turbidity Units A measure of clarity.

pCi/L - picocuries per liter (a measure of radiation)

Primary Drinking Water Standard Primary standards protect public health by limiting the levels of contaminants in drinking water. Levels are limited by MCLs, MRDLS or Treatment Techniques.

PHG - Public Health Goal The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

ppb - parts per billion or micrograms per liter

ppm - parts per million or milligrams per liter

ppt - parts per trillion or nanograms per liter

RAA - Running Annual Average The monthly average of all samples computed each quarter and averaged for four consecutive quarters.

TT - Treatment Technique A required process intended to reduce the level of a contaminant in drinking water.

The following data tables list all the substances that were detected in the drinking water during 2011 or the most recent sampling prior to 2011. The presence of these substances does not necessarily constitute a health risk. The tables contain the name of each substance, the unit of measurement, the highest level allowed, the ideal goals, the detection level, the amount detected, and the usual source of the substance. Some substances are not tested each year because the concentrations do not vary significantly from year to year. For these substances, the tables include data from the most recent testing done within the past five years.

2011 Report of Detected Compounds

	Unit	MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Source Waters: R.A. Weese surface water	Source Waters: SDCWA surface water	Source Waters: MBDF ground water	Sources in Drinking Water
PRIMARY STANDARDS -- Mandatory Health-related Standards									
					Highest	0.18	0.09	0.26	
Turbidity (a)	NTU	TT	NA	NA	%<0.3	100%	100%	100%	Soil runoff.
INORGANIC									
					Range	110 - 221	ND	ND	Residue from water treatment
Aluminum (b)	ppb	1000	600	50	Average	160	ND	ND	process; Erosion of natural deposits.
Fluoride					Range	ND - 0.3	Fluoride	ND - 0.2	
Natural	ppm	2	1	0.1	Average	0.2	Added	0.1	Erosion of natural deposits.
			Optimal Control Range				*0.7 - 1.3*		
Fluoride (c)					Range	Not Added	0.7 - 0.9	Not Added	Water additive for dental health.
Added	ppm	2	1	0.1	Range	Distribution System = ND - 0.9			
					Range	ND	ND	5.2 - 6.6	Runoff & leaching from fertilizer use;
Nitrate	ppm	45	45	2	Average	ND	ND	5.9	sewage; erosion of natural deposits.
					Range for 54 homes sampled = ND - 0.43				Internal corrosion of household
Copper (d)	ppm	1.3 (AL)	0.3	0.05	90th Percentile for 54 homes sampled = 0.14				plumbing; erosion of natural deposits.
					Range for 54 homes sampled = ND - 8				Internal corrosion of household
Lead (d)	ppb	15 (AL)	0.2	5	90th Percentile for 54 homes sampled = 2				plumbing; erosion of natural deposits.
MICROBIOLOGICAL									
Total Coliform					Range	Distribution System - ND			Natural bacteria found in the
Bacteria (e)	%	5.0	0	NA	Average	Distribution System - ND			environment.
RADIOACTIVE (f)									
					Range	ND	ND - 3	ND - 4.2	
Gross Alpha	pCi/L	15	0	3	Average	ND	ND	3.3	Erosion of natural deposits.
					Range	ND	ND - 5	ND	Decay of natural and man-made
Gross Beta	pCi/L	50	0	4	Average	ND	ND	ND	products.
					Range	1.8 - 2.9	ND - 2	4.0 - 4.8	
Uranium	pCi/L	20	0.43	1	Average	2.1	1	4.4	Erosion of natural deposits.
Disinfection by Products (DBP)									
Haloacetic					Distribution System-wide Range = 5 - 19				By-product of drinking water
acids (g)	ppb	60 (RAA)	NA	NA	Distribution System highest RAA = 11				chlorination.
Total					Distribution System-wide Range = 0.1 - 3.9				By-product of drinking water
Chlorine	ppm	[4.0](RAA)	[4.0]	NA	Distribution System highest RAA = 2.6				chlorination.
Total Trihalo-					Distribution System-wide Range = 17 - 60				By-product of drinking water
methanes (g)	ppb	80 (RAA)	NA	NA	Distribution System highest RAA = 37				chlorination.
UNREGULATED CONTAMINANTS (UCMR2) (h)									
N-Nitrosodiethylamine					Range	6	ND	ND	By-product of drinking water
(NDEA)	ppt	10 (NL)	NA	5	Average	6	ND	ND	chlorination, industrial waste.
N-Nitrosodimethylamine					Range	ND	ND - 4	ND	By-product of drinking water
(NDMA)	ppt	10 (NL)	NA	2	Average	ND	ND	ND	chlorination, industrial waste.
N-Nitrosodimethylamine					Distribution System station				By-product of drinking water
(NDMA)	ppt	10 (NL)	NA	2	with maximum residence time = 3				chlorination, industrial waste.

	Unit	MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	R.A. Weese surface water	SDCWA surface water	MBDF ground water	Sources in Drinking Water
SECONDARY STANDARDS -- Aesthetic Standards									
Chloride	ppm	500	NA	NA	Range	54 - 88	62 - 83	142-172	Runoff/leaching from natural deposits; seawater influence.
					Average	71	72	159	
Color	Units	15	NA	NA	Range	ND	1	ND	Naturally occurring organic materials.
					Average	ND	1	ND	
Total Hardness	ppm	NA	NA	NA	Range	108 - 233	100 - 220	227 - 320	Leaching from natural deposits.
					Average	172	160	276	
Total Hardness	grains/ gal	NA	NA	NA	Range	6 - 14	6 - 13	13 - 19	Leaching from natural deposits.
					Average	10	9	16	
Odor (i)	TON	3	NA	1	Range	ND	**3 - 24**	ND	Naturally occurring organic materials.
					Average	ND	**9**	ND	
Sulfate	ppm	500	NA	0.5	Range	50 - 161	78 - 150	137 - 195	Runoff/leaching from natural deposits; seawater influence.
					Average	118	110	165	
Total Dis-solved Solids	ppm	1000	NA	NA	Range	302 - 450	300 - 460	512 - 760	Runoff/leaching from natural deposits; seawater influence.
					Average	376	380	617	
Turbidity	NTU	5	NA	NA	Distribution System-wide Range = 0.05 - 0.85				Soil runoff.
					Distribution system average = 0.11				
ADDITIONAL PARAMETERS									
Alkalinity as $CaCO_3$	ppm	NA	NA	NA	Range	73 - 116	71 - 110	90 - 129	Leaching from natural deposits.
					Average	91	89	111	
Ammonia as Nitrogen	ppm	NA	NA	NA	Distribution System-wide range = 0.04 - 1.0				By-product of drinking water chloramination.
					Distribution System-wide average = 0.6				
Boron	ppb	1000(NL)	NA	100	Range	118 - 140	130	161 - 188	Leaching from natural deposits.
					Average	127	130	173	
Calcium	ppm	NA	NA	NA	Range	23 - 57	29 - 50	49 - 68	Leaching from natural deposits.
					Average	41	40	58	
Heterotrophic Plate Count	CFU/mL	TT	NA	NA	Distribution System-wide range = ND - 270				Bacteria naturally present in the environment.
					Distribution System-wide average = 2				
Magnesium	ppm	NA	NA	NA	Range	11 - 22	13 - 20	25 - 37	Leaching from natural deposits.
					Average	17	16	31	
pH	pH units	NA	NA	NA	Range	7.9 - 8.8	7.8 - 8.5	8.1 - 8.6	Measure of the acidic or basic character of water.
					Average	8.2	8.2	8.3	
Potassium	ppm	NA	NA	NA	Range	3.4 - 4.1	3.0 - 3.8	2.4 - 3.5	Runoff/leaching from natural deposits; seawater influence.
					Average	3.7	3.4	3.0	
Sodium	ppm	NA	NA	NA	Range	63 - 84	54 - 74	92 - 111	Runoff/leaching from natural deposits; seawater influence.
					Average	74	64	100	

a) Turbidity is a measure of the cloudiness of the water. We monitor it because it indicates the effectiveness of our filtration system. Filtration is considered a Treatment Technique (TT). Treatment plant samples are tested every three hours and the turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month. Turbidity shall not exceed 1.0 NTU at any time. Turbidity is also tested at 30 locations each month within the distribution system and reported under Secondary Standards.

b) Aluminum also has a secondary MCL of 200 ppb or 0.2 ppm.

c) MWD started fluoridation treatment in 2007. Some MWD water is used to supplement Oceanside's treated water. Oceanside does not currently fluoridate during treatment.

d) Lead and Copper are tested every three years at consumer's taps. Tested in 2009. If the Action level is exceeded in 10% of the samples (90th percentile) then the water supplier must modify the treatment process to prevent the leaching of these metals into the water from the plumbing. None of the samples exceeded the Action Levels.

e) No more than 5.0% of all monthly samples taken in the distribution system may be Total Coliform positive. In 2011 there were 1612 samples taken throughout the City and 0 were positive.

f) Analyzed every six years. R.A. Weese and MBDF sampled in 2006 - 2007, MWD (SDCWA) 2008.

g) Compliance is based on a running annual average (RAA) of 12 distribution system samples taken every quarter.

h) UCMR2 = Unregulated Contaminants Monitoring Rule 2. The EPA requires monitoring in order to determine if there is a need to regulate these compounds. Testing was done in 2009 - 2010.

i) MWD reported MCL violations for odor to the State of 24 TON in January, 6 TON in April, and 3 TON in July and October. The City receives this treated water directly from the SDCWA connection located in the Lake Blvd area.

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