



City of Oceanside Water Quality Report 2014

JUL 2015



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.

The City of Oceanside is committed to providing you with safe drinking water. Your water is routinely tested for about 90 different substances to ensure that the water is of the highest quality. This report lists the substances that were detected during 2014 and includes details about where your water comes from. For more information about your water, contact Robert Gutierrez (760) 435-5987.



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 44% 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 10% of the drinking water used in Oceanside. The third source is treated drinking water purchased directly from the SDCWA. About 46% of the treated water used by the City is purchased from the SDCWA.



Approximately 90% 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. Water can also be imported from Twin Oaks Valley Water Treatment Plant.



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 by phone 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 (760) 435-5800.

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 water treatment plant, groundwater that is treated at the MBDF and treated water purchased from 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 0.3 ppm. The third source is imported treated water from 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 0.8 ppm. The water delivered to all other areas in the City usually has an average fluoride level of 0.3 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 0.8 ppm.

Lead

The drinking water is tested for lead every three years and was last tested in 2012. Samples were collected inside 55 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 the 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 or at www.epa.gov/safewater/lead



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.

LRAA - Locational Running Annual Average, the monthly average of all samples computed at a specified location each quarter and averaged for four consecutive quarters.

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

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 table lists all the substances that were detected in the drinking water during 2014 or the most recent sampling prior to 2014. 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 5 years.

2014 Report of Detected Compounds

	Unit	MCL [MRDL]	PHG (MCLG) [MRDLG]	State DLR	Range Average	Source Waters				Sources in Drinking Water
						R.A. Weese surface water	MBDF ground water	SDCWA surface water	MWD surface water	
PRIMARY STANDARDS -- Mandatory Health-related Standards										
Turbidity (a)	NTU	TT	NA	NA	Highest <0.3%	0.15 100%	0.10 100%	0.03 100%	0.09 100%	Soil runoff.
INORGANIC										
Aluminum (b)	ppb	1000	600	50	Range Average	81 - 220 149	ND ND	NA NA	NA NA	Residue from water treatment process; Erosion of natural deposits.
Arsenic	ppb	10	0.004	2	Range Average	2 - 2 2	0 - 0 0	3.4 - 3.4 3.4	ND ND	Leaching from natural deposits
Fluoride Natural	ppm	2	1	0.1	Range Average	ND - 0.3 0.3	0.1 - 0.1 0.1	ND ND	ND ND	Erosion of natural deposits.
Fluoride (c) Added	ppm	2	1	0.1	Control Range Optimal Fluoride Level Range Average	NA NA NA	NA NA NA	0.7-1.3 0.8 0.5 - 0.8	0.7-1.3 0.8 0.7-0.9	Water additive for dental health.
Nitrate as NO3	ppm	45	45	2	Range Average	ND - 1.06 0.66	6.24 - 7.92 7.22	ND - 0.89 ND	ND ND	Runoff & leaching from fertilizer use; sewage; erosion of natural deposits.
Copper (d)	ppm	1.3 (AL)	0.3	0.05	Range for 55 homes sampled = ND - 0.2 90th percentile for 55 homes sampled = 0.1					Internal corrosion of household plumbing; erosion of natural deposits.
Lead (d)	ppb	15 (AL)	0.2	5	Range for 55 homes sampled = ND - 5 90th percentile for 55 homes sampled = ND					Internal corrosion of household plumbing; erosion of natural deposits.
MICROBIOLOGICAL										
Total Coliform Bacteria (e)	%	5.0	0	NA	Range Average	Distribution System = ND - 0.06 Distribution System = ND				Natural bacteria found in the environment.
RADIOLOGICAL (f)										
Gross Alpha	pCi/L	15	0	3	Range Average	2.3 - 2.3 2.3	0.54 - 0.54 0.54	ND ND	ND - 5 ND	Erosion of natural deposits.
Gross Beta(g)	pCi/L	50	0	4	Range Average	NA NA	NA NA	ND ND	5 5	Decay of natural and man-made products.
Uranium	pCi/L	20	0.43	1	Range Average	3.6 - 3.6 3.6	3.6 - 3.6 3.6	1.7 - 2.3 2	1 - 2 2	Erosion of natural deposits
DISINFECTION BY PRODUCTS (DBP)										
Total Chlorine (h)	ppm	(RAA) [4.0]	[4.0]	NA	Distribution System wide range = 0.1 - 3.2 Distribution System highest RAA = 2.4					By-product of drinking water chlorination.
Haloacetic acids (i)	ppb	(LRAA) 60	NA	1	Distribution System wide range = ND-18 Distribution System highest LRAA = 14					By-product of drinking water chlorination.
Total Trihalo-methanes (i)	ppb	(LRAA) 80	NA	1	Distribution System wide range = 18-45 Distribution System highest LRAA = 33					By-product of drinking water chlorination.
SECONDARY STANDARDS -- Aesthetic Standards										
Chloride	ppm	500	NA	NA	Range Average	76 - 89 81	120 - 140 130	92 - 92 92	90 - 93 92	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	NA	NA	Range Average	ND ND	ND ND	ND ND	1 1	Naturally occurring organic materials
Total Hardness	ppm	NA	NA	NA	Range Average	170 - 300 248	200 - 270 225	290 - 290 290	264 - 276 270	Leaching from natural deposits
Total Hardness	grains/gal	NA	NA	NA	Range Average	10 - 18 15	12 - 16 13	17 - 17 17	15 - 16 16	Leaching from natural deposits
Odor	TON	3	NA	1	Range Average	ND ND	ND ND	1 - 1 1	1 1	Naturally occurring organic materials
Sulfate	ppm	500	NA	0.5	Range Average	122 - 243 198	109 - 142 124	230 - 230 230	187 - 211 199	Runoff/leaching from natural deposits; seawater influence
Total Dissolved Solids	ppm	1000	NA	NA	Range Average	618 - 618 618	508 - 508 508	650 - 650 660	570 - 579 575	Runoff/leaching from natural deposits; seawater influence
Turbidity	NTU	5	NA	NA	Distribution System wide range = 0.05 - 0.55 Distribution System wide average = 0.10					Soil runoff
UNREGULATED CONTAMINANTS (UCMR3) (j)										
Chlorate	ppb	NA	210	20	Range Average	23 - 23 23	340 - 340 340	160 - 270 218	21 - 105 69	By product of drinking water chlorination.
Molybdenum	ppb	NA	35	NA	Range Average	3.6 - 3.6 3.6	3.5 - 3.5 3.5	NA NA	NA NA	Naturally occurring elemrnt
Strontium	ppb	NA	4200	NA	Range Average	815 - 815 815	200 - 200 200	ND ND	ND ND	Naturally occurring elemrnt
Vanadium	ppb	NA	21	3	Range Average	2 - 2 2	0.7 - 0.7 0.7	3.2 3.2	ND ND	Naturally occurring Industrial waste discharge.
ADDITIONAL PARAMETERS										
Alkalinity as CaCO3	ppm	NA	NA	NA	Range Average	96 - 130 116	84 - 100 91	120-120 120	123 - 127 125	Leaching from natural deposits
Boron	ppb	1000(NL)	NA	100	Range Average	NA NA	NA NA	130-130 130	110 110	Leaching from natural deposits
Calcium	ppm	NA	NA	NA	Range Average	41 - 76 62	42 - 57 48	72-72 72	65 - 70 68	Leaching from natural deposits
Heterotrophic Plate Count	CFU/mL	TT	NA	NA	Distribution System wide range = ND - 28 Distribution System wide average = 1					Bacteria naturally present in the environment.
Magnesium	ppm	NA	NA	NA	Range Average	17 - 27 23	22 - 31 26	27-27 27	24 - 25 25	Leaching from natural deposits
pH	pH units	NA	NA	NA	Range Average	7.7 - 8.1 7.9	8 - 8.3 8.2	7.7 - 8.4 8.0	8.1 8.1	Measure of the acidic or basic character of water.
Sodium	ppm	NA	NA	NA	Range Average	69 - 69 69	88 - 88 88	98 - 98 98	86 - 90 88	Leaching from natural deposits

Table Footnotes:

- a) Turbidity is a measure of the cloudiness of the water. We monitor it because it indicates the effectiveness of our filtration system. Treatment plant effluent turbidity is recorded every 15 minutes. The turbidity 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 fluoride during treatment.
- d) Lead and Copper are tested every three years at consumer's taps. Tested in 2012. 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 2014 there were 1622 samples taken throughout the City and 1 was positive.
- f) Analyzed every three years. R.A. Weese sampled 2013, MBDF sampled 2012, MWD (SDCWA) 2011. CDPH considers 50 pCi/L to be the level of concern for beta particles.
- g) CDPH considers 50 pCi/L to be the level of concern for beta particles.
- h) Compliance is based on a location running annual average (LRAA) of 8 distribution system sample locations taken every quarter.
- i) Compliance is based on a running annual average (RAA) of 30 distribution system samples taken each month.
- j) UCMR3 = Unregulated Contaminants Monitoring Rule 2. The EPA requires monitoring in order to determine if there is a need to regulate these compounds. Testing for R.A. Weese and MBDF was completed in 2010. Testing for MWD (SDCWA) was completed in 2012.



Doing just *ONE* more thing
can make a *BIG* difference!

- Water your landscape less
- Take shorter showers
- Check for and repair leaks
- Value every drop



Use Water Wisely!



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 State Water Resources Control Board 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 (1-800-426-4791) or at www.epa.gov/safewater

Contaminants in 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 found 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.