

2015 Water Quality – OCEANO COMMUNITY SERVICES DISTRICT

To Our Customers:

The Oceano Community Services District (OCSD) is pleased to present this annual report describing the quality of your drinking water. This report will answer questions and describe the quality of the drinking water in Oceano.

What is the source of my drinking water?

Oceano receives its drinking water from four water production wells, all located within the District boundaries. In addition, the District purchases treated surface water from the Lopez Project and the State Water Project. Both of the surface water sources are blended together and delivered through a single pipeline to the District's water pumping plant at 19th Street near Wilmar Avenue. The blended surface water entering the District's water system was an average of approximately 0% Lopez Water and 100% State Water in 2015.

Where is Oceano's drinking water tested?

Water samples are collected weekly by OCSD operators. The water samples are collected and analyzed by Clinical Laboratory of San Bernardino, Inc., in San Bernardino and Lompoc. The lab is certified by the DHS to conduct bacteriological and chemical analyses. Federal and State requirements dictate that all regulatory analyses follow approved procedures and be performed by certified labs.

2015 Water Statistics

- **State and Lopez Water Purchased**
 - ⇒ 186.1 Million Gallons (571.26 Acre-Feet)
- **Water Pumped from District Wells**
 - ⇒ 42.97 Million Gallons (131.88 Acre-Feet)
- **Total Oceano Water Production**
 - ⇒ 229.07 Million Gallons (703.1 Acre-Feet)

Who operates the Oceano water system?

The Oceano Water Department employs three full-time water distribution operators. All operators who work for the District are required to pass written tests and be certified by the Division of Drinking Water State Water Resource Control Board. Water treatment operators employed by OCSD are knowledgeable professionals dedicated to supplying you with dependable, high-quality drinking water.

Where can the community participate in decisions regarding water quality issues?

The Oceano Community Services District Board of Directors meets at the District Board Room on the second and fourth Wednesdays of each month. Meeting dates are published in the local newspapers, and the meeting agendas are posted in the District office at 1655 Front Street as well as our website at www.oceanocsd.org.

Additional General Information on Drinking Water

All 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).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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 reduce the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Additionally, the Office of Ground Water and Drinking Water at EPA maintains a website with useful information on drinking water. The address is <http://www.epa.gov/OGWDW/>. Additional information can be obtained by calling Tony Marraccino, Utility System

Operator, Supervisor for the Oceano CSD or come by the District Office at 1655 Front Street, Oceano. A source water assessment was conducted for OCSD's four active wells in March, 2001. No contaminants were detected in the water supply, however the source is considered most vulnerable to the following activities: sewer collection systems, utility station maintenance areas, and automobile and historic gas stations. A completed copy of the Assessment may be viewed at the District office, 1655 Front Street, Oceano. Additional information also may be viewed at DHS-DWFOB, 1180 Eugenia Place, Suite 200, Carpinteria, CA 93013

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Maximum Contaminant Level Goal (MCLG) and Public Health Goal (PHG) – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the Federal Environmental Protection Agency and PHGs are set by the California Environmental Protection Agency.

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 and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Primary Drinking Water Standards (PDWS) – MCLs for contaminants that affect health along with their monitoring and reporting requirements and water-treatment requirements.

Secondary Drinking Water Standards (SDWS) – MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with a SDWS do not affect the health at the MCL levels.

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

Regulatory Action Level (AL) – The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

Micro ohms: measure of electrical conductance in water.

NC: Not collected.

NS: (No Standard): Contaminant for which there is no established MCL.

ND: (Not Detected): Contaminant is not detectable at testing limit.

pCi/L: picoCuries per liter (a measure of radiation)

ppm: parts per million, or milligrams per liter (mg/L)

ppb: parts per billion, or micrograms per liter (µg/L)

NTU: Nephelometric Turbidity Unit

TON: Threshold Odor Number

LI: Langelier Index; Noncorrosive = Any positive value

Corrosive = Any negative value

NA: (Not Analyzed) Contaminant was not analyzed

TERMS USED IN THIS REPORT:

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, which 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, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- *Radioactive contaminants* which 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 USEPA and the Division of Drinking Water State Water Resource Control Board prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water which must provide the same protection for public health.

Tables 1 through 6 list all of the drinking water contaminants that were detected from January 2015 through December 2015, unless otherwise noted. The presence of these contaminants in water does not necessarily indicate that the water poses a health risk. The Department requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, may be more than one year old.

Treatment of surface water sources		
1. Turbidity Performance Standard - Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the surface water filtration system. Turbidity of filtered water must: Be less than or equal to < 0.3 NTU in 95% of measurements in a month and < 1 NTU every 4 hours.	Treatment Technique for Conventional Treatment Central Cost Water Authority	Treatment Technique for State Water Conventional Treatment Lopez WTP
Lowest monthly percentage of samples that met Turbidity Performance Standard 1.	100%	100%
Highest single turbidity measurement during the year.	0.17 NTU	0.235 NTU
The number of violations of any surface water treatment requirement.	0	0

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

Sampling Results Showing the Detection of Lead and Copper						
Lead & Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of Samples collected	90 th Percentile Level detected	No. Sites Exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppm) Sampled 2013	22	.0054	1	30	NA	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm) Sampled 2013	22	.620	N/A	0	NA	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.

Detection of Contaminants without a Drinking Water Standard	Surface Water		Well Water		Potential Source of Contamination
	Range	Average	Range	Average	
Contaminant (reporting units)					
Alkalinity as CaCO ₃ (ppm)	60-273	175	370	--	Runoff/leaching from natural deposits; seawater influence
Calcium (ppm)	50-86	72	110	--	Runoff/leaching from natural deposits; seawater influence
Hardness (ppm)	116-369	254	480	--	Generally found in ground and surface water
Magnesium (ppm)	24-43	34	50	--	Runoff/leaching from natural deposits; seawater influence
pH	7.6 – 8.8	8.2	7.2	--	Runoff/leaching from natural deposits; seawater influence
Potassium (ppm)	3.4	3.4	2.4	--	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	84	84	44	--	Runoff/leaching from natural deposits; seawater influence
Vanadium (ppb)	40	40	7.8	--	Runoff/leaching from natural deposits; seawater influence

Cont. – Detection of Contaminants with a Secondary Drinking Water Standard		Surface Water		Well Water		
Contaminant (reporting units)	MCL	Range	Average	Range	Average	Potential Source of Contamination
Aluminum (ppb)	200	ND - 0.11	0.073	ND	---	Naturally present in the environment and residue from water treatment processes
Chloride (ppm)	500	80 - 205	122	41	---	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	ND	ND	8	---	Naturally-occurring organic materials
Copper (ppm)	1.0	.060 - .082	0.071	ND	---	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Odor – Threshold	3	ND – 1	ND	1	---	Naturally-occurring organic materials
Specific Conductance (micro ohms)	1600	654 - 1160	781	1000	---	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500	97	97	170	---	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5	0.04 - 0.14	0.07	3.13	---	Soil runoff/Presence of colloidal and/or suspended matter
Total Dissolved Solids (ppm)	1000	349 - 708	437	670	---	Runoff/leaching from natural deposits
Total Organic Carbon (TOC) (g)	N/A	2.5	1.9 – 3.1	---	---	Various natural and manmade sources.
Manganese (ppb)	N/A	ND	ND	43	---	Runoff/leaching from natural deposits; seawater influence
Iron (ppm)	200	ND	ND	.980	---	Leaching from natural deposits; industrial wastes
Unregulated Contaminants without an MCL						
DCPA (total Mono & Diacid Degredates) (ppb)	N/A	0.13	0.13	---	---	Manmade organic herbicide
Geosmin	N/A	2	ND - 4	---	---	Metabolic byproduct of blue green algae.
2-Methylisoborneol	N/A	111	ND - 1003	---	---	Metabolic byproduct of blue green algae.

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Microbiological Contaminants			Surface Water		Well Water		Potential Source of Contamination
Contaminant (reporting units)	MCL	PHG(MCLG)	Range	Average	Range	Average	
Total Coliform Bacteria	MCL (systems collecting less than 40 samples per month): More than 1 sample in a month with a detection; (systems collecting more than 40 samples per month): More than 5% of monthly samples are positive.	(0)	ND	ND	ND – Present*	ND	Naturally present in the environment
Heterotrophic Plate Count (CFU/mL)	TT = adequate disinfection, <500	-----	0 - 6	0.5	<1 - 211	11	Naturally present in the environment.
Detection of Contaminants with a <u>Primary Drinking Water Standard</u>			Surface Water		Well Water		Potential Source of Contamination
Contaminant (reporting units)	MCL	PHG (MCLG)	Range	Average	Range	Average	
Aluminum (ppm)	1000	600	ND – 0.69	0.35	ND	---	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppm)	10	.004	ND – 4.3	2.1	2.5	---	Runoff from orchards; natural deposits; glass & electronics production wastes
Barium (ppm)	2	2	0.027-0.028	.027		---	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2.0	1.0	ND – 0.38	0.19	0.18	---	Erosion of natural deposits
Lead (ppb)	---	---	---	---	6.9	---	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Gross Beta particle activity (pCi/L)	50	(0)		4.1		---	Decay of natural and man-made products
Radium 226 (pCi/L)		0.05	---	---	0.067	---	Erosion of natural deposits.
Radium 228 (pCi/L)		0.019	---	---	0	---	Erosion of natural deposits.
Gross Alpha Particle Activity (pCi/L)	15	(0)	0.028-3.15	1.25	30*	---	Erosion of natural deposits.
Uranium (pCi/L)	20	0,43	---	---	6.7	---	Erosion of natural deposits.
Hexavalent Chromium* (ppb)	10	.02	---	---	ND	---	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Total Trihalomethanes (ppb) (Dist. Sample; compliance based on running annual average)	RAA 80	-----	46 - 64	59	26.5 – 46.8	36.23	By-product of drinking water chlorination
Haloacetic Acids (ppb) (Dist. Sample; compliance based on running annual average)	60	0	8.2 - 18	12	4.2 – 15.2	10.48	By-product of drinking water chlorination
Chloride (ppm)	MRDL = 4.0 as Cl ₂	MRDL = 4.0 as Cl ₂	1.52-3.02	2.14	---	---	Drinking water disinfectant added for treatment.

Detection of Contaminants with a Primary Drinking Water Standard			Surface Water		Well Water		Potential Source of Contamination
Contaminant (reporting units)	MCL	PHG (MCLG)	Range	Average	Range	Average	
Chlorite (ppm)	1.0 (delivered and distribution avg.)	0.05	0.042-0.677	0.460	---	---	Byproduct of drinking water disinfection.
Chlorate (ppb)	RAL = 800	-----	95-485	405	---	---	Byproduct of drinking water disinfection.
Chlorine Dioxide (ppb)	MRDL = 800 as ClO ₂	[800]	<100-410	263	---	---	Drinking water disinfectant added for treatment.
Nitrate as NO ³ (ppm)	45	45	ND-.53	0.27	ND-30	8.6	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage;; erosion of natural deposits
Selenium (ppb)	50	(50)	1.04	ND - 12	ND - 11	2.04	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)

Detection of Contaminants with a Primary Drinking Water Standard as VOC	MCL	Well 4, 5, and 6 Range	Average	Potential Source of Contamination
Dichloromethane	5.0 ug/L	0.56-0.80	0.67	Discharge from pharmaceutical and chemical factories

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*** Any violation of an MCL or AL is asterisked. Additional information is provided below.**

Total Coliform MCL Violation: Our water system failed the drinking water standard for total coliform in August 2015. Well 06 was positive for Total Coliform and negative for E.Coli. Subsequent repeat samples were also positive. Steps were taken to disinfect the well. Samples taken after the well disinfection were negative. Coliform are bacteria that are naturally present in the environment and are used as an indicator that other potentially-harmful bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Hexavalent Chromium: The State Water Resources Control Board, Division of Drinking Water, adopted a new MCL for Hexavalent Chromium of 0.010 mg/L on July 1, 2014. All public water systems were required to collect initial monitoring samples for Hexavalent Chromium by January 1, 2015. We failed to meet this initial monitoring deadline. We collected the initial hexavalent chromium samples January 13, 2015. The laboratory did not detect hexavalent chromium in any of our submitted samples.

Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure. 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. Oceano CSD 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 <http://www.epa.gov/safewater/lead>.

Gross Alpha: Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. Well 08 exceeded the MCL for one sample. The MCL is based on four quarterly samples. We are currently surface water only. We will complete the four quarters of sampling when we resume utilizing ground water.

Selenium in drinking water in excess of the MCL can cause hair or fingernail loss, numbness in fingers or toes, and/or circulation system problems. Two of Oceano's water-production wells have produced water that is above the MCL in selenium during the past year. Our operators are taking several steps to assure that the selenium content in the distribution system does not exceed the MCL. The two wells are used on a very limited basis. In addition, any well water that is above the limit in selenium is blended with other water that is low in selenium. The blended water is closely monitored and analyzed on a weekly basis. **All water that is supplied to the consumers of Oceano Community Services District is below the MCL for selenium.**

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