



2011 Water Quality – OCEANO COMMUNITY SERVICES DISTRICT

To Our Customers:

The Oceano Community Services District (OCS D) 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 7% Lopez Water and 93% State Water in 2011.

Where is Oceano's drinking water tested?

Water samples are collected weekly by OCS D 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.

How much water does Oceano require?

Oceano used 0.3% more water in 2011 than it did in 2010; the largest amount of water used in any single month in 2011 was 28.49 million gallons (87.44 Acre-Feet) in July; the least amount of water used in any single month was 17.58 million gallons (53.95 Acre-Feet) in February.

2011 Water Statistics

- State and Lopez Water Purchased
⇒ 253.98 Million Gallons (779.42 Acre-Feet)
- Water Pumped from District Wells
⇒ 12.21 Million Gallons (37.47 Acre-Feet)
- Total Oceano Water Production
⇒ 266.19 Million Gallons (816.89 Acre-Feet)

Who operates the Oceano water system?

The Oceano Water Department employs four full-time water distribution operators. All operators who work for the District are required to pass written tests and be certified by the California Department of Health Services (DHS). Water treatment operators employed by OCS D 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.

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

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 Aaron Hughes, Utility Operations Supervisor for the Oceano CSD (805-481-6730), Doug Groshart, District Engineer at Wallace Group (805-544-4011) or come by the District Office at 1655 Front Street, Oceano. A source water assessment was conducted for OCS D's four active wells in January, 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.

TERMS USED IN THIS REPORT:

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.

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

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 California Department of Health Services 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 2011 through December 2011, 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.

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: 1. Be less than or equal to 0.5 NTU in 95% of measurements in a month. 2. Not exceed 1.0 NTU for more than eight consecutive hours. 3. Not exceed 5 NTU at any time.	Treatment Technique for Conventional Treatment	Treatment Technique for State Water Conventional Treatment
Lowest monthly percentage of samples that met Turbidity Performance Standard 1.	99.2%	100%
Highest single turbidity measurement during the year.	.083 NTU	0.12 NTU
The number of violations of any surface water treatment requirement.	0	0

Table 2 - 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-.02	0.003	ND	ND	Naturally present in the environment

Table 3 - 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	
Aluminum (ppm)	1000	600	ND - 130	70	ND-70	14	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppm)	10	.004	ND - 2.2	2.2	ND - 4.4	1.4	Runoff from orchards; natural deposits; glass & electronics production wastes
Fluoride (ppm)	2.0	1.0		0.35	0.2-0.37	0.3	Erosion of natural deposits
Gross Alpha Particle Activity (pCi/L)	15	(0)	ND-1.93	0.8	ND-5.6	1.84	Erosion of natural deposits
Total Trihalomethanes (ppb)	RAA=80	----	19-67	40	ND	ND	By-product of drinking water chlorination
Haloacetic Acids (ppb)	RAAs=60 ppb	---	8.6-18.0	14.0	ND	ND	By-product of drinking water chlorination.
Chlorine Residual(ppm) ***	4.0 as CL ₂	4.0	1.3-3.1	2.2			Drinking water disinfectant added for treatment.
Nitrate as NO ³ (ppm)	45	45	ND-2.5	.41	ND-19	5.32	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage;; erosion of natural deposits
Selenium (ppb)	50	(50)	ND	ND	ND - 93 *	33.3	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from live-stock lots (feed additive)

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

*** Distribution System Sampling Result



Nitrate in drinking water at levels above 45 ppm is a health risk for infants of less than six months of age.

High nitrate levels in drinking water can interfere with the capacity of an infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of skin. High nitrate levels may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider or choose to use bottled water for mixing formula and juice for your baby. If you are pregnant, you should drink bottled water.

While your drinking water meets the current standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. The California Department of Health Services continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and other circulatory problems.

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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Table 4 - Detection of Contaminants with a Secondary Drinking Water Standard		Surface Water		Well Water		Potential Source of Contamination
Contaminant (reporting units)	MCL	Range	Average	Range	Average	
Aluminum (ppb)	200	ND - 130	70	ND-70	14	Naturally present in the environment and residue from water treatment processes
Chloride (ppm)	500	17-78	38	35-63	45.8	Runoff/leaching from natural deposits; seawater influence
Color (CU)	15	0-3	1.5	0-10	2.5	Naturally-occurring organic materials
Corrosivity (LI)	Noncorrosive	ND	ND	ND	ND	Natural or industrially-influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors
Odor - Threshold	3	1.3-3	2.7	1-2	1.5	Naturally-occurring organic materials
Specific Conductance (microohms)	1600	208-467	311	690-1000	884	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500	38-98	68	92-190	150.4	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5	.05-.33	.06	.17-4.4	1.59	Soil runoff/Presence of colloidal and/or suspended matter
Total Dissolved Solids (ppm)	1000	123-277	190	410-660	558	Runoff/leaching from natural deposits

Table 5 - Detection of Contaminants without a Drinking Water Standard		Surface Water		Well Water		Potential Source of Contamination
Contaminant (reporting units)	Range	Average	Range	Average		
Alkalinity as CaCO ₃ (ppm)	34-70	50	270-420	246	Runoff/leaching from natural deposits; seawater influence	
Calcium (ppm)	22-54	37	59-130	98.4	Runoff/leaching from natural deposits; seawater influence	
Hardness (ppm)	40-96	68	250-530	414	Generally found in ground and surface water	
Magnesium (ppm)	6.7-34	20.35	27-58	44.8	Runoff/leaching from natural deposits; seawater influence	
pH	7.3-9.5	8.3	7.5-8.2	7.78	Runoff/leaching from natural deposits; seawater influence	
Sodium (ppm)	27-32	29.8	36-47	41.8	Runoff/leaching from natural deposits; seawater influence	
Vanadium (ppb)	ND	ND	ND	ND	Runoff/leaching from natural deposits; seawater influence	

Table 6 - Sampling Results Showing the Detection of Lead and Copper		90th Percentile Level detected	No. Sites Exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead & Copper (to be completed only if there was a detection of lead or copper in the last sample set)	No. of Samples collected					
Lead (ppm)	N/A					Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm)	N/A					Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.