O CE A N O C O M M UNI T Y S E R V I C E S DI S T RI C T

Issued in June 2018

2017 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.

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

What is the source of my drinking water?

Oceano receives its drinking water from three 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 surface water sources are delivered through a single pipeline to the District's Water Yard located at 19th Street near Wilmar Avenue. In 2017 the District's water system used 100% Lopez Project Water supplemented with well water.

Where is Oceano's drinking water tested?

Water samples are collected weekly by OCSD's Utility Systems Operators. Federal and State requirements require that all regulatory analyses follow approved procedures and be performed by certified labs. OCSD's water samples are collected and analyzed by Clinical Laboratory of San Bernardino, Inc., which has locations in San Bernardino and Lompoc, CA. The lab is certified by the SWRCB (State Water Resources Control Board) to conduct bacteriological and chemical analyses.

2017 Water Statistics

- **Lopez Project Water Purchased**

  ⇒ **227 Million Gallons (696.82 Acre-Feet)**

- **Water Pumped from District Wells**

  ⇒ **6.7 Million Gallons (20.63 Acre-Feet)**

- **Total Oceano Water Production**

  ⇒ **234 Million Gallons (757.05 Acre-Feet)**

Who operates the Oceano water system?

The Oceano Community Services District employs three full-time Utility Systems Operators (USO). All USOs who work for the District are required to be certified by the Division of Drinking Water of the State Water Resource Control Board.

Oceano Community Services District
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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 Wednesday of each month. Meeting dates and agendas are posted in the District office located at 1655 Front Street, Oceano, CA as well as on the 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 and 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 three 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.
CU: Color units
cfu: Colony forming units
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
HPC: Heterotrophic Plate Count

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 2017 through December 2017, 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	
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 State Water Conventional Treatment Lopez WTP**
Lowest monthly percentage of samples that met Turbidity Performance Standard 1.	100%
Highest single turbidity measurement during the year.	0.066 NTU
The number of violations of any surface water treatment requirement.	0

Sampling Results Showing the Detection of Lead and Copper					
Lead & Copper	**No. Sites Exceeding AL**	**AL**	**MCLG**	**Number of Schools requesting testing***	**Typical Source of Contaminant**
Lead (ppm) Sampled 2016	0	0	NA	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits.
Copper (ppm) Sampled 2016	N/A	0	NA	N/A	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**
Contaminant (reporting units)	**Range**	**Range**	
Alkalinity as $CaCO_3$ (ppm)	130-230	250-390	Runoff/leaching from natural deposits; seawater influence
Boron (ppm) 2016	---	0.087 - .117	Runoff/leaching from natural deposits; seawater influence
Calcium (ppm)	Avg. 63	100-110	Runoff/leaching from natural deposits; seawater influence
Hardness (ppm)	193-370	410-530	Generally found in ground and surface water
Magnesium (ppm)	17	30	Runoff/leaching from natural deposits; seawater influence
pH	8 – 8.41	7.3 – 7.5	Runoff/leaching from natural deposits; seawater influence
Potassium (ppm) 2016	4	2.5 – 2.8	Runoff/leaching from natural deposits; seawater influence
Sodium (ppm)	29	38.1 - 44.0 (2016)	Runoff/leaching from natural deposits; seawater influence
Vanadium (ppb) 2016	40	1.4 – 4.0	Runoff/leaching from natural deposits; seawater influence
Zinc (ppm) 2016	---	ND – 0.19	Runoff/leaching from natural deposits; industrial wastes

Cont. – Detection of Contaminants with a Secondary Drinking Water Standard		Lopez Surface Water	Well Water	
Contaminant (reporting units)	MCL	Range	Range	Potential Source of Contamination
Aluminum (ppb)	200	15-50	ND (2016)	Naturally present in the environment and residue from water treatment processes
Chloride (ppm)	500	Avg. 27	24 – 44 (2016)	Runoff/leaching from natural deposits; seawater influence
Color (Color Units)	15	ND	0 - 8 (2016)	Naturally-occurring organic materials
Copper (ppm)	1.0	Avg. 0 .069	ND (2016)	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Odor – Threshold	3	1.0 – **4.0***	1 – 2 (2016)	Naturally-occurring organic materials
Specific Conductance (micro ohms)	1600	Avg. 510	960 – 1000 (2016)	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	500	Avg. 78	140 – 180 (2016)	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	5	0.04 - 0.4	0.13 – 3.13 (2016)	Soil runoff/Presence of colloidal and/or suspended matter
Total Dissolved Solids (ppm)	1000	Avg. 280	600 – 670 (2016)	Runoff/leaching from natural deposits
Manganese (ppb)	50	---	31-54 (2016)	Runoff/leaching from natural deposits; seawater influence
Iron (ppm)	0.3	---	ND – 0.98 (2016)	Leaching from natural deposits; industrial wastes

Unregulated Contaminants without an MCL (2016)						
DCPA (total Mono & Diacid Degredates) (ppb)	N/A	0.13	0.13	---	---	Manmade organic herbicide
Geosmin	N/A	1	ND - 2	---	---	Metabolic byproduct of blue green algae.
2-Methylisoborneol	N/A	4	ND - 9	---	---	Metabolic byproduct of blue green algae.

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Microbiological Contaminants			Lopez Surface Water	Well Water	
Contaminant (reporting units)	MCL	PHG(MCLG)	Range	Range	Potential Source of Contamination
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	Naturally present in the environment
Heterotropic Plate Count (CFU/mL)	TT = adequate disinfection, <500	-----	ND - 2	----	Naturally present in the environment.

Detection of Contaminants with a Primary Drinking Water Standard			Lopez Surface Water	Well Water	
Contaminant (reporting units)	**MCL**	**PHG (MCLG)**	**Range**	**Range**	**Potential Source of Contamination**
Aluminum (ppm)	1.	0.6	ND – 0.050	ND (2016)	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	10.0	.0004	1.5 – 2.6	ND – 0.0025 (2016)	Runoff from orchards; natural deposits; glass & electronics production wastes
Barium (ppm)	1.	2	0.027-0.028	ND – 0.0232 (2016)	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Cadmium (ppb)	5	0.04	---	ND – 0.0014 (2016)	Internal corrosion of galvanized pipes; erosion of natural deposits; discharge from electroplating and industrial chemical factories, and metal refineries; runoff from waste batteries and paints
Fluoride (ppm)	2.0	1.0	Avg. 0.249	0.18 – 0.31 (2016)	Erosion of natural deposits
Lead (ppb)	---	0.2	---	ND – 6.9 (2016)	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Gross Beta particle activity (pCi/L)	50	(0)	ND	---	Decay of natural and man-made products
Radium 226 (pCi/L)	---	0.05	---	0.038	Erosion of natural deposits.
Gross Alpha (pCi/L)	---	---	0.028 – 3.15	5.7 – 8.8	Erosion of natural deposits.

Detection of Contaminants with a Primary Drinking Water Standard			Lopez Surface Water	Well Water	
Contaminant (reporting units)	**MCL**	**PHG (MCLG)**	**Range**	**Range**	**Potential Source of Contamination**
Uranium (pCi/L)	20	0.43	---	5.0 – 8.3	Erosion of natural deposits.
Total Trihalomethanes (ppb) (Dist. Sample; compliance based on running annual average)	RAA 80	-----	27.2 – 54.4 25.5 – 45.4	29.2 - 76.1	By-product of drinking water chlorination
Haloacetic Acids (ppb) (Dist. Sample; compliance based on running annual average)	60	0	7.4 – 24.5	2.6 - 38	By-product of drinking water chlorination
Chlorine Residual	MRDL = 4.0 as Cl_2	MRDL = 4.0 as Cl2	1.53 – 4.2 0.11 – 2.72	---	Drinking water disinfectant added for treatment.

Detection of Contaminants with a Primary Drinking Water Standard			Surface Water	Well Water	
Contaminant (reporting units)	**MCL**	**PHG (MCLG)**	**Range**	**Range**	**Potential Source of Contamination**
Chlorite (ppm)	1.0 (delivered and distribution avg.)	0.05	0.028 – 0.65 0.16 – 0.66	---	Byproduct of drinking water disinfection.
Chlorate (ppb)	RAL = 800	-----	202 – 594 203 - 646	---	Byproduct of drinking water disinfection.
Chlorine Dioxide (ppb)	MRDL = 800 as ClO_2	[800]	ND – 120 ND - 150	---	Drinking water disinfectant added for treatment.
Nitrate as N (ppm)	10	10	---	ND - 6.5	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage:; erosion of natural deposits
Nickel (ppb)	100	12	---	ND	Erosion of natural deposits; discharge from metal factories
Selenium (ppb)	50	(50)	---	ND - 38	Discharge from petroleum, glass and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from live-stock lots (feed additive)

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

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.

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. One 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. 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.**

Odor increases in drinking water have been associated with algae blooms. During times of increased algae blooms and odors the algae is controlled with algaecides and the odor is reduced to acceptable levels with powder activated carbon.