

This annual report is intended to inform as well as to remind you, our customers, about our focus on the importance of water quality. The Oceanside Water District (OWD) is committed to ensuring that the community's drinking water meets the highest standards as regulated by The Environmental Protection Agency (EPA) and The Oregon Health Authority (OHA). This report contains information we developed from water quality sampling conducted throughout the 2018 year.

The Source of Your Water for Cape Meares

Your tap water originates high up on Mt. Meares, emanating from pristine, spring-fed, wetlands. Gradually this water flows in Coleman creek west towards the Pacific Ocean. As part of the greater Netarts Bay/Sand Lake/Neskowin Creek Watershed in the Wilson-Trask-Nestucca Sub-Basin, Coleman Creek water is collected in an impoundment where it settles out impurities collected along the way and gravity flows to the treatment plant for processing. Upon entering the treatment plant, the raw water is pre-filtered and sent through an ultrafiltration membrane unit where impurities as small as 0.1 micron are removed. As a community water system, your water is required by the Safe Drinking Water Act to include microbial disinfection through the use of a small amount of Sodium Hypochlorite. This treatment process, along with careful chemical and biological monitoring, ensures that a safe, clean product is available for distribution to your home. We have also recently completed an extensive upgrade of the distribution piping system throughout the district, resulting in increased flow levels and significant reduction in water loss due to leaks. Our five reservoirs located throughout the district, store and offer a ready supply of over 900,000 gallons of purified water; meeting the needs and requirements of the District's communities.

Drinking Water Quality

The raw water drawn from Coleman Creek is carefully monitored for a number of issues: 1) Biological contaminants such as cryptosporidium, and coliform, 2) Turbidity and insoluble chemical contaminants mainly due to runoff from rainfall in the watershed or landslides, and 3) Organic and inorganic chemical pollutants due to both naturally occurring compounds in the soil, and man-made processes such as the use of herbicides to control weeds throughout the watershed. Testing to insure against these problems is carried out using samples drawn by the OWD, and analyzed by an independent laboratory, under the direction of the Oregon Health Authority (OHA). The most recent results are listed below and on the OHA's website at: <https://yourwater.oregon.gov/chemlatest.php?pwsno=00882> .

For further information concerning our water and this analysis please contact the Oregon Health Authority and refer to the Source Water Assessment Report, Oceanside Water District, Oregon PWS#4100882.





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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have one in-a-million chance of having the described health effect.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

As we are required to perform lead and copper tests once every three years, we may be calling upon you to participate. If you would like to have your home tested, at no cost, please call us at 503-842-6462 and we will be glad to add you to the next round of testing. 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. Oceanside Water District 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>.

Microbiological Contaminants							
Contaminant	Unit	MCL	MCLG	Highest Level Detected	Range	Major Sources	Violation Y/N
Total Coliform Bacteria	Presence / Absence	A presence of coliform bacteria in 5% of monthly samples	0	Absent	None	Naturally present in the environment.	N
Fecal Coliform and E.coli	Presence / Absence	The presence of <i>E. coli</i> is confirmed, repeat samples are not collected, or when a total coliform sample is not analyzed for E.coli	0	Absent	None	Human and/or animal fecal waste.	N
Turbidity	ntu	TT	N/A	0.26	0.01-0.26	Soil runoff, cloudiness of the water.	N

Microbiological Contaminants:

Total Coliform: Coliform bacteria are naturally present in the environment and are used as an indicator that other, potentially more harmful bacteria, may be present.

Fecal coliform/E.coli: The presence of Fecal Coliform/ E. coli bacteria in water indicates a contamination problem with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

Turbidity: Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Inorganic Contaminants							
Contaminant	Unit	MCL	MCLG	Highest Level Detected	Range	Major Sources	Violation Y/N
Arsenic	ppm	0.01	0.01	ND		Erosion from natural deposits, runoff from orchards.	N
Copper: June 2018	ppm	1.3	0	ND (90th Percentile)	0	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives.	N
Lead: June 2018	ppb	15	0	4 (90th Percentile)	0	Corrosion of household plumbing systems, erosion of natural deposits.	N
Nitrate (as Nitrogen) July 2018	ppm	10	10	0.216		Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.	N
Barium	ppm	2.0		0.000814		Discharge of drilling wastes, meal refineries, erosion of natural deposits	N
Cyanide	ppm	0.2	0.2	0.04		Discharge from steel/metal factories; discharge from plastic and fertilizer factories	N

Volatile (VOC) and Synthetic (SOC) Organic Compounds							
Contaminant	Unit	MCL	MCLG	Highest Level Detected	Range	Major Sources	Violation Y/N
Twenty one regulated and thirty five unregulated VOCs	ppm	Various MCLs	0	ND		Industrial discharge, plastics leachate, herbicidal runoff.	N
Twenty nine regulated and thirteen unregulated SOCs	ppm	Various MCLs	0	ND		Industrial discharge, plastics leachate, herbicidal runoff.	N

Disinfection By-Products							
Contaminant	Unit	MCL	MCLG	Highest Level Detected	Range	Major Sources	Violation Y/N
TTHM (Trihalomethane) Tested quarterly	ppb	80	0	Highest LRAA: 76	53.5 – 98.0	By-product of drinking water chlorination.	Y
HAA5 (HaloAcetic Acids) Tested Quarterly	ppb	60	0	Highest LRAA: 36	14.8 – 48.7	By-product of drinking water chlorination.	Y

Definitions:

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow

Haloacetic Acids (HAA5): By-products of the treatment process that are formed when the disinfectant chlorine combines with organic matter in the source water. Since chlorine is important for disinfection, HAAs will be present, but they are monitored very closely by water utilities.

Parts Per Million (ppm) or Milligrams Per Liter (mg/L): A measure of the concentration of a substance in a given volume of water. One part per million corresponds to one penny in \$10,000.

Parts Per Billion (ppb) or Micrograms Per Liter: An even finer measure of concentration. One part per billion corresponds to one penny in \$10,000,000.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Nephelometric Turbidity Units (ntu): A measure of particles in water.

Non-Detect (ND): No level detected.

Total Trihalomethanes (TTHMs): By-products of the treatment process that are formed when the disinfectant chlorine combines with organic matter in the source water. Since chlorine is important for disinfection TTHMs will be present, but they are monitored very closely by water utilities.

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

Chlorine: The addition of small amounts of chlorine protects our customers from disease causing organisms. We are required by law to add disinfectant in order to meet state and federal mandates for safe drinking water.

Violations:

- TTHM third quarter sample exceeded MCL: Corrections were made to chemical dosing for better removal of soluble organics which were binding with the chlorine and forming disinfection by products.
- SOC third quarter sample Chemical Late/Nonreporting – returned to compliance December 20, 2018
- Routine Coliform Nonreporting – returned to compliance September 18, 2018 – Sample was collected on the wrong date and therefore deemed noncompliant.
- SOC second quarter sample Chemical Late/Nonreporting – returned to compliance December 20, 2018 - The SOC monitoring was completed and reported on-time except for one analyte (diquat) that had to be rerun due to an equipment failure at the lab and as a result was reported late resulting in the violation.
- Nitrate second quarter sample Chemical Late/Nonreporting – returned to compliance August 23, 2018
- Monthly Surface Water report March 31st, 2018 – returned to compliance May 2nd, 2018 - The samples were drawn, and test results were under the MCL, however the reports were not submitted on time.
- Monthly Surface Water report Feb 28th, 2018 – returned to compliance May 2nd, 2018 - The samples were drawn, and test results were under the MCL, however the reports were not submitted on time.

Herbicide Pollution Risk Mitigation

In addition to the above-mentioned testing, specifically SOC's, the OWD in conjunction with Oceanside Clean Water, a subcommittee to the Oceanside Neighbor's Association, has initiated a program to develop a new protocol for both testing and limiting exposure to herbicides which are occasionally used in the watershed. These herbicides are applied to the logging roads, to keep them weed free for fire protection access and clear-cut areas prior to replanting to give newly planted seedlings a head start over the weeds. Currently the SOC measurements as mandated by the OHA, are carried out at random times every three years.

There is a potential issue associated with this type of testing in that the potential pollution of the creek due to accidental spraying with herbicide is a short-term risk that occurs every few years. Testing that is not performed synchronously may in fact, completely miss the presence of herbicide.

Working in conjunction with the Stimson Lumber Company, the owner of the Short Creek Watershed, the OWD has developed a protocol that involves closing the intake to the water plant prior to spraying (and supplying water for as long as possible from water previously stored in the reservoirs), as well as testing of the creek at a time that is synchronized to the instant of spraying and returning the plant to production after 3 to 4 days, presumably after the contamination risk has passed.

Emergency Action Alert:

The District would like to remind its customers that living along the scenic Oregon Coast presents many unique dangers that could easily affect your water supply. The possibility of land and surf erosion, power outages, damaging winds, seismic activity, fire conditions and flooding potential are just some of the realities we are faced with. Any one of these hazards can significantly impact the district's ability to produce and deliver clean, potable water to your home. If such an emergency does present itself, the District will alert its customers as best it can by posting a written warning at both the Oceanside Community Center and the Cape Meares Community Center, emailing out warning notices, and setting out message barricades. In severe cases, a "**Boil Water**" notice will be broadcasted over the local Tillamook radio station as well as being posted as previously described. Regardless of the emergency condition, the District asks its customers to use discretion in their use of water and to remain aware of any further notification.

Protecting Your Investment:

The District suggests that when leaving your home unattended for extended periods of time (five days or more), that you turn your water off using the customer side valve at the meter. Please make sure that the district office has a current phone number on file of where you can be reached while you're away. If you would also like to be added to the District's emergency notice email list, please do so by contacting the district office with that information.

Each homeowner should have a shut-off valve on the customer- side of the meter (See picture). If one is not present, please call the district office to schedule an installation for a \$125.00 fee. Upon returning home it is best to allow the water to slowly recharge your pipes and remember to purge your plumbing system of the stagnant water and air through various faucets and spigots throughout your home before using your water.



Cross-Connection Control:

Do you have any of the following?

Swimming Pool

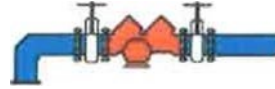
Hot-Tub

Active Solar Unit

Fire Sprinkler System

Large Scale Water Feature

Underground Lawn Irrigation System



If you do, you are required by the State of Oregon to install a cross-connection assembly for the protection of the entire water system. This assembly must be inspected annually by a certified inspector. As a service to our customers, the OWD staff will, at your convenience and at no charge, help you determine if a back-flow prevention assembly is needed for your home.

In September all back-flow prevention device owners will be receiving a letter from the District. This letter will act as a reminder to have your back-flow device inspected and a copy of the results forwarded to OWD by the end of the calendar year. If the district does not receive these results a fine of \$50/month will be assessed for the delinquency and the District will have the back-flow device inspected by the end of March.

Recent District Upgrades:

Over the past few years we have upgraded the districts distribution system, replacing over 10,000 feet of pipe in the ground, two pump stations and every meter in the district. The result of this has been a reduction in water loss throughout the district from 43 to 8% (the EPA goal is currently 15%). We built two new 200,000 gallon reservoirs which allows us to provide more consistent service during draught events and has added a significant increase in fire protection, We also built two new membrane treatment plants which allow us to continue treating water during increased turbidity events such as storms while still providing a superior quality of water for our community.

The OWD staff is pleased to report the district’s drinking water currently meets or exceeds all federal and state requirements. If you have any questions or concerns about this report, please contact the Oceanside Water District Manager David Nordman (503)842-6462 or Julia Johnson at (503)842-0370. To learn more about your district and how it operates, please attend any regularly scheduled board meeting. Meetings of the OWD Board of Commissioners are open to the public and are held on the third Tuesday of each month at 1:00pm, alternating between the Oceanside Water Plant and the Cape Meares Community Center.



