



2015

WATER QUALITY REPORT

Important Information

About the Water You Drink

Commissioners

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Vice-Chair/Treasurer: Charles J. Ansorge

Secretary: Spike Klobas

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Commissioner: Paul R . Newman

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This annual report is intended to inform as well as to remind you, our customers, about the importance of your water quality. The Oceanside Water District (OWD) is committed to ensuring that your water meets the highest standards as regulated by The Environmental Protection Agency (EPA) and The Oregon Department of Health Services (ODHS). The following information was developed from water quality sampling conducted throughout the 2015-2016 year.

The Source of Your Water

Our drinking water begins its journey high up on Mt. Meares, collecting in a wetlands and traveling down Short Creek, which in turn is fed by a series of tributary creeks. The creek eventually flows into a pond located just below the treatment plant, where most of the sediments are allowed to settle out prior to being pumped up to the plant as raw water. The Short Creek watershed is located in the Netarts Bay/Sand Lake/Neskowin Creek Watershed in the Wilson-Trask-Nestucca Sub-Basin.



Several months ago, during the fall of 2015, the Oregon coastal region experienced some record rainfalls, one period in particular rivaling the monsoon season experienced in the far East. The result was a massive amount of water flowing through the Short Creek watershed, which proceeded to do two things. First, many landslides occurred resulting in a huge amount of silt flooding the creek, so much so that our pond catch basin at the bottom of the creek where intake for the water treatment plant is located, filled with approximately 2-3 feet of mud and silt. Alan Tuckey, the



District's watermaster, and David Nordman, his assistant, fortunately kept the intake pump running throughout the event so that when it was over, the intake was in a clear conical- shaped hole surrounded by 2-3 feet of newly deposited



material. Water initially flowed over the surround bottom and into the hole so that the intake worked efficiently.. Now,as we have moved closer to summer, the water level has dropped and the level of water flowing over the newly deposited soil has also dropped.. Alan and David have worked hard and dug channels so that the water continues to flow into the intake and our water supply has not been interrupted. They have also used a portable pump to vacuum some of the deposited material back out of the pond. Suffice it to say, through their hard work, the pond has been mostly restored.

Looking upstream from the pond, formerly one could only see about 300 yards upstream and even most of that was obscured by the reeds and other aquatic plants growing in the creek.



Now however, the waterway is completely clear and you can see far up into the canyon. The creek is a bit more free-flowing without the same level of organic material dissolved in it from plant debris. Alan says that recently, he has not had to add significant amounts of chlorine to the water to treat the organic content. Previously, vegetation slowed the flow, partially screened impurities, diluted them and aerated the water, which contributes to a higher quality of water before it enters the treatment plant. This affects other potential contaminants dissolved in the water as well, and effectively degrades them through dilution, oxygenation, exposure to plant materials

and finally to UV from the sunlight.

All of this is a dynamic process, and the creek, as we speak, is slowly returning back to its former state, although it is highly likely that it has been in fact somewhat permanently modified. In recognition of this the Districts pursuing a backup. It is in the process of acquiring the rights to another creek, Baughman Creek, located closer to Oceanside and flowing just to the south of Cape Meares Loop Rd, and under SR131. Initially this second creek is being considered as a backup in the event of a catastrophic hydrological event such as a landslide closing Short Creek. It is anticipated, in the near future, that we will be granted the rights. Further, as Baughman Creek has a completely different topography, a much flatter surface without the steep canyon walls, in the future it may become the primary source for the community's drinking water.

Drinking Water Quality

The raw water drawn from Short 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 on the various logging roads throughout the watershed. Testing to insure against these problems is carried out by the OWD 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=00585> .

For further information concerning our water and this analysis please contact the Oregon Department of Health Services and refer to the Source Water Assessment Report, Oceanside Water District, Oregon PWS#4100585.

Once the raw water reaches the plant, it undergoes a flocculation (addition of a non-toxic material that binds to solid impurities and then removes them from solution), and filtration and chlorination processes (to kill potentially harmful bacteria). These steps, along with careful monitoring, ensure that safe, clean water is available to consumers throughout the water district.

The distribution of processed water to consumers throughout the District is accomplished by pumping water

directly into the distribution system (a network of pipes buried below the streets) from the treatment plant. Water is also pumped into two glass-lined metal (with a third under construction), and two concrete tanks which serve as reservoirs located throughout the district. These reservoirs offer a combined reserve supply of over 600,000 gallons of treated water in order to meet any surges in the needs of the District's communities.

As a community water system, monitoring and scheduled testing of our water is carried out as required by federal and state regulations concerning water quality protection. The OWD is pleased to report that the district's drinking water meets or exceeds all federal and state requirements.



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 a 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. 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. 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). The following terms and acronyms are made part of this report and provided as a reference to help you, to better understand the information presented:

Parts per million (ppm) or Milligrams per liter (mg/l) - One part per million corresponds to one minute in two years.

Parts per billion (ppb) or Micrograms per liter - One part per billion corresponds to one minute in 2,000 years.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Maximum Contaminant Level (MCL) - The MCL is 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 MCLG is 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.

Treatment Technique (IT) - A required process intended to reduce the level of contaminant in drinking water.

The following test results are from OWD monitoring during the period of March 2015 to April, 2016:

TEST RESULTS

Contaminant	Violation <i>Y/N</i>	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria	N	None	Presence/ Absence	0	A presence of coliform bacteria in 5% of monthly samples.	Naturally present in the environment.
Fecal coliform and <i>E. coli</i>	N	None	Presence /Absence	0	A routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive.	Human and animal fecal waste.
Turbidity	N	0.09 (Annual Average)	NTU	0.30	0.30	Soil runoff; cloudiness of the water.
<p><i>Microbiological Contaminants:</i></p> <p>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.</p> <p>Fecal coliform/<i>E. coli</i>. The presence of Fecal Coliform/ <i>E. coli</i> 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.</p> <p>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.</p>						

Contaminant	Violation <i>Y/N</i>	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants						
Arsenic Tested: 3/26/2015	N	ND	ppm	0.01	0.01	Erosion from natural deposits, runoff from orchards.
Copper tested 3/24/2016	N	Highest level recorded: 0.26ppm	ppm	0	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead Tested: 3/24/2016	N	Action Level: highest recorded level is 0.008ppm	ppb	0	15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen) Tested: 3/26/2015	N	0.352	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Contaminant	Violation Y/N	Level Detecte	Unit Measuremen	MCLG	MCL	Likely Source of Contamination
Volatile (VOC) & Synthetic (SOC) Organic Compounds						
Twenty-one (21) Regulated & Thirty-five (35) Unregulated VOCs Tested: 6/16/2015	N	ND	ppm	0	Various MCLs	Industrial discharge, plastics leachate, herbicide runoff.
Twenty-nine (29) Regulated & Thirteen (13) Unregulated SOCs Tested: 5/1/2015	N	ND	ppm	0	Various MCLs	Industrial discharge, plastics leachate, herbicide runoff.
Disinfection By-Products						
TTHM (Total trihalomethanes) Tested 12/7/2015	N	15	ppb	0	80	By-Product of drinking water chlorination
HAAS (HaloAcetic Acids) Tested 12/7/2015	N	3.6	ppb	0	60	By-Product of drinking water chlorination

Organic Contaminants:

TTHMs (Total Trihalomethanes) HAAS (HaloAcetic Acids) and VOCs (Volatile Organic Compounds): Some people who drink water containing TTHMs, HAA5s, or VOCs in excess of MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increase risk of getting cancer.

TOCs (Total Organic Carbon) Used as a surrogate for Disinfection byproducts (DBP) formation potential.

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. Currently the SOC measurements as mandated by the OHA, are carried out at a random time 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 phenomena 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 allows both closing the intake to the water plant (and supplying water from the 4 reservoirs), as well as testing of the creek at a time that is synchronized to the instant of spraying. The OWD has received a \$10,000 grant from the OHA to carry out an experiment to test the water in Short Creek at a time that has been pre-determined, to be taken at the time-of-transit from the spraying site to the sampling site of the intake at the processing plant. The experiment will be carried out in late July or early August of 2017. Measurements to determine the time of transit will be carried out in late summer of 2016.

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 effect 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 aced 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 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.

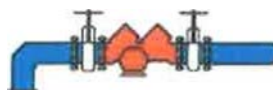


Each homeowner should have a shut-off valve on the customer-side of the meter.(See picture) If one is not present, please call the district office to schedule an installation for a slight (\$125.00)fee. Upon returning home it is best to allow the water to slowly recharge your pipes and remember to purge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

If you have any questions or concerns about this report please contact the Oceanside Water District Watermaster, Alan Tuckey at (503) 842-6462, or Office Manager, Julie Johnson at (503) 842-0370. To learn more about your district and how it operates, you are invited to attend any regularly scheduled board meeting. Meetings of the OWD Board of Commissioners are open to the public and are held on the 3rd Tuesday of each month at 1:00 PM, alternating between the Oceanside Community Center and the Cape Meares Community Center