

Annual Drinking Water Quality Report Otter Rock Water District For Year 2020

Report Date: June 30, 2021

This is the annual water quality report required by the state of Oregon. In this report, you will find specific information about our water source, our test results, and required water treatment as well as general information about potential contaminants, protecting our water, and water conservation.

Is my water safe?

Your drinking water is safe and meets federal and state requirements. This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact orwdcom5@gmail.com. We want our valued customers to be informed about their water utility.

Do I need to take special precautions?

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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

Where does my water come from?

Our water source consists of three springs. All three are classified as Ground Water Sources. The three springs produce sufficient water to meet current needs, except during times of extreme drought when water curtailment is sometimes required. Our water is not currently treated, but after three coliform investigations were required within a twelve month period during 2020, the Water District is now required to install Treatment.

Source water assessment and its availability

The Water District has developed a source water assessment report in cooperation with Oregon Association of Water Utilities (prior to 2000). Delineation of our recharge area has been certified by Oregon Health Authority (cert. #0005). More recently, the Drinking Water Protection Staff of Oregon Health Authority Drinking Water

Program and Oregon Department of Environmental Quality have prepared a Source Water Assessment Update (2020) to help the Water District develop strategies to reduce drinking water contamination risk. This report shows the Otter Rock Drinking Water Source Area, land ownership/use, and identifies potential sources of contamination. These reports can be used by the Water District, land owners, and local governments to develop strategies to reduce drinking water contamination risk. These reports are available for review. Lincoln County has designated the Otter Rock Wellhead Protection Area (Source Water Protection Area) as a Goal V resource and has established development guidelines intended to help protect our drinking water source area.

Why are there contaminants in my drinking water?

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). 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:

microbial contaminants, such as viruses and bacteria, that 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 stormwater 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 stormwater 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 stormwater runoff, and septic systems; and 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

If you want to learn more, please attend our board meetings. Our regularly scheduled monthly board meetings are held every month on the second Tuesday at 6:00 PM. Our meetings are currently on Zoom, but we may return to in-person meetings at the Otter Rock Community Hall at 6515 Gladys Ave. Check our website at <https://www.otterrockwater.org> for details

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient shower head. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.
- In times of drought, watch for water curtailment notices from Otter Rock Water District.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate or reduce use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Additional Information for Lead

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. Otter Rock 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>.

Water Quality Data

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The tables below list the most recent sampling and testing results for each regulated contaminant in our drinking water. Although many contaminants were tested, only those contaminants found in your water are listed in the table titled: **Contaminants Detected in our Drinking Water**. For a list of contaminants that we tested for but not detected (ND) in our water, see the table titled: **Contaminants Not Detected In Our Drinking Water**.

All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may

actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in these tables is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In these tables you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the tables.

Violations and Exceedances

Level 2 Assessment and Sanitary Defects

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliform indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct three Level 2 Assessments. Three Level 2 Assessments were completed. In addition, we were required to take one corrective actions.

When three or more coliform investigations are triggered within a twelve-month period, the Water District is required to install treatment within six months unless an alternate schedule is approved. The presence of coliform bacteria in drinking water at the Water System triggered a third coliform investigation on July 24, 2020. The required treatment was not installed by the original due date of January 24, 2021, nor was an alternate schedule approved by the due date. This is not considered a 2020 violation since the original due date was not in the year 2020.

The Water District has experienced delays in treatment implementation. On April 2, 2021, The Water District entered into a bilateral compliance agreement with OHA DWS that extends the deadline for installing the treatment system until 7/31/2021. The Water District's engineering consultant has completed the design and obtained approval from OHA DWS. The project is proceeding.

Contaminants Detected In Our Drinking Water

Contaminants	MCLG or MRDLG	MCL,TT, or MRDL	Level Detected	Range		Violation	Typical Source	Sample Date
				Low	High			
Inorganic Contaminants								
Nitrate [measured as Nitrogen] (ppm)	10	10	1.29	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	7/17/20
Sodium (optional) (ppm)	NA	NA	25.4	NA	NA	No	Erosion of natural deposits; Leaching	9/12/12
Copper - action level at customer taps (ppm)	1.3	1.3 (AL)	1.3 (90th percentile)	0	1.52	No	Corrosion of household plumbing systems; Erosion of Natural Deposits	7/11/18
Microbiological Contaminants								
E.coli (revised total coliform rule) - in the distribution system	0	Violation if routine and repeat samples are total coliform positive and either is E.coli - positive; or if system fails to take repeat samples following E.coli positive routine sample; or if system fails to analyze total coliform positive repeat sample for E.coli	One routine sample in distribution system tested positive for E.coli in 2020	NA	NA	No	Human and animal fecal waste	2020
Although we have detected E.coli, we are not in violation of the E.coli MCL								
Total Coliform (revised total coliform rule)	NA	TT	NA	NA	NA	No	Naturally present in the environment	2020

Contaminants Not Detected In Our Drinking Water

The following contaminants were monitored for, but not detected in, your water

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Your Water	Violation	Typical Source	Last Sample Date
Inorganic Contaminants						
Alpha emitters (pCi/L)	0	15	ND	No	Erosion of natural deposits	9/12/12
Antimony (ppb)	6	6	ND	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder; test addition.	9/12/12
Arsenic (ppb)	0	10	ND	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	7/31/19
Asbestos (MFL)	7	7	ND	No	Decay of asbestos cement water mains; Erosion of natural deposits	3/6/13
Barium (ppm)	2	2	ND	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	9/12/12
Beryllium (ppb)	4	4	ND	No	Discharge from metal refineries and coal-burning factories; Discharge from electrical, aerospace, and defense industries	9/12/12
Cadmium (ppb)	5	5	ND	No	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints	9/12/12
Chromium (ppb)	100	100	ND	No	Discharge from steel and pulp mills; Erosion of natural deposits	9/12/12
Cyanide (ppb)	200	200	ND	No	Discharge from plastic and fertilizer factories; Discharge from steel/metal factories	9/12/12
Fluoride (ppm)	4	4	ND	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	9/12/12
Lead - action level at consumer taps (ppb)	0	AL 15	ND	No	Corrosion of household plumbing systems; Erosion of natural deposits	7/11/18
Mercury [Inorganic] (ppb)	2	2	ND	No	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland	9/12/12
Nitrite [measured as Nitrogen] (ppm)	1	1	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	9/12/12

Radium (combined 226/228) (pCi/L)	0	5	ND	No	Erosion of natural deposits	7/31/19
Selenium (ppb)	50	50	ND	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines	9/12/12
Thallium (ppb)	0.5	2	ND	No	Discharge from electronics, glass, and Leaching from ore-processing sites; drug factories	9/12/12
Uranium (ug/L)	0	30	ND	No	Erosion of natural deposits	9/12/12
Volatile Organic Contaminants						
1,1,1-Trichloroethane (ppb)	200	200	ND	No	Discharge from metal degreasing sites and other factories	7/31/19
1,1,2-Trichloroethane (ppb)	3	5	ND	No	Discharge from industrial chemical factories	7/31/19
1,1-Dichloroethylene (ppb)	7	7	ND	No	Discharge from industrial chemical factories	7/31/19
1,2,4-Trichlorobenzene (ppb)	70	70	ND	No	Discharge from textile-finishing factories	7/31/19
1, 2-dibromo-3-chloropropane (DBCP) (ppb)	0	200	ND	No	Agricultural soil fumigant	7/31/19
1,2-Dichloroethane (ppb)	0	5	ND	No	Discharge from industrial chemical factories	7/31/19
1,2-Dichloropropane (ppb)	0	5	ND	No	Discharge from industrial chemical factories	7/31/19
Benzene (ppb)	0	5	ND	No	Discharge from factories; Leaching from gas storage tanks and landfills	7/31/19
Carbon Tetrachloride (ppb)	0	5	ND	No	Discharge from chemical plants and other industrial activities	7/31/19
Chlorobenzene (monochlorobenzene) (ppb)	100	100	ND	No	Discharge from chemical and agricultural chemical factories	7/31/19
Cis-1,2- Dichloroethylene (ppb)	70	70	ND	No	Discharge from industrial chemical factories	7/31/19
Dichloromethane (ppb)	0	5	ND	No	Discharge from pharmaceutical and chemical factories	7/31/19
Ethylbenzene (ppb)	700	700	ND	No	Discharge from petroleum refineries	7/31/19
o-Dichlorobenzene (ppb)	600	600	ND	No	Discharge from industrial chemical factories	7/31/19
p-Dichlorobenzene (ppb)	75	75	ND	No	Discharge from industrial chemical factories	7/31/19
Styrene (ppb)	100	100	ND	No	Discharge from rubber and plastic factories; Leaching from landfills	7/31/19

Tetrachloroethylene (ppb)	0	5	ND	No	Discharge from factories and dry cleaners	7/31/19
Toluene (ppm)	1	1	ND	No	Discharge from petroleum factories	7/31/19
trans-1,2-Dichloroethylene (ppb)	100	100	ND	No	Discharge from industrial chemical factories	7/31/19
Trichloroethylene (ppb)	0	5	ND	No	Discharge from metal degreasing sites and other factories	7/31/19
Vinyl Chloride (ppb)	0	2	ND	No	Leaching from PVC piping; Discharge from plastics factories	7/31/19
Xylenes (ppm)	10	10	ND	No	Discharge from petroleum factories; Discharge from chemical factories	7/31/19
Synthetic Organic Contaminants						
2,4,5-TP (Silvex) (ppb)	50	50	ND	No	Residue of banned herbicide	7/31/19
2,4-D (ppb)	70	70	ND	No	Runoff from herbicide used on row crops	7/31/19
Atrazine (ppb)	3	3	ND	No	Runoff from herbicide used on row crops	7/31/19
Benzo(a)pyrene (ppt)	0	200	ND	No	Leaching from linings of water storage tanks and distribution lines	7/31/19
BHC-Gamma (ppt)	0	200	ND	No	insecticide	7/31/19
Carbofuran (ppb)	40	40	ND	No	Leaching of soil fumigant used on rice and alfalfa	7/31/19
Chlordane (ppb)	0	2	ND	No	Residue of banned termiticide	7/31/19
Dalapon (ppb)	200	200	ND	No	Runoff from herbicide used on rights of way	7/31/19
Di (2-ethylhexyl) adipate (ppb)	400	400	ND	No	Discharge from chemical factories	7/31/19
Di (2-ethylhexyl) phthalate (ppb)	0	6	ND	No	Discharge from rubber and chemical factories	7/31/19
Dibromochloropropane (DBCP) (ppt)	0	200	ND	No	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	7/31/19
Dinoseb (ppb)	7	7	ND	No	Runoff from herbicide used on soybeans and vegetables	7/31/19
Diquat (ppb)	20	20	ND	No	Runoff from herbicide use	7/31/19
Endothall (ppb)	100	100	ND	No	Runoff from herbicide use	7/31/19
Endrin (ppb)	2	2	ND	No	Residue of banned insecticide	7/31/19
Ethylene dibromide (ppt)	0	50	ND	No	Discharge from petroleum refineries	7/31/19
Glyphosate (ppb)	700	700	ND	No	Runoff from herbicide use	7/31/19
Heptachlor (ppt)	0	400	ND	No	Residue of banned pesticide	7/31/19
Heptachlor epoxide (ppt)	0	200	ND	No	Breakdown of heptachlor	7/31/19

Hexachlorobenzene (ppb)	0	1	ND	No	Discharge from metal refineries and agricultural chemical factories	7/31/19
Hexachlorocyclopentadiene (ppb)	50	50	ND	No	Discharge from chemical factories	7/31/19
Lasso (Alachlor)(ppb)	0	2	ND	No	Herbicide runoff	7/31/19
Methoxychlor (ppb)	40	40	ND	No	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	7/31/19
Oxamyl [Vydate] (ppb)	200	200	ND	No	Runoff/leaching from insecticide used on apples, potatoes and tomatoes	7/31/19
Pentachlorophenol (ppb)	0	1	ND	No	Discharge from wood preserving factories	7/31/19
Picloram (ppb)	500	500	ND	No	Herbicide runoff	7/31/19
Simazine (ppb)	4	4	ND	No	Herbicide runoff	7/31/19
PCBs [Polychlorinated biphenyls] (ppt)	0	500	ND	No	Runoff from landfills; Discharge of waste chemicals	7/31/19
Toxaphene (ppb)	0	3	ND	No	Runoff/leaching from insecticide used on cotton and cattle	7/31/19

Unit Descriptions	
Term	Definition
ug/L	ug/L : Number of micrograms of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
ppt	ppt: parts per trillion, or nanograms per liter
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
MFL	MFL: million fibers per liter, used to measure asbestos concentration
% positive samples/ month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
positive samples	positive samples/yr: The number of positive samples taken that year

Important Drinking Water Definitions	
Term	Definition
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: 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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

Level 1	“Level 1 Coliform investigation” means a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2	“Level 2 Coliform Investigation” means a very detailed study of the water system to identify potential problems and determine (if possible) why an E.coli MCL violation has occurred or why total coliform bacteria have been found in our water system on multiple occasions.