PORT
OF TILLAMOOK BAY

2019 WATER QUALITY REPORT

This report is to inform you of where your water comes from and how it is treated. The Port of Tillamook Bay purchases all water we distribute from the City of Tillamook. The Port of Tillamook Bay does not provide any additional treatment to water before distribution to our customers. The Port of Tillamook Bay completes weekly, monthly, and annual testing to assure compliance and to safeguard its users. Since the Port of Tillamook Bay only redistributes water already treated by the City of Tillamook, all information contained within the City of Tillamook's Annual Water Quality Report covers the information on water that you receive. Please find the included copy of the City of Tillamook Water Departments` 2019 Annual Water Quality Report.

In addition to the City of Tillamook's testing, the Port of Tillamook Bay also collects monthly routine coliform and E. coli samples for analysis. During the 2019 year, the Port received all Absent test results for coliform and E. coli samples collected from within our water system for the year. The Port also tests water for Free Chlorine residual three times a week to assure that water is compliant with safe drinking water standards.

During the year 2019, annual disinfection by-product samples were collected from our water system in addition to testing completed by the City of Tillamook. Annual disinfection by-products testing was conducted at a point in the distribution system which is typical of the longest detention time. The following charts show that we are under the limits set by the state for safe drinking water.

Disinfection By-products

	Test Results	MCL (Max Contaminant Level)
Officers Mess Hall (Building#5)	mg/l	mg/l
Total Trihalomethanes (TTHM)	0.0170	0.0800
Officers Mess Hall (Building#5)		
Haloacetic Acids (HAA5)	0.0080	0.0600

Abbreviations

MCL	Maximum Contaminant Level
mg/l	Milligrams per liter (same as ppm)
ppm	Parts per million
ND	None detected

The Port of Tillamook Bay hopes that you will find this information helpful and reassuring in understanding your waters quality. If you have any questions, please feel free to contact us.

Port of Tillamook Bay
Michael Christie, Utilities Supervisor
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Tillamook, OR 97141
Phone: (503)842-2413 ext. 130
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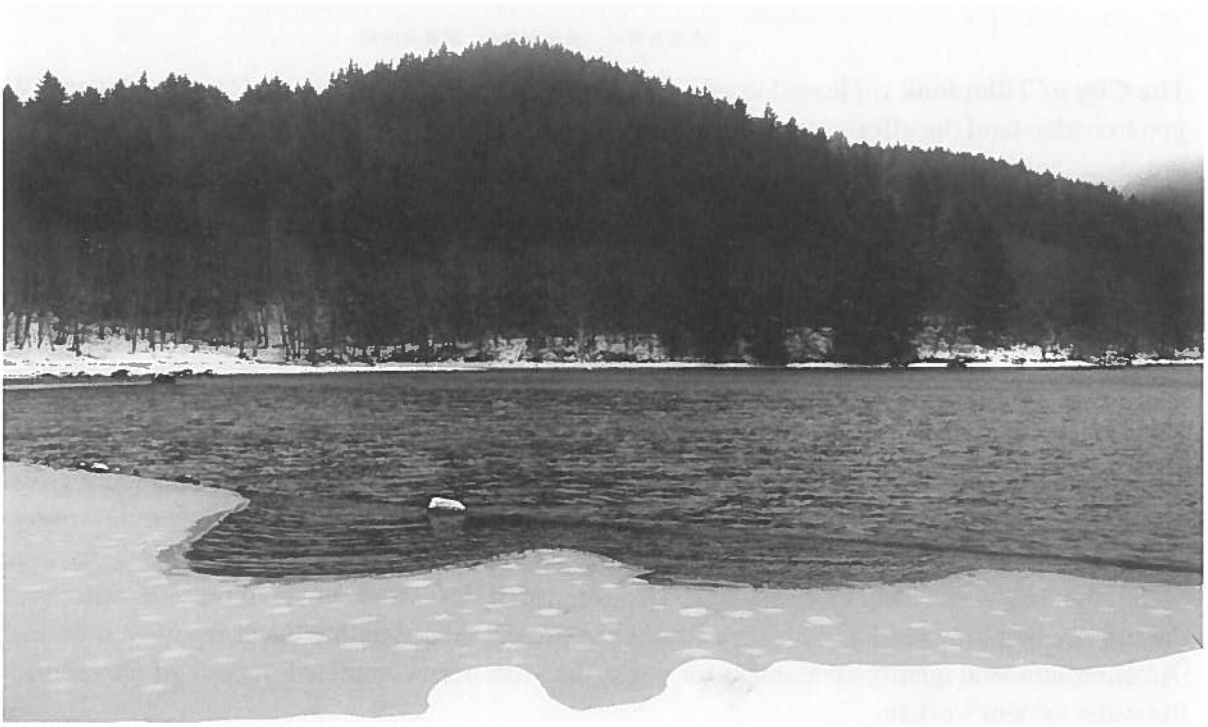
City of Tillamook
Water Department
2019 Annual
Water Quality Report



Environmental Protection Agency
Safe Drinking Water Hotline
(800) 426-4791

Oregon Health Authority
Drinking Water Program
(971) 673-0405

Tillamook City Water Department
(503) 842-2343

Important information concerning your drinking water.

This report is for your information and has been designed to conform with the Federal Safe Drinking Water Act requirements for annual notification of your water quality.

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Esto es uno informcion importante. Por favor, silo puenden traducirlo.

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The City of Tillamook is pleased to present to you this year's *Annual Water Quality Report*. We want you to understand the efforts we make to continually improve the water treatment and distribution processes and protect your water resources. Our team is committed to ensuring the quality of your water. **Tillamook City Water Department** routinely monitors for constituents in your drinking water according to Federal and State laws. Included in this document you will find tables that show the results of our monitoring for the period of January 1st to December 31st, 2019. **All drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some constituents.**

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The 1996 Amendments to the Safe Drinking Water Act require that all states conduct Source Water Assessments for public water systems within their boundaries. The assessments consist of (1) Identification of the Drinking Water Protection Area, i.e., the area at the surface that is directly above that part of the aquifer that supplies groundwater to our well(s), (2) Identification of potential sources of pollution within the Drinking Water Protection Area, and (3) Determining the susceptibility or relative risk to the well water from those sources. The purpose of the assessment is to provide water systems with the information they need to develop a strategy to protect their drinking water resource if they choose. An environmental quality assessment for our system has been completed. A copy of the report is on file at the water system's office.

The City of Tillamook Water Department's water system draws water from the sands and gravels of the Tillamook Valley Alluvial Aquifer. Assessment results indicate the water system is highly susceptible to a contamination event inside the identified Drinking Water Protection Area. The presence of several high- and moderate-risk potential contaminant sources within the protection area was confirmed through a potential contaminant source inventory. Under a "worst case" scenario, where it is assumed that nothing is being done to protect groundwater quality at the identified potential contaminant sources, the assessment results indicate the water system would be highly susceptible to most of the identified high- and moderate-risk potential contaminant sources. In addition, the assessment results indicate that, at this time, the water system is considered susceptible to viral contamination.

We have a **Sanitary Survey Report** on file from Oregon Health Authority. We are pleased to report that your drinking water is safe and meets federal and state requirements.

If you have any questions about this report or concerning your water utility, please contact the Public Works Director, Tim Lyda or Water Department Manager, Levi Beachy. The Water Office is located at Tillamook City Hall 210 Laurel Ave or you may call 842-2343. Our office hours are 8:00 am – 4:00 pm,

Monday thru Friday. City Council meetings are held on the first and third Monday of each month, you are welcome to attend, they begin at 7:00 pm.

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. Thank you for understanding. We work hard to provide top quality water to every tap. We ask that all our customers help us protect our water sources, the heart of the community.

For security reasons the locations of your water supply will not be discussed in this document. Your water supply is supported by both surface and ground water sources which are located in restricted access zones. Water quality parameters are monitored closely, 365 days a year. Water quality and security are top priority.

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In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

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 - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

Maximum Contaminant Level - The "Maximum Allowed" **(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 Residual Disinfectant Level (MRDL)- 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.

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 contamination.
Maximum Contaminant Level Goal - The "Goal"**(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.

NITRATES: As a precaution we always notify the Health Department in this area if there is ever a higher than normal level of nitrates in the water supply.

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. The City of Tillamook Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials and components associated with service lines and home plumbing. 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, 1-800-426-4791, or www.epa.gov/safewater/lead.

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)

TEST RESULTS

Radionuclide Monitoring (Radionuclides)

	DETECTED		MCLG	MCL	
Gross Beta.	N.D.	mrem/yr	0	50 deposits	Decay of natural and man-made
Gross Alpha	2.0	pCi/l	0	15	Erosion of natural deposits
Combined radium	1.2	pCi/l	0	5	Erosion of natural deposits

Disinfection Byproducts, Byproduct Precursors, and Disinfection Residuals (DBP's)

	mg/L.	MCL	
Total Trihalomethanes		80	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.
City Hall Site	0.004		
101 N. Site	0.014		
Haloacetic Acids (HAA5)		60	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cance
City Hall Site	ND		
101 N. Site	ND		

TEST RESULTS

Inorganic Contaminants (Lead & Copper / Nitrate)

	DETECTED	mg/L	MCL	
Copper,90th. Percentile		0.0.	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead 90th Percentile		0.0	AL=.015	Corrosion of household plumbing systems, erosion of natural deposits
EP-A (Plant) Nitrate		0.612	10	Runoff from fertilizer use; leaching from septic
EP-A (Plant) Nitrite		0.612	10	tanks, sewage, erosion of natural deposits.
EP-C (Well 2) Nitrate		1.160	10	Raw water sample.
EP-C (Well 2) Nitrite		1.160	10	Raw water sample.
EP-D (Well 3) Nitrate		3.190	10	Runoff from fertilizer use; leaching from septic
EP-D (Well 3) Nitrite		3.190	10	tanks, sewage; erosion of natural deposits

NOTE: <0.5 ppb would equal about 1 half cent in $10 million dollars or 30 seconds in 2000 years.

WATER CONSERVATION IS A GREAT IDEA!

TIPS FOR CONSERVING WATER

Check for leaks: Read your water meter, write down the number and don't use the water for a couple of hours. Read the meter again. Compare the reads if they are different you have a leak.
Check for toilet tank leaks: Pour some beet juice or die into the tank. If the toilet is leaking color will appear in the toilet bowl in about 15 to 20 minutes. If leaking have repairs done.
Take shorter showers: Long showers use lots of water.
Repair dripping faucets: If your faucet is dripping at a rate of one drop per second, you can expect to waste 2,700 gallons per year. This adds to the cost of water and sewer utilities, or can strain your septic system.
Refrigerate drinking water: This will help prevent running the tap for long periods waiting for cold water.
Lawn and Garden watering: Water in the cool of the day only using the amount recommended by your gardener or garden supply center.

IRRIGATION SYSTEMS

If you have an irrigation system for lawn and gardening purposes you must have an approved backflow preventing device installed. The purpose of such a device is to prevent the water system from being contaminated by any chemical or fertilizer backflow accident. If you have any questions about backflow prevention please contact your water supplier.

Microbiological Contaminants
Note: We tested for Total Coliform Bacteria and Fecal Coliform with No Detections
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Arsenic (Arsenic)
Note: We tested for Arsenic with No Detections in 2019.

THERE WERE NO DETECTIONS OF UNREGULATED VOC;s OR SOC;s
(Under "Chemical group summary"-VOC)
in either the ground water or surface water sources when sampled in 2019

CONTAMINANTS IN 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 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.

MAXIMUM CONTAMINANT LEVELS
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.

TURBIDITY

Turbidity is usually thought of as cloudiness of the water, and is caused by suspended matter. Organic and inorganic material, silt, algae or other tiny organisms can contribute to the turbidity level of water. **The degree of turbidity** is measured at the Water Treatment Plant by shining a beam of light through water and measuring the angle at which the light is scattered by suspended matter. The reading gives the turbidity of the water measured in Nephelometric Turbidity Units or NTU. **The Environmental Protection Agency** has established a Maximum Contaminant Level of 0.3 NTU . We are pleased to say that our treatment plant consistently produces water at a level of 0.040 NTU or below. The reducing of NTU levels helps in the removal or inactivation of certain targeted microorganisms, for example Giardia.

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City of Tillamook Water Department
210 Laurel Ave
Tillamook, Oregon 97141

Note: If you are a landlord who pays for the tenants monthly water bill, please provide your tenant with a copy of this report.

FREQUENTLY ASKED QUESTIONS

DOES TILLAMOOK ADD FLOURIDE TO THE WATER?
No! Tillamook does not add flouride to the water. Parents of young children may want to consult their dentist about flouride treatment.

WHAT IS THE pH OF OUR WATER?
Generally the pH is around 6.7 to 7.0. (RAW): pH 7.2-7.8 (FINISHED WATER)

IS OUR WATER HARD OR SOFT?
Tillamook water is soft, averaging around 20 ppm hardness, (Apx. 1 grain/gal.)

WHY DOES MY WATER APPEAR MILKY AT TIMES?
Our surface water is supersaturated with oxygen. When first drawn it can, in some areas of our distribution system appear milky. As the water sits the oxygen dissipates from the bottom of the glass up. It is not a health risk.

WHAT CAN I DO ABOUT CHLORINE ODORS?

* Fill a pitcher and let it stand in the refrigerator overnight.
* Pour water between containers about 10 times.
* Heat the water to about 100 degrees Fahrenheit and let cool. Keep refrigerated.