



2019 Water Quality Report

Important Information About the Water You Drink

When Congress passed the 1996 Safe Drinking Water Act amendments, the Environmental Protection Agency (EPA) was given a mandate requiring every public water system to provide each customer with an Annual Water Quality Report every year. This report is meant to increase public awareness of drinking water issues and to serve as a means for customers to make informed decisions regarding their drinking water. Information regarding where your drinking water comes from, what is involved in treating and delivering safe drinking water and any detected levels of contaminants are included in this report. The City of Drain wants you to understand the efforts we make to continually improve the treatment and delivery of a safe and reliable supply that meets or exceeds all state and federal drinking water quality requirements as well as the protection of our watershed resources.

Our Source



E.G. Whipple Reservoir

The City of Drain's water source is the Bear Creek watershed. The watershed has a drainage of five square miles with ownership divided between private, B.L.M and the city. During the late 1960's and early 1970's, the city crew and local businesses worked together to build the E.G. Whipple Dam. The dam is a 60 foot high earth-rock dam located at the confluence of Bear Creek and Lost Cabin Creek. The new dam allowed winter water storage to be released during the dry summer months. The

water is released from the reservoir and travels through a 10-inch raw water transmission line to a 20 million gallon reservoir at the Hayhurst water treatment plant.

In 2003, the Oregon Department of Environmental Quality under requirements and guidelines of the Federal Safe Drinking Water Act, prepared a Source Water Assessment report for the City of Drain's watershed drainage area. The purpose of the assessment was to identify and inventory potential contaminant sources that may impact the water supply. A copy of the assessment is available at city hall.

Water Treatment



Hayhurst Rd. Treatment Plant

Raw water is pumped into the plant from the Hayhurst reservoir, where it is injected with a polymer blend (Formula AH-710). "AH-710" coagulates (gathers together suspended sediments and algae into larger particles called "floc"). The water flows into sedimentation basins where the floc, which is heavier than water, settles out in the tube settlers. The water then enters the high rate multi-media filters. Each filter contains a graded mixture of garnet sand, silica sand, and anthracite coal. The filters are cleaned by backwashing with treated water when needed. After filtration, a small amount of chlorine is added for disinfection and to keep it safe in the distribution system as it travels to a storage reservoir, or to your home. In May of 2004, the City completed the final phase of the water upgrade project with the refurbishing of the water treatment process and control. The tanks were taken offline and repainted, process equipment was replaced, and the manual controls were replaced with a PLC computer controlled system.

Distribution System

There is approximately 75,000 feet of piping in the distribution system. In March of 2004, the city completed the replacing of undersized lines, looping of dead end lines to improve circulation of the water, improved fire flows, new fire hydrants, and elimination of leaks. With the upgrades, the city will see many benefits in cost savings as well as providing a safer, cleaner water supply to our customers.

To ensure enough water for our customers as well as fire protection, we have a 750,000 gallon welded steel storage tank on the southwest side of town, and a 500,000 gallon glass-fused bolted steel tank on Cemetery Road and Crowe Ave., and a 290,000 gallon glass-fused bolted steel storage tank north of town on Commercial Ave.

All of the City's drinking water is treated before it is distributed to the customer. The City's water treatment operators are certified by the Oregon Department of Human Services and are required to complete educational courses annually to maintain certification and to assure technical competence in the most recent advances in water treatment. With the aid of computerized controls and online analyzers, the treatment operators monitor the water treatment process seven days a week, 365 days a year.

About this Report

This report shows our water quality for the year 2019. We want our customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled council meetings. They are held on the second Monday of each month at 7:00 p.m. in the Meeting Room of the Drain Civic Center.

The City of Drain routinely monitors constituents in your drinking water according to Federal and State laws. The Federal Safe Drinking Water Act of 1972 and the 1986 and 1996 amendments were written to insure the quality and safety of the nation's drinking water. The Environmental Protection Agency (EPA) has the authority to regulate public water systems to protect public health. The EPA sets national drinking water standards and establishes drinking water testing methods. The Oregon Department of Human Services administers the drinking water regulations for the EPA in our state. Currently, there are more than 91 water quality standards for potential contaminants in drinking water supplies in Oregon.

To help you better understand the terms and abbreviations used in the report 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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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 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.

Synthetic Organic Chemicals (SOC) - Synthetic organic chemicals including things like weed killers and bug spray.

Volatile Organic Chemicals (VOC) - including things like petroleum based chemicals, industrial by-products, and dry cleaning solvents.

Primary Standards - Legally enforceable standards that apply to public water systems. Primary standards limit the levels of specific contaminants that can adversely affect public health and are known or are anticipated to occur in water.

Secondary Standards - Non-enforceable guidelines regarding contaminants that may cause cosmetic or aesthetic effects such as taste, color, or odor in drinking water.

Inorganic Chemicals - Examples including things like metals, minerals, and salts.

Primary Standards 2019 Table of Detections

Inorganic Contaminants

Substance	Units	Goal	Action Level	90 th Percentile	Homes Exceeding Action Level	Complies Yes/No	Source of contaminate
Copper	ppm	1.3	1.3	ND	0	yes	Corrosion of household plumbing
Lead	ppm	0	.0150	ND	0	yes	Corrosion of household plumbing

Note: Plumbing fixtures may contribute to elevated lead and copper levels at the tap. Homeowners meeting the criteria for possible elevated levels of lead and copper are asked to draw samples from their taps after the water stands in the pipes for a minimum of six hours. The samples are then taken to a certified lab for analysis.

Results are from samples taken from 2019 as testing is not required yearly. ND = 0.100 ppm is minimum detection level for copper. 0.0020 ppm is minimum detection level for lead.

Turbidity

Substance	Units	MCL	Maximum Reported Value	Average Reported Value	Complies Yes/No	Source of Contaminate
Turbidity	NTU	95% of samples less than or equal to .3 Never to exceed 1	.294	.046	yes	Soil runoff Stream sediment

Note: Turbidity has no health effects, however, turbidity can interfere with disinfection and provide a medium for microbial growth. Maximum and average reported values are for the year 2019.

Disinfection Byproducts

Trihalomethanes

Substance	Units	MCL	Analysis Reported Value	Complies Yes/No	Source of Contaminate
Bromodichloromethane	PPM	None	.0110	yes	Disinfection Byproduct
Chloroform	PPM	None	.0376	yes	Disinfection Byproduct
Chlorodibromomethane	PPM	None	.0053	yes	Disinfection Byproduct
Bromoform	PPM	None	.0018	yes	Disinfection Byproduct
Total Trihalomethanes (TTHMs)	PPM	80	.0585	yes	Disinfection Byproduct

(Disinfection Byproducts continued on page 4)

Disinfection Byproducts (continued)

Haloacetic Acids

Substance	Units	MCL	Analysis Reported Value	Complies Yes/No	Source of Contaminate
Dichloroacetic Acid	PPM	None	ND	yes	Disinfection Byproduct
Trichloroacetic Acid	PPM	None	.0375	yes	Disinfection Byproduct
Dibromoacetic Acid	PPM	None	ND	yes	Disinfection Byproduct
Monochloroacetic Acid	PPM	None	ND	yes	Disinfection Byproduct
Total Haloacetic Acids (Total HAA5s)	PPM	60	.0755	yes	Disinfection Byproduct

Note: Results are from samples taken from 2019.

ND = .0030 ppm is minimum detection level

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. 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 microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Water Contacts

- Steve Dahl, City Administrator 836-2417
- Harold Burris-Public Works Foreman 836-2037
- Todd Brooks-Water Treatment 836-7301
- Billing and Customer Service 836-2417
- Oregon Drinking Water Program 1-541-731-4010
- EPA Safe Drinking Water Hotline 1-800-426-4791

Este informe contiene informacion importante sobre su agua potable.
Traduzcalo o hable con alguien que entiende esta informacion.