

Water Quality Report for water treated in 2018 *Lowell, Oregon*

Water Quality

This brochure is a snapshot of the quality of the water provided in 2018. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) standards. We are committed to providing you with this information because we want you to be informed. For more information about your water, call City Hall at 541-937-2158.

Special Population Advisory

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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 guidelines on how to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the EPA's Safe Drinking Water Hotline 800-426-4791.

Drinking Water Sources

The City of Lowell gets its source water from Dexter Lake Reservoir.

Contaminants in 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 EPA's 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 land or through the ground, it dissolves naturally occurring minerals, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before treatment include:

- *Microbial contaminants*, such as viruses and bacteria, which 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 & herbicides*, which may come from a variety of sources such as agriculture and residential use.
- *Radioactive contaminants*, which are naturally occurring.

- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also can come from gas stations, urban stormwater runoff, and septic systems.

Water Quality Monitoring

To ensure that tap water is safe to drink, the EPA prescribes regulations for public water systems. We treat our water according to the EPA's regulations that limit the amount of certain contaminants in water. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Source Water Assessment

The Susceptibility Analysis of the water utility reveals that the utility is well maintained and operated, and the sources of drinking water are generally protected from potential sources of contamination based on an evaluation of the available information. The susceptibility rank of the entire water system is high.

Public participation opportunities

If you would like to get involved, the Lowell City Council meets on the third Tuesday of every month at 7:00 pm at the Maggie Osgood Library, Lowell, OR. Any changes will be posted in the Post Office Lobby, City Hall and city web site.

Turbidity

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

Lead in Drinking Water

Lead can be harmful to human health even at low exposure levels. Lead is persistent, and it can bio-accumulate in the body over time. Young children, infants, and fetuses are particularly vulnerable to lead because the physical and behavioral effects of lead occur at lower exposure levels in children than in adults. The Center for Disease Control and Prevention recommends intervention when the level of lead in a child's blood is 10 micrograms per deciliter ($\mu\text{g}/\text{dL}$) or greater. It is important to recognize all the ways a child can be exposed to lead. Children are exposed to lead in paint, dust, soil, air, and food, as well as drinking water. Therefore, the amount of lead a child can be exposed to in drinking water before exceeding the recommended blood level depends upon the amount of lead coming from these other sources. A dose of lead that would have little effect on an adult can have a significant effect on a child. In children, low levels of exposure have been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells. Additional information is available from the EPA Drinking Water Hotline at 800-426-4791

Water Quality Data

The table in this report lists all the drinking water contaminants we detected during the 2018 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table are from testing done January 1 through December 31, 2018. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Substance	MCL	MCLG	Our Water	Range of Detection	Sample Date	Violation (Y or N)	Typical Source of Contamination
Microbiological Contaminants							
Total Coliform (positive samples/month)	1	0	0	NA	2018	N	Naturally present in the environment
Turbidity (NTU)	0.3	0	.29	NA	2018	N	Soil runoff
100% of the samples were at or below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.29. Any measurement in excess of 1 is a violation unless otherwise approved by the state.							
Disinfectant and Disinfection Byproducts, Stage 2							
Substance	MRDL	MRDLG	Our Water	Range of Detection	Sample Date	Violation (Y or N)	Typical Source of Contamination
Chlorine (ppm)	4	4	1.04	0.33 – 1.50	2018	N	Disinfection of water
TTHMs [Total Trihalomethanes] (ppb)	80	NA	13.4	NA	2018	N	By-product of drinking water disinfection
HAA5 [Five Haloacetic Acids] (ppb)	60	NA	7.8	NA	2018	N	By-product of drinking water chlorination
Total Organic Carbon (ppm)	TT	N/A	0.779	0.385-0.779	2018	N	Naturally occurring
Inorganic Contaminants							
Substance	MCL	MCLG	Level Detected	Range of Detection	Sample Date	Violation (Y or N)	Typical Source of Contamination
Nitrate (ppm)	10	10	ND	NA	2018	N	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits
Copper (ppm)	1.3 (AL)	0	0.3830	NA	2018	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	15 (AL)	0	4.0	NA	2018	N	Corrosion of household plumbing systems; Erosion of natural deposits
Cyanotoxins							
Substance	Vulnerable People	Aged 6 and older	Level Detected	Range of Detection	Sample Date	Violation (Y or N)	Typical Source of Contamination
Cylindrospermopsin (ppb)	0.7 ug/L	3.0 ug/L	ND	NA	2018	N	Naturally occurring
Total Microcystins (ppb)	0.3 ug/L	1.6 ug/L	ND	NA	2018	N	Naturally occurring

Terms & Abbreviations

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: 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.

RAA: Running Annual Average - the average of sample analytical results for all samples taken at a particular monitoring location.

LRAA: Locational Running Annual Average - the average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

N/A: not applicable

ND: non-detect

NTU: Nephelometric Turbidity Units – Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion/micrograms per liter (µg/L)

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.

MRDLG: Maximum Residual Disinfectant 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.

TT: Treatment Technique-required process meant to reduce contaminant level in drinking water

MPL – Maximum Permissible Level assigned by the State