

ABBREVIATIONS AND DEFINITIONS

nd = not detectable

na = not applicable

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

Maximum Contaminant Level (MCL) - 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 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.

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 contaminants.

Nephelometric Turbidity Unit (NTU) - Nephelometric turbidity unit is a measure of the clarity of water. Turbidity describes how cloudy the water is. The smaller the number is, the clearer the water. Turbidity has no health effects, however, it can interfere with disinfection and provide a medium for microbial growth.

Parts per million (ppm) or Milligrams per liter (mg/L) - One part per million is the same as one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter (mcg/L) - One part per billion is the same as one minute in 2,000 years, or a single penny in \$10,000,000.

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

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immune-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).

Why do I need a pressure regulator?

High water pressure, which is generally considered anything above 60 lbs., has some advantage, such as in firefighting systems. However, in the home plumbing system, it can be damaging because water, with a strong "push" behind it, can erode or wear away many materials and cause leaking water heaters, banging water pipes, dripping faucets, dishwasher and clothes washer noise and breakdown, and leaking water pipes. Therefore, water flowing at a rate in excess of that necessary to satisfy normal fixture or appliance demands becomes damaging, wasteful and reduces the life expectancy of equipment in the system. But, probably most important to the average homeowner is that it can add to the cost of water, energy and waste water bills. If you are experiencing pressure problems, please call the Water Department during business hours at 541-492-6730.

If you are interested in examining the 2015 Water Quality testing results, please contact Water Treatment Superintendent

Andrew Albee at 541-492-7032

City of Roseburg

2015 Water Quality Report



April 2016

**Providing our customers
with a safe and reliable
drinking water supply is
the highest priority of
the Water Division.**

www.cityofroseburg.org

The City of Roseburg gets its water from the North Umpqua River. Raw water is withdrawn from the North Umpqua at the City's treatment plant on Pioneer Way in Winchester where it is treated and pumped into the City's piping system. The City's water system serves approximately 29,000 people. The water system is comprised of approximately 191 miles of transmission and distribution mains, 13 reservoirs providing 10.7 million gallons of storage, and 17 pump stations. During 2015 1.736 billion gallons of treated water was produced at the Winchester Treatment Plant for an average production of 4.75 million gallons per day. The plant is operated 24 hours per day by a well trained and state certified staff. If you would like to learn more about the raw water pulled from the North Umpqua River, a source water assessment is available from the Oregon Department of Health Services.

Water treatment is the process of removing contaminants from the water. Treatment makes the water safe to drink because in nature, water is often not clean enough for human use. A four step process is used to provide safe, clean drinking water. These steps are coagulation, sedimentation, filtration and disinfection. A coagulant is added to the raw or untreated water to clump the particles of dirt together. These larger particles called "floc" then settle to the bottom of the basin in the sedimentation phase. The settled water then flows to the filters where any remaining particles are filtered out. A small amount of chlorine is added to the water in the final step to keep it safe in the distribution system as it travels to your home or business.

City of Roseburg
Public Works Department

Many of you have probably heard about the water issues in Flint, Michigan regarding elevated levels of lead which can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily associated with service lines and home plumbing. In Flint, a series of issues led to corrosion of the private piping. First, Flint changed their water source and began treating Flint River water. Bacteria samples showed unsafe levels, so additional chlorine was added. This led to elevated Trihalomethane levels. As you can see below, the City's water is well below acceptable levels of THM. What they didn't do was soften the water to offset the higher levels of chlorine and low pH, which led to the corrosion of lead service lines. We are fortunate in Roseburg to have such a pristine water source. The raw water pulled from the North Umpqua River does not have the same characteristics as the Flint River and therefore, does not have the same issues which ultimately caused lead to be leached into the drinking water. For more information on minimizing the risk of lead in drinking water visit www.epa.gov/safewater/lead.

All drinking water, including bottled water, may contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Our monitoring and testing has detected some constituents. They are listed in the table below. Please note that these are just the ones detected, not all the ones tested for. All of the tests are within acceptable standards, with one exception. The water system exceeded the MCL for Halo Acetic Acids in one sample out of 8 taken last year. The level detected was 0.062 mg/L which exceeds the maximum contaminant level by 0.002 mg/L. The City made operational changes and levels have not exceeded the standard since. This was not a violation but was taken seriously by staff.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791) or visiting the EPA website

TREATED WATER TEST RESULTS JANUARY 1, 2015 TO DECEMBER 31, 2015						
Parameter	Units	MCLG	MCL	Level Detected	Complies?	Major Source
<i>Turbidity, Bacteria, Inorganic Chemicals, Lead and Copper</i>						
Turbidity	NTU	na	TT 95% Under 0.3	.05 Max , .02 Avg 100% < MCL	Yes	Soil runoff
Total Coliform	% samples positive	3.2% of one months sample	<5% all samples	0 of 372 samples	Yes 3 resamples showed 0	Naturally present in the environment
Fecal Coliform	% samples positive	0%	0	0 of 372 samples	Yes	Human and animal fecal waste
Sodium Jul-14	ppm	na	20 Advisory	8.52	Yes	A metallic element found abundantly in compounds in nature
Lead Sep- 14	ppb	3	(AL) 15	0	Yes	Corrosion of household plumbing
Copper Sep-14	ppm	1.3	1.3	0.022	Yes	Corrosion of household plumbing
<i>By-Products of Drinking Water Chlorination</i>						
Total Trihalomethanes	ppb	0	80	Range 41.0 to 16 27.7 Average	Yes	By-product of disinfection
Halo Acetic Acids	ppb	0	60	Range 62 to 7.8 22.6 Average	Yes	By-product of disinfection