



CITY OF ROGUE RIVER PUBLIC WORKS DEPARTMENT

2016 WATER QUALITY REPORT

Dear Water Customers,

We are pleased to present to you our 2016 Annual Water Quality Report. This report is designed to inform you about the quality of water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect water resources. We are committed to ensuring the quality of your drinking water. This report presents water quality data and explains what it means.

Source of Water

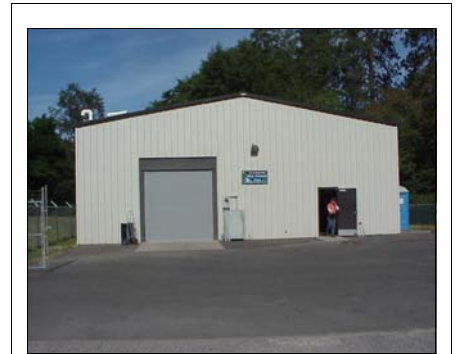
Our water sources are surface water drawn from the Rogue River and wells. During the drought of the 80's and early 90's the City of Rogue River realized that it could no longer supply an adequate amount of water from its wells. In 1994 the City built the water treatment plant which now has been in successful operation for 18 years. Depending on the time of year and customer demand, the water treatment plant presently produces between 300 thousand to 920 thousand gallons of water per day, and the wells produce up to an additional 400 thousand gallons. At the present time, the City will typically run the water treatment plant during the summer months when the demand for water is high. During the winter, when water demand is low and when the river is more difficult to treat the City will use five wells for its water supply.



Rogue River

Water Treatment

Water treatment is the process of cleaning the water to make it safe to drink. The Rogue River Water Treatment Plant process begins by drawing water from the Rogue River and adding a coagulant called Alum (Aluminum Sulfate), and a coagulant aid called Polymer. During the coagulation (gathers together) process, suspended sediments gather together into larger particles called "floc". The water then enters the clarification basins, where the floc is partially filtered out. The water then flows to multi-media filters. The two filters are made of layers of anthracite coal, sand, garnet, and gravel. The particles remaining from the clarification are removed during the filtration process. In the final step, Miox (mixed oxidant) is added to the water for disinfection and to keep it safe in the distribution system as it travels to the City's reservoirs or to your tap. At the current time, the only treatment used on the wells is the addition of a small amount of chlorine.



Water Treatment Plant



drinking water is safe and surpasses Federal and State requirements.

Your Water Supply Team

Plant operators are certified by the Oregon Health Authority Drinking Water Program (DWP) and are trained in all aspects of water distribution and treatment. They are required to complete continuing education classes in order to maintain their certification.

Monitoring and Reporting Requirements

The Public Works Department routinely monitors for contaminants in your drinking water according to Federal and State laws. The data within this report comes from the monitoring of our drinking water supply for the period of January 1 to December 31, 2016.

We are pleased to report that our

All drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily indicate that water poses a health risk.

Federal and State regulations include procedures and schedules for monitoring water from the source to the tap. The State Drinking Water Program ensures that public water systems comply with all regulations, follow monitoring schedules, and report monitoring results. The City monitors the physical, chemical, and microbiological characteristics of your drinking water and is in compliance with these regulations.

Storage and Distribution

Treated water is pumped from the plant and wells to two reservoirs with a combined storage capacity of 1.7 million gallons. From the reservoirs the water is gravity fed to the distribution system. The distribution system is made up of 2" to 10" pipes with an approximate total length of 13 miles.

Once the water is in the reservoirs, it then gravity flows to homes and businesses in town as it is needed. In order to meet the continuing demand for water, the City is constantly upgrading its system. The City has a 20-year Water Master Plan which details future water system improvements. These improvements will occur over the coming years. The City recently in 2016 did a water line addition/ improvement to Burgland Street to eliminate a dead end, added a fire hydrant and looped the distribution system water supply.

NTU: Nephelometric Turbidity Unit. Unit of measure used to describe water clarity. The smaller the number, the clearer the water.	ppm: parts per million. This is the same as mg/l. An example of 1 part per million is one drop of water in 22 gallons.
Contaminant: Any substance found in water; however, not all contaminants are harmful.	ppb: parts per billion. One ppb is approximately equal to 1 drop of water in a swimming pool that is 30' in diameter and 4' deep (21,195 gal. of water).
@: at the detection limit. ND@ 0.0 ppm or parts per million.	ND@: Not detected at a given range because laboratory instruments can only detect to certain minimum levels.
NR: Not required this year	ND: No data collected.
MFL: Million Fibers per Liter	UR: Unregulated Contaminant. A substance in drinking water that is not regulated by EPA but is monitored for other purposes.

More information about contaminants and potential health effects can be obtained by calling the following numbers:

EPA, Safe Drinking Water Hotline: **1-800-426-4791**

Oregon Health Authority, DWP: **1-971-673-0405**

Jackson County Environmental Health Dept.: **541-774-8206**

2016 water usage in gallons:

January	9,095,000
February	8,310,000
March	8,915,000
April	11,734,000
May	11,992,000
June	14,168,000
July	17,832,000
August	15,279,000
September	12,240,000
October	10,369,000
November	8,932,000
December	11,928,000

Acronyms and Key definitions

Maximum Contaminant Levels (MCLs) are set at very stringent amounts. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the **MCL** for a lifetime to have a one-in-a-million chance of contracting the described health effect.

Maximum Contaminant Level Goal (MCLG). The level of a contaminant in drinking water for which there is no known or expected risk to health.

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

The following tables show that our system had no contaminant violations. We're proud that your drinking water meets or exceeds all Federal and State requirements.

Results of Turbidity, Microbiological Analysis & Disinfection By-Product Residuals of Treated Water After Disinfection <i>Results meet or surpass State and Federal drinking water regulations</i>				
Variable	Maximum Amount Tested	Maximum Contaminant Level (MCL) Maximum	Contaminant Level Goal (MCLG)	Source of Contaminant
Physical Characteristic Testing Turbidity (Surface Water)	0.18 Daily average: 0.04	0.30 NTU	<.1 NTU	Soil erosion and stream sediment
Microbiological Testing Total Coliform Bacteria	Zero positive tests	Zero positive tests	Zero positive tests	Soil bacteria and animal feces
<i>E. coli</i>	Zero positive tests	Zero positive tests	Zero positive tests	Animal feces
Disinfection Residual	All samples had detectable chlorine residual	4.0 mg/l	NR	Chlorine is used as a disinfectant in the water treatment process
Trihalomethanes (TTHM)	36.5 ppb	80 ppb	NA	Drinking water chlorination by-products
Haloacetic Acid (five) (HAA5) *	23.6 ppb	60 ppb	NA	Drinking water chlorination by-products

Turbidity and NTUs

Turbidity is regulated because it can provide a medium for bacterial growth. Turbidity or (cloudiness) of water is measured in NTUs. The filtration plant consistently treats water that surpasses Federal and State standards. Well water is not required to be measured for turbidity.

Total Coliform Bacteria

Testing for these bacteria after disinfection helps confirm the effectiveness of the disinfection process. (Bacteria may have been present in the source water.) Total coliform bacteria are also indicators of possible contamination that might occur after treatment.

Chlorine Residual

Federal and State drinking water regulations require detectable disinfectant (chlorine) residual throughout our distribution system. Water entering the City's distribution system from the Water Treatment Plant has a average chlorine residual of 0.50 to 1.40 parts per million.

“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 (1-800-426-4791).”

**Results of Lead and Copper Sampling
at Residential Water Taps ***

Results meet or surpass current State and Federal drinking water regulations

Variable	Amount Detected	Maximum Contaminant Level (MCL) Maximum	Contaminant Level Goal (MCLG)	Source of Contaminant
Copper	90 percent of the homes tested had copper levels less than 0.60 parts per million	Action Level: 90% of the homes tested must have levels less than 1.3 parts per million	1.3 parts per million	Corrosion of household plumbing
Lead	90 percent of the homes tested had lead levels less than 0.0033 parts per million	Action Level: 90% of the homes tested must have lead levels less than 0.015 parts per million	0 parts per million	

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 Rogue River 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 safe steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://water.epa.gov/drink/hotline/index.cfm>

* Note: Lead & Copper were tested for in 2013 (the next round of sampling will be in 2016)

RESULTS OF NUTRIENT ANALYSIS

*Samples are collected at the Water Treatment Plant and Wells
Results meet or surpass State and Federal drinking water regulations.*

Variable	Maximum Amount Tested	Maximum Contaminant Level (MCL) Maximum	Contaminant Level Goal (MCLG)	Source of Contaminant
Nutrients Nitrate Nitrogen	ND@ 0.2 parts per million- Water Treatment Plant	10 parts per million	10 parts per million	Runoff from fertilizer use: leaching from septic tanks, sewage; erosion of natural deposits.
Nitrate Nitrogen	1.03 parts per million - Wells	10 parts per million	10 parts per million	

NOTES:

Nutrients can support microbial growth such as bacteria and algae. Nitrate and nitrite levels in excess of the standards can contribute to methemoglobinemia (blue baby syndrome) in infants less than six months old. In adults, excessive levels can contribute to kidney or spleen problems.

We at the Rogue River Public Works Department strive to provide top quality water to every tap. We ask that all our customers help us protect our water source, which is the heart of our community, our way of life and our children's future. If you have any questions about this report or your water source, please contact City Engineer/Public Works Director John Krawczyk at 582-4401 ext 103, stop by City Hall at 133 Broadway, PO Box 1137, Rogue River, Oregon 97537 or visit www.cityofrogueriver.org. We want all of our valued customers to

be informed about their water quality.