



2016 RUSTLEWOOD WATER QUALITY REPORT

Water quality reports are to inform you, the consumer, about water quality, characteristics, and treatment of the Rustlewood drinking water. This annual publication complies with Federal law requiring all water utilities to provide water quality information to customers each year and is provided in addition to other notices required by law.

This report includes mandatory information regulated by State Department of Health (DOH) as well as the Environmental Protection Agency (EPA), and also facts and details unique to the Rustlewood water system. We support the consumer's right to know the results of our water quality monitoring and encourage public participation in decisions which affect your drinking water. More extensive information of water quality testing results is available online on the Washington Department of Health (DOH) website at fortress.wa.gov/doh/eh/portal/odw/si/Intro.aspx. To find data on the water system type in Rustlewood for water system name or 75027 under water system ID.

The State-regulating agency is DOH and the Federal agency is EPA. Our water is monitored and tested by certified water treatment personnel and also regularly tested through certified laboratories. DOH regulators routinely monitor our compliance and testing procedures to *ensure* safe delivery of water to our customers.

Rustlewood water meets or exceeds EPA water quality requirements!

Security and emergency response are essential in proper management of our drinking water system. We have an emergency generator that can provide power to our wells and booster pumps in the event of a power outage.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune systems disorders, and 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 and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline at (800) 426-4791 or on the web at <http://www.epa.gov/safewater>.

WATER SOURCE FOR RUSTLEWOOD

The source of Rustlewood water is several groundwater wells located at the water system facility at the top of the subdivision. The only treatment provided to the water is a small amount of chlorine that is added to maintain disinfection in the distribution system. The reservoirs and pressure tank are located on the same parcel.

POTENTIAL CONTAMINANTS IN DRINKING WATER

Potential contaminants may include the following:

- Microbial contaminants, such as viruses, bacteria, giardia, and cryptosporidium, which may come from wildlife.
- Inorganic contaminants, such as salts and metals, which can occur in nature.
- Pesticides and herbicides come from a variety of sources such as farming, home, and storm water runoff.
- Radioactive contaminants which can occur naturally.
- Organic chemical contaminants, including synthetic and volatile organic chemicals which are by-products of industrial processes, solvents, petroleum production, or from gas stations, storm water runoff and septic systems.

WATER QUALITY MONITORING RESULTS

The EPA requires that public water systems report on contaminants detected in their water supply. Rustlewood monitors over 100 of these. In addition, the County also collects samples from various homes to monitor for coliform bacteria. Lead and copper samples are taken from consumer taps. We also collect samples at the source. All detected contaminants were below Environmental Protection Agency (EPA) maximum contaminant levels (MCL).

Parameter	Year of Test	Result	MCL	In Compliance	Comments
Nitrate	2016	0.20 mg/L	10 mg/L	YES	result is at non-detect level
<i>Manganese</i>	<i>2016</i>	<i>0.10 mg/L</i>	<i>0.05 mg/L</i>	<i>NO</i>	<i>Aesthetic Concern Only</i>
Radium 228	2015	1 pCi/L	5 pCi/L	YES	result is at non-detect level
Lead	2016	0.002 mg/L	.015 mg/L	YES	90 th % of 5 Required Tests
Copper	2016	0.33 mg/L	1.3 mg/L	YES	90 th % of 5 Required Tests
Chloroform	2014	0.00239 mg/L		YES	Disinfection By-Product
Bromodichloromethane	2014	0.00087 mg/L		YES	Disinfection By-Product
Total Trihalomethane	2014	0.00326 mg/L	0.08 mg/L	YES	Disinfection By-Product
Dichloroacetic Acid	2014	0.00178 mg/L		YES	Disinfection By-Product
Trichloroacetic Acid	2014	0.00194 mg/L		YES	Disinfection By-Product
HAA(5)	2014	0.00372 mg/L	0.06 mg/L	YES	Disinfection By-Product

- No SOC's (Pesticides) were detected in 2012 (31-tested).
- No SOC's (Herbicides) were detected in 2012 (13-tested).
- 12 Coliform bacteria tests in 2016 met EPA standards.
- In 2012 43 of 46 VOC's tested were non-detect. The three with results were DBP's listed above.

Definitions & Abbreviations

Synthetic Organic Compounds (SOC's): A class of man-made contaminants including herbicides, pesticides, and other chemicals that come from agriculture, urban storm water runoff, or industrial activities.

Volatile Organic Compounds (VOC's): Chemical solvents or cleaners (and their byproducts) that are derived from petroleum products; man-made contaminants from industrial processes.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water.

mg/L (Milligrams per liter): Approximately equal to parts per million (PPM) or 1 milliliter per 1,000 liters of water.

ug/L (Micrograms per liter): Approximately equal to parts per billion (PPB) or 1 milliliter per 1,000,000 liters of water.

pCi/L (Picocuries per liter): A measure of radioactivity.

Disinfection Byproducts (DBP, THM, & HAA5)

Drinking water disinfection is one of the major public health advances of the past century. One hundred years ago typhoid and cholera epidemics were common throughout American cities. Disinfection was a major factor in reducing epidemics, and it is an essential part of drinking water treatment. However, disinfectants can react with naturally occurring materials in the water to form unintended organic and inorganic byproducts which may pose health risks. A major challenge for water suppliers is how to balance the risks from microbial pathogens and disinfection byproducts. It is important to provide protection from these microbial pathogens while insuring decreasing health risks to the population from disinfection byproducts (DBP's). The most common DBP's formed when chlorine is used are trihalomethanes (THM's), and haloacetic acids (HAA5's).

Manganese in water

There is a Secondary Maximum Contaminant Level (SMCL) of 0.05 mg/l for Manganese. A SMCL is a limit for water quality parameters that could cause an aesthetic concern (taste, odor, or color) but not a health concern. Rustlewood exceeds the SMCL for manganese. Manganese in water can cause black staining of water fixtures or black sediment in water. Mason County monitors manganese levels annually. Because manganese is an aesthetic concern and not a health concern, Washington DOH does not require the County to install treatment systems to remove the manganese. Occasionally staff will flush the water mains to remove any buildup of sediment in the system which helps clean out the manganese in the system.

WATER USE EFFICIENCY RULE

Public water systems are subject to the “Water Use Efficiency Rule”. Along with several other requirements, this rule requires distribution system leakage be reduced to 10% or less. The Rustlewood water system does not have water service meters so the County is unable to determine system leakage. The County has applied to USDA Rural Development for funding to install an Automated Meter Reading (AMR) system with meters for all services so the County can comply with this rule. If the County received funding construction would occur in late 2017 or 2018. We request the public’s assistance in reporting to the Public Works office, (360)-427-9670 x450, any known leaks or other un-metered losses from our drinking water system.

CROSS-CONNECTION / BACKFLOW PREVENTION

What is a cross-connection? A cross-connection, as defined by the Washington Administration Code, is “any actual or potential physical connection between a public water system or the consumer’s water system and any source of non- potable liquid, solid, or gas that could contaminate the potable (drinking) water supply by backflow.”

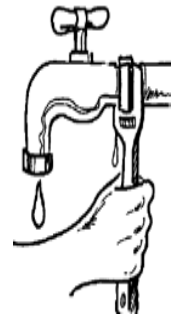
What is my responsibility as a consumer? As property owners, it is your responsibility to eliminate cross-connections that pose a potential health hazard by ensuring proper installation of a backflow prevention assembly.

What is a Backflow Prevention Assembly? A backflow prevention is a device that is installed somewhere in the consumer’s water system that prevents contamination from entering the potable water supply. These devices are normally required and found on fire suppression systems and in-ground irrigation systems.

WATER CONSERVATION

Leaky Faucets

A leaky faucet is frequently the result of a bad washer. The washer on a sink is typically located under the handle and relatively easy to replace. It does require that water be shut off under the faucet. Check with local hardware store or home centers. If you don't feel comfortable making the repair yourself, a plumber may be your best option. Remember, even if you have to pay a plumber to fix the leak, you will end up saving money in the long run.



Toilet Leaks

Toilet leaks can range from small to large, constant to random. Many are even silent. Even a small, silent leak can easily cost \$100 per year in water and sewer costs. Most toilet leaks are relatively easy to fix. If you have a leak there are a number of possible causes. Toilet repair kits with instructions are available at hardware stores and home centers.

WATER SYSTEM MANAGEMENT

Mason County Public Works owns and operates the Rustlewood Water System. Water operators certified by the Washington Department of Health operate and maintain the water system. To report a problem with your water service, billing statement or to report suspected leaks during regular office hours (8:00 AM – 4:30 PM, Monday – Friday) call 360-427-9670 x199. For after-hours emergencies call MACECOM at 360-426-4441.

QUESTIONS? Contact Mason County Public Works at (360) 427-9670 x199.