

Wilderness Rim Association

2020 Annual Water Quality Report

Dear Wilderness Rim Association Member:

In response to requirements of the Federal Safe Drinking Water Act, Wilderness Rim Association (WRA; Association) is providing you with our 2020 Water Quality Report. This report, which is required annually by the United States Environmental Protection Agency (EPA) and the Washington State Department of Health (DOH), is distributed to all members of the Association. This report is designed to inform you about the quality of the water and services that are provided to you every day. This report describes our Association, the quality of our service area's drinking water, and the programs that protect the high quality of our water sources.

We are pleased to report that the water provided by the Association is **safe, clean** and all contaminate levels are **far below established safety requirements**. Please feel free to contact the Agynbyte office at 425-747-0146 or service@agynbyte.com or water@wildernessrim.org if you have any questions regarding the information provided in this report, or if you need any additional information.

Wilderness Rim Association Board of Trustees

1. Wilderness Rim Association Profile

Wilderness Rim Association (WRA; Association) was incorporated in 1967. The WRA is a non-profit, consumer-owned association, and is administered by a Board of Trustees. Sallal Water Association (Sallal) provides water to Wilderness Rim, while maintenance and operation of the Association's water system are provided on a contractual basis by a certified water system operator. The City of Seattle's Chester Morse Reservoir, located about 2 miles from Wilderness Rim, was the initial source of the Association's water for approximately 16 years. In 1983 and 1985, two deep wells were drilled inside the Seattle Watershed. In 1986, Sallal began providing water from these wells to the Association.

2. Public Water System Information

Public Water System Name and Address – Wilderness Rim Association, 16913 424th Avenue SE, North Bend, Washington, 98045

Public Water System Identification Number – 96878 M

Public Water System Designees – Roger Lillejord (Water System Operator; 425-829-6425), Nikka Rose (Sallal Water Association; Manager; 425-888-3650), and Mike Kenyon (Wilderness Rim Association Water Utilities Chair; 425-747-0146 Agynbyte) Wilderness Rim Association Water Committee Meetings – 2nd Wednesday, 7:00PM, Cascade Park Chalet, 16913 424th Avenue SE, North Bend, Washington, 98045.

3. Drinking Water Source and Source Protection Information

Our water comes from two groundwater wells maintained by the Sallal. The wells (Rattlesnake 1 and 2; DOH Source Numbers S01 and S02) are located on the northwest flank of Rattlesnake Ridge, within the City of Seattle Watershed. Both of these wells are equipped with 100 horsepowerline shaft motors and produce 800 gallons per minute each. Sallal adds disinfectant to the groundwater source. Sallal provides water to the Wilderness Rim Association as a wholesale member through two metered interties. Information on our source water and any known contaminants found within the source area can be can be obtained from Sallal (425-888-3650) or from the DOH Source Water Assessment Program (<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/SourceWater/SourceWaterProtection/assessment>).

4. Required Information from the U.S. Environmental Protection Agency and Washington Department of Health on the Potential for Health Concerns Relating to Drinking Water

The sources of drinking water (both tap water and bottle water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. Contaminants that may be present in source water include microbial contaminants (such as viruses, parasites, and bacteria); inorganic contaminants (such as salts and metals); pesticides and herbicides; organic chemical contaminants (such as synthetic and volatile organic chemicals); and radioactive contaminants (that may be of natural occurrence or the result of industrial activities). The presence of contaminants does not necessarily indicate that the water poses a health risk (a contaminant is defined as any substance in water). Not all substances are harmful. Information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as people undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency and Centers for Disease Control guidelines on appropriate means to less the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline and on the EPA website.

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing; pipes in the Rim that carry water to homes are made of polyvinyl chloride – PVC). The more time water has been sitting in pipes, the more dissolved minerals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children. If you are concerned about lead in your water, you may want to have your water tested. Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline or online at <http://www.epa.gov/safewater/lead>.

To ensure that tap water is safe to drink, the EPA adopts regulations setting the water quality standards for public water systems. The Food and Drug Administration is responsible for providing the same level of public health protection regarding contaminants in bottled water. This water quality report provides information on your water sources, water quality, programs, and projects related to your drinking water. It is required by the Federal Safe Drinking Water Act and will help you make decisions for yourself and your family about an important subject – your drinking water.

Maximum contaminant levels (MCLs) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-million chance of having the described health effect.

5. Important Definitions

Color units: Measurement of color of water that indicates the level of impurities in the water.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. If the sample exceeds the MCL, then the DOH must be contacted with this information.

Mg/L: Milligrams per liter. One mg/liter equals 1 part per million.

Not Detected: Laboratory analysis indicates that the constituent is not present at the established level of detection.

NTU: Nephelometric Turbidity Unit. A measure of turbidity or the degree to which light is scattered by particles suspended in a liquid.

Parts per billion: One part-per-billion corresponds to one second in 32 years or a single penny in \$10,000,000.

Parts per million: One part-per-million corresponds to one second every 12 days or a single penny in \$10,000.

SRL: State Reporting Level. Minimum reporting level required by the DOH.

Trigger: The DOH drinking water response level. If the sample exceeds the trigger level, additional samples must be taken.

Umhos/cm: A unit of measure of electrical conductivity. It is used to measure the concentration of soluble salts in water.

6. Water Quality Testing Results

The Association, through its Washington State Department of Health (WDOH)-licensed operator, maintains and operates your water distribution system. The EPA sets water containment standards. The WDOH enforces EPA standards. Sallal collects the well source samples and state-certified laboratories test the water according to WDOH standards and procedures.

Sallal is responsible for monitoring source water which includes sampling and testing for organic contaminants, inorganic contaminants, herbicides, gross alpha/beta radioactivity, and lead and copper in accordance with WDOH testing schedules. The Association samples for lead, copper and asbestos in accordance with WDOH testing schedules. Coliform bacteria is monitored by the Association on a monthly basis and other monitoring (like e-coli) is conducted as required or warranted.

Coliform

Testing for Coliform is required by WDOH multiple times per month. Both Sallal and the Association participate in the sampling process. If tests come back above certain state mandated levels, Sallal or the Association is required to retest.

In September 2019, while performing routine sampling Sallal detected increased levels of Coliform at a testing location near Mt. Si. In accordance with WDOH requirements, this triggered resampling and testing of the entire water system, including tests for E-coli. This resampling process detected E-coli in Wilderness Rim. Consequently, on Wednesday, September 18, 2019, the entire Sallal Water distribution system was placed on a Boil Water Advisory. Further testing results on Friday, September 20th, 2019, showed that E. coli was found in Well #2 (one of two wells supplying the Association) which was immediately taken offline.

Automatic chlorination systems were installed on both wells by Wednesday, September 25, 2019 and fully automatic chlorination began on Thursday, September 26, 2019.

On the afternoon of Wednesday, October 2, 2019 the Boil Water Advisory was lifted as water samples were then testing negative for coliform bacteria or E. coli in the system.

If you would like to see the latest results of Association Coliform testing, please visit

<https://fortress.wa.gov/doh/odwsentry/portal/odw/si/Intro.aspx> and search for the following Water System ID: 96878M

Lead/Copper

Testing for lead and copper is required by WDOH every three years. The Association last had samples tested July of 2018. New samples will be collected and tested in June 2021 and results will be updated accordingly.

Lead and copper metal concentrations can increase when water contacts plumbing materials containing lead, brass, and copper. Domestic plumbing is the primary source of these metals, and drinking water regulations require that the water samples used for testing must be in contact with domestic plumbing for at least 6 hours. Regular use at each faucet greatly reduces leaching from lead and copper plumbing into tap water. In accordance with WDOH regulations the Association takes samples from a number of representative homes. Instead of the Maximum Contaminant Level, the EPA

has set the following action level: If more than 10 percent of the first draw samples are greater than 0.015 mg/L for lead or 1.30 mg/L for copper, the water system is required to optimize treatment to minimize the levels of lead and copper.

The 2018 results are below:

Inorganic Chemicals (IOCS) LCR-LEAD COOPER ,Sample for Wilderness Rim Collected in July, 2018.

Analyte DOH Num	Analyte Name	Result Range	Result Quantity	Maximum Contaminant Level	Units
0023	COPPER	EQ	0.1300	1.3	mg/L
0009	LEAD	LT	0.0010	.015	mg/L
0023	COPPER	EQ	0.0960	1.3	mg/L
0009	LEAD	LT	0.0010	.015	mg/L
0023	COPPER	EQ	0.1500	1.3	mg/L
0009	LEAD	LT	0.0010	.015	mg/L
0009	LEAD	LT	0.0010	.015	mg/L
0023	COPPER	LT	0.0200	1.3	mg/L
0023	COPPER	EQ	0.0660	1.3	mg/L
0009	LEAD	LT	0.0010	.015	mg/L
0023	COPPER	EQ	0.1000	1.3	mg/L
0009	LEAD	LT	0.0010	.015	mg/L
0009	LEAD	EQ	0.0018	.015	mg/L
0023	COPPER	EQ	0.1900	1.3	mg/L
0023	COPPER	EQ	0.0260	1.3	mg/L
0009	LEAD	LT	0.0010	.015	mg/L
0009	LEAD	EQ	0.0013	.015	mg/L
0023	COPPER	EQ	0.0950	1.3	mg/L
0009	LEAD	EQ	0.0021	.015	mg/L
0023	COPPER	EQ	0.2200	1.3	mg/L

Inorganic Chemicals – Abestos

Testing for abestos is required by WDOH every 9 years years. Sallal last had samples tested October 2019. New samples will be collected and tested in 2028.

The 2019 results are below:

Contaminant (units)	Results	Units	SRL	MCL
Asbestos	<0.12	MFL	0.2	7.0

Inorganic Chemicals – Nitrites and Nitrates

Sallal is responsible for sampling and testing in accordance with the WDOH sampling schedule. The last samples were collected and tested in March 2020. Results of the 2020 samples are below:

Inorganic Chemicals (IOCS) Report for Nitrates (Report for Rattlesnake #2 Well for Samples Collected on March 25, 2020.

Contaminant (units)	Results	Units	SRL	Trigger	MCL
Total Nitrate/Nitrite	<0.2	ppm	0.5	5	10

TABLE 1. Inorganic Chemicals Report for Rattlesnake #1 Well for Samples Collected on September 28, 2016.

Contaminant (units)	Results	Units	SRL	Trigger	MCL	Exceeds	
						Trigger?	MCL?
EPA Regulated							
Arsenic	<0.002	mg/L	0.002	0.0	0.0	No	No
Barium	<0.1	mg/L	0.1	2	2	No	No
Cadmium	<0.002	mg/L	0.002	0.005	0.005	No	No
Chromium	<0.01	mg/L	0.01	0.1	0.1	No	No
Mercury	<0.0005	mg/L	0.0005	0.002	0.002	No	No
Selenium	<0.005	mg/L	0.005	0.05	0.05	No	No
Beryllium	<0.003	mg/L	0.003	0.004	0.004	No	No
Nickel	0.04	mg/L	0.04	0.1	0.1	No	No
Antimony	<0.005	mg/L	0.005	0.006	0.006	No	No
Thallium	<0.002	mg/L	0.002	0.002	0.002	No	No
Cyanide	<0.05	mg/L	0.05	0.2	0.2	No	No
Fluoride	<0.2	mg/L	0.2	2	4	No	No
Nitrite – N	<0.2	mg/L	0.5	0.5	1	No	No
Nitrate – N	<0.2	mg/L	0.5	5	10	No	No
Total Nitrate/Nitrite	<0.4	mg/L	0.5	5	10	No	No
USEPA Regulated (Secondary)							
Iron	<0.1	mg/L	0.1	0.3	0.3	No	No
Manganese	<0.01	mg/L	0.01	0.05	0.05	No	No
Silver	<0.01	mg/L	0.01	0.1	0.1	No	No
Chloride	1	mg/L	20	250	250	No	No
Sulfate	2	mg/L	10	250	250	No	No
Zinc	<0.2	mg/L	0.2	5	5	No	No
State Regulated							
Sodium	<5	mg/L	5				
Hardness	31	mg/L	10				
Conductivity	48	umhos/cm	10	700	700	No	No
Turbidity	0.5	NTU	0.1	1		No	No
Color	<5.0	Color units	5	15	15	No	No
Total Dissolved Solids	NA	mg/L	150	500	500	No	No
State Unregulated							
Lead	<0.002	mg/L	0.002				
Copper	<0.02	mg/L	0.02				

Color units: Measurement that indicates the level of impurities in the water.

MCL: Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. If the sample exceeds the MCL, then DOH must be contacted with this information.

mg/L: Milligrams per liter. One mg/liter equals 1 part per million.

NTU: Nephelometric Turbidity Unit. It is a measure of turbidity or the degree to which light is scattered by particles suspended in a liquid.

SRL: State Reporting Level. Minimum reporting level required by DOH.

Trigger: DOH drinking water response level. If the sample exceeds the trigger level, additional samples must be taken.

Umhos/cm: A measure of electrical conductivity. It is used to measure the concentration of soluble salts in water.

Table 2. Inorganic Chemicals Report for Rattlesnake #2 Well for Samples Collected on September 28, 2016.

Contaminant (units)	Results	Units	SRL	Trigger	MCL	Exceeds	
						Trigger?	MCL?
EPA Regulated							
Arsenic	<0.002	mg/L	0.002	0.0	0.0	No	No
Barium	<0.1	mg/L	0.1	2	2	No	No
Cadmium	<0.002	mg/L	0.002	0.005	0.005	No	No
Chromium	<0.01	mg/L	0.01	0.1	0.1	No	No
Mercury	<0.0005	mg/L	0.0005	0.002	0.002	No	No
Selenium	<0.005	mg/L	0.005	0.05	0.05	No	No
Beryllium	<0.003	mg/L	0.003	0.004	0.004	No	No
Nickel	0.04	mg/L	0.04	0.1	0.1	No	No
Antimony	<0.005	mg/L	0.005	0.006	0.006	No	No
Thallium	<0.002	mg/L	0.002	0.002	0.002	No	No
Cyanide	<0.05	mg/L	0.05	0.2	0.2	No	No
Fluoride	<0.2	mg/L	0.2	2	4	No	No
Nitrite – N	<0.2	mg/L	0.5	0.5	1	No	No
Nitrate – N	<0.2	mg/L	0.5	5	10	No	No
Total Nitrate/Nitrite	<0.4	mg/L	0.5	5	10	No	No
USEPA Regulated (Secondary)							
Iron	<0.1	mg/L	0.1	0.3	0.3	No	No
Manganese	<0.01	mg/L	0.01	0.05	0.05	No	No
Silver	<0.01	mg/L	0.01	0.1	0.1	No	No
Chloride	1	mg/L	20	250	250	No	No
Sulfate	2	mg/L	10	250	250	No	No
Zinc	<0.2	mg/L	0.2	5	5	No	No
State Regulated							
Sodium	<5	mg/L	5				
Hardness	31	mg/L	10				
Conductivity	48	umhos/cm	10	700	700	No	No
Turbidity	0.5	NTU	0.1	1		No	No
Color	<5.0	Color units	5	15	15	No	No
Total Dissolved Solids	NA	mg/L	150	500	500	No	No
State Unregulated							
Lead	<0.002	mg/L	0.002				
Copper	<0.02	mg/L	0.02				

Color units: Measurement that indicates the level of impurities in the water.

MCL: Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. If the sample exceeds the MCL, then DOH must be contacted with this information.

mg/L: Milligrams per liter. One mg/liter equals 1 part per million.

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SRL: State Reporting Level. Minimum reporting level required by DOH.

Trigger: DOH drinking water response level. If the sample exceeds the trigger level, additional samples must be taken.

Umhos/cm: A measure of electrical conductivity. It is used to measure the concentration of soluble salts in water.

7. Water Use Efficiency Rule and Association Water Use

In 2003, the Washington State Legislature passed Engrossed Second Substitute House Bill 1338, known as the Municipal Water Law. The law established that all water suppliers must use water more efficiently in exchange for water right certainty and flexibility to help meet future demand. The Legislature directed the Department of Health to adopt an enforceable, regulatory program called the Water Use Efficiency Rule, which became effective on January 22, 2007.

For 2020, the Association used approximately 28,457,018 gallons of water. Association members have routinely been sensible regarding their water use.

8. Tips to Conserve Water

- Wash your car with a bucket of soapy water and use a nozzle to stop the flow of water from the hose between rinsing.
- Clean driveways and sidewalks with a broom instead of the hose.
- Check for leaks in outdoor faucets, pipes, and hoses.
- Prevent the creation of leaks by shutting off and draining water lines to outside spigots in the winter.
- Cover your spa or pool to reduce evaporation. An average size pool left uncovered can lose as much as 1,000 gallons of water per month.
- Check your spa/pool for leaks and have them repaired promptly.
- Periodically turn off the water in your house and check your water meter to see if it is still registering water use. If so, you have a water leak.

9. How You Can Help

Association members are needed to keep a watch on the water. Your questions, concerns, and observations are an important part of the Association's water quality assurance. Only Association staff and local fire departments are authorized to use fire hydrants. Members who notice unauthorized use of a fire hydrant should contact the Association office immediately.

10. Additional Resources

- Washington State Department of Health
<http://www.doh.wa.gov/ehp/dw>
- U.S. Environmental Protection Agency Drinking Water Hotline and Website
1-800-426-4791
<http://www.epa.gov/safewater>