Rockwood Water
Peoples' Utility District
2019 Drinking Water Quality Report

Consumer Confidence Report 2019

rwpud.org/ccr2019.pdf

Rockwood Water
People's Utility District

Message to Our Customers

The Board of Directors and staff of Rockwood Water People's Utility District are happy to provide Rockwood Water's annual Water Quality Report for 2019. The report highlights the care with which Rockwood Water personnel manage the assets and drinking water quality. We are pleased the drinking water we provide is the best, meeting both state and federal drinking water standards and regulations. Our future planning takes that responsibility very seriously in any decision we make.

Rockwood Water's Mission Statement is simple and drives everything we do: To strive for total customer satisfaction by providing the safest and highest quality water at the most responsible cost; and to professionally manage Rockwood Water to assure its financial health for the ongoing protection of our customers.

Because our focus is to make sure all of our customers are treated equitably and with utmost regard, future planning anticipates avoiding the significant future charges being projected by the City of Portland due to their construction of the Bull Run Water Treatment Plant. Portland is projecting a 28% increase in the purchase of water by 2026 with that cost increasing another 290% by 2030. By developing an independent groundwater supply with state of the art water treatment, the District will be able to avoid those significant costs and continue to provide the best water quality to our customers at affordable rates into the future.

Consumers trust their drinking water will always be there: clean, safe, reliable and plentiful. Gaining and maintaining that trust is Rockwood Water's highest mission. Rockwood Water personnel strive to ensure the water being delivered is of the highest quality without interruption. We monitor, sample and test for contamination; routinely flush the distribution system to provide the freshest water; protect our groundwater sources of supply; and maintain, repair and replace our infrastructure.

This due diligence happens 24 hours a day, 365 days a year. Your health and wellbeing are our primary concern. We hope you take the time to access our website to review the Water Quality Report. Explore the site and learn what we are doing to protect water quality and to ensure the continuous availability and supply of affordable water. We are proud to be of service! If you have any questions about the Water Quality Report or Rockwood Water, please contact us at 503-665-4179 or email customerservice@rwpud.org.

Sincerely,

Brian R. Stahl
General Manager

Public Involvement Opportunities

Rockwood Water provides a variety of public information, public involvement and community outreach opportunities.

If you have questions about our programs, public meetings, or capital projects, please contact us at 503-665-4179 or visit **rwpud.org** to learn more.

Translation

This report contains important information and should be translated. Do you need this document translated into another language? Go to **rwpud.org/water-quality-report-2019** and use the Google Translator button to choose from more than 100 languages.

Este informe contiene información importante y debe traducirse. ¿Necesita este documento traducido a otro idioma? Ve a rwpud.org/water-quality-report-2019 y usa el botón Google Translator para elegir entre más de 100 idiomas.

Этот доклад содержит важную информацию и должен быть переведен. Вам нужен этот документ, переведенный на другой язык? Перейдите на rwpud.org/water-quality-report-2019 и используйте кнопку Google Translator, чтобы выбрать из более чем 100 языков.

Drinking Water Sources and Protection

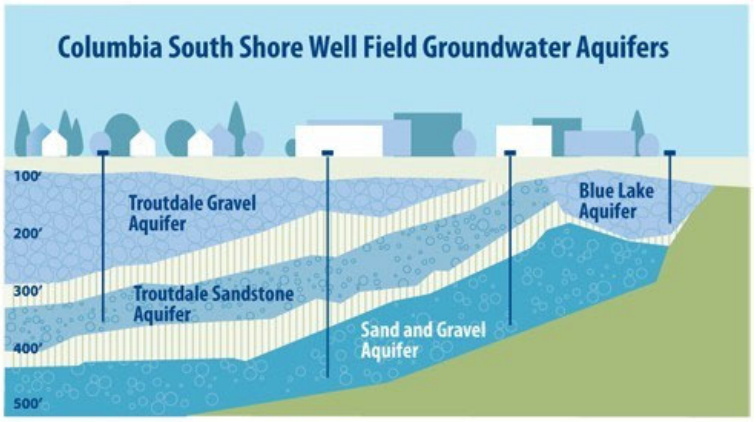
The Bull Run Watershed, Portland's protected surface water supply, is in the Mount Hood National Forest, 26 miles from Portland. The Portland Water Bureau and the U.S. Forest Service carefully manage the watershed to sustain and supply clean drinking water. In a typical year, the watershed receives an astounding 135 inches of precipitation (rain and snow), which flows into the Bull Run River and then into two reservoirs that store nearly 10 billion gallons of drinking water.

Bull Run Watershed. Photo courtesy of Portland Water Bureau website.

Source water assessments are completed to identify contaminants of concern for drinking water. For the Bull Run, the only contaminants of concern are naturally-occurring microorganisms, such as *Giardia, Cryptosporidium*, fecal coliform bacteria, and total coliform bacteria. The Portland Water Bureau regularly tests Bull Run water for these microorganisms that live in virtually all freshwater ecosystems.

The Portland Water Bureau treats water to control organisms that could make people sick but does not currently treat for *Cryptosporidium*. Portland is installing filtration to remove *Cryptosporidium* from drinking water by 2027. Portland's source water assessment is available at portlandoregon.gov/water/sourcewaterassessment or by calling 503-823-7525.

The Columbia South Shore Well Field, Portland's protected groundwater supply, provides drinking water from 25 active wells located in three different aquifers. The well field is between the airport and Blue Lake Park. Portland uses the well field for two purposes: to supplement the Bull Run supply in the summer, and to temporarily replace the Bull Run supply during turbidity events, maintenance activities, and emergencies.



The Columbia South Shore Well Field is beneath homes and businesses with a variety of potential contaminant sources. The deep aquifers that are the primary sources of water supply have natural geologic protection from pollutants present at the land surface. Portland, Gresham, and Fairview work together to protect the well field. The cities' Groundwater Protection Program work with residents and businesses in the well field to ensure that pollutants from this urban area do not impact the groundwater source. To learn more about groundwater protection, and find upcoming groundwater education events, visit portlandoregon.gov/water/groundwater. The Clackamas River Water District, City of Gresham, City of Lake Oswego, City of Milwaukie, Rockwood Water People's Utility District, Sunrise Water Authority, and Tualatin Valley Water District provide drinking water to some Portland customers who live near service area boundaries. Customers who receive water from these providers will also receive detailed water quality reports about these sources in addition to this report.

The Cascade Well Field is jointly developed by Rockwood Water People's Utility District and the City of Gresham. Rockwood Water began using water from the Cascade wells in 2004, primarily during the summer months, as a supplement to Bull Run water. Groundwater from the Cascade wells is from the Sand and Gravel Aquifer. For information about water from the Cascade wells, please contact Rockwood Water at 503-665-4179.

What The EPA Says Can Be Found In Drinking Water

Across the United States, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the 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 from human activity.

In order to ensure tap water is safe to drink, the Environmental Protection Agency (EPA) has regulations that limit the amount of certain contaminants in water provided by public water systems and require monitoring for these contaminants. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Contaminants in drinking water sources may include: **microbial contaminants**, such as viruses, bacteria, and protozoa from wildlife; **inorganic contaminants**, such as naturally-occurring salts and metals; **pesticides and herbicides**, which may come from farming, urban stormwater runoff, or home and business use; **organic chemical contaminants**, such as byproducts from industrial processes or the result of chlorine combining with naturally-occurring organic matter; and **radioactive contaminants**, such as naturally-occurring radon.

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 at 800-426-4791 or at epa.gov/safewater.

Monitoring for *Cryptosporidium*

The Portland Water Bureau does not currently treat for *Cryptosporidium*, but is required to do so under drinking water regulations. Portland is working to install filtration by 2027 under a compliance schedule with the Oregon Health Authority (OHA). In the meantime, the Portland Water Bureau is implementing interim measures such as watershed protection and additional monitoring to protect public health. Consultation with public health officials continues to conclude the general public does not need to take any additional precautions.

Exposure to *Cryptosporidium* can cause cryptosporidiosis, a serious illness. Symptoms can include diarrhea, vomiting, fever, and stomach pain. People with healthy immune systems recover without medical treatment. According to the Centers for Disease Control and Prevention (CDC), people with severely weakened immune systems are at risk for more serious disease. Symptoms may be more severe and could lead to serious life-threatening illness. Examples of people with weakened immune systems include those with AIDS, those with inherited diseases that affect the immune system, and cancer and transplant patients who are taking certain immunosuppressive drugs.

The EPA has estimated a small percentage of the population could experience gastrointestinal illness from *Cryptosporidium* and advises that customers who are immunocompromised and receive their drinking water from the Bull Run Watershed consult with their health care professional about the safety of drinking the tap water.

2019 Results of *Cryptosporidium* Monitoring at the Raw Water Intake			
Number of Samples		Concentration Detected (oocysts/L)	
Total Tested	Positive for *Cryptosporidium*	Minimum	Maximum
179	41	Not Detected	0.06
More information: portlandoregon.gov/water/crypto			

Special Notice for Immunocompromised Persons

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. The EPA and 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 at 800-426-4791.

Notes on Contaminants

Arsenic, Barium, and Fluoride - These metals are elements found in the earth's crust. They can dissolve into water in contact with natural deposits. At the levels found in Rockwood's drinking water, they are unlikely to lead to negative health effects.

Fecal Coliform Bacteria - As part of Rockwood's compliance with the filtration avoidance criteria of the Surface Water Treatment Rule, water is tested for fecal coliform bacteria before disinfectant is added. The presence of fecal coliform bacteria in source water indicates that water may be contaminated with animal wastes. This is measured in percent of samples with more than 20 colonies in 100 milliliters of water during any six-month period. Rockwood Water uses chlorine to control these bacteria.

Giardia - Wildlife in the watershed may be hosts to *Giardia*, a microorganism that can cause gastrointestinal illness. The treatment technique (TT) is to remove 99.9 percent of *Giardia* cysts. Rockwood Water uses chlorine to control *Giardia*.

Haloacetic Acids and Total Trihalomethanes - Disinfection byproducts form when chlorine interacts with naturally-occurring organic material in the water. High levels of disinfection byproducts can cause health problems in people. Rockwood adds ammonia to form a more stable disinfectant, which helps minimize disinfection byproducts.

Nitrate/Nitrogen - Nitrate, measured as nitrogen, can lead to bacterial and algal growth in the water. At levels that exceed the standard, nitrate can contribute to health problems. At the levels found in Rockwood's drinking water, nitrate is unlikely to lead to negative health effects.

Radon - Radon is a naturally occurring radioactive gas that cannot be seen, tasted, or smelled. Radon can be detected at very low levels in the Bull Run water supply and at varying levels in Rockwood's groundwater supply. Based on the limited levels of radon in groundwater after aeration, people are unlikely to have negative health effects from radon in water. Find more information about radon from the EPA at epa.gov/radon.

Sodium - There is currently no drinking water standard for sodium. At the levels found in drinking water, it is unlikely to lead to negative health effects.

Total Chlorine Residual - Total chlorine residual is a measure of free chlorine and combined chlorine and ammonia in Rockwood's distribution system. Chlorine residual is a low level of chlorine remaining in the water and is meant to maintain disinfection through the entire distribution system.

Total Coliform Bacteria - Coliforms are bacteria that are naturally present in the environment. Coliform bacteria usually do not make people sick. They are used as an indicator that other potentially-harmful bacteria may be present. If more than 5 percent of samples in a month are positive for total coliforms, an investigation must be conducted to identify and correct any possible causes. Rockwood Water uses chlorine to control these bacteria.

Turbidity - Turbidity is the cloudiness of a water sample. In Rockwood's system, increased turbidity usually comes from large storms, which suspend organic material in Bull Run water. Increased turbidity can interfere with disinfection and provide an environment for microorganisms to grow. Since the Portland Water Bureau does not yet filter Bull Run water, the treatment technique (TT) is that turbidity cannot exceed 5 NTU more than 2 times in 12 months. When turbidity rises in the Bull Run source, Portland switches to its Columbia South Shore Well Field source.

Rockwood Water People's Utility District is a member of the Regional Water Providers Consortium. The Consortium provides leadership in the planning, management, stewardship, and resiliency of drinking water in the Portland metropolitan region. Let the Consortium take the guesswork out of deciding how much water your landscape needs this summer by signing up for the Weekly watering Number. Each week, between April and September, they will send you a zip-code-specific watering number, along with tips to help you use water efficiently. Visit **regionalh2o.org/weekly-watering-number** to sign up and learn more.

Definitions

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.

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.

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.

N/A - Not Applicable
Some contaminants do not have a health-based level or goal defined by the EPA.

NTU - Nephelometric Turbidity Units
The unit of measurement of turbidity, or cloudiness, of a water sample.

ppb - Part Per Billion
Water providers use ppb to describe a very small amount of a substance within the water. In time measurement, one part per billion is about 3 seconds out of 100 years.

ppm - Part Per Million
Water providers use ppm to describe a small amount of a substance within the water. In time measurement, one part per million is about 32 seconds out of one year.

piC/L - Picocuries Per Liter
Picocurie is a measurement of radioactivity.

TT - Treatment Technique
A required process intended to reduce the level of a contaminant in drinking water.

Monitoring for Unregulated Substances

Every five years, the EPA requires Rockwood Water and other water utilities across the country to test their water for contaminants that do not have a federal standard or limit, called unregulated contaminants. After testing rounds are complete, the EPA evaluates the test results and the potential health risks of the contaminants to determine if a standard is needed to protect public health.

In 2019, Rockwood Water tested its water for the following unregulated contaminants: 10 cyanotoxins; 2 metals; 5 disinfection byproducts and precursors; 9 pesticides and pesticide byproducts; 3 alcohols; and 3 semi-volatile chemicals. Of these contaminants, only manganese, disinfection byproducts and one precursor were detected in Rockwood's water.

Manganese is a metal found in the earth's crust. It can dissolve into water in contact with natural deposits. Low levels of manganese in water can cause discolored water or staining. High levels of manganese can lead to negative health effects. At the levels in Rockwood's water, it is unlikely to lead to negative health effects.

Disinfection byproducts form when precursors, which are naturally present in the environment, combine with chlorine, which is added to water as disinfection. High levels of disinfection byproducts could cause health problems in people. At the levels in Rockwood's water, these are unlikely to lead to negative health effects.

Contaminant	Detected in Rockwood's Water			Sources of Contaminant
	Minimum	Average	Maximum	
Metals				
Manganese (ppm)	0.0017	0.016	0.062	Found in natural deposits
Disinfection Byproduct and Precursors				
Total Organic Carbon (ppm)	0.89	1.37	1.70	Naturally present in the environment
Haloacetic Acids-5 (ppb)	18.7	26.5	50.2	Byproduct of drinking water disinfection
Haloacetic Acids-6Br (ppb)	.3	.80	2	
Haloacetic Acids-9 (ppb)	19.2	24.8	31.5	

Contaminants Detected in 2019

Regulated Contaminant	Detected in Rockwood's Water		EPA Standard		Sources of Contaminant
	Minimum	Maximum	MCL or TT	MCLG	
Untreated Source Water from Bull Run Watershed					
Turbidity (NTU)	0.19	1.32	5	N/A	Erosion of natural deposits
Fecal Coliform Bacteria (%>20 colonies/100 mL in 6 months)	Not Detected	0%	10%	N/A	Animal wastes
Giardia (#/1L)	Not Detected	0.08	TT	N/A	Animal wastes
Treated Drinking Water from Bull Run Watershed, Columbia South Shore Well, and Cascade Wells to the Distribution System					
Arsenic (ppb)	<0.50	1.09	10	0	Found in natural deposits
Barium (ppm)	0.00082	0.0150	2	2	
Fluoride (ppm)	<0.025	0.140	4	4	
Nitrate - Nitrogen (ppm)	<0.010	0.054	10	10	Found in natural deposits; animal wastes
Treated Drinking Water from Points throughout the Distribution System of Reservoirs, Tanks, and Main Water Pipes–Rockwood					
Microbiological Contaminants					
Total Coliform Bacteria (% positive per month)	0.0%	0.0%	N/A	N/A	Found throughout the environment
Disinfectant Residual and Byproducts					
Total Chlorine Residual Running Annual Average (ppm)	1.7	1.83	4 (MRDL)	4 (MRDL)	Chlorine is used to disinfect water
Total Chlorine Residual Range of Single Results at All Sites (ppm)	.25	2.6	N/A	N/A	
Disinfection Byproducts					
Haloacetic Acids					
Running Annual Average at Any One Site (ppb)	25	32	60	N/A	Byproduct of drinking water disinfection
Range of Single Results at All Sites	18.7	42	N/A		
Total Trihalomethanes					
Running Annual Average at Any One Site (ppb)	24	33	80	N/A	Byproduct of drinking water disinfection
Range of Single Results at All Sites (ppb)	13.7	50	N/A		

Treated Drinking Water from Bull Run Watershed, Columbia South Shore Well, and Cascade Wells to the Distribution System				
Unregulated Contaminant	Minimum	Average	Maximum	Sources of Contaminant
Radon (piC/L)	<50	140	280	Found in natural deposits
Sodium (ppm)	3.2	8.1	14	

Protecting Public Health

Water Testing - Once each year, Rockwood Water collects water samples from a group of over 30 homes that have lead solder and are more likely to have higher levels of lead in water. Testing results exceed the federal action level for lead when more than 10 percent of results from these homes are above 15 parts per billion. In the most recent round of testing, less than 10 percent of homes exceeded the lead action level.

Lead and Copper Testing Results from Homes that Have Lead Solder and Are More Likely to Have Higher Levels of Lead in Water

Regulated Contaminant	Detected in Residential Water Taps		EPA Standard		Sources of Contaminant
	2019 Results[1/]	Homes Exceeding Action Level[2/]	Action Level[2/]	MCLG[3/]	
Lead (ppm)	.013	2 out of 30 (6.6%)	.015	0	Corrosion of household and commercial building plumbing systems
Copper (ppm)	0.120	0 out of 30	1.3	1.3	

1/ 90th Percentile: 90 percent of the sample results were less than the values shown.
2/ Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or requirements of which a water system must follow. Rockwood Water did not exceed the Action Level.
3/ See page 5 for definitions.

Free Lead Test Kits

Anyone in Rockwood Water's service area can test their water for lead for free through the Multnomah County LeadLine at www.leadline.org or 503-988-4000. Additional resources are also available from the LeadLine:

Free Childhood Blood Level Testing

Free Lead-in-Water Testing

Free Lead Reduction Services

Portland Water Bureau Lead Hazard Reduction Program

Because Rockwood Water purchases some of our water from the Portland Water Bureau, we want you to know about the Portland Water Bureau's Lead Hazard Reduction Program. It is a comprehensive approach to reduce exposure to lead. Through this program the Portland Water Bureau provides:

<u>Corrosion Control Treatment</u>: This treatment reduces corrosion of lead in plumbing by adding sodium hydroxide to the water, which increases the pH. To further reduce corrosion, Portland has begun the process of improving corrosion control treatment methods by 2022.

<u>Education, Outreach and Testing</u>: Funds agencies and organizations that provide education, outreach, and testing on all sources of lead.

<u>Home Lead Hazard Reduction</u>: Supports the Portland Lead Hazard Control Program to provide grants to minimize lead paint hazards in homes.

Reducing Exposure to Lead

Rockwood Water cares about the health of the families in our community and is committed to help you limit your exposure to lead in drinking water. If present, lead at elevated levels can cause serious health problems, especially for pregnant people and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Rockwood Water is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components in homes or buildings. Lead is rarely found in Rockwood Water's source waters and there are no known lead service lines in the water system. In Rockwood Water, lead enters drinking water from the corrosion (wearing away) of household plumbing materials containing lead. These materials include lead-based solder used to join copper pipe – commonly used in homes built or plumbed between 1970 and 1985 – and brass components and faucets installed before 2014.

When your water has been sitting for several hours, such as overnight or while away at work or school, 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 drinking water, you can request a free lead-in-water test from the LeadLine. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the LeadLine at 503-988-4000 or leadline.org or the Safe Drinking Water Hotline at 800-426-4791 or epa.gov/safewater/lead.

In Rockwood Water, the most common sources of lead exposure are lead-based paint, household dust, soil, and plumbing materials. Lead is also found in other household objects such as toys, cosmetics, pottery, and antique furniture.

Easy Steps to Reduce Possible Exposure to Lead from Household Plumbing

- Run your water to flush the lead out. If the water has not been used for several hours, run each tap for 30 seconds to 2 minutes or until it becomes colder before using the water for drinking or cooking. Running the tap flushes water that could contain lead.
- Use cold, fresh water for cooking and preparing baby formula. Lead dissolves more easily into hot water. Do not use water from the hot water tap for cooking, drinking, or to make baby formula.
- Do not boil water to remove lead. Boiling water will not reduce lead.
- Test your child for lead. Ask a doctor or call the LeadLine at **www.leadline.org** or 503-988-4000 to find out how to have your child tested for lead. A blood lead level test is the only way to know if your child is being exposed to lead.
- Test your water for lead. Contact the LeadLine to find out how to get a FREE lead-in-water test.
- Consider using a filter. Check to make sure it reduces lead – not all filters do. To protect your water quality, follow the manufacturer's instructions for maintaining and replacing your filter. To find out more about water filter performance standards, contact NSF International at 800-NSF-8010 or **www.nsf.org**.
- Clean your faucet aerators every few months. Faucet aerators can trap particles from household plumbing and the particles may contain lead. Every few months, unscrew and rinse your aerators.
- Consider replacing old fixtures. Since 2014, all pipes, fittings and fixtures are required to contain less than 0.25% lead.

Rockwood Water People's Utility District
19601 NE Halsey Street
Portland, OR 97230
503-665-4179
www.rwpud.org
Public Water System #4100668

Oregon Health Authority
Drinking Water Program
971-673-0405
oregon.gov/oha/ph/healthyenvironments/drinkingwater