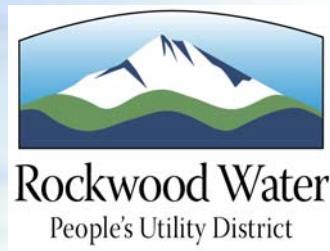


ROCKWOOD WATER PEOPLES' UTILITY DISTRICT



2017 DRINKING WATER QUALITY REPORT (CONSUMER CONFIDENCE REPORT)



Dear Customer:

The Board of Directors and staff of Rockwood Water People's Utility District are happy to provide the District's annual Water Quality Report for 2017. The report highlights the care with which District 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.

The District's Mission Statement is simple: 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. The Mission Statement drives everything we do making sure all of our customers are treated equitably and with utmost regard.

While the District operations are a silent service, always there, out of sight out of mind, we take seriously the responsibility and trust that has been placed in us. District 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 is 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 the District, please contact us at 503-665-4179 or email customerservice@rwpud.org.

Sincerely,

Brian R. Stahl
General Manager

PUBLIC INVOLVEMENT OPPORTUNITIES

The District provides a variety of public information, public involvement and community outreach opportunities.

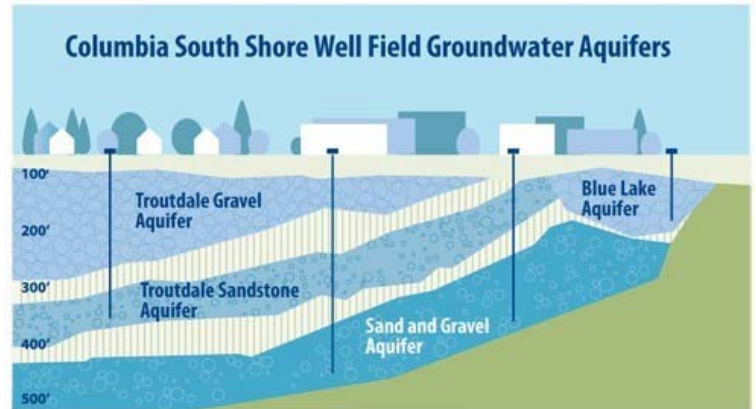
If you have questions about the District's programs, public meetings, or capital projects, please contact the District at 503-665-4179 or visit www.rwpud.org to learn more.

DRINKING WATER SOURCES AND PROTECTION

The **Bull Run Watershed** Portland's protected surface water supply, is located in the Mt. Hood National Forest, 26 miles from Portland. The watershed is carefully managed to sustain and supply clean drinking water to a quarter of Oregon's population. In a typical year, the watershed receives an astounding 135 inches of precipitation (rain and snow), that flows into the Bull Run River and then into two reservoirs that store nearly 10 billion gallons of drinking water. A Source Water Assessment completed in 2003 (available at www.portlandoregon.gov/water/sourcewaterassessment or by calling 503-823-7525) identifies the only contaminants of concern as naturally occurring microbes such as *Giardia*, *Cryptosporidium*, fecal coliform bacteria, and total coliform bacteria. These organisms are found in virtually all freshwater ecosystems and may be present in the Bull Run at low levels. The Bull Run source is an unfiltered drinking water source and is currently not treated for *Cryptosporidium*. However, the Portland Water Bureau is currently working to construct a drinking water filtration plant by September 2027.



The **Columbia South Shore Well Field** Portland's protected groundwater supply, provides high-quality drinking water from 26 active wells located in three different aquifers. Located on the south shore of the Columbia River, the well field is the second largest water source in Oregon, and can produce up to 95 million gallons of water per day. The well field is used to supplement, or as an alternative to, the Bull Run supply during routine maintenance, turbidity events, emergencies, and when the bureau needs additional summer supply.



In collaboration with Gresham and Fairview, Portland works with businesses in the area to prevent hazardous material spills that could seep into the ground and impact groundwater. Portland also holds public events such as Aquifer Adventure, Cycle the Well Field, and Groundwater 101 to educate residents on how they can get involved. To learn more about the Well Field Protection Program or find upcoming events, visit www.portlandoregon.gov/water/groundwater or call 503-823-7473.

The **Cascade Well Field** is jointly developed by Rockwood Water People's Utility District and the City of Gresham. The District 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 the District at 503-665-4179.



WHAT THE EPA SAYS CAN BE FOUND IN DRINKING WATER

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 that tap water is safe to drink, the 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 salts and metals, which are naturally occurring; **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 the naturally occurring organic matter; and **radioactive contaminants**, such as radon, which is naturally occurring.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791 or at www.epa.gov/safewater.

NOTES ON CONTAMINANTS

Arsenic, Barium, Copper, Fluoride and Lead - These metals are elements found in the earth's crust. They can dissolve into water that is in contact with natural deposits. At the levels found in Portland's drinking water, they are unlikely to contribute to adverse health effects. For more information, see Reducing Exposure to Lead.

Disinfection Byproducts - During disinfection, certain byproducts form as a result of chemical reactions between chlorine and naturally occurring organic matter in the water. These byproducts can have negative health effects. Trihalomethanes and haloacetic acids are regulated disinfection byproducts that have been detected in Portland's water. Adding ammonia to chlorine results in a more stable disinfectant and helps to minimize the formation of disinfection byproducts.

Fecal Coliform Bacteria - As part of Portland'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. The Portland Water Bureau uses chlorine to kill these bacteria.

Giardia - Wildlife in the watershed may be hosts to Giardia, the organism that causes giardiasis. The treatment technique (TT) is to remove 99.9% of the organisms. The Portland Water Bureau uses chlorine to control these organisms.

Nitrate - Nitrogen - Nitrate, measured as nitrogen, can support microbial growth (bacteria and algae). Nitrate levels exceeding the standards can contribute to health problems. At the levels found in Portland's drinking water, nitrate is unlikely to contribute to adverse 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 Portland's groundwater supply. Based on the historical levels of radon in groundwater combined with the limited amount of groundwater used, radon is unlikely to contribute to adverse health effects. For information about radon, call the EPA's Radon Hotline (800-SOS-RADON) or www.epa.gov/radon.

Sodium - There is currently no drinking water standard for sodium. Sodium is an essential nutrient. At the levels found in drinking water, it is unlikely to contribute to adverse health effects.

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

Total Coliform Bacteria - Coliforms are bacteria that are naturally present in the environment. They are used as an indicator that other potentially-harmful bacteria may be present. If more than 5% of samples in a month are positive for total coliforms, an investigation must be conducted to identify and correct any possible causes. The Portland Water Bureau uses chlorine to kill these bacteria.

Turbidity - Turbidity is a measure of the water's clarity. Increased turbidity is typically caused by large storms that suspend organic material in the Bull Run source water. This can interfere with disinfection and provide an environment for microbial growth. Since Bull Run water is not filtered, the treatment technique (TT) is that turbidity cannot exceed 5 NTU more than 2 times in 12 months. The Portland Water Bureau shuts down the Bull Run system and serves water from the Columbia South Shore Well Field when turbidity in the Bull Run rises.

CONTAMINANTS DETECTED IN 2017

Regulated Contaminant	Detected in Rockwood's Water		EPA Limits		Sources of Contaminant
	Minimum	Maximum	MCL or TT	MCLG	
Untreated Source Water from Bull Run Watershed					
Turbidity (NTU)	0.20	3.06	5	N/A	Erosion of natural deposits
Fecal Coliform Bacteria (%>20 colonies/100 mL in 6 months)	ND	1.6%	10%	N/A	Animal wastes
<i>Giardia</i> (#/1L)	ND	0.27	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	0.94	10	0	Found in natural deposits
Barium (ppm)	0.00073	0.016	2	2	
Copper (ppm)	<0.00050	0.00101	N/A	1.3	
Fluoride (ppm)	<0.025	0.160	4	4	
Lead (ppb)	<0.05	0.11	N/A	0	
Nitrate - Nitrogen (ppm)	0.013	0.140	10	10	Found in natural aquifer 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%	N/A	N/A	Found throughout the environment
Disinfectant Residual					
Total Chlorine Residual (ppm)	.22	2.30	4 (MRDL)	4 (MRDL)	Chlorine is used to disinfect water
Disinfection Byproducts					
Haloacetic Acids					
Running Annual Average at Any One Site (ppb)	28	35	60	N/A	Byproduct of drinking water disinfection
Single Result at Any One Site	18	43	N/A		
Total Trihalomethanes					
Running Annual Average at Any One Site (ppb)	28	32	80	N/A	Byproduct of drinking water disinfection
Single Result at Any One Site (ppb)	21	40	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 (pCi/L)	<50	165	330	Found in natural deposits	
Sodium (ppm)	3.3	5.8	12.8		

UCMR 4

Starting in January 2018, water systems across the United States will begin testing for the Fourth Unregulated Contaminant Monitoring Rule (UCMR 4). Testing will continue until December 2020. EPA requires public water systems to monitor for 30 unregulated contaminants under UCMR 4, and the data from this testing will inform the agency's future regulatory decisions. Rockwood Water is committed to protecting public health and meets or surpasses all state and federal health standards for drinking water. To help advance the science of drinking water, we are required to collect data on certain unregulated contaminants as part of the Unregulated Contaminant Monitoring Rule. This is the first step in the EPA's efforts to determine whether regulations should be set for these contaminants. The presence of a compound does not necessarily equate to a health risk; the concentration of a compound is a far more important factor in determining whether there are health implications. Should EPA ultimately determine that regulation is warranted, we will take the necessary steps to protect the health of our customers.

DEFINITIONS

Action Level or AL

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system 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.

Not Applicable (N/A)

Some contaminants do not have a health-based level or goal defined by the EPA.

Nephelometric Turbidity Units (NTU)

The unit of measurement of turbidity or cloudiness in water as measured by the amount of light passing through a sample.

Part Per Million (ppm)

One part per million corresponds to one penny in \$10,000 or approximately one minute in two years. One part per million is equal to 1,000 parts per billion.

Part Per Billion (ppb)

One part per billion corresponds to one penny in \$10,000,000 or approximately one minute in 2,000 years.

Picocuries Per Liter (pCi/L)

Picocurie is a measurement of radioactivity. One Picocurie is one trillion times smaller than one curie.

Treatment Technique or TT

A required process intended to reduce the level of a contaminant in drinking water.



Rockwood Water People's Utility District is a member of the Regional Water Providers Consortium. The Consortium and its 20 water provider members have worked together for more than 20 years on projects that increase the resiliency of the region's water systems. For example, last fall, Consortium members participated in an exercise that tested a regional interconnections mapping tool to see how water could be moved between water systems during an emergency. Find out more about how the Consortium provides leadership in the planning, management, stewardship, and resiliency of drinking water in the Portland metropolitan region at www.regionalh2o.org.

MONITORING FOR *CRYPTOSPORIDIUM* BULL RUN TREATMENT VARIANCE

In March 2012, the Oregon Health Authority (OHA) issued the Portland Water Bureau a variance from the state and federal drinking water rules requiring the treatment of raw water from the Bull Run Watershed for the parasite *Cryptosporidium*. A variance is state permission not to meet a maximum contaminant level (MCL) or a treatment technique under certain conditions. OHA issued the Portland Water Bureau the treatment variance for *Cryptosporidium* based on substantial data and analyses presented in the *LT2 Treatment Variance Request for the Bull Run drinking water source*. Among the conditions of the variance was monitoring at the Bull Run raw water intake to demonstrate a level of *Cryptosporidium* that was equal or better than what would be expected with treatment. [After years of not detecting any *Cryptosporidium* at the Bull Run intake, it was detected above this level in 2017 from January through March and September through December.](#) As a result of the January through March detections, OHA revoked the Bull Run Treatment Variance on December 19, 2017.

The Portland Water Bureau does not currently treat for *Cryptosporidium*, but is required to do so under the drinking water regulations. Now that the variance has been revoked, Portland is working to install filtration by 2027 under a compliance schedule with 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 has concluded that, at this time, customers do 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.

2017 Results of <i>Cryptosporidium</i> Monitoring at the Raw Water Intake		
Number of Samples	Total Volume	Detections
378	11,511.9 L	43

Regulated Contaminant	Detected in Residential Water Taps		EPA Limits		Sources of Contaminant
	Fall 2017 Results	Homes Exceeding Action Level*	Action Level*	MCLG	
Lead (ppm)	.010	3 out of 60 (5%)	.015	0	Corrosion of household and commercial building plumbing systems
Copper (ppm)	0.117	0 out of 60 (0%)	1.3	1.3	

*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.

SPECIAL NOTICE FOR IMMUNO-COMPROMISED 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. Environmental Protection Agency and Centers for Disease Control and Prevention 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.

REDUCING EXPOSURE TO LEAD

Lead is commonly found in a variety of places throughout our environment. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. While lead is rarely found in Portland's source waters and there are no known lead service lines in the water system, lead can be found in some homes. The Portland Water Bureau is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components in homes or buildings. In Portland, 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.

If present, lead at elevated levels can cause serious health problems, especially for pregnant people and young children. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

When your water has been sitting for several hours, such as overnight or after returning from 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, 503-988-4000, www.leadline.org or the Safe Drinking Water Hotline (800) 426-4791, www.epa.gov/safewater/lead.

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, and pottery.

WAYS TO REDUCE YOUR EXPOSURE TO LEAD

Water Testing - Twice each year, lead and copper are tested at customers' homes that have lead solder and where levels are the highest. Testing results exceed the Action Level for lead when more than 10 percent of results from these homes are above 15 parts per billion. In testing conducted in October 2017, Rockwood Water did not exceed the Lead Action Level, even though three homes in Rockwood Water did. We are informing all of our customers how to reduce their exposure to lead and encourage them to follow these easy steps to reduce exposure to lead in water.

Protecting Public Health - 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:

Corrosion Control Treatment - Reduces corrosion of lead in plumbing by increasing the pH of the water. This pH adjustment has reduced lead in tap water by up to 70 percent. Portland has begun the process of further improving corrosion control treatment. These improvements will be in place no later than Spring 2022.

Lead in Water Testing - Provides free lead in water testing to everyone, but targets testing the water in households most at-risk from lead in water. These are homes built between 1970 and 1985.

Education, Outreach and Testing - Funds agencies and organizations that provide education, outreach, and testing on all sources of lead.

Home Lead Hazard Reduction - Supports the Portland Lead Hazard Control Program to provide grants to minimize lead paint hazards in homes.

Reduce your exposure to all sources of lead. Contact the LeadLine at www.leadline.org or 503-988-4000.

★ Free lead-in-water testing

★ Free childhood blood lead testing

★ Free lead reduction services

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 drinking or cooking. This flushes water which may contain lead from the pipes.
- Use cold, fresh water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- Do not boil water to remove lead. Boiling water will not reduce lead.
- Test your child for lead. Ask your physician or call the LeadLine 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 at www.leadline.org or 503-988-4000 to find out how to get a FREE lead-in-water test.
- Consider using a filter. Check whether it reduces lead –not all filters do. To protect water quality, maintain and replace a filter device in accordance with the manufacturer's instructions. For information on performance standards for water filters, contact NSF International at 800-NSF-8010 or www.nsf.org.
- Regularly clean your faucet aerator. Particles containing lead from solder or household plumbing can become trapped in your faucet aerator. Regular cleaning every few months will remove these particles and reduce your exposure to lead.
- Consider buying low-lead fixtures. As of January 2014, all pipes, fittings and fixtures are required to contain less than 0.25% lead. When buying new fixtures, consumers should seek out those with the lowest lead content.

Do you need this document translated into another language? Go to rwpud.org/water-quality-report-2017 and use the Google Translator button to choose from more than 100 languages. Este informe contiene información importante y debe traducirse.



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