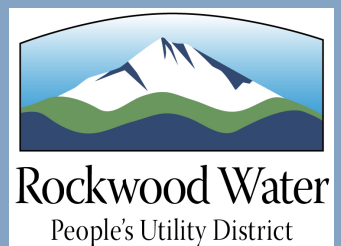


ROCKWOOD WATER PEOPLES' UTILITY DISTRICT 2021 DRINKING WATER QUALITY REPORT



CONSUMER CONFIDENCE REPORT
2020 DATA REPORTING
rwpud.org/ccr2020.pdf



Message to Our Customers



Welcome to the Rockwood Water People's Utility District 2021 Water Quality Report with water quality data from the 2020 calendar year. As your new General Manager, I am happy to report the District provides excellent quality water that meets all state and federal safe drinking water requirements, at a cost to consumers that is well below the regional average water bill.

The District, in Partnership with the City of Gresham is at the beginning of its greatest ever investment in our water supply and storage infrastructure since the District was first formed in 1925. This is part of a five-year series of construction projects to expand our groundwater wellfield that will allow the District to fully own its water supply system and become independent from the Portland wholesale supply by 2026. This work is equivalent to building a house, after being a renter for many years.

We have named our partnership for water supply "The Cascade Groundwater Alliance." The Cascade Groundwater Alliance will require an initial investment in infrastructure but will result in long-term cost savings to rate payers to avoid increasing wholesale water rates in the future and, as always, the water quality we provide from these natural, protected aquifers will be excellent and meets all safe drinking water standards.

I hope you take the opportunity to access the website to review the Water Quality Report and learn what the District team of water professionals do to keep the water flowing to your tap 24 hours per day, 365 days per year. If you have any questions, please contact us at 503-665-4179 or email customerservice@rwpud.org.

Sincerely,

Kari J. Duncan
General Manager

Public Participation 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-2020 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-2020 y usa el botón Google Translator para elegir entre más de 100 idiomas.

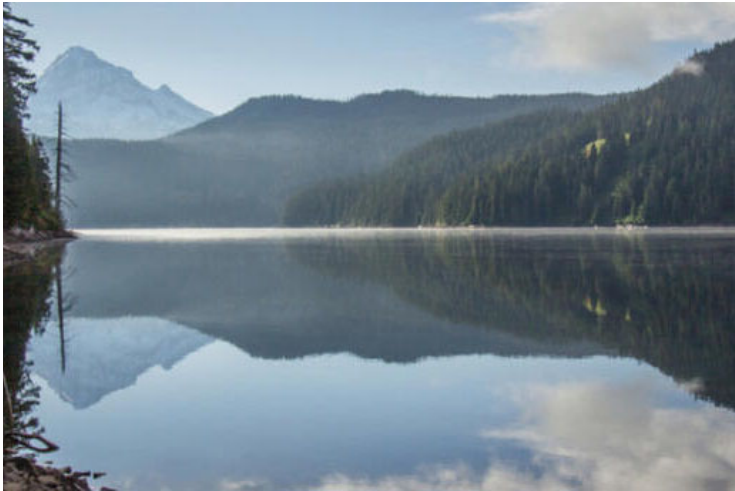
Этот доклад содержит важную информацию и должен быть переведен. Вам нужен этот документ, переведенный на другой язык? Перейдите на rwpud.org/water-quality-report-2020 и используйте кнопку Google Translator, чтобы выбрать из более чем 100 языков.



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. Visit their website at regionalh2o.org to find out how to start your emergency prep with water, get information and resources to use water efficiently at home, and to learn more about the region's drinking water.

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.

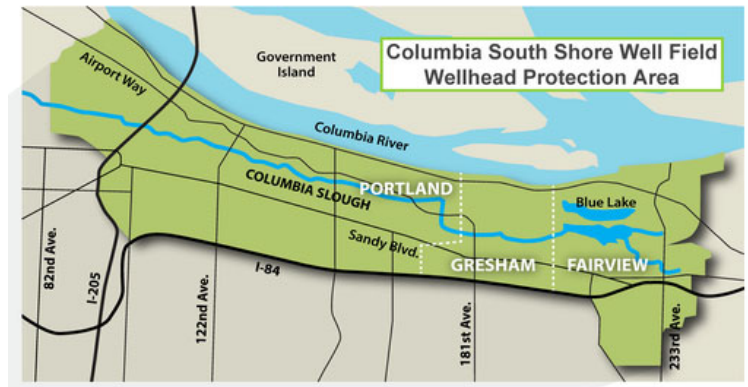


Bull Run Watershed. Photo courtesy of Portland Water Bureau website.

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.



Columbia South Shore Well Field Wellhead Protection Area.
Photo courtesy of Portland Water Bureau website.

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 Programs 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 **Cascade Well Field** is jointly owned and operated 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 located approximately 600 feet below the surface. Rockwood Water works with the Cities of Gresham and Fairview businesses to protect this important investment. For information about water from the Cascade wells, or the Groundwater Protection Program, please contact Rockwood Water at 503-665-4179.



Cascade Reservoir #1

Rockwood Water People's Utility District is excited to announce the formation of the Cascade Groundwater Alliance

What is the Cascade Groundwater Alliance?

The CGA is a partnership between Rockwood Water and the City of Gresham to develop an additional water supply.



Why was the Cascade Groundwater Alliance formed?

Rockwood Water and the City of Gresham have formed an alliance to develop our own water supply to improve water supply resiliency for the region and avoid future wholesale water purchase cost increases from the City of Portland.

What is the Cascade Groundwater Alliance doing?

Rockwood Water is using the water rights it obtained many years ago to expand its groundwater supply system, in partnership with the City of Gresham, to meet the future water needs of Rockwood and Gresham customers. Sharing project costs and resources saves us money and will keep rates lower for our customers.

How do you develop more water supply?

Rockwood Water and the City of Gresham elected officials adopted the Groundwater Development Master Plan in October 2020. The Plan was developed by the engineering consultant, Murraysmith, and identifies and describes the Cascade Groundwater system as the best option for Rockwood Water and Gresham to develop their own supply, minimize future water rate increases, and reduce or eliminate our dependence on water purchased from the City of Portland through a wholesale contract. Groundwater development was identified as the best alternative for us to accomplish our goals.

What is groundwater?

Groundwater is fresh water from rain or melting ice and snow that soaks into the soil and is stored in the tiny spaces between rocks, particles of soil and sand underground much the same way that water fills a sponge. It is stored in and moves slowly through geologic formations called aquifers.

Where does our groundwater supply come from?

Rockwood Water and the City of Gresham pump groundwater from the Sand and Gravel Aquifer (SGA); the oldest (2 to 5 million years old) of the sedimentary aquifers in the Portland Basin. It's 450 feet to more than 1,400 feet below the surface where we currently have wells and planned wells.

Is using groundwater a new idea?

No. Groundwater has been a long-term water source for us. Rockwood Water built its first groundwater well in 1926 and has used groundwater to supply or augment supply for 76 years. The Cities of Gresham, Fairview, Milwaukie, Newberg, Portland, Troutdale, and Wood Village are a few of the cities in the region using groundwater. 38% of the U.S. population depends on groundwater for their drinking water supply either from a public source or a private well.

Is groundwater safe?

Yes! Here are several reasons why:

- The Sand and Gravel Aquifer is the deepest of the aquifers in the Portland Basin. It is naturally protected by two extensive low-permeability clay and silt layers that act as natural filters that remove impurities from the water. Wells will pull from a depth of 700 to 1,400 feet below the ground, making surface-level contamination unlikely.
- We have a nationally-recognized and award winning Groundwater Protection Program. This program mitigates surface-level contamination by working with businesses to protect our groundwater resources.
- We must abide by stringent regulations for potential contaminants. Public drinking water is regulated even more than the bottled water sold in stores. Regulations are set by the Environmental Protection Agency and the Oregon Health Authority under the Safe Drinking Water Act.
- We test our water for over 300 regulated and unregulated substances and report our test results to the Oregon Health Authority and our customers (contained in this document).
- We are building a treatment facility that will also be expandable to address future regulatory changes or a change in groundwater quality, if needed.

The Cascade Groundwater Alliance is committed to providing you with water that is safe to drink and meets all state and federal drinking water standards. We will continue to monitor and protect our valuable resource now, and for future generations, to deliver the highest quality water at the most affordable cost possible.

Special Notice for Immunocompromised Persons

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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.



Monitoring for *Cryptosporidium*

Drinking water treatment for *Cryptosporidium*, a potentially disease-causing microorganism, is required by state and federal regulations. For five years, the Oregon Health Authority (OHA) did not require the Portland Water Bureau to treat for *Cryptosporidium* based on data showing that *Cryptosporidium* was rarely found in the Bull Run Watershed. Since 2017, test results have shown low-level detections of *Cryptosporidium* primarily during the rainy season. As a result, OHA determined that treatment is now necessary. Portland has made several decisions about how to treat for *Cryptosporidium*, including choosing filtration as the treatment method and deciding on the location of the future treatment plant. The Portland Water Bureau is on track to have the filtration plant built and running by 2027.

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. 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.

2020 Results of <i>Cryptosporidium</i> Monitoring at the Raw Water Intake			
Number of Samples		Concentration Detected (oocysts/L)	
Total Tested	Positive for <i>Cryptosporidium</i>	Minimum	Maximum
185	39	Not Detected	0.08
More information: portlandoregon.gov/water/crypto			

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.



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.

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 gastro-intestinal 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.



Contaminants Detected in 2020

Regulated Contaminant	Detected in Rockwood’s Water		EPA Standard		Sources of Contaminant
	Minimum	Maximum	MCL or TT	MCLG	
Untreated Source Water from the Bull Run Watershed					
Turbidity (NTU)	0.22	3.31	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
<i>Giardia</i> (#/1L)	Not Detected	0.06	TT	N/A	Animal wastes
Treated Drinking Water from the Bull Run Watershed, Columbia South Shore Well Field, and Cascade Well Field Entry Points to the Distribution System					
Arsenic (ppb)	<0.50	.92	10	0	Found in natural deposits
Barium (ppm)	0.0009	0.015	2	2	
Fluoride (ppm)	<0.025	0.17	4	4	
Nitrate - Nitrogen (ppm)	<0.010	0.087	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 Water					
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)	1.8	1.9	4 (MRDL)	4 (MRDL)	Chlorine is used to disinfect water
Total Chlorine Residual Range of Single Results at All Sites (ppm)	1.11	2.8	N/A	N/A	
Disinfection Byproducts					
Haloacetic Acids					
Running Annual Average at Any One Site (ppb)	28	34	60	N/A	Byproduct of drinking water disinfection
Range of Single Results at All Sites	20.1	48	N/A		
Total Trihalomethanes					
Running Annual Average at Any One Site (ppb)	23	36	80	N/A	Byproduct of drinking water disinfection
Range of Single Results at All Sites (ppb)	17.4	54	N/A		
Treated Drinking Water from the Bull Run Watershed, Columbia South Shore Well Field, and Cascade Well Field to the Distribution System					
Unregulated Contaminant	Minimum	Average	Maximum	Sources of Contaminant	
Manganese (ppm)	0.002	0.009	0.024	Found in natural deposits	
Radon (pCi/L)	<50	170	400		
Sodium (ppm)	2.9	5.6	14		

Reporting Violation. Rockwood Water submitted a late report for its corrosion control treatment for the month of June 2020. The report was submitted on July 17th, after the July 10th reporting deadline. The District was returned to compliance on August 1st.

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
	2020 Results ^{1/}	Homes Exceeding Action Level ^{2/}	Action Level ^{2/}	MCLG ^{3/}	
Lead (ppm)	.0132	2 out of 30 (6.6%)	.015	0	Corrosion of household and commercial building plumbing systems
Copper (ppm)	0.152	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 6 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:

Corrosion Control Treatment: 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.

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 Lead



Use only cold water for drinking, cooking and making baby formula. *Boiling water does not remove lead from water.*



Regularly clean your faucet's screen (also known as an aerator).



Consider using a water filter certified to remove lead and know when it's time to replace the filter.



Before drinking, flush your pipes by running your tap, taking a shower, doing laundry or a load of dishes.

To find out for certain if you have lead in drinking water, **have your water tested.**

Replace Your Lead Service Line



Water systems are required to replace lead service lines if a water system cannot meet EPA's Lead Action Level through optimized corrosion control treatment.

Replacement of the lead service line is often the responsibility of both the utility and homeowner.

Homeowners can contact their water system to learn about how to remove the lead service line.

Identify Other Lead Sources In Your Home

Lead in homes can also come from sources other than water. If you live in a home built before 1978, you may want to have your paint tested for lead. **Consider contacting your doctor to have your children tested if you are concerned about lead exposure.**



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 meth-

ods 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.

The most common sources of lead exposure in our region are lead-based paint, household dust, soil, and plumbing materials. Lead can also be 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.
- Use cold, fresh water for cooking and preparing baby formula. Lead from pipes dissolves more easily into hot water.
- Do not boil water to remove lead.
- Test your child for lead. Ask a doctor or call the LeadLine at www.leadline.org or 503-988-4000.
- Test your water for lead. Contact the LeadLine to find out how to get a FREE lead-in-water test.
- Consider using a filter rated to reduce lead. 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.
- Consider replacing old fixtures. Since 2014, all pipes, fittings and fixtures are required to contain less than 0.25% lead.