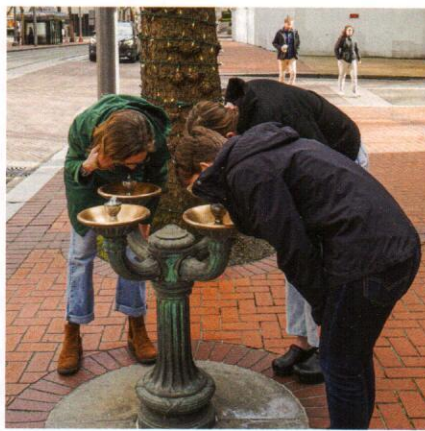
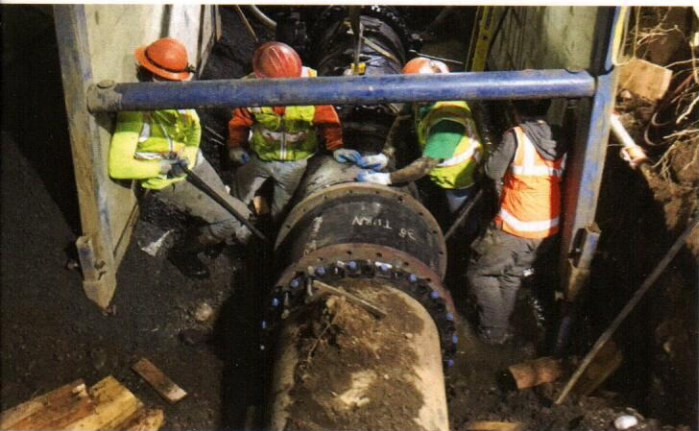
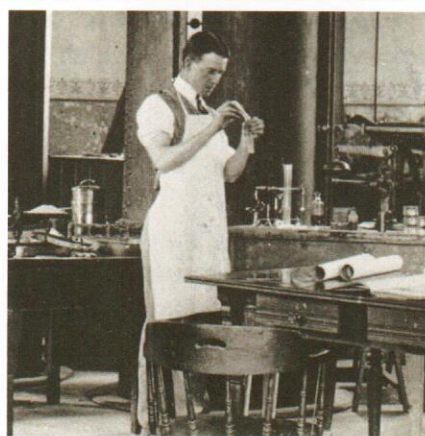


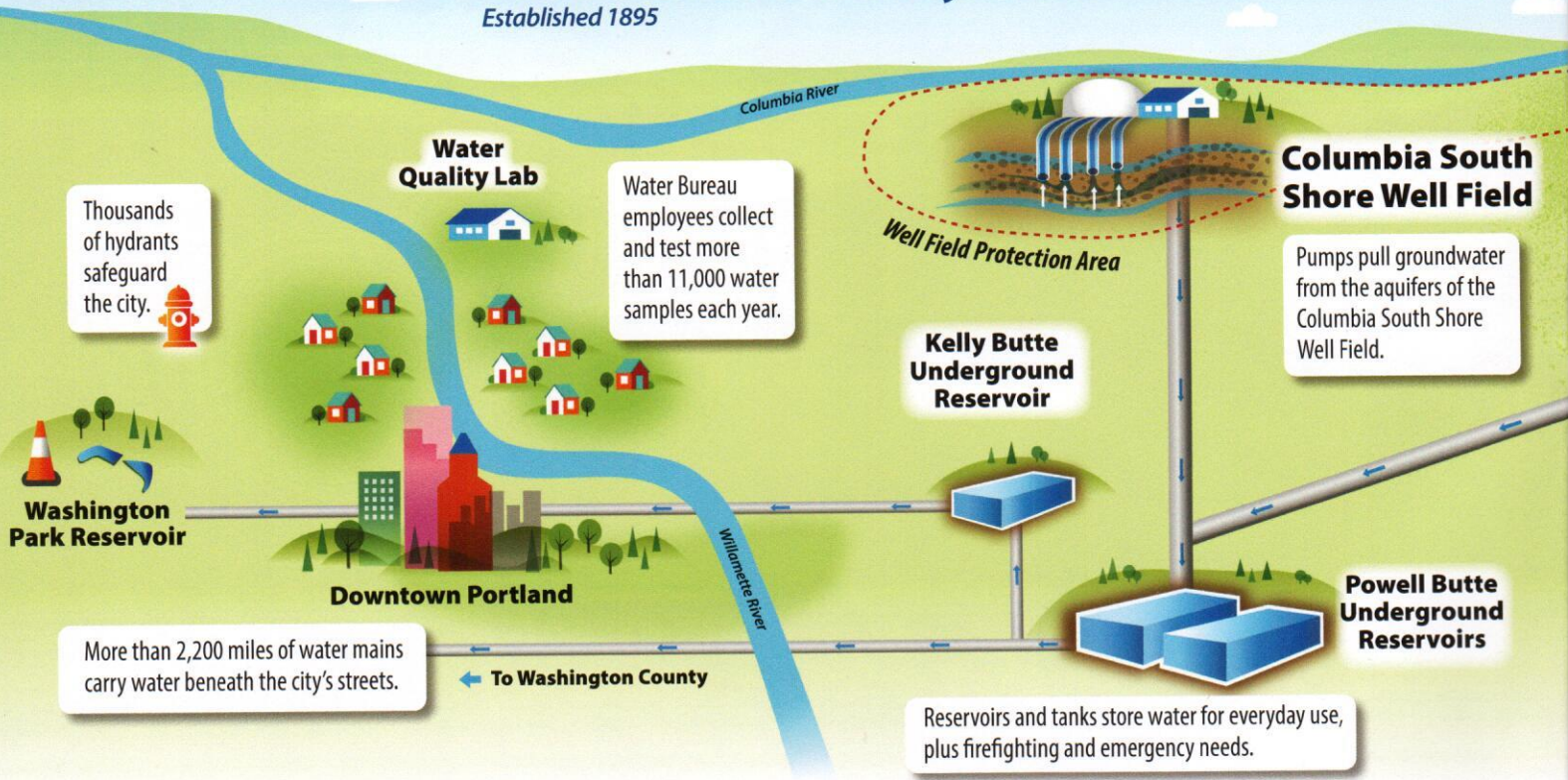
PORTLAND WATER BUREAU

2023 Drinking Water Quality Report



Portland's Water System

Established 1895



Portland's drinking water sources

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 US 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.

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 drinking water to control organisms that would make people sick but does not currently treat for *Cryptosporidium*. Portland is installing filtration to remove *Cryptosporidium* and other contaminants from drinking water by 2027. Learn more on pages 10 and 11.

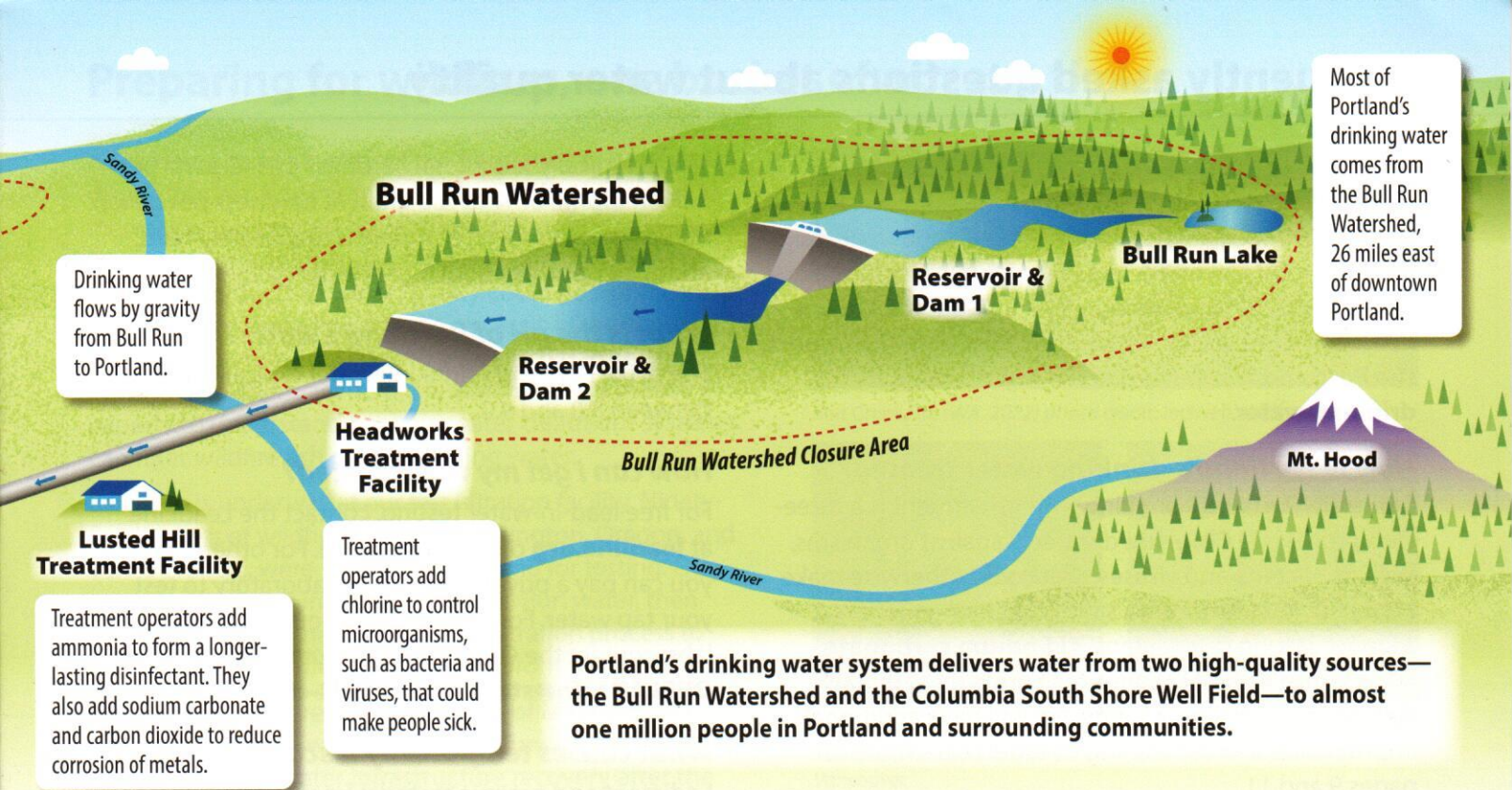
Portland's source water assessment is available at portland.gov/water/SWA or by calling 503-823-7525.

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 Portland International 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 Programs work with residents and businesses in the well field to ensure that pollutants from this urban area do not impact the groundwater source.

More information about groundwater protection and groundwater education events: portland.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 receive detailed water quality reports about these sources in addition to this report.



Investments in our water sources keep safe water flowing

Portland has a long history of careful planning and smart investments to make sure clean, safe water is flowing every time you turn on your faucet.

Our commitment began in the late 1800s when Portlanders were getting sick from drinking untreated water from the Willamette River. To keep future generations of residents safe, we laid the first pipes from the Bull Run Watershed to Portland and started serving clean drinking water in 1895.



Six-up horse teams and drivers delivering conduit pipe in 1893.

Fast forward to the 1980s. We made another investment in the resilience of our water system by drilling our first groundwater well. This created an additional source of drinking water that could be used during long dry summers or when the Bull Run is not available. In 2022, this investment in a supplemental groundwater system allowed us to provide clean, safe drinking water to nearly one million people despite two extreme weather events that impacted our Bull Run supply: a summer and fall of record-breaking hot, dry

temperatures and an atmospheric river of rainfall in November that resulted in increased turbidity in the Bull Run supply.



Exploratory well testing in 1976.

Today we continue this legacy of providing safe drinking water for future generations. We are now investing in a new Bull Run water filtration facility that will further improve our ability to respond to storms, treat for *Cryptosporidium* or other naturally occurring organisms that exist in the watershed, and reduce lead levels at the tap. Together, the filtration facility and groundwater supply will allow us to stay flexible and adaptable in providing water to the Portland region.



Get email updates when we make changes to our source water or treatment. Sign up at portland.gov/water/notification.

Frequently asked questions about water quality

What test results will I find in this report?

The Portland Water Bureau monitors drinking water for over 200 regulated and unregulated contaminants. This report lists all of the regulated contaminants the bureau detected in drinking water in 2022. **If a known health-related contaminant is not listed in this report, the Portland Water Bureau did not detect it in drinking water.**

How is Portland's drinking water treated?

Currently, Portland's drinking water treatment is a three-step process: **1) Chlorine** disinfects against organisms, such as bacteria and viruses, that could otherwise make people sick. **2) Ammonia** stabilizes chlorine to form a longer-lasting disinfectant. **3) Sodium carbonate and carbon dioxide** reduce the corrosion of metals such as lead. Portland's treatment will have additional improvements in the coming decade. Learn more on pages 9 and 11.

Is Portland's water filtered?

No. Neither of Portland's sources is filtered. In response to a series of detections of *Cryptosporidium* in Bull Run water since 2017, Portland is installing a filtration plant to treat for *Cryptosporidium*. Bull Run water will be filtered by 2027. Learn more on pages 10 and 11.

Does the Portland Water Bureau add fluoride to the water?

No. Fluoride naturally occurs in Portland's water at very low levels. You may want to ask your dentist or doctor about supplemental fluoride for preventing tooth decay. This is especially important for young children.

Is Portland's water soft or hard?

Bull Run water—Portland's main water supply—is very

soft. It typically has a total hardness of 3–8 parts per million (ppm), or ¼ to ½ a grain of hardness per gallon. Portland's groundwater supply is moderately hard: about 80 ppm, or about 5 grains per gallon.

What is the pH of Portland's water?

The pH of Portland's drinking water typically ranges between 8.0 and 9.0.

How can I get my water tested?

For free lead-in-water testing, contact the LeadLine at leadline.org or **503-988-4000**. For other testing, you can pay a private, accredited laboratory to test your tap water. For information about accredited labs, contact the Oregon Health Authority at ORELAP.Info@state.or.us or **503-693-4100**.

What causes temporarily discolored water?

Sediment and organic material from the Bull Run Watershed settle at the bottom of water mains. These can sometimes be stirred up during hydrant use or a main break. They can also be seen in the fall as a harmless tea-colored tint. Discolored water can also be caused by older pipes in buildings that add rust to the water. More information:

portland.gov/water/DiscoloredWater

How should property managers maintain water quality in large buildings?

Managers of large buildings should implement a water management program to protect their water quality and address the risk of *Legionella* growth. This is especially important for healthcare facilities and residential buildings for people 65 or older. More information: portland.gov/water/WQBuilding



Discolored water? Low flow? Other water quality concerns?

Start here for troubleshooting tips:
portland.gov/water/WQLine

Lillian and Matt, our Water Quality Line staff, are also happy to assist you:
WBWaterLine@PortlandOregon.gov
503-823-7525

Preparing for wildfires, one bucket of ash at a time

As climate change increases the frequency of hotter and drier summers, communities in the Pacific Northwest are increasingly impacted by wildfires. Although the risk of fire in the very wet forests of the Bull Run continues to be low, the effects to water quality could be significant. Preparing for those impacts is a necessity. One way that we are preparing is by leading a research partnership of water providers, academic researchers, and industry experts to understand how our water treatment systems can filter wildfire ash out of drinking water.

Research is underway at our test filtration facility. Ninety-five buckets of wildfire ash from Washington, Oregon, and Vancouver, BC, were shipped to Portland for testing. Our team is mixing ash into batches of Bull Run water, then running those batches through the filtration process to test how that treatment removes ash from water.

We are also partnered with the cities of Medford and Grants Pass, which experienced wildfires in 2020. Their experience with water infrastructure recovery after the fires will provide valuable insights for all water utilities in the region.

The outcomes from this research are an important part of Portland's wildfire planning. This research will help us know how to operate our full-scale filtration facility to be more resilient to wildfire impacts. It will also help our treatment operators know how to respond more quickly when an emergency, such as a wildfire, affects our drinking water quality.



Bolt Creek Fire (WA, 2022) photo credit: inciweb.wildfire.gov



Minnehada Park Fire (Vancouver, BC, 2022) photo credit: Metro Vancouver



Water Quality Assistant Paul adds ash to Bull Run water



Engineer Mojtaba tests filtered water at the test filtration facility

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 that 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](https://www.epa.gov/SafeWater).

ADDENDUM

WATER QUALITY REPORT 2023

Raleigh Water District participates in the joint monitoring program with the City of Portland. This joint monitoring program allows the District to use samples from Portland's system, to meet most of the monitoring requirements.

Raleigh Water District Distribution System Water Quality Data from 2022

Regulated Contaminant	Detected in Raleigh Water District's Water		EPA's Standard		Sources of Contaminant
	Minimum	Maximum	MCL	MCLG	
<i>Disinfectant Residual</i>					
Total Chlorine Residual (ppm)	0.30	2.40	N/A	N/A	Chlorine used to disinfect water
<i>Disinfection Byproducts</i>					
Haloacetic Acids Running annual average at any one site (ppb)	27.6	44.8	60	N/A	Byproduct of drinking water disinfection
Haloacetic Acids Single result at any one site (ppb)	27.6	44.8	N/A		
Total Trihalomethanes Running annual average at any one site (ppb)	34.0	44.1	80	N/A	Byproduct of drinking water disinfection
Total Trihalomethanes Single result at any one site (ppb)	34.0	44.1	N/A		

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.

ppm: Parts Per Million

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.

ppb: Parts Per Billion

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

If you have any questions or comments about this report, please call Raleigh Water District at **503-292-4894**.

Contaminants detected in 2022

Regulated contaminant	Detected in Portland's water		EPA standard		Sources of contaminant	
	Minimum	Maximum	MCL or TT	MCLG		
Untreated source water						
Turbidity (NTU)	0.25	4.74	5	N/A	Erosion of natural deposits	
Fecal coliform bacteria (% >20 colonies/100 mL in 6 months)	Not detected	0.6%	10%	N/A	Animal wastes	
<i>Giardia</i> (#/L)	Not detected	0.04	TT	N/A		
Treated drinking water						
Metals and nutrients at the entry point						
Arsenic (ppb)	<0.50	1.05	10	0	Found in natural deposits	
Barium (ppm)	0.00074	0.0107	2	2		
Copper (ppm)	<0.00050	0.00065	1.3	1.3		
Fluoride (ppm)	<0.025	0.15	4	4		
Nitrate (as nitrogen) (ppm)	<0.010	0.14	10	10	Found in natural aquifer deposits, animal wastes	
Nitrite (as nitrogen) (ppm)	<0.005	0.007	1	1		
Total nitrate + nitrite (as nitrogen) (ppm)	<0.010	0.15	10	10		
Microbial contaminants in the distribution system						
Total coliform bacteria (% positive per month)	Not detected	0.4%	TT	N/A	Found throughout the environment	
Disinfectant residual and byproducts in the distribution system						
Total chlorine residual (ppm)	Running annual average	1.87	2.01	4 [MRDL]	4 [MRDLG]	Chlorine used to disinfect water
	Range of single results at all sites	0.50	2.73	N/A	N/A	
Haloacetic acids (ppb)	Running annual average at any one site	14.1	30.3	60	N/A	Byproduct of drinking water disinfection
	Range of single results at all sites	<2.0	28.9	N/A	N/A	
Total trihalomethanes (ppb)	Running annual average at any one site	15.2	26.4	80	N/A	
	Range of single results at all sites	1.6	31.9	N/A	N/A	

Unregulated contaminant	Detected in Portland's water			Sources of contaminant
	Minimum	Average	Maximum	
Treated drinking water				
Manganese (ppm)	0.0012	0.0193	0.0318	Found in natural deposits
Radon (pCi/L)	<12	167	333	
Sodium (ppm)	3.4	10.6	15	



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.

About these contaminants

Arsenic, barium, copper, fluoride, and manganese

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, these are unlikely to result in negative health effects.

Fecal coliform bacteria

To comply 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 reported 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 control these bacteria.

Giardia

Wildlife in the watershed may be hosts to *Giardia*, a microorganism that can cause gastrointestinal illness. The treatment technique is to remove 99.9 percent of *Giardia* cysts. The Portland Water Bureau 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. Portland adds ammonia to form a more stable disinfectant, which helps minimize disinfection byproducts.

Nitrate and nitrite (as nitrogen)

Nitrate and nitrite, measured as nitrogen, can lead to bacterial and algal growth in the water. At levels that exceed the standard, nitrate and nitrite can contribute to health problems. At the levels found in Portland's drinking water, nitrate and nitrite are unlikely to result in 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 Portland's groundwater supply. Based on the historical levels of radon in groundwater combined with the limited amount of groundwater

N/A: not applicable

Some contaminants do not have a health-based level or goal defined by the EPA, or the MCL or MCLG does not apply to that result.

NTU: nephelometric turbidity unit

A unit for measuring the turbidity, or cloudiness, of a water sample.

ppm: parts per million

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

ppb: parts per billion

Water providers use ppb to describe a very small amount of a substance within the water. In terms of time, one part per billion is about 3 seconds out of one hundred years.

pCi/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.

used, people in Portland are unlikely to have negative health effects from radon in water. Find more information about radon from the EPA at [epa.gov/radon](https://www.epa.gov/radon).

Sodium

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

Total chlorine residual

Total chlorine residual is a measure of free chlorine and combined chlorine and ammonia in the water 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

Coliform bacteria are naturally present in the environment. They usually do not make people sick and 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. The Portland Water Bureau uses chlorine to control these bacteria.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During July 2022, we did not complete all monitoring or testing for coliform bacteria, and therefore cannot be sure of the quality of your drinking water during that time. In July 2022, we tested 238 water samples for coliform bacteria, not meeting our requirement of testing at least 240 samples per month. We returned to compliance the following month. The Portland Water Bureau updated our coliform testing plans to ensure that we are consistently meeting requirements.

Turbidity

Turbidity is the cloudiness of a water sample. In Portland'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 is that turbidity cannot exceed 5 NTU more than two times in twelve months. When turbidity rises in the Bull Run source, Portland switches to its Columbia South Shore Well Field source.

Reducing exposure to lead

What to know about lead

The Portland Water Bureau cares about the health of the families in our community and is committed to helping you reduce your exposure to lead. 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. 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. Lead is rarely found in Portland's source waters and there are no known lead service lines in the water system. 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 installed before 2014.

In Portland, 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 painted antique furniture, barro pottery, cultural cosmetics (sindoor, kumkum, tikka, roli, and kohl), and turmeric purchased overseas.

What you can do

When your water has been sitting for several hours, such as overnight or while you are 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 (leadline.org or 503-988-4000). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from EPA's Safe Drinking Water Hotline: 800-426-4791 or epa.gov/SafeWater/lead.

Additional steps to reduce exposure to lead from plumbing

- Run your water to flush any lead out
- Use cold, fresh water for cooking, drinking, and preparing baby formula
- Do not boil water to remove lead
- Test your child's blood for lead
- Test your water for lead
- Consider using a filter certified to remove lead
- Clean your faucet aerators every few months
- Consider replacing pre-2014 faucets or fixtures

Lead and copper testing results from homes with higher risk of lead in water

The Portland Water Bureau offers free lead-in-water tests to anyone in the service area. Twice each year, the Portland Water Bureau also collects water samples from a group of over 100 homes that have lead solder and are more likely to have higher levels of lead in water. Testing results from 2022 were below the EPA action level.

Regulated contaminant	Detected in residential water taps		EPA standard		Sources of contaminants
	Fall 2022 results ¹	Homes exceeding action level ²	Action level ²	MCLG ³	
Lead (ppb) ³	11.7	5 out of 108 (4.6%)	15	0	Corrosion of household and commercial building plumbing systems
Copper (ppm) ³	0.171	0 out of 108 (0%)	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.

³ See page 7 for definitions.

Investing in safe, clean drinking water is one of our top priorities. To protect our community from lead and meet regulatory requirements, we have made investments in our drinking water treatment systems to reduce lead levels at the tap. The most recent treatment upgrade to address lead in drinking water came in 2022, and we anticipate an additional reduction of lead levels at the tap when our filtration facility comes online in 2027.



In April 2022, we began treating our drinking water with improved corrosion control. By increasing the water's pH and alkalinity, the improved treatment better protects our water from lead in plumbing materials. Our team spent six months ramping up to full operation to give our drinking water system time to adjust to the changes in water chemistry. The treatment team continues to collect water samples from around the city to evaluate how the improved treatment affects lead levels. These results help us monitor the changes to the system and determine the correct treatment to reduce lead levels as much as possible.



In 2020 and 2021, Water Bureau engineers tested Bull Run water in jars to determine the most effective corrosion treatment to use at the Bull Run Filtration facility

Looking forward at our future water treatment investments, our next drinking water treatment upgrade is Bull Run Filtration, which is scheduled to be online in 2027. Even though the primary benefit of filtration is to remove *Cryptosporidium* and other potential contaminants, our testing shows that filtration combined with corrosion treatment will reduce lead levels even more. We look forward to continuing our work to further reduce lead levels at the tap.

Take a deeper dive: Portland's drinking water treatment investments

1929

Started disinfection
with chlorine

1957

Started adding ammonia to
help disinfection last

1997

Adjusted pH to reduce
lead levels

2022

Adjusted pH and alkalinity to
further reduce lead levels

2027

Filtration will remove
Cryptosporidium and further
reduce lead levels

More information: portland.gov/icct

Monitoring for *Cryptosporidium*

Cryptosporidium is a potentially disease-causing microorganism that lives in virtually all freshwater ecosystems. Drinking water treatment for *Cryptosporidium* 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. In 2017, after the start of low-level *Cryptosporidium* detections, OHA determined that treatment is necessary. Detections of *Cryptosporidium* from the Bull Run have continued, primarily during the rainy season. 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 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 that 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 Environmental Protection Agency has estimated that 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.

2022 results of *Cryptosporidium* monitoring at the raw water intake

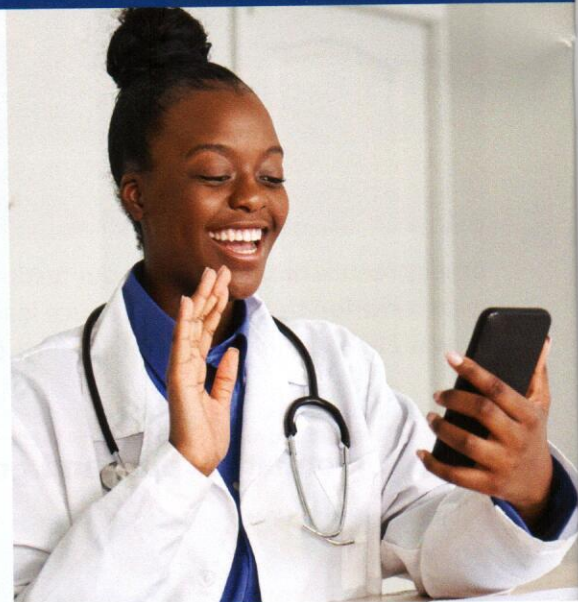
Number of samples		Concentration detected (oocysts/L)	
Total tested	Positive for <i>Cryptosporidium</i>	Minimum	Maximum
179	46	Not detected	0.08

More information: portland.gov/water/crypto

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 people, 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 (EPA)/Centers for Disease Control and Prevention (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**.



Bull Run TREATMENT PROJECTS

Investing in our future

We are investing in a safe and abundant water future for our community with the Bull Run Filtration project. The long-term improvements we are planning will use filtration treatment to protect public health by removing *Cryptosporidium* and other potential contaminants from our Bull Run supply, filtering out sediment and organic material, and further reducing lead levels at the tap. This project will not only help us provide consistent high-quality drinking water but also make our water system more resilient to future risks.

We are halfway through the 10-year project of designing and building this filtration facility. We are working to deliver the benefits of filtered Bull Run water by September 2027 and will begin construction in fall 2023. Good planning and preparation will help construction have a successful start and is part of our commitment to providing the best value to our ratepayers while we make these generational investments in the future of our water system.

What do business owners, nurses, and firefighters have in common?

They are all looking forward to the benefits of filtered Bull Run water. Watch our video to hear five community members share more about the future benefits of the Bull Run Filtration project.



Darcey Ayala (Nurse Manager at Oregon Health & Science University Hospital): "Having clean and reliable source water is really impactful. We would not be able to provide lifesaving patient care without water."



Ian Williams (Owner of Deadstock Coffee and Concourse Coffee): "The filtration project is definitely important—having good, consistent filtered water is great. Shout-out to Portland for taking care of us."



More information: portland.gov/filtration



RALEIGH WATER DISTRICT
5010 SW SCHOLLS FERRY ROAD
PORTLAND, OR 97225

Questions? We're here to help.

Central information

For general information about projects, programs, and public meetings.
503-823-7404

Billing and financial assistance

For questions or information about your account or to apply for financial assistance.
503-823-7770
PWBCustomerService@PortlandOregon.gov

Water quality and pressure

For questions regarding water quality or water pressure.
503-823-7525
WBWaterLine@PortlandOregon.gov

Water system emergencies

For reporting street leaks and water service problems.
503-823-4874
24 hours a day, 7 days a week



portland.gov/water



[PortlandWaterBureau](https://www.facebook.com/PortlandWaterBureau)



[@PortlandWater](https://twitter.com/PortlandWater)

Additional drinking water information

Oregon Health Authority
Drinking Water Services: **971-673-0405**
public.health.oregon.gov/HealthyEnvironments/DrinkingWater
Portland Water Bureau's Water System ID: 4100657

Regional Water Providers Consortium

The Portland Water Bureau is a member of the Regional Water Providers Consortium. Find out more about the Consortium and its work in water conservation, emergency preparedness, and regional coordination at **regionalh2o.org**.



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