

This is the annual Consumer Confidence Report (CCR) for your drinking water system. In this report, you can find general information regarding water quality testing, health information, and specific information regarding the water quality in your water system.

Educational & Health Information

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.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operation, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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. EPA/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 (1-800-426-4791).

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Hiland Water Services is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, 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 water, you may wish to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

About Valley View Water District and 2023 Sampling Results

Valley View WD purchases water from the Portland Water Bureau (PWB) as a wholesaler. PWB primarily gets their water from Bull Run Reservoir and disinfects it with chlorine. The State of Oregon has completed the assessment plan for our which includes a map of where the water comes from, possible sources of contamination, and a review of the susceptibility of the source for contamination. This plan is available for public review.

We continually sample for many different chemicals and have found very little contamination. Contamination is anything other than pure water. We sample total coliform bacteria as an indicator of microorganisms that should not be present. The table below lists all the drinking water contaminants that we detected during the past calendar year or in our most recent tests as noted. 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 (1-800-426-4791).

Please visit the State website for complete results at <https://yourwater.oregon.gov/chems.php?pwsno=00661>

Regulated	MCLG	MCL	Our Water	Sample Date	Violation	Typical Source of Contaminant
HAA5 (Total Haloacetic Acids) (ppb)	N/A	60	24.3	8/2/2023	No	Byproduct of drinking water disinfection
TTHM (Total trihalomethanes) (ppb)	N/A	80	30.1	8/2/2023	No	Byproduct of drinking water disinfection
Copper (ppm) (90th percentile)	1.3	1.3	0.168	8/6/2023-8/24/2023	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (ppb) (90th percentile)	15	15	7.7	8/6/2023-8/24/2023	No	Corrosion of household plumbing systems; Erosion of natural deposits.

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 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

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 contamination.

N/A: not applicable **ND:** not detectable at testing limit

ppm: parts per million or milligrams per liter **ppb:** parts per billion or micrograms per liter **pCi/L:** picocuries per liter (a measure of radiation)

Violations: We had no violations in 2023.

For information about Valley View Water District, or for board meeting dates and times, please contact Hiland Water.

For additional information about Hiland Water Services, please visit our website at www.hilandwater.com or contact us via phone or email.

General Information & CCR Questions

Hiland Office – Compliance Department

PO Box 699

Newberg, OR 97132

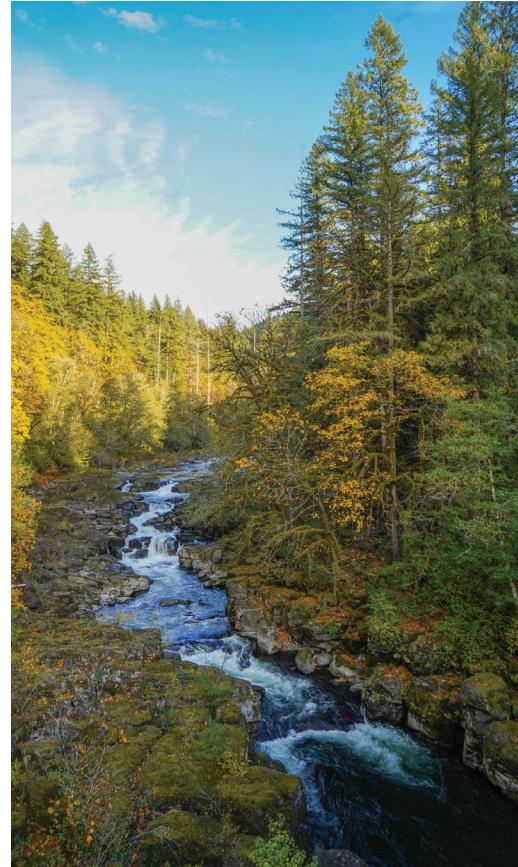
Toll-free: 1-(855)-554-8333

Email: testing@hilandwater.com



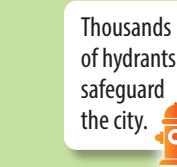
PORTLAND WATER BUREAU

2024 Drinking Water Quality Report



Portland's Water System

Established 1895



Water Quality Lab

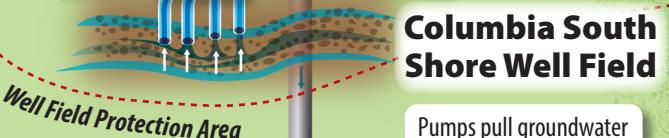
Water Bureau employees collect and test more than 11,000 water samples each year.

Washington Park Underground Reservoir

More than 2,200 miles of water mains carry water beneath the city's streets.

Downtown Portland

To Washington County



Kelly Butte Underground Reservoir

Columbia South Shore Well Field

Pumps pull groundwater from the aquifers of the Columbia South Shore Well Field.

Powell Butte Underground Reservoirs

Drinking water flows by gravity from Bull Run to Portland.



Reservoirs and tanks store water for everyday use, plus firefighting and emergency needs.

Bull Run Watershed

Reservoir & Dam 1

Reservoir & Dam 2

Headworks Treatment Facility

Lusted Hill Treatment Facility

Bull Run Watershed Closure Area

Most of Portland's drinking water comes from the Bull Run Watershed, 26 miles east of downtown Portland.

Bull Run Lake

Mt. Hood

Portland's drinking water system delivers water from two high-quality sources—the Bull Run Watershed and the Columbia South Shore Well Field—to almost one million people in Portland and surrounding communities.

About this report

Each year, the Portland Water Bureau provides this Drinking Water Quality Report to all of its customers. This report is required by the State and the EPA and contains important information about Portland's drinking water and water system. The following 2024 Drinking Water Quality Report contains results for all regulated contaminants the bureau detected in drinking water in 2023.

The contaminants in this report are just a part of the over 200 regulated and unregulated contaminants that Portland tests for in our drinking water. Additional results are available at

portland.gov/water/TestResults.

Questions about the information in this report? Contact the Water Quality Line: **503-823-7525**.

This report is also available online at portland.gov/WaterQualityReport.

Our 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 for nearly one million people. 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 that live in virtually all freshwater ecosystems, such as *Giardia*, *Cryptosporidium*, fecal coliform bacteria, and total coliform bacteria. The Portland Water Bureau regularly tests Bull Run water for these microorganisms. Portland's source water assessment is available at portland.gov/water/SWA or by calling **503-823-7525**.

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 September 2027. Learn more on pages 8 and 10.

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 Program works with residents and businesses in the well field to ensure that pollutants from this urban area do not impact the groundwater source.

Learn more about our water sources at portland.gov/water/BullRun and portland.gov/water/groundwater.

Our drinking water treatment

Portland treats our drinking water to keep our community safe. Currently, Portland's drinking water treatment is a three-step process:

- Chlorine** disinfects against organisms, such as bacteria and viruses, that could otherwise make people sick.
- Ammonia** stabilizes chlorine to form a longer-lasting disinfectant.
- Sodium carbonate** and **carbon dioxide** are added to Bull Run water and **sodium hydroxide** is added to groundwater to reduce the corrosion of metals such as lead.

Portland is in the process of changing our Bull Run treatment by 2027. Portland does not currently filter Bull Run drinking water. In response to a series of low-level detections of *Cryptosporidium* in Bull Run water, Portland is installing a filtration plant to treat for *Cryptosporidium*. Bull Run water will be filtered by September 2027. Learn more on pages 8 and 10.



You have questions about water quality? We have answers!



Lillian and Matt (se habla español), our Water Quality Line staff, answer questions from homeowners, renters, and businesses about water quality and water pressure every day. Here are some common questions.

Do you have questions? Start here: portland.gov/water/WQLine

Contact us: WBWaterLine@PortlandOregon.gov, 503-823-7525

Contacting us is free, with language interpretation at no cost.

Has Portland tested its drinking water for PFAS?

Yes, and fortunately PFAS have not been detected in drinking water from either of our water sources. PFAS—perfluoroalkyl and polyfluoroalkyl substances—are a group of chemicals that are a growing concern for consumers and water providers across the country. Portland shares this concern and is taking steps to protect and monitor our drinking water for PFAS. Learn more at portland.gov/water/PFAS.

Does Portland 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 soft. It typically has a total hardness of 7 to 11 parts per million (ppm), or approximately 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.

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) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

How can I get my water tested?

For free lead-in-water testing, residents and child care providers can visit portland.gov/water/LeadTest. 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. Learn more at 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. Learn more at portland.gov/water/WQBuilding.

2023 wildfire in the Bull Run Watershed

On Thursday, August 24, 2023, a lightning strike sparked a wildfire in the Bull Run Watershed that eventually spread through 2,055 acres of the forest. Named the Camp Creek Fire, this was the first significant fire in the watershed since 1881—before the watershed became Portland's water supply in 1895.

Fighting the Camp Creek Fire

Fire response and control activities were managed by the United States Forest Service, the Oregon Department of Forestry, and the Bureau of Land Management. Anna, the Portland Water Bureau's watershed manager, worked closely with these agencies in the field to provide support and watershed expertise. Given the location of the fire within a drinking water supply and the potential water quality impacts, the firefighting goal was full suppression. At the height of the response, this was the second priority fire in the country and there were nearly 600 personnel fighting the fire. These strong partnerships helped to quickly get control of the fire, protect our drinking water treatment facilities and staff, and minimize impacts on the forest and water quality.

Monitoring water quality

The fire's potential effects on water quality were a top concern for us. After a forest fire, rainwater flowing across burned areas can move more organic material such as dirt, ash, and plant debris into streams and reservoirs, which can affect water quality. To understand if our water quality was impacted by the fire, we partnered with the Forest Service to assess the burned area and worked with the United States Geological Survey to install new water quality monitoring instruments. These resources helped us monitor impacts immediately after the fire and will now help us be ready for the future.

Preparing for the future with filtration

We are building a new filtration facility that will not only remove *Cryptosporidium* from our Bull Run water supply but also make us more resilient to wildfire impacts. Heavy rains can wash dirt, plant debris, ash, and other organics into streams and reservoirs. This can be more pronounced following a wildfire, depending on the severity and location of the fire. Bull Run water is currently unfiltered, which means that when large amounts of dirt or organic material enter our supply, we cannot safely serve the water and must rely on our groundwater supply. The new water filtration system will be in operation by September 2027 and will help us be more resilient after a fire or extreme weather event. Learn more about the fire at portland.gov/water/camp-creek-fire-story-map.



Portland Water Bureau watershed manager Anna in the Bull Run Watershed during the Camp Creek Fire. While Anna was our important link in the field, responding to the fire required staff from all corners of the Water Bureau to keep our water treatment staff safe, keep safe water flowing to town, and keep our community informed.

What did it take to fight the Camp Creek Fire?

Check out these videos and more at facebook.com/CampCreekFire



Camp Creek Fire First Day



Going Direct: Firefighters engage the fire's edge to add containment



Contaminants detected in 2023

Regulated contaminant	Levels detected in Portland's water	EPA limit: MCL or TT	EPA goal: MCLG	Source of contaminant	
Untreated source water					
Turbidity (NTU)	0.23–3.69	5	N/A	Erosion of natural deposits	
Giardia (cysts/liter)	0–0.08	TT	N/A	Animal wastes	
Fecal and total coliform bacteria (% more than 20 CFU or 100 MPN per 100 milliliters (mL) in 6 months)	0.5%	No more than 10% of samples in 6 months can have more than 20 CFU or 100 MPN per 100 mL of water	N/A	Animal wastes; found throughout the environment	
Fecal coliform bacteria (CFU/100 mL) Range of single results	0–11	N/A	N/A	Animal wastes	
Total coliform bacteria (MPN/100 mL) Range of single results	79.8–387.3	N/A	N/A	Found throughout the environment	
Treated drinking water					
Metals and nutrients at the entry point					
Arsenic (ppb)	<0.50–0.90	10	0	Found in natural deposits	
Barium (ppm)	0.00082–0.01000	2	2		
Fluoride (ppm)	<0.025–0.13	4	4		
Nitrate (as nitrogen) (ppm)	0.02–0.11	10	10		
Microbial contaminants in the distribution system					
Total coliform bacteria (% positive per month)	Not detected–1.1%	TT	N/A	Found throughout the environment	
Disinfectant levels and byproducts in the distribution system					
Total chlorine (ppm)	Running annual average	1.95–2.01	4 [MRDL]	4 [MRDLG]	Chlorine used to disinfect water
	Range of single results at all sites	0.27–2.71	N/A	N/A	
Haloacetic acids (ppb)	Running annual average at any one site	17.3–25.8	60	N/A	Byproduct of drinking water disinfection
	Range of single results at all sites	16.4–32.5	N/A	N/A	
Total trihalomethanes (ppb)	Running annual average at any one site	17.4–27.9	80	N/A	
	Range of single results at all sites	17.2–36.0	N/A	N/A	

Unregulated contaminant	Levels detected in Portland's water	Average level detected in Portland's water	Source of contaminant
Treated drinking water			
Manganese (ppb)	2.5–33.7	15.8	Found in natural deposits
Radon (pCi/L)	<12–333	167	
Sodium (ppm)	11–12	11.5	

Definitions

CFU: colony forming unit

An estimation of the number of fecal coliform bacteria in a water sample.

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.

MPN: most probable number

A statistical method used to estimate the concentration of total coliform bacteria in a water sample.

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, 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

Fecal waste from wildlife in the watershed is the source of fecal coliform bacteria, a microorganism that can cause gastrointestinal illness. Portland is required to test for fecal coliform bacteria before disinfectant is added. After testing our untreated water for fecal coliform bacteria, Portland treats its water with 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. After testing our untreated water for *Giardia*, Portland treats its water with chlorine to control these organisms.

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 the water to form a more stable disinfectant, which helps minimize disinfection byproducts.

Nitrate (as 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 Portland's drinking water, nitrate is 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

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.

Regulated contaminant

A substance in drinking water that has a limit set by the EPA based on health risk or aesthetic characteristics.

TT: treatment technique

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

Unregulated contaminant

A substance in drinking water that does not have a limit set by the EPA but may have one set in the future.

Bull Run water supply and at varying levels in Portland's groundwater supply. At the levels found in Portland's drinking water, radon in water is unlikely to result in negative health effects.

Sodium

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

Total chlorine

Total chlorine is a measure of free chlorine and combined chlorine and ammonia in the water distribution system. Low levels of chlorine remaining in the water are necessary to keep Portland's drinking water safe from bacteria and other microorganisms. At the levels found in Portland's drinking water, chlorine is unlikely to result in negative health effects.

Total coliform bacteria

Coliforms are bacteria that are naturally present in the environment and usually do not make people sick. They are used as an indicator that other potentially harmful bacteria may be present. Portland tests for coliform bacteria in both untreated source water and treated water in the distribution system. After testing the untreated water for coliform bacteria, Portland treats its water with chlorine to control these bacteria. If these bacteria are found in more than 5 percent of distribution system samples in a month, the treatment technique requires an investigation to identify and correct any possible causes.

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 Portland does not yet filter Bull Run water, we are required to test for turbidity and the treatment technique limit 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 groundwater source.



Cryptosporidium data and lead data are on pages 8 and 9.

Find additional results, including pH, hardness, and PFAS, at portland.gov/water/TestResults

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, the OHA determined that treatment is now 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 September 30, 2027 under a compliance schedule with the OHA. In the meantime, 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

Learn more at portland.gov/water/crypto.

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 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.

2023 results of <i>Cryptosporidium</i> monitoring at the raw water intake		
Total number of samples tested	Total number of samples positive for <i>Cryptosporidium</i>	Levels detected in Portland's water (oocysts/liter)
217	59	0-0.2

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**.



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. Portland treats its water to reduce lead levels at the tap. Sodium carbonate and carbon dioxide are added to Bull Run water to increase the pH and alkalinity and sodium hydroxide is added to groundwater to increase the pH. This treatment protects our water from lead in plumbing materials.

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. Learn more at

LeadLine.org or 503-988-4000.

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 at portland.gov/water/LeadTest or call **503-823-7525**. 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 faucets or fixtures installed before 2014

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. Every 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 these homes in 2023 were below the EPA action level.

Regulated contaminant	Fall 2023 90th percentile results ¹	Homes exceeding action level ²	EPA limit: action level ²	EPA goal: MCLG ³	Source of contaminant
Lead (ppb) ³	7.7	3 out of 113 (2.6%)	15	0	Corrosion of household and commercial building plumbing systems
Copper (ppm) ³	0.168	0 out of 113 (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 other requirements which a water system must follow.

³ See page 7 for definitions.

Drinking water treatment updates

Drinking water treatment investments significantly improve lead levels in water

In 2022, Portland began treating our drinking water with Improved Corrosion Control Treatment. By increasing the water's pH and alkalinity, the improved treatment better protects our water from lead in plumbing materials.

During 2023, we conducted multiple rounds of testing to evaluate how the improved treatment affects lead levels in homes with lead in their plumbing. In December 2023, our regulator, the Oregon Health Authority, reviewed the data and confirmed that Portland's improved drinking water treatment is "optimized," bringing the Portland Water Bureau in full compliance with the EPA's Lead and Copper Rule. By upgrading drinking water treatment to reduce corrosion, we have taken a significant step toward reducing lead levels in drinking water for all users, especially for those with lead-soldered pipes or lead-containing components in their homes.

"This result really validates the investments we've made in the water system to protect the community," Portland Water Bureau Director Gabriel Solmer said. "Every time Portlanders pay their bills, they are supporting efforts like this one to keep our drinking water safe."



Improved Corrosion Control Treatment facility

Filtration: 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 building will protect public health by removing *Cryptosporidium* and other potential contaminants from our Bull Run



Filtration project rendering

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.

In 2024, we achieved an important project milestone and started construction of the new water filtration facility and pipelines. A project this size takes multiple years to build and keeping our momentum through construction is critical to having these water system improvements in place by September 2027.

Filtration will not only make our water supply more resilient—it will also help Portland comply with federal and state safe drinking water regulations today and in the future. We are committed to providing the best value to our ratepayers while we make these generational investments in the future of our water system.

Behind the scenes at the Portland Water Bureau

Testing your drinking water

How do we know that your drinking water is safe from source to tap? By testing it every step of the way.

Drinking water testing starts with our watershed and groundwater samplers who monitor our drinking water sources, then moves to our water treatment operators to meet the water treatment targets, and then finally to our water quality samplers and laboratory staff who test water around the city. Our staff are proud of their work and show their dedication every day, whether they're tracking instrument read-outs of pH and turbidity during the overnight shift or driving on ice-covered roads to collect critical water samples.

Our water test results help us meet many goals. At the top of the list is conducting required testing to ensure we are serving safe drinking water to the nearly one million people who drink and use Portland's water. We then share our results with the state, EPA, and our consumers to show that our water meets state and federal water quality standards.

We also conduct voluntary testing throughout the year to help us decide how to operate the water system. Water quality and operations staff work together to track test results and, if needed, change how water is stored in tanks and moved around the city to provide everyone the best drinking water quality.

Lastly, we test our water to protect public health into the future. As science discovers new contaminants or better understands impacts to human health, having data helps us understand if those contaminants exist in our drinking water. Over the years, we have voluntarily tested for a number of contaminants that the EPA does not yet regulate, including PFAS, *Legionella*, and pharmaceutical and personal care products. Our test results show that these are not a concern in our drinking water today, but we will continue testing for unregulated contaminants to ensure our water is safe for generations to come.



Join water quality sampler Tom for a day at the office.



Sharing our love of water at community events near you

Here at the Water Bureau, our three favorite activities are serving tap water, drinking tap water, and sharing our love of tap water with our community!

Throughout the year, our water experts attend events around the city to answer all your drinking water questions, share tips on how to save on your bill and financial assistance information, and hand out useful water saving devices.



Water Bureau staff enjoyed teaching over 1,000 fourth graders about our amazing drinking water at the 2023 Children's Clean Water Festival.

Some of our 2023 highlights include leading students through water testing activities at the Children's Clean Water Festival, handing out water bottles at Good In The Hood, and helping first-time homebuyers with their tap water questions at African American Alliance for Homeownership fairs.

Look for us when you are at events and if you see us, come say hi! This year we'll be at Jade Night Market, Sunday Parkways, and more. Whether you want to learn more about our water system, have a suggestion on how we can improve our services, or have a tough question for us to troubleshoot, we want to chat with you!

Have an event you want us to attend? Let us know at WBWaterLine@PortlandOregon.gov.



1120 SW Fifth Avenue • Suite 405
Portland, Oregon 97204

Mingus Mapps, Commissioner-in-Charge
Gabriel Solmer, Director

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



Additional drinking water information

Oregon Health Authority
Drinking Water Services: **971-673-0405**
oregon.gov/oha/ph/HealthyEnvironments/DrinkingWater

Portland Water Bureau's Water System ID: 4100657

Regional Water Providers Consortium

The Portland Water Bureau is a member of the Consortium, which provides leadership in the planning, management, stewardship, and resiliency of drinking water in the greater Portland metropolitan region. Learn more at regionalH2O.org.



This report is available online in English, Spanish, Russian, Vietnamese, and simplified Chinese. Please call us if you want a paper copy of this report.

Este informe está disponible en español en línea. Por favor, llámenos si desea una copia impresa de este informe.

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Báo cáo này có trên mạng bằng tiếng Việt. Vui lòng gọi cho chúng tôi nếu quý vị muốn có một bản sao bằng giấy của báo cáo này.

线上有简体中文版本报告。如果您需要这份报告的纸本副本, 请来电。

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