

Water ²⁰¹⁵ REPORT *Quality*



From Bull Run Watershed to Your Home.

West Slope
Water District



your drinking Water 2015

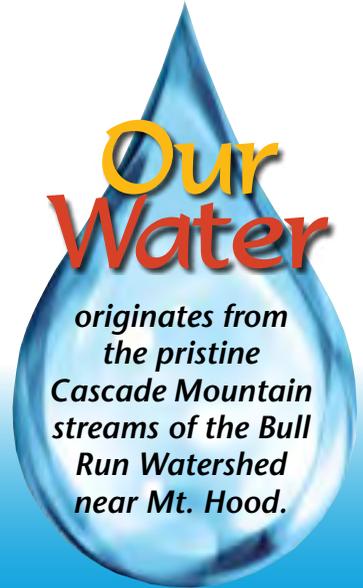
If this information looks familiar, it should. We have mailed similar information to customers since 1999. Why every year? It's the law. Drinking water regulations require us to produce and mail this information every year.

Most of the language is also required – Congress and the EPA want to be sure every community knows what is in their drinking water. We agree. So we take the extra effort to make this complex information attractive and readable.

About This Report

All data in this report is for the year 2014. If you have any questions about this report or your water utility, please contact Michael W. Grimm, General Manager, at **503-292-2777** or E-mail at **mgrimm@wswd.org**.

We also invite interested citizens to attend Board of Commissioners meetings on the third Wednesday of every month. They are held at 5:00 pm at 3105 SW 89th Avenue, Portland, Oregon 97225.



**Our
Water**

*originates from
the pristine
Cascade Mountain
streams of the Bull
Run Watershed
near Mt. Hood.*

Letter from Board of Commissioners and General Manager - Michael W. Grimm

We are pleased to provide you with our annual monitoring results. Federal and State drinking water regulations require all community water systems to provide a water quality report to customers every year.

The West Slope Water District is presenting this report in order to provide our customers with the best available information about the water they drink and the system that delivers it to them. We encourage you to take the time to read the information contained in this report.

Much of the information is very detailed as required by law. We have made every effort to make it clear, useful and easy to read. ***The key piece of information for most consumers is this: our drinking water supply continues to meet all state and federal regulations, without exception.***

This report includes other information of interest to many consumers: water quality test results; definitions; information on our water supply; how to reduce exposure to lead in drinking water and a special notice for immuno-compromised persons.

Regular routine water quality monitoring is one way the District protects the water we drink. We also protect the storage and delivery system through capital infrastructure investment and long-range planning. To ensure water availability and quality, we continuously evaluate and implement activities and projects that maintain our system and strengthen it against vulnerabilities such as age, earthquakes and contamination.

Please take a moment to review this report and consider safe and abundant water we all use daily and the system that delivers it to our homes and businesses. It is easy for us to take our precious water for granted, and yet, like we have for the past 93 years, the West Slope Water District will continue to supply safe, clean, high quality drinking water to our community.

Sincerely,

Donna Davis
Chair, Board of Commissioners

Michael W. Grimm
General Manager

Charles G. Conrad
Commissioner

Bruce Hellebuyck
Treasurer

Noel Reiersen
Secretary

Robert W. Rieck
Commissioner





West Slope Water District

Where Your Water Originates

The *West Slope Water District* purchases its water from the **City of Portland**.

The water source is the Bull Run watershed, a surface water supply, within the Bull Run Watershed Management Unit, located in the Mt. Hood National Forest. A geological ridge separates the watershed from Mount Hood. Current regulations, and the availability of the Columbia South Shore Well Field, allow Portland to meet federal drinking water standards without filtering this high quality Bull Run water supply. The watershed covers an area of 102 square miles, and typically receives 80-170 inches of rainfall each year. The heaviest rains occur from late fall through spring. The Bull Run Lake and two reservoirs store water for year-round use.

The watershed is reserved solely for producing drinking water. Federal laws restrict public entry. No recreational, residential or industrial uses occur within its boundaries. The Portland Water Bureau carefully monitors water quality and quantity. The Oregon Health Authority – Drinking Water Program regularly inspects the watershed and related treatment and distribution facilities.

The Portland Water Bureau completed a Source Water Assessment for the Bull Run water supply to comply with the 1996 Safe Drinking Water Act amendments. The only contaminants of concern for the Bull Run water supply are naturally occurring microbial contaminants such as *Giardia*, *Cryptosporidium*, fecal coliform bacteria, and total coliform bacteria. These organisms are found in virtually all freshwater ecosystems and are present in the Bull Run supply at very low levels. The Bull Run supply consistently complies with all applicable state and federal regulations for source water, including the 1989 Surface Water Treatment Rule filtration-avoidance criteria. The Portland Water Bureau is also operating under a variance for the treatment requirements for *Cryptosporidium*, see page 7 for more information. The Source Water Assessment is available at www.portlandoregon.gov/water/sourcewaterassessment and by calling **503-823-7525**.

The Columbia South Shore Well Field provides high quality water from production wells located in three different aquifers. From July 1 through July 10, 2014, the Portland Water Bureau supplemented the the Bull Run drinking water supply with approximately 120 million gallons of groundwater during the repair of a supply conduit and annual groundwater maintenance operation.

Portland has a long history of groundwater protection. In June 2008, the State certified the Columbia South Shore Protection Plan. The protection program, encompassing portions of Portland, Gresham, and Fairview has identified commercial and industrial activities as the most significant potential

sources of contamination. Together these cities regulate businesses in the groundwater protection area to prevent hazardous material spills that could seep into the ground. The cities also educate local residents on what can be done to help protect groundwater with events such as Aquifer Adventure, Cycle the Well Field, and Ground Water 101. To obtain a copy of Portland's groundwater protection program plan, which includes information on potential sources of contamination call 503-823-7473, or to learn more about upcoming events and how to protect groundwater, visit www.portlandoregon.gov/water/groundwater.

Water Testing

West Slope Water District in conjunction with our supplier, the Portland Water Bureau, monitors for over 200 regulated and unregulated contaminants in drinking water including pesticides and radioactive contaminants. All monitoring data in this report is from 2014. **If a known health-related contaminant is not listed in this report, it was not detected in our drinking water.**



Water Treatment

The first step in the treatment process for Portland's drinking water is disinfection using chlorine. Next, ammonia is added to form chloramines which ensure that disinfection remains adequate throughout the distribution system.

The Portland Water Bureau also adds sodium hydroxide to increase the pH of the water to reduce corrosion of plumbing systems. This treatment helps control lead and copper at customers' taps should these metals be present in the customers' home plumbing.

Your water
meets all
State and
Federal
Regulations



What the EPA Says About the Contaminants

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at **800-426-4791** or at **www.epa.gov/safewater**.

The sources of drinking water (both tap 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 in drinking water sources may include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from wildlife or septic systems.
- **Inorganic contaminants**, such as salts and metals, which can occur naturally, or result from urban stormwater runoff, industrial or domestic wastewater discharges, or farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as farming, urban stormwater runoff, and home or business use.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can occur naturally.

In order to ensure that tap water is safe to drink, EPA has regulations that limit the amount of certain contaminants in water provided by public water systems and requires 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.

Special Notice: For Immuno-Compromised Persons

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The Environmental Protection Agency (EPA) and Centers for Disease Control and Prevention offer 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**.

Cryptosporidium Monitoring

RAW WATER INTAKE

MONITORING IN THE BULL RUN WATERSHED

Location	Number of Samples	Volume in Liters	Detections	Tested
Raw Water	241	5399.7	None	2014

The Bull Run Treatment Variance

In 2014, there were no detections of *Cryptosporidium* during Raw Water Intake Monitoring.

In March, 2012 the Oregon Health Authority (OHA) issued the Portland Water Bureau a variance from the state and federal drinking water rules requiring the treatment of raw water from Bull Run for the parasite *Cryptosporidium*. A variance is state permission not to meet a MCL or a treatment technique under certain conditions. A state may grant a variance if a water system demonstrates that the required treatment is not necessary to protect public health because of the nature of the water system's raw water source. OHA issued Portland Water Bureau the treatment variance for *Cryptosporidium* based on substantial data and analyses presented in the LT2 Treatment Variance Request for the Bull Run drinking water source. The Portland Water Bureau is the only system in the United States to have received a variance to the treatment requirements for *Cryptosporidium* based on the high quality of its raw water and therefore does not provide treatment for *Cryptosporidium*.



Tables and notes contain only contaminants detected in 2014, and indicate location where samples were collected.

Water Quality Data

CONTAMINANTS DETECTED IN 2014

UNTREATED SOURCE WATER FROM BULL RUN

Regulated Contaminant	Minimum Detected	Maximum Detected	MCL or Treatment	MCLG	Typical Source
Turbidity (monthly average)	0.19 NTU	4.04 NTU	Can't exceed 5 NTU >2 times in 12 months	N/A	Erosion of natural deposits
<i>Giardia</i>	Not Detected	1 <i>Giardia</i> cyst in 50 liters sample	Treatment Required: Disinfection to kill 99.9% of cysts	N/A	Animal wastes
Fecal Coliform Bacteria	Not Detected	100% of samples had 20 or fewer bacterial colonies per 100 milliliters of water *	90% of samples/ last 6 months/ 20 or fewer colonies per 100ml water	N/A	Animal wastes

* 1 sample had 9 bacterial colonies per 100 ml.

NUTRIENTS

TREATED DRINKING WATER FROM BULL RUN/
COLUMBIA SOUTH SHORE WELL FIELD/ ENTRY POINTS TO DISTRIBUTION

Regulated Contaminant	Minimum Detected	Maximum Detected	MCL or Detected	MCLG Treatment	Typical Source
Nitrate Nitrogen	<0.01 ppm	0.24 ppm	10 ppm	10 ppm	Natural deposits animal wastes

METALS & MINERALS

TREATED DRINKING WATER FROM BULL RUN/
COLUMBIA SOUTH SHORE WELL FIELD/ ENTRY POINTS TO DISTRIBUTION

Arsenic	<0.5 ppb	1.46 ppb	10 ppb	0 ppb	Natural deposits
Barium	0.00072 ppm	0.0107 ppm	2 ppm	2 ppm	Natural deposits
Chromium (total)*	<0.5 ppb	0.2 ppb	100 ppb	100 ppb	Natural deposits
Copper	<0.00050 ppm	0.00202 ppm	N/A	1.3 ppm	Natural deposits
Fluoride	<0.025 ppm	0.15 ppm	4 ppm	4 ppm	Natural deposits
Lead	<0.05 ppb	0.15 ppb	NA	0 ppb	Natural deposits

UNREGULATED CONTAMINANTS

TREATED DRINKING WATER FROM BULL RUN/COLUMBIA SOUTH SHORE WELL FIELD/ ENTRY POINTS TO DISTRIBUTION

Contaminant	Minimum Detected	Average Detected	Maximum Detected	Typical Source
Radon	310 pc/L	310 pc/L	310 pc/L	Found in natural aquifer deposits
Sodium	2.93 ppm	8.03 ppm	21.6 ppm	Added in treatment Found in natural deposits

*During the year, tests with varying method reporting limits (MRLs) were used to analyze chromium. The sample with a result of <0.5 ppb was analyzed by a test with a less sensitive MRL and is why the minimum appears to be greater than the maximum.

Notes on Regulated and Unregulated Contaminants

Turbidity - Bull Run is an unfiltered surface water supply. Rules for public water systems have strict standards for unfiltered surface water supplies. Turbidity levels in unfiltered water must not exceed 5 NTU (nephelometric turbidity units) more than two times in a twelve month period. The typical cause of turbidity is tiny particles of sediment in the water which can interfere with disinfection and provide a medium for microbial growth. Large storm events can result in increased turbidity, causing the Portland Water Bureau to shut down the Bull Run system and draw water from the Columbia South Shore Well Field.

Giardia - Wildlife in the watershed may be hosts to *Giardia*, the organism that causes giardiasis. Chlorine is effective in inactivating *Giardia*.

Fecal Coliform Bacteria - The presence of fecal coliform in source water indicates that water may be contaminated with animal wastes. The Portland Water Bureau uses chlorine to control these bacteria.

Nitrates/Nitrogen - Nitrate, measured as Nitrogen, can support microbial growth (bacteria and algae). Nitrate levels exceeding the standards can contribute to health problems. At the levels found in our drinking water, Nitrate is unlikely to contribute to adverse health effects.

Arsenic, Barium, Chromium (total), Copper, Fluoride and Lead - These metals and minerals are elements found in the earth's crust which can dissolve into water that is in contact with natural deposits. At the levels found in Portland's drinking water, they are unlikely to contribute to adverse health effects. There is no MCL for lead and copper at the entry point to the distribution system. Lead and copper are regulated at customers' taps.

Total Coliform Bacteria - Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other potentially-harmful bacteria may be present. The Portland Water Bureau uses chlorine to kill these bacteria.

Disinfection Byproducts - During disinfection, certain byproducts form as a result of chemical reactions between chlorine and naturally occurring organic matter in the water. These byproducts can have negative health effects. Trihalomethanes and haloacetic acids, are regulated disinfection byproducts that have been detected in both West Slope's and Portland's water. The disinfection process is carefully controlled to keep byproduct levels low.

Total Chlorine Residual - Total chlorine residual is a measure of free chlorine and combined chlorine and ammonia in our distribution system. Chlorine residual is necessary to maintain disinfection throughout the distribution system. Adding ammonia to chlorine results in a more stable disinfectant and helps to minimize the formation of disinfectant byproducts.

Radon - Radon is a naturally occurring radioactive gas that cannot be seen, tasted or smelled. Radon was not detected in the Bull Run water supply. It has been detected at varying levels in Portland's groundwater supply. For information about radon, call EPA's Radon Hotline (800-SOS-RADON) or www.epa.gov/radon/rnwater.html.

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



Definitions

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

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Part Per Million (ppm): One part per million corresponds to one penny in \$10,000 or approximately one minute in two years. One part per million is equal to 1,000 parts per billion.

Part Per Billion (ppb): One part per billion corresponds to one penny in \$10,000,000 or approximately one minute in 2,000 years. One ppb is equal to 1,000 parts per trillion.

Part Per Trillion (ppt): One part per trillion corresponds to one penny in \$10,000,000,000 or approximately one second in 32,000 years.

Picocuries Per Liter (pc/L): Picocurie is a measurement of radioactivity. One picocurie is one trillion times smaller than one curie.

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

UNREGULATED CONTAMINANTS MONITORING RULE (UCMR3)

The Unregulated Monitoring Rule (UCMR) is a U.S. Environmental Protection Agency (EPA) regulatory tool that gathers information about the presence and levels of currently unregulated substances in drinking water. Approximately every five years, the EPA requires water providers to test for a list of substances. These results are then used by EPA to determine the extent and level at which they are present and if there is a need to regulate them based on their potential health risk. This is the third time monitoring has been required under this program, and is referred to as UCMR 3.

In 2014, West Slope tested for the current list of 21 unregulated substances as required by UCMR 3. Testing was performed on a quarterly basis at the entry point of our system and in the distribution system. Of the 21 substances, 5 were detected in the source water and the distribution system.

Constituent	Unit of Measurement	Average Detected (Range)	Source of Contaminant
Total Chromium	ppb	0.37 (0.20 - 0.60)	A common naturally-occurring element
Hexavalent Chromium	ppb	0.53 (0.043 - 0.063)	A chemical form of chromium naturally-occurring in water and soil
Strontium	ppb	23.5 (12 - 45)	A metal element occurring in nature
Vanadium	ppb	0.4 (0.36 - 0.49)	A metal element occurring in nature
Chlorate	ppb	39.3 (21 - 51)	Byproduct of drinking water disinfection.

Distribution System Data

West Slope Water

Tables and notes contain only contaminants detected in 2014, and indicate location where samples were collected.

CONTAMINANTS DETECTED IN 2014

WEST SLOPE DISTRIBUTION SYSTEM - RESERVOIRS/TANKS/MAINS

Regulated Contaminant	Minimum Detected	Maximum Detected	MCL or Treatment Technique	MCLG	Typical Source
Total Coliform Bacteria	0 positive samples detected	0 samples of 120 for bacteria	Violation if >1 samples positive per month	0 Samples	Throughout environment
<i>E.coli</i> Bacteria	Not Detected	0% samples with bacteria	Violation if repeat sample is positive	0 Samples	Animal waste

DISINFECTANT BYPRODUCTS

WEST SLOPE DISTRIBUTION SYSTEM - RESERVOIRS/TANKS/MAINS

Regulated Contaminant	Minimum Detected	Maximum Detected	MCL or Treatment Technique	MCLG	Typical Source
Total Trihalomethanes Running Annual Average All Sites	23 ppb	42 ppb	80 ppb	N/A	Byproduct of water disinfection
1 result/1 site in 2014	22 ppb	47 ppb			
Haloacetic Acids Running Annual Average All Sites	28 ppb	36 ppb	60 ppb	N/A	Byproduct of water disinfection
1 result/1 site in 2014	17 ppb	52 ppb			

DISINFECTANT RESIDUAL

WEST SLOPE DISTRIBUTION SYSTEM - RESERVOIRS/TANKS/MAINS

Regulated Contaminant	Minimum Detected	Maximum Detected	Max. Residual Disinfectant Level (MRDL)	Max. Residual Disinfectant Level GOAL (MRDL)	Typical Source
Total Chlorine Running Annual Average	0.7 ppm	1.7 ppm	4 ppm	4 ppm	Chlorine & ammonia used as disinfectants
Total Chlorine Residual - 1 site	0.5 ppm	1.5 ppm	N/A	N/A	

Lead and Copper Testing

LEAD AND COPPER

SAMPLING AT HIGH-RISK RESIDENTIAL WATER TAPS

90th Percentile Values	Number of Sites Over Action Level	Exceeding Lead & Copper Rule	MCLG	Typical Source
Copper 0.34 ppm	0 samples of 114 exceeded	If more than 10% of homes tested had levels > 1.3 ppm	1.3 ppm	Corrosion of household & commercial plumbing systems
Lead 16 ppb	11 of 114 samples (9.6%) exceeded	If more than 10% of homes tested had levels > 15 ppb	0 ppb	Corrosion of household & commercial plumbing systems

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

Lead in Drinking Water

Easy steps to avoid possible exposure to lead in drinking water:



- **Run your water to flush the lead out.** If the water has not been used for several hours, run each tap for 30 sec. - 2 min. or until it becomes colder before drinking or cooking. This flushes water which may contain lead from pipes.
- **Use cold, fresh water for cooking or preparing baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use hot water from the hot water tap to make baby formula.
- **Do not boil water to remove lead.** Boiling water will not reduce lead.
- **Consider using a filter.** Check whether it reduces lead – not all filters do. Be sure to maintain and replace a filter

device in accordance with the manufacturer's instructions to protect water quality. Contact NSF International at **800-NSF-8010** or **www.nsf.org** for information on performance standards for water filters.

- **Test your water for lead.** Visit the LeadLine at www.leadline.org or call at **503-988-4000** to find out how to get a FREE lead in water test.
- **Test your child for lead.** Ask your physician or call the LeadLine to find out how to have your child tested for lead. A blood lead level test is the only way to know if your child is being exposed to lead.
- **Regularly clean your faucet aerator.** Particles containing lead from solder or household plumbing can become trapped in your faucet aerator. Regularly cleaning every few months will remove these particles and reduce your exposure to lead.
- **Consider buying low-lead fixtures.** As of January 2014, all pipes, fittings and fixtures are required to contain less than 0.25% lead. When buying new fixtures, consumers should seek out those with the lowest lead content. Visit **www.nsf.org** to learn more about lead content in plumbing fixtures.

Call the Leadline at **503-988-4000** or visit **www.leadline.org** for information about lead hazards, free lead in water testing, free childhood blood lead testing and referrals to other lead reduction services.

Reducing Exposure to Lead

West Slope has no known lead service connections in its distribution system.

Exposure to lead through drinking water is possible if materials in a building's plumbing contain lead. The level of lead in water can increase when water stands in contact with lead-based solder and brass faucets containing lead.

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. The Portland Water Bureau and the West Slope Water District are 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 drinking water, you may wish to request a free lead-in-water test from the LeadLine. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the LeadLine, **503-988-4000**, **www.leadline.org** or the Safe Drinking Water Hotline **800-426-4791**, **www.epa.gov/safewater/lead**.

People are exposed to lead in many other ways. In the Portland area, dust from paint in homes built before 1978 is the most common source of exposure to lead. Other sources include soil, pottery, traditional folk medicines or cosmetics, some sport equipment such as fishing weights and ammunition, and some occupations and hobbies.

Corrosion Treatment - The Portland Water Bureau's corrosion control treatment reduces corrosion in plumbing by increasing the pH of the water. Comparison of monitoring results with and without pH adjustment shows over 50 percent reduction in lead and 80 percent reduction in copper at the tap with pH adjustment.

Water Testing - Twice each year the West Slope Water District participates in monitoring for lead in tap water from a sample group of more than 100 homes. These are homes in the Portland and surrounding communities where the plumbing is known to contain lead solder and is more likely to contribute to elevated lead levels. These houses represent a worst case scenario for lead in water. Samples are collected after the water has been standing in the household plumbing for more than 6 hours. A Lead and Copper Rule exceedance for lead is when more than 10 percent of these homes exceed a lead action level of 15 parts per billion. In the most recent round of testing, less than 10 percent of homes exceeded the lead action level.

If you are concerned that your home tap water may have lead, call the LeadLine for a free lead-in-water test kit and to learn more ways to reduce your exposure to all sources of lead. This program targets testing the water in households most at-risk from lead in water. These are homes built between 1970 and 1985 with pregnant women or children age six or younger.

How Can I Get My Water Tested?

Call the LeadLine at **503-988-4000** or **www.leadline.org** for information about free lead-in-water testing. For more extensive testing, private laboratories will test your tap water for a fee. Not all labs are certified to test for all contaminants.

For information about accredited labs, call the Oregon Health Authority, Oregon Environmental Laboratory Accreditation Program: **503-693-4122**.



Frequently Asked Questions about water quality

Is my water treated by filtration? No. Neither the groundwater nor Bull Run water is filtered. The Bull Run source meets the filtration avoidance criteria of the Surface Water Treatment Rule. The State of Oregon approved Portland's compliance with these criteria in 1992. Portland continues to meet these criteria on an ongoing basis.

Does the Portland Water Bureau or West Slope add fluoride to our drinking water? No. The Portland Water Bureau and West Slope do not add fluoride to the water. Fluoride is a naturally occurring trace element in surface water and groundwater. The U.S. Public Health Service and Centers for Disease Control and Prevention consider the fluoride levels in Portland's water sources to be lower than optimal for the prevention of tooth decay. You may want to consult with your dentist about fluoride treatment to help prevent tooth decay, especially for young children.

Is our water soft or hard? The water is very soft. Hardness of Bull Run water is typically 3-8 parts per million (ppm) or approximately 1/4 - 1/2 a grain of hardness per gallon. For short periods of time Portland may supplement the Bull Run with groundwater. Portland's groundwater hardness is approximately 80 ppm (about 5 grains per gallon), which is considered moderately hard.

What is the pH of our water? In the distribution system, pH typically ranges from 7.5 to 8.5.

Are the sodium levels in my drinking water affecting my health? There is currently no drinking water standard for sodium. Sodium is an essential nutrient. Sodium in Portland's water ranges between 2 and 9 ppm, a level unlikely to contribute to adverse health effects.

Is there radon in Portland's drinking water? Radon is a naturally occurring radioactive gas that you cannot see, taste or smell. Radon has never been detected in the Bull Run surface water supply. Radon is detected at varying levels in Portland's groundwater wells. In 2014, a limited amount of groundwater was used during a short maintenance run. Based on the historical levels of radon in groundwater combined with the limited amount of groundwater used, radon is unlikely to contribute to adverse health effects. For more information about radon, call the EPA's Radon Hotline **800-SOS-RADON** or www.epa.gov/radon/rnwater.html.

**For More
Information:
Call the Leadline-
503-988-4000
www.leadline.org**

ENVIRONMENTAL PROTECTION AGENCY SAFE
DRINKING WATER HOTLINE:
800-426-4791
www.epa.gov/safewater/

OREGON HEALTH AUTHORITY,
DRINKING WATER PROGRAM:
971-673-0405
[www.public.health.oregon.gov/
HealthyEnvironment/DrinkingWater](http://www.public.health.oregon.gov/HealthyEnvironment/DrinkingWater)

WEST SLOPE WATER DISTRICT:
503-292-2777
Fax: 503-297-1179
Public Water System ID #4100660
E-mail: mgrimm@wswd.org

For more extensive testing, private laboratories will test your tap water for a fee. Not all labs are certified to test for all contaminants. For information about accredited labs, call the Oregon Health Authority, Oregon Environmental Laboratory Accreditation Program, **503-693-4122**.

Conservation & Management



Outdoor Tips

- **Repair or replace** any damaged or leaking sprinklers.
- **Make adjustments** as needed to keep water from spraying onto streets or sidewalks.
- **Water only** between 8 pm and 8 am to minimize water loss through evaporation.
- **Cut grass** between 2" and 3" high. Higher cutting heights promote deeper roots; shades better and does not excessively shock or stress the plant.
- **Aerate turf once per year.** This allows oxygen and nutrients to permeate the soil better for use by the plant and promotes deeper root growth.
- **Reduce the area of grass** in your yard.
- **Install a rain sensor** on your irrigation controller that will keep your irrigation system from operating during a rain event.

Indoor Tips

- **Replace all of the faucet aerators** and shower heads in the house with low-flow models. Water efficient heads use dramatically less water.
- **Full loads of laundry** will save 20 gallons per load on a conventional machine.
- **Keep showers** under ten minutes.
- **Do not use** your toilet as a waste basket.
- **Replace old toilets** (pre 1993) with new high efficiency toilets.
- **Check toilets** for leaks (Put food coloring in the tank and don't flush for an hour. If water in the bowl changes color, you have a leak.)

Ask us about our conservation kits!

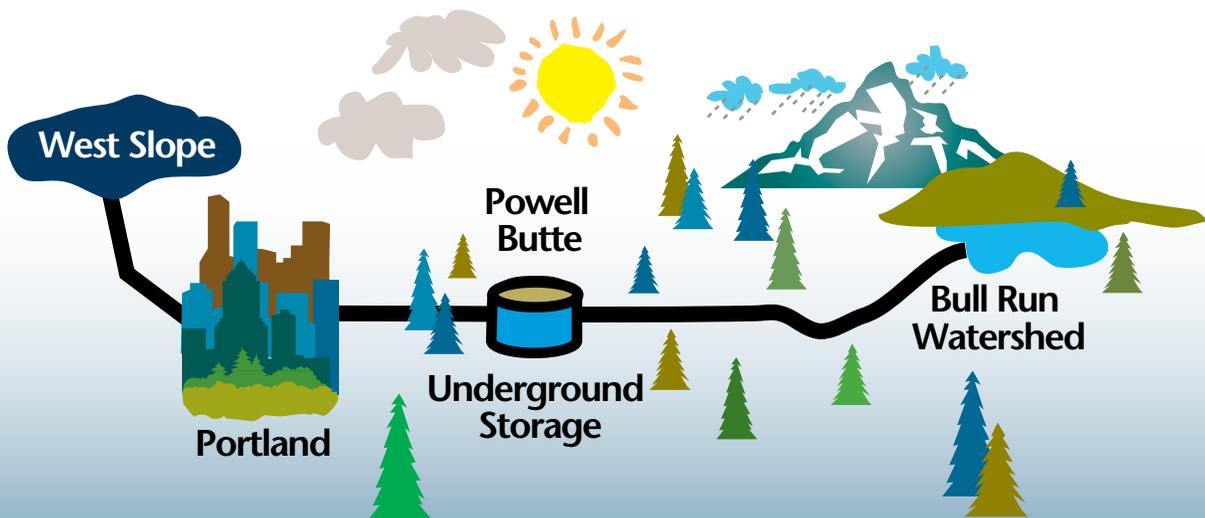
We have indoor conservation kits available. The kit includes a shower head, bathroom faucet aerator, and kitchen faucet aerator.



For **WATER SAVING** tips:
www.conserveh2o.org

your drinking Water 2015

Our water source is the Bull Run Watershed, a surface water supply,
located in the Mt. Hood National Forest.



West Slope
Water District

From Bull Run Watershed to your Home.



printed on recycled paper