

PALATINE HILL WATER DISTRICT 2017 DRINKING WATER QUALITY REPORT

Is my water safe?

Palatine Hill Water District is pleased to report that the water we provide meets or exceeds Federal and State water quality standards. This annual Water Quality Report provides information about the source of your drinking water, the results of water quality monitoring for over 200 contaminants that were performed in 2016, and additional health information related to contaminants that may be reasonably expected to be found in drinking water. We want you to understand the efforts that are continually made to provide you a safe and dependable supply of drinking water. If a known health-related contaminant is not listed in this report, it was not detected in the drinking water.

Frequently Asked Questions About Water Quality

How does Portland test our drinking water?

The Palatine Hill Water District and Portland Water Bureau monitors for over 200 regulated and unregulated contaminants in drinking water. All monitoring data in this report are from 2016. 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 our drinking water treated?

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.

Finally, sodium hydroxide is added to increase the pH of the water to reduce corrosion of plumbing systems. This treatment helps control lead and copper levels at customers' taps, should these metals be present in commercial and household plumbing systems.

Is our water treated by filtration?

No. Neither the groundwater nor the Bull Run source water is filtered. Groundwater is not required to be filtered and 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 Portland add fluoride to our drinking water?

No. The Portland Water Bureau does not add fluoride to the water. Fluoride is a naturally occurring trace element in surface and groundwater. You may want to consult with your dentist about fluoride treatment to help prevent tooth decay, especially for young children.

Is Portland's water soft or hard?

Portland's water is very soft. The hardness of Bull Run water is typically 3-8 parts per million

(ppm), or approximately ¼ to ½ a grain of hardness per gallon. For periods of time Portland may supplement the Bull Run supply 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 Portland's water?

The pH of Portland's drinking water typically ranges between 7.5 and 8.5.

How can I get my water tested?

Contact the LeadLine at www.leadline.org or 503-988-4000 for information about free lead-in-water testing. For more extensive testing, private laboratories can test your tap water for a fee. Not all labs are accredited to test for all contaminants. For information about accredited labs, call the Oregon Health Authority, Oregon Environmental Laboratory Accreditation Program at 503-693-4122.

What causes temporary discolored water?

Since Portland's water is not filtered, natural sediment and organic material from the Bull Run Watershed is present in our water supply. This can sometimes be seen in the Fall as a harmless tea-colored tint. Sediment that has settled at the bottom of the water mains can be temporarily stirred up when the direction or flow of water changes due to hydrant use, nearby construction or maintenance activities, firefighting, or main breaks. Corrosion of older pipes inside buildings can also cause rusty water after water has been sitting in the pipes for several hours. More information is available at www.portlandoregon.gov/water/discoloredwater.

Do I need to take special precautions?

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 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.

Where does my water come from?

Palatine Hill Water District purchases water from the City of Portland, who provides treated surface water from the Bull Run Watershed and groundwater from the Columbia South Shore Well Field located east of the Portland International Airport. The water is conveyed through Portland's water distribution system to Palatine Hill's main pump station on Highway 43 at Carey Lane and/or from the Upper Reservoir connection on Palatine Hill Rd. The Portland Water Bureau is also operating under a variance for the treatment requirements for *Cryptosporidium*, see The Bull Run Treatment Variance for more information.

Portland's Water System Established 1895

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.

The Bull Run Watershed, our protected surface water supply, is located in the Mt. Hood National Forest 26 miles from Portland. The watershed is carefully managed to sustain and supply clean drinking water to a quarter of Oregon's population. In a typical year, the watershed receives an astounding 135 inches of precipitation (rain and snow), that flows into the Bull Run River and then into two reservoirs that store nearly 10 billion gallons of drinking water. Due to the availability of the Columbia South Shore Well Field and the strong protections in place for the watershed, water from the Bull Run meets federal standards without needing to be filtered.

Our Bull Run supply complies with all applicable state and federal regulations for source water. You can learn more by reading our 2003 Source Water Assessment (available at www.portlandoregon.gov/water/sourcewaterassessment or by calling 503-823-7525). The Assessment identifies the only contaminants of concern as naturally occurring microbes such as Giardia, Cryptosporidium, fecal coliform bacteria and total coliform bacteria. These organisms are found in virtually all freshwater ecosystems and may be present in our supply at very low levels. The Portland Water Bureau is the only US water system to have obtained a variance from treatment for Cryptosporidium; see page 3 for more information.

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

Source water assessment and its availability

The City of Portland's Source Water Assessment Report can be viewed on their website <https://www.portlandoregon.gov/water/67957>

Why are there contaminants in my drinking water?

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 (800-426-4791). 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: microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, 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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

How can I get involved?

The Palatine Hill Water District Board of Commissioners is pleased to share the 2017 Drinking Water Quality Report with you. While this report is mandated by the federal government, the District prides itself in providing this comprehensive and accessible report.

To request additional copies of this report, please call 503-639-5096. Palatine Hill Water District works diligently to protect this essential resource, and to preserve and enhance the system that delivers water to your home or business. We urge you to take a minute to look through this report; learn about your water system and some of what goes into delivering water to your tap. If you have questions or comments about this, please call Palatine Hill Water District at 503-639-5096, or visit www.palatinehillwaterdistrict.com to learn more.

We welcome your interest in Palatine Hill's water system.

Ron Vandehey
Chairman

Questions on Portland's system?

You have a range of options for contacting the Portland Water Bureau on topics from programs and projects to issues with your account and information about public meetings.

Central Information Line
8 a.m. - 5 p.m., Monday - Friday
503-823-7404

For general information about projects, programs and public meetings.

You can also learn more on their website:
www.portlandoregon.gov/water.

Water Line
8:30 a.m. - 4:30 p.m., Monday - Friday
503-823-7525
WBWaterLine@portlandoregon.gov
For questions regarding water quality or water pressure.

Emergency Line
24 hours, 7 days a week
503-823-4874
Hotline for water system emergencies.

Customer Service
8 a.m. - 5 p.m., Monday - Friday
503-823-7770
PWBCustomerService@portlandoregon.gov
For questions or information about your account.

Look for us on Facebook and Twitter:
www.facebook.com/portlandwaterbureau
[@portlandwater](https://twitter.com/portlandwater).

For Additional Information:
Oregon Health Authority – Drinking Water Services: 971-673-0405
<http://public.health.oregon.gov/HealthyEnvironments/DrinkingWater/Pages/index.aspx>

Palatine Hill Water District's Water System ID: 4100653
Portland Water Bureau's Water System ID: 4100657

Contact Information:
Portland Water Bureau
1120 SW 5th Avenue/Room 600
Portland, Oregon 97204
www.portlandoregon.gov/water

Description of Water Treatment Process

Your water is treated by disinfection. Disinfection involves the addition of chlorine or other disinfectant to kill dangerous bacteria and microorganisms that may be in the water. Disinfection is considered to be one of the major public health advances of the 20th century.

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.

- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!
- Visit www.epa.gov/watersense for more information.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

YOUR WATER SYSTEM

Currently, the District supplies water to approximately 1,580 people though 607 residential services. The District receives drinking water through wholesale purchase from the Portland Water Bureau (PWB). Finished water is supplied by PWB's Washington Park Reservoir No. 4 through a single master meter connection near the intersection of SW Riverside Drive/Highway 43 and SW Carey Lane.

The District's existing water distribution system consists of one pump station, two 500,000 gallon storage tanks, distribution mains, pressure reducing facilities and associated appurtenances such as control valves, isolation valves, meters, and fire hydrants. The pump station supplies water from the PWB connection to both storage tanks and the distribution system.

The District maintains approximately 12 and ½ miles of distribution piping using a variety of materials ranging from two to 16 inches in diameter. Service to customers is provided from two primary pressure zones, the High Zone, and the Low Zone, each of which is supplied by one of the storage tanks. High Zone distribution piping is also connected to the PWB's Burlingame service area, supplied by the Burlingame Tanks, through a normally closed emergency connection. A third smaller pressure zone, Low PRV Zone, is served through a pressure-reducing valve (PRV) from the Low Zone.

Variance and Exemptions

The Bull Run Treatment Variance

The Portland Water Bureau is the only water provider in the United States to have received a variance to the treatment requirements for the parasite *Cryptosporidium*. A variance is state permission not to meet a maximum contaminant level (MCL) or a treatment technique under certain conditions. Water systems are eligible for these types of variances when regulators find that the required treatment is not necessary to protect public health because of the nature of the water system's raw water source. Due to our high quality raw water and protected watershed, the State of Oregon Health Authority (OHA) issued such a variance for the treatment of *Cryptosporidium* in March 2012. The treatment variance is valid for 10 years from the date it was issued. OHA may revoke the variance if the required conditions are not met.

To meet the requirements of our treatment variance, we:

Protect the Watershed: Protection measures include maintaining or strengthening all existing legal and operational protections, monitoring the watershed to prevent trespassing, keeping strict controls for sanitary facilities, and regular field inspections of wildlife scat in the watershed.

Monitor the Raw Water Intake: In 2016, we conducted regular monitoring for *Cryptosporidium* where raw water first enters the drinking water system at least two days each week. If *Cryptosporidium* is detected in any one sample, then we are required to begin a much more intensive year-long monitoring program to demonstrate whether the *Cryptosporidium* concentration is less than 0.075 oocysts per 1,000 liters of water. We began this intensive monitoring after detecting *Cryptosporidium* in January 2017. Additional detections of *Cryptosporidium* during this period of monitoring could result in the loss of our variance.

Report and Notify: We report the results of watershed and raw water monitoring to OHA. Any *Cryptosporidium* detections must be reported within 24 hours and all our field inspections and tributary and wildlife scat monitoring is reported annually. For *Cryptosporidium* detections at the raw water intake, we notify the public through our website and press releases.

Additional information on Portland Water Bureau's treatment variance, including monthly intake reports and our annual Bull Run Treatment Variance Watershed Report, can be found at www.portlandoregon.gov/water/treatmentvariance.

2016 Results of *Cryptosporidium* Monitoring at the Raw Water Intake
Number of Samples - 208 Total Volume – 5,368.9 L Detections - None

In 2016, there were no detections of *Cryptosporidium* during Raw Water Intake Monitoring. In January 2017, two samples from the intake collected during observation monitoring were positive for *Cryptosporidium*. As a result, on January 8th, the Portland Water Bureau began increased demonstration monitoring. These results and updated information on the status of the treatment variance can be found at www.portlandoregon.gov/water/cryptoresults.

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 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.

Results of radon monitoring

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call your state radon program or call EPA's Radon Hotline (800-SOS-RADON).

Additional Information for 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. PALATINE HILL WATER DISTRICT 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 <http://www.epa.gov/safewater/lead>. Reducing Exposure to Lead

Lead is commonly found in a variety of places throughout our environment. While lead is rarely found in our source waters and there are no known lead service lines in the water system, lead

can be found in some homes. 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. Lead in household plumbing can dissolve into drinking water when water sits in those pipes for several hours, such as overnight or after returning from work or school.

If present, lead at elevated levels 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 is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components in homes or buildings. 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 can request a free lead-in-water test from the LeadLine. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the LeadLine, 503-988-4000, www.leadline.org or the Safe Drinking Water Hotline (800) 426-4791, www.epa.gov/safewater/lead.

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 toys, cosmetics and pottery.

Protecting Public Health

The Portland Water Bureau's Lead Hazard Reduction Program is a comprehensive approach to reduce exposure to lead. Through this program the Portland Water Bureau provides:

Corrosion Control Treatment. Reduces corrosion of lead in plumbing by increasing the pH of the water. This pH adjustment has reduced lead in tap water by more than half.

Lead in Water Testing. Provides free lead in water testing to everyone, but targets testing the water in households most at-risk from lead in water. These are homes built between 1970 and 1985 with pregnant women or children ages six or younger in the home.

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

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

Water Testing

Twice each year the Portland Water Bureau and regional water providers in the Bull Run service area monitor for lead and copper in tap water from a sample group of more than 100 homes.

These are homes where the plumbing is known to contain lead solder, and 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 occurs when more than 10 percent of these homes exceed the lead action level of 15 parts per billion. In the most recent round of testing, more than 10 percent of homes, 14 of 112, exceeded the lead action level. As a result of exceeding the action level, the Portland Water Bureau has been informing customers and encouraging them to follow the easy steps to reduce exposure to lead in

water.

Easy steps to reduce possible exposure to lead from household plumbing

- Run your water to flush the lead out. If the water has not been used for several hours, run each tap for 30 seconds to 2 minutes or until it becomes colder before drinking or cooking. This flushes water which may contain lead from the pipes.
- Use cold, fresh water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- Do not boil water to remove lead. Boiling water will not reduce lead.
- Test your child for lead. Ask your physician or call the LeadLine to find out how to have your child tested for lead. A blood lead level test is the only way to know if your child is being exposed to lead.
- Test your water for lead. Contact the LeadLine at www.leadline.org or 503-988-4000 to find out how to get a FREE lead-in-water test.
- Consider using a filter. Check whether it reduces lead – not all filters do. 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.
- Regularly clean your faucet aerator. Particles containing lead from solder or household plumbing can become trapped in your faucet aerator. Regular cleaning every few months will remove these particles and reduce your exposure to lead.
- Consider buying low-lead fixtures. As of January 2014, all pipes, fittings and fixtures are required to contain less than 0.25% lead. When buying new fixtures, consumers should seek out those with the lowest lead content.

LeadLine

If you are concerned that your home tap water may have lead, contact the LeadLine for a free lead-in-water test kit and to learn ways to reduce your exposure to all sources of lead. Call the LeadLine at 503-988-4000 or visit www.leadline.org.

- Free lead-in-water testing
- Free childhood blood lead testing
- Free lead reduction services

Additional Information for Arsenic

While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects

against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chloramine (as Cl ₂) (mg/L)	4	4	2.46	.03	2.46	2016	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	46	NA	NA	2016	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	52.3	NA	NA	2016	No	By-product of drinking water disinfection
Inorganic Contaminants								

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range		Sample Date	Violation	Typical Source
				Low	High			
Arsenic (ppb)	0	10	.84	.5	.84	2016	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2	2	.00938	.00077	.00938	2016	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper - source water (ppm)	NA		.00205	.0005	.00205	2016	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	.18	.025	.18	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead - source water (ppm)	NA		.12	.00005	.00012	2016	No	Erosion of natural deposits
Nitrate [measured as Nitrogen] (ppm)	10	10	.16	.01	.16	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)	NA		16.3	6.7	16.3	2016	No	Erosion of natural deposits; Leaching
Microbiological Contaminants								
Total Coliform (TCR) (% positive samples/month)	0	5	0	NA	NA	2016	No	Naturally present in the environment
Turbidity (NTU)	NA	5	.94	NA	NA	2016	No	Erosion of natural deposite
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	.000314	2016	0	No	Corrosion of household and commercial building plumbing systems	
Inorganic Contaminants								
Lead - action level at consumer taps (ppb)	0	15	17.4	2016	14	Yes	Corrosion of household and commercial building plumbing systems	

Violations and Exceedances

Lead - action level at consumer taps

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Twice each year the Palatine Hill Water District and regional water providers in the Bull Run service area monitor for lead and copper in tap water from a sample group of more than 100 homes. These are homes where the plumbing is known to contain lead solder, and 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 occurs when more than 10 percent of these homes exceed the lead action level of 15 parts per billion. In the Fall 2016 round of testing, more than 10 percent of homes, 14 of 112, exceeded the lead action level. As a result of exceeding the action level, the Palatine Hill Water District has been informing customers and encouraging them to follow the easy steps to reduce exposure to lead in water. The City of Portland has implemented a comprehensive lead reduction program. It includes four components:

1. Water treatment (currently raising the distribution system entry point pH to 8.0) and monitoring water quality parameters quarterly and at Tier 1 homes (those with verified lead solder in plumbing) twice a year.
2. Lead-in-water education and testing with free lead-in-water tests available to all Portland and wholesale customers.
3. Public education and community outreach on all sources of lead.
4. A home lead hazard control program which focuses on lead paint remediation in homes.

Additional Contaminants

In an effort to insure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. Of those contaminants only the ones listed below were found in your water.

Contaminants	State MCL	Your Water	Violation	Explanation and Comment
Radon		340 picocuries per litre	No	Found in natural deposits

Additional Monitoring

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

Name	Reported Level	Range	
		Low	High
vanadium (ppb)	.98	.5	.98

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
mg/L	mg/L: Number of milligrams of substance in one liter of water
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
% positive samples/month	% positive samples/month: Percent of samples taken monthly that were positive
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
Lead and copper rule violations	Twice each year the Portland Water Bureau and regional water providers in the Bull Run service area monitor for lead and copper in tap water from a	The Spring 2017 round of testing had results	Inadequately treated water may contain disease-causing organisms. These organisms include	The City of Portland implemented a comprehensive lead reduction program. It

TT Violation	Explanation	Length	Health Effects Language	Explanation and Comment
	<p>sample group of more than 100 homes. These are homes where the plumbing is known to contain lead solder, and 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 occurs when more than 10 percent of these homes exceed the lead action level of 15 parts per billion. In the Fall 2016 round of testing, more than 10 percent of homes, 14 of 112, exceeded the lead action level. As a result of exceeding the action level, the Portland Water Bureau has been informing customers and encouraging them to follow the easy steps to reduce exposure to lead in water.</p>	<p>below the Action Level.</p>	<p>bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.</p>	<p>includes four components:</p> <ol style="list-style-type: none"> 1. Water treatment (currently raising the distribution system entry point pH to 8.0) and monitoring water quality parameters quarterly and at Tier 1 homes (those with verified lead solder in plumbing) twice a year. 2. Lead-in-water education and testing with free lead-in-water tests available to all Portland and wholesale customers. 3. Public education and community outreach on all sources of lead. 4. A home lead hazard control program which focuses on lead paint remediation in homes.

For more information please contact:

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