2015 Consumer Confidence Report for the City of Pullman, Wash. Drinking Water System

Dear Water Consumers:

The city of Pullman water utility is proud to present to you our 2015 water quality report. This report is a snapshot of last year's water quality. The test results in this report show that the city of Pullman water meets or surpasses all federal and state standards for public drinking water. The city of Pullman is supplied by groundwater pumped from five wells located throughout the city. The wells range in depth from 167 to 932 feet. In 2015, the city of Pullman pumped, treated and distributed over 946 million gallons of water. The average daily use per capita for the year was 95 gallons per person. The city of Pullman is an active member of the Palouse Basin Aquifer Committee (PBAC) and, with the support of the citizens of Pullman, has made great strides in maintaining, protecting, and conserving the City's water supply. For more information on the mission of PBAC visit the PBAC Web site at **www.webs.uidaho.edu/pbac/.**

SOURCES				
WELL NO. 4: Well No. 4 was put into service in 1957. It is 932 feet deep and has an actual capacity of 799 gpm. Well No. 4 discharges to the North Intermediate Pressure Zone. The raw water is treated with a 0.8% hypochlorite solution and fluoride.	**WELL NO. 5:** Well No. 5 was put into service in 1969. It is 712 feet deep and has an actual capacity of 1,666 gpm. The raw water is treated with a 0.65% hypochlorite solution and fluoride.	**WELL NO. 6:** Well No. 6 was put into service in 1968. It is 560 feet deep and has an actual capacity of 645 gpm. The raw water is treated with a 0.65% hypochlorite solution and fluoride.	**WELL NO. 7:** Well No. 7 was put into service in 2001. It is 718 feet deep and has an actual capacity of 1,800 gpm. The raw water is treated with a 0.8% hypochlorite solution and fluoride.	**WELL NO. 8:** Well No. 8 was put into service in 2008. It is 793 feet deep and has an actual capacity of 1,800 gpm. The raw water is treated with a 0.8% hypochlorite solution and fluoride.

OTHER WATER SOURCES:

The City's water system shares four interties for emergency situations with Washington State University, which maintains its own water system. All the interties are valved and remain closed during normal operations.

FLUORIDATION:

The City has fluoridated its drinking water since 1958, and maintains a fluoride residual of approximately 1.0 mg/L throughout the system. Premixed sodium hydrofluosilicic acid solution is fed directly into the well pump header via a chemical feed metering pump. Automatic fluoride analyzers are provided at each well.

CHLORINATION:

The City uses a 0.65% to 0.8% solution of on-site generated sodium hypochlorite at all of the well sites. The solution is injected at a rate that produces between a 0.30 ppm and a 0.60 ppm mg/L residual throughout the water distribution system.

DEFINITIONS				
MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no know or expected risk to health. MCLGs allow for a margin of safety.	**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.	**AL:** Action Limit: The concentration of a contaminant which, when exceeded, triggers treatment of other requirements which a water system must follow.	**MRDL:** Maximum residual Disinfection Level: The highest level of a disinfectant allowed in drinking water.	**MRDLG:** Maximum Residual Disinfection Limit Goal: The level of a drinking water disinfectant below which there is no known or expected health risk.

PARAMETER	STANDARDS		SAMPLE RESULTS	ADDITIONAL INFORMATION
	MCLG	MCL		Typical Source/Comments
INORGANIC RESULTS				
Barium	2 ppm	2 ppm	0.0596 – 0.0969 ppm	Erosion of Natural Deposits
Chromium	0.1 ppm	0.1 ppm	0.0018 ppm	Erosion of Natural Deposits
Fluoride	4 ppm	4 ppm	0.433 – 1.56 ppm	Water additive which promotes strong teeth; erosion of natural deposits.
Nitrate as Nitrogen	10 ppm	10 ppm	3.42 ppm	Erosion of Natural Deposits
Selenium	0.05 ppm	0.05 ppm	0.00158 ppm	Erosion of Natural Deposits
RADIOACTIVE CONTAMINANTS (RADIONUCLIDES)				
Gross Alpha Radiation	NA	10 pCi/L	0.246 – 1.71 pCi/L	Erosion of Natural Deposits
Radium 228	0 pCi/L	5 pCi/L	0.321 – 0.784 pCi/L	Erosion of Natural Deposits
Chlorine	MRDLG=4 ppm	MRDL=4 ppm	0 – 0.72 ppm	Water additive to control microbes
Total Trihalomethane	NA	80 ppb	7.65 ppb	Byproduct of drinking water disinfection
OTHER CONTAMINANTS – EPA Secondary Standards				
Chloride		250 ppm	2.41 – 6.9 ppm	Erosion of Natural Deposits
Color		15 color units	5 color units	Erosion of Natural Deposits
Iron		0.3 ppm	0.353 – 0.412 ppm	Erosion of Natural Deposits
Manganese		0.05 ppm	0.0322 – 0.0344 ppm	Erosion of Natural Deposits
Sulfate		250 ppm	3.99 – 6.77 ppm	Erosion of Natural Deposits
Total Dissolved Solids		500 ppm	202 221 ppm	Erosion of Natural Deposits
Zinc		5 ppm	0.0016 – 0.00275 ppm	Erosion of Natural Deposits

Note: This table includes all contaminants for water source samples taken between January 1, 2010 and December 31, 2015.

DEFINITIONS					
NA: Not Applicable	**ND:** Not Detected	**ppm:** parts per million, or milligrams per liter (mg/L)	**ppb:** parts per billion, or micrograms per liter (ug/L)	**NTU:** Nephelometric Turbidity Unit.	**pCi/L:** Picocuries Per Liter

RESIDENTIAL LEAD AND COPPER MONITORING:

Residential lead and copper sampling was conducted in 2013 to determine the concentrations of lead and copper that leach from residential water pipes and fixtures. Lead results range from Not Detected (ND) to 6.51 ppb. Copper results ranged from 0.0401 ppm to 0.248 ppm. The 90th percentile results for lead and copper were 2.59 ppb and 0.212 ppm respectively. The Action Level for lead is 15 ppb and for copper is 1.3 ppm.

MONITORING WAIVERS:

The Washington State Department of Health has reduced the monitoring requirements for inorganic compounds, volatile organic compounds, herbicides, pesticides and soil fumigants because the City's water sources are not at risk of contamination. The last samples collected for these contaminants were found to meet all applicable Environmental Protection Agency and Department of Health Standards.

WATER USE EFFICIENCY INFORMATION

The Washington State Department of Health (DOH) implemented the Water Use Efficiency Rule (WUER) in January 2007. The rule requires water suppliers to develop a Water Conservation Program. The goal is to decrease water demand by means of water use efficiency measures and to help conserve water for the environment and future generations. The city of Pullman supports these requirements and believes that the program will enhance public health by improving water system efficiency and reliability. The DOH requires that city of Pullman water customers be notified of the City's Water Conservation Program by means of an annual performance report regarding our metering status, distribution system leakage, and progress made toward the City's conservation goals. The city of Pullman is happy to report that are in compliance requirements of the WUER.

SOURCE METERS

Source meters are a critical conservation tool because accurate water production and usage data provides information for developing conservation priorities, goals and programs. Pullman has source meters at all of the wells; test and calibrations are performed annually on all source meters.

SERVICE METERS

Similarly, service meters are a key component of providing accurate water use information for implementation in conservation planning. Pullman has service meters on all service connections and performs a comprehensive service meter calibration and replacement program. Each year, select meters that are two inches and larger are tested, repaired if needed, and calibrated to ensure accuracy. Additionally, all city-owned buildings and city parks are metered and each department is charged for their water use, thus encouraging conservation within City departments.

SYSTEM LEAK DETECTION AND REPAIR

Water utilities that operate efficient systems that minimize leaks demonstrate a strong commitment to sound financial and resource management. The city of Pullman has an aggressive supply-side leak detection and repair program. The City surveys the entire water distribution system every four years. Found leaks are promptly repaired. Pullman's 2015 distribution system leakage was 3.2 percent of production or 34.5 million gallons. The previous three-year average is 3.3 percent of the annual average production or 34.6 million gallons per year. This compares very favorably to the national average of 16 percent and is well below the 10-percent-or-less requirement of the Rule, and demonstrates that Pullman is successfully managing water leaks.

CONSERVATION GOALS

The City's conservation program is primarily driven by the desire to minimize the impacts on water resources, namely the regional aquifer, and to meet regulatory requirements. The goal of the current program, initiated in 2015, is to reduce water use by 29,365 gallons per day on an annual basis (as opposed to peak season) by the end of 2019. This goal was established using a public process that included conducting a public meeting on November 19, 2013, and a subsequent discussion regarding the draft goal during a City Council meeting. Public input was encouraged and was also provided. To help achieve this goal, the measures listed below have been selected based on a combination of factors including applicability to the city of Pullman service area, customer acceptance, cost effectiveness and/or savings potential.

- Conservation Pricing
- Bills Showing Consumptive History
- Landscape Management Practices on City Property
- Education
- Providing Free Toilet Leak Detection Dye Tablets
- Providing Free Bathroom Faucet Aerators
- Providing Free Showerheads
- Toilet Rebate Program
- Washing Machine Rebates for Multifamily Shared Laundry Facilities
- Conducting Water User Surveys on Public Buildings
- Providing Lawn Removal Credits
- Providing Free Watering Hose Timers

Since the program inception in the spring of 2015, the City has given 181 toilet rebates and one irrigated lawn removal rebate. In addition, 1,454 bathroom faucet aerators, 395 toilet leak detection tablets and 615 showerheads have been distributed. The total estimated water savings in 2015 is 4,555 gallons per day (1.7 million gallons per year), roughly 16 percent of the 2019 goal of 29,365 gallons per day (10.7 million gallons per day).

REQUIRED HEALTH INFORMATION FROM THE EPA

HEALTH ISSUES

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as cancer patients undergoing chemotherapy, those who have had organ transplants, those with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk for 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 are available from the Safe Drinking Water Hotline (800-426-4791). In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The longer time water has been sitting in pipes, the more dissolved metals--such as lead--it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children. To help reduce potential exposure to lead: for any drinking water tap that has not been used for six hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes or general cleaning. Only use water from the cold-water tap for drinking, cooking and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from the EPA Safe Drinking Water Hotline at (800-426-4791) or online at **www.epa.gov/safewater/lead**.

ADDITIONAL INFORMATION

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline (800-426-4791).

Our drinking water is groundwater supplied by five underground wells. As water travels over the surface of or through the ground, it dissolves naturally occurring minerals and radioactive materials, and can pick up many substances produced by the presence of animals or human activity. Contaminants that may be present in source water include:

A. Inorganic contaminants, such as salts and metals, which can occur naturally or result from storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

B. Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

C. Microbial contaminants such as viruses, parasites and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations or wildlife.

D. Radioactive contaminants which can occur naturally or result from oil and gas production and mining activities.

E. Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, storm water runoff and septic systems.

NATIONAL PRIMARY DRINKING WATER REGULATIONS COMPLIANCE

OTHER MONITORING

The city of Pullman also tests for other substances and microscopic organisms that are sometimes found in water for which no standards have been set. The City has taken the initiative to monitor issues that concern the people in this area, even though the City is not required by law to do so. As part of the City's water quality report, it is important to point out that tests have been performed to detect the presence of herbicides and pesticides and no evidence of either has been found. The city of Pullman is active in protecting the community and will notify consumers immediately of any waterborne health threat. The City of Pullman Water Department is available to answer any questions regarding water quality and supply. Please contact **Art Garro** at (509-338-3238) for more information. Water Quality Data for community water systems throughout the United States is available on the World Wide Web at **www.waterdata.com**.