



# DRINKING WATER QUALITY REPORT 2016



Public Works Department  
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## THE CITY OF WEST RICHLAND IS WORKING HARD TO PROVIDE HIGH QUALITY WATER FOR YOU.

The City of West Richland is committed to providing its residents with the highest quality of drinking water. We believe the best way to ensure your drinking water is safe and reliable is to provide you with accurate information. This 2016 Drinking Water Quality Report will explain where your drinking water comes from, what substances it contains, and the treatment process. The table included with this report compares your water to the Environmental Protection Agency (EPA) and Washington State Department of Health water quality standards.

Seven City wells, ranging in depth from 250 feet to 1,200 feet, supply water to the City's estimated 13,080 residents and have the ability to cumulatively pump up to 5,285 gallons per minute. Water from these wells is treated with chlorine for protection against microbial contaminants and then stored in four reservoirs with a total capacity of 3.8 million gallons. All of our treatment methods are in accordance with EPA regulations. A new booster station constructed in 2012 is capable of providing 2,500 gallons per minute as needed during peak demand summer months.



### WHY PROVIDE A WATER QUALITY REPORT?

The sources of drinking water for 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. It also can become polluted by domestic, recreational, or industrial activities.

Substances that may be present in source water include: Microbial substances, Inorganic substances, Pesticide and Herbicides, Organic substances, and Radioactive substances.

To ensure tap water is safe to drink, EPA prescribes regulations limiting the amount of certain substances in water provided by public water systems. The Food and Drug Administration regulations establish limits for substances in bottled water that must provide the same protection for public health.

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).

### WATER SOFTENER INFORMATION

Many homeowners have, or plan to install water softeners in their home. Water Softener Companies will ask for the Hardness, Total Dissolved Solids (TDS), and Iron content of your water. The City water tests resulted in the following: TDS = 212 to 505 mg/l, Hardness = 20.3 to 308 mg/l, and Iron = None Detected to 0.10 mg/l. The Hardness range converts to 1.2 to 18 grains per gallon (GPG). Purchasing a home hardness kit or testing by a water softener representative is recommended for accurate results for specific areas of the City. Contact a local water softener representative for more information on testing and water softeners. Installation of a water softener requires a plumbing permit from the City Building Department. Contact (509) 967-5902 for more information.



**PUBLIC PARTICIPATION:** City Council meetings are held on the first and third Tuesday each month at 7 p.m. in City Council Chambers (Library), 3803 W. Van Giesen. On occasion, items related to drinking water are discussed. These meetings are open to the public or can be seen live on Channel 191. Information can also be found on the City web site at [www.westrichland.org](http://www.westrichland.org).

2016

TOTAL WATER PRODUCED  
(TP) – Annual Volume

1,071,982,000 gal.

2016

WATER DISTRIBUTION SYSTEM UNACCOUNTED FOR WATER

Annual Volume TP – AC

107,890 gal.

2016

PERCENT OF UNACCOUNTED FOR WATER

Percent DSL =  $[(TP - AC) / TP] \times 100$

10.1%

West Richland City Council passed Resolution 4-08 establishing the City's initial water use efficiency goals in January of 2008. These goals were amended by Resolution 8-16, passed by City Council on March 1, 2016.

West Richland's goals include: Maintain average water usage per equivalent residential unit (ERU) at or below 460g per day per ERU through 2022 and maintain unaccounted for water (loss) from the water distribution system at 10% or less. Based on a rolling three year average, our current 3 year average is 6.3%.

The City will continue annual educational efforts to inform customers about using water efficiently.



Substance	Range of Detected Substance	Highest Level Detected	Highest Level Allowed (EPA's MCL)	State Reporting Level (SRL)	Ideal Goals (MCLG)	Typical Source of Substance
<b>MICROBIOLOGICAL</b>						
<b>Total Coliform Bacteria</b>	0 of 181 samples	0	Presence detected in more than one sample/ month	Any Presence	0	Naturally present in the environment
<b>RADIOLOGICAL</b>						
<b>Gross Alpha Emitters (pCi/L)</b>	(-)1.00 – 9.5	9.5*	15	Above 0	0	Erosion of natural deposits
<b>Gross Beta Emitters (pCi/L)</b>	1.44 – 12.52	12.52*	50	Above 0	0	Decay of natural and man-made deposits
<b>Radium 226 &amp; 228 (pCi/L)</b>	0.20 -1.16	1.16*	5 (combined)	Above 0	0	
<b>INORGANIC SUBSTANCES (IOCs)</b>						
<b>Arsenic (ppb)</b>	ND – 6	6*	10	2	1	Erosion of natural deposits
<b>Cadmium (ppb)</b>	ND – 3	3*	5	2	5	
<b>Fluoride (ppm)</b>	0.36–3.10	3.10	4	0.2	4	
<b>Chromium (ppm)</b>	ND – 0.03	0.03*	0.1	0.01	0.1	
<b>Barium (ppm)</b>	ND – 0.10	0.10*	2	0.10	2	
<b>Nitrate – Nitrogen (ppm)</b>	ND – 3.6	3.6*	10	0.5	10	Fertilizer and septic tanks
<b>SYNTHETIC ORGANIC SUBSTANCES (SOCs)</b>						
<b>DCPA (ppb)</b>	ND-1.3	1.3*		0.1		Pre-emergent herbicide (annual grass and broadleaf weeds)
<b>DISINFECTION BYPRODUCTS</b>						
<b>Trihalomethanes (ppb)</b>	22.7 – 79.9	79.9*	80	0.5	N/A	By-product of drinking water disinfection
<b>Haloacetic Acids (ppb)</b>	5.4 – 45.2	45.2	60	1		
<b>Chlorine (ppm)</b>	0.71 running average	2.04 ppm*	MRDL=4		MRDLG=4	

\*Results not from current year samples

Substance	Range of Detected Substance	90th Percent Reported	EPA Action Level	State Reporting Level (SRL)	Site Exceeding Action Level	Typical Source of Substance
<b>LEAD AND COPPER</b>						
<b>Lead (ppm)</b>	ND– 0.014	0.014*	0.015	0.002	0 of 33 test sites	Corrosion of household systems; Erosion of natural deposits
<b>Copper (ppm)</b>	0.017 - 0.409	0.409*	1.3	0.2		

**IMPORTANT DRINKING WATER DEFINITIONS**

ppm (Parts per Million), ppb (Parts per Billion ), mg/L (Milligrams per Liter), NA (Not Applicable), ND (Not Detected)

- 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** 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 Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- pCi/L** Pico Curies per Liter
- NTU** Nephelometric Turbidity Unit
- 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.
- SRL** State Reporting Level Indicates minimum reporting level required by the Washington State Department of Health.

**MESSAGE FROM THE EPA**

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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.

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 City of West Richland 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 drinking 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](http://www.epa.gov/safewater/lead).

The U.S. EPA Office of Water ([www.epa.gov/ow](http://www.epa.gov/ow)) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Washington State Department of Health has a web site ([www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw)) that provides complete and current information on water issues in Washington, including valuable information about our watershed.

**DRINKING WATER QUALITY:**

In 2016, the tap water provided to you met all of the EPA and State primary drinking water health standards. However, in 2016, the State's Secondary Maximum Contaminant Level (SMCL) for fluoride was exceeded in one of the City's wells. SMCLs are based on aesthetics, which are non-health standards such as color, taste, and hardness. The tap water in your home is a mixture of several wells which dilute or lower the concentration of fluoride. Water quality tests are performed at the wellhead which produces the maximum contaminant concentrations. Samples are not taken from individual residences after the mixing process has occurred. Therefore, the City must assume that concentrations recorded at the wellhead could have reached citizens' water. EPA requires consumer notification of the risks associated with fluoride when a wellhead's fluoride level test results are over 2.0 milligrams per liter (mg/L).

Fluoride levels less than 2 mg/L are considered beneficial in preventing cavities. The notice provided in this report includes mandatory language required by the EPA. The intent is not to alarm citizens, but to educate you and your family of the risks associated with elevated levels of fluoride in drinking water. The City provides free fluoride tests upon request. For more information regarding the City of West Richland's drinking water, fluoride tests, or this report, please contact the City's Public Works Department at (509) 967-5434.

**EPA FLUORIDE SMCL EXCEEDANCE NOTICE**

Elevated fluoride levels detected at one of the City's seven wells.

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by Well #7 has a fluoride concentration of 3.10 ppm.

Dental fluorosis in its moderate or severe forms may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/L of fluoride, but notification is required when fluoride levels in your drinking water exceed 2 mg/L because of this cosmetic dental problem.

For more information, please contact the City's Public Works Department at (509) 967-5434. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home treatment units, you may call NSF International at 1-800-NSF-MARK ([www.nsf.org](http://www.nsf.org)).

Please share this information with others who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by the City of West Richland State Water System ID# 94900P Date distributed: July 1, 2017