

Water Quality Report for City of Tumwater Water System (DOH Water system ID 89700Q)

All of the City of Tumwater’s drinking water comes from groundwater sources. The City operates eleven wells in three separate well fields. The Palermo well field is located in the Deschutes River valley, the Bush well field is located near George Washington Bush Middle School, and the Port well field is located in the vicinity of City Hall. Water from the Bush and Palermo well fields is aerated for corrosion control, and to eliminate the potential for volatile organic compound (VOC) contamination. Chlorine is added to all sources to control naturally occurring bacteria. The Tumwater system has two interconnections with the City of Olympia’s water system to supplement either system in the event of an emergency. Another interconnection with the Lakeland Manor water system serves as a back up to this neighboring water system. The City also maintains an emergency back-up source at the Tumwater Valley Municipal Golf Course.

Your drinking water flows across the land surface and through the ground before being pumped into the distribution system. As the water moves through the ground, it dissolves naturally occurring minerals, and can pick up substances resulting from the presence of animals or from human activity. The City tests for the following types of contaminants at regular intervals to ensure that your drinking water is clean and safe:

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

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

Pesticides and herbicides, which may come from various 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. They can also come from gas stations, urban stormwater runoff, and septic systems.

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

For information about how the City protects your groundwater and to see our most recent Wellhead Protection Plan, visit the City website www.ci.tumwater.wa.us/wellheadprotectionarea.

The frequency that we sample our sources is determined by the Washington State Department of Health (DOH). DOH has determined that the level of risk in our system is low for certain contaminants, and granted the City waivers to sample less frequently. The table below describes the sampling frequency for our sources and if waivers have been given.

<i>Contaminant or Contaminant Group</i>	<i>Source</i>	<i>Waiver Given?</i>	<i>Sampling Frequency</i>
Nitrate	All	No	Yearly
Pesticides	All	Yes	Every 3 Years
Soil Fumigants	All	Yes	Every 3 Years
Complete Inorganic (IOC)	All	Yes	Every 9 Years
Herbicides	All	Yes	Every 9 Years
Volatile Organic Compounds (VOC)	Palermo well field	No	Every 3 Years
	Wells 9 & 10 (Port well field)	No	Every 3 Years
	Wells 11 & 15 (Port well field)	Yes	Every 6 Years
	Bush well field	Yes	Every 6 Years
Gross Alpha & Radium 228	All	No	Every 6 Years

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).

To ensure that tap water is safe to drink, DOH and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

(Continued on reverse)

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The longer 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: Any drinking water tap that has not been used for 6 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 EPA's Safe Drinking Water Hotline at 1-800-426-4791, or online at www.epa.gov/safewater/lead.

Drinking Water Contaminants Detected at Tumwater Wells or in Distribution Pipes							
Contaminant	Units	Highest level allowed (MCL accept where indicated)	Goal not to exceed (MCLG accept where indicated)	Amount Present in Your Water		Year Detected	Source
				Maximum	Range		
Nitrate	mg/L	10	10	1.45	0.49 to 1.45	2018	Erosion from natural deposits; runoff from fertilizer use; leaching from septic tanks
Barium	mg/L	2	2	0.005	0.004 to 0.005	2018	Naturally occurring
Gross Beta	pCi/L	4 mrem/yr	NA	2.73	NA	2015	Decay of naturally radioactive deposits and/or man-made radioactive materials.
Radium 228	pCi/L	5	NA	2.78	NA	2015	Decay of naturally radioactive deposits and/or man-made radioactive materials.
Chlorine residual	mg/L	4 (MRDL)	4 (MRDLG)	0.31	0.17 to 0.44	2018	Water additive used to control bacteria
Haloacetic Acids (HAA5)	ppb	60	NA	1.6	1.2 to 1.6	2018	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	ppb	80	NA	7.4	0.5 to 7.4	2018	By-product of drinking water disinfection

Lead and Copper detected at Customer's Taps						
Contaminant	Units	Action Level	Goal not to exceed (MCLG)	2016 Results*	Homes exceeding action level	Source
Copper	mg/L	1.3	1.3	0.38	0 out of 39	Corrosion of household plumbing
Lead	mg/L	0.015	0	0.006	0 out of 39	Corrosion of household plumbing

* 90th Percentile: i.e. 90 percent of the samples were less than the values shown.

Definitions

Maximum Contaminant Level or 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 or 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

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

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.

For information about this report or the City's water system in general call the Public Works Engineering division at (360)754-4140.

