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Public Works

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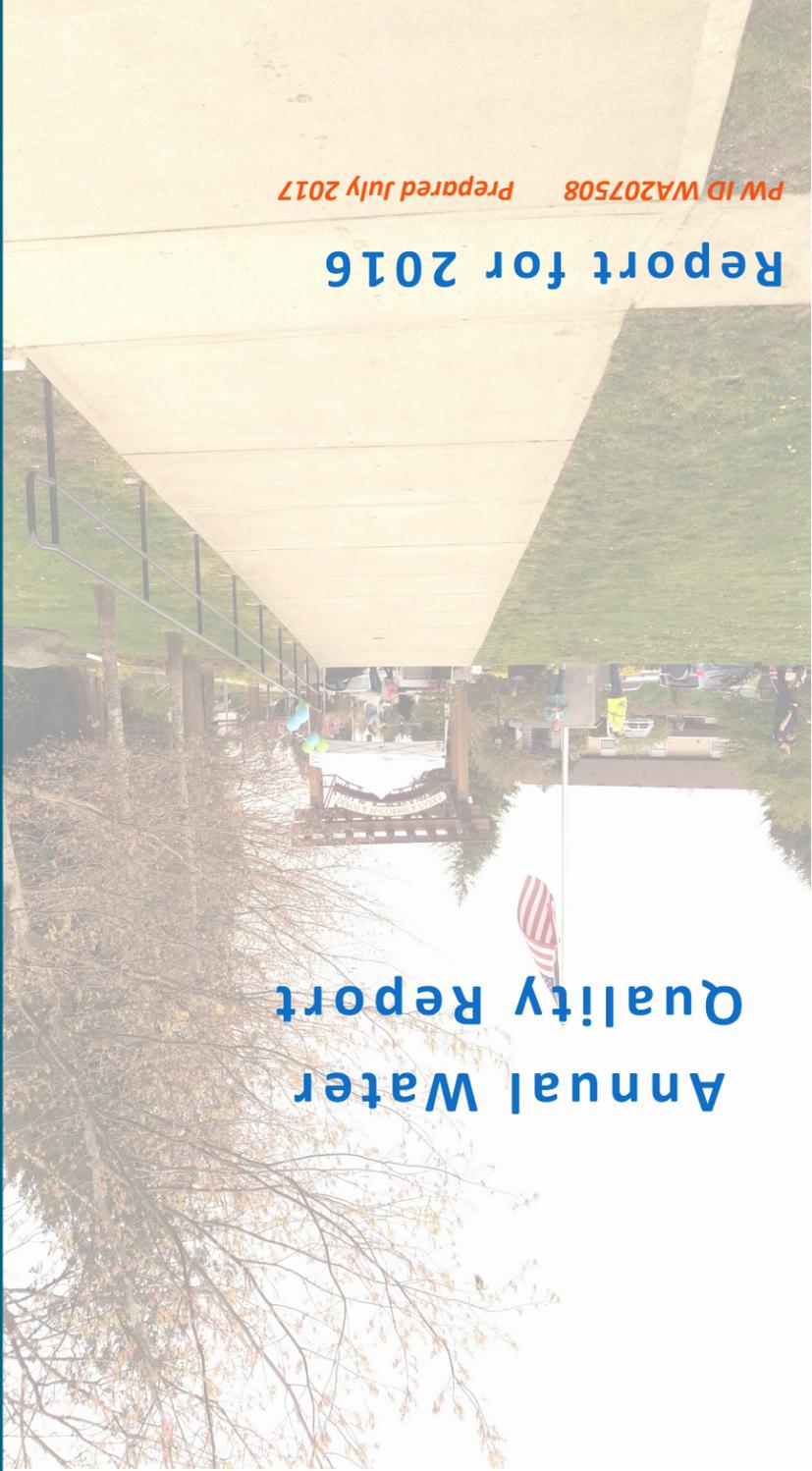
Duvall, WA 98019

www.duvallwa.gov

PW ID WA207508 Prepared July 2017

Report for 2016

Annual Water Quality Report



Water System Information

Duvall purchases all of its water from Seattle Public Utilities (SPU). Supplying the region with clean, safe water has been SPU's priority for almost 125 years. Safeguards have been built into every step of the water system—from pristine, protected watersheds to state-of-the-art treatment plants to the pipes that deliver water to your home, we ensure that the water you use every day is some of the best water in the nation.

SPU provides many cities and water districts with water to supply their customers from the Cedar and Tolt River Watersheds. All of Duvall's high quality water comes from the Tolt water supply.

The Tolt River Watershed is located in the foothills of the Cascades in east King County. It supplies about 30% of the drinking water for 1.4 million people in the greater Seattle area.

The Tolt Reservoir captures water and snow from the Tolt watershed. Most of this water is released from the dam directly to the South Fork Tolt River. A portion of the water is drawn through penstocks to a small hydroelectric facility one thousand feet below. There it enters a small body of water called the regulating basin. The water then continues its journey, all by gravity, to the Tolt Water Treatment Facility.

City of Duvall Contacts:
Utility Billing: 425.788.1185
Public Works: 425.788.3434

www.duvallwa.gov

Rate Assistance Program:

For those of our customers who are struggling with financial hardship, we're committed to providing rate assistance. For more information about the program contact the Utility Billing Clerk.

Community Participation:

You are invited to participate in our public City Council meetings and voice any concerns or suggestions you have about your drinking water. The City Council meets the 1st and 3rd Tuesdays of each month at 7:00 p.m. at the Riverview Educational Service Center, 15510 - 1st Avenue NE, Duvall.

Water Rates Pay For:

- ◆ Protecting the safety and security of the water supply system.
- ◆ Operation of a state-of-the-art water treatment facility.
- ◆ Daily testing to maintain drinking water quality.
- ◆ Two covered water storage reservoirs and a pump station.
- ◆ Maintaining and repairing water pipelines, fire hydrants, water service connections, and other water facilities.
- ◆ Providing services to help customers manage their bills and resolve problems.

Making Sure This Report Reaches Our Customers

The Environmental Protection Agency (EPA) has informed water providers that having this report available on the City website meets delivery requirements as long as customers are notified of this option and those who would like a paper copy can request one. The City has decided to provide it in this way to conserve paper and save printing and mailing costs. If you would like to provide feedback about the delivery method, please send an email to sara.ruhland@duvallwa.gov or call our Water Quality staff at 425.788.3434 ext. 8043.



the assemblies will function if there is a backflow event.

Garden Hoses can be hazardous to the water quality in your home. To prevent backflow and keep your water safe **DO NOT:**

- ◆ Submerge a garden hose into anything that you would not want to drink.
- ◆ Use hose-end applicators to apply garden chemicals to your yard.

When not in use, keep the hose bibs on the house in the "off" position. The spray nozzle at the end of the hose is not a safe shut off.



Seattle Public Utilities (SPU) has been ranked number one in the West and second in the nation in J.D. Power's annual customer satisfaction study of U.S. drinking water utilities!

More information available online:

<http://www.jdpower.com/press-releases/jd-power-2017-water-utility-residential-customer-satisfaction-study>

Report Illicit Discharges or Spills

All city storm drains flow into natural waterways. So it is very important to report illegal dumping or even accidental spills in our roadways, storm systems or natural waterways.

Business Hours, M-F: 425.939.8042

After Hours: 425.419.3748 (Emergency Only)

Non-emergency information may also be sent to stormwater@duvallwa.gov.



Cross Connection Control Program

The purpose of a Cross Connection Control Program is to keep unsafe water from mixing with the potable water supply.

Duvall maintains a database of assemblies installed throughout the City. We monitor all testing and send customers an annual reminder notice. Your efforts in performing required testing is essential to protecting our drinking water.

Backflow assemblies fail for a variety of reasons. That's why state law requires them to be tested annually by a certified tester—to ensure that

2016 Water Quality Monitoring Results



The results of monitoring in 2016 are shown in the table below. These results are parameters regulated by federal and state agencies. For other water quality information please contact the Public Works Department. We can also send you a list of the more than 200 compounds for which we tested for but did not find in our drinking water supplies. Water quality data for non-regulated parameters, such as pH, alkalinity, hardness, and conductivity, are also provided on SPU's website: http://www.seattle.gov/util/my services/water/water_quality/waterqualityanalyses/. Water quality monitoring data can be difficult to interpret. To

make all the information fit in one table we use many acronyms that are defined below.

Detected Compounds	Units	EPA's Allowable Limits		Levels in Tolt Water		Typical Sources
		MCLG	MCL	Average	Range	
Raw Water						
Total Organic Carbon	ppm	NA	TT	1.4	1.2 to 1.7	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	ND	ND	Naturally present in the environment
Finished Water						
Turbidity	NTU	NA	TT	0.07	0.01 to 0.2	Soil runoff
Arsenic	ppb	0	10	0.5	0.4 to 0.6	Erosion of natural deposits
Barium	ppb	2000	2000	1.3	1.0 to 1.6	Erosion of natural deposits
Bromate^	ppb	0	10	0.1	ND - 1	By-product of drinking water disinfection
Chromium	ppb	100	100	0.2	ND to 0.24	Erosion of natural deposits
Fluoride	ppm	4	4	0.7	0.6 to 0.9	Water additive, which promotes strong teeth
Nitrate	ppm	10	10	0.09	(one sample)	Erosion of natural deposits
Coliform, Total	%	0	5%	0		Naturally present in the environment
Total Trihalomethanes	ppb	NA	80	35.5	28.3-42.4	By-products of drinking water chlorination
Haloacetic Acids(5)	ppb	NA	60	35.2	27.0-47.6	
Chlorine	ppm	MRDLG = 4	MRDL = 4	Average = 0.82 Range = 0.62-0.94		Water additive used to control microbes

Definitions

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.

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.

MRDLG: Maximum Residual Disinfectant 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.

TT: Treatment Technique - A required process intended to reduce the level of a

contaminant in drinking water.

NTU: Nephelometric Turbidity Unit - Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2016 is 5 NTU, and for the Tolt supply it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2016 were below 0.3 NTU.

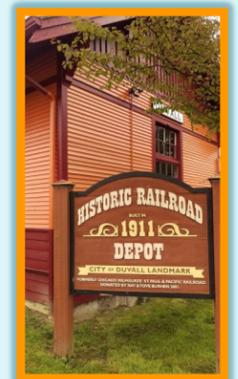
NA: Not Applicable

ND: Not Detected

ppm: 1 part per million = 1 mg/L = 1 milligram per liter

ppb: 1 part per billion = 1 ug/L = 1 microgram per liter

1 ppm = 1000 ppb



*Cryptosporidium was not detected in any samples from the Tolt supply (12 samples). It was detected in 2 of 12 samples from the Cedar supply.

^ We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During June 2016, we did not collect the monthly sample for bromate for the Tolt supply, and therefore cannot be sure of the quality of your drinking water during that time. Based on historical data, most bromate results for the Tolt supply are non-detect.

Lead and Copper Information

We take any potential lead exposure very seriously. Your water starts its journey as rainfall or snowpack with no detectable lead. Eventually the water reaches your home or business through a pipe called a service line. Duvall does not have any lead service lines. Some older homes may have interior fixtures or plumbing lines between the meter and home that do contain small amounts of lead. It is possible to find detectable levels of lead in some home tap samples. This usually comes from corrosion of lead alloys (such as brass solder) in a home's plumbing. However, SPU successfully treats our water to reduce corrosion. Even in these cases, lead levels in Duvall are well within regulatory limits. Every three years, Duvall tests 3 homes that have copper plumbing with lead-based solder, and results show levels of lead significantly below the federally designated Action Level (see table).

service lines and home plumbing. Duvall 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>.

Lastly, remember that drinking water is typically only a minor contributor to overall exposure to lead. Other sources include paint, soil, and food.

LEAD AND COPPER MONITORING RESULTS (TOLT WSA)					
	MCLG	Action Level+	2014 Results*	Homes Exceeding Action Level	Source
Lead, ppb	0	15	2.9	0 of 50	Corrosion of household plumbing systems
Copper, ppm	1.3	1.3	0.16	0 of 50	

- 90th Percentile: i.e. 90 percent of the samples were less than the values shown.
- + The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

SPU works hard to ensure the water in our system is less corrosive to lead plumbing:

- ♦ optimized corrosion control program in 2003.
- ♦ continuously monitor water chemistry at treatment facilities and collect routine samples throughout the distribution system to ensure it maintains water pH at a less-corrosive level.
- ♦ monitor water quality indicators at 7 (Duvall) distribution system locations and report results monthly to the Washington State Department of Health.

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



Water Conservation

Your ongoing water conservation efforts benefit our important fish species and saves you money. That's because the reservoirs that supply our drinking water also provide vital water to the Cedar and Tolt rivers. Healthy habitat for salmon, trout, and many other species depends on the quantity and quality of water in the rivers and streams that support them. Using water wisely helps ensure we'll have enough water to support freshwater habitat for generations to come. It's especially important to use water wisely in the summer and fall months, when stream flows are lowest.

To encourage more efficient water use, the Saving Water Partnership (SWP), composed of SPU and its 18 water utility partners, set a six-year conservation goal: reduce per capita use from current levels so that the SWP's total average annual retail water use is less than 105 mgd (million gallons per day) from 2013 through 2018, despite forecasted population growth. In 2015, even with a record hot summer, our customers met this goal, using 96.9 mgd.

Water Conservation Quick Tips

Check the soil moisture level before you water. Probe with a finger or trowel to see if the soil is still damp a few inches down. When it's dry down at the root zone, it's time to water.

Water deeply, but less frequently. An hour after watering, check the soil again to see if the water has reached the rootzone. Adjust your watering time to moisten the whole root zone, but then wait until the upper few inches of soil are dry before watering again, which encourages deeper roots.

Water slowly to prevent surface runoff and give water time to penetrate. If water puddles on the surface before it is absorbed by the soil, start and stop your watering several times, as needed, to allow the water to soak in.

Get water right to the roots, by using a watering wand, with a shutoff, for small areas. For larger areas, drip irrigation or soaker hoses, under mulch, deliver water efficiently right to the roots.

Make every drop count. Water early or late in the day to reduce evaporation, build your soil with compost and mulch, and choose low water use plants.



Is conservation important to you?
 Take the Saving Water Partnership water conservation survey and enter to win a free home water and energy-saving kit. The survey is available here: <https://www.surveymonkey.com/r/CustomerSvy2017>
