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Annual Water Quality Report

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King County Water District No. 45

The water you drink is supplied by the City of Seattle. The Cedar River Watershed is located in the foothills of the Cascade Mountains, northeast of North Bend. The Cedar River Watershed and the Tolt River Watershed provide reliable, high quality drinking water to more than 1.3 million customers located in the Seattle metropolitan area.

The District was first incorporated in 1931 with 35 connections. Since that time, the District boundaries have remained the same. Currently, the District serves 998 connections. We are proud of our service to the District and look forward to continuing to serve you in the future.

If you have any questions or would like to meet the Commissioners, we invite you to attend the Board of Commissioners meetings which are held on the second Monday of each month at 6:00 p.m. at the District office.

Water Use Efficiency

King County Water District No. 45 purchased 82,371,000 gallons of water in 2016 from Seattle Public Utilities. Our distribution system leakage rate was less than 5% of water purchased (3,703,000 gallons) in 2016.

The Saving Water Partnership (SWP) – which is made up of Water District No. 45 and 18 water utility partners – has 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 from 2013 through 2018 despite forecasted population growth. For 2016, the SWP met the goal, using 94.4 mgd despite the actual population growth much greater than forecast the past three years plus a relatively dry summer.

Now that summer is coming, it's time to remember to conserve water to leave plenty in the rivers for salmon and wildlife.

Here are some great ways to use water wisely and keep your water bills as low as can be:

- Check for leaks and fix them as soon as you can: - follow our step-by-step videos at **www.savingwater.org** or call 206-684-SAVE (7283) to learn more.
- Use less water in your garden by putting a layer of mulch around your plants.
- Visit **www.savingwater.org** for gardening tips, videos, and classes. For garden advice, call the Garden Hotline at (206) 633-0224 or email **help@gardenhotline.org**.
- Get a $100 rebate for replacing old toilets with Premium toilets. The average home can save up to $200 per year on its water bills, depending on household size and existing toilets. Premium toilets use 1.1 gallons of water per flush (or less) compared to older toilets that use up to 5 gallons per flush. Not only do these toilets save water with every flush, they are proven to perform by independent laboratory testing.

What About My Drinking Water?

Drinking water, including bottled water, may 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. The contaminant levels in our water are relatively low compared to typical rivers and streams throughout the country. 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).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons 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/Centers for Disease Control (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 (800-426-4791).

Cryptosporidium parvum is a disease-causing organism commonly found in most rivers and streams. *Cryptosporidium* sources in the Cedar watershed include deer and elk. When ingested, *Cryptosporidium* may cause diarrhea, fever and other gastrointestinal distress. *Cryptosporidium* is eliminated by effective treatment. Ozonation and filtration are effective against *Cryptosporidium*. Your drinking water is tested on a regular basis for the presence of *Cryptosporidium*. Source water monitoring in 2016 detected *Cryptosporidium* in samples from the watershed.

The results of the 2016 regional water quality testing are included in this report. This information is comprised in the table on the next page. All of the compounds found in the Cedar River supply were found to be at lower levels than the EPA allows. Not listed in the table below are the over 100 other contaminants that were tested for, but not detected, in your drinking water. If you would like a list of the other compounds or if you have other water quality questions, please contact SPU at **(206) 615-0827.**

		EPA's Allowable Limits		Levels in Cedar Water		
Detected Compounds	**Units**	**MCLG**	**MCL**	**Average**	**Range**	**Typical Sources**
Raw Water						
Total Organic Carbon	ppm	NA	TT	0.8	0.3 to 2.1	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	0.3	ND to 2	Naturally present in the environment
Finished Water						
Turbidity	NTU	NA	TT	0.3	0.2 to 2.3	Soil runoff
Arsenic	ppb	0	10	0.5	0.4 to 0.6	Erosion of natural deposits
Barium	ppb	2000	2000	1.6	1.5 to 1.8	Erosion of natural deposits
Bromate	ppb	0	10	ND	ND	By-product of drinking water disinfection
Chromium	ppb	100	100	0.27	0.25 to 0.33	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	0.02	(one sample)	Erosion of natural deposits
Total Trihalomethanes	ppb	NA	80	41	16-42	By-products of drinking water chlorination
Haloacetic Acids (5)	ppb	NA	60	34	21-52	
Coliform, Total	%	0	5%	-	-	Naturally present in the environment
Chlorine	ppm	MRDLG = 4	MRDL = 4	Average = 1.3 Range = 0.6-1.6		Water additive used to control microbes

Cryptosporidium was detected in 2 of 12 samples from the Cedar supply.

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.
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 (ug/L)*
1 ppm = *1000 ppb*

Lead and Copper Monitoring Results					
Parameter and Units	**MCLG**	**Action Level+**	**2015 Results***	**Homes Exceeding Action Level**	**Source**
Lead, ppb	0	15	4.0	0 out of 50	Corrosion of household plumbing systems
Copper, ppm	1.3	1.3	0.161	0 out of 50	

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

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. King County Water District No. 45 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.**