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PWS ID #39700

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Mike Harris, District Manager

Annual Water Quality Report



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 989 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 84,906,000 gallons of water in 2015 from Seattle Public Utilities. Our distribution system leakage rate was less than 1.5% of water purchased (1,053,000 gallons) in 2015.

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 2015, the SWP met the goal, using 96.9 mgd despite the record hot 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. Immunocompromised 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 2015 detected Cryptosporidium in samples from the watershed.

Water Quality

The results of the 2015 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 Allow	wable Limits	Levels in	Cedar Water	Levels in Well Water**		
Detected Compounds	Units	MCLG	MCL	Average	Range	Average	Range	Typical Sources
Raw Water	•			•				
Total Organic Carbon	ppm	NA	TT	0.7	0.5 to 1.5	NA	NA	Naturally present in the environment
Cryptosporidium*	#/100L	NA	NA	1	ND to 8	NA	NA	Naturally present in the environment
Finished Water	•			•				·
Turbidity	NTU	NA	TT	0.4	0.1 to 1.2	0.2	0.1 to 0.3	Soil runoff
Arsenic	ppb	0	10	0.5	0.4 to 0.7	3.9	1.7 to 7.9	Erosion of natural deposits
Barium	ppb	2000	2000	1.6	(one sample)	3.0	2.2 to 4.6	Erosion of natural deposits
Bromate	ppb	0	10	ND	ND	NA	NA	By-product of drinking water disinfection
Chromium	ppb	100	100	0.27	0.25 to 0.33	0.7	0.3 to 1.3	Erosion of natural deposits
Fluoride	ppm	4	4	0.8	0.7 to 0.9	0.7	0.5 to 1.0	Water additive, which promotes strong teeth
Selenium	ppb	50	50	ND	ND	0.7	0.1 to 1.1	Erosion of natural deposits
Uranium	ppb	0	30	ND	ND	0.4	ND to 0.7	Erosion of natural deposits
Nitrate	ppm	10	10	0.01	(one sample)	ND	ND	Erosion of natural deposits
Total Trihalomethanes	ppb	NA	80	31	28-37			By-products of drinking water chlo- rination
Haloacetic Acids (5)	ppb	NA	60	30	23-41			
Coliform, Total	%	0	5%	-	-	-	-	Naturally present in the environment
Chlorine	ppm	MRDLG =4	MRDL =4		Average Range =	= 1.2 0.6-1.6		Water additive used to control mi- crobes

*Cryptosporidium was detected in 2 of 9 samples from the Cedar supply. This monitoring is not required for the wells.

**Values presented represent 100% well water. All well water was blended with Cedar supply water before delivery to customers. The wells operated from July to November 2015.

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 2015 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					
Copper, ppm	1.3	1.3	0.161	0 out of 50	Corrosion of noisenola plumbing systems				

⁺ 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.