

Soos Creek Water and Sewer District

2017 Annual Water Quality Report

This publication is federally mandated in order to inform customers of the quality of their drinking water.

Where Does Our Water Come From?

Soos Creek Water and Sewer District (SCWSD) is proud to provide you with water that meets or exceeds all federal drinking water quality standards.

The Seattle Public Utilities (SPU) Cedar River Watershed supplies 100% of this high quality water. This surface water source is located in a remote and uninhabited area of the Cascade Mountains. Rain and snow runoff from the Cascades is held in lakes in the watershed. The Cedar River Watershed is publicly owned and SPU has an aggressive watershed plan to protect it. Agricultural and industrial activities are not allowed. Access to the watershed is restricted to appropriate staff and educational programs conducted by SPU staff.

This pristine water is screened, disinfected with chlorine, and fluoridated. A small amount of lime is also added to control corrosion to pipes. Ozonation (a form of oxygen used for disinfection) improves taste, and ultraviolet light (UV) kills disease causing Giardia and Cryptosporidium in the water. The water is then piped or pumped into SCWSD reservoirs and distribution mains which brings the water to area homes and businesses.

Water Quality

In order to ensure that tap water is safe to drink, the Dept. of Health (DOH) and the Environmental Protection Agency (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 WA Dept. of Agriculture regulations establish limits for contaminants 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 potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline (1-800-426-4791).

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/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).

For more information:

www.seattle.gov/util/MyServices/Water/Water_Quality/index.htm

www.epa.gov/safewater/

www.doh.wa.gov/ehp/dw/

www.savingwater.org

www.sooscreek.com

Public Meeting Information:

The Board of Commissioners meets every 1st, 3rd and 4th Wednesday of the month at 4:30 p.m. If you would like to be on the agenda for these meetings or have questions regarding this report, please call 253-630-9900.

Monitoring

Seattle Public Utilities staff monitors the source water, treatment processes, and distribution system water quality 365 days a year. Different parameters are monitored and analyzed at varying frequencies - generally daily, monthly, quarterly, or annually, in accordance with Federal and State regulations. Some elements of the treatment process are monitored continuously. The data, contained in the tables below, reflect the 2017 compliance data for Seattle Public Utilities and Soos Creek Water and Sewer District. If sampling was not required in 2017, levels indicated are for the most recent monitoring conducted. Our 2017 routine water quality monitoring did not identify the presence of any contaminants at established levels of concern for the general consumers.

2017 Water Quality Data

Detected Compounds	Units of Measure	EPA's Limits		Level's in Your Water		Typical Sources
		MCLG	MCL	Average	Range	
Raw Water						
Total Organic Carbon	ppm	NA	TT	0.8	0.3 to 1.5	Naturally present in the environment.
Cryptosporidium*	#100L	NA	NA	ND	ND	Naturally present in the environment.
Finished Water						
Turbidity	NTU	NA	TT	0.3	0.2 to 2.5	Soil runoff
Arsenic	ppb	0	10	0.5	0.4 to 0.6	Erosion of natural deposits.
Barium	ppb	2000	2000	1.7	1.4 to 1.9	Erosion of natural deposits.
Bromate	ppb	0	10	0.04	ND - 1	By-product of drinking water disinfection.
Chromium	ppb	100	100	0.27	0.25 to 0.33	Erosion of natural deposits.
Chlorine	ppm	MRDLG=4	MRDL=4	0.93	0.21 - 2.00	Water additive used to control microbes.
Trihalomethanes	ppb	NA	80	38.0 [^]	15.8 - 58.1 [^]	By-products of drinking water chlorination.
Haloacetic Acids(5)	ppb	NA	60	41.0 [^]	11.6 - 65.9 [^]	By-products of drinking water chlorination.
Fluoride	ppm	4	4	0.7	0.3 to 0.9	Water additive, which promotes strong teeth.

**Cryptosporidium* is a parasite commonly found in lakes and rivers that can cause gastro-intestinal disease. In 2017 *Cryptosporidium* was not detected in 3 of 3 samples collected in the Cedar River supply.

[^] Results from SCWSD Stage 2 Disinfection Byproducts Routine Monitoring in 2017

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 2017 is 5 NTU.

NA: Not Applicable

ND: Not Detected

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

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

1ppm = 1000ppb

Lead and Copper Monitoring Results (Cedar WSA)

Parameter and Units	MCLG	Action level+	2015 re-sults ^	Exceeding Action level	SCWSD 2015	SCWSD Homes exceeding Action	Source
Lead, ppb	0	15	4	0 of 50	ND to 4.1	0 of 16	Corrosion of household plumbing systems
Copper, ppm	1.3	1.3	0.161	0 of 50	0.015 to 0.048	0 of 16	

^ 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.

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. SCWSD 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>

The Dept. of Health (DOH) conducted a source water assessment to determine potential contaminant sources. According to DOH, all surface waters in Washington are given a susceptibility rating of "high," regardless of whether contaminants have been detected or whether there are any sources of contaminants in the watershed. Information on the source water assessments is available from the DOH website, at <http://www.doh.wa.gov/ehp/dw.default.htm> Some potential natural sources of contamination include:

- Microbial contaminants, such as viruses, bacteria, and protozoa from wildlife.
- Inorganic contaminants, such as salts and metals, which are naturally occurring.
- Organic contaminants, which result from chlorine combining with the naturally occurring organic matter.

Regional Conservation Program

The Saving Water Partnership (SWP) which is made up of Soos Creek Water & Sewer District (SCWSD) 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 2017, the Saving Water Partnership met the goal, using 96.6 mgd.

SCWSD purchased 1.5 billion gallons of water in 2017. Of this, approximately 59.7 million gallons was lost to distribution system leakage (DSL). Expressed as percentage of water supplied to SCWSD's service area, the DSL loss rate was 4.0%.

The Washington State Department of Health's Water Use Efficiency Rule requires a 10% or less DSL based on a 3-year rolling average. SCWSD is in compliance with this standard.

Highlights of the regional conservation program in 2017 include:

- The SWP kept up the pace of the youth education program in 2017, conducting 500 in-classroom presentations for nearly 12,000 K-12 grade students. Topics included water efficiency, the water cycle, the salmon life cycle, water-wise gardening, Fix That Leak!, and the water supply system. The program is a big hit among teachers and students.
- The SWP continued the sprinkler timer rebate program. 220 customers replaced inefficient sprinkler timers with new WaterSense labeled timers.
- The SWP provided rebates for Premium toilets for residential and commercial customers. These fixtures use 1.1 gallons of water per flush (or less), at least 20% less water than a regular WaterSense fixture.
- The Single Family Toilet Rebate Program upgraded 700 toilets to Premium Toilet models.
- The Multifamily Toilet Replacement Program upgraded nearly 3,190 toilets to Premium models.
- The SWP completed financial incentive projects to upgrade water-using equipment in 17 businesses in 2017.
- The SWP presented 13 Savvy Gardener classes at four locations in Spring and Fall 2017 with 365 attendees. These classes were designed to inspire, create, and maintain healthy, water-efficient landscapes.

Tips For Using Water Wisely:

Here are some great ways to use water wisely:

- 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.
- Get a \$100 rebate for replacing old toilets with Premium 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.
- Use less water in your garden by putting a thick layer of mulch around your plants.
- Visit www.savingwater.org for gardening tips, videos and classes.
- For advice in your garden: call the Garden Hotline at (206) 633-0224 or e-mail help@gardenhotline.org.

Conserving Water Helps Salmon

It's especially important to use water wisely in the summer and fall months, when stream flows are lowest. Your actions help protect precious freshwater habitat for salmon and other species that live in and around our streams. Witness your work when salmon make their annual migration home to our local streams. Look for the Salmon SEEson campaign this fall for the latest on when and where the fish will be.

Visit www.savingwater.org for information on rebates, tips for using water wisely, videos on fixing leaks and efficient landscaping practices, and more.