

# Soos Creek Water and Sewer District

## 2016 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. Immuno-compromised 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](http://www.seattle.gov/util/MyServices/Water/Water_Quality/index.htm)

[www.epa.gov/safewater/](http://www.epa.gov/safewater/)

[www.doh.wa.gov/ehp/dw/](http://www.doh.wa.gov/ehp/dw/)

[www.savingwater.org](http://www.savingwater.org)

[www.sooscreek.com](http://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 2016 compliance data for Seattle Public Utilities and Soos Creek Water and Sewer District. If sampling was not required in 2016, levels indicated are for the most recent monitoring conducted. Our 2016 routine water quality monitoring did not identify the presence of any contaminants at established levels of concern for the general consumers.

## 2016 Water Quality Data

Detected Compounds	Units of Measure	EPA's Limits		Level's in Your Water		Typical Sources
		MCLG	MCL	Average	Range	
<b>Raw Water</b>						
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.
<b>Finished Water</b>						
Turbidity	NTU	NA	TT	0.3	0.2 - 2.3	Soil runoff.
Fluoride	ppm	4	4	0.7	0.6 - 0.9	Water additive, which promotes strong teeth.
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.
Chlorine	ppm	MRDLG=4	MRDL=4	0.93	0.11 - 2.2	Water additive used to control microbes.
Trihalomethanes (TTHM)^	ppb	NA	80	38^	22 - 47^	By-products of drinking water chlorination.
Haloacetic Acids(HAA5)^	ppb	NA	60	34^	20 - 40^	By-products of drinking water chlorination.

\**Cryptosporidium* is a parasite commonly found in lakes and rivers that can cause gastro-intestinal disease. In 2016 *Cryptosporidium* was detected in 2 of 12 samples collected in the Cedar River supply.

^ Results from SCWSD Stage 2 Disinfection Byproducts Routine Monitoring in 2016

**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 2013 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.

## The 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 2016, the Saving Water Partnership met the goal, using 94.4 mgd.

SCWSD purchased 1.4 billion gallons of water in 2016. Of this, approximately 45.6 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 3.1%.

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 2016 include:

- The SWP expanded youth education in 2016, 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, the water supply system and Fix That Leak!. The program is a big hit with teachers and students.
- The SWP introduced a new sprinkler timer rebate program. 190 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 1,050 toilets to Premium Toilet models.
- The Multifamily Toilet Replacement Program upgraded nearly 2,000 toilets to Premium models, and 380 toilets to Regular WaterSense models.
- The SWP completed financial incentive projects to upgrade water-using equipment in 30 businesses in 2016. A large hotel replaced nearly 300 toilets with Premium models.
- The SWP presented 16 Savvy Gardener classes at five locations in Spring and Fall 2016 with 400 attendees. These classes were designed to inspire, create, and maintain healthy, water-efficient landscapes.

### Here's what you can do to prevent or reduce leaks:

- Replace worn toilet flappers.
- Replace worn washers and gaskets in faucets, showerheads and hoses.
- Keep an eye out for unusually damp or green patches in your yard - these could be a sign of an underground leak.
- Check irrigation systems each spring for freeze damage and broken parts.
- Visit [www.savingwater.org](http://www.savingwater.org) or call 206/684-7283 for more ways to use water wisely.

Tell us what you think about using water wisely! Go to [www.savingwater.org](http://www.savingwater.org) and take our survey and enter to win a free home water and energy saving kit!

### Healthy rivers, fish, and you

May and June signal the start of summer, and peak water use season – the time when rain stops and people use more water in their yards and gardens. It's especially important to conserve water in summer and fall, when stream flows are lowest. By using water wisely, you help to protect salmon and their freshwater habitat. If you want to see salmon in the streams, look for the *Salmon SEEson* campaign this fall for the latest on when and where the fish will be. Thank you for using water wisely!

Visit [www.savingwater.org](http://www.savingwater.org) for information on rebates, tips for using water wisely, videos on fixing leaks and efficient landscaping practices, and more.