

Soos Creek Water and Sewer District

2008 Annual Water Quality Report

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

This report contains information and data for the year 2007.

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 then piped to the water treatment facility at Lake Young's. The water is screened for twigs and leaves, it then goes through ozonation and ultraviolet light (UV) disinfection, which kills disease causing Giardia and Cryptosporidium in the water. In addition, the water is fluoridated, controlled for corrosion and chlorinated. The water is then piped or pumped into SCWSD reservoirs and distribution mains which brings the water to area homes and businesses.

For more information:

www.seattle.gov/util/services/Water/Water_Quality
www.sooscreek.com
www.epa.gov/safewater/
www.doh.wa.gov/ehp/dw/
www.savingwater.org

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.

Visit our web site at www.sooscreek.com

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).

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2007 Water Quality Data

Detected Compounds	Units	EPA's Allowable Limits		Level's in Cedar Finished Water		Typical Sources
		MCLG	MCL	Average	Range	
Turbidity	NTU	NA	TT	0.6	0.2 - 1.9	Soil runoff
Fluoride	ppm	4	4	0.85	0.6 - 1.0	Water additive, which promotes strong teeth.
Chlorine	ppm	MRDLG=4	MRDL =4	1.04	0.3-1.75	Water additive used to control microbes.
Total Trihalomethanes	ppb	NA	80	26.11	8.53 - 40.6	By-products of drinking water chlorination.
Haloacetic Acids(5)	ppb	NA	60	24.59	13.5 - 33.7	By-products of drinking water chlorination.

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 2007 is 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2007 were below 0.3 NTU in 11 of the 12 months. For one month, the turbidity was less than 0.3 for 99.98% of the time

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

Lead and Copper Monitoring Results (Cedar)

Parameter and Units	MCLG	Action Level +	2006 results of first round*	# Homes exceeding Action Level	SCWSD Homes exceeding Action Level 2006 results
Lead ppm	0	15	4.6	0 of 51	0 of 15
Copper mg/L	1.3	1.3	0.11	0 of 51	0 of 15

*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.

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 above, reflect the 2007 compliance data for Seattle Public Utilities and Soos Creek Water and Sewer District. If sampling was not required in 2007, levels indicated are for the most recent monitoring conducted. Our 2007 routine water quality monitoring did not identify the presence of any contaminants at established levels of concern for the general consumers.

Cryptosporidium

Cryptosporidium is a parasite commonly found in lakes and rivers that can cause gastro-intestinal disease. In 2007, *Cryptosporidium* was detected in 4 of 10 raw water samples collected in the Cedar river supply. These levels are very low compared with most rivers. With the construction of the Cedar Water Treatment facility in 2004 our treatment processes are now very effective at killing and removing *Cryptosporidium*.

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.

Water Conservation

Water conservation is good for the environment, your family, and your community. When you use water wisely, you help to ensure that we have enough water for future generations, manage your water and energy bills, and save water for fish and animals.

Soos Creek Water and Sewer District (SCWSD) is a member of the Saving Water Partnership, a group of 18 local utilities that has adopted a regional water conservation goal of 11.0 million gallons per day (mgd) by 2010. In 2007, the regional program, with our participation, achieved 1.28 mgd of savings, which is on track to meeting the 2010 goal. **Through the Saving Water Partnership, we are happy to report on the following successes in 2007:**

- We mailed nearly 80,000 single family residential customers high-efficiency showerheads, saving significant amounts of water and energy.
- We provided 7,000 WashWise rebates for efficient clothes washers.
- We launched educational efforts to introduce high-efficiency toilets that are 20% more efficient than standard (1.6 gallon per flush) models.
- We promoted irrigation system controllers that adjust to the weather and reduce water use by up to 30%, and worked with area nurseries to promote water-wise plantings.

SCWSD purchased 1.59 billion gallons of water in 2007. Of this, less than 98.9 million gallons was lost to leakage. Expressed as percentage of water supplied to SCWSD's service area, the leakage rate was 6.22% which is low compared to most water utilities.

Here are some tips to help you conserve water and manage your utility bills

Take shorter showers

Fix leaks (check your toilets for a leaking flapper once a year)

Wash full loads of clothes and dishes

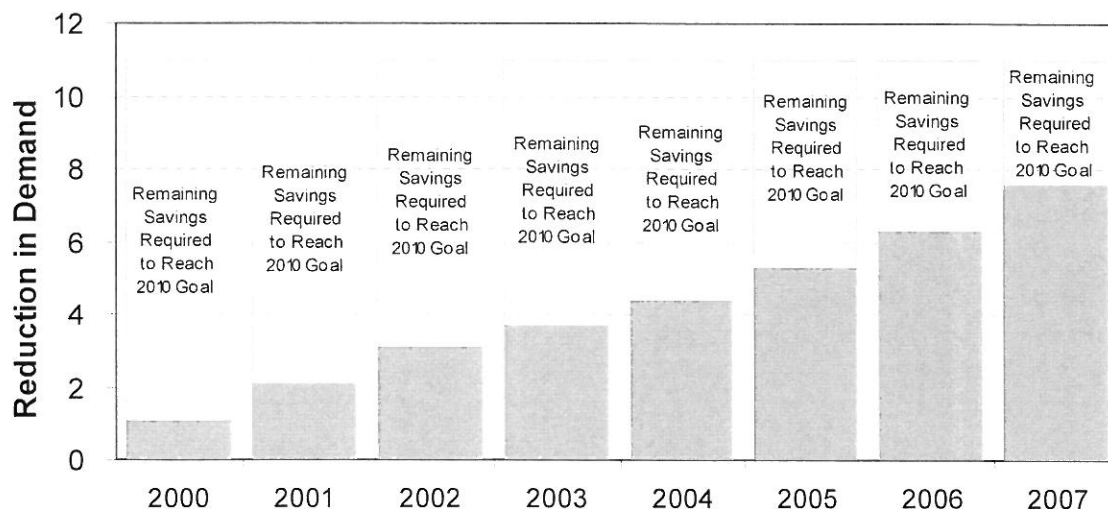
If you have a yard, build healthy soil for healthy plants

Water deeply and infrequently in the summer

To find out about appliance, irrigation, and other rebates, visit www.savingwater.org

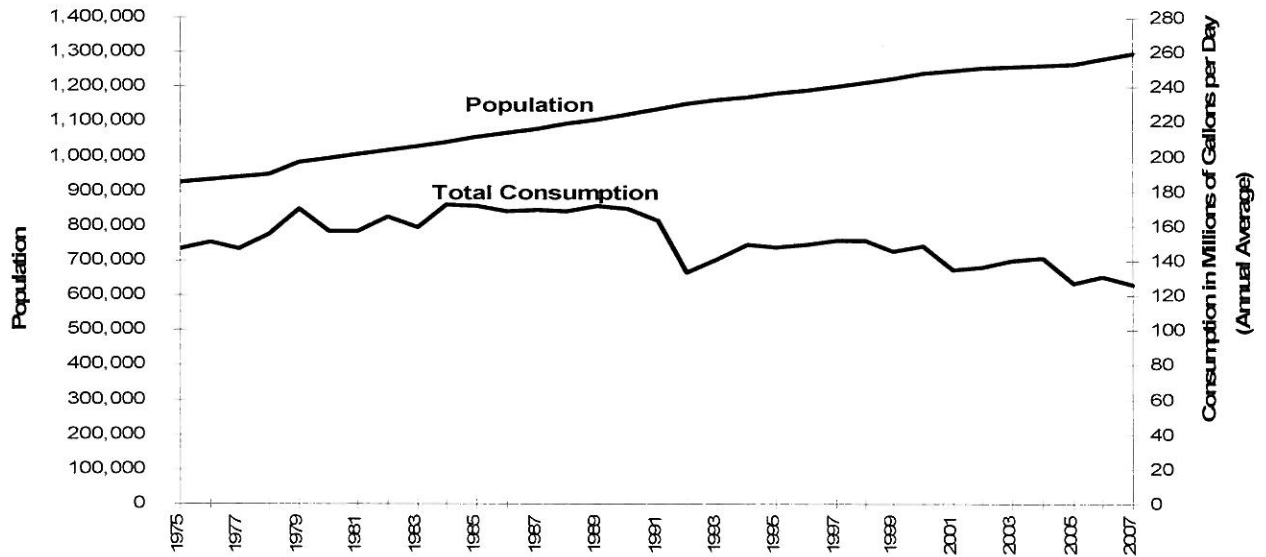
SCWSD will continue to be proactive in evaluating and implementing additional water loss control methods to reduce leakage in the distribution system. For additional information on how you can conserve water, go to savingwater.org or call 206/684-SAVE (7283).

**2010 Water Savings Targets and Estimated Cumulative Savings Since 1999
Conservation Programs Only**



Since 1990, the population of the area served by Seattle's regional system has increased by 16% while water consumption has *declined* by 26%. On a per person basis, total water consumption has decreased 36% from 152 gallons to less than 100 gallons per person per day. As a result, we have extended our existing water supply and postponed the need to develop new sources by many decades.

Growth in Population and Water Consumption Seattle Regional Water System: 1975-2007



Measures of Water Consumption for Saving Water Partnership Utilities*: 1990, 2000 & 2007

	1990	2000	2007	%Change since	
				1990	2000
Total Billed Water Consumption	121 mgd	108 mgd	94 mgd	-23%	-13%
Residential Consumption	79 mgd	72 mgd	64 mgd	-19%	-12%
Non-Residential Consumption**	43 mgd	35 mgd	30 mgd	-30%	-15%
Avg. Single Family Use per Household	231 gpd	194 gpd	166 gpd	-28%	-15%
Avg. Multifamily Use per Household	142 gpd	120 gpd	100 gpd	-30%	-17%
Residential: Avg. Use per Person	84 gpd	70 gpd	60 gpd	-29%	-15%
Non-Residential: Avg. Use per Employee**	71 gpd	51gpd	45 gpd	-37%	-11%

mgd = millions of gallons per day gpd = gallons per day

***Members of the Saving Water Partnership:**

- | | | |
|------------------------------------|------------------------------------|-------------------------------------|
| City of Bothell | Highline Water District | King County Water District No. 125 |
| City of Duvall | King County Water District No. 20 | Northshore Utility District |
| City of Mercer Island | King County Water District No. 45 | Olympic View Water & Sewer District |
| Seattle Public Utilities | King County Water District No. 49 | Shoreline Water District |
| Cedar River Water & Sewer District | King County Water District No. 90 | Soos Creek Water & Sewer District |
| Coal Creek Utility District | King County Water District No. 119 | Woodinville Water District |

** While most of the decrease in non-residential consumption is due to conservation, some of it is due to changes in the economy. During times of economic slowdown, water consumption tends to decrease.