

Conserving Water Together

During 2016, Coal Creek Utility District purchased 446 million gallons of water, with an unaccounted water rate of 11.02% throughout our system.

On February 10, 2017, the Board of Commissioners authorized District staff to proceed with an accelerated meter replacement program to replace approximately 900 meters per year until the estimated 3,000 aging meters are replaced. District ratepayers will benefit from more accurate billing and detailed information on water consumption due to higher meter accuracy and compatibility with on demand data systems to share real time information

The Saving Water Partnership (SWP)—comprised of Coal Creek Utility District 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. Get all the conservation details at www.savingwater.org

Algae and Water Aesthetics

Your water is not only monitored for various compounds, it is also monitored for overall aesthetics (as indicated in Table 3 on the inside of this newsletter), which can be impacted by algae.

Source water from the Cedar River, and to a lesser extent from the Tolt Reservoir, can experience naturally occurring, seasonal algae blooms. Typically these blooms occur in the late Spring, but due to a number of environmental factors including sunlight and temperature, blooms can occur at other, unexpected times of the year. For similar reasons, some blooms are more intense than others. Although the algae we sometimes have in our water supplies is not associated with health concerns, it can create tastes and odors. Thankfully these are well controlled with current ozone treatments.

Since the Cedar River supply is unfiltered, customers who filter water at home may experience their filters clogging sooner than usual during an algal bloom. To help alleviate filter clogging, you can either install an inexpensive pre-filter that can be periodically removed and cleaned with a brush, or replace your existing filter with a new one.

More About Water Quality

Sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. In Seattle's surface water supplies, the potential 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; and
- Organic contaminants, which result from chlorine combining with the naturally occurring organic matter.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) and/or the Washington state Department of Health prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration and/or the Washington state Department 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 and potential health effects can be obtained by calling the **EPA's Safe Drinking Water Hotline at (800) 426-4791**.

We at Coal Creek Utility District encourage public interest and participation in the decisions that affect our drinking water. If you would like to learn more about our water, have questions about its quality, or would like to know what you can do to help keep our water supply clean, safe and abundant, please don't hesitate to contact us at (425)-235-9200, or attend one of our Board meetings (every second and fourth Wednesday of every month, beginning at 5:00 pm) at our District office, or you can contact any one of the following organizations:

Seattle Public Utilities

Phone: (206) 684-3000

Web: seattle.gov/util/MyServices/Water/Water_Quality

Washington State Department of Health

Phone: (800) 521-0323

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

Environmental Protection Agency Safe Drinking Water Hotline

Phone: (800) 426-4791

Web: epa.gov/safewater



Conserving Water = Healthy Rivers and Fish

June typically signals the start of Summer—the time when rain stops, people start using more water in their yards and gardens, and stream flows are starting to decrease. Conserving water will not only help you save money on your water bill, it will help protect local salmon and their freshwater habitat. Later this Fall, you can reward your good efforts by watching the return of the salmon during **Salmon SEEson!** Find out when and where you can view them on this website:

www.govlink.org/watersheds/8/action/salmon-season

You're Invited...

We at Coal Creek Utility District would like to invite you to learn more about your Utility District by attending our twice-monthly Board meetings.

CCUD Board meetings are held on the second and fourth Wednesday of every month beginning at 5:00 pm, located in the District office. Meetings are open to everyone. To place an item on the agenda, please provide staff with your written request no later than the Monday prior to a scheduled Board meeting.

District information, Board minutes and answers to many questions are always available online — at www.ccud.org. You can also contact us by email at CustomerService@CCUD.org... and don't forget to like us on Facebook:

www.facebook.com/CCUD1



Pure and Clean Water

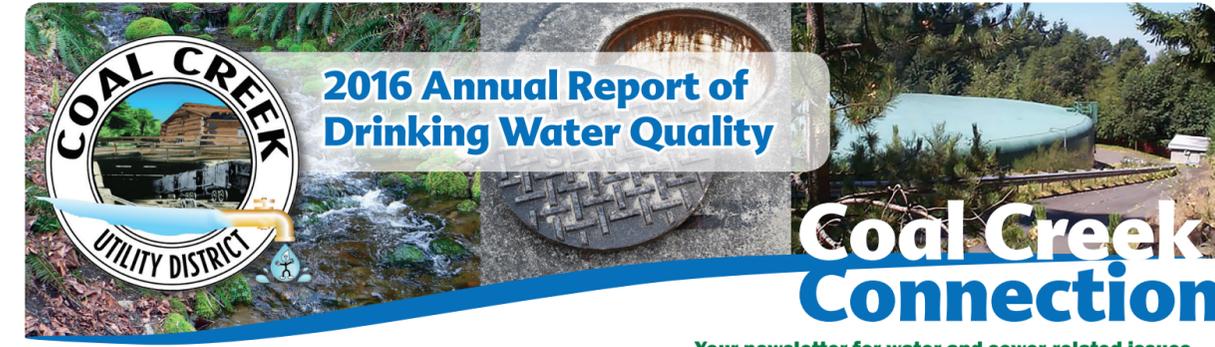
Coal Creek Utility District purchases the water we provide to our customers from Seattle Public Utilities (SPU), which sources its water from the publicly-owned and protected Cedar River and Tolt River watersheds. Water is pumped to the Lake Youngs facility where it undergoes a treatment process that includes both ozonation and ultraviolet light (UV) disinfection, which kills disease-causing bacteria, giardia and cryptosporidium. The UV process limits the amount of chemicals required for disinfection and is not known to produce any harmful by-products. Finally, the water is fluoridated to help prevent tooth decay, controlled for corrosion and chlorinated.

Our Water Sources

Two surface water sources provide all CCUD water: Lake Youngs, fed by the Cedar River from Chester Morse Lake, and the South Fork of the Tolt River. These two river systems begin in the Cascades and have large protected watersheds.

Since both watersheds are publicly owned, SPU is able to vigorously protect its watersheds through a comprehensive protection program. This program prohibits agricultural, industrial, and recreational activities in the watersheds, and no one is allowed to live there. This means there is little opportunity for contaminants to enter the water. Even so, there is always some potential for natural sources of contamination. In Seattle's surface water supplies, the potential 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; and
- Organic contaminants, which result from chlorine combining with the naturally occurring organic matter.



Summer 2017

Commissioners' Overview...

We are proud to provide you with our 2016 Water Quality Report, in which we are pleased to report that frequent testing throughout the year showed that your drinking water meets or exceeds all state and federal water quality standards. The goal of this report is to ensure you are fully informed about your water and the activities of your District. It contains detailed information on the source of our water, its quality, and our innovative conservation programs. It is our first priority to provide you and your family with safe, reliable drinking water; to that end, we conduct ongoing water quality tests and work constantly to upgrade and improve our water system in order to maintain high standards and protect public health. We hope that this report is informative and helpful to you. If you have any questions or need additional information, contact Carla Snyder, our Lead Water & Sewer Compliance Specialist, at (425)-235-9200.

Your newsletter for water and sewer-related issues and information in Newcastle and surrounding areas... since 1959

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Coal Creek Connection: a publication by Coal Creek Utility District

https://commons.wikimedia.org/wiki/File:Coal_Creek_Connection_Summer_2017.pdf

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Annual Water Quality Report for 2016

Coal Creek Utility District continues to maintain state and federal water quality guidelines that are significantly below EPA maximum levels.

All About Your Water

Who: Your drinking water is regulated by the Environmental Protection Agency (EPA), which sets drinking water quality standards, establishes testing methods and monitoring requirements for water utilities, sets maximum levels for water contaminants, and requires utilities to give public notice whenever a violation occurs.

Beginning in late spring, CCUD staff will begin monitoring all water quality samples required by EPA and Washington Department of Health (WDOH) ourselves, in lieu of Seattle Public Utilities (SPU). To achieve this, last year District staff installed 6 additional water quality sampling stations (for a total of 9), and 3 new chlorine monitoring sites. The 6 new water quality sampling stations are of different design: rather than flowing continually, they are operated only at the time of sampling, in order to save water. We will replace the remaining three continuous flowing stations with new non-flowing stations this Spring. SPU will continue to analyze for microbes and contaminants at their water quality lab in Seattle.

What: 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 and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline 800.426.4791.

When: Your water is monitored for quality 365 days a year.

Where: Your water comes from the Cedar River and Tolt Watersheds.

How: Last year your drinking water was tested for over 200 compounds and additional contaminants. Tests are done before and after treatment and while your water is in the distribution system. The Tables presented on the following page list all of the contaminants detected in the most recent required water testing and compare them to the limits and goals set by the EPA and the State of Washington to ensure your tap water is safe.

Not shown are more than 200 additional contaminants that were tested for, but not detected, in your drinking water. If you would like to see a list of these other compounds or if you have other water quality questions, do not hesitate to contact us. Please note: asbestos monitoring is not required for our District because all the asbestos concrete pipe in our distribution system was replaced prior to 1999.

The Best News: Your water falls safely within state and federal guidelines for each and every contaminant, significantly below the EPA's levels.

Lead and Copper Monitoring Results

Our regional water supply does not contain lead or copper. However it is possible that lead levels at your home may be higher than at other homes in the community, as a result of materials used in your home's plumbing.

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. Coal Creek Utility District 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 by calling the EPA's Safe Drinking Water Hotline at 1-(800) 426-4791, or visit their website at: www.epa.gov/safewater/lead

People With Special Concerns

Some people may be more vulnerable to drinking water contaminants 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.

Appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the Safe Drinking Water Hotline at 1-(800) 426-4791.

If you would like to learn more about your water, or if you have questions about its quality, call Carla Snyder, our Lead Water & Sewer Compliance Specialist at (425)-235-9200.

Table 1: Water Quality Testing Results for 2016

Types of Detected Compounds	Units	EPA's Allowed Limits (MCLG) (MCL)		Levels in the Cedar River Watershed		Levels in the Tolt Watershed		Typical Sources
		(MCLG)	(MCL)	Avg.	Range	Avg.	Range	
RAW WATER								
Total Organic Carbon	ppm	NA	TT	0.8	0.3 to 2.1	1.4	1.2 to 1.7	Naturally present in the environment
Cryptosporidium ¹	#/100L	NA	NA	0.3	ND to 2	ND	ND	Naturally present in the environment
FINISHED WATER SOURCE								
Turbidity	NTU	NA	TT	0.3	0.2 to 2.3	0.07	0.01 to 1.2	Soil runoff
Arsenic	ppb	0	10	0.5	0.4 to 0.6	0.5	0.4 to 0.6	Erosion of natural deposits
Barium	ppb	2000	2000	1.6	1.5 to 1.8	1.3	1.0 to 1.6	Erosion of natural deposits
Bromate	ppb	0	10	ND	ND	0.1	ND to 1	Byproduct of drinking water disinfection
Chromium	ppb	100	100	0.27	0.25 to 0.33	0.2	ND to 0.24	Erosion of natural deposits
Fluoride	ppm	4	4	0.7	0.6 to 0.9	0.7	0.6 to 0.9	Water additive to promote strong teeth
Nitrate	ppm	10	10	0.02	(one sample)	0.09	(one sample)	Erosion of natural deposits
Total Trihalomethanes	ppb	NA	80	38	Range: 9 – 47			Byproduct of drinking water disinfection
Haloacetic Acids (5)	ppb	NA	60	41	Range: 15 - 67			Byproduct of drinking water disinfection
Chlorine	ppm	MRDLG =4	MRDL =4	1.02	Range: 0.27 - 1.35			Water additive used to control microbes

¹ Cryptosporidium was not detected in any samples from the Tolt Watershed supply (12 samples). It was detected in 2 of 12 samples from Cedar River Watershed supply. This monitoring is not required for Seattle's wells.

Table 2: Lead and Copper Monitoring Results for Coal Creek Utility District for 2016

This testing is done every three years; the most recent test was conducted in 2015.

Parameter and Units	Ideal Goal MCLG	Action Level ²	Results of 2015 Samplings ³	# Homes Exceeding Action Level	Typical Sources in Drinking Water
Lead, ppb	0	15	1.9	0 of 3	Corrosion of household plumbing systems. Samples collected in homes within Coal Creek Utility District's service area.
Copper, ppm	1.3	1.3	0.108	0 of 3	

² The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

³ 90th percentile: 90 percent of the samples were less than the values shown.

Table 3: Water Quality Aesthetics for Coal Creek Utility District for 2016

Parameter	Units	MCL	Cedar Water	Tolt Water
pH	pH Unit	6.5 - 8.5	8.26	8.51
Hardness, Grains	Grains/gallon		1.64	1.65
Hardness, Edetic Acid	mg CaCO3/L		28.3	28.8
Alkalinity, Total	mg/L		24.2	21.9
Conductivity	umho/cm	700	69.4	66.3

Table 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 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 was 5 NTU, and for the Tolt supply it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2016 were below 0.3 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

1 ppm = 1000 ppb

Backflow, Cross Connections, and Safety

Coal Creek Utility District (CCUD) is responsible for protecting the public water systems (PWS) from contamination due to cross connections. What is a Cross Connection? We're glad you asked.

Washington Administrative Code (WAC) 246-290 (Group "A" Drinking Water Regulations), defines a cross connection as "Any actual or potential physical connection between a public water system or the consumer's water system and any source of non-potable liquid, solid or gas that could contaminate the potable water supply by backflow."

Examples of non-potable water that could contaminate the potable water supply include yard or garden irrigation systems, fire sprinkler systems, and boilers used for residential and commercial heating. A cross connection in your home or business could not only contaminate your drinking water, but also your neighbors' drinking water, due to backflow.

What is Backflow?

There are two types of backflow: back-siphonage and back-pressure.

- Back-siphonage can be caused by high velocities in pipes due to system maintenance, line breaks, or firefighting.
- Back-pressure occurs when the pressure at the point of use is higher than the supply pressure. Sources of back-pressure include booster pumps, boilers, elevated piping and interconnections with auxiliary systems.

Mechanical backflow preventers are designed to prevent backflow from happening through cross connections. However, for backflow preventers to protect as designed, they must meet stringent installation procedures. Once installed, the Washington Department of Health requires these devices to be tested annually by a State of Washington Certified Backflow Assembly Tester (BAT). For a list of BATs, contact CCUD or consult this website: www.instruction.greenriver.edu/wacertservices/bat/bat_publiclist.asp

No Longer Using Your Irrigation System?

Unless you have physically disconnected your irrigation system from the public water supply (by removing the backflow prevention assembly and capping the water supply line), your backflow prevention assembly must *still* be tested. To suspend the testing requirement, you must physically disconnect the irrigation system from the Public Water Supply, and contact us for an inspection.

Neighbor Hasn't Heard of Annual Backflow Testing?

The most common reason that your neighbor hasn't received any test due notices from CCUD is that we don't know about their installation (no permit was obtained), or your neighbor installed a non-testable device. CCUD conducts frequent inspections of all our water service connections to eliminate or isolate all cross connections from the public water system.

Help CCUD Identify Potential Cross Connection Hazards

Home owners will soon receive an informational brochure and Water Use Survey in the mail to be filled out and returned to the District office. This information will help CCUD identify potential cross connection hazards, so we can take appropriate action to protect against them—an essential aspect of protecting your community drinking water supply.