



2017 Annual Report of Drinking Water Quality

Coal Creek Connection

Summer 2018

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

Conserving Water Helps Local Salmon

June typically signals the start of Summer—the time when rain stops, and people start using more water in their yards and gardens—resulting in a dramatic reduction in local stream flows. Conserving water will not only help you save money on your water bill, it will also help protect local salmon and other species that live in and around our streams, not to mention our region's extensive freshwater habitat. If you missed the article in our previous newsletter issue that detailed 6 easy tips for healthy, water-efficient landscaping, give us a call and we'll email you a copy. Don't forget to reward yourself later this Fall, when you and your family can watch the return of the salmon during **Salmon SEEson!** Stay tuned for more details about this campaign in our next issue.

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Coal Creek Connection: a publication by Coal Creek Utility District

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Annual Water Quality Report for 2017

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 at 1-(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 2017

Types of Detected Compounds	Units	EPA's Allowed Limits		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 1.5	1.2	1.1 to 1.3	Naturally present in the environment
FINISHED WATER								
Turbidity	NTU	NA	TT	0.3	0.2 to 2.5	0.04	0.01 to 0.2	Soil runoff
Arsenic	ppb	0	10	0.5	0.4 to 0.6	0.4	0.3 to 0.5	Erosion of natural deposits
Barium	ppb	2000	2000	1.7	1.4 to 1.9	1.4	1.1 to 1.7	Erosion of natural deposits
Bromate	ppb	0	10	0.04	ND to 1	0.25	ND to 2	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	0.3 to 0.9	0.7	0.6 to 0.8	Water additive to promote strong teeth
Coliform, Total	%	0	5%	None detected in 2017				Naturally present in the environment
Total Trihalomethanes	ppb	NA	80	32	Range: 24 – 46			Byproduct of drinking water disinfection
Haloacetic Acids (5)	ppb	NA	60	38	Range: 32 - 42			Byproduct of drinking water disinfection
Chlorine	ppm	MRDLG =4	MRDL =4	.99	Range: 0.14 - 1.49			Water additive used to control microbes

Note: Cryptosporidium was not detected in any samples from the Cedar or Tolt supplies (3 samples each).

Table 2: Lead and Copper Monitoring Results for Coal Creek Utility District for 2015

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

Parameter and Units	Ideal Goal MCLG	Action Level ¹	Results of 2015 Samplings ²	# 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	

¹ The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

² 90th percentile: 90 percent of the samples were less than the values shown.

Table 3: Water Quality Aesthetics for Coal Creek Utility District for 2017

Parameter	Units	MCL	Cedar Water	Tolt Water
pH	pH Unit	6.5 - 8.5	8.17	8.60
Hardness, Grains	Grains/gallon		1.13	1.07
Alkalinity, Total	mg/L		25.1	21.0
Conductivity	umho/cm	700	71.7	64.9

Annual Customer Survey

Take the Water Conservation Survey on the Saving Water Partnership website and enter to win a free home water and energy-saving kit! Visit www.savingwater.org and click on the 'We're Listening' link (look for the photo of the Basset Hound).

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 2017 is 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 2017 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



Learning About Your Water

Thus summer, you and your family can enjoy an affordable, guided adventure to experience your watershed at the source!

Cedar River Watershed is the source of water for more than 1 million people in and around Seattle. Located 35 miles east of Seattle along the shores of Rattlesnake Lake, the Cedar River Watershed Education Center offers you and your family a unique way to experience the water cycle: test your skill at managing reservoir levels, enjoy the award-winning "Water is Magic" exhibits, and learn about the area's natural and cultural history.

Affordable tours and classes—such as the Family Watershed Tour, the Railroad History Treasure Tour, the Junior Naturalist Class, or the Rain Drum Symphony Class—can be reserved on SPU's website via the "Watershed Tours and Programs" link. Use **PROMO CODE: WATER** for a discount valid July—September 2018.

www.seattle.gov/util/crwec/

When you're finished exploring the Center, take the scenic 1-mile paved trail to Rattlesnake Lake Recreation Area: a sparkling turquoise oasis offering ample opportunities for hiking, swimming, and picnicking. From there, another 2-mile trail leads to a stunning view at the top of Rattlesnake Ledge.

Center and Exhibit Hours:

April – October:

Tuesday – Sunday | 10AM to 5PM

November – March:

Tuesday – Sunday | 10AM to 4PM

Closed Mondays and on City Holidays

Rattlesnake Lake Hours:

6am to dusk all year, day-use only.

More Information:

(206) 733-9421

(425) 831-6780

crwprograms@seattle.gov

Your Toilet: the #1 Culprit in Water Leaks

Did you know? Your toilet may be leaking, and you may never notice. Testing it for a leak is simple... repairing the leak is easy and will help reduce your water bill. Here's how to do it:

1. Carefully remove the toilet tank lid with an old towel (condensation under the lid may drip as you are removing the lid).
2. Drop a dye tablet (available here at our office) or several drops of food dye into the tank. Do NOT flush. Wait 15 minutes. If you have more than one toilet to test, repeat Steps 1 through 3 for each toilet while you wait.
3. Check the water in the toilet bowl for dye color. If you see any color, there is a leak which can usually be quickly repaired by replacing the toilet's flapper valve. Make sure the new flapper matches your make and model of toilet.

Conserving Water Together

In 2017 Coal Creek Utility District (CCUD) purchased 448 million gallons of water from Seattle Public Utilities (SPU). Of this amount, approximately 32 million gallons were lost to leakage from all sources (from our pipes to your home), representing a loss rate of 7.3%. We are proud of this low level of leakage—it's well below the Washington State standard of no more than 10% water loss.

Conservation Program Goal and Results

The Saving Water Partnership (SWP) – which is made up 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 2017, the Saving Water Partnership met the goal, using 96.6 mgd. Learn more and find 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 see 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



Pride in Water Quality

Beginning in late spring of 2017 CCUD staff began conducting all water quality samples throughout the distribution system at our dedicated sampling stations for microbes and disinfection by products, samples are also taken to monitor the chlorine residual levels at the sampling stations and all of our water storage reservoirs. CCUD staff samples an average of 160 samples each month of the year and reports the results to Washington State Department of Health. Coal Creek Utility District takes great pride in providing safe and reliable drinking water to you our community.

Pure and Clean Water

Coal Creek Utility District purchases the water we provide 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.

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

