2015 Water Quality Report
Covington Water District

Safe And Reliable Drinking Water

Covington Water District is committed to providing our consumers with safe, reliable drinking water.

Our goal is to continue improving our product by implementing cost effective measures such as source and distribution system improvements that enhance reliability and produce a level of water quality that exceeds federal and state drinking water standards.

This commitment to safe and reliable drinking water combined with the investments into source and infrastructure improvements will have lasting benefits for current and future generations.

Please take time to review this report and join us in appreciating the vital role water plays in all of our lives.

Reliable Service and Commitment to You

Covington Water District is proud to present your annual Water Quality Report. This edition summarizes the results of water quality testing completed from January through December of 2015. The results contained in this report show that Covington Water District is providing safe potable water that meets or exceeds federal and state regulatory agency requirements. We hope the contents of this report are useful and informative.

If you have any questions or concerns regarding the information contained in this report please contact Glenn Stockman, Operations Lead at 253-867-0944 or glenn.stockman@covingtonwater.com

Sources Of Drinking Water

The District's primary supply comes from the Green River in south King County. The Green River Watershed is a 231-square-mile forested area that serves as a collection point for melting snow and seasonal rainfall in an uninhabited area of the Cascade Mountains between Chinook and Snoqualmie passes. Tacoma Water owns land along the river, which accounts for approximately 11 percent of the watershed.

Through agreements with other landowners, Tacoma limits access and carefully controls all activities within the watershed such as recreation, road maintenance and logging. Tacoma also owns and operates seven wells on the North Fork of the Green River within the watershed and takes water from those sources during periods when Green River water is unavailable due to high turbidity.

Covington Water District supplements the Green River supply, also referred to as the Regional Water Supply System (RWSS), with its own ground water sources (wells).

Howard Hanson Dam Green River Water Supply

Partnership For The Community

In 2010, RWSS Partners initiated the Green River Water Supply Filtration Project. The filtration facility is capable of treating up to 150 million gallons of water per day. The Green River Filtration Facility is currently online and providing filtered surface water with improved reliability and water quality including:

- Protection against a broad range of contaminants, including giardia and cryptosporidium.
- Improved taste, odor, and appearance of the water.
- Reduced amounts of silt and sand entering the water system.
- Minimized natural organic material, which helps reduce byproducts from disinfection processes.

Green River Filtration Facility

Filtering the water provides one more level of safety over the long term for everyone who drinks it.

Keeping You Informed

In 2006, when the Environmental Protection Agency (EPA) finalized a regulation requiring the RWSS partnership to treat the source water for cryptosporidium, Tacoma started a thorough process to determine the best course of action. That included detailed water testing for cryptosporidium, testing different treatment options, legal review and extensive public outreach to develop a plan. In the end, it was decided that filtering the water from the Green River was the best way to serve the regional customers. All the partners agreed.

From there the Green River Filtration Facility (GRFF) was designed/constructed. The EPA deadline for completion was April 1, 2014 however the GRFF was not completed until May 1, 2015. The delay in part stemmed from the careful evaluation and decision process which took four years but played an important role in getting such a large decision right. Because the EPA deadline was not met, Tacoma Water, as the managing partner, incurred a 'treatment technique violation."

Tacoma Water entered into an agreement with the Washington State Department of Health under a notice of correction for a treatment technique violation, failure to install treatment for cryptosporidium, under Title 40 Code of Federal Regulations 141.713 and Washington Administrative Code 246-290-025. Proper public notification was issued to all customers in this report last year.

In follow up to missing the EPA deadline in 2014 and subsequent public notification, Tacoma Water has now met all EPA requirements with the completion and acceptance of the GRFF in 2015.

If you have any questions or would like more information regarding this notice please contact Glenn Stockman (Covington) at 253-867-0944 or Scott Hallenberg (Tacoma) at (253) 502-8215.

Important Information For Your 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 from the Environmental Protection Agency's Safe Drinking Water hotline, (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. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline, (800) 426-4791.

Unregulated Contaminant Monitoring Rule

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water system (PWS's). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. This data serves as a primary source of occurrence and exposure information that the agency uses to develop regulatory decisions.

The final rule "Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 3) for Public Water Systems" was published in the Federal Register on May 2, 2012 (77 FR 26072). UCMR 3 monitoring was completed in 2015, and included monitoring for 28 chemicals and 2 viruses. (See Table "Water Quality Analytical Results" on Page 8)

Minerals - Lead & Copper

Studies cited by the EPA show that swallowing lead or copper can cause health problems, especially in pregnant women and young children. Lead and copper found in drinking water usually comes from home plumbing. Some homes have higher levels than other homes. Water with a low pH can cause copper from copper pipes, and lead from the solder used to connect the pipes, to dissolve directly from pipes into the drinking water. Lead-based solder was banned in 1986, but small amounts of lead can still be found in many brass-plumbing fixtures and can slowly dissolve into water that has been left standing in pipes for longer periods of time.

Federal and state drinking water rules establish "action levels" allowable for lead and copper in water samples collected from homes. At least 90 percent of the samples collected may have no more than 0.015 milligrams of lead in one liter of water and no more than 1.3 milligrams of copper per liter. Once every three years, the District samples 30 homes for lead and copper. The most recent sampling was completed in 2013. Results show our system is below action levels for both lead and copper (see the lead and copper results for 2013 in the Water Quality Analytical Results chart on page 8). Although we have met regulatory requirements, we will continue to monitor and adjust pH levels to reduce corrosion in pipes. We will sample again for lead and copper in 2016.

Pregnant women and young children can be more vulnerable to lead in drinking water than the general population. If you have concerns about lead levels in the water at your home, have your water tested. Running water between 30 seconds and 2 minutes after it sits stagnant in the pipe for a few hours can help clean the tap and reduce the amount of lead and/or copper in your water. A change in the temperature of water will also tell you when fresh water arrives. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800) 426-4791 or at http://www.epa.gov/safewater/lead

How Do We Treat Your Water?

Chlorine (Sodium Hypochlorite)

The District treats all ground water sources with the addition of chlorine (sodium hypochlorite) to protect against microorganisms which can cause illnesses such as typhoid, cholera, hepatitis and giardiasis. This chlorination process is completed at the source where chlorine levels are monitored 24/7. Free chlorine residuals are also monitored throughout the water system 24/7. While chlorine does an excellent job of killing the microorganisms that may be harmful to you, chlorine also reacts with natural organic material commonly found in surface water sources such as the Regional Water Supply System (RWSS). This reaction forms compounds called "disinfection byproducts." The District meets drinking water standards for two groups of disinfection byproduct compounds. Byproduct levels found in water depend primarily on:

- *The amount of natural organic material in the water.*
- *The amount of chlorine used to treat the water.*
- *The amount of time it takes water to reach the customer.*
- *The temperature of the water.*

Caustic Soda (Sodium Hydroxide)

The District treats the 222nd Well Field with sodium hydroxide to raise the pH (a measurement of acidity) of the water. This treatment makes the water less corrosive on plumbing and reduces the amount of lead and copper that can dissolve into the drinking water.

Water Quality Improvements!

Active mixing devices have been installed in some of the District's storage facilities to improve water quality, eliminate stratification, reduce water age, and provide equalization of free chlorine. Proper mixing will minimize taste and odor issues and help reduce the formation of disinfection byproducts. The need for additional mixing devices is being evaluated via the capital improvement program.

Also, filtration of the RWSS source water has removed a percentage of the natural organic material which further reduces the formation of disinfection byproducts.

What's In Your Water

The results in this table show the substances identified at the water source, at the treatment plant, and in the distribution system in 2015. The table does not include other volatile organic chemicals and synthetic organic chemicals that were tested for but not detected in our drinking water, including many industrial chemicals, herbicides and pesticides.

Water Quality Analytical Results

Covington Water District Water Quality Table 2015							
Regulated Substances	**Unit**	**Year Sampled**	**MCL (Maximum amount allowed)**	**MCLG (Ideal amount or less)**	**Range of level Detected or # Exceed AL**	**Regulation Met**	**Potential Sources of Contaminant**
Regulated at the Source							
Nickel	ppb	2015	100 ppb	100 ppb	3 ppb (single sample)	YES	Natural erosion
Nitrate	ppm	2015	10 ppm	10 ppm	Highest - 0.7 ppm	YES	Natural erosion
Regulated in the Distribution System							
Chlorine	ppm	2015	MRDL = 4 ppm	NA	.01-1.5 ppm	YES	Treatment additive
Fluoride	ppm	2015	4 ppm	4 ppm	Highest - 1.5 ppm Average - 0.6 ppm	YES	Treatment additive
Total Coliforms	1 Sample	2015	5.0% of 50 samples per month	0	2 of 606 samples	YES	Coliforms are naturally present in the environment
Haloacetic Acids (HAA's)	ppb	2015	60 ppb	NA	Highest = 33.6 ppb LRAA 7.38-37.33 ppb	YES	Disinfection interaction
Total Trihalomethanes (TTHM's)	ppb	2015	80 ppb	NA	Highest = 36.0 ppb LRAA 11.13-34.75 ppb	YES	Disinfection interaction
Regulated at the Customer's Tap							
Lead	ppb	2013	AL = 15 ppb	0	10 ppb (Amount detected 90%)	YES	Household plumbing
Copper	ppm	2013	AL = 1.3 ppm	1.3 ppm	.35 ppm (Amount detected 90%)	YES	Household plumbing
EPA Unregulated Contaminants Monitoring (UCMR3)							
Chlorate	ppb	2015	NA	NA	20-120 ppb	NA	Disinfection interaction
Strontium	ppb	2015	NA	NA	12-71 ppb	NA	Natural erosion
Vanadium	ppb	2015	NA	NA	.21-.66 ppb	NA	Natural erosion
Hexavalent Chromium	ppb	2015	NA	NA	0.05-0.13 ppb	NA	Natural erosion

***Compliance with water quality standards for HAA's and TTHM's is based on comparing the Locational Running Annual Average (LRAA) to the MCL, not the single highest sample result.**

Acronyms

NA: Not Applicable
ND: Not Detected
NTU: Nephelometric Turbidity Units, measure of the clarity, or turbidity, of water.
ppm: Parts per million, or milligrams per liter (mg/L)
ppb: Parts per billion, or micrograms per liter (µg/L)

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. MCLG's 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 MCLG's as feasible using the best available treatment technology.*

AL: *Action Level: The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.*

MRDL: *Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water.*

MRDLG: *Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health.*

Additional Health Related Information

Cryptosporidium

Cryptosporidium is another microscopic organism commonly found in open surface water sources. Swallowing cryptosporidium can cause diarrhea, fever and other stomach and abdominal symptoms. Tacoma Water tested the Green River for cryptosporidium on a monthly basis from 2001 - 2012, samples were collected and analyzed using the best available method approved by the EPA. Cryptosporidium was detected three times in the untreated Green River during this 12-year period. Neither Tacoma Water nor Covington Water District has had any reported instances of cryptosporidium-related health problems in their service area.

Fluoride

Covington Water District receives a majority of its source water from the RWSS which is operated by the City of Tacoma Water staff and is treated prior to entering Covington Water District's distribution system. The addition of fluoride is completed at the RWSS Treatment Facility at a target level of 0.7 mg/L. Covington Water District consumers can expect to receive fluoride in their water at or near this level, however blending the District's secondary groundwater supplies with the RWSS supply can dilute the amount of fluoride in some locations. If you have children on fluoride supplements you may want to consult with your dentist or pediatrician about the variable fluoride concentrations that may be present in your drinking water. Feel free to contact the District if you have questions about the fluoride levels in your area.

Drinking Water Contaminants Information

The sources for tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land or percolates through the ground, it dissolves naturally-occurring minerals and in some cases radioactive material. The water can also pick up substances resulting from the presence of animals and/or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, and septic systems.
Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Where You Can Get Additional Information

Operations Lead/Water Quality
(253) 867-0944
glenn.stockman@covingtonwater.com

Cross Connection Control - Backflow Prevention
(253) 867-0944
glenn.stockman@covingtonwater.com

Customer Service Division
(253) 631-0565
frontdesk@covingtonwater.com

Washington State
Department of Health
(253) 395-6750
www.doh.wa.gov/ehp/dw

United States
Environmental Protection Agency
www.epa.gov/safewater
Safe Drinking Water Hotline
(800) 426-4791

Covington Water District Board Meetings

Covington Water District Board Meetings are regularly scheduled open public meetings held on the first and the third Wednesday of every month at the District Headquarters, beginning at 5:30 PM. Customers are invited and encouraged to attend.

COMMISSIONERS:
Jeff Clark
Alan Eades
David B. Roselle
Tal Weberg

GENERAL MANAGER:
Thomas Keown, P.E.

www.covingtonwater.com

The hotline and EPA website offers information about drinking water contaminants and their potential health affects as well as guidelines from the U.S. Centers for Disease Control about appropriate ways to reduce the risk of infection by cryptosporidium and other microbial contaminants. Both sources also offer information about lead in drinking water, testing methods and steps you can take to minimize exposure.