



TUKWILA DRINKING WATER ANNUAL REPORT FOR 2014

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*Prepared by the City of Tukwila
Public Works Department, Water Utility Division*

Access to safe, healthful drinking water is a vital part of our lives and the Tukwila Water Department is committed to providing its customers with the highest quality water possible. This report is our opportunity to provide our customers with the results of water quality testing conducted in 2014 and is required by state and federal law. If you have questions about the information in this report, call Tukwila's Water Department at 206-433-1863.

Tukwila's drinking water comes from the Cedar River Watershed, a highly protected water source in the Cascade Mountains owned and maintained by Seattle Public Utilities. The City of Tukwila is a member of Cascade Water Alliance, a regional water supply non-profit made up of seven municipalities that collectively purchase water from Seattle Public Utilities currently and are working towards developing a new source to meet future demand.



Treating the water we drink

There are four steps in the treatment of the Cedar water supply: screening, fluoridation, corrosion control, and disinfection. The water first passes through coarse screens to remove debris, and fluoride is added for dental health protection. At the Cedar Treatment Facility, lime is added for pH-adjusted corrosion control to minimize lead leaching in older plumbing systems, and the water is disinfected to eliminate microbial contaminants. The disinfection process is a combination of chlorination, ozonation to improve taste and odor and Giardia control, and ultraviolet light disinfection to disable chlorine resistant contaminants.

Conservation

In 2014, the Tukwila Water Department supplied over 723 million gallons of water to its retail and commercial customers. This water comes from a finite regional supply that must be used efficiently in order to meet the needs of people as well as maintaining adequate in-stream flows to protect salmon and other wildlife. Recognizing the importance of conservation in meeting the water needs of future generations, in 2003 the Washington Legislature enacted the Municipal Water Law, which requires municipalities to use water more efficiently.

Being connected to a regional water supply means we must take a regional approach to water conservation. In October 2013, with authorization from the Washington State Department of Health, Cascade Water Alliance adopted a single, regional savings goal on behalf of all its members for the next six years. The new goal is a cumulative savings of 600,000 gallons per day on an annual basis. In 2014 Cascade Water Alliance members saved an estimated 178,000 gallons per day or approximately 30% of the six year savings goal on an annual basis. These savings were realized by employing a number of different measures including installation of high-efficiency showerheads and spray nozzles in area hotels, irrigation system update projects, and residential leak detection mailers. Some of the water saving offers available to Tukwila customers include free low-flow showerheads, faucet aerators, and shower timers. Visit the Cascade Water Alliance website at www.cascadewater.org to look for the water conservation rebates and programs available to Tukwila water customers.

The Municipal Water Law also requires water suppliers to keep water loss in their distribution systems below 10%. In 2014 the Tukwila Water Department kept water loss in the system down to 3% with an aggressive program of leak detection and repair. This is considered very low by industry standards and is a testament to the investments made in water infrastructure by the City of Tukwila.

Ensuring your water is pure



To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and Washington State Department of Health prescribe regulations limiting the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulates contaminants in bottled water, which must provide the same level of public health protection. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these 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 Safe Drinking Water Hotline (1-800-426-4791).

2014 water quality monitoring results

Listed in the table below are all regulated contaminants that were detected in water quality testing conducted in 2014 and the level at which they were found. None of the contaminants detected were at or above levels allowed by state and federal agencies. Not listed are the more than 200 compounds tested for but not found.

The Washington State Department of Health (DOH) assesses all water sources for susceptibility to contamination. Being a surface water source, the Cedar River Watershed was given a high susceptibility rating regardless of whether there are any sources of contamination in the watershed. Information on the source water assessments is available from the DOH website at <https://fortress.wa.gov/doh/eh/dw/swap/maps/>. If you would like a copy of the list of undetected contaminants (compounds monitored for but not found), please call Tukwila Public Works Operations at 206-433-1860.

Definitions used in the table

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. High turbidity can hinder the effectiveness of disinfectants.

Detected Compounds (Units)	MCLG	MCL	Average	Range	Typical Sources
RAW WATER					
Total Organic Carbon (ppm)	NA	TT	0.9	0.4–1.9	Naturally present in the environment
FINISHED WATER					
Turbidity (NTU)	NA	TT	0.4	0.2–1.6	Soil runoff
Barium (ppb)	2,000	2,000	1.4	1 sample	Erosion of natural deposits
Fluoride (ppm)	4	4	0.8	0.7–0.8	Water additive which promotes strong teeth
Nitrate (ppm)	10	10	0.02	1 sample	Erosion of natural deposits
Total Trihalomethanes (ppb)	NA	80	25	7.4–43.7	By-product of drinking water chlorination
Haloacetic Acids (5) (ppb)	NA	60	33	22.8–45.6	By-product of drinking water chlorination
E. coli (# of samples)	0	0	1 positive sample, 11/25/14*		Human and animal fecal waste
Chlorine (ppm)	MRDLG= 4	MRDL= 4	1.19	0.67–1.59	Water additive used to control microbes

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 = 1,000 ppb

NA –
 Not Applicable

* Follow-up sampling showed no indication of contamination. Compliance was maintained.

Lead and copper and your drinking water – are you at risk?

Our source waters do not contain lead or copper. However, lead and copper can leach into water from building plumbing systems containing copper pipes, lead-based solder, brass fixtures, or some types of zinc coatings used on galvanized pipes and fittings. 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. The Tukwila Water Department 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 www.EPA.gov/safewater/lead.

Lead and Copper Monitoring Results

The data in the table below comes from a regional sampling program conducted in 2012 (most recent testing required by regulation). Of the 52 homes sampled, three were in Tukwila, none of which exceeded the action levels for lead or copper.

Parameter and Units	Lead, ppb	Copper, ppm
MCLG	0	1.3
Action Level ⁽¹⁾	15	1.3
2012 Results ⁽²⁾	3.6	0.096
Homes Exceeding Action Level	0 of 52	0 of 52
Source	Corrosion of household plumbing systems	

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

(2) 90th percentile, i.e., out of every 10 homes sampled, 9 were at or below this level.

Cryptowhat?

Cryptosporidium parvum is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. These disease-causing organisms are commonly found in the natural environment and in most surface water sources. Seattle's Cedar Treatment Facility increases public protection by destroying cryptosporidium and other microbial organisms. Source water monitoring in 2014 did not detect cryptosporidium in any of the samples collected from the Cedar supply.

Important information from the EPA

Sources of drinking water (both tap water and bottled water) 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. Since the Cedar River Watershed is publicly owned and managed for water quality, agricultural, industrial, residential, and recreational uses are prohibited. This means there is little opportunity for contaminants to enter the water. However, there is always some potential for naturally occurring sources of contamination. In the Cedar River Watershed the potential sources of contamination include:

- microbial contaminants, e.g., viruses and bacteria from wildlife,
- inorganic contaminants, such as salts and metals, which are naturally occurring; and
- organic contaminants, which result from chlorine combining with naturally occurring organic matter.

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 persons, and infants can be particularly at risk for infections. These people or their caregivers 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).

Frequently Asked Questions

What are DBPs?

DBP stands for “Disinfection By-products”. When disinfectants are added to water they help to prevent disease. However, they can also combine with naturally occurring organic material to form DBPs. The EPA has enacted new sampling regulations for two groups of DBPs: Trihalomethanes and Haloacetic Acids. The maximum contaminant level (MCL) for disinfection by-products set by the EPA is for the average of all samples collected over a 12-month period. The City of Tukwila completed preliminary evaluation sampling in 2008 and began regular quarterly sampling for DBPs in 2012.

What is the pH of water supplied to Tukwila customers?

The average pH of Seattle’s source water is 7.0. The pH is boosted to 8.2 in the distribution system as part of SPU’s corrosion control policy.

Does the water I receive have fluoride in it?

Yes. In accordance with a Seattle public vote held in November 1968, Seattle Public Utilities adds fluoride to the drinking water at appropriate levels to prevent tooth decay. The concentration of fluoride was reduced beginning in January 2011 from 1.0 parts per million to 0.8 parts per million, the lowest level allowed by current state law. This reduction is in response to new federal recommendations and is strongly supported by local health officials.

How can I get more involved in decisions affecting my drinking water?

Please contact the Tukwila Public Works office at 206-433-0179 with any concerns you might have. The Tukwila Utilities Committee also welcomes public comment; they meet twice monthly at 6300 Southcenter Boulevard, Suite 100, in Tukwila. To find out more about the current Utilities Committee agenda and meeting times, give us a call at 206-433-1800, or check on the City’s website at www.TukwilaWA.gov.

Construction Activity

The City of Tukwila plans for and funds upgrades to the water system through the Capital Improvement Program. Due to limited available funding, the Public Works Department must prioritize the scheduling of projects to provide the greatest system reliability, as well as coordinate City projects with those of other public or private entities.

If you have travelled down Interurban Avenue South recently you have seen that there is a project underway to completely rebuild the roadway. As part of that project, approximately 4000 feet of old cast iron water main will be replaced with new 12 inch ductile iron pipe from South 143rd Street to Fort Dent Way. The new pipe will increase water system integrity in a very important corridor. By combining the pipe replacement with the other infrastructure improvements, costs are significantly reduced and construction-related disruptions are minimized.

For more information

TUKWILA PUBLIC WORKS DEPARTMENT

6300 Southcenter Boulevard, Tukwila, WA 98188

Phone: 206-433-0179 Water Maintenance: 206-433-1860

Email: PublicWorks@TukwilaWA.gov

Website: www.TukwilaWA.gov

CASCADE WATER ALLIANCE

Conservation Rebates: 425-453-0930

Website: www.CascadeWater.org

ENVIRONMENTAL PROTECTION AGENCY

Groundwater and Drinking Water site:

www.EPA.gov/safewater/index.html

Safe Drinking Water Hotline email:

hotline-sdwa@epamail.EPA.gov

Safe Drinking Water Hotline: 1-800-426-4791

WA STATE DEPARTMENT OF HEALTH

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

