



2019

Consumer Confidence Report on Water Quality

This report contains important information about your drinking water. Please have someone translate this information for you, or speak with someone who understands it.

Этот отчет содержит важную информацию о питьевой воде. Пожалуйста, попросите кого-нибудь перевести эту информацию для вас, или говорить с кем-то, кто понимает.

Este informe contiene información importante sobre su agua potable. Por favor, que alguien traduzir esta información para usted, o hablar con alguien que lo entienda.

這份報告包含有關飲用水的重要信息。請有有人為你翻譯這個信息，或說話的人了解它。

Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng có một người nào đó dịch thông tin này cho bạn, hoặc nói chuyện với một người hiểu nó.

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This Consumer Confidence Report on Water Quality is brought to you by Highline Water District and its 2020 Board of Commissioners:
Vince Koester (President), Todd Fultz (Secretary), Polly Daigle, Daniel Johnson, and Kathleen Quong-Vermeire.
Contact us Monday through Friday from 7:00 am through 4:00 pm at (206) 824-0375 or customerservice@highlinewater.org
23828 30th Avenue South, Kent, Washington 98032 • www.highlinewater.org

Annual Water Quality Report for 2019

The water from Highline Water District meets all state and federal guidelines for regulated contaminants, and is significantly below the EPA's required safety levels.

Where is Your Water Sourced?

In 2019, approximately 77 percent of Highline Water District's water came from Seattle Public Utilities (SPU) Cedar River Watershed. The remaining supply came from the following four groundwater wells owned and operated by Highline Water District:

- Des Moines Well
- Tye Well
- Angle Lake Well
- McMicken Well

Water from these wells is directed to one of three treatment plants where it is filtered, treated and tested before it is blended with water from SPU.

How Are These Sources Protected?

To preserve the high quality of water that originates in the Cedar River Watershed, no recreational, agricultural and industrial activities are permitted in the area. According to the Washington State Department of Health (DOH), all surface water has been rated highly susceptible to contamination, but the vulnerability for the Cedar River Watershed is low due to the protection afforded by Seattle Public Utilities (SPU's) Comprehensive Watershed Protection Plan.

Highline Water District's groundwater sources are protected by naturally occurring "confining layers" of material above the aquifer. This minimizes the potential for surface or man-made contamination from entering into the aquifer.

The protection afforded to the raw water quality by both the "restricted use" and "confining layers" is the primary reason the DOH classified these water sources as having "low vulnerability" to contamination. For a complete copy of their assessment, contact the regional DOH Drinking Water Office at (253) 395-6750.

In addition to the protection afforded by the naturally occurring "confining layers" of material above each of our wells, Highline Water District's Wellhead Protection Program monitors the types of businesses and activities that surround our wells. To protect this hidden resource, the District notifies property owners and regulatory agencies of the District's water source locations. These notifications help prevent potentially harmful contaminants from polluting our water. These exercises contribute to the "low vulnerability" the Water District's groundwater has to contamination.

How is Your Water Tested?

Your drinking water is tested frequently both by Highline Water District and Seattle Public Utilities to ensure that high quality water is delivered to your home. 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 three Tables presented in this report 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 Washington State Department of Health (DOH) 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.

Who Sets the Water Testing Standards?

Your drinking water is regulated by the Environmental Protection Agency (EPA), who 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. These regulations are administered by DOH who adopts the EPA's requirements.

How is Your Water Treated?

Although SPU's Cedar River source is aggressively protected, it goes through the following six-step treatment process before reaching Highline Water District, to ensure that it is safe to drink:

- The water is screened to remove debris.
- Fluoride is added for dental health.
- Lime is added to adjust pH and control corrosion of plumbing materials.
- Ozone is added to disinfect the water.
- Water passes through Ultra Violet Light to destroy harmful organisms.
- Chlorine is added as a residual disinfectant.



Water from Highline’s wells is treated at three facilities by:

- Passing the water through greensand filters to remove low levels of manganese and iron
- Adding Chlorine to provide a disinfection residual
- Adding Fluoride for dental health
- Adding Sodium Hydroxide for pH adjustment to plumbing materials



Why is Your Water Tested?

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. As water travels over the surface of the land or through the ground, naturally occurring minerals and, in some cases, radioactive materials dissolve in the water. Water can also pick up substances resulting from the presence of animals or human activity. In Seattle’s surface water supplies, potential contamination sources 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.

For more information about contaminants and potential health effects, call the EPA’s Safe Drinking Water Hotline at 1-(800)-426-4791.

Lead and Copper Monitoring Results

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.



Highline Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in private 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 the possibility of 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 at 1-(800) 426-4791 or at www.epa.gov/safewater/lead. You can also find information on lead on our website at www.highlinewater.org.

People With Special Concerns

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as people with cancer undergoing chemotherapy, those who have undergone organ transplants, those 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/Centers for Disease Control (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 at 1-(800) 426-4791.

If you would like to learn more about your water, or if you have questions about its quality, contact Highline Water District at (206) 824-0375.

Table 1: Water Quality Testing Results for 2019

Abbreviations are explained in the yellow "Table Definitions" chart on the following page.

Detected Compounds	Unit	EPA Allowed Limits		Source Water Levels		Typical Source of Compound	Comply?
		MCLG	MCL	Avg.	Range		
RAW WATER FROM CEDAR RIVER WATERSHED (MEASURED BEFORE TREATMENT)							
Total Organic Carbon	ppm	NA	TT	0.5	0.3 to 0.8	Naturally present in the environment	Yes
FINISHED WATER FROM CEDAR RIVER WATERSHED (MEASURED AFTER TREATMENT)							
Turbidity	NTU	NA	TT	0.3	0.2 to 1.8	Soil runoff	Yes
Arsenic	ppb	0	10	0.4	0.4 to 0.6	Erosion of natural deposits	Yes
Barium	ppb	2000	2000	1.6	1.4 to 1.9	Erosion of natural deposits	Yes
Bromate	ppb	0	10	ND	ND	Byproduct of drinking water disinfection	Yes
Chromium	ppb	100	100	0.27	0.25 to 0.33	Erosion of natural deposits	Yes
Fluoride	ppm	4	4	0.7	0.6 to 0.8	Water additive to promote strong teeth	Yes
Nitrate	ppm	10	10	ND	1 sample	Erosion of natural deposits	Yes
MEASURED IN HIGHLINE WATER DISTRICT'S DISTRIBUTION SYSTEM							
Trihalomethanes, Total	ppb	NA	80	28	15.5 to 38.5	Byproduct of drinking water disinfection	Yes
Haloacetic Acids (5)	ppb	NA	60	27	15.1 to 56.7	Byproduct of drinking water disinfection	Yes
Chlorine	ppm	MRDLG=4	MRDL=4	0.98	0.30 to 1.50	Water additive used to control microbes	Yes
Coliform, Total	%	0	5%	1.25%	See note ¹	Naturally present in the environment	Yes
LEVELS IN HIGHLINE WATER DISTRICT'S DISTRIBUTION SYSTEM AFTER TREATMENT							
Nitrate	ppm	10	10	< 0.2	4 samples	Erosion of natural deposits	Yes
Fluoride	ppm	4	4	0.72	0.52 to 0.91	Water additive to promote strong teeth	Yes

This table shows all of the drinking water contaminants detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or DOH allows monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Upon request, Highline Water District can also provide a list of the more than 200 compounds that were tested but not detected. ¹Only 1 detection out of 960 samples taken in 2019.

Table 2: Lead and Copper Testing Results in 2019

Tested Compounds	Unit	MCLG	90th Percentile Action Level	90th Percentile	# of Homes Over Action Level	In Compliance	Typical Source of Compound
Lead	ppb	0	15	0.002	0	Yes	Corrosion of household plumbing
Copper	ppm	1.3	1.3	0.04	0	Yes	Corrosion of household plumbing



Cedar River Watershed; photo courtesy of Seattle Public Utilities

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 River Watershed supply in 2019 is 5 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.

Table 3: Water Quality Testing Results for Unregulated Contaminants (UCMR4) in 2019

Analyte	Unit	Range	Average
Bromochloroacetic Acid	ppb	0.27 to 0.28 ug/L	0.28 ug/L
Bromodichloroacetic Acid	ppb	0.097 to 0.10 ug/L	0.10 ug/L
Dichloroacetic Acid	ppb	30 to 41 ug/L	36 ug/L
Trichloroacetic Acid	ppb	0.56 to 0.69 ug/L	0.63 ug/L
Dibromoacetic Acid	ppb	ND to 42 ug/L	21 ug/L
Monobromoacetic Acid	ppb	.52 – 1.19	0.667
Chlorodibromoacetic Acid	ppb	ND – 0.38	0.19

Every three years, the EPA requires Highline Water District and approximately 6,000 other water systems to collect water samples under the Unregulated Contaminant Monitoring Rule (UCMR4). Highline Water District began collecting samples in late 2019 and will continue into mid-2020. UCMR4 data is reported to let you know about new contaminants that may be regulated in the future. The EPA requires us to monitor contaminants that do not have defined health-based standards. The EPA uses this information to determine the occurrence of contaminants in drinking water systems, which may lead to future regulations. The contaminants monitored were selected through a data-driven process that considered adverse health effects (potency and severity) and occurrence (prevalence and magnitude) but additional health information is needed to know whether the contaminants pose a health risk. For more information about the program, visit EPA's website at:

www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule

More About Water Quality

We at Highline Water District encourage public participation in the decisions that affect our drinking water. If you would like to learn more about your water, contact us at (206) 824-0375, or reach out to any of the organizations listed below.

You are also welcome join our Board of Commissioners meetings. These are typically held the first and third Wednesday and fourth Tuesday of each month. Due to COVID-19, meetings are being held via telephone conference call, with the meeting ID posted on the website prior to the meeting.

Seattle Public Utilities

206.684.3000 • www.seattle.gov/util/MyServices/Water/Water_Quality

U.S. Environmental Protection Agency (EPA) and the Safe Drinking Water Hotline

800.426.4791 • www.epa.gov/safewater

Washington State Department of Health (DOH):

800.521.0323 • www.doh.wa.gov/ehp/dw/

Do You Have One of These at Your Home or Business?



If you have any of the following connected to your water plumbing...

- Fire Sprinkler system
- Lawn irrigation system
- Swimming pool
- Hot tub / jacuzzi tub
- Livestock watering system
- Decorative fountain
- Onsite well
- Water makeup lines (that supply a boiler or hydronic heating)

...OR if you are a business of (most) any kind... OR if you raise farm animals... Washington State law may require that you have a "Backflow Prevention Assembly."

The purpose of this device is to provide "cross connection control"—preventing contaminated water from flowing back into your drinking water—a serious health hazard.

However even the best Backflow Prevention Assembly can fail because of freezing, debris, improper installation, and unapproved plumbing connections. For this reason, the state's Department of Health requires these devices to be tested annually by a certified backflow assembly tester, with a copy of the test record sent to Highline Water District.

Helpful Reminders from Highline

Through Highline Water District's Cross Connection Control Program, we maintain a database of Backflow Prevention Assemblies that have been installed throughout our district, which enables us to monitor their testing, and send customers an annual reminder notice when

testing is due. A list of qualified testers can be found in our website's "Customers" section.

Preventing Backflow at Home

Additional ways to maintain water safety at home include:

- Do not submerge a connected garden hose into a swimming pool, sink, or bucket containing water or other liquid.
- Do not use hose-end applicators to apply garden chemicals or insecticides to your yard.

If you have any questions about backflow or any other water quality issue, contact our Water Quality Supervisor at (206) 592-8946.



Backflow Assembly Being Tested



Conserving Water Together... at Every Step

The first step in water conservation is efficiency.

During 2019, Highline Water District produced and purchased a total of approximately 2.33 billion gallons of water for our customers, with a water loss of 7.7%—well below Washington State Department of Health’s goal of less than 10% water loss—thanks to Highline’s ongoing efforts to identify and address primary areas of concern, including:

- Fire hydrant use
- Old, leaking water pipes
- Unauthorized connections
- Water theft from hydrants
- Under-registering water meters

The next step in water conservation is teamwork.

The Saving Water Partnership (SWP)—which is made up of 18 water utility partners including Highline Water District—has set a ten-year conservation goal: reduce per capita use during 2019 through 2028 so that the SWP’s total average annual retail water use is less than 110 Million Gallons per Day (MGD), despite forecasted population growth.

SWP once again met this goal in 2019, with 94.0 MGD of water usage, despite greater than forecast population growth over the past three years, on top of several relatively warm, dry summers.

The final step in water conservation involves you.

The average person uses an estimated 80-100 gallons of water every day. The largest use of household water is flushing the toilet, followed by showers and baths. How can you reduce that?

- Installing water-saving shower heads is one of the easiest measures to put in place, and can reduce water use between 10-15% depending on household use.
- Swapping out your old toilet for a newer water-sense toilet can go a long way towards saving water, and there are currently toilet rebates available on the Saving Water Partnership website:

www.savingwater.org/rebates

Combined, these efforts can reduce your in-home water use by as much as 35%.

Want more water saving ideas? Visit our website at www.highlinewater.org, and/or contact the Garden Hotline at (206) 633-0224 or help@gardenhotline.org for water-saving gardening advice. Businesses are encouraged to visit the following website:

www.savingwater.org/businesses/

Why Conserve Water?

Simply put, using less water costs you less money. But water conservation also helps protect native salmon populations by ensuring sufficient quantity and quality of water in the streams that support them, as well as all the other species that live in and around our lakes, rivers and streams.

Water conservation also helps ensure a reliable future water supply, despite regional growth and climate uncertainty.

Water Outlook for 2020

As of spring 2020, the supply outlook for the Seattle Regional Water System remains good.

Seattle Public Utilities uses a number of tools and operational strategies to manage this supply. Snow pack, rainfall and other water resource factors are monitored daily. Operational changes adjust how water is captured and released, as well as how it is moved through the water supply system, in order to balance water supply, flood management, hydro power, and fish habitat.

5 Ways to Help Protect Salmon

1. Wash your car at a car wash facility (where used water is routed to treatment facilities).
2. Avoid paving or use permeable or porous pavement.
3. Avoid chemical weedkillers to protect groundwater and backyard wildlife habitat.
4. Safely dispose of batteries, motor oil, and other hazardous wastes.
5. Plant a rain garden to filter stormwater runoff.



Your Water is Safe from Coronavirus (COVID-19)

According to the World Health Organization (WHO) and the Center for Disease Control (CDC) the virus that causes COVID-19 has not been detected in drinking water.

According to the CDC, conventional water treatment methods that use filtration and disinfection, as is the case with your water, should remove or inactivate the virus that causes COVID-19. Highline Water District also maintains a chlorine residual in the distribution system to provide continual disinfection that is shown to be effective in keeping pathogens out of the water system. For more information on COVID-19 and drinking water, visit:

www.epa.gov/coronavirus/drinking-tap-water-safe

or www.doh.wa.gov/portals/1/documents/1600/coronavirus/drinkingwater.pdf

According to the WHO, water, sanitation and hygienic conditions are essential for protecting human health during infectious disease outbreaks; we take pride in providing you these essential services. We are also taking steps to keep our customers and employees safe to prevent any disruption of these services. While we have closed our office to the public until further notice, we are still here to serve you. You may still contact us during business hours by phone at (206) 824-0375 or email at customerservice@highlinewater.org.

Why Tap Water is Better than Bottled *...and not just in an emergency*

Three Reasons to Stop Buying Bottled Water:

1. Each year, 17 million barrels of oil are used to produce the plastic for bottled water (equivalent to 340 million gallons of gasoline).
2. Only 1 in 5 of these plastic water bottles gets recycled.
3. Bottled water is much more expensive than tap water.

Tap water is the safest, least expensive, and most environmentally sound way to remain hydrated.

