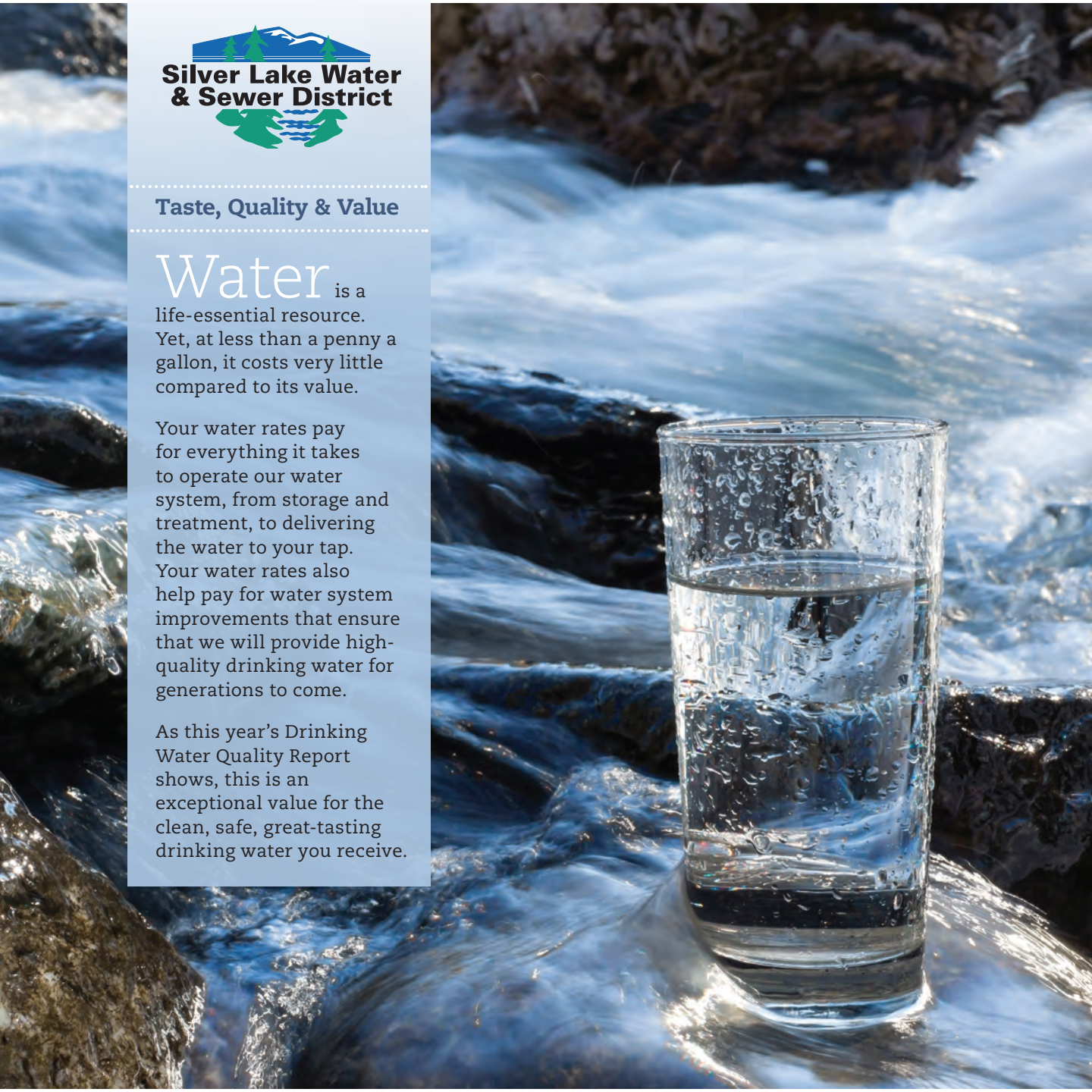
Drinking Water Quality Report 2016



Silver Lake Water & Sewer District

Taste, Quality & Value

Water is a life-essential resource. Yet, at less than a penny a gallon, it costs very little compared to its value.

Your water rates pay for everything it takes to operate our water system, from storage and treatment, to delivering the water to your tap. Your water rates also help pay for water system improvements that ensure that we will provide high-quality drinking water for generations to come.

As this year's Drinking Water Quality Report shows, this is an exceptional value for the clean, safe, great-tasting drinking water you receive.

Silver Lake Water & Sewer District

FROM SPADA TO YOU:

Clean, Safe Drinking Water Delivered to Your Tap

Your drinking water comes from Spada Lake Reservoir, located about 30 miles east of Everett at the headwaters of the Sultan River. This 50-billion-gallon storage facility serves as a collection point for rain and snowmelt from the Cascade Mountains. It was created in 1964 through a partnership between the City of Everett and the Snohomish County PUD as part of the Jackson Hydroelectric Project.

Spada Lake Reservoir is located in the Upper Sultan River Watershed, an area encompassing more than 80 square miles. This is one of the wettest watersheds in the continental United States. The average annual rainfall is about 165 inches—five times the rainfall in Everett.

Water quality in the Sultan Basin is carefully monitored. To protect the naturally pristine water in Spada Lake Reservoir, the watershed is patrolled and human activities are limited to minimize the impact on water quality. We continue to evaluate and adjust our security measures on an ongoing basis.

1

Precipitation and snowmelt from the Cascade Mountains are collected in Spada Lake Reservoir.

2

From Spada, water travels to Chaplain Reservoir, where the City's water treatment plant is located.

3

The Everett Drinking Water Treatment Plant treats the water using coagulation, flocculation, filtration and disinfection.

4

Water transmission pipelines carry drinking water to Everett and Silver Lake Water & Sewer District.

5

Treated water is delivered to about 570,000 people or 80 percent of the businesses and households in Snohomish County.

The following statements are required by the US Environmental Protection Agency (EPA).

Your Drinking Water Facts & Figures

All water sources (both tap water and bottled water) contain impurities. As water flows 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. 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 surface water, 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 surface water and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may 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, US Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which 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 Safe Drinking Water Hotline at 1-800-426-4791.

We test your drinking water 365 days a year.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as people with cancer undergoing chemotherapy, people 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. EPA and US Center for Disease Control (CDC) guidelines on appropriate means to lessen risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Lead & Drinking Water

Silver Lake Water & Sewer District's source water contains virtually no lead and Everett has eliminated lead pipes and connections from its distribution system. However, lead can enter drinking water through household plumbing materials.

In 1991, EPA published a regulation to control lead and copper in drinking water. This regulation, known as the Lead and Copper Rule, requires water systems to monitor the presence of lead in drinking water at customer taps. If lead concentrations exceed an action level of 15 parts per billion in more than 10% of customer taps sampled, the system must undertake a number of actions.

Silver Lake conducted its latest round of monitoring in 2015. The highest level found in the homes tested was 0.0020 mg/l. This indicates that lead found at household taps is most likely due to the corrosion of home plumbing systems with lead-containing pipes, fixtures or solder.

There are simple steps you can take to reduce the risk of lead in your drinking water. If you live in housing built before the mid-1940s, run your tap for at least 2 minutes after water has sat in your pipes for more than 6 hours. If you live in newer housing, run your tap until the water is noticeably cooler. Use only cold water for drinking, cooking and making baby formula, as hot water carries more lead. You can also have your water tested by a certified lab.

For more information on lead in drinking water, steps you can take to minimize exposure, or to find a certified lab, go to www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/Contaminants/Lead.

2016 Water Quality Analysis Results

SILVER LAKE WATER & SEWER DISTRICT

Detected Regulated Contaminants

Parameter	Major Source	Units	EPA Regulations		SLWSD Water Results		
			Ideal Level/ Goal (MCLG)	Maximum Allowable (MCL)	Range or Other	Average Value or Highest Result	Comply?
Total Coliform Bacteria	Naturally present in the environment	% Positive	0	5% Positive per Month	None	0%	Yes
Total coliform bacteria monitoring tracks the microbial quality in the water distribution system. SLWSD collects 60 samples per month. Not more than 5 percent of the monthly total can be positive for total coliforms. No total coliforms were detected in 2016.							
Fluoride	Dental health additive	ppm	2	4	0.6–0.9	0.8	Yes
Fluoride is added in carefully controlled levels for dental health. In April 2016, the Washington State Department of Health changed the fluoridation requirement from 1.0 ppm to 0.7 ppm. The minimum value of 0.1 ppm was due to several maintenance-related feed outages.							
Residual Disinfectant Level (free chlorine)	Added as a drinking water disinfectant	ppm	4.0 (MRDLG)	4.0 (MRDL)	0.03–1.10	0.74	Yes
Haloacetic Acids (5) (HAA5)	By-product of drinking water chlorination	ppb	N/A	60	22.9–42.3*	30.3**	Yes
Total Trihalomethanes (TTHM)	By-product of drinking water chlorination	ppb	N/A	80	23.3–82.1*	48.4**	Yes
Haloacetic acids and trihalomethanes form as by-products of the chlorination process that is used to kill or inactivate disease-causing microbes. * = range of results from all eight monitoring locations; ** = highest locational running annual average of the eight sites monitored.							
Turbidity	Soil erosion	NTU	N/A	TT	100%	0.05	Yes
Turbidity has no health effects, but can interfere with disinfection and provide a medium for microbial growth. In 2016, no filtered water turbidity results were above the EPA 0.3 NTU limit so 100% met the EPA turbidity limit.							

Cryptosporidium: Cryptosporidium is a single celled intestinal parasite or protozoan that if ingested may cause diarrhea, fever, and other gastrointestinal distress. It can be found in all of Washington's rivers, streams, and lakes and comes from animal or human wastes deposited in the watershed. Cryptosporidium is resistant to chlorine, but is removed by effective filtration and sedimentation treatment such as that used by Everett. It can also be inactivated by certain types of alternate disinfection processes such as ozonation and UV light contactors. Past monitoring results suggest that Cryptosporidium is present in Everett's source water only occasionally and at very low concentrations. In 2016, Everett collected monthly Cryptosporidium oocysts samples of the source water at the plant intakes. One sample contained 0.097 oocysts/L.

Detected Unregulated Contaminants

Parameter	Units	Ideal Level/ Goal (MCLG)	SLWSD Water Results	
			Range Detected	Average Value
Bromodichloromethane	ppb	0	2.3–3.3	2.3
Chloroform (trichloromethane)	ppb	70	52.1–79.0	44.3
Dichloroacetic Acid	ppb	0	4.7–16.8	11.3
Trichloroacetic Acid	ppb	20	13.8–29.0	19.5

These substances are individual disinfection by-products for which no MCL standard has been set, but must be monitored to comply with the USEPA Disinfection By-products Rule.

IMPORTANT TERMS:

Maximum Contaminant Level Goal (MCLG) – 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.

Maximum Contaminant Level (MCL) – 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 water treatment technology.

Maximum Residual Disinfectant Level (MRDL) – 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.

Maximum Residual Disinfectant Level Goal (MRDLG) – 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.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL) – The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

Parts per Million (ppm)/ Parts per Billion (ppb) – A part per million means that one part of a particular contaminant is present for every million parts of water. Similarly, parts per billion indicate the amount of a contaminant per billion parts of water.

Not Applicable (N/A) – Means EPA has not established MCLGs for these substances.

Lead, Copper and pH

Parameter	Major Source	Units	EPA Regulations		Everett Water Results		
			Ideal Level/Goal (MCLG)	Action Level (AL)	90th % Level	Homes Exceeding the AL	Comply?
Lead	Plumbing, erosion of natural deposits	ppb	0	15	2	0 of 108 (0.0%)	Yes
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.122	0 of 108 (0.0%)	Yes
USEPA and state regulations require water systems to monitor for the presence of lead and copper at household taps every three years. The above data was collected in 2015 and the next round will be in 2018. Results for water before it enters household plumbing are lower than the tap results. This indicates that there is virtually no lead or copper in the treated water source, but there may be some contribution from household plumbing to the presence of lead and copper at the tap.							
pH	Soda ash is added to reduce water corrosivity by increasing pH and alkalinity	s.u.	Daily Avg 7.6	Min Daily Avg 7.4	Average 7.6	Minimum 7.4	Yes
The Washington State Department of Health requires that the average daily pH cannot be below 7.4 for more than nine days every six months. In 2016, the average daily pH never dropped below 7.4.							

USEPA required lead statement. The USEPA drinking water regulations require this statement be included with the lead and copper sampling results regardless of the levels observed: 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 Silver Lake Water & Sewer 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 two 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 http://www.epa.gov/safewater/lead.

ENSURING AN

Adequate Supply

Water is a precious resource. Conservation helps fill the needs of people, industries, businesses and farms, while also keeping fish and other aquatic life alive and well.

Silver Lake Water & Sewer District, as a member of the Everett Water Utility Committee (EWUC), cooperates with the membership to operate a regional water conservation program. This program is planned and developed by EWUC and is funded by EWUC with contributions from its members water system revenues.

More than $7.3 million has been invested in regional water conservation activities since 2001. This includes such activities as school education, indoor and outdoor water conservation kits, rebates for water efficient clothes washers and toilets, leak detection, business water audits and school irrigation audits. Through these efforts, we have saved more than 3.8 million gallons per day (MGD) through 2016—enough water to fill more than 89,000 bathtubs a day.

> Through these efforts, we have saved more than 3.8 million gallons per day...

Previous regional conservation programs were planned and implemented in six-year cycles as part of Everett's comprehensive water plan. The first plan covered the period from 2001 through 2006; the second from 2007 through 2012. Everett's latest comprehensive water plan covers the period through 2019. The water conservation program includes previous measures, like school education and conservation kits, and also includes new activities to assist large water users.

In 2016, 530 water conservation workshops were conducted in classrooms throughout Snohomish County, reaching more than 13,100 students. Water systems distributed more than 2,000 indoor conservation kits and 3,000 outdoor conservation kits. And, six water conservation audits were conducted for large water users. These activities saved an estimated 0.65 million gallons per day (MGD) regionally.

Looking to the Future

In 2017, the District plans the following three Capital Improvement Projects to improve its Water System infrastructure to better serve its customers:

Reservoir 3 and Booster Station Improvements

This project consists of improvements to Reservoir 3 including complete tank interior re-coating and exterior coating touch up, installation of reservoir stairs, gutters and safety catwalk, a Tideflex mixing system on the inlet piping, seismic valve, and replacement of the roof vent. Improvements to the booster station include expansion of the booster station building to provide vehicle access to the equipment, installation of a restroom, bridge crane, a third pump, and site security improvements. By agreement, the City of Everett is required to share the cost of the project. Their participation under the proposed schedule and interlocal agreement will be 10.37 percent of costs.

725 Zone Extension

This project will improve the system pressure to homes in a lower pressure area of the 640 Zone by transferring their service connections to the 725 Zone. This will provide the District with operational flexibility in the hydraulic grade line of the 640 Zone to allow the District to draw more supply from AWWD Master Meter 10 when needed, while maintaining acceptable service meter pressure throughout the remaining 640 Zone. The project consists of approximately 600 linear feet of 12-inch ductile iron water main, 700 linear feet of 8-inch ductile iron water main, and 400 linear feet of 6-inch ductile iron water main.

District Headquarters Upgrade and Site Development

The District plans to construct a new storage building, extend existing shop bays, modify the driveway and parking lot, and construct drainage improvements. The cost of this project will be funded by both the water and sewer system funds.

Conservation tips

For additional tips and information about our water conservation programs, go to www.slwsd.com/conservation or www.everettwa.gov/conservation.

Install water-efficient showerheads and take shorter showers.	Fix leaky faucets and toilets. Install low-flow toilets.	Only run full loads in your dishwasher and clothes washer.	Put a layer of mulch around plants and trees.	Use a broom—not a hose—for cleaning walks and driveways.

Silver Lake Water & Sewer District

15205-41st Avenue SE • Bothell, WA 98012

PRSRT STD
U.S. POSTAGE
PAID
PERMIT NO. 71
EVERETT, WA

INSIDE:

- Clean, Safe Drinking Water Delivered to Your Tap
- Your Drinking Water Quality Report: Water Analysis Results; Facts & Figures
- Conservation Tips

In 2016, your water was tested for more than 100 possible contaminants. What does all the information in this report mean? Simply put, the data confirms that your drinking water meets or exceeds all government standards and is

safe to drink.

YOUR OPINION MATTERS

Let us know how we're doing and what you think about your water. Call Silver Lake Water & Sewer District at 425-337-3647 or email us at service@slwsd.com.

WHAT YOU CAN DO:

Conserve.
Be Informed.
Get Involved.

Learn more about your water at www.slwsd.com or www.everettwa.gov/water

Silver Lake Water & Sewer District
Phone: 425-337-3647
Website: www.slwsd.com

City of Everett Water Quality Office
Phone: 425-257-8800
Website: www.everettwa.gov/water

State Department of Health (DOH)
Phone: 1-800-521-0323
Website: www.doh.wa.gov/ehp/dw/

US Environmental Protection Agency (EPA)
Phone: 1-800-426-4791
Website: www.epa.gov/safewater

To get involved in decisions affecting your drinking water, attend and comment at District Commissioner Meetings, scheduled the 2nd and 4th Thursday of each month, held at the District Administration Office, 15205-41st Avenue SE, Bothell, WA 98012.

Meetings begin at 5:30 p.m. Agendas are available on the District's website at www.slwsd.com/current events.

Silver Lake Water & Sewer District Elected Officials
BOARD OF COMMISSIONERS:
Rod Keppler, Bill Anderson, Anne Backstrom