

The US Environmental Protection Agency's (EPA) Safe Drinking Water Act requires water systems to provide their customers with a comprehensive report of their water quality. Silverdale Water District (PWS ID: WA793006) is proud to present its annual Consumer Confidence and Water Use Efficiency Report. We are pleased to share with you our data that details how our water meets or exceeds state and federal water quality standards. Please review the important information presented in this report, which comprises water quality data from January 1, 2021 to December 31, 2021.

The Silverdale Water District (SWD) serves a population of over 25,000 people in the greater Silverdale area. In 2021, we utilized 13 above-ground steel reservoirs that provided over 8 million gallons of water storage for potable water supply, pressure equalization, and fire suppression. These reservoirs were filled from 10 active well sources, with average static water level depths ranging from 67' to 496'.



SWD's wells are drilled in three distinct aquifers: the Shallow Aquifer; the Sea Level Aquifer; and the Deep Aquifer. These aquifers, recharged by rainfall, are not exposed to air and are not subject to direct pollution or contamination. In fact, ground water is the highest quality water available to meet the public health demand of water intended for human consumption.

# A Message from the Environmental Protection Agency

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. To ensure that tap water is safe to drink, the Department of Health and the EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration and the Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Lead is one contaminant where elevated levels 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 Silverdale Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. To help reduce potential exposure to lead: for any drinking water tap that has not been used for six (6) hours or more, flush water through the tap until the water is noticeably colder. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. 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 at <u>www.epa.gov/safewater/lead</u> or by calling the Safe Drinking Water Hotline.

# Water Quality Data

The table below represents the most recent regulatory testing results through December 31, 2021. All of our water comes from aquifers and is treated with chlorine. In addition to disinfection, one source (Ridgetop) has an iron & manganese filtration plant. All levels of detected substances are in compliance with the US EPA and the Washington State Department of Health (DOH).

In 2021, some SWD customers received water sourced from Kitsap PUD's Newberry Hill Well #1 (PWS ID #: 06136C). The 2021 Water Quality Report for this source, "Newberry Hill," will be viewable by July 1<sup>st</sup> at <u>www.kpud.org/consumerconfidence.php</u>. Hardcopies are also available upon request. No violations or exceedances occurred from samples taken from this well or in the distribution system.

Substance	MCLG	MCL or AL	Highest Level Detected	Range		Violation	
				Low	High	violation	
Sampled in the Distribution System							
Total Trihalomethanes Most recently sampled in 2021	NA	80 PPB	14 PPB	9.6 PPB	14 PPB	No	Byproduct of drinking water disinfection
<b>Total Coliform/E. coli</b> 360 routine samples in 2021	0	0	No coliforms or E. coli detected		No	Bacteriological organisms	
<b>Chlorine</b> Monitored regularly in 2021	4 PPM MRDLG	4 PPM MRDL	0.52 PPM (Annual Average)	0.10 PPM	1.00 PPM	No	Water additive used to control microbes
		Sa	ampled at the	Customer's T	Гар		
Lead (30 locations sampled) Most recently sampled in 2021	0	15 PPB	90 <sup>th</sup> percentile = 4 PPB			No	Household Plumbing
		AL	1 sample exceeded the AL				
<b>Copper</b> (30 locations sampled) Most recently sampled in 2021	1.3 PPM	1.3 PPM	90 <sup>th</sup> percentile = 0.19 PPM			No	Household Plumbing
		AL	No samples exceeded the AL				
Sampled at the Source							
<b>Nitrates</b> Most recently sampled in 2021	10 PPM	10 PPM	2.68 PPM	ND	2.68 PPM	No	Runoff from fertilizer use; Erosion of natural deposits
<b>Arsenic<sup>1</sup></b> Most recently sampled in 2019	0	10 PPB	8 PPB	NA	8 PPB	No	Erosion of natural deposits
1							

<sup>1</sup>Arsenic—Your drinking water currently meets EPA's standards for arsenic. However, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory disease are due to factors other than exposure to arsenic. EPA's Standard balances the current understanding of arsenic's health effects against the cost of removing arsenic from drinking water.

Volatile Organic Compounds							
<b>Chloroform</b> Most recently sampled in 2021	NA	NA	1.2 PPB	0.66 PPB	1.2 PPB	No	Erosion of natural deposits
Unregulated Contaminants <sup>2</sup>							
Manganese Sampled at sources—2021	NA	No federal MCL	47.1 PPB	ND	47.1 PPB	No	Erosion of natural deposits
Total Organic Carbon Sampled at sources—2021	NA	No federal MCL	0.37 PPM	ND	0.37 PPM	No	Decay of natural and man-made deposits

<sup>2</sup>Unregulated contaminants are those for which the EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to help the EPA determine their occurrence in drinking water and potential need for future regulation.

**PPM** Parts per Million (same as mg/L)

PPB Parts per Billion

- AL Action Level the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow
- NA Not Applicable
- ND Non-Detectable the laboratory instrument did not detect the substance
- **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.

Sampling Schedule						
Substance	Frequency	Substance	Frequency			
Chlorine Residuals	Daily	Manganese	Every 3 years			
Total Coliform/E. coli	Monthly	Volatile Organics	Every 6 years			
Lead & Copper	Annually	Radionuclides	Every 3 & 6 years			
Nitrate	Annually	Herbicides/Pesticides	Every 9 years			
Disinfection Byproducts	Annually	Complete Inorganics	Every 9 years			
Arsenic	Every 3 years	Asbestos	Every 9 years			

*Waivers*—The Washington DOH reduced SWD's monitoring requirements for Complete Inorganic Contaminants (IOC) and Herbicides & Pesticides to every nine (9) years and Disinfection Byproducts (DBP) to annually because SWD sources are at low risk of contamination. The last complete IOC samples were collected in 2013 from all active sources and were found to meet applicable standards. Herbicides & pesticides were last sampled in 2018 with no compounds detected in any source. DBPs were last sampled in June 2021 with all results below their respective MCLs. Complete waivers for dioxins, endothall, fumigants, glyphosate, PCB, diquat, and insecticides have also been implemented.

## Source Water Assessment & Susceptibility Report

The 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 can pick up substances resulting from the presence of animals or from human activity. In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. The 1996 amendments to the Safe Drinking Water Act require that all states conduct Source Water Assessments for public water systems within their boundaries. The assessments consist of the following components: (1) identification of the Drinking Water Protection area (i.e., the area at the surface that is directly above the part of the aquifer that supplies ground water to our wells), (2) identification of potential sources of pollution within drinking water protection areas, (3) a determination of the susceptibility or relative risk to the well water from identified sources. The purpose of the Assessment is to provide water systems with information they need to develop a strategy to protect their water resource. **The Washington State Department of Health has determined that SWD's water sources have a low to moderate risk of contamination**. SWD's 2022 Source Susceptibility Report can be viewed at <a href="https://fortress.wa.gov/doh/swap/index.html">https://fortress.wa.gov/doh/swap/index.html</a> that details more information.

## Substances that may be present in source water include:

- 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.
- 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.

## Do I need to take special precautions?

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the Safe Drinking Water Hotline at 800-426-4791.



## Water Use Efficiency Report for 2021

All municipal water systems are required by state law to have and implement a Water Use Efficiency Program (Water Conservation Plan). From December 1, 2020 to November 30, 2021, SWD sold 763,271,799 gallons of water. The total annual volume produced was 796,689,172 gallons with 4.2% being lost to system leakage and unmetered use (fire hydrants, main breaks, etc.). SWD believes that public education in water use efficiency and conservation is key to reducing peak-day demand. As a member of the Water Purveyors Association of Kitsap (WaterPAK.org), SWD actively participates in public outreach activities, providing information to Kitsap County residents about water quality, quantity, and conservation. SWD is also committed to developing a Class-A recycled water system that will be utilized commercially for irrigation, industrial use, flushing toilets, and groundwater recharge.



## Help conserve water in and around your home!

Water conservation measures are an important first step in protecting our water supply. Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Fortunately, there are many low-cost and no-cost ways to conserve water. Such measures not only save our source water supply, but can also save you money by reducing your water bill. Here are a few suggestions:



Water Research Foundation: Residential End Uses of Water, v.2 (2016)

#### **Contact Information**

#### Silverdale Water District Office

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**Your Voice is Welcome!** The Board of Commissioners meets at 8:00 AM on the first Thursday of each month. You are invited to participate and present any drinking water-related questions or concerns. Please see the calendar of events on our website, <u>www.swd16.org</u>, to determine how meetings are being made available for public attendance.





