

Silverdale Water District

2022

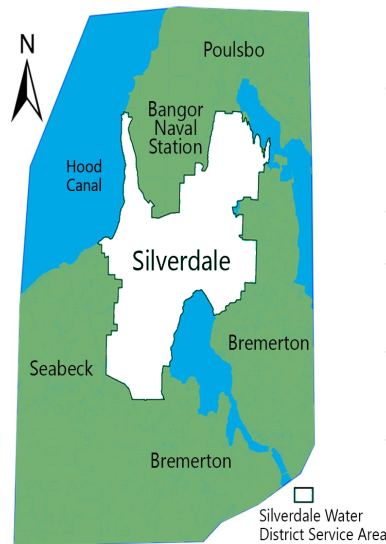
Water Quality Report

Issued June 2023



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 valuable information presented in this report, which includes water quality data from January 1, 2022 to December 31, 2022.

The Silverdale Water District (SWD) serves a population of over 25,000 in the greater Silverdale area. SWD treats all its water with chlorine. Additionally, water from Ridgetop Well is treated for iron and manganese. SWD sources its water from three aquifers: the shallow aquifer, the sea level aquifer, and the deep aquifer. Recharged by rainfall, these aquifers are not exposed to direct pollution. In fact, groundwater is the highest quality water available for human consumption.



In 2022, SWD:

- Utilized 10 active well sources with static water depths ranging from 67 feet to 496 feet
- Produced over 748 million gallons
- Filled 13 above-ground steel tanks, totaling 8 million gallons of storage
- Collected over 400 samples for compliance testing
- Added over 90 new service connections

A Message from the Environmental Protection Agency

Drinking water, including bottled water, may 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 www.epa.gov/safewater/lead or by calling the Safe Drinking Water Hotline.

Water Quality Data

The table below represents the most recent regulatory testing results through December 31, 2022.

Substance	MCLG	MCL or AL	Highest Level Detected	Range		Violation	Typical Source
				Low	High		
Sampled in the Distribution System							
Total Trihalomethanes Most recently sampled in 2022	NA	80 PPB	15.1 PPB	14.7 PPB	15.1PPB	No	Byproduct of drinking water disinfection
Haloacetic Acids Most recently sampled in 2022	NA	60 PPB	3.3 PPB	ND	3.3 PPB		Byproduct of drinking water disinfection
Total Coliform/E. coli 360 routine samples in 2022	0	0	No coliforms or E. coli detected			No	Bacteriological organisms
Chlorine Monitored regularly in 2022	4 PPM MRDLG	4 PPM MRDL	0.55 PPM (Annual Average)	0.20 PPM	1.00 PPM	No	Water additive used to control microbes
Sampled at the Customer’s Tap							
Lead (30 locations sampled) Most recently sampled in 2022	0	15 PPB AL	90 th percentile = 2 PPB No samples exceeded the AL			No	Household Plumbing
Copper (30 locations sampled) Most recently sampled in 2022	1.3 PPM	1.3 PPM AL	90 th percentile = 0.11 PPM No samples exceeded the AL			No	Household Plumbing
Sampled at the Source							
Nitrate Most recently sampled in 2022	10 PPM	10 PPM	1.98 PPM	ND	1.98 PPM	No	Runoff from fertilizer use; Erosion of natural deposits
Conductivity Most recently sampled in 2022	NA	700 µS/cm	281 µS/cm	106 µS/cm	281 µS/cm	No	Erosion of natural deposits
Chromium Most recently sampled in 2022	100 PPB	100 PPB	10 PPB	ND	10 PPB	No	Erosion of natural deposits
Turbidity Most recently sampled in 2022	NA	NA	0.25 NTU	0.05 NTU	0.25 NTU	No	Erosion of natural deposits
Sodium Most recently sampled in 2022	NA	NA	30 PPM	5.8 PPM	30 PPM	No	Erosion of natural deposits
Sulfate Most recently sampled in 2022	NA	250 PPM	6.8 PPM	ND	6.8 PPM	No	Erosion of natural deposits
Chloride Most recently sampled in 2022	NA	250 PPM	24 PPM	3.72 PPM	24 PPM	No	Erosion of natural deposits
Hardness (as CaCO ₃) Most recently sampled in 2022	NA	NA	98 PPM	40 PPM	98 PPM	No	Erosion of natural deposits
Manganese Most recently sampled in 2022	NA	50 PPB	23 PPB	ND	23 PPB	No	Erosion of natural deposits
Arsenic ¹ Most recently sampled in 2022	0	10 PPB	8 PPB	ND	8 PPB	No	Erosion of natural deposits
Chloroform Most recently sampled in 2021	NA	NA	1.2 PPB	ND	1.2 PPB	No	Erosion of natural deposits
Sampled at the Source — Unregulated Contaminants ²							
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
Bromide Sampled at sources—2021	NA	No federal MCL	16 PPB	ND	16 PPB	No	Decay of natural and man-made deposits

¹Your 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.

²Unregulated 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.

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

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 2022 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 July 2022 with all results below their respective MCLs. Complete waivers for dioxins, endothall, fumigants, glyphosate, PCB, diquat, and insecticides have also been implemented.

PPM	Parts per Million (same as mg/L)	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.
PPB	Parts per Billion (same as µg/L)	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.
AL	Action Level — the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements	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.
NA	Not Applicable	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.
ND	Non-Detectable — the laboratory instrument did not detect the substance		
µS/cm	Microsiemens per Centimeter — unit of electrical conductivity		
NTU	Nephelometric Turbidity Unit — measure of water cloudiness		
CaCO₃	Calcium Carbonate— measure of water hardness		

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 the drinking water protection area, and (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 2023 *Source Susceptibility Report* can be viewed at https://www.swd16.org/potable_water/potable_water_quality.php. Additionally, a DOH interactive map is available at <https://fortress.wa.gov/doh/swap/index.html>.

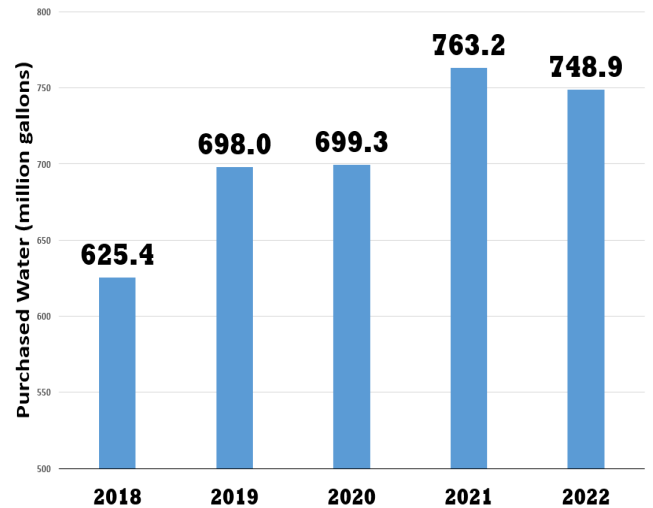
Substances that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- 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.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharge, oil and gas production, and mining or farming.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Water Use Efficiency Report for 2022

State law requires that all municipal water systems keep and implement a Water Use Efficiency Program. SWD sold 748,965,002 gallons of water between December 1, 2021 and November 30, 2022. The total annual volume produced was 778,758,835 gallons, with 3.8% lost to system leakage and unmetered use e.g., fire hydrants and main breaks. SWD believes that public education in water use efficiency and conservation are 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 about water quality, quantity, and conservation. SWD is also committed to developing a commercially used Class-A recycled water system for irrigation, industrial use, flushing toilets, and groundwater recharge.

**Silverdale Water District customers
purchased 748,965,002 gallons in 2022**



In 2022, some SWD customers received water sourced from Kitsap PUD's *Newberry Hill* system (PWS ID #: 06136C). The Water Quality Report for this system can be viewed at www.kpud.org/wp-content/uploads/Newberry-Hill-2022-CCR.pdf. Hardcopies are also available upon request. No violations or exceedances occurred.

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.



Contact Information

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Your voice is welcome! The Board of Commissioners meets at 8:00 AM on the first Thursday of each month. All are invited to participate and present drinking water-related questions or concerns. Please see the [calendar of events](#) on our website for more information.

