

WATER QUALITY REPORT 2020

(based on 2019 water quality data)



THE CITY OF POULSBO PROVIDES EXCEPTIONAL WATER FOR YOU!

The City of Poulsbo is pleased to present to you our 2020 (based on the water quality of 2019) annual Water Quality Report. This report is designed to inform our customers about the quality water and services we deliver to them everyday. After reading this report, you should have a better understanding of your water system and how it works. Our constant goal is to provide you with a safe and dependable supply of drinking water as well as plenty of water for fire fighting purposes. Your City of Poulsbo Water Department consists of five full time employees who work to deliver 750,000 to 2,000,000 gallons of water per day, through 62+ miles of water main, to over 4000 metered service connections or roughly 11,180 individuals. We are committed to ensuring the quality of your water.



PWS ID# 691506

OUR COMMUNITY, CONSERVING OUR WATER



The City of Poulsbo is pleased to report our drinking water is safe and meets all Federal and State requirements. The City of Poulsbo routinely monitors for contaminants in your drinking water according to Federal and State laws.

The sampling results table shows any contaminants that were found in our water during the five year reporting period 2014 through 2019 as well as any tests that were specific to the year 2019. Not included in this report are the approximately 50 volatile organic chemicals, 54 synthetic organic chemicals, and 15 herbicides, which we tested for, but were not detected in any of our tests.

Also, for those of you who may be watching your salt intake, our water tests at 5.3 parts per million. Additionally, at 80 parts per million, our water is considered as moderately hard due to the presence of calcium and magnesium.

DISTRIBUTION LEAKAGE STANDARD

The City of Poulsbo strives to be efficient with our water resource. The standard for efficiency is less than 10% unaccounted for water. For 2019 the City of Poulsbo had 5.1% unaccounted for water.

Conservation #s Per capita usage unaccounted for water Production (yearly gallons pumped)

(in million gallons)

	per capita usage	unaccounted for water	Production (yearly gallons)
2019	81 GPD	5.1%	354,042,000
2018	87 gpd	6.2%	376,115,000
2017	91 gpd	2.1%	355,995,000
2016	89 gpd	3.3%	343,068,000
2015	91 gpd	5.3%	349,531,000

Upcoming Water System Improvements:

Raab Park Water Tank and Booster Station:

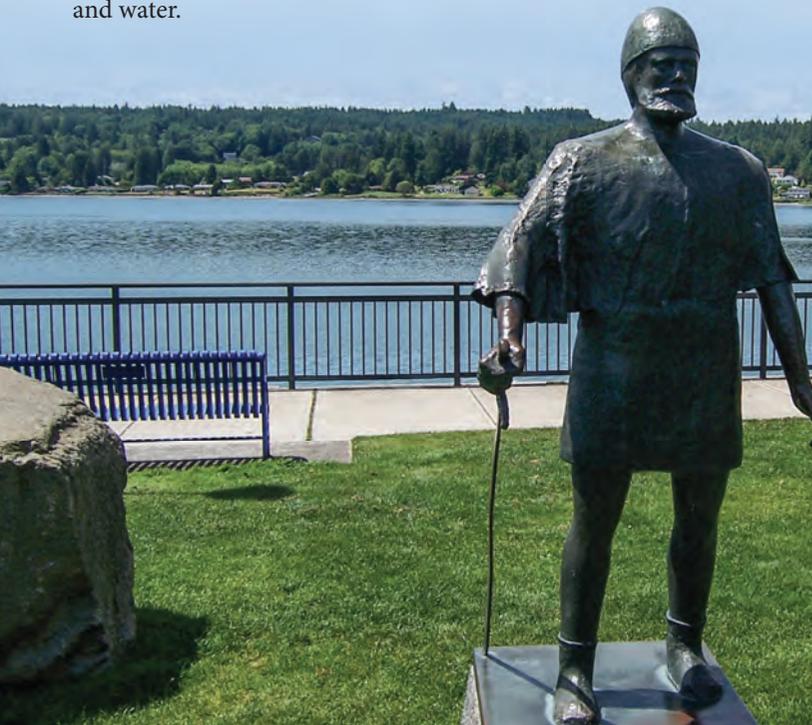
This project will greatly improve redundancy in the middle pressure zone, as well as address future growth in the area by adding more storage.

Westside Well Water Treatment Facility:

This facility will help with water quality as it will filter out most of the Iron and Manganese naturally found in our water that causes sedimentation and discolored water. This facility will serve filtered water primarily to the Olhava and Viking areas of town.

Recently Completed:

Lincoln Treatment Plant was completed in early 2018 and put into production in April 2018. This treatment plant has drastically reduced the Iron and Manganese in the finished water for the Upper and Middle Pressure Zones. This has led to a sharp decline in discolored water complaints and a reduced need for Water Main Flushing in these areas, saving on both labor and water.



Why provide a Water Quality Report?

The United States Congress has directed the Environmental Protection Agency (EPA) to require public water systems to report annually on the quality of the drinking water they serve. The City of Poulsbo Water Utility supports the regulation and is providing this report to all households in our service area. This report is about your drinking water sources and quality; regulations that protect your health; programs that protect the high water quality of our supply sources; and the treatment processes that assure our drinking water meets or surpasses all federal and state standards.

Sources of Poulsbo's water include deep water 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.

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 stormwater runoff, 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 stormwater runoff, and residential uses.

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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which 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.

CROSS CONNECTIONS AND YOU!

Did you know common hazards in and around your house can contaminate your drinking water as well as your neighbors?

These hazards are known as cross-connections, and can result in contaminated water back-flowing into your home's drinking supply without you even knowing.

TWO COMMON CROSS-CONNECTIONS ARE:

Any hose is a cross-connection when left submerged in a swimming pool, laundry sink, or car wash bucket.

To protect your water from these cross connections, make sure to have air vacuum breakers installed on each of your hose bibs.

These simple devices are inexpensive and can be purchased from your local hardware store. They are easy to install; you just screw them on.

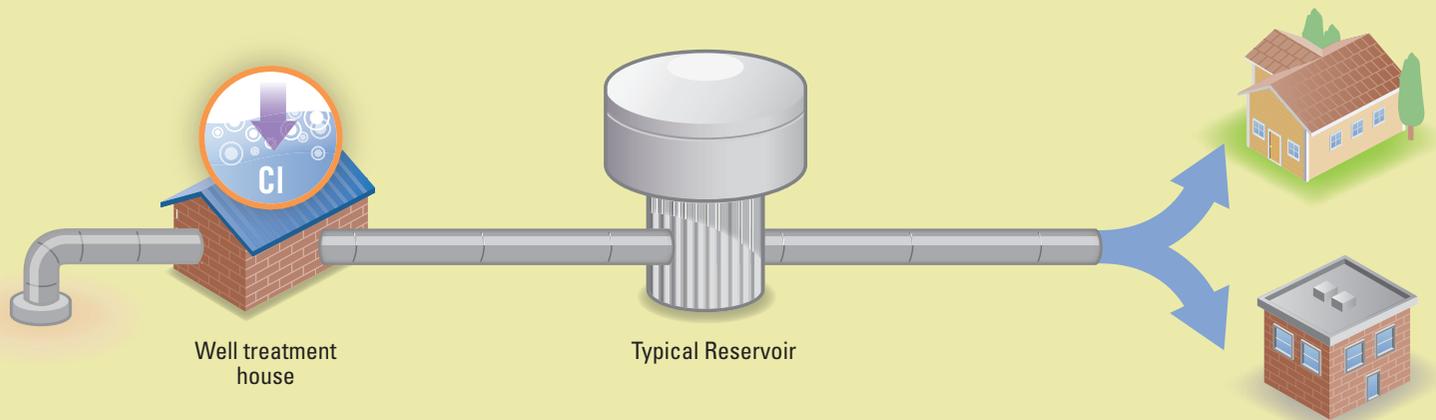
Your in-ground irrigation system is also a cross connection so make sure to do the following:

1. Confirm your irrigation system has a back flow assembly device, if not, get one installed.
2. Test the backflow prevention device annually.
3. Turn in your test results to the City of Poulsbo Water Department.

Any questions? Please call Keith Svarthumle @ 360-394-9755 or ksvarthumle@cityofpoulsbo.com



POULSBO WATER TREATMENT PROCESS



Where does our water come from?

The City of Poulsbo gets its water from a combination of five sources.

Our water sources are:

- A. Big Valley Well #1 (395 feet deep)
- B. Big Valley Well #2 (537 feet deep)
- C. Lincoln Road Well #1 (320 feet deep)
- D. Lincoln Well #2 (265.5 feet deep)
- E. Westside Well (650 feet deep)

The City of Poulsbo has developed new water sources to meet current and future resource needs.

Why is my water sometimes discolored?

As a result of the added chlorine to our water and the fact that some of the particulates in the water such as Iron and Manganese, settle out of the water rather quickly and cling to the pipe walls. Under normal water flow conditions these

particulates will stay on the pipe walls and not bother us, however, once the water in the pipes moves faster than normal, say when a fire hydrant is opened or when lawns start to get watered, the particles are stirred up and come out of your faucet as brown, tea colored water.

The city routinely flushes its mains to reduce this occurrence.

Why is Chlorine and Fluoride added to our water?

Chlorine is added to drinking water to eliminate harmful bacteria that may be found in water. The amount of chlorine we add to the water is checked daily and is kept at between .2 and .8 parts per million.

Fluoride is added to the water to help prevent tooth decay. Fluoride had been added to the City of Poulsbo's water after the citizens of Poulsbo voted, in the early 1960's, to have it added. We add enough fluoride to our water to keep a residual level of .7 parts per million and we test the level daily.

Why fixing leaks around your home is important.

Water conservation measures are an important first step in protecting and conserving our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill.

A single conservation measure that can have the biggest impact is to fix all leaks. Even the smallest leak can have a big effect on your water usage. Here are some leak facts that may surprise you:

- A 1/8 inch hole in a metal pipe, at 40 psi, leaks 2,500 gallons of water in 24 hours.
- A leak the size of a pinhead can waste 360,000 gallons per year, enough to fill 12,000 bathtubs to the overflow mark.
- A leaking toilet can use 90,000 gallons of water in 30 days.
- A dripping faucet or hose bib can lose up to 180 gallons a month or 2,160 gallons per year.

- About one in every 20 pools has a leak.
- About one in every 318 homes or buildings has a leak.
- A typical toilet leak at today's rate can add \$500 to a single water bill.
- One trip through a car wash uses 150 gallons of drinking water.
- Collecting water for gardening from the faucet while waiting for hot water saves about 250 gallons of water a month.
- Using a broom instead of a hose to clean a sidewalk saves 150 gallons of water.

Source: American Leak Detection and Water Online.





Sampling Results

As you can see by the table, our system had no violations. We're proud your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some contaminants have been detected. The Environmental Protection Agency has determined your water is safe at these levels. MCLG's allow for a margin of safety.

Substance	Violation?	Test Date	Level Detected	MCLG	MCL	Likely Source of Contamination
Haloacetic Acids (HAA)	No	7/22/19	1.6	N/A	60	By-product of drinking water chlorination
Trihalomethane (THM) (ppb)	No	7/22/19	9.6	N/A	80	By-product of drinking water chlorination
Nitrate (ppm)	No	8/28/19	<0.1	10	10	Run off from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Fluoride (Raw) (ppm)	No	8/28/19	<0.1	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer
Lead (ppm)	No	6/26/18	<0.003	0	AL= .015	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	No	6/26/18	0.04	1.3	AL= 1.3	Corrosion of household plumbing systems; erosion of natural deposits
Arsenic (ppm)	No	8/29/19	0.006	N/A	0.01	Erosion of natural deposits: runoff from orchards: runoff from glass and electronic production wastes.

***UNIT DESCRIPTIONS:** ppm (Parts per million), ppb (Parts per Billion), mg/L (milligrams per liter)

TT Treatment Technique – a required process intended to reduce a contaminant level in drinking water.

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

MCL Maximum Contaminant Level – highest level of contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible.

MCLG Maximum Contaminant Level Goal – level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MRDLG Maximum Residual Disinfectant Level Goal – level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

N/A – Not Applicable

ND – Not detected

NTU – Nephelometric turbidity units

¹ While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

TOTAL COLIFORM: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliforms are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. In 2019, out of the 180 samples we had tested for total coliform, we had zero samples come back as positive for the presence of total coliform.



HEALTH INFORMATION ABOUT YOUR WATER:

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 (1-800-426-4791).

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 from the Safe Drinking Water Hotline (1-800-426-4791).

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children. To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours or more, flush water

through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. 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. During our most recent Lead and Copper tests in 2018, we sampled and tested 35 homes and 0 samples exceeded the action level.

Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at <http://www.epa.gov/safewater/lead>.