City of Port Townsend

2024 ANNUAL DRINKING WATER REPORT

The City of Port Townsend is pleased to present our 2024 Annual Water Quality Report. This report is an overview of the high-quality water supplied to residents and visitors of Port Townsend and contains results from water samples collected throughout the year.

Water testing in 2024 shows that Port Townsend's drinking water meets all State and Federal regulatory standards, with no water quality violations. By definition, Washington State rates all surface water as highly susceptible to contamination. Our treatment process utilizes ultra-filtration membranes for contaminant removal and chlorine is added as a disinfectant. Studies have shown that this type of treatment is effective in preventing waterborne illness. Our highly skilled, state certified operators are committed to providing safe, clean water through effective systems and collaborative management from the source (Olympic Mountains) to the tap. After treatment, the finished water is distributed to the community via the one hundred plus miles of well-maintained water distribution pipeline.

WATER SOURCES

The City's water supply (System ID # 69000R) is surface water from the Big Quilcene and the Little Quilcene Rivers. These rivers are located in the northeast corner of the Olympic National Forest. Our water is stored in two reservoirs, Lords Lake and City Lake. The City has worked in cooperation with the U.S. Forest Service for over 95 years to manage, protect and maintain high quality source water in our municipal watershed. More information on Source Water is available through the Source Water Assessment Program, visit: *tinyurl.com/mpza5cs4*.

Top: Lords Lake Reservoir in late fall.
Above: Valve replacement in the distribution system.

Top: Water Resources Operations Manager Michael Spears at Lords Lake Reservoir in late fall. Bottom: Water Treatment Operators collecting samples for UCMR5.

Regulatory Agencies

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

WATER USE EFFICIENCY REPORT

The efficient use of water ensures reliable, safe water is available to our customers and it is essential to benefit our environment. In 2024, the City delivered an average of 951,000 thousand gallons of water per day to our more than 11,000 customers and visitors. Residential consumption averaged 52 gallons per person, per day. Total city consumption for 2024 was 348 million gallons. Distribution system leakage (DSL) was 9.1% for the three-year annual average, which continues to meet the standards set by the state. DSL or unaccounted for water can be things such as use of fire hydrants, leaking underground pipes or under registering water meters.
The City replaced 121 older meters in 2024 with a newer model featuring increased reliability and accuracy. We are continually working to improve water use efficiency, accountability, and conservation.

YOUR HEALTH AND SAFETY

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

***Inorganic contaminants**, such as salts and metals, which may be naturally occurring.*

***Pesticides and herbicides**, which may come from sources such as forestry management.*

***Organic chemical contaminants**, including synthetic and volatile organic chemicals, which can come from vehicles in the watershed or that result from chlorine combining with naturally occurring organic matter.*

***Radioactive contaminants**, which can occur naturally or result from oil and gas production and mining activities.*

***Microbial contaminants**, such as viruses, protozoans, and bacteria, which may come from wildlife, people and pets visiting the watershed.*

WATER SAMPLING RESULTS

Water quality sampling results are for the monitoring performed January 1 - December 31, 2024, unless otherwise noted in the tables. Sampling for certain contaminants occurs less than once per year because concentrations of these contaminants are not expected to vary significantly from year to year.

Contaminants	Sample Date/ Frequency	Detected Levels	Units	MCL/MCLG	Violation	Typical Source
Microbiological						
Total Coliform Bacteria	15 samples per month	0	NA	Contaminant Present	No	Naturally present in the environment
There were zero coliform bacteria present in the 180 samples taken throughout the distribution system in 2024.						
While the City tests for more than eighty regulated substances, those listed in the following tables were the only ones detected in our water.						
Finished Water Turbidity	Continuous	0.012-0.046	NTU	TT	No	Soil runoff
Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system. 100% of our turbidity samples were within regulatory limits.						
Disinfection Residuals						
Chlorine	Continuous	0.29 -1.19	ppm	4	No	Water additive used to control microbes
Disinfection By-Products						
Haloacetic Acids	Quarterly	**14.6 – 40.4 ***LRAA 31.9	ppb	60	No	By-product of drinking water chlorination
Total Trihalomethanes	Quarterly	**23.4 – 60.1 ***LRAA 44.2	ppb	80	No	By-product of drinking water chlorination
**Lowest and highest actual value. ***Highest Locational Running Annual Average of the 4 sites. The HAA5s and TTHMs are results from 4 testing locations in Port Townsend, which are monitored quarterly to comply with regulations. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. Chlorine provides the required microbiological disinfection of our drinking water. Some people who use water containing chlorine well in excess of the MRDL could experience an irritating effect to their eyes and nose and may experience stomach discomfort.						
Residential Testing						
Lead 30 sites sampled	July 2022 every 3 years	4 (90th Percentile)	ppb	15	No	Corrosion of plumbing in certain homes
Copper 30 sites sampled	July 2022 every 3 years	0.26 (90th Percentile)	ppm	1.3	No	Corrosion of plumbing in certain homes
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. Port Townsend is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. 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 www.epa.gov/safewater/lead.						

Source Monitoring Waivers

A waiver is permission granted by the WA State Department of Health for reduced monitoring requirements because contamination to the source is sufficiently at low risk. The following are the waivers granted.

Monitoring Waiver	Frequency	Last Sampled	Violation
Inorganic Chemicals (IOC)	Every 9 Years	2020	No
Volatile Organics	Every 6 Years	2023	No
Radionuclides	Every 6 Years	2021	No
Herbicides (SOC)	Every 9 Years	2022	No
Barium	Every 7 Years	2020	No

NEW IN 2024

Port Townsend's Sampling Results under the UCMR 5 for 29 PFAS Compounds and Lithium

The City completed two required sampling events in 2024 for UCMR 5 and PFAS. Results from both sample events showed these chemicals to be "Non-Detect" in our drinking water. This is less than the detectable amounts allowed, which is less than two parts per trillion. There will be two more sampling events in 2025.

UCMR 5

(Fifth Unregulated Contaminant Monitoring Rule)

UCMR5 data is reported to let you know about new contaminants that may be regulated in the future. The U.S. Environmental Protection Agency (EPA) requires monitoring for 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.

PFAS

(Per- and Polyfluoroalkyl Substances)

PFAS are man-made chemicals and include PFOA (Perfluorooctanoic acid), PFOS (Perfluorooctane sulfonate), and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the U.S. since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects. PFAS that are found in drinking water, are typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighting training facility).

LEAD SERVICE LINE INVENTORY

In October of 2024, the Public Works Department completed the federally mandated Water Service Line Inventory. The Service Line Inventory included a randomized sample of approximately 350 homes in Port Townsend built before 1987 or where the building date was unknown. The selection criteria were based on the 1986 Amendment to the Safe Drinking Water Act which prohibited the use of pipes, solder, or flux that were not "lead free" in public systems. The inventory analysis showed no lead service lines found in the sample and was submitted to the Department of Health by the mandatory deadline of October 16, 2024. For more detailed information about the inventory visit *cityofpt.us/water* or use the QR code above.

DEFINITIONS FOR TERMS USED IN THIS REPORT

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

***Lead and Copper 90th Percentile**: Out of every 10 homes sampled, 9 were at or below this level.*

***Locational Running Annual Average (LRAA)**: Highest quarterly average of four samples taken at the four sampling locations.*

***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 treatment technology.*

***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.*

***Million Fibers per Liter (MFL)**: Used to measure asbestos, which exists as tiny fibers.*

***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.*

***NA**: Not Applicable*

***ND**: Not Detected or below State Reporting Limit.*

***NTU**: Nephelometric Turbidity Units - a measure of the cloudiness of the water.*

***ppb**: Parts per billion or micrograms per liter (µg/L).*

***ppm**: Parts per million or milligrams per liter (mg/L).*

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

Connect with us about your drinking water

The public is invited to participate in decisions that affect drinking water through comment to the Port Townsend City Council. Information about scheduled meetings is available on the City Calendar at *cityofpt.us*. If you have additional questions about drinking water or would like a complete list of substances for which we test, call Water Resources at 360-379-5001 or visit *cityofpt.us/Water*.