

# TOWN OF FRIDAY HARBOR

## 2025 CONSUMER CONFIDENCE QUALITY REPORT

### ON WATER QUALITY FOR CALENDAR YEAR 2024

#### OUR MISSION

The Town of Friday Harbor Water Department is proud to release the Consumer Confidence Report (CCR) for annual drinking water quality, for calendar year 2024. The CCR is an annual water quality report that all public water systems are required to publish. This requirement is based on the 1996 Amendments to the Safe Drinking Water Act and the right-to-know provisions of that Act. Each customer of the Town has the opportunity to review the CCR annually or at any time at [www.FridayHarbor.org](http://www.FridayHarbor.org). The CCR is designed to help the consumer make informed choices about their water and to know what contaminants, if any, are in your drinking water. If you have any questions about this report, please call the Water Distribution Supervisor, Kasey Anderson, at (360) 378-8353.

Town monitors all aspects of water treatment from the Trout Lake Reservoir & transmission through 12 miles of distribution lines to its customers, with the ultimate goal of delivering the highest quality water to each water-user 24/7/365 days per year.

#### SUMMARY OF REPORT FINDINGS

The Town was in total compliance for 2024 & well below maximum contaminant levels. As seen in the data tables, the Town water system had no violations. The Water Department routinely monitors Town's drinking water for potential contaminants in accordance with all regulations. The tables found later in this report show the most recent results of this water quality monitoring (through June 2025), completed in accordance with the US EPA Drinking Water Regulations. Friday Harbor's drinking water remains safe & meets or exceeds (is better than) drinking water standards established by federal & state standards.

#### SURFACE WATER

Treated surface water is the sole source of water for customers served by the Town of Friday Harbor. Trout Lake Reservoir, the primary source, is approximately 5-½ miles west of Town in an isolated, undeveloped pocket of forest fed by a steep drainage basin. The Town owns 600 acres of Trout Lake's surrounding 840 acres of watershed.

The Town's water supply is unique in that the water obtained is primarily rainwater and runoff from the basin. There are very few sources of potential contamination from the surrounding areas of the Trout Lake watershed. The water utilized is already relatively pure and water-users enjoy a low turbidity before the treatment process even begins. To ensure safe potable water, the Friday Harbor's Water Department performs 3 chlorine residuals throughout the system each day, 7 days per week; as well as 3-6 monthly coliform samples, which is an indicator of any potential contamination. The Water Department also regulates a proactive Cross Connection Control program to prevent any backflow contamination from entering the system. The presence of algae in Trout Lake can cause taste and odor effects. This is normally a seasonal event, but algae blooms can occur at any time under ideal climate conditions. To minimize or prevent this occurrence, 3 platforms known as Solar Bees were deployed in Trout Lake in 2006.

#### SOLAR BEES

Solar Bees are designed to circulate freshwater. Each unit can displace & mix 10,000 GPM in freshwater reservoirs. Solar Bees use long distance circulation to solve water quality issues in lakes & reservoirs & provide significant energy savings by relying on solar power. The Solar Bee's long-distance circulation greatly accelerates the biological and chemical processes that clean non-potable water as the unit draws water from below and spreads it gently across the surface of the water body for continuous oxygen renewal. The highly efficient circulation can reduce up to 100% of the chemical requirement for algae control in potable water systems, thereby eliminating the need for algaecides and herbicides, as well as phosphorus-binding compounds such as alum.

## CONSERVATION EFFORTS

The Town has a continual goal to reduce the amount of water usage through conservation efforts. This includes both authorized usage by the consumer and water lost through system leakage (“line-loss”). In 2024 the Town’s water system produced 109,227,000 gallons of treated water with a 6.4% system leakage equaling 6,975,452 gallons.

Consumption by the customer (authorized usage) is reduced by the replacement of aging lines on the property, consumer education (including use of water efficient plumbing fixtures) and the low-flush toilet rebate program. Town staff continues to make improvements to the water system in an effort to save water.

The percentage of line-loss reflects the integrity of Friday Harbor’s distribution system. The DOH mandates that water providers shall have less than 10% line-loss. Elimination of line-loss is accomplished by early leak detection technology and meter replacement. The town annually implements leak detection, meter replacement and replacement of aging mains and valves in the distribution system. In 2016 and 2017, Town eliminated undetectable leaks and minimized potential damage to the pipe in a future earthquake event by replacing 7 miles of new transmission pipe from the dam to the treatment plant & later to Town limits.

## IMPROVEMENTS TO THE TOWN WATER SYSTEM

It is necessary to make improvements to Friday Harbor’s water system to provide a safe and dependable water supply. Those water system improvements and the continuing maintenance for this effort are paid for through water rates.

Since 1990, the Town has replaced 75% of the asbestos-concrete (AC) pipe installed in the 1950s with C-900 PVC. Town’s goal is to upgrade distribution lines as they age and before they fail. In 2020, Town replaced another 700 feet of AC distribution pipe. Although this type of pipe does not pose a health threat, after 70 years of service the time has come to upgrade to new, high-density polyethylene or HDPE pipe. Both PVC and HDPE are superior in strength, integrity, and resilience. Their outstanding performance means that consumers get the very best, cleanest water possible.

In 2023, Town water staff completed the installation of the approximate 1500 meters in the water system to state-of-the-art radio reading technology. The upgrade has already paid off, by catching leaks early and saving valuable water from being wasted. This effort will allow for real-time monitoring of leaks on the customer side of the meter. As well as reduce labor and meter reading costs and allow the town to redirect staff resources to maintenance of the distribution system and appurtenances, such as replacing aging fire hydrants and valves and other necessary needed upgrades. It will also free up more time for hydrant flushing to help increase water quality throughout the system. The last phase of the meter upgrade project will be the customer portal available to all customers soon. This will allow all customers to view their water usage hourly. Which should result in even more water savings.

In 2023, Town water department completed the last upgrade to the SCADA systems at both the WTP and Distribution stations. This was a huge upgrade for communication between the water treatment plant and the distribution stations. These upgrades will continue to improve reliability for the future of the water system. Previous upgrades included the 327' Zone Pump Station upgrade, which serves the Top of the Harbor subdivision, Peace Island Hospital, and Friday Harbor Airport.

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*Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of water, but can also cut the cost of water treatment. Here are a few suggestions:*

### INSIDE THE HOUSE:

- 1) Install low flow showerhead and thermostatic shutoff (TSU) on each shower.
- 2) Fix leaking faucets, pipes, toilets, etc., and replace old fixtures with new low flow fixtures.
- 3) Install water saving devices in faucets, toilets, and appliances.
- 4) Wash only full loads of laundry and run the dishwasher only when full.



### OUTSIDE THE HOUSE:

- 1) Water the lawn and garden in the early morning or evening and use mulch around plants and shrubs.
- 2) Repair leaks in faucets and hoses. Use water-saving nozzles.
- 3) Use water from a bucket to wash your vehicle. Only use the hose for rinsing.
- 4) During winter months, remove hoses from faucets and insulate all exposed fixtures and pipes.

## WATER QUALITY DATA

The table below lists drinking water contaminants that were tested for during the 2025 calendar year. **Acronyms, Definitions & Footnotes for additional information are available on the following page.**

**PRIMARY STANDARDS** limit the levels of specific contaminants that can adversely affect public health and are known or are anticipated to occur in water. As of June 2025, all levels of Primary Standards were below the MCL or non-detectable in treatment. Based on this and previous sampling, the Washington State Department of Health has waived reporting for various substances listed below.<sup>(1)</sup>

| Trout Lake Treatment Plant: Detected Levels of Primary Standards |         |                |   |   |                  |   |
|--|---------|----------------|---|---|------------------|---|
| Parameter  | MCL     | MCLG           | Maximum Reported Value                                | Range                                   | Likely Source    | Meets Regs?                                 |
| Turbidity <sup>(2)</sup>   | 0.5 NTU | Not applicable | .046 NTU<br>Highest monthly average occurred Feb/2024 | .02 to 0.09 NTU. Based on daily samples | Erosion of soils | Yes<br>100% of samples met turbidity limits |

| Distribution System: Detected Levels of Primary Standards |   |       |  |                           |   |                    |
|---|---|-------|--|---------------------------|---|--------------------|
| Parameter   | MCL   | MCLG  | Maximum Reported Value                                 | Range                     | Likely Source                           | Meets Regs?        |
| Copper <sup>(3)</sup>                                     | Action Level: 90% of the homes tested must have copper levels less than 1.3 ppm | 0 ppm | .356 ppm<br>2025 levels, tests required every 3 years  | .040 to .356 ppm          | Corrosion of household plumbing systems | Yes                |
| Lead <sup>(3)</sup>                                       | Action Level: 90% of the homes tested must have lead levels less than .015 ppm  | 0 ppm | .0023 ppm<br>2025 levels, tests required every 3 years | Not detected to .0023 ppm | Corrosion of household plumbing systems | Yes                |
| Total Trihalomethanes (THMs)                              | 80 ppb  | 0 ppb | <b>51.5 average for 2024 <sup>(4)</sup></b>            | <b>32.6 to 80.9 ppb</b>   | By-products of chlorination process     | Yes <sup>(5)</sup> |

## ACRONYMS & DEFINITIONS

Concerning Primary Standards and extensive EPA required testing defined as followed:

**Action Level** The concentration of a contaminant which, if exceeded, triggers a treatment technique or other requirement which a water system must follow.

**Cryptosporidium** A tiny organism that is associated with the disease cryptosporidiosis. This disease can be transmitted by swallowing the organism in contaminated water or food, person-to-person contact, or other exposure routes.

**EPA** Environmental Protection Agency. A federal level agency.

**Fecal Coliform** Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes.

**Giardia** A tiny organism that is associated with the disease giardiasis. Swallowing this organism in contaminated food or water, exposure from person-to-person contact, and other exposure routes may cause this disease.

**Hardness** An indication of the amount of dissolved minerals in water. Friday Harbor water has a range of hardness values from 80-100 ppm, which is considered "medium soft."

**Inorganic Chemicals** Examples include things like metals, minerals and salts.

**MCL** Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the CLGs as feasible using the best treatment technology.

**MCLG** Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected

health risk. MCLGs allow for a margin of safety.

**ND** Not Detected.

**NTU** Nephelometric Turbidity Unit. Unit of measure used to describe water clarity.

**PAH** Polyaromatic Hydrocarbons. A group of Synthetic Organic Compounds that are tested for.

**PFAS** Per- and polyfluoroalkyl substances are a group of synthetic organofluorine chemical compounds that have multiple fluorine atoms attached to an alkyl chain. Different organizations use different definitions for PFAS, leading to estimates of between 8,000 and 7 million chemicals within the group. The EPA toxicity database, DSSTox, lists 14,735 unique PFAS chemical compounds.<sup>[41][42]</sup>

**pH** Indicates whether a liquid is acidic or basic. Friday Harbor water has a pH range of 7.0 to 8.3 which lessens the corrosive potential of copper and lead.

**ppb** Parts per billion. One ppb is approximately equal to 1 drop of water in a 22,000-gallon swimming pool.

**ppm** Parts per million. The same as mg/l (milligram per liter). One ppm is approximately equal to 1 drop of water in 22 gallons.

**Primary Standards** Legally-enforceable standards that apply to public water systems. Primary standards limit the levels of specific contaminants that can adversely affect public health and are known or are anticipated to occur in water.

**Secondary Standards** Non-enforceable guidelines regarding contaminants that may cause cosmetic effects, such as tooth discoloration, or aesthetic effects, such as taste, color or odor, in drinking water.

**SRL** State Regulatory Level. Standards that are set by WA State DOH and may supersede federal levels.

**SOC** Synthetic Organic Chemicals. Examples include weed killers, fertilizers and bug spray.

**Total Coliform** A group of bacteria that can be naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

**Treatment Technique** A required process intended to reduce the level of a contaminant in drinking water. A treatment technique may be required by the EPA or WA State DOH.

**Turbidity** Describes how cloudy the water is. The smaller the number, the clearer the water. Turbidity has no health effects; however, it can interfere with disinfection and provide a medium for microbial growth.

**VOC** Volatile Organic Chemicals. Examples include petroleum-based chemicals, industrial by-products and dry-cleaning solvents.

**WA State DOH** Washington State Department of Health

**FOR MORE INFORMATION ON ANY TOPIC CONTAINED IN THIS REPORT, CONTACT KASEY ANDERSON, WATER DISTRIBUTION SUPERVISOR AT (360) 378-8353 OR [KASEYA@FRIDAYHARBOR.ORG](mailto:KASEYA@FRIDAYHARBOR.ORG)**

## FOOTNOTES

1) The following substances were tested for but not detected or below the MCL:

- SOC or Herbicides – The results from Mar 2023 warranted a State “no testing” waiver until Dec. 2025. Typically, these are tested once every 3 years.
- Volatile Organics - In 2024 these substances were not detected. The Town received a State “no testing” waiver until Dec. 2030.
- Inorganics – The results from Oct 2020 warranted a State “no testing” waiver. Inorganics are tested every 9 years per State waiver based on the results from Oct 2020. The Town continues to test for other substances including pesticides, and radiological substances which are currently nonexistent in our water.

2) Turbidity has no health effects; however, turbidity can interfere with disinfection and provide a medium for microbial growth. DOH requires treatment facilities to provide full filtration and disinfection.

3) Copper and lead are both naturally occurring metals. Lead and copper have never been detected in the Town’s source water. Both have been used to make household plumbing fixtures for many years, although Congress banned the installation of lead solder, pipes, and fittings in 1986. Both contaminants occur in drinking water when water reacts with these metals, usually in household pipes and fixtures. This is particularly likely to happen when water sits in pipes for several hours. A water provider must begin certain water treatment steps when lead or copper reach an actionable level in ten percent of the homes sampled.

The pH range of Friday Harbor’s water is 7.78 to 7.95 which lessens the corrosive potential of copper and lead. Until July 1998, WA State DOH required a random testing of ten homes once per year for the presence of copper and lead. The detection rates have been so low that these tests are now required every three years. These tests were recently completed in June 2025.

4) Testing for THMs in the distribution system is performed quarterly. The test results are averaged over four consecutive quarters because some values in the quarterly range may be higher than the maximum reported value due to seasonal events. The current maximum allowance is 80 ppb.

5) In 2024 the THM yearly average was well below the MCL. Some people who drink water containing THMs over many years may experience problems with their liver, kidneys or central nervous systems, and may have an increased risk of getting cancer. THM’s are formed when organics in the water combines with chlorine. Town implemented Granular Activated Carbon technology in 2011 to filter potable water, which has significantly reduced THMs. See Page 3 for information describing Friday Harbor’s efforts to remove Trihalomethanes or call the Town Water Department at 360-378-8353 for more information about THM’s.

6) In 2023, quarterly PFAS testing was required by

## A Note from the EPA/DOH About Drinking Water Sources

Both the Environmental Protection Agency & Department of Health advise that all 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 Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

## A Note About Drinking Water Quality & Immuno-compromised Persons

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 systems disorders, some elderly, and infants can be particular risk from infections. These people should seek advice about drinking water from health care providers. EPA/Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline at 1 (800) 426-4791 or at <http://www.epa.gov/safewater>.

## A Note About Lead

Lead in drinking water comes primarily from material and components used with home plumbing. While the Town provides high-quality drinking water, it has limited control regarding the materials that are used in plumbing components in homes and buildings.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. If you are concerned, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking 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 are available from the Safe Drinking Water Hotline at 1 (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

## A Note About Trihalomethane Removal Status

The Town's treatment process provides the utmost benefit for the community's investment. The granular activated carbon (GAC) filter's purpose is to capture organics in the water, preventing a chemical reaction with chlorine that could create a disinfected byproduct such as trihalomethane acids (THMs). With this highly effective organic removal system, the Water Utility now reports a yearly average of only 51.5 ppb while the current maximum allowance is 80 ppb. Since the GAC filters came online in 2011, the Friday Harbor Water Utility has successfully achieved its goal of significantly reducing the amount of THMs to below the maximum contaminant levels or MCL, as required by the Department of Health. The GAC filters should keep our water supply at its highest quality for years to come. Sampling for THMs are taken at the farthest regions of the system where the highest concentrations may be present and regular flushing of distribution lines occurs to eliminate potential build up.

## A Note About Continued Education & TOP

The Town's Water Department take great pride in serving the community with expertise and professionalism. Continuing education is mandatory for Town employees to meet the high standards that the community has come to expect. Several State certifications are held by the Department's Distribution and Treatment Crew.

The Town's Water Department voluntarily participates in the Department of Health's Treatment Optimization Program (TOP). Based on several goals and timed over 3 consecutive-running years, the TOP Award challenges Treatment Plant Operators to exceed the minimum legal standards for water quality compliance regulations. The Town Water Department is proud to announce that for the current 3-year period we received the silver award for these stringent requirements. It requires that water systems make the TOP goal a priority in everything we do and every decision we make.

TOP Award winners must maintain extreme water clarity, known as low "turbidity", while simultaneously complying with every other measurement of water quality, without exception, for 3 consecutive years. Turbidity is considered one of the most dependable tests for confirming the removal of potential pathogenic organisms from water.

## A Note about PFAS Sampling

In December 2021, the State Board of Health (SBOH) revised WAC 246-290, the Group A Drinking Water Rules, to require public water systems to monitor for specific per- and polyfluoroalkyl substances (PFAS) using designated analytical methods. The updated rule also established State Action Levels (SALs) for five PFAS contaminants, listed below.

On April 26, 2024, the U.S. Environmental Protection Agency (EPA) published its final PFAS regulation. In response, we are coordinating monitoring efforts to reduce duplication for water systems subject to both state and federal requirements. Initial federal PFAS monitoring has been scheduled alongside expanded state monitoring to help water systems meet all requirements efficiently. It is essential that water systems follow the PFAS monitoring schedule in the 2025 Water Quality Monitoring Schedule (WQMS) to ensure compliance with federal regulations.

For general information about PFAS, please visit the Department of Health's PFAS Contaminant webpage. Additional resources, including the **PFAS Frequently Asked Questions (FAQ)** publication, are available to help water systems communicate with their customers.

Currently, testing has shown **no detectable levels of PFAS in the Town of Friday Harbor's water supply**, a positive indicator for public health in the town's water supply.