

Town of Friday Harbor

2015 Consumer Confidence Report on Water Quality



Surface water is the sole source of water for those served by the Town of Friday Harbor. Trout Lake, the primary source, is about five and a half miles west of Town in an isolated, undeveloped pocket fed by a steep drainage basin. The Town owns 600 acres of the surrounding 840 acre watershed.

Distribution System: detected levels of Primary Standards

(see acronyms and definitions on page 2)

Parameter	MCL	MCLG	Maximum Reported Value	Range	Likely Source	Meets Regs?
Copper (¹)	Action Level: 90% of the homes tested must have copper levels less than 1.3 ppm	1.3 ppm	.41 ppm 2014 levels, tests required every 3 years	.028 to .412 ppm	Corrosion of household plumbing systems	Yes
Lead (¹)	Action Level: 90% of the homes tested must have lead levels less than .015 ppm	0 ppm	.002 ppm 2014 levels, tests required every 3 years	Not detected to .002 ppm	Corrosion of household plumbing systems	Yes
Total Trihalo-methanes (THMs)	80 ppb	0 ppb	24.2 average for 2014(²)	9.6 to 38.7 ppb	By-products of chlorination process	Yes(³)

¹) 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. The two contaminants get into drinking water when water reacts with these metals in pipes and fixtures. This is particularly likely to happen when water sits in pipes for more than a few hours. When lead or copper reach the action level in ten percent of the homes sampled, the water provider must begin certain water treatment steps.

The pH range of Friday Harbor 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 a year for the presence of copper and lead. The detection rates have been so low that these tests are now required every three years. The next testing date is July, 2016.

²) This test is performed once a quarter in the distribution system. Because the test results are averaged over four consecutive quarters, some values in the range may be higher than the maximum reported value.

³) In 2014 the THM yearly average was 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 come in contact with chlorine. We have lowered chlorine levels and have made treatment changes to enhance removal of organics. **Please see page 3 for Friday Harbor's efforts regarding Trihalomethane Removal.** If you would like more information about THM's please call us at 360-378-2154.

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

Hardness is 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 MCLGs 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.

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 such things as 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 things like petroleum-based chemicals, industrial by-products and dry cleaning solvents.

WA State DOH

Washington State Department of Health.

CCR Contact:

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In 2014 the Town's water system produced 108,456,000 gallons with system leakage of 3,969,878 gallons. Unaccounted-for water at the end of 2014 was 3.41%. This was accomplished by early leak detection technology and meter replacement. The Town of Friday Harbor's goal is to reduce unaccounted-for water. Authorized consumption will be reduced through consumer education and our low flush toilet rebate program. Estimated saving is 9 million gallons. We estimate that we saved 3.5 million gallons of water in 2014 with meter replacement and leak detection. The Town of Friday Harbor Waste Water Treatment Facility completed an effluent water recovery system in the Spring of 2008. Water consumption at the Waste Water Treatment Facility is down from 3.2 million gallons in 2008 to 1.8 million gallons in 2014. We are currently implementing leak detection, meter replacement, a low flush toilet rebate program, consumer education, and replacement of aging mains in the distribution system. In 2014 we replaced 1,500 feet of 8 inch water main prone to failure.

The DOH advises 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 (800-426-4791). Some people may be more vulnerable to drinking water contaminants than the general population. Immuno-compromised persons, such as people 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/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available at www.epa.gov/safewater or from the Safe Drinking Water Hotline (800) 426-4791.

Trout Lake Treatment Plant: detected levels of Primary Standards

(see acronyms and definitions on page 2)

Parameter	MCL	MCLG	Maximum Reported Value	Range	Likely Source	Meets Regs?
Turbidity (⁴)	0.5 NTU	Not applicable	.07 NTU Highest monthly average occurred 01 & 02/ 2014	.04 to 0.23 NTU Based on daily samples	Erosion of soils	Yes 100% of samples met turbidity limits

⁴) Turbidity has no health effects, however, turbidity can interfere with disinfection and provide a medium for microbial growth. Washington State Department of Health requires treatment facilities to provide full filtration and disinfection.

Trihalomethane Removal Status

Since the new granular activated carbon (GAC) filters were put on line in 2011 the Friday Harbor Water Utility has successfully achieved the goal of significantly reducing the amount of trihalomethane (THM) acids to well below the maximum contaminate levels or MCL, as required by the Department of Health. With this highly effective organic removal system, the Water Utility now reports a yearly average of only 24 ppb while the current maximum allowance is 80 ppb. The average is now low enough that the State allows us to sample only once a year for compliance. The GAC filter's purpose is to capture organics in the water, preventing a chemical reaction with chlorine that could create a disinfected by-product such as trihalomethane acids. The GAC filters should keep our water supply at its highest quality for years to come.

The Town participated in voluntary Unregulated Contaminant Monitoring (UCMR2). Results: N-nitrosodimethylamine (NDMA) 0.002ug/L (>MRL on 03/09, 06/09, 09/09) and N-nitroso-methylethylamine (NMEA) 0.003 ug/L (>MRL on 09/09). UCMR results are available.

All other levels of Primary Standards were so low in Trout Lake Treatment Facility water that the Washington State Department of Health waived reporting through December, 2015. Primary standards limit the levels of specific contaminants that can adversely affect public health and are known or are anticipated to occur in water.

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

Volatile Organics—State waiver in 2011. These results are from 2013. In 2013, as these substances were not detected, the Town received a new waiver until 10/17. Herbicides are tested once every 3 years. These results are from 01/14. State waiver for Synthetic Organic testing through 2015.

Inorganics are tested every 9 years per State waiver. These results are from 12/11. Town continues to test for other substances including pesticides, microbiological and radiological substances.