

2017 WATER QUALITY REPORT

Water is the most abundant compound on Earth's surface. Water covers 70% of Earth's surface but only 2.5% is fresh water and 30% of that water is ground water. Water is the only compound found naturally in all common states of matter and it is essential for life.

This annual report presents a summary of analytical testing results from samples of your area's water supply and compares your tap water to federal and state standards. All of Fox Island Mutual Water comes from underground aquifers. This means that the water you consume is pumped from a series of wells to your home or business through our system of reservoirs and mains. We regularly draw water from nine wells. The depth of these wells varies from 88' to 850'.

Again we are pleased to report that your water meets or exceeds all health-related standards for quality and safety. We do however have some elevated iron (MCL of 0.3 mg/l). Iron in our water ranges from <0.03 to 0.46 mg/l. Manganese (MCL of 0.05) ranges from < 0.01 to 0.07 mg/l. This raw water is either mixed with other sources or treated to reduce the iron and manganese level. 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.

The Federal Safe Drinking Water Act (SDWA) divides drinking water *Inorganic Contaminants* into two categories: **Primary** standards (Table 1) relate to constituents that affect public health. **Secondary** standards relate to constituents that effect esthetic qualities such as appearance, taste, odor, and color. The following is the **highest primary level** of each chemical from all nine wells. As you examine Table 1, notice that organic chemical levels are expressed in mg/l (milligrams per liter) of water (0.1mg/l = 1part per 100 million) (0.001mg/l = 1 part per billion). To illustrate how small a milligram is; one milligram per liter is equal to a single penny to \$10,000.

Effective January 2006 water systems of our size were required to reduce the level of arsenic from 50 parts per billion (ppb) to 10 ppb. Recent testing of all our sources shows your drinking water meets the new standard for arsenic. However it does contain a low level 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.

The regulatory schedule for testing the Fox Island Mutual Water production wells is as follows:

Inorganic(metals & salts)	Every 36 months	Microbiological(bacteria)	3 samples per month
Nitrate	Annual sample	Radionuclides	Every 48 months
Chloride	Annual sample	Volatile Organic Chemicals	Every 36 months

Table 1 Primary Standards, Health-Related Standards
Established by Washington State Department of Health and USEPA

Compound	Unit	MCL	Highest level from any well	Likely Source of Contamination
Antimony	Mg/l	0.006	<0.003	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic	Mg/l	0.010	0.003	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	Mg/l	2	<0.1	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Beryllium	Mg/l	0.004	<0.003	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries

Cadmium	Mg/l	0.005	<0.001	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium	Mg/l	0.1	<0.007	Discharge from steel and pulp mills; erosion of natural deposits.
Mercury	Mg/l	0.002	<0.0002	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.
Selenium	Mg/l	0.05	<0.002	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Nitrate	Mg/l	10	4.8	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

< - Less than (MCL) maximum contaminant level

LEAD AND COPPER RULE (tested every three years)

Elevated levels of lead can cause serious health problems, especially in pregnant women and young children. FIMWA customers should recognize that the water delivered to their homes contains lead concentrations far below the level which are known to affect health. However, water has the ability to leach metals from household plumbing. Flushing for 30 seconds before consuming water that has been standing in the plumbing for more than a few hours can minimize the potential for lead exposure.

Highest lead level from samples analyzed August 2016 of 10 residential taps: < 0.011 Mg/l EPA action level: 0.015 Mg/l
 Highest copper level from samples analyzed August 2016 of 10 residential taps: 0.46 Mg/l EPA action level: 1.3 Mg/l

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.

Anyone performing or contemplating in home Kidney Dialysis should first contact FIMWA.

For more information on lead in drinking water, microbial contaminants, organic chemical contaminants, including synthetic and volatile organic chemicals. **Call the EPA's Safe Drinking Water Hotline (800-426-4791) or <http://www.epa.gov/safewater>**

In accordance with WAC 246-290-840 (Water Use Efficiency Requirements), we are providing information on our efforts to conserve water use. In 2016 we produced 173 million gallons of water. Our meter reading suggests we are losing less than 1% of the water we produce. In the period from 2008-2014 our average daily demand for water was 329 gallons per connection per day. In 2015 and 2016 that has increased to 378. We need to focus on water conservation in order to provide enough water-rights to surpass our 2030 demand forecast.

We have never had e.coli or fecal coliform detected in our system

Please attend our annual meeting Tuesday, March 21st. You can meet the Board of Directors and learn more about your water system. If you have questions and cannot attend please feel free to visit us at our web site, www.foxislandwater.org or call the office at 549-2671.