

Water Use Efficiency Performance Report for 2016

Efficient water use benefits the environment, public health and the economy by helping to improve water quality, maintain aquatic ecosystems, and protect water resources. West Sound Utility District participates with the Department of Health to encourage water conservation by establishing Water Use Efficiency goals and taking steps toward achieving these goals. These goals were set in a public hearing and are evaluated annually to track our progress.

- **Goal:** Limit distribution system leakage to less than 10% of total production on a 3-year annual average.
Progress: Distribution system leakage from 2013 thru 2016 is 6.2% of total production.
- **Goal:** Maintain water consumption per equivalent residential unit (ERU) to less than 220 gallons per day.
Progress: Water consumption per ERU for 2016 was 168 gallons per day.
- **Goal:** Educate rate payers on the importance of water conservation.
Progress: West Sound Utility District strives to educate our ratepayers through newsletters, billing messages, and on our website. District staff participates in the annual Water Festival and the WaterPAK booth at the Kitsap County Fair and hosts annual field trips for local elementary schoolchildren to learn about using water wisely.

Through these efforts, along with an aggressive leak detection program and a dedicated field staff, it is estimated that we have saved over 200 million gallons of water from 2012 thru 2016. We will continue to work to better manage our water, which is a valuable natural resource.

West Sound Utility District is governed by three Commissioners elected by the voters within the District. The District Board of Commissioners meets on the first and third Mondays of each month at 3:00 pm. The public is invited to participate. The General Manager is responsible for the water system and his telephone number is (360) 876-2545.

Safe Drinking Water Hotline
1-800-426-4791
www.epa.gov/ogwdw



Drinking Water Quality Report for 2016



West Sound Utility District is pleased to provide you with its annual Water Quality Report for the year of 2016. The purpose of this report is to provide our customers information about:

- Where our water comes from
- What it contains, and
- How it compares to standards set by state and federal regulatory agencies

Safe drinking water is essential. Citizens need to be well-informed to wisely utilize water resources and to support the improvements necessary to maintain high quality drinking water.

Included is a summary of the test results for the water provided to over 19,000 customers in the year 2016. It is our hope that you find the information provided informative and interesting.

West Sound Utility District's water system is supplied entirely by groundwater. Our water supply is pumped from underground aquifers, which are then replenished by the local rains. We do not get our water from snowpack on the Olympic or Cascade Mountains, nor do we use surface water sources. As water demand increases and as more area is developed, protecting our aquifers becomes even more important. In 2016, we pumped over 592 million gallons of water from our aquifers and we used over 3,327,000 gallons on a peak day in the summer.

[Check out our web page at www.wsud.us](http://www.wsud.us)

Water Quality Summary

Your drinking water is regularly tested in accordance with all federal and state regulations for over 50 substances in both the water sources and throughout the distribution system. In 2016, West Sound Utility District conducted over 400 tests for the parameters listed below. Only those substances that were detected are included in the water quality summary.

SAMPLING SCHEDULE			
Parameter	Frequency	Parameter	Frequency
Chlorine Residual	Daily Monitoring	Inorganic Chemicals	Every 3 Years
Fluoride Residual	Daily Monitoring/Monthly Sampling	Volatile Organic Compounds	Every 3 Years
Total Coliform Bacteria	Twice Monthly Sampling	Lead & Copper	Every 3 Years
Disinfection By-products	Annually	Radionuclides	Every 6 Years
Nitrates	Annually	Asbestos	Every 9 Years

Listed below are the few substances detected in West Sound's water in the most recent set of samples taken. All results meet protective standards set by federal and state agencies. Not listed are the substances that were tested but NOT detected. The amounts allowed in drinking water are so small that they are measured in parts per million or parts per billion. We have tried to make this report informative and easy to understand; however, drinking water quality issues can be complex and technical. For additional water quality information, please call our Customer Service Department at 360-876-2545.

SUBSTANCES DETECTED						
Parameter	Highest Level Allowed (EPA's MCL)	Ideal Goals (EPA's MCLG)	Potential Sources	Highest Level Detected in Most Recent Samples (to Determine Compliance)	Range of Levels Detected in Most Recent Samples	Meets Standards
Regulated at the Groundwater Sources						
Arsenic ⁽²⁰¹⁵⁾	10 ppb	0	Erosion of natural deposits	4.5 ppb	ND to 4.5 ppb	Yes
Nitrate ⁽²⁰¹⁵⁾	10 ppm	10 ppm	Runoff from fertilizer use, leaching from septic, sewage, erosion of natural deposits	1.4 ppm	<0.20 to 1.4 ppm	Yes
Gross Alpha ⁽²⁰¹⁵⁾	15 pCi/L	N/A	Erosion of natural deposits	ND	ND	Yes
Radium 228 ⁽²⁰¹⁵⁾	5 pCi/L	N/A	Erosion of natural deposits	ND	ND	Yes
Iron ⁽²⁰¹⁵⁾	0.3 ppm	N/A	Erosion of natural deposits	0.1043 ppm	0.0628 to 0.1043 ppm	Yes
Manganese ⁽²⁰¹¹⁾	0.05 ppm	N/A	Leaching from natural deposits	0.046 ppm	ND to 0.046 ppm	Yes
Sodium ⁽²⁰¹¹⁾	No limit set	N/A	Naturally occurring	24.1 ppm	5.81 to 24.1 ppm	Yes
Regulated in the Distribution System						
Trihalomethanes	80 ppb	N/A	By-product of drinking water chlorination	32 ppb	32.0 to 32.0 ppb	Yes
Haloacetic Acids	60 ppb	N/A	By-product of drinking water chlorination	19.0 ppb	9.6 to 19.0 ppb	Yes
Chlorine	4 ppm	4 ppm	Water additive used to control microbes	0.77 ppm annual average	0.08 to 1.94 ppm	Yes
Fluoride	4 ppm	4 ppm	Water additive to promote dental health	0.70 ppm annual average	0.55 to .97 ppm	Yes
Regulated at the Customer Tap						
Lead ⁽²⁰¹⁴⁾	Action Level = 0.015 ppm	0	Household plumbing	.003 ppm 90 th percentile	No sample sites exceeded the Action Level	Yes
Copper ⁽²⁰¹⁴⁾	Action Level = 1.3 ppm	0	Household plumbing	0.116 ppm 90 th percentile	No sample sites exceeded the Action Level	Yes

Action Level is the concentration of a contaminant that, if exceeded, triggers treatment or other requirements a water system must follow. Ninety percent (90%) of all samples must be below this amount.

MCL (Maximum Contaminant Level) is 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.

MCLG (Maximum Contaminant Level Goal) is the level of a contaminant in drinking water below which no known or expected risk to health exists. MCLGs allow for a margin of safety.

pCi/L stands for picocuries per liter. This is expressed in parts per trillion.

ppb stands for parts per billion and is the same as micrograms per liter (ug/L). (1.0 ppb is equivalent to one penny in \$10,000,000)

ppm stands for parts per million and is the same as milligrams per liter (mg/L). (1.0 ppm is equivalent to one penny in \$10,000)

N/A means not applicable

ND means the laboratory did not detect this substance.

IS MY DRINKING WATER SAFE? West Sound Utility District meets or exceeds all Federal and State water quality standards. Each month the trained staff takes 25 samples throughout the distribution system to test for coliform bacteria. The presence of coliform bacteria in drinking water indicates that disease-causing organisms could be in the water system. These samples are analyzed by an independent laboratory and the results are reported directly to the State Department of Health (DOH). All of the 300 routine coliform bacteria samples that were taken in 2016 were satisfactory. Your water is tested daily to maintain proper chlorine and fluoride levels, and is sampled regularly for a long list of potential contaminants. Some of these potential contaminants include Disinfection Byproducts, Herbicides, Inorganics, Lead & Copper, Pesticides, Radionuclides, Synthetic Organics, Unregulated Contaminants, and Volatile Organics. Public safety is always our number one priority.

WHAT IS THE SOURCE OF MY DRINKING WATER? Your water comes from thirteen (13) wells located throughout the water district. The wells range in depth from 350 to 1,500 feet deep. Depending on your location, the water you receive may be a blend of several wells or it may be primarily from one well.

HOW IS MY WATER TREATED? Some of our wells contain elevated levels of hydrogen sulfide. Hydrogen sulfide is a naturally occurring gas that produces an odor that is commonly referred to as a "rotten egg smell". Water from these wells is initially treated by a process called "Aeration". Simply put, the water is pumped into the top of an aeration tower and allowed to cascade through a series of racks while air is circulated to strip the hydrogen sulfide from the water. Your water is disinfected in order to create a barrier of safety against potential contamination in the distribution system and to help with taste and odor issues. This is achieved through the use of gaseous chlorine, liquid sodium hypochlorite, or a combination of the two depending on your location within the distribution system. Finally, your water is fluoridated with sodium fluoride. Fluoride treatment was added to the distribution system by a vote of the customers of the District in 1969. While fluoride levels can vary somewhat throughout the District, we strive to maintain a level of 0.7 ppm.

WHY ARE THERE CONTAMINANTS IN MY DRINKING 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 mean that water poses a health risk. More information about contaminants and potential health risks can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline; 1-800-426-4791. For more information about your drinking water, you may also call us at (360) 876-2545.

DO I NEED TO TAKE SPECIAL PRECAUTIONS? 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, who have undergone organ transplants, or 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 (800-426-4791)

ARSENIC IN DRINKING WATER Your drinking water currently meets EPA's more stringent revised drinking water standards for arsenic; however, five (5) District wells do contain low levels of arsenic. There is a small chance that some people who drink water-containing arsenic for many years could develop circulatory disease, cancer or other health problems. Most types of cancer and circulatory diseases are due to other causes than exposure to arsenic. The EPA's standard balances the current understanding of arsenic's health effects against the cost of removing arsenic from drinking water.

IRON AND MANGANESE IN DRINKING WATER There are no adverse health effects from iron in drinking water at the levels found. The primary impact of iron and manganese has been to impair the aesthetic quality of the drinking water by forming precipitates in the water distribution system. Elevated levels of iron and manganese can cause reddish to black colored water, stain laundry and porcelain fixtures, promote bacterial growth in the distribution system, and in high concentrations may cause metallic tastes. The District flushes the distribution system annually to improve water quality.

LEAD IN DRINKING WATER 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. West Sound Utility District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, 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 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 at <http://www.epa.gov/safewater/lead>. To ensure that 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 that must provide the same protection for public health.